

# PROFESSIONAL TOOLS & EQUIPMENT

**ROBINAIR®**

**OTC**

**TIF**



# Quick Finder Index



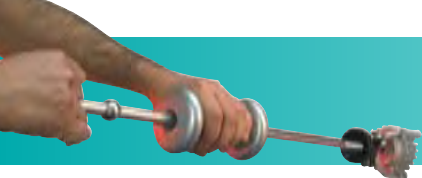
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# ***ELECTRONIC DIAGNOSTICS***

OTC's Family of Scan Tools

## ***Genisys***



## ***Nemisys***



***OTC Scan Tools are best in class...  
best in diagnostic power...  
best user features...  
best vehicle coverage...  
best investment value!***

*OTC Scan Tools are the choice of professional technicians who want to work faster, smarter and improve their shop's bottom line. For more than 80 years, OTC has been the One Tool Company professional technicians trust to meet their needs for specialty tools and diagnostic equipment.*

## ***Code Scanner***



## ***AutoCode***



## ***ScanPro***

**Call 1-800-533-6127  
[www.otctools.com](http://www.otctools.com)**



### Productivity IS...

### Coverage (Best in Class)

#### BEST IN CLASS

Genisys is simply the best and fastest automotive aftermarket hand-held scan tool you can own. Why? In less time than it takes other scan tools to even boot up, Genisys can provide a comprehensive diagnostic evaluation—all at the push of a single button. That means you fix vehicles faster with fewer comebacks. That's productivity. And feature for feature, Genisys can't be beat on price either. That's value. That's the bottom line.

#### Productivity Begins with Coverage

As an aftermarket repair shop, you need to service the wide variety of vehicles that enter your service bays everyday. These vehicles can be USA domestic, Asian or European. They can even be your fleet customers' tow truck, delivery van, or construction vehicle that require heavy-duty software to diagnose. It is a big challenge for any repair shop.

There are choices. One choice is to spend \$100,000 or more buying all the OEM tools you would need and thousands more each year to update them. Then the challenge is to make a profit and stay in business. Another choice is to buy a competitively priced aftermarket tool—such as Genisys—to cover all your needs.

#### OEM Data Licenses

OTC scan diagnostics is built on OEM vehicle data. Our valued OEM partners include GM, Ford, Chrysler, Toyota, Honda, BMW, Volkswagen and many more. Using vehicle data direct from an OEM under license provides a larger amount of data at a higher quality. The information is not reverse engineered, a costly method usually passed on to the end user in higher tool and update pricing.

#### Coverage Additions to Older Vehicles

Probably the biggest misconception is that a Genisys model year update only includes new vehicle year coverage, like 2006. That can't be further from the truth. It is not unusual for sub-system information, from our OEM partners, to arrive two or more years after vehicle release. At OTC we place this new information into the tool. This year is no exception. More information was received for this year's domestic, Asian, and European updates than any year in OTC's history. For a preview, go to [www.genisysotc.com/literature.php](http://www.genisysotc.com/literature.php) and view the application coverage manuals.

#### Free Product Improvement Updates

Periodically, free software updates are released. These updates—delivered via the Internet using free Windows software provided in each kit—can be for any of the Genisys vehicle applications or system improvements. This concept is not available from most competitors.

#### Experience, Service and Leadership

Scan diagnostics is not new to OTC. It began in 1984 with the first Chrysler OEM scan tool. Today the Chrysler StarScan is still produced in the same factory as Genisys. With new scan manufacturers springing up domestically and off shore, who can you trust? You can count on OTC—with over 80 years in the automotive industry—to support you now and in the future. Genisys is backed by a global sales and service infrastructure. When spending your hard-earned money, go with the One Tool Company technicians trust—OTC.

### Productivity IS...

### Speed (System 2.0)

## Genisys System 2.0

System 2.0 is a new software application and a high-speed compact flash card containing Power Features that will improve the performance of all Genisys scan tools.

#### POWER FEATURES:

##### Fast Boot

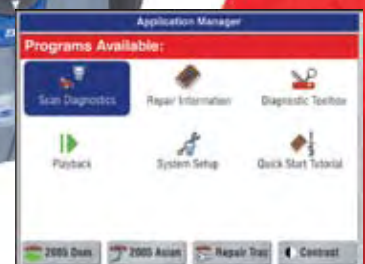
- Approximately 10 seconds for the new Genisys
- Approximately 15 seconds for the Genisys Classic (3454 and earlier)

**New User Interface** – Provides Genisys with a new improved icon-based user interface. (Think MS DOS to Windows XP.)

**Code Reader Mode** – Allows user to read or clear codes fast. Now Genisys can boot into a code reader mode FAST—approximately 5 seconds!

**Personalization** – A custom setup mode for user preferences.

- User configurable Function Keys – user selected applications at one button
- Interface Selection – New System 2.0 (icon based) or Genisys Classic



# ELECTRONIC DIAGNOSTICS

## OBD II Smart Cable™ and Automated System Test™



**Productivity** IS...

OBD II Smart Cable™

### OBD II Smart Cable™

- Has the combined power of more than 50 System Smart Inserts.
- Eliminates the need for many current and future System Smart Inserts.
- Provides improved test capability and accuracy.

#### Bottom Line Benefits

- Improved technician satisfaction
- Faster diagnosis
- More convenient
- Higher technician productivity

**IMPORTANT:** OBD II Smart Cable is designed to work with any of the following applications: USA 2006 Domestic, USA 2006 Asian, USA 2005 European, 2004 ABS/Air Bag and Heavy-Duty Standard.

**Productivity** IS...

Automated System Test™

### Automated System Test™

**Now Available with USA 2006 Domestic, USA 2006 Asian, USA 2005 European and USA 2004 ABS/Air Bag Software Applications**

- With one button press, Automated System Test performs a system "health check" of all available vehicle controllers.
- Any trouble codes found are reported along with other vital scan data.
- Repair-Trac™ pattern failures and available repair information are linked to trouble codes of the top known component failures.

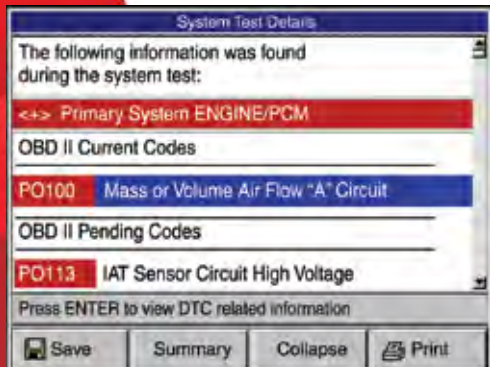
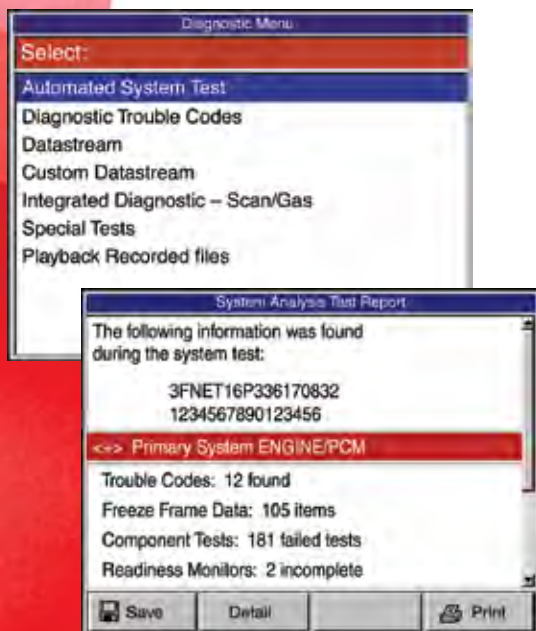
Automated System Test™ is the default selection in Diagnostic Menu. One button press and it will perform the test and report the data in a fraction of the time it used to take using manual, step-by-step procedures.

A System Analysis Test Report summarizes the findings. The primary controller is that selected by the technician. The secondary controllers are any others found with a report on their DTC status.

Selecting the Detail Screen provides specifics on the primary and secondary controllers. Pressing Enter on any DTC provides the technician with any available code information for that specific vehicle.

#### See a sample of Test Vehicle on page 8

2001 Chevrolet Silverado 5.3L 4X4 (9 Systems available)  
(2 codes engine system, 2 codes sub-system)





**Productivity** IS... **Packaged for You**

## USA 2006 Domestic Software with Pathfinder

### New Expanded Systems Coverage and Special Tests

- Ford bi-directional special tests.
- New vehicles, systems and approximately 200 NEW special tests are added for earlier year vehicles as well as 2006 models.
- Domestic 2006 provides coverage back to 1980 with focus on vehicles technicians see in their shops everyday.
- NEW Mode 6 Summary Screen sorts all failed Mode 6 tests to the top for easy identification.

### New Code Library

- Fast access to OBD II Generic and OEM Enhanced DTC's from the Repair Information Menu.
- Pathfinder Troubleshooting Code Information available from Code Library.

### New USB Drive Expanded Recording

- Read the extended recordings on Genisys or the PC.
- Data recordings without a USB drive are extended to 1000 frames!

## USA 2006 Domestic Software includes three powerful repair information databases!

### Pathfinder Troubleshooting Information

Pathfinder troubleshooting information from 1992 to 2005 provides critical information at the technician's fingertips. In addition to the Repair-Trac™ and Fast Fixes™ databases, repair information includes:

- Code information
- Symptoms
- Specifications
- Data/sensor information
- TSB references
- PCM connector information
- Component location

### Repair-Trac™ Tech Tips

As the vehicle fleet ages more pattern-failure tech tips are available. Many Domestic, Asian, and European older vehicle tips added. Repair-Trac is the largest database of known vehicle-specific fixes available to the automotive aftermarket. Only the NGIS scan tool has the diagnostic power and the largest repair database to help you work smarter. Check it out:

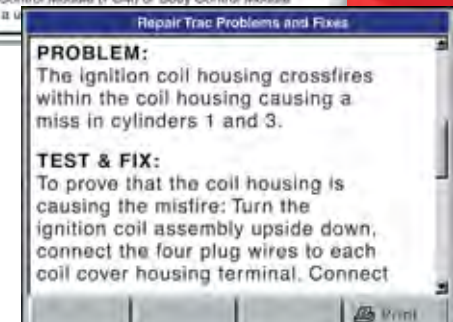
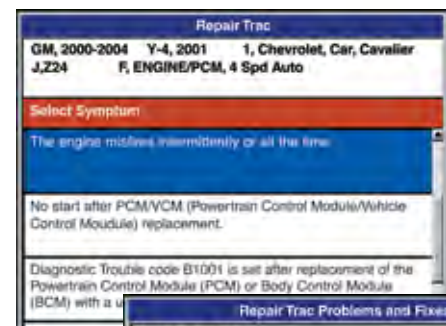
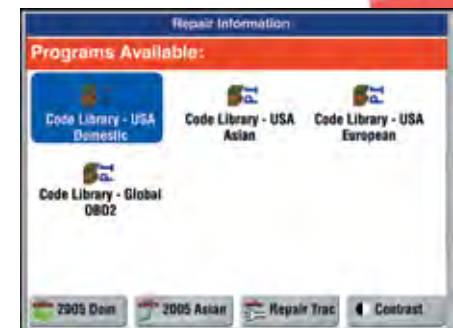
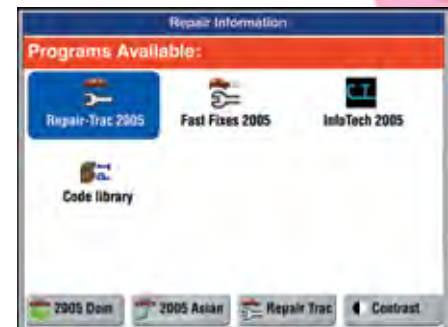
- Coverage from 1969 through 2005 for USA domestic, USA Asian, and USA European vehicles.
- Aftermarket TSB's based on information from over 2 million tech service calls.
- Access Repair-Trac from the Main Menu, Data Stream, or Trouble Code menus.

### Fast Fixes™ Repair Information Database

Fast Fixes is a "sister" information database to Repair-Trac. No pattern failure listed for the vehicle's symptom? No problem. Fast Fixes data provides a vehicle-specific checklist of the most likely and most overlooked causes.

### Systems covered:

- Engine performance
- Brakes
- Starting
- Steering
- Charging
- Suspension
- HVAC



# ELECTRONIC DIAGNOSTICS

USA 2006 Asian and USA 2005 European Software



**Productivity** IS...

Packaged for You

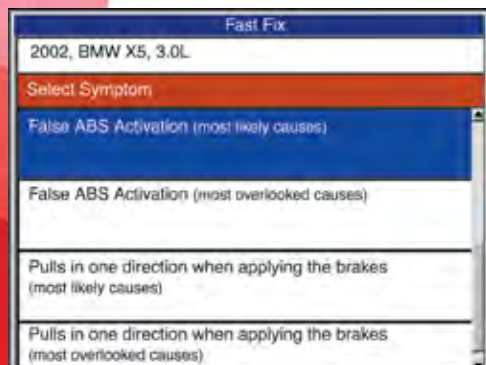
## USA 2006 Asian Software with Pathfinder

**Now with Honda OEM coverage and expanded bi-directional test!**

Powerful Asian 2006 diagnostics includes more new system and bi-directional coverage than can be listed. The 2006 release now integrates Repair-Trac™ tech tips and Fast Fixes™ into Asian software.

New key features include:

- NEW—over 500 bi-directional special tests added to Asian 2006 software.
- NEW Honda licensed OEM data coverage includes engine, transmission, ABS, air bag, tire pressure monitor, and more body and chassis systems.
- NEW Hyundai and Kia enhanced engine coverage.
- Enhanced engine and transmission data stream and read codes for Nissan (1990–2006 DDL1 & DDL2 protocols), Mitsubishi and Mazda (1996–2006), and Toyota (through 2006).
- ABS and air bag support for Nissan, Mitsubishi (1996–2006), and Toyota (includes keyword protocols for 1998–2006).
- Expanded Toyota OBD I, 1995 and older coverage.



## USA 2005 European Software with Pathfinder

**A dedicated European scan tool is no longer required with the new Genisys European 2005 software package. More OEM coverage, more system coverage and more value than any other aftermarket scan tool!**

**Functionality includes:**

- Diagnostic Trouble Codes
- Data Stream
- Actuator Tests (bi-directional tests)

**System coverage includes:**

- Engine
- Transmission
- ABS
- Air Bag
- Most Body System
- Most Chassis Systems

## BMW Coverage

Genisys now includes licensed BMW OEM data. You would have to buy the BMW OEM tool to get more coverage!

**BMW coverage includes:**

- 1987 – 2005 Model Years

## VW/Audi Coverage

Genisys now has best in class coverage for VW/Audi, comparable or exceeding any other aftermarket diagnostic tool. Functions include controller coding, throttle body alignment, oil light reset, and the ability to change convenience settings.

**VW coverage includes:**

- 1987 – 2005 Model Years

**Audi coverage includes:**

- 1986 – 2005 Model Years



## Volvo Coverage

Volvo coverage started with the ABS and Air Bag coverage in our current ABS/Air Bag 2004 software and now has expanded to include most controllers.

**Volvo coverage includes:**

- 1993 – 2005 Model Years

## Mercedes Coverage

Mercedes coverage has been expanded. You will find more system coverage than ever. Like the other OEM's considerable functionality added to earlier model years.

**Mercedes coverage includes:**

- 1986 - 2005 Model Years

**VOLVO**



**Mercedes-Benz**





### Heavy-Duty Standard

#### Featuring:

- Class 4 – Class 8 truck coverage.
- HD J1587 / J1708 and J1939 CAN, Engine, Transmission/ABS coverage and more!
- Live vehicle data such as:
  - Engine speed
  - Engine ECU temperature
  - Percent acceleration pedal position
  - Engine intercooler temperature
  - Engine coolant temperature
  - Battery volts
  - Alternator volts
  - Ambient air temperature
  - Air inlet temperature
- View and clear diagnostic trouble codes.
- Windows PC software.

#### Applications:

Tow trucks, recreational vehicles, cement trucks, dump trucks, garbage trucks, buses, step vans, municipal vehicles, refrigerated trucks, and conventional trucks.

#### Supported Manufacturers Include:

Mac Trucks, GM, GMC, Freightliner, Ford, Kenworth, Peterbilt, International, Volvo and more medium and heavy-duty vehicles.

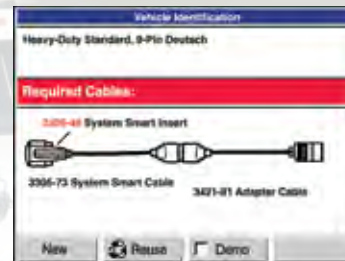
#### Transmission and ABS Systems Include:

Bendix, Detroit, Eaton, Meritor WABCO, Caterpillar, Cummins, Allison, etc.



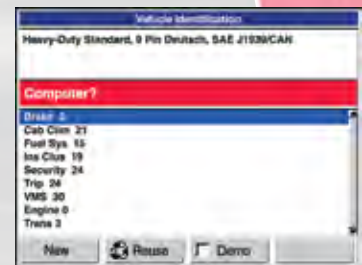
1) Select the cable connector icon that matches what is on the truck.

2) Select the protocol ONLY if the 9 pin Deutsch cable is used (the others go directly to #3).



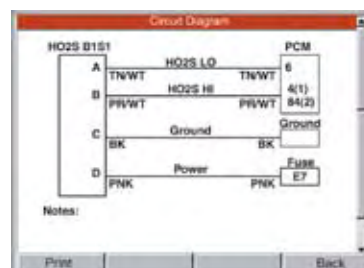
3) Connect the appropriate cable to Genisys and the truck.

4) Press Enter to continue and Genisys automatically searches the system and displays all available controllers.



### InfoTech 2006 Software

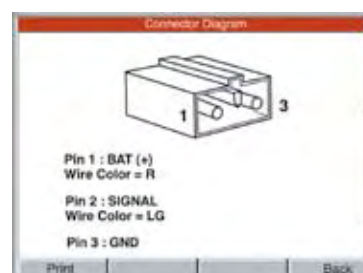
- Domestic, Asian, and European vehicle coverage for vehicles on the road today.
- Engine, transmission, and ABS systems covered.
- Asian and European coverage added for component wiring, circuit descriptions, component and control module locations.
- Vehicle System Test (multiple charging, fuel, and ignition tests)
- Engine Specifications
- Functional Tests
- Circuit Description
- Component Locations
- Wiring Diagrams
- Connector Information
- Component Specifications
- Reference Waveforms
- Oil Light Reset Procedures
- Current Ramping Tests
- Transducer Tests



#### InfoTech Vehicle Coverage

Feature	Domestic	Asian	European
Component Functional Tests – includes reference waveforms and display presets	1985–2006	1985–2006	1985–2006
Component Specifications	1984–2006	1984–2006	1984–2006
Component Wiring Diagrams	1993–2006	1993–2006	1993–2006
Circuit Description	1993–2006	1993–2006	1993–2006
Component Locations	1993–2006	1993–2006	1993–2006
Control Module Locations	1993–2006	1993–2006	1993–2006
Vehicle System Tests	All	All	All
Torque Specifications	1984–2004	1984–2004	–
Oil Light Reset	1984–2005	1984–2005	1985–2005
Transmission Pan ID Charts	1984–2004	–	–
Indexed Information	All	All	All
Repair-Trac Quick Fixes	All	All	All

NOTE: Red text indicates updates from InfoTech 2005.



# ELECTRONIC DIAGNOSTICS

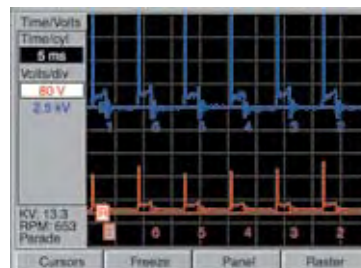
## Genisys Scope with InfoTech 2006 Software

### Genisys Scope with InfoTech 2006 Software (Note: Requires System 2.0.)

Genisys is a powerful 4-channel scope with the functionality required to analyze the most sophisticated vehicles. InfoTech software provides the key information to transform a driveability or component fault into a fast and accurate repair.

#### Genisys Scope Features and Benefits

- 4-channel full-function scope.
- Adjustable glitch capture.
- Smart Card security.
- Auto ranging function data.
- Custom enclosure—horizontally oriented and ergonomic.
- User selectable background color.
- Sunlight readable display.
- Modular design allows for future expansion capabilities.
- 4 MHz sample rate on all channels.
- Update via Compact Flash or PC.
- Print via standard desktop color printer.
- Copy files to and from USB.

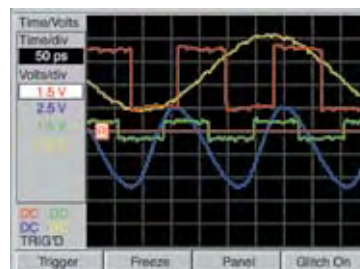


#### Ignition Scope Capabilities:

- Primary/secondary
- Distributorless ignition
- Coil-on-plug
- Raster
- Parade
- Superimposed
- Single cylinder
- Record

#### 4-Channel High-Speed Lab Scope Graphing and Digital Multimeter:

- Volts
- Ohms
- RPM
- Frequency
- Duty cycle



### Productivity IS...

### Diagnostic time savings for you!

Productivity means having the information to fix the car right the first time and fast. The comparison below illustrates this dramatically. In a little over 1-1/2 minutes, Automated System Test scanned the available systems on a 2001 Chevy Silverado and provided an information detailed report. During that 1-1/2 minutes the technician

didn't even have to participate—its all automatic. That test time can be used performing a visual inspection under the hood or any other required task. And don't underestimate the button pushes. Only 10 were required using Automated System Test compared to 191 manually! Let Genisys do the work.

#### Test Vehicle

#### 2001 Chevrolet Silverado 5.3L 4X4 (9 Systems available) (2 codes engine system, 2 codes sub-systems)

##### Engine System

1. Automated System test
2. Read trouble codes (engine system) Current/History/Pending codes
3. Review freeze frame data (Mode 2)
4. See component tests that failed (Mode 6)
5. Review Oxygen Sensor Test (Mode 5)
6. Review Readiness monitors
7. Look at DataStream and review related data items.
8. Run tests - review repair data menu for DTC (start count with DTC highlighted)
  - a. Circuit Description
  - b. Possible Causes
  - c. Code Setting
  - d. Data Stream Items
  - e. Repair Trac

See real time video  
on Vehicle Test

<http://genisysotc.com/astdemo/>

##### Sub-Systems

9. Read trouble codes (Global OBD II system) Current/History/Pending codes
10. Read trouble codes (ABS system) Current/History/Pending codes
11. Read trouble codes (Air bag system) Current/History/Pending codes
12. Read trouble codes (Body Controls system) Current/History/Pending codes
13. Read trouble codes (Instrument panel cluster system) Current/History Pending codes
14. Read trouble codes (Elect. Vari. Orifice system) Current/History/Pending codes
15. Read trouble codes (RTD/EVO system) Current/History/Pending codes
16. Read trouble codes (Transfer Case system) Current/History/Pending codes

#### Total key presses and time to review information

All key presses referenced from the diagnostic function menu.

	Automated System Tests	Manual selection for tests
	Key presses	Key presses
1	1	
2	1	5
3	N/A	N/A
4	0	12
5	0	16
6	0	9
7	2	2
8	1	63
a	1	1
b	1	1
c	2	2
d	1	1
e	1	1
9	0	7
10	0	12
11	0	11
12	0	11
13	0	13
14	0	12
15	0	12
16	N/A	N/A
	10 Total	191 Total



### USA GM SPS Reprogramming

OTC is proud to present the All Modules Reprogramming Kit to allow your customers to reprogram and recalibrate all reprogrammable control modules in their 1993-2007 model year General Motors vehicles.

This software subscription includes 12 months of updates on CD for registered owners.

In addition OTC is offering renewal kits for both the engine and all module USA GM SPS Reprogramming kits. These renewal kits will continue your SPS subscription and delivery of update DVDs.

**Genisys Requirements:** USA 2006 Domestic software.



Note: GM will be moving to a new Web based Software Delivery Process in the near future. This will replace DVD's.

Your shop computer... must fulfill these minimum PC requirements for the GM SPS program:		
CPU	<b>Minimum PC Spec.</b> Intel Pentium IV 1.3 GHz	<b>Recommended PC Spec.</b> Intel Pentium 4 3.0 GHz, 865G chip set. 800 MHz or greater front side bus, 1024 KB L2 cache
Hard Drive	20 GB ATA	40 GB Smart III Ultra ATA/100
RAM	256 MB SDRAM	512 MB RAM or greater
Video RAM	16 MB DRAM	Integrated AGP w/64 MB or greater
Optical Drive	40X/16X CD/DVD combo drive	40X/16X CD/DVD combo drive
Operating System	Microsoft Windows 2000 Pro (SP4 or XP Professional (SP2	Microsoft Windows XP Professional SP2 with Internet Explorer 6.0
Anti-Virus Protection	Current version of commercially available virus protection	Current version of commercially available virus protection
Comm. Ports	1 Parallel, 1 Serial, 1 USB	1 Parallel, 1 Serial, 1 or more USB
Important: For the latest GM minimum PC specifications visit <a href="http://www.gmde.net/standards.cfm">http://www.gmde.net/standards.cfm</a>		

### Genisys Training

**Use the Genisys itself, DVD, or our trainers.**

Protect your investment by getting the most out of your scan tool. Genisys has a number of built-in training and demo features, and OTC provides additional training on an DVD, and through personal trainers.

The more you learn about the capabilities of Genisys, the better you will become at servicing your customers' vehicles, and that's good for the bottom line.

- **Quick-Start Tutorial**—Built into the Genisys, to get a new user working within minutes of turning on the scan tool, is a slide show that runs automatically, or you can control it similar to operating a VCR.
- **Demonstration Mode**—Exclusive to Genisys, the Demo Mode allows you to select ANY vehicle contained in the embedded software and review specific test functions. Great for practice while reviewing the manual or training DVD. Good for previewing specific diagnostic tests before a customer's vehicle arrives at your shop.
- **On-site Personal Training**—For a nominal charge, OTC offers personal instruction at your shop by a qualified Genisys trainer. (Get up to four hours of personal training FREE with purchase of Genisys Master Kit No. 3681, or 3421-28 training purchase, U.S. only.)



# ELECTRONIC DIAGNOSTICS

## Genisys Software Kits

### Genisys Super Bundle Productivity Kit

This powerful kit maximizes technician productivity with the three most popular Genisys options — OBD II Smart Cable, USA 2006 Domestic software, and USA 2006 Asian software. Each software application includes the new Automated System Test feature.

**No. 3421-90** – Genisys super bundle productivity kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.

**No. 3421-88** – The new OBD II Smart Cable is essentially “plug and play.”



**NEW**

"Requires 2006 Software"

### System 2.0 Starter Kit

Kit includes the System 2.0 software, a high-speed compact flash “super card”, NGIS CD, card reader, and compact flash cover for your scan tool.

**No. 3421-84** – System 2.0 starter kit.

**IMPORTANT NOTE:** This kit is required to install applications for Domestic '06, Asian '06, European '05, HD Standard, and InfoTech 2006.



**NEW**

### USA 2006 Domestic Software Update Kit

This OBD II Smart Cable compatible update kit includes expanded vehicle coverage, Pathfinder troubleshooting with Repair-Trac, Fast Fixes, Automated System Test, Smart Card, manual, and the NGIS Windows-based program CD for downloading software updates.

**No. 3421-82** – USA 2006 Domestic software update kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



New-OBD II Smart Cable Compatible

### InfoTech 2006 Driveability and Component Test Diagnostic Software

InfoTech 2006 software is available for all Genisys scan tools! No Genisys Scope is required.

- Genisys without Scope – InfoTech 2006 is available from the Repair Information menu and operates as a stand-alone electronic database. InfoTech data is also integrated into the new Automated System Test analysis. Have a scope already? No problem, now add repair info!
- Genisys with Scope – InfoTech 2006 not only provides the powerful repair information, but also sets up the Genisys scope for you!

The kit includes InfoTech 2006 Smart Card, manual, and the NGIS Windows-based program CD for downloading software updates.

**No. 3421-83** – InfoTech 2006 software update kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



**NEW**

### USA 2006 Asian Software Update Kit

This OBD II Smart Cable compatible update kit is for Genisys owners who already have the Asian Import 2000 or 2003 starter kits and want to update software coverage to 2006. Asian 2006 includes the new Automated System Test feature. Kit includes the NGIS software CD, manual, and Smart Card.

**No. 3421-85** – USA 2006 Asian software update kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



New-OBD II Smart Cable Compatible

### USA 2006 Asian Software Starter Kit

This OBD II Smart Cable compatible starter kit is for Genisys owners who want to add coverage for Asian OBD I and OBD II software and cables through 2006. Asian 2006 includes the new Automated System Test feature. Kit includes the NGIS software CD, Asian 2006 Smart Card, Asian specific OBD I vehicle cables, and manual. What you need to start servicing Asian vehicles.

**No. 3421-86** – USA 2006 Asian software starter kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



**NEW**

### USA Asian Cable Kit (cables only)

This cable kit is for Genisys owners who have the USA 2006 Asian software, but need the Asian-specific OBD I vehicle cables.

**No. 3421-87** – USA Asian cable kit (cables only).



**NEW**

### Genisys Heavy-Duty Starter Kit

Genisys Heavy-Duty Standard software includes J1587/1708 and J1939 CAN communications.

Kit includes 9-pin Deutsch cable, 6-pin Deutsch cable, heavy-duty System Smart Insert, Smart Card, and PC software CD.

**No. 3421-79** – Genisys heavy-duty starter kit.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



**GENISYS HD**

New-OBD II Smart Cable Compatible



### USA 2005 European Software Update Kit

This kit is for Genisys owners who already have European 2003 and want to update coverage to 2005. Kit includes European Smart Card, manual, and CD. (The new BMW cable and Mercedes 38-pin SSI must be purchased separately, see kit No. 3421-77.)

**No. 3421-73** – USA 2003 European software update kit.

Note: Requires System 2.0. Smart Cable 3421-88 is required for BMW application coverage.



### USA 2005 European Starter Kit

Get European coverage in a single kit! This starter kit allows you to service select European manufacturers: Audi, BMW, Mercedes-Benz, Volvo, Volkswagen, and more. Kit includes software CD, Smart Card, Mercedes 38-pin cable, Mercedes 1-pin cable, Mercedes 38-pin SSI, BMW cable, and Volkswagen/Audi cable.

**No. 3421-74** – USA 2005 European starter kit with cables.

Note: Requires System 2.0. Smart Cable 3421-88 is required for BMW application coverage.



### USA European Cable Kit

"For users that have European 2005 software and no European OBD I cables." Kit includes Mercedes 38-pin cable, Mercedes 1-pin cable, Mercedes 38-pin SSI, BMW cable, and Volkswagen/Audi cable.

**No. 3421-75** – USA European cable kit.

Note: Smart Cable 3421-88 is required for application coverage.



### USA European Cable Update Kit

These cables are for Genisys owners who already have European 2003 cables and want to update cables to 2005. Kit includes Mercedes 38-pin SSI and BMW cable.

**No. 3421-77** – USA European cable update kit.

Note: Smart Cable 3421-88 is required for application coverage.



### Genisys DVD Training

**Customized training** – This full length video program is based solely on the Genisys.

**Enhanced training** – Takes you beyond the basics of the Genisys.

**Train at your own pace** – The TEAM AVI training format using chaptered DVDs allows you to start and stop.

**Step-by-step instructions** – On using the most powerful diagnostic functions.

**How to use** – Graphing, recording, and record playback for those "intermittent" problems.



### USA 2004 ABS/Air Bag Software Starter Kit

Expanded coverage for domestic, USA European, and USA Asian through 2004 model year. This is the kit you need if you are a Genisys owner wanting to add data stream, bi-directional testing, fault codes, Pathfinder troubleshooting, and ABS-specific cables. Kit includes four System Smart Inserts, ABS-specific cables, software CD, Smart Card, and manual.

**No. 3421-48** – USA 2004 ABS/Air Bag software starter kit.

**No. 3421-47** – USA 2004 ABS/Air Bag update kit (software only).

**No. 3421-54** – USA ABS/Air Bag cable kit. Includes four System Smart Inserts, ABS-specific cables.



3421-48



3421-47



3421-54

### ConnecTech™ PC Software Kit

Use your PC for more diagnostic functionality!

**No. 3421-36** – Genisys ConnecTech PC software kit. Includes ConnecTech software CD, Smart Card, and 20' cable to PC.

**Forget the Cables... Go Wireless with Genisys PC Wireless Kit!**

Coverage range up to 1,750 ft./533 m, depending upon multiple variables.

**No. 3421-37** – Genisys ConnecTech PC wireless kit. Includes ConnecTech software CD, Smart Card, wireless LAN PC card, and USB wireless access point.

**No. 3421-38** – Genisys to PC wireless kit. Includes wireless LAN PC card and USB wireless access point.

**IMPORTANT NOTE:** System 2.0 required to install; see No. 3421-84.



3421-36



3421-37



3421-38

**In-depth training** – Goes beyond button pushing to showcase such important features as Pathfinder troubleshooting, graphing, and more.

**Ease of use** – Questions on the Genisys are covered in the training and can be reviewed quickly, even in the shop.

**No. 3615** – Genisys DVD Training. Contains two full-length DVDs and an illustrated manual for shop use. Training is based on System 2.0 and 2005 software.



3615

# ELECTRONIC DIAGNOSTICS

## Genisys Tester Kits



3421-46

Important: see page 9  
for GM SPS minimum  
PC specifications.

Note: GM will be moving to  
a new Web based Software  
Delivery Process in the near  
future. This will replace DVD's.

### Genisys GM All Modules Reprogramming Starter Kit

This kit provides the ability to reprogram all reprogrammable modules on 1993 to 2005 General Motors vehicles. Includes the authentic GM application and data DVD's (for Windows), PC hardware security lock, Smart Card, System Smart Insert, manuals, and a 12-month subscription to updates of GM AC Delco application and data DVD's.

**No. 3421-46** – Genisys GM all modules reprogramming starter kit.  
IMPORTANT NOTE: USA 2006 Domestic required; see No. 3421-82.



3688

### Genisys Scope Module with InfoTech 2006 Driveability Software Kit

Includes the Genisys 4-channel lab scope module with four DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manual, InfoTech 2006 repair information software Smart Card, and carrying case.

**No. 3688** – Genisys scope with InfoTech 2006 software kit.  
IMPORTANT NOTE: Must be used with System 2.0; see No. 3421-84.



3780

### Genisys Performance 5-Gas Module

The Genisys emissions repair solution. Kit includes the plug-in Performance 5-Gas Analyzer Module, hose, probe, Gas M-P software, regulator, filters, manual, and carrying case.

**No. 3780** – Genisys Performance 5-gas Module.  
IMPORTANT NOTE: System 2.0 required to install; see No. 3421-84.



3687

### Genisys Exchange Kit with System 2.0

Trade in your old Genisys for one with all the newest features and a 3-Year Warranty. This exchange kit includes a BRAND NEW Genisys scan tool, OBD II Smart Cable, carrying case, CD, manual, and return mailer. System 2.0, USA 2006 Domestic with Pathfinder, USA 2006 Asian with Pathfinder and USA 2004 ABS/Air Bag are pre-loaded. For those who already own a Gas Module and GM Reprogramming, Smart Cards are included.

**No. 3687** – Genisys exchange kit with System 2.0.  
NOTE: When you return your used Genisys tool to the factory, FREE InfoTech 2006 and ConnecTech PC software kits with Smart Cards will be shipped to you. (Allow 6 to 8 weeks for delivery.)



3669HD

### Genisys Heavy-Duty Standard Deluxe Kit

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, Heavy-Duty Standard software, USA 2006 Domestic with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian, InfoTech 2006, USA 2004 ABS/Air Bag software, manuals, adapters, and domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), and carrying case.

**No. 3669HD** – Genisys Heavy-Duty Standard deluxe kit.  
(USA Asian OBD I cables not included; see Kit No. 3421-87.)  
(USA ABS/Air Bag cables not included; see Kit No. 3421-54.)



### Genisys USA 2006 Deluxe Kit

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian, USA 2004 ABS/Air Bag software, InfoTech 2006 software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), Smart Cards, and carrying case.

**No. 3669** – Genisys USA 2006 deluxe kit.

(USA Asian OBD I cables not included; see Kit No. 3421-87.)

(USA ABS/Air Bag cables not included; see Kit No. 3421-54.)



3669

### Genisys USA 2006 Deluxe Kit with ABS/Air Bag-Specific Cables

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2004 ABS/Air Bag software and vehicle-specific cables, USA 2006 Asian software, InfoTech 2006 software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), Smart Cards, and carrying case.

**No. 3670** – Genisys USA 2006 deluxe kit with ABS/air bag-specific cables.

(USA Asian OBD I cables not included; see Kit No. 3421-87.)



3670

### Genisys USA 2006 Domestic Scan and Scope with InfoTech 2006 Software Kit

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian software, InfoTech 2006 software, USA 2004 ABS/Air Bag software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), 4-channel lab scope module with 4 DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manuals, Smart Cards, and carrying case.

**No. 3671** – Genisys USA 2006 Domestic scan and scope with InfoTech 2006 software kit.

(USA Asian OBD I cables not included; see Kit No. 3421-87.)

(USA ABS/Air Bag cables not included; see Kit No. 3421-54.)



3671

### Genisys USA 2006 Domestic Scan, Gas, and Scope with InfoTech 2006 Software

Includes Genisys scan tool, OBD II Smart Cable, Automated System Test, USA 2006 Domestic software with Pathfinder, Repair-Trac, Fast Fixes, USA 2006 Asian software, InfoTech 2006 software, USA 2004 ABS/Air Bag software, manuals, adapters, domestic OBD I vehicle cables (for GM, Ford, Chrysler, Jeep, Saturn), 4-channel lab scope module with 4 DMM leads, ground lead, kV conventional ignition lead, GM HEI ignition adapter, ignition sync lead, manual, Smart Cards, Performance 5-Gas Analyzer Module with hose, probe, Gas M-P software, filters, and carrying case.

**No. 3681** – Genisys USA 2006 Domestic scan, gas, and scope with InfoTech 2006 software.

(USA Asian OBD I cables not included; see Kit No. 3421-87.)

(USA ABS/Air Bag cables not included; see Kit No. 3421-54.)



3681

INCLUDES 4 HOURS OF FREE ON-SITE TRAINING, U.S. ONLY

# ELECTRONIC DIAGNOSTICS

## Nemisys™ Scan Tool



### Nemisys™ Scan Tool

Nemisys™ is an automotive scan tool designed in the new millennium and powered by OTC Genisys™ technology. Nemisys covers early OBD I systems and all OBD II protocols, including the newly released Controller Area Network (CAN) protocol. CAN protocol was introduced in 2003 model year vehicles and is the mandated protocol in all new vehicles by 2008.

#### Many Powerful Features

- 320 X 240 Monochrome Graphic Display
- Data Graphing
- USA Domestic OBD I & OBD II coverage (1984 thru 2006)
- Global OBD II Asian & European coverage (1996 thru 2006)
- Domestic Enhanced Data & DTCs
  - Engine, Transmission, ABS, Air Bag
- CAN Enabled—no adapters to buy
- OBD II Mode 6
- Domestic Repair Information
  - Typical Sensor / Data Specs
- Record / Playback
- ScanMate Lite PC Software
  - File Storage, File Playback, File Print
- Vehicle Protocols: CAN, J1850 VPM, J1850 PWM, ISO 9141, Keyword 2000, UART, SCP, SCI, CCD, and more.



ScanMate  
PC Software

### 2006 Vehicle Coverage

GM '84–2006      Ford '84–2006      Chrysler '88–2006  
Jeep '91–2006      Saturn '91–2006.  
Asian '96–2006 (Global OBD II).  
European '96–2006 (Global OBD II).

### Improved ScanMate PC Software

Upload recordings, play back recordings, print reports, export captured data in spreadsheet format, get Internet updates, email and share data recordings, view data in line graph, bar graph, meter, digital, or superimposed format.



3797

### Nemisys USA 2006 Domestic Scan Kit

Includes Nemisys scan tool loaded with 2006 Domestic software; OBD II cable; Ford, GM, Chrysler OBD I cables; ScanMate Lite PC software; scan tool to PC cable; 12-volt power cable; Quick Start Guide included with CD-based manuals in Spanish, French, English; and a professional carrying case.

**No. 3797** – Nemisys USA 2006 Domestic scan kit.

**No. 3774-11** – Nemisys USA 2006 Domestic update kit ('84-'06).

**No. 3774-12** – Nemisys USA 2006 Asian update kit includes '96-2006 software with enhanced data on Toyota, Honda, Nissan, Mitsubishi, and Mazda.

**No. 3774-13** – Nemisys USA 2006 combination update kit. Includes USA 2006 Domestic update ('84-'06) and USA 2006 Asian update ('96-'06).

### Nemisys Cables

**No. 3774-01** – DB25 to OBD II cable.

**No. 3774-02** – DB25 to GM OBD I cable.

**No. 3774-03** – DB25 to Ford OBD I cable.

**No. 3774-04** – DB25 to Chrysler OBD I cable.

**No. 3774-05** – Cigarette plug power cord.



3774-12

3774-11

3774-13



### ABS Reader II

The latest technology for servicing ABS and air bag systems. The new Genisys-based tool is loaded with Genisys ABS/Air Bag and Global OBD II software. The ABS software also includes system codes and data from Domestic and Asian 2005.

#### The ABS Reader II features:

- Graphic display
- Fast data retrieval
- Enhanced data and recording functions
- ScanMate ABS PC software for uploading recorded files, storage, and printing
- Internet/memory card update capability
- Protective rubber over-mold and 3-year warranty

#### ABS/Air Bag Software features and coverage:

- Diagnose ABS pattern failures with Repair-Trac™ Tech-Tips
- Expanded ABS Pathfinder™ troubleshooting
- Tests through 2004 for GM, Chrysler, and Jeep
  - Chrysler/Jeep: many systems added, including rear wheel ABS and brake bleed for some systems
  - GM: bi-directional tests updated
- Expanded Ford coverage through 2005
- Volvo coverage from 1993 through 2004
- Volkswagen supported from 1990 through 2004
- Audi supported from 1992 through 2003
- Asian ABS and air bag coverage: Toyota, Lexus, Honda, Acura, Mazda, Mitsubishi, Nissan, Infiniti, Isuzu
  - Toyota/Lexus ABS special tests added
  - Honda ABS data added
- Powerful scan functions
  - Read and erase fault codes on ABS and air bag systems
  - Provide accurate definitions of fault codes
  - Display data stream information on most vehicle systems
- Over 900 new advanced diagnostic bi-directional functions on Delco, Bosch, and Teves
  - GM “motor rehome”
  - Gear tension relief
  - Brake bleeding tests
  - Solenoid test
  - Manual and hydraulic control
  - Enable relays
  - Voltage and lamp test

### ABS Reader II 2005 Kit

Kit includes: ABS Reader II tool; System Smart Inserts; cables and adapters necessary to support Domestic, Asian and European coverage; ScanMate ABS PC software; operations manual, and carrying case.

**No. 3416** – ABS Reader II 2005 Kit.

### ABS Reader II 2005 Exchange Kit

This exchange kit is intended for owners of the No. 3762 ABS Reader. It includes: ABS Reader II tool; System Smart Inserts; cables and adapters necessary to support Domestic, Asian and European coverage; ScanMate ABS PC software, and operations manual. Note: Owners will use existing No. 3762 case and some existing cables.

**No. 3416-01** – ABS Reader II 2005 Exchange Kit

(Owners of the No. 3761 who did not update with the No. 3763 ABS 2002 kit will require additional cable purchases.)



3416



3416-01

# ELECTRONIC DIAGNOSTICS

OTC ScanPro™



## OTC OBD I and OBD II ScanPro™

OTC ScanPro is an ergonomically designed, full function OBD I and OBD II scan tool that provides enhanced powertrain coverage for GM, Ford, and Chrysler. All compliant manufacturers 1996 to 2006 are covered with Global OBD II including CAN-based vehicles.

### Features:

- OBD II enhanced functionality - displays enhanced vehicle data from vehicle computer for 1996 and newer vehicles
- Graph data – 1996 and newer only (OBD II)
- Multilingual menu options - English, French, Spanish
- Read, record & playback live sensor data
- OBD I functionality – cables included for '84-'95 Ford, '84-'95 GM and '89-'95 Chrysler vehicles
- USB cable included for product updates
- Updateable via the internet

### Other Features:

- PC compatible with ability to print
- State OBD II check (emissions)
- Battery powered for review of data off vehicle
- OBD II code library built into tool
- Vehicle information (includes VIN number and calibration IDs)
- O2 monitor test
- Diagnostic monitor test
- Large, graphic backlit LCD
- Optional cables available: 3498-11 Chrysler LH cable 3498-10 Ford MECS cable

### NEW FEATURES!

- Supports OBD I & OBD II enhanced functionality for GM, Ford & Chrysler
- Honda OEM enhanced DTC's for OBD II
- Enhanced data stream

### Scanning Suite C.D.

- Browse Manuals
- Update Tool
- Print Companion
- DTC Look-up

## OTC ScanPro®

Includes CD with the new Scanning Suite software, manual, padded nylon storage case, 6 AAA batteries, USB cable, with vehicle cables to support OBD II, Ford OBD I MCU/EEC-IV, Chrysler OBD I SCI, and GM OBD I ALDL.

**No. 3499** – OTC ScanPro®.



3499



### OTC OBD I and OBD II Code Scanner®

OTC Code Scanner is an ergonomically designed multi-function code scanner that retrieves GM, Ford and Chrysler OBD I and all generic OBD II diagnostic trouble codes for all 1996 to 2006 foreign and domestic OBD II compliant vehicles as well as display selected enhanced codes for GM, Ford, Chrysler and Toyota and certain manufacturer's specific codes for Asian and European vehicles.

#### Functions:

- Read hard and pending codes and their definitions
- Erase codes and reset MIL
- View freeze frame data
- PC upload and printing capability
- Off vehicle data review

#### Features:

- OBD I functionality – cables included for '84-'95 Ford, '84-'95 GM and '89-'95 Chrysler vehicles
- Functions on all 1996 to current OBD II compliant vehicles
- CAN capability
- Internal library of trouble code definitions
- Fully upgradeable to support future vehicles and tool enhancements via flash programming
- Easy to use, menu driven software
- Large, 128 x 64 backlit graphic display with adjustable contrast
- Displays codes and descriptions on the same screen
- Padded ballistic nylon storage case
- Detachable cable
- 3-year warranty

#### NEW FEATURES!

- Supports OBD I & OBD II enhanced functionality for GM, Ford & Chrysler
- Honda OEM enhanced DTC's for OBD II
- Scanning Suite C.D.
  - Browse Manuals
  - Update Tool
  - Print Companion
  - DTC Look-up

### OTC Code Scanner®

Includes CD with the new Scanning Suite software, manual, padded nylon storage case, 6 AAA batteries, USB cable, with vehicle cables to support OBD II, Ford OBD I MCU/EEC-IV, Chrysler OBD I SCI, and GM OBD I ALDL.

**No. 3498** – OTC Code Scanner®.



3498

# ELECTRONIC DIAGNOSTICS

OTC AutoCode™ & OTC Ready Scan™



3494

P0305  
Cylinder5 Misfire

The Tool Features provides trouble code data telling you why the "Check Engine" light is on.

5 Codes  
Erase Codes? (Y/N)

Erases trouble code turning off the "Check Engine" light.

Fuel Sys  
READY

Helps you determine if you will pass emission test by reading I/M monitors (can display 11 different I/M monitor codes).

## OTC AutoCode™

OTC AutoCode™ can easily retrieve diagnostic trouble codes (DTCs) from your vehicle's computer, leading you to the problem area. Use on all OBD II and CAN compliant cars and light trucks sold in the U.S. from 1996 to current.

### Features and Benefits

- Compatible with all 1996 and newer vehicles (including the new CAN protocol)
- Provides trouble code data telling you why the "Check Engine Light" is on
- Erases trouble code turning off the "Check Engine Light"
- View freeze frame data
- Code look up through internal library of definitions
- No vehicle manual required, trouble code data displayed on screen
- Provides pending code data notifying you of potential problems
- Helps you determine if you will pass emission test by reading I/M monitors
- Hot keys for quick read and erase DTC
- Large, menu-driven, easy to read LCD display
- Field upgradable

## OTC AutoCode™

Includes CD with DTC Look-up software, Attached 8' OBD II cable and a blow-molded storage case.

**No. 3494** – OTC AutoCode™



3358

## OTC Ready Scan™ Readiness Monitor Tool

A drive cycle is required after any emissions related repair. The 3358 OTC Ready Scan eliminates drive cycle guesswork by notifying any driver, or your customer, with color coded LEDs and built in speaker that the drive cycle has been completed and the vehicle is Ready.

Once the vehicle's OBD II system is Ready, repair work is confirmed. If a state emission inspection is required, a retest can then be performed. The compact tool works on 1996 and newer OBD II and CAN compliant vehicles.

### Features and Benefits:

- Easy to install and no set up required—Connects easily into the vehicle's OBD II connector and is able to display status in 15 seconds.
- Bright color coded LED's provide Readiness Status. Green LED- Vehicle is Ready.
- Built in speaker provides audible tone every 5 minutes when vehicle becomes Ready.
- Ready Scan is powered from the vehicle—no batteries required.
- Rugged Poly carbonate housing has molded grips and OTC logo.
- 1-year warranty.
- Assembled in USA.

**No. 3358** – OTC Ready Scan™ Readiness Monitor Tool.

### Ready Scan provides these added benefits:

- Designed to increase productivity, you no longer need to tie up expensive technician time or scan tools to perform a drive cycle.
- Ready Scan safely alerts a driver or your customer when it is time to return the vehicle to the shop. Ready Scan eliminates drive cycle guesswork and increases customer satisfaction by confirming readiness status.
- Updateable. Future update capability allows Ready Scan to be configured to specific readiness criteria.



### OTC Scan Tool Family Comparison Chart



	AutoCode™ 3494	Code Scanner® 3498	ScanPro™ 3499	Nemisys 3797	Genisys Works Kit
<b>Scan Functionality</b>					
CAN Enabled Tool (no adapters to buy)	■	■	■	■	■
Global OBD II (Dom., Asian, Euro.)	■	■	■	■	■
OBD II Generic DTCs	■	■	■	■	■
DTC Definitions	■	■	■	■	■
Flash Upgradeable	■	■	■	■	■
State OBD Check	■	■	■	■	■
Manufacturer Specific DTCs	■	■	■	■	■
Manufacturer Enhanced DTCs		■	■	■	■
Generic Data Stream			■	■	■
Graph Data Stream			Single Data Item	■	■
Enhanced Data Stream			■	■	■
Domestic OBD II Enhanced			■	■	■
Domestic OBD I		■ (DTC only)	■	■	■
Domestic Non-Engine Coverage		(Trans)		(ABS, Airbag, Trans)	■
Asian OBD II Enhanced		Toy/Honda DTC's	Toy/Honda DTC's	Optional	■
Asian OBD I					■
Asian Non-Engine Coverage				Optional	■
European OBD II Enhanced					■
European OBD I					■
European Non-Engine Coverage					■
PC Software	DTC Lookup	Scanning Suite	Scanning Suite	ScanMate	ConnecTech
<b>Vehicle Repair Information</b>					
Pathfinder Troubleshooting Diagnostics				Domestic Sensor Data	■
Repair-Trac® VIN Specific Tech Tips					■
Fast Fixes® VIN Specific Most Likely/ Overlooked Causes					■
InfoTech® Component Test S/W					■
<b>Options</b>					
GM All Models Reprogramming					■
WiFi Wireless					■
4-Channel Scope					■
5-Gas Analyzer					■
<b>Hardware</b>					
Graphic LCD	■	■	■	■	■
Detachable Cable		■	■	■	■
Battery Power	■	■	■	■	■

# ELECTRONIC DIAGNOSTICS

## Tech 2 Flash with GM Authentic Software



3625-20

### Authentic GM software puts you in the driver's seat to fix GM vehicles right the first time.

- Graphic screen displays both test and graphics, and is capable of showing nine sensors at once.
- Snapshot graphing shows you any failures or glitches at a glance.
- Supports on-board diagnostics for all GM systems 1992–2007.
- The authentic GM software will provide full bi-directional control when performing powertrain, chassis, and body diagnostics.

GM's Service Programming System merges your Tech 2 Flash, a required PC\*, and GM's SPS CD-ROM, and lets you reprogram controllers on '93 and newer GM/reprogrammable controllers.

### CANdi Module

Includes the CAN diagnostic interface module and instruction sheet. **IMPORTANT:** For the CANdi module to work, you must have a 32 MB PCMCIA card with at least software version 24.001 in your Tech 2 Flash.

**No. 3625-20** – CANdi module. Wt., 1 lb. 4 oz.

### Tech 2 Flash Basic Kit

Includes the OTC Tech 2 Flash, vehicle power cables, vehicle adapters, and 32 MB '92–'07 GM PC diagnostic card. Packed in a heavy-duty storage case.

**No. 3628** – Tech 2 Flash basic kit. Wt., 17 lbs. 4 oz.

**Note:** Candi module is not included with this kit.

### Tech 2 Flash Deluxe Kit

Includes the OTC Tech 2 Flash, vehicle power cables, CANdi module, vehicle adapters, and 32 MB '92–'07 GM PC diagnostic card. Packed in a heavy-duty storage case.

**No. 3646** – Tech 2 Flash deluxe kit. Wt., 17 lbs. 4 oz.

### GM ACDelco TIS Starter Kit.\*

This kit provides you with the ability to reprogram 1993-2007 GM powertrain, body, and chassis controllers. In addition, this option contains software that allows you to use your PC to update the software on your Tech 2 Flash's PCMCIA card as the updates become available. The PC-based software also gives you the ability to play back and analyze snapshots taken with your Tech 2 Flash. Kit includes a 12-month subscription to the authentic GM aftermarket ACDelco TIS software on CD-ROM disks, which will keep you updated.

**No. 3625-17** – GM ACDelco TIS starter kit.\* Wt., 2 lbs. 13 oz.

### Authentic GM Software Update Kit

This includes a 32 MB PCMCIA memory card loaded with authentic GM software covering '92–'07. Includes a one-year subscription.

**No. 3625-14** – Authentic GM software update kit. Wt., 1 lb. 2 oz.

\* Your shop computer must conform to the GM SPS minimum requirements listed on page 9. For the latest GM minimum PC specifications visit [HTTP: service.gm.com](http://service.gm.com) (select techline).

Note: GM will be moving to a new Web based Software Delivery Process in the near future. This will replace DVD's.



3628



3646



3625-17













3625-14





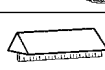


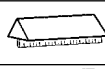



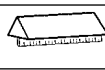






# ELECTRONIC DIAGNOSTICS

## Accessories and Cables

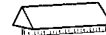

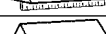
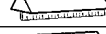
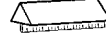
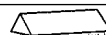
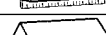
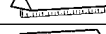
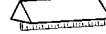
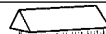
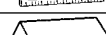
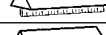
### GENERAL APPLICATIONS

	Number	Description
	212541	"Y" battery connector. Used for splitting the power supply from the cigarette lighter or 12-volt power supply to the Monitor, printer, or other accessories. Wt., 4 oz.
	212636	6-ft. vehicle extension cable for Monitor 4000E or 2000 only. Wt., 5 oz.
	212638	Battery adapter for Monitor or Genisys. Used for under-hood access to 12-volt power supply. Wt., 4 oz.
	212641	12-volt power supply. Use when battery power is unavailable and you need to review data from the Monitor. Wt., 1 lb., 4 oz.
	3305-71	DB-25 extension cable to connect 25-pin Monitor and Genisys adapter cables. Wt., 13 oz.
	3305-72	DB-25 to 8-pin DIN extension cable. Use with Enhanced Monitor 4000 only, to connect 8-pin vehicle adapter cables. Wt., 12 oz.
	3421-04	AC/DC power adapter for Genisys. Wt., 1 lb. 7 oz.
	3421-08	6' PC to scan tool cable, DB-9 to RJ-45. Wt., 4 oz.
	3421-44	20' PC to scan tool cable, DB-9 to RJ-45. Wt., 8 oz.
	239180	9.6V Genisys battery. Wt., 7 oz.




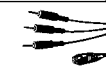
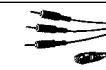

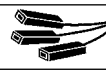








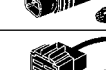
### SYSTEM SMART CABLES AND INSERTS

SSI 25-Pin	Number	Description	Applications
	3421-88	OBD II Smart Cable Requires 2006 software (Genisys only) Wt., 1 lb. 2 oz.	Replaces 3305-73 cable and all system smart inserts
	3305-73	System Smart Insert OBD II 25-pin cable Wt., 13 oz.	Use with Monitor Elite, Monitor Enhanced or Genisys. Use with 25-pin SSI.
	3306-05	Chrysler System Smart Insert Wt., 2 oz.	Chrysler Neon '95-'06 Chrysler '96-'06 OEM Enhanced
	3306-11	GM ABS Smart Insert Wt., 2 oz.	Kelsey-Hayes
	3306-12	GM SPS Reprogramming Smart Insert Wt., 2 oz.	SPS and all Modules Reprogramming
	3306-13	Saturn Smart Insert Wt., 2 oz.	Saturn air bag only '04
	3306-14	Dodge/Cummins Smart Insert Wt., 2 oz.	24-valve Cummins engine and '98 and up transmissions '04
	3306-15	GM Smart Insert Wt., 2 oz.	Grand Prix ABS '98-2002
	3306-16	Mercedes-Benz Smart Insert Wt., 2 oz.	Transmission only. Use 3306-22 to access engine '04
	3306-17	Mercedes-Benz Smart Insert Wt., 2 oz.	All engine configurations and V12 right bank. '04
	3306-18	Mercedes-Benz Smart Insert Wt., 2 oz.	Transmission data access '04
	3306-19	Mercedes-Benz Smart Insert Wt., 2 oz.	V12 engine configurations. Left bank only. '04
	3306-20	Nissan Smart Insert Wt., 2 oz.	Use with 2003 & 2005 Asian Import Software '04
	3306-21	Chrysler Smart Insert Wt., 2 oz.	Chrysler OEM Enhanced '04
	3306-22	CAN/OBD II Smart Insert Wt., 2 oz.	Control Area Network plus all other OBD II protocols. '04
	3306-23	Mercedes-Benz Smart Insert Wt., 2 oz.	MB diagnostic module '04
	3306-24	Dodge Smart Insert Wt., 2 oz.	Dodge diesel SCI '04
	3306-26	Ford Smart Insert Wt., 2 oz.	Ford UBP #1 protocol systems '04
	3306-27	Ford Smart Insert Wt., 2 oz.	Mid Speed (MS) CAN protocol systems '04

### SYSTEM SMART CABLES AND INSERTS

SSI 25-Pin	Number	Description	Applications
	3306-28	Saturn Smart Insert Wt., 2 oz.	Saturn ABS system
	3306-29	Volvo Smart Insert Wt., 2 oz.	Volvo system
	3306-31	GM Smart Insert Wt., 2 oz.	Single wire low speed CAN
	3306-32	Honda Smart Insert Wt., 2 oz.	OBD II Body, Chassis engine and transmission
	3306-33	Toyota Smart Insert Wt., 2 oz.	Engine
	3306-34	Toyota Smart Insert Wt., 2 oz.	Transmission
	3306-35	Toyota Smart Insert Wt., 2 oz.	ABS
	3306-36	Toyota Smart Insert Wt., 2 oz.	Traction Control
	3306-37	Toyota Smart Insert Wt., 2 oz.	Suspension
	3306-38	Toyota Smart Insert Wt., 2 oz.	Air Bag
	3306-41	Toyota Smart Insert Wt., 2 oz.	Air Conditioning
	3306-48	Heavy-Duty Smart Insert Wt., 2 oz.	J1587 / J1708 and J1939 / CAN







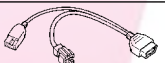

### DOMESTIC APPLICATION

GM	Number	Description	Model	Year
	212550	Adapter block (gray) Wt., 3 oz.	GM 5-pin diagnostic connectors	'81-'82
	212633	GM 14" vehicle adapter cable. Wt., 3 oz.	GM most systems	'82-'95
	212653	Tuned port inj. adapter cable (gray). Wt., 4 oz.	GM 5.0L TPI GM 5.7L TPI GM 2.8L V6 P4	'86 '86-'89 '87-'88
	213486	UNIV B 12" adapter cable. Wt., 4 oz.	GM ABS Teves II and Kelsey Hayes	'88-'94
	213487	CARB/UNIV A 12" adapter cable. Wt., 4 oz.	GM 4.3L GM ABS	'80/2 '88-'95
	3305-17	Geo/Isuzu adapter cable. Wt., 6 oz.	GM Geo & Spectrum GM Isuzu and Luv	'87-'95 '81
	3305-18	UNIV 80 adapter cable. Wt., 3 oz.	GM 3.8L	'80/2
	238464	GM ABS cable. Wt., 3 oz.	GM ABS Kelsey Hayes	'90-'95
Ford	Number	Description	Model	Year
	3305-27	Ford ABS cable. Wt., 3 oz.	Ford ABS Mystique Econoline Van	'95 '94-'96
	3305-58	Ford II 14" adapter cable (gray). Wt., 6 oz.	Ford EEC IV MCU, ABS, suspension. Use with Pathfinder II or newer software.	'81-'95
	3305-84	Ford III, 25-pin, 18" cable (red) with 4' power lead. Wt., 10 oz.	Ford EEC IV DCL ABS, suspension. Use with Pathfinder III or newer software.	'83-'95
	213487	CARB/UNIV A 12" adapter cable. Wt., 4 oz.	Ford EEC II & III	'79-'83
	3305-74	Universal "C", 8-pin, 12" cable. Wt., 4 oz.	Ford/Mazda mfd. vehicles, ABS.	'93-'94
	213596	MECS 6' adapter cable. Wt., 4 oz.	Ford/Mazda mfd. vehicles.	'88-'95
	3305-14	MET adapter cable. Wt., 6 oz.	Ford/Mazda mfd. vehicles.	'91-'95
	3305-19	MECS ABS adapter cable. Wt., 2 oz.	Ford/Mazda ABS.	'89-'93












# ELECTRONIC DIAGNOSTICS

## Accessories and Cables

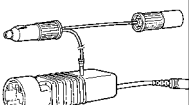


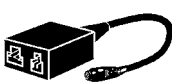

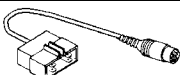
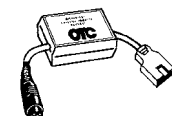
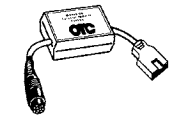
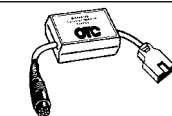


### DOMESTIC APPLICATION

Chrysler	Number	Description	Model	Year
	212635	Standard 12" adapter cable. Wt., 4 oz.	Chrysler	'84-'95
	3305-65	Chrysler III 25-pin, 18" cable. Wt., 12 oz.	LH Chrysler CCD with 4000 Enhanced, Monitor Elite, Nemisys, Genisys	'93-'95 '88-'95
	3305-22	Chrysler CCD 14" adapter cable. Wt., 10 oz.	Chrysler CCD with 4000E Non Enhanced only	'88-'95
	213487	CARB/UNIV A 12" adapter cable. Wt., 4 oz.	Chrysler Import/ 2/3/9-pin connector Colt Conquest TSI	Most '85-'94 '84-'86
	216094	Universal test leads. Wt., 2 oz.	Chrysler/Mitsubishi	
	3305-20	Mitsubishi/Hyundai cable. Wt., 3 oz.		Most
	3305-92	Chrysler OBD II "Y" adapter.	Use on Talon, Avenger, & Sebring Wt., 4 oz.	'95, 2002
	3305-93	Chrysler OBD II to 6 pin adapter.	Use for accessing CCD systems at the J1962 connector. Wt., 4 oz.	'95, '96

### ASIAN APPLICATIONS

	Number	Description	Model	Year
	212633	GM 14" adapter cable Wt., 3 oz.	Isuzu Pickup (3.1L) Rodeo Trooper II	'91-'95 '91-'95 '89-'95
	213486	UNIV B cable 12" adapter cable Wt., 4 oz.	Geo/Metro Suzuki/Swift	'91-'95 '89-'95
	213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Mitsubishi Starion Mirage Galant Cordia Tredia	'84-'86 '85-'95 '85-'95 '84-'95 '84-'95
	213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Suzuki Swift GT Swift Geo/Metro	'90-'95 '89-'95 '89-'95
	213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Daihatsu Charade Rocky	'89-'95 '90-'95
	213487	CARB/UNIV A 12" adapter cable Wt., 4 oz.	Chrysler Colt Conquest TSI	'84-'94 '84-'86
	3305-68	Honda/Acura Jumper Wt., 2 oz.	Honda Acura	'89-'95 '91-'95
	213596	MECS 6" adapter cable Wt., 5 oz.	Mazda	'83-'95
	3305-14	MET adapter cable Wt., 6 oz.	Mazda 323/Protege 929 Miata MX-3	'90-'95 '92-'95 '90-'95 '92-'95
	216044	Nissan 12" adapter cable Wt., 4 oz.	Nissan	'87-'95
	216094	Universal test leads Wt., 2 oz. Hyundai	Daihatsu, Mitsubishi	'89-'92 '85-'88

### ASIAN APPLICATIONS

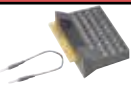



	Number	Description	Model	Year
	3305-13	Toyota/Lexus adapter cable. Includes auxiliary probe and power adapter. Wt., 10 oz.	Toyota/Lexus Lexus-Engine Camry-Engine Cressida-Engine Lexus MR2 Cressida Supra Camry Celica Corolla Starlet Truck 4Runner Van	'90-'93 '92-'94 '89-'92 '90-'93 '85-'91 '83-'92 '83-'91 '83-'94 '85-'91 '85-'91 '83-'84 '85-'91 '91 '90
	3305-15	Subaru adapter cable Wt., 6 oz.	Subaru SPFI MPFI (Except Justy) EFC (Justy)	'87-'93 '88-'93 '88-'90
	3305-16	Toyota adapter cable Wt., 5 oz.	Toyota Cressida Supra	'83-'84 '83-'84
	3305-17	Geo/Isuzu adapter cable Wt., 6 oz.	Isuzu I-Mark (Fuel Inj.) I-Mark (Carb.) I-Mark Impulse Pickup, Amigo (2.3 & 2.6L) Rodeo Trooper II	'88-'89 '87-'89 '85-'86 '84-'92 '88-'93 '91-'93 '89-'91
	3305-17	Geo/Isuzu adapter cable Wt., 6 oz.	GM Import Spectrum Storm Geo/Metro	'87-'89 '90-'93 '90-'93
	3305-19	MECS ABS Cable Mazda ABS Wt., 8 oz.	626/MX-6 MX-3	'92-'93 '92-'93
	3305-48	Mitsubishi/DS adapter cable Wt., 8 oz.	Mitsubishi Diamante Precis 3000GT Truck Eclipse Starion Mirage Montero Van Sigma Galant	'92-'93 '90-'93 '91-'93 '89-'93 '90-'93 '87-'89 '89-'93 '89-'93 '87-'90 '89-'91 '87-'93
	3305-48	Mitsubishi/DS adapter cable Wt., 8 oz.	Chrysler Import Stealth D50 Truck Laser Vista Talon Colt Summit Raider Conquest TSI	'91-'93 '91-'93 '91-'93 '89-'93 '90-'93 '88-'93 '89-'93 '89 '87-'89
	3305-48	Mitsubishi/DS adapter cable Wt., 8 oz.	Hyundai Sonata Scoupe Excel (MPI only)	'89-'93 '91-'92 '90-'92
	3305-124	Accord adapter cable Wt., 4 oz.	Accord	'92-'95
	3305-141	Nissan OBD I and II Wt., 4 oz.	Nissan	'89-'99










# ELECTRONIC DIAGNOSTICS

## Accessories and Cables

### EUROPEAN

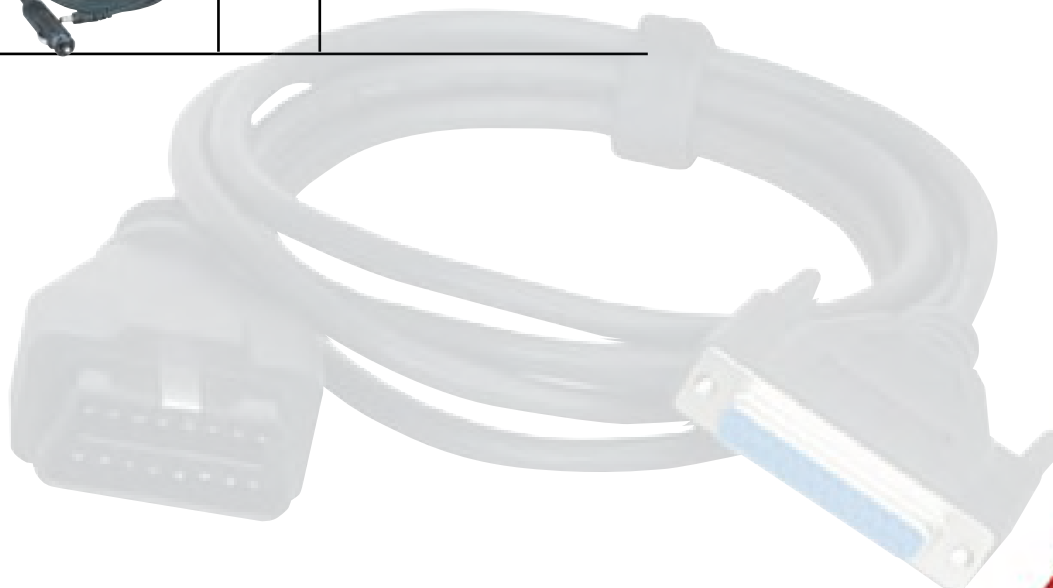
	Number	Description	Model	Year
	3306-47	38 Pin SSI Wt., 8 oz.	Mercedes	'86-'05
	3421-41	38 Pin adapter cable Wt., 8 oz.	Mercedes	'86-'05
	3421-42	1 Pin adapter cable Wt., 8 oz.	Mercedes	'86-'95
	3421-43	VW 4 pin adapter cable Wt., 8 oz.	Volkswagen	'86-'94
	3421-76	BMW adapter cable Wt., 8 oz.	BMW	'87-'05

### TECH 2 FLASH

	Number	Description
	3000095	DLC cable use with Tech 2 Flash adapter, 10'. Wt., 1 lb., 8 oz.
	3000096	Cigarette lighter power cable Wt., 4 oz.
	3000097	Battery adapter power cable Wt., 10 oz.
	3000098	OBD II 16-pin DLC adapter. '95 to current OBD II. Wt., 4 oz.
	3000099	GM 12-pin NAO DLC adapter '82-'95 GM applications. Wt., 4 oz.
	3000109	DLC loopback adapter for Tech 2 Flash troubleshooting. Wt., 4 oz.
	3000113	110 volt to 12-volt converter. Wt., 1 lb., 8 oz.

### Nemisys Cables

	Number	Description
	3774-01	DB25 to OBD II cable
	3774-02	DB25 to GM OBD I cable
	3774-03	DB25 to Ford OBD I cable
	3774-04	DB25 to Chrysler OBD I cable
	3774-05	Cigarette plug power cord



# ELECTRONIC DIAGNOSTICS

## Pro-Link® Tester Kits



### Pro-Link® GRAPHIQ

Heavy-duty standard kit. The heavy-duty standard application provides the functions necessary to diagnose most SAE/TMC J1708/J1587 OBD electronic control system/engine, transmission, brakes, and instruments.

#### Pro-Link GRAPHIQ applications

- Allison diagnostic WTEC II & III
- Bendix application
- D.D. Mercedes-Benz MBE 900/4000 engine
- Allison reprogramming
- Detroit dsl. III/IV engine
- Detroit diesel DDEC V
- Dana/Eaton RoadRanger
- Heavy-duty standard
- Mack - V-Mac III
- Meritor WABCO ABS
- ZF Meritor transmission
- Navistar NAVPAK

**No. 3104** – Heavy-duty standard kit. Includes: Pro-Link® GRAPHIQ with multi-protocol cartridge, HDS software, PCMCIA card, 6-pin and 9-pin Deutsch cable, data and power cable, manual, carrying case. \* Applications are sold separately.

3104

### Multi-Protocol Cartridge (MPC)

**No. 3101-11** – Multi-Protocol cartridge.

### Light- and Medium-Duty Truck

**No. 3101-80\*** – '99–2004 GM, Ford, and Chrysler cartridge, 3101-09 GM/Ford OBD II adapter, 3101-01 Chrysler OBD II adapter, and manual.

**No. 3101-02** – '81–2001 GM and Ford cartridge, 3101-09 GM/Ford OBD II adapter, and manual.

\* Compatible with Pro-Link GRAPHIQ only.

### Heavy-Duty MPC Software\*

- No. 3101-61** Allison Diagnostic WTEC II & III
- No. 3101-16** Bendix Application
- No. 3101-72** D.D. Mercedes Benz MBE 900/4000 Engine
- No. 3101-65** Detroit Dsl. III/IV Engine
- No. 3101-77** Detroit Diesel DDEC V
- No. 3101-15** Dana/Eaton RoadRanger
- No. 3101-17** Heavy-Duty Standard
- No. 3101-45** Mack - V-Mac III
- No. 3101-14** Meritor WABCO ABS
- No. 3101-69** ZF Meritor Transmission
- No. 3101-63** Navistar NAVPAK
- No. 3101-79** Heavy-duty fault code manual

\* No. 3101-11 Multimeter-Protocol cartridge (MPC) required.



3101-11



3101-80



Heavy-Duty  
MPC Software



Heavy-Duty  
Vehicle Cartridge

### Heavy-Duty Vehicle Cartridge

- No. 3101-52** Caterpillar V 1.11
- No. 3101-46** Eaton Vorad
- No. 3101-47** Detroit Diesel I & II V 4.1
- No. 3101-70** Kelsey-Hayes ABS/ATC
- No. 3101-49** Detroit Diesel II & III V 5.2
- No. 3101-56** Navistar MRD
- No. 3101-57** Hino Injection Pump
- No. 3101-71** Navistar IPC
- No. 3101-41** Mack V-MAC I V 3.1
- No. 3101-62** Volvo VED 12 V 2.1
- No. 3101-44** Mack V-MAC II V 2.1



### Brake-Link™ Hand-Held Diagnostic Trailer Brake Tool

#### Brake-Link™ ABS Coverage:

- Bendix EC-17, EC-30, and EC-30T (tractor and trailer).
- Meritor WABCO Easy-Stop and Enhanced Easy-Stop (trailer only).
- Wabash National MBS-1P and MBS-2.
- Eaton GEN4 and GEN5.
- Haldex PLC, PLC Plus, and PLC Select (trailer only).

**No. 3106** – Brake-Link™ hand-held diagnostic trailer brake tool.

3106



### ABS Power Line Carrier (PLC) Converter for Pro-Link®

- Detects the ABS warning lamp message coming from the trailer ECU.
- Tests SAE MID 10 and 11 ABS messages.
- Tests the in-dash trailer ABS warning lamp.
- Supports all tractor/trailer ABS brake controllers equipped with the Power Line Carrier (PLC) network.
- Interfaces with the trailer via J560 cable set or standard Deutsch connection for communication to the trailer or tractor.
- Utilizes SAE J2497 communication protocol.

**No. 3101-04** – ABS power line carrier (PLC) converter for Pro-Link®. Includes 6" data cables, 6' DB-15 cables, J560 PLC set.

3101-04



Pro-Link and application card shown are not included.

### MagiKey® PDM

The MagiKey® Parallel Port Data Module (PDM) connects your PC through a standard IEEE-1284 port to any heavy-duty truck. The MagiKey® is compatible with the latest vehicle standards, including SAE J1708/J1939. It is the primary module for heavy-duty vehicle service compatible with OEM PC applications.

**No. 3102** – MagiKey® PDM

### MagiKey® PDM USB Adapter for PC-to-Heavy-Duty Vehicle Connectivity

The USB port adapter converts the MagiKey® PDM parallel port connector into a USB connector.

**No. 3102-05** – The complete USB connectivity kit for new users includes: Magikey PDM, USB cable, USB to PDM adapter.

**No. 3102-01** – For existing NEXIQ MagiKey PDM customers includes: USB cable, USB to PDM adapter.

3102



### USB Link

- Single interface box used for all RP1210A compatible OEM PC applications.
- Easy USB connectivity
- Flexible configuration supports wired or wireless connectivity via Bluetooth.
- Supports Windows 2000 and XP.
- CE compliant.

**No. 3101-78** – USB link

3101-78



### Heavy-duty standard Lite™ Adapter

Includes heavy-duty standard Lite Link™ adapter, 15' null modem cable\*, driver installation CD and guide, RP1210A API single-use license (for use with PC or PDA applications), 6-pin Deutsch adapter.

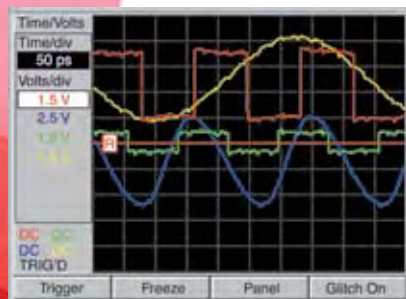
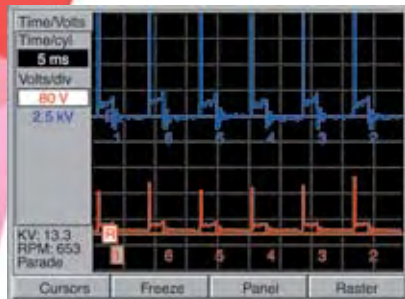
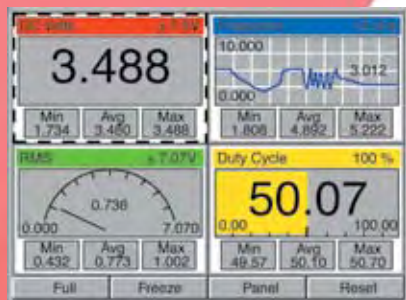
**No. 3103** – Heavy-duty standard Lite Link™ adapter.

3103



# ELECTRONIC DIAGNOSTICS

Solarity™ with InfoTech 2006 Software



## Solarity with InfoTech Software

Solarity is a powerful 4-channel scope with the functionality required to analyze the most sophisticated vehicles. InfoTech software provides the key information to transform a driveability or component fault into a fast and accurate repair.

## Solarity Scope Features and Benefits

- 4-channel full function scope.
- 4 MHz sample rate on all channels.
- Adjustable glitch capture.
- Update via Compact Flash or PC.
- Smart Card security.
- Print via standard desktop color printer.
- Custom enclosure—horizontally oriented and ergonomic.
- Sunlight readable display.
- Modular design allows for future expansion capabilities.



## Ignition Scope Capabilities:

- Primary/secondary
- Coil-on-plug
- Parade
- Single cylinder
- Distributorless ignition
- Raster
- Superimposed
- Record

## 4-Channel High Speed Lab Scope Graphing and Digital Multimeter:

- Volts
- Ohms
- RPM
- Frequency
- Duty cycle

## InfoTech 2006 Software Coverage

- Domestic, Asian, and European vehicle coverage for vehicles on the road today.
- Engine, transmission, and ABS systems covered.

### InfoTech Vehicle Coverage

Feature	Domestic	Asian	European
Component Functional Tests – includes reference waveforms and display presets	1985–2006	1985–2006	1985–2006
Component Specifications	1984–2006	1984–2006	1984–2006
Component Wiring Diagrams	1993–2006	1993–2006	1993–2006
Circuit Description	1993–2006	1993–2006	1993–2006
Component Locations	1993–2006	1993–2006	1993–2006
Control Module Locations	1993–2006	1993–2006	1993–2006
Vehicle System Tests	All	All	All
Torque Specifications	1984–2004	1984–2004	–
Oil Light Reset	1984–2005	1984–2005	1985–2005
Transmission Pan ID Charts	1984–2004	–	–
Indexed Information	All	All	All
Repair-Trac Quick Fixes	All	All	All

NOTE: Red text indicates updates from InfoTech 2005.



### Vehicle Specific Component Tests and Information

For each vehicle specific component, the following information is available:

- **Functional Tests** – walks user through complete test procedure.
- **Circuit Description** – gives user description about how the circuit functions.
- **Component Locations** – provides on-vehicle location of sensor.
- **Circuit Diagrams** – shows component wiring diagrams including wiring colors and names.
- **Connector Diagram** – displays connector pinout providing correct hookup to circuit.
- **Component Specifications** – lists the correct sensor operating values for specific operating conditions.
- **Reference Waveforms** – displays exactly what the user should, and should not, see when connected to circuit.

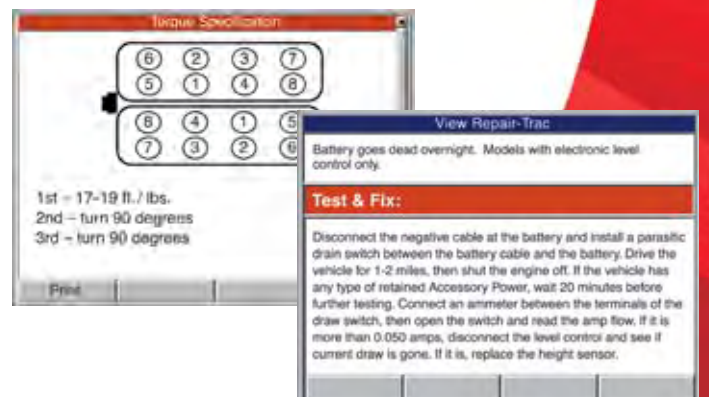
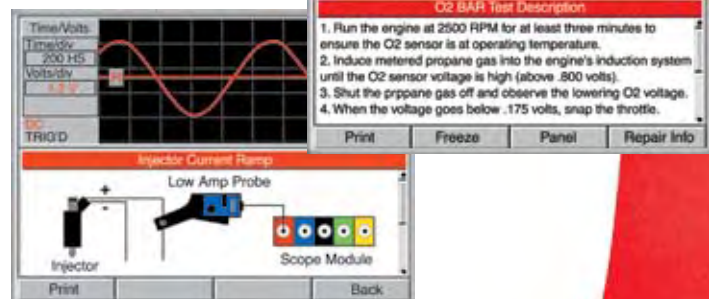
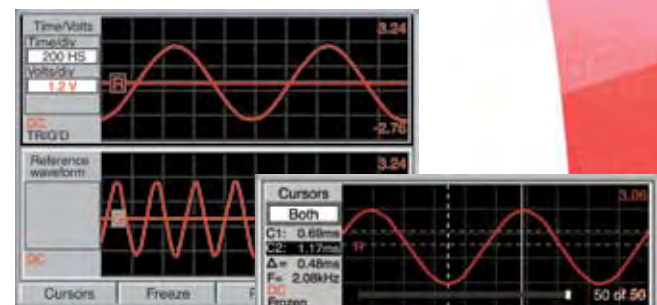
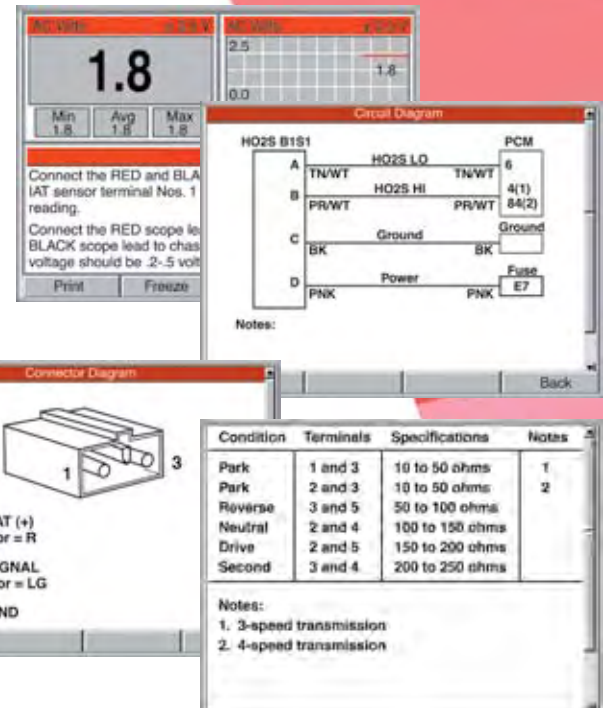
### Vehicle System Tests

Complete test procedure and circuit connection diagrams are provided for key driveability systems:

- EGR system tests.
- Canister purge system.
- Fuel control including injectors, M/C solenoid, and O<sub>2</sub> sensor.
- Fuel delivery, including fuel pressure, fuel volume, pressure regulator, fuel pump voltage, and current.
- Charging system including alternator voltage, current, and diode.
- Starter cranking tests and voltage drop.
- Ignition system including coil, module, wires, and plugs.
- OBD system including idle controls, out-of-range, and no-signal tests.
- No-start including ignition, fuel, and compression.
- Transmission pressure, solenoid, and TCC tests.
- Back pressure.

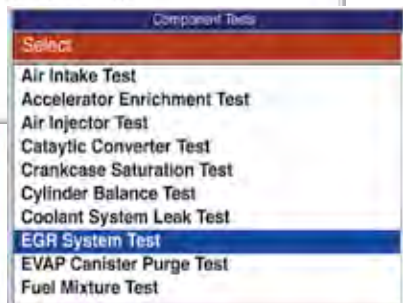
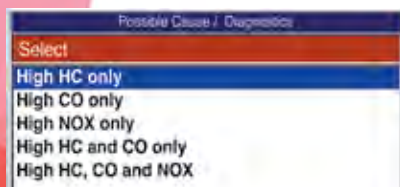
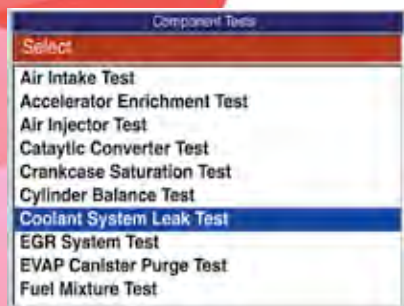
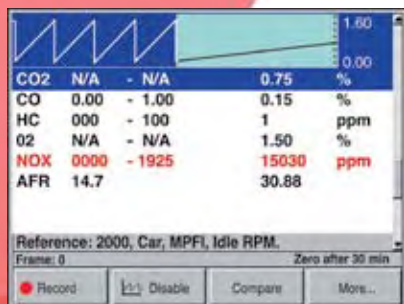
### Additional InfoTech Features

- **Repair-Trac** – known fixes and fast repairs for today's high-tech vehicles.
- **Domestic Transmission Pan ID** – transmission pan identification graphics.
- **Torque Specs** – cylinder head and intake manifold torque sequence pictures, including torque and torque angle specifications.
- **Tune-up Specification** – includes fuel and ignition systems specifications.
- **Oil Light Reset Procedures** – includes the manual reset procedures for oil service lights.
- **Indexed Information** – helpful information including definitions and how-to procedures for scope and automotive terminology.



# ELECTRONIC DIAGNOSTICS

## Solarity Performance Gas



## Solarity Performance Gas

The Solarity Performance Gas is the most advanced stand-alone gas analyzer available. The Gas M-P software features advanced diagnostics providing the ability to troubleshoot emission related or mechanical system failures. The Performance Gas module meets the latest BAR accuracy requirements, while providing automated functions to simplify use and operation.

## Live Data Display

Gas M-P software offers complete 5-gas functionality with hot links directly into vehicle diagnostics.

- Vehicle entry information. Entering pertinent vehicle information provides tailored diagnostic information.
- Comparison values displayed in conjunction with live data provide typical operating range values based off current operating conditions, and quick identification of out-of-range readings.
- Adjustable limits show out-of-range data in red.
- Possible causes available directly from the live display automatically detect which readings are out of range.

## Mechanical System Diagnosis

Gas M-P software, combined with the Genisys built-in diagnostic software, provides the ability to perform automated mechanical system tests such as:

- Leaking head gaskets
- Fuel system leaks
- Cylinder balance
- Restricted air intake system
- Leaking intake manifold gaskets
- Catalytic converter condition

## Emission Related Diagnosis

The vehicle diagnostics menu provides the user with a complete emissions manual, plus interactive testing.

- On-board diagnostics provide possible causes of excessive emissions and describes the vehicle system that is likely to be causing the condition.
- Component tests allow for automated testing of components suspected of causing excessive emissions.
- Diagnostic tests instruct the user how to perform the test and automatically collect data throughout the procedure to provide a summary.
- Drive cycle explains the correct vehicle operating conditions to best test emission systems.
- The Repair Effectiveness feature utilizes average mass calculation and baseline/verification strategy to provide a highly accurate and repeatable test process for validating emission repairs.

## Features and Functions

- Automatic water purge eliminates the need to disassemble the water trap or manually drain water.
- Fluid overload protection keeps liquids from entering the system.
- Automatic Zero mode eliminates the need to remove the sample probe from the tailpipe.
- Heavy-duty pump has extended life expectancy compared to other portable analyzers.
- Heavy-duty filtration has two-ten times longer life compared to competitive analyzers, which dramatically reduces operating costs.



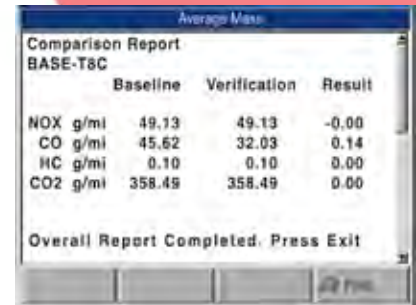
### Features and Functions continued

- Heavy-duty pump and filtration, along with the O<sub>2</sub> and NOx sensors are user serviceable.
- Meets or exceeds the following accuracy standards: BAR 97, OIML Class 0.
- Average Mass feature allows you to convert recorded data to grams-per-mile; then you can compare pre-repair to post-repair data to verify emission improvement after repairs are made.
- Software can be configured to 3-, 4-, or 5-gas.
- System configuration lets you choose reading gasses from gas, propane, methane, or variable fuel vehicles.
- Contains recommended maintenance schedule and gas analyzer status.

**No. 3851** – Solarity platform with InfoTech and 5-Gas software—does not include scope or gas module.

**No. 3850-02** – 12-volt power adapter, isolated ground.

**No. 3850-05** – High capacity battery and high output wall changer.



	Baseline	Verification	Result
NOX g/mi	49.13	49.13	-0.00
CO g/mi	45.62	32.03	0.14
HC g/mi	0.10	0.10	0.00
CO2 g/mi	358.49	358.49	0.00

Overall Report Completed. Press Exit

#### Measurement Ranges

HC . .	0-30,000 ppm
CO . .	0-15 %
CO <sub>2</sub> . .	0-18 %
NOx . .	0-5,000 ppm
O <sub>2</sub> . . .	0-25 %

### Solarity Performance 5-Gas

The Solarity emissions repair solution. Kit includes Solarity with plug-in 5-Gas Analyzer Module, hoses, exhaust probe, power cable and battery adapter, RS232 cable, AC power supply, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

**No. 3855** – Solarity performance 5-gas.



3855

### Performance Gas Module Kit

Kit includes the plug-in 5-Gas Analyzer Module, hoses, exhaust probe, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

**No. 3780** – Performance gas module kit.

**No. 3700-60** – Gas M-P software kit. Update for MicroGas module. Includes update CD, Smart Card, and manual.

### Performance Gas Accessories and Replacement Parts

**No. 3700-25** – Calibration gas

**No. 3780-01** – Filter kit (4 primary, 4 secondary)

**No. 3780-02** – O<sub>2</sub> sensor replacement

**No. 3780-03** – NOx sensor replacement

**No. 3780-04** – Pump replacement

**No. 3780-05** – Regulator

**No. 3780-08** – Exhaust probe replacement

**No. 3780-09** – Sample hose replacement



3780

### Solarity 4-Channel Scope Kit

Includes Solarity with plug-in 4-channel scope module, 4 scope/DMM leads with 5-way alligator clips, ground lead, kV ignition lead, ignition sync lead, HEI adapter, manual, InfoTech Smart Card, CD, and carrying case.

**No. 3852** – Solarity 4-channel scope kit.

3852



### Solarity 4-Channel Scope Master Kit

Includes Solarity with plug-in 4-channel scope module, 4 Scope/DMM leads, ground lead, kV ignition lead, ignition sync lead, HEI adapter, low amp probe 0-60A, pressure/vacuum adapter, temperature adapter, COP adapter (5 OEMs), COP adapter cable, 14-piece terminal adapters, BNC/banana adapter cable, 3 test probes, 3 back probes, manual, InfoTech Smart Card, CD, and carrying case.

**No. 3852M** – Solarity 4-channel scope master kit.

**No. 3852MT** – Includes 3850M with a 4-hour training coupon. (Note: Coupon valid in U.S.A. only.)



3852M

# ELECTRONIC DIAGNOSTICS

## Automotive Scope



CE-certified

3-year warranty



3840

### Automotive Scope

#### Features and Benefits

- 2-channel lab scope.
- A 25 MHz sample rate per channel for rapid data updates.
- True RMS GMM (Graphing Multimeter) measurements and graphs.
- A unique "Glitch Capture" feature captures, displays, and optionally saves abnormal signal patterns in the Scope mode for component testing.
- Real-time comparison between actual waveforms and reference waveforms on the same screen for component testing.
- Preset tests enable the user to check the majority of automotive sensors, actuators, and systems easily and quickly.
- Powerful built-in reference information for each preset test includes a test procedure, a normal reference signal pattern, theory of operation, and troubleshooting tips.
- The extremely powerful Help Menu lets you find answers fast.
- The secondary ignition single function displays the waveform along with the spark voltage, RPM, burn time, and burn voltage at the same time.
- USB interface supports update for code and data over the internet.
- Over-molded case technology disperses shock over more of the case than a conventional rubber boot design.

**No. 3840** – Automotive scope kit. Includes red and yellow test leads, black ground lead, 3- and 5-way alligator clips, 3 test probes, 3 back probes, ignition probes, inductive pickup, lead extensions, AC adapter, update cable/software, soft carrying case, and user manual.

#### Replacement Accessories

**No. 3840-01** – Red and yellow test leads.

**No. 3840-06** – Ignition probe.

**No. 3843-07** – Inductive pickup.

**No. 3843-11** – User manual.

### Scope and Meter Accessories (Amp Clamps)

**No. 3820-13** – Low-range amp probe with display – use alone or connected to scope. Long, small jaws combined with superior performance are ideal for:

- Ignition coils
- Fuel injectors • Fuel pumps • Relays • Electric motors
- Parasitic draw
- 0–60A range, measure to 90A, 100mV/A
- High accuracy, and low noise interference
- Non-intrusive AC/DC current measurement
- Resolution: 10mA
- Average responding, RMS calibrated
- Auto ranging, auto zero, data hold, low battery indicator

**No. 3820-06** – Low-range amp probe.

Measures current in two ranges: 0–60 amps AC/DC

- Ignition coils • Fuel injectors • Relays • Electric motors • Parasitic draw
- Non-intrusive AC/DC current measurement

**No. 3500-01A** – Mid-range amp probe.

Measures current in a range of 2–600 amps AC/DC.

**No. 3500-01** – Mid- and high-range amp probe.

Amp probe measures current in two ranges: 2–200 amps AC/DC and 2–2000 amps AC/DC.



3820-13



3820-06



3500-01A



3500-01



### Scope and Meter Accessories (Amp Clamps)

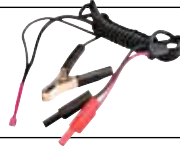
**No. 3850-01** – Coil-on-plug master kit. Includes BNC style universal lead, Chrysler, Ford, Honda, Isuzu, BMW, VW, Audi, Volvo coil-on-plug adapters with No. 3421-09 universal coil-on-plug lead.



**No. 3421-09** – Universal coil-on-plug lead with BNC connector. For single-cylinder testing only.



**No. 3820-09** – Universal coil-on-plug lead with banana jacks. (covers 1 cylinder)



**No. 3947-03** – Chrysler coil-on-plug adapter for use with No. 3421-09 or No. 3820-09 universal coil-on-plug lead.



**No. 3947-04** – Ford coil-on-plug adapter for use with No. 3421-09 or No. 3820-09 universal coil-on-plug lead.



**No. 3947-05** – Honda/Isuzu/BMW coil-on-plug adapter for use with No. 3421-09 or No. 3820-09 universal coil-on-plug lead.



**No. 3947-06** – VW/Audi coil-on-plug adapter for use with No. 3421-09 or No. 3820-09 universal coil-on-plug lead.



**No. 3947-07** – Volvo coil-on-plug adapter for use with No. 3421-09 or No. 3820-09 universal coil-on-plug lead.



**No. 3500-31** – Pressure/vacuum adapter - Measure pressure from 0–500 psi (0–3, 447 kPa); vacuum from 0–30 in Hg. An optional transducer is available to measure pressure from 0–3,000 psi (0–17,237 kPa).



**No. 3500-38** – High pressure transducer - Measures pressure from 0–3,000 psi (0–17,237 kPa). For use with 3500-31 adapter kit.



**No. 3500-39** – Transducer 0–500 psi, vacuum 0–30 (replacement).



**No. 3820-07** – Temperature adapter module provides scope and meters with temperature capabilities. Allows use of K-type temperature probes.



**No. 3500-03** – Surface temp probe - Measures surface temp of hoses, engine blocks, catalytic converters, and tire temp. K-type connector.



**No. 3500-04** – Air temp probe - Measures air temp when servicing HVAC systems. K-type connector.



**No. 3500-05** – Bead-type temperature probe - Measures air temp when servicing HVAC systems. K-type connector.



**No. 3500-06** – Immersion temp probe - Wire type measures liquid temp of coolant, oil, transmission fluid, fuel, etc. K-type connector.



**No. 3820-12** – BNC to banana adapter cable. Required to use the temperature or pressure adapter with scope.



**No. 3840-04** – Test probes. Three pieces: red, yellow, black.



**No. 3500-15** – Jaw clip insulated mini-plunger - Plug-on adapter includes jaws that securely grip thick wire and cable; ground leads and rails eliminate interference from cable during testing.



**No. 3500-17** – Large alligator clips - Plug-on red and black large alligator clips with insulated jaws.



**No. 3500-26** – Ignition DAT test lead kit - Includes 5 ft. red and black leads with retractable shroud, red and black probe adapters, red and black large alligator clips with insulated jaws.



**No. 3840-05** – Back probes. Three pieces: red, yellow, black.



**No. 3500-28** – 5-way alligator clip - plug-on multiple-use clip includes: bed of nails, piercing tip, alligator clip, spade and square lug connectivity.



**No. 3840-03** – 3-piece, 5-way alligator clip - Plug-on multiple-use clip includes: bed of nails, piercing tip, alligator clip, spade and square lug connectivity.



**No. 3840-02** – Banana lead extension includes two 4 ft. leads.



**No. 3500-36** – Blue lead - 5 ft. lead with retractable shroud.



**No. 3500-37** – Electrical DAT test lead kit - Includes 5 ft. red and black leads with retractable shroud, red and black probe adapters.



**No. 3800-25** – E-Z hook.



# ELECTRONIC DIAGNOSTICS

## Multimeters



3535  
Function Wheel

### Kit Contents:

Description	3535	3545
A Red & black leads	X	X
B Red & black probes	X	X
C Red & black large alligator clips		X
D Back probes		X
E 5-way alligator		X
F Test lead extension		X
G Ignition secondary/RPM probe		X
H Blue lead		X
I Blow-molded case		X
J Manual	X	X

OTC's Digital Automotive Tester (DAT) is much more than a standard multimeter. It would take several tools to match the functions and features found in the DAT's electronic toolbox.

- Full Function Multimeter
- Fuel Injector Tester
- Battery Drain Tester
- Charging System Tester
- Sensor Tester
- Pressure Tester\*
- Ground Tester
- Noid Lights

\* Auto set-up on DAT, optional adapter required.

The DAT automatically sets up the test for the circuit being tested. Simply turn the dual action selector wheel, and/or press a function button to select the function desired. The DAT is ready to go, no additional set up required!

**No. 3545** — Ignition DAT complete kit. All features are included: volts, ohms, amps, batt, elect, sen, fuel, and ign. See chart for kit contents.

**No. 3535** — Electrical DAT kit. Features volts, ohms, amps, battery drain test, and electrical system test functions. See chart for kit contents.

Accessories exclusive to the DAT:

**No. 3500-30** — Ignition secondary/RPM probe.

**No. 3500-40** — Case - blow-molded.

**No. 3500-41** — Manual.

**No. 3500-42** — DAT replacement fuse.

**No. 3500-43** — Coil-on-plug adapter.

**No. 16543** — Battery.



### Autoranging Multimeter

This high quality, low cost multimeter has features you'd expect to find only on more expensive meters:

- Analog display with a 34 segment bar graph for checking TPS and other readings.
- Diode test for checking alternators, relays, solenoids, and A/C clutch compressor diodes.
- Continuity check for quick "Go-No Go" tests on fuses, wires, and switches.
- Inductive rpm pickup for conventional ignitions.
- Duty cycle and dwell angle for checking fuel injection, feedback carburetors, and ignitions. No conversion charts needed!
- Autoranging for volts, ohms, amps, and frequency.
- Frequency for checking MAP, MAF, and other components for output.
- 10 meg ohm impedance protects sensitive components on today's electronic systems.
- Low battery indicator.
- 3-year warranty.

**No. 3505** — 100 Series autoranging multimeter set. Includes multimeter, test leads, large insulated alligator clips, inductive rpm pickup, bead type temperature probe.

**No. 233870** — 10 amp fuse.

**No. 233871** — 1.5 amp fuse.



### Automotive DVOM

- Accurate ms-pulse width function to test on-time for fuel injectors, IAC motors, and transmission controls.
- Inductive rpm for 1–8 cylinders (2- or 4-stroke), inductive clamp included in the kit.
- Direct dwell readings and duty cycle. DC volts and mV, AC volts, ohms, continuity, frequency.
- Four step adjustable  $\pm$  trigger.
- 4-1/4" digit display. Analog bar graph, 41 segment.
- Auto ranging, automatic power off, and data hold features.

**No. 3514** – Automotive DVOM. Wt.,



### Pocket DVOM

- CE/UL.
- DCV, ACV, ohms, continuity/diode, micro and milli amps.
- Auto power off/low battery indicator.
- Auto ranging data hold/max hold.
- Self-contained probe storage and carry pouch.

**No. 3509** – Pocket DVOM. Wt., 1 lb., 15 oz.



### Comparison Chart

Test Description Multimeter	3509	3514	3505	3535	3545
Volts AC/DC	•		•	•	•
Ohms	•	•	•	•	•
Amps AC/DC	•	•	•	•	•
mA AC/DC	•	•	•	•	•
Fused amps		•	•	•	•
Diode check	•	•	•	•	•
Continuity beeper	•	•	•	•	•
RPM		•	•	•	•
4-cycle / 2-cycle		•		•	•
Duty cycle		•	•	•	•
Frequency		•	•	•	•
Temperature			•	•	•
Bar graph		•	•	•	•
Digital display	•	•	•	•	•
Low battery indicator	•	•	•	•	•
Data hold	•	•	•		
Auto power off	•	•		•	•
Direct dwell readings		•	•		•
Autorange	•	•	•	•	•
Min./Max.	•			•	•
Averaging				•	•
Delta				•	•
Logic check				•	•

Test Description Multimeter	3509	3514	3505	3535	3545
Backlighting				•	•
+/- Triggering		•		•	•
Adj. triggering level				•	•
Smoothing				•	•
Overmolded enclosure				•	•
Sleep mode				•	•
Dual display				•	•
LEDs				•	•
Adjustable logic probe				•	•
PC connectivity					•
Ground test				•	•
Charging system test				•	•
Battery drain tester				•	•
O2 sensor with signal out					•
TPS sensor with glitch					•
MAP/BP sensor (dedicated mode)					•
MAF sensor (dedicated mode)					•
Magnetic pickup (dedicated mode)					•
Noise Light (low impedance circuit)					•
Fuel injection (on-time, peak V.)					•
Pressure/vacuum (dedicated mode)					•
Ignition - peak kV/Burn Time/Spark kV					•

# ELECTRONIC DIAGNOSTICS

## Terminal Test Kits



### Terminal Test Kit with LED Circuit Tester (Extended Adapters)

- 14-piece extended terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. External-internal versions of adapter styles.
- Computer safe circuit tester with two color LEDs indicate proper connection and probed voltage or ground source. Interchangeable probes for use with terminal test adapters for use on 6-12-24 volt systems.
- Terminal adapters have extended leads allowing for use with close pitch connectors. Also eliminates damaged connector terminals that result from testing with a standard test probe.
- Sturdy aluminum storage case with clear top.

**No. 3969** – Terminal test kit with circuit tester.

**No. 3969-1** – Circuit tester.



### Terminal Test Kit with Circuit Tester (Standard Adapters)

- 14-piece standard terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. External-internal versions of adapter styles.
- Circuit tester with bulb for 6-12-24 volt systems with interchangeable probes for use with terminal test adapters. Heavy-duty coil cord extends to 12 ft.
- Terminal adapters have flexible joints that eliminate damaged connector terminals that result from testing with a standard test probe.
- Complete kit in plastic storage case.

**No. 3569** – Terminal test kit with circuit tester.

**No. 3525** – Circuit tester.



### Terminal Test Kit (Extended Adapters)

- Excellent accessory when testing with a scope or meter.
- 32-piece extended terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. Multiple external-internal versions of adapter styles.
- Set of 4 patch cords (4 ft.) included for use on multiple terminal connectors, for use with terminal adapters.
- Terminal adapters have extended leads allowing for use with close pitch connectors. Also eliminates damaged connector terminals that result from testing with a standard test probe.
- Sturdy aluminum storage case with clear top.

**No. 3987** – Terminal test kit.



### Terminal Test Kit (Standard Adapters)

- Excellent accessory when testing with a scope or meter.
- 32-piece standard terminal adapter set for the popular Packard Weather Pack, Metri-Pack, and Micro-Pack style connectors. Multiple external-internal versions of adapter styles.
- Terminal adapters have flexible joints that eliminate damaged connector terminals that result from testing with a standard test probe.
- Set of 4 patch cords (4 ft.) included for use on multiple terminal connectors, for use with terminal adapters.
- Complete kit in plastic storage case.

**No. 3587** – Terminal test kit.



### Battery Powered Continuity Tester

Designed to test any type of non-live electrical circuit. Track down broken wires, bad grounds, and blown fuses quickly.

#### Features and Benefits

- Comes with AAA alkaline battery.
- Ergonomic, slim designed clear handle.
- 12', red coil cord.
- Low voltage replaceable bulb.
- Molded strain relief.
- Heavy-duty stainless steel probe with insulated shaft.
- Heavy-duty clip with positive soldered connection.

**No. 3630** – Battery powered continuity tester.

3630



### Heavy-duty Logic Probe Tester

Multi-functional design allows testing range of 3–26 volts. Bright red and green LEDs interpret voltage signals such as ground, power, and frequency. Tests fuel injectors, solenoids, presence of serial data, and tach reference signals. Output tests on MAF, Cam, Crank, Hall Effect VRS sensors and more. High impedance input compatible with computer circuits and sensors.

#### Features and Benefits

- Air bag safe.
- 12', heavy-duty, twin clip, red coil cord lead.
- Checks 6-, 12-, and 24-volt systems.
- Ergonomic, slim designed clear handle.
- Positive contact molded strain relief.
- Heavy-duty stainless steel probe with insulated shaft.

**No. 3631** – Heavy-duty logic probe tester.

3631



### 12V–36V Truck Circuit Tester

#### Features and Benefits

- Works on 12–36 volt systems.
- Features 7" stainless steel probe.
- 24' coil cord.
- Extra large clamp.

**No. 3642** – 12V–36V truck circuit tester.

3642



### Mini-coil Cord Circuit Tester

Small handle with needlepoint stainless steel probe allows easy back probing and piercing. Special threaded probe comes with screw on alligator clip for additional versatility. Useful in testing electrical circuits and locating shorts, grounds, and open circuits.

#### Features and Benefits

- 12', heavy-duty, red coil, cord lead.
- Checks 6- and 12-volt systems.
- Ergonomic, slim designed clear handle.
- Bright red, high intensity/slim style replaceable bulb.
- Positive contact-molded strain relief.
- Heavy-duty, stainless steel probe with insulated shaft.
- Heavy-duty clip with positive soldered connection.

**No. 3633** – Mini-coil cord circuit tester.

3633



# ELECTRONIC DIAGNOSTICS

## Circuit Testers



3634

### Heavy-Duty, Straight Cord Circuit Tester

Designed for testing electrical circuits and locating shorts, grounds, and open circuits.

#### Features and Benefits

- 5-foot heavy-duty cord.
- Checks 6- and 12-volt systems.
- Ergonomic, slim designed clear handle.
- Bright red, slim style replaceable bulb.
- Positive contact-molded strain relief.
- Heavy-duty, stainless steel probe with insulated shaft.
- Heavy-duty clip with positive soldered connection.

**No. 3634** – Heavy-duty, straight cord circuit tester.



3636

### Heavy-Duty, Coil Cord Circuit Tester

Designed for testing electrical circuits and locating shorts, grounds, and open circuits.

#### Features and Benefits.

- 12-foot, heavy-duty, red coil cord lead.
- Checks 6- and 12-volt systems.
- Ergonomic slim designed clear handle.
- Bright red, slim style replaceable bulb.
- Positive contact-molded strain relief.
- Heavy-duty, stainless steel probe with insulated shaft.
- Heavy-duty clip with positive soldered connection.

**No. 3636** – Heavy-duty, coil cord circuit tester.



3639

### Extra Long, Heavy-Duty Circuit Tester

Long 7" probe shank allows access to difficult to reach areas for testing electrical circuits and locating shorts, grounds, and open circuits.

#### Features and Benefits

- 12-foot, heavy-duty, red coil cord lead.
- Checks 6- and 12-volt systems.
- Ergonomic, slim designed clear handle.
- Bright red, slim style replaceable bulb.
- Positive contact-molded strain relief.
- Heavy-duty, stainless steel probe with insulated shaft.
- Heavy-duty clip with positive soldered connection.

**No. 3639** – Extra long, heavy-duty circuit tester.



3644

### 12-Pack Display Assortment

Stand-up display of 12 circuit testers contains an assortment of all 6 circuit testers in a point-of-purchase display.

Contents include:

**No. 3630** – Battery powered continuity tester - (1)

**No. 3631** – Heavy-duty logic probe tester - (1)

**No. 3633** – Mini-coil cord circuit testers - (3)

**No. 3634** – Straight cord circuit testers - (2)

**No. 3636** – Coil cord circuit testers - (3)

**No. 3639** – Extra long circuit tester - (1)

**No. 3642** – 12V–36V truck circuit tester - (1)

**No. 3644** – 12-pack display assortment.

### Replacement Bulbs

**No. 3630-10** – 10 pack of replacement bulbs for No. 3630

**No. 3633-10** – 10 pack of replacement bulbs for Nos. 3633 – 3639

**No. 3642-10** – 10 pack of replacement bulbs for No. 3642



### OTC Test Leads

Constructed from high quality polyurethane, these high visibility coil cord test leads have superior memory retention and resistance to grease and oil, making them a perfect compliment to any technician's arsenal of test equipment. Test leads come with a variety of interchangeable tips suited for just the right application.

**No. 3902** – Twin 5' jumper leads. High visibility black and red leads stretch to over 5 feet in length.

**No. 3903** – 24' jumper leads. From headlight to taillight, this extra long test lead stretches to over 24 feet in length.

**No. 3904** – Twin 5' multimeter lead set. Expand the usefulness of any standard multimeter. This set includes one black and one red test lead, 2 multimeter probes, 2 banana plugs, and 4 alligator clips.

**No. 3905** – Twin 5' multimeter/piercing jumper lead set. Pierce small gauge wires with this complete jumper lead set. This set includes one black and one red test lead, 2 multimeter probes, 2 banana plugs, 2 bed-of-nails, and 2 alligator clips.

**No. 3906** – Twin 5' piercing test lead set. With 2 banana plugs and 2 bed-of-nails, this test lead set has just the right combination of tips for most testing applications.



### Heavy-Duty, Remote Starter Switch

Allows one person to start and crank engine while under the hood or from either side of the vehicle.

#### Features and Benefits

- With convenient hot circuit indicator, red ready light glows when starter switch is connected to a hot circuit; light goes off when switch is depressed.
- High current, heavy-duty push button switch ensures reliable operation and long service life.
- 5' leads made from heavy-duty, oil and grease resistant, 12-gauge wire.
- High current clips with protective boots open to an extra wide 5/8" for ease of hook-up.
- Soft, non-slip rubber grip.

**No. 3650** – Heavy-duty, remote starter switch.



### Component Diagnostic Guides

**Sensor Testing & Specifications** – Test procedure descriptions of powertrain sensor tests including sensor specifications.

**Component Locations** – Vehicle component diagrams clearly labeled with sensor locations for simple identification.

**Wiring Diagrams** – Diagrams are broken down into systems for engine and transmission applications. Includes wire colors, circuit and component descriptions.

**No. 3565** – Component diagnostics guide, domestic OBD II, 1996–2004. Combination kit includes manual and CD.

**No. 3565-CD** – Component diagnostics guide, domestic OBD II, 1996–2004. CD only.

**No. 3567** – Component diagnostics guide, Asian and European Imports OBD II, 1996–2004. Combination kit includes manual and CD.

**No. 3567-CD** – Component diagnostics guide, Asian and European Imports OBD II, 1996–2004. CD only.

**No. 3564** – Component diagnostics guide, domestic OBD I, 1985–1996.

**No. 3566** – Component diagnostics guide, Asian and European Imports OBD I, 1985–1996.



# ELECTRONIC DIAGNOSTICS

## TPMS Tire Pressure Monitor Tool

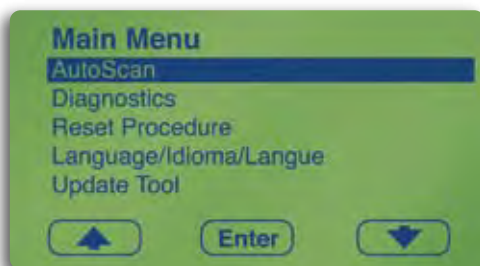


### Total Solution for TPMS Servicing - OTC TPM Tool Kit

The OTC Tire Pressure Monitor Kit is designed to be a complete universal kit covering vehicles with Tire Pressure Monitoring Systems (TPMS). The software has the option to AutoScan the wheel sensor or utilize the vehicle entry system for easy and accurate access to the proper interface to the vehicle. The manual contains the critical reset procedures along with all the system information including torque specifications and wiring diagrams.

The monitor has a graphical interface that allows for use of the tool with little or no knowledge of TPM systems. The monitor and manual frequently updated to keep up with changing vehicle requirements.

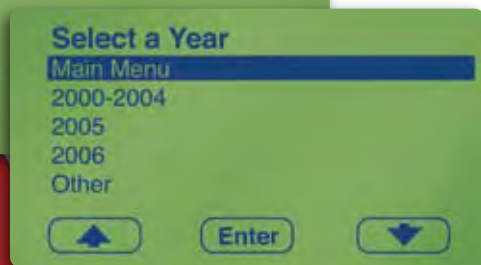
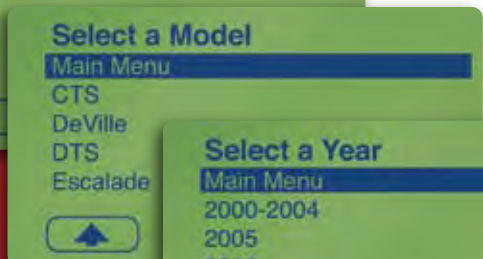
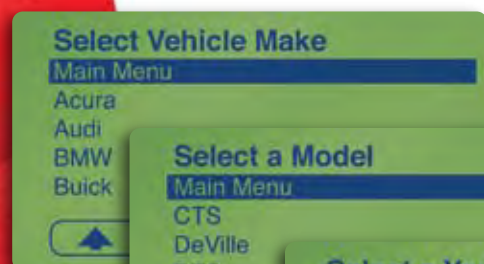
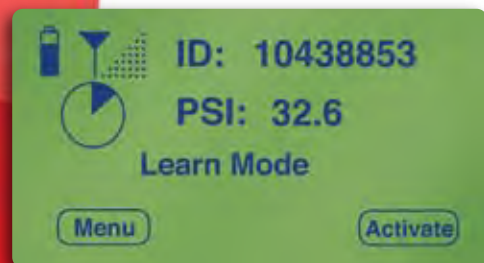
The TPM Tool includes software that includes the following features:



Kit covers both direct and indirect systems.

### AutoScan

The new AutoScan features provides the capability to walk up to any TPM equipped vehicle and activate the sensor with the push of a button. This will search through all the communication protocols until the sensor is activated, then a successful activation is shown on the display.



### Diagnostics

The Diagnostics feature allows for quick check of sensor via the **Make – Model – Year** vehicle entry system. Selection of the specific vehicle eliminates the search time of proper protocol. Live sensor information is displayed when available. Powerful feature that allows the technician to validate that all the sensors are functional before any work is started.



# ELECTRONIC DIAGNOSTICS

## TPMS Tire Pressure Monitor Tool

### Reset Procedure

The Reset Procedure is the key function that “resets” the tire locations and will turn off the dash light. This function is accessed via the vehicle entry and walks the user through all the necessary steps to complete the reset procedure.



### Sales and Services Support Material

3833-19  
Service Procedure  
Flowchart Color  
Wall Poster  
25-1/2" x 33"



3833-20  
Consumer Poster  
Counter Display 11" x 17"



3833-18  
Application Flip Chart



CDTPMS0506  
TPMS Training Video



### 3833-18 Application Flip Chart



Make	Model	Year	Type of System	Reset After Tire Rotate	Reset After Sensor Replace	Reset After Tire Change	Tool Used For Reset	Sensor Bolt or Nut Torque Inch Lbs/N-m
Lexus	GS 430	2006	Direct	Yes	Yes	Yes	No	35/4.0
Lexus	GX 470	2004-06	Direct	No	Yes	Yes	Yes	35/4.0
Lexus	IS 250	2006	Direct	Yes	Yes	Yes	No	35/4.0
Lexus	IS 350	2006	Direct	Yes	Yes	Yes	No	35/4.0
Lexus	LS430	2004-06	Indirect	Yes	Yes	Yes	No	n/a
Lexus	LX 470	2006	Direct	No	Yes	Yes	Yes	35/4.0
Lexus	RX330	2004-06	Indirect	Yes	Yes	Yes	No	n/a
Lexus	SC430	2004-06	Direct	No	Yes	Yes	Yes	27/3.1
Lincoln	Aviator	2003-05	Direct	No	Yes	Yes	Magnet	44/5.0

# ELECTRONIC DIAGNOSTICS

## TPMS Tire Pressure Monitor Kits and Accessories

### TPMS



3833QR

### Tire Pressure Monitor Base Kits

Includes a TPM tool with latest software subscription, activation magnet, quick start guide, latest comprehensive reset manual, update cable, CD training video, 3 C batteries, backup software CD, and a blow molded case. Base kits are available with three different reset manual formats;

**No. 3833** – Tire pressure monitor base kit, with printed full volume manual set. Wt., 10 lbs., 8 oz.

**No. 3833QR** – Tire pressure monitor base kit, with printed Quick Reference manuals. Wt., 6 lbs.

**No. 3833CD** – Tire pressure monitor base kit, with CD manual. Wt., 1 lb.

### TPMS



3833T

### Tire Pressure Monitor Master Kits

Includes a TPM tool with latest software subscription, activation magnet, quick start guide, latest comprehensive reset manual, update cable, CD training video, 6 nM Hi rechargeable batteries and recharging station, backup software CD, digital tire pressure gauge, 4-way valve tool, valve core torque driver, laminated application flip chart, service procedure flowchart poster, consumer poster, and a blow molded case. Master kits are available with 3 different reset manual formats;

**No. 3833T** – Tire pressure monitor master kit, with printed full volume manual set. Wt., 13 lbs., 12 oz.

**No. 3833TQR** – Tire pressure monitor master kit, with printed Quick Reference manuals. Wt., 9 lbs.

**No. 3833TCD** – Tire pressure monitor master kit, with CD manual. Wt., 5 lbs.



3833-9

### Tire Pressure Monitor Master Update Kit

Includes material to turn a Tire Pressure Monitor Base Kit into a Master Kit (ex; 3833QR to a 3833TQR). Includes latest comprehensive reset manual supplement, latest software CD subscription, update cable, CD training video, 6 nM Hi rechargeable batteries and recharging station, digital tire pressure gauge, 4-way valve tool, valve core torque driver, laminated application flip chart, service procedure flowchart poster, and consumer poster.

**No. 3833-9** – Tire pressure monitor master update kit. Wt., 10 oz.



3833-11

### Tire Pressure Monitor 2006-2007 Software Update Kit

Includes 2006-2007 software subscription CD, 2006-2007 reset manual supplement, and update cable.

**No. 3833-11** – Tire pressure monitor 2006-2007 software update kit. Wt., 8 oz.



3831

### Tire Pressure Reset Tool for Nissan

This tool is designed to extinguish the Tire Pressure Warning Light on 2003 and newer Nissan vehicles with TPM Reset Connector. The connector end of the cable mates to the vehicle connector found behind the DLC connector under the dash. The alligator clip is clipped onto the metal bracket that holds the DLC connector. Once connected and the ignition is turned on, the tool trigger is pressed 5 times within 10 seconds causing the warning light to start flashing. With the tool disconnected, the vehicle can be started and driven over 30 mph until the light stops flashing, which completes the procedure.

**No. 3831** – Tire pressure reset tool for Nissan. Wt., 1 lb.



### Tire Pressure Monitor Tool Accessories

Part No.	Description	Part No.	Description
3833-2	TPM Manual-Printed, full volume manual set	3833-14	Batteries - 6 nM Hi and Charger
3833-3	TPM Manual-CD	3833-15	Digital Tire Gauge – 0-150 psi, red backlight
3833-4	TPM Magnet	3833-16	Valve Nut Tool – Installs valve stem grommets
3833-5	TPM Quick Ref Guide & 2006 Supplement	3833-17	Valve Core Torque Driver – 2-5 inch pounds
3833-6	TPM Case	3833-18	Application Flip Chart – 8" x 5" laminated pages
3833-7	TPM Update cable	3833-19	Procedure Flowchart – Full color wall poster
3833-8	Serial to USB Adapter	3833-20	Consumer Poster – for counter display
3833-9	Update base kit(s) to a Master Tool Kit.	CDTPMS0506	TPMS Training Video – CD
3833-11	TPM Update 2007 Subscription		



### IR/RF Signal Tester

- Provides quick and easy verification of RF and IR transmitter signal with audible beep and LED light.
- RF Example; Key fobs, garage door openers, tire pressure sensors activation tools, aftermarket key fobs, and remote starters, etc.
- IR Example; IR printer ports, in-vehicle audio/video remote controls, general IR remote control and signals.
- Designed to detect RF signals between 0-900 MHz.
- Operates on 9V battery (included).

**No. 3891** – IR/RF signal tester. Wt., 10 oz.

3891



### Diesel Glow Plug Tester

#### Features:

Glow Plug Tester provides fault detection thru LED's for a quick analysis; Short Circuit, Over Current, Normal Operation, Open Circuit/Under Current.

#### Benefits:

- Glow Plug Tester allows for testing without removing glow plug from engine.
- Powers the glow plug to test the plug in it's operating state.
- Much more accurate test than a cold resistance test, which can miss short circuits.
- Tester uses a current measurement to accurately determine proper operation and check for short circuits.

**No. 3673** – Diesel glow plug tester Wt., 1 lb.



3673

### Diesel Fuel Pressure Tester

#### Features:

- Simple one wire connectivity to the fuel pressure sensor signal wire. Designed for diesel engines that have a fuel pressure sensor reading used by vehicle computer.
- Displays pressure in PSI or BAR.
- Range 0-22,000 PSI (0-1500 BAR).

#### Benefits:

- Read diesel fuel pressure in vehicle.
- No fittings required.
- Readings alternate between current and max pressure.

**No. 3674** – Diesel glow plug tester Wt., 1 lb.



3674

# ELECTRONIC DIAGNOSTICS

## Universal Breakout Box



3235



3226



3225



3238



3239



3238-UPD

### Universal Breakout Box

- An easy, affordable way to really “pick the brains” of domestic and import computerized vehicles with or without a data stream system.
- Designed to “T” into the vehicle wiring harness leading to the engine and various other computers. This unit permits vital readings of voltage, resistance, frequency, pulse width or duty cycle, depending on the instrumentation with which it’s used. With each accessory vehicle adapter cable (VAC) kit, you get a specially designed cable and a custom magnetic pin panel overlay that matches the make of vehicle system being tested.
- Used with any DVOM or scope, such as the Digital Automotive Tester or the Perception 2-channel scope.
- Exclusive isolated ground lead and tipjack prevents a faulty ground from interfering with a correct diagnosis, and permits locating bad grounds in just seconds.

### Ford EEC-V 104-Pin Breakout Box

- Unit accesses all connections to the Powertrain Control Module (PCM) on all 1994 and newer EEC-V systems.
- Adapter cable interfaces with the PCM connector and vehicle’s harness connector.
- Includes a plastic overlay panel and a connecting cable for numeric identification of each jack to match the vehicle’s PCM pinout.

**No. 3235** – Ford EEC-V 104-pin breakout box.

**No. 3225-10** – 104- to 60-pin BOB adapter, Ford BOB.

### EEC-IV 60-Pin Breakout Box

Use to completely test all 1983 and later EEC-IV vehicles. Critical resistance and voltage measurements are easily accessible from all 60 electrical circuits of the EEC-IV system through the remotely located diagnostic breakout box.

**No. 3225** – EEC-IV 60-pin breakout box.

### 80-Pin Breakout Box

**No. 3226** – 80-pin breakout box.

**No. 3226-04** – 60-pin VAC, Ford '83-up EEC-IV vehicles.

**No. 3226-13** – 10' extension cable, use with No. 3226.

### 180-Pin Universal Breakout Box

Universal breakout/pinout box with 180 pins. Consists of the No. 3238 and the No. 3238-UPD. Use in conjunction with vehicle adapter cable (VAC).

**No. 3239** – 180-pin universal breakout box.

### 100-Pin Breakout Box

Universal breakout/pinout box with 100 test points. Use for vehicle diagnosis via voltage and resistance measurements. Not designed for signal injection. Expandable to 180-pin with No. 3238-UPD to handle future vehicle systems. Use in conjunction with a vehicle adapter cable (VAC).

**No. 3238** – 100-pin breakout box. Same as J-39700.

### 80-Pin Expansion Panel for 3238

Expands the 100-pin No. 3238 with an additional 80-pin panel, resulting in a 180-pin No. 3239. Used with No. 3238.

**No. 3238-UPD** – 80-pin expansion panel for No. 3238.



### Inductive Timing Light

Professional inductive timing light designed for standard base timing.

#### Unique features

- On/off touch control.

#### Standard features

- All metal inductive pickup.
- Reflected, super bright xenon flash.
- Removable leads with positive twist-lock connector.
- One touch control.
- Durable, plated ABS housing with over-molded grips.
- Heat resistant over-molding on clips.
- Blow-molded case included.

**No. 3363** – Inductive timing light.



### Advance Timing Light

Professional advance timing light allows accurate adjustment of base and advance timing reading.

#### Unique features

- Adjustable knob measures centrifugal, vacuum, and computer advance.
- On/off touch control.

#### Standard features

- All metal inductive pickup.
- Reflected, super bright xenon flash.
- Removable leads with positive twist lock connector.
- One touch control.
- Durable, plated ABS housing with over-molded grips.
- Heat resistant over-molding on clips.
- Blow-molded case included.

**No. 3365** – Advance timing light.



3363



3365



3367

### Digital Timing Light

Professional digital timing light has advanced features with a bright LED screen and mode indicator lights.

#### Unique features

- Microprocessor-controlled circuitry.
- LED tachometer display reads 0–9999 rpm.
- LED advance display indicates to 1/10.
- Unique flashlight feature.
- 2/4 cycle and rpm/advance lights.
- Up and down scroll buttons.

#### Standard features

- All metal inductive pickup.
- Reflected, super bright xenon flash.
- Removable leads with positive twist lock connector.
- One touch control.
- Durable, plated ABS housing with over-molded grips.
- Heat resistant over-molding on clips.
- Blow-molded case included.

**No. 3367** – Digital timing light.

### Timing Light Comparison

Timing Light - Functions/Features	3363	3365	3367
Conventional, electronic, computer controlled ignition systems	•	•	•
DIS and 2-cycle systems	•	•	•
On/off touch control	•	•	•
Adjustable advance		•	•
Digital LED readout tach and advance			•
2- to 4-cycle & rpm/advance mode lights			•
2- to 4-cycle selector button			•
Flashlight feature button			•
RPM to advance selector button			•
Up or down scroll buttons			•

# ELECTRONIC DIAGNOSTICS

## Digital Pressure Gauge



**3490**

No need to have fuel or transmission hoses inside vehicle during a road test.

No makeshift taping of gauges to the windshield.

"Min/Max." pinpoints:

- Fuel restrictions
- Plugged filters
- Weak fuel pumps
- Transmission pressure spikes

Use with OTC's No. 3398 to find clogged/dirty fuel injectors.

Pinpoints worn power steering pumps or racks.

PSI reading for hydrostatic drives and high pressure hydraulics.

Finds blocked intake ports and plugged catalytic converters.



**3490**

"Delta Zero" monitors fuel pressure drop caused by faulty check valves.

Displays readings in BAR for checking European specs.

Permits comparison of ABS brake pressures at each wheel.

See Scope/Meter accessories for temp probes. page 31.

Checks transmission cooler efficiency and catalytic converter temperatures.

## Multi-Application Digital Pressure and Temperature Analyzer

Combining the functions of vacuum, oil pressure, hydraulic system pressure, fuel pressure, transmission pressure, compression, and air conditioning—all in one!

**No. 3490** – Deluxe digital pressure/temperature analyzer with four pressure input receptacles and protective boot. Set includes (500 psi) transducer, 12' cable, 8-1/2" hose, bead-type temperature probe, assorted fittings, plastic storage case, instruction manual.

Wt., 4 lbs., 8 oz.

**No. 3492** – Heavy-duty digital pressure/temperature analyzer with four pressure input receptacles and protective boot. Set includes: No. 3491-02 (5,000 psi) transducer, No. 3491-13 20' cable, No. 3500-05 bead-type temperature probe, assorted fittings, No. 3491-31 plastic storage case, instruction manual. Wt., 5 lbs.

### Accessory Options:

**No. 3491-01** – 500 psi transducer. Wt., 4 oz.

**No. 3491-02** – 5,000 psi transducer. Required for ABS and power steering pressure readings. Wt., 4 oz.

**No. 3491-03** – 10,000 psi transducer. Wt., 4 oz. (Note: For No. 3492 only.)

**No. 3491-11** – 6' cable. Wt., 4 oz.

**No. 3491-12** – 12' cable. Wt., 7 oz.

**No. 3491-13** – 20' cable. Wt., 12 oz.



**3385**

## Universal Gauge and Component Tester

This is the fast way to pinpoint problems in fuel, oil, temperature, and vacuum electrical gauges. This gauge and component tester includes a test light and switch to also test instrument voltage regulators on various vehicles. Plus, you can use it as an instrument gauge tester by attaching the alligator clips to sensors and wiring harnesses on a variety of vehicles. Included is an instrument gauge application data sheet listing resistance set points for GM, Ford, Chrysler, Toyota, Nissan, VW, Mack, Navistar, and John Deere.

**No. 3385** – Universal gauge and component tester. Wt., 1 lb., 15 oz.



### Noid Lite/IAC Test Kits

- Noid Lites are a proven test device to quickly determine if the electrical signal is present at the fuel injector.
- Simplest method for eliminating the EFI system or idle air control as possible faults on no-start vehicles.
- Disconnect the fuel injectors, plug in a Noid Lite, and crank the engine. A flashing noid light indicates normal pulsing voltage.
- Expanded set of eight specific Noid Lites covers: GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, and new applications of Bosch 2 and Multec 2. Also includes two GM IAC testers (flat and square four-connector applications) with red and green LEDs.
- Kit comes in a molded plastic case and includes a harness extension that allows for convenient remote viewing from the driver's seat.

### Noid Lite Test Kit

Set includes (available separately):

- No. 7187** – GM TBI Noid Lite. Wt., 2 oz.
- No. 7188** – Bosch PFI Noid Lite. Wt., 2 oz.
- No. 7601** – Ford Noid TBI Lite. Wt., 2 oz.
- No. 6023** – GM Multec 2 Noid Lite. Wt., 2 oz.
- No. 7602** – GM PFI Noid Lite. Wt., 2 oz.
- No. 7608** – Geo TBI Noid Lite. Wt., 2 oz.
- No. 7828** – GM SCPI Noid Lite. Wt., 2 oz.
- No. 6266** – Bosch 2 Noid Lite. Wt., 2 oz.
- No. 6260** – Fiber optic Noid Lite extension. Wt., 5 oz.
- No. 3050C** – Noid Lite test kit. Wt., 1 lb. 1 oz.

### Noid Lite/IAC Test Kit

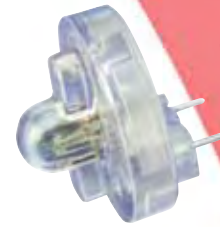
Set includes (available separately):

- No. 7187** – GM TBI Noid Lite. Wt., 2 oz.
- No. 7188** – Bosch PFI Noid Lite. Wt., 2 oz.
- No. 7601** – Ford Noid TBI Lite. Wt., 2 oz.
- No. 6023** – GM Multec 2 Noid Lite. Wt., 2 oz.
- No. 7602** – GM PFI Noid Lite. Wt., 2 oz.
- No. 7608** – Geo TBI Noid Lite. Wt., 2 oz.
- No. 7828** – GM SCPI Noid Lite. Wt., 2 oz.
- No. 6266** – Bosch 2 Noid Lite. Wt., 2 oz.
- No. 6260** – Fiber optic Noid Lite extension. Wt., 5 oz.
- No. 3052S** – '82 and newer GM TBI/PFI with square 4-pin connector. Wt., 2 oz.
- No. 3053S** – '87 and newer Model 700 TBI/PFI with flat 4-pin connector. Wt., 2 oz.
- No. 3054C** – Noid Lite/IAC test kit. Wt., 1 lb. 3 oz.

### General Motors IAC Signal Test Lights

For checking the electronic control module signal that provides direction to the idle air control motor on General Motors vehicles with throttle body or port fuel injection systems.

- No. 3051** – Set consists of Nos. 3052S and 3053S. Wt., 2 oz.
- No. 3052S** – Signal test light for 1982 and newer GM TBI and PFI fuel injection systems with square 4-pin connector. Wt., 2 oz.
- No. 3053S** – Signal test light for 1987 and newer GM Model 700 TBI and PFI fuel injection systems with a flat 4-pin connector. Wt., 2 oz.



Typical Noid Lite



3050C



3054C



3052S

3053S

# ELECTRONIC DIAGNOSTICS

## Oil Light Reset Tool



### Oil Light Reset Tool

- Oil changes are the #1 service your shop will perform each year. Enhance your service with this complete electronic tool and manual kit, No. 3596E.
- This kit eliminates the need to take the vehicle to the dealer or use an OEM scan tool to reset oil service lights.
- Electronic tool set includes the adapters and interface module required to reset the oil service lights on Volkswagen, Audi, Mercedes Benz, BMW, and Volvo.
- Manual includes oil light reset procedures for all domestic and import vehicles not requiring electronic tools to reset, but have manual reset procedures.

#### Kit Includes:

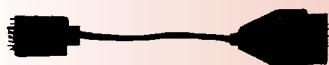
- No. 3596-1** – Oil reset monitor V2.1.
- No. 3596-2** – Mercedes-Benz cable.
- No. 3596-3** – BMW cable.
- No. 3596-4** – Volvo cable.
- No. 3596-5** – VW and Audi cable.
- No. 3596-6** – VW and Audi OBD II cable.
- No. 3596-8** – Case.
- No. 3596-9** – Oil light reset manual.
- No. 3596-10** – Battery power adapter cable.
- No. 3596E** – Oil light reset tool kit.

### Sample of manual contents:

#### BMW

##### Vehicle Adapters / Data Link Connector Locations for BMW

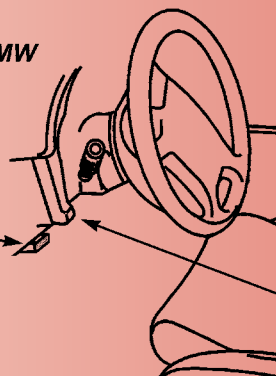
There are two vehicle adapters for BMW vehicles. The illustrations below show the adapters and their data link connector (DLC) / socket locations.



BMW-OBD II 16-pin Vehicle Adapter  
(for the 3596E Oil Reset Tools only)



16-pin DLC  
(under dash on driver side)



Dash on  
Driver side

#### Reset Procedures for BMW

Manufacturer	Model	Year	Reset Tool	Procedure
BMW	5-Series (E39, E53)	2000-2005	X	<p>Oil Reset Tool: Use the BMW-OBD II 16-pin Vehicle Adapter. Select BMW then E46 (OBDII).</p> <p>Manual Reset:</p> <ol style="list-style-type: none"><li>1 Turn off the ignition.</li><li>2 Press and hold the TRIP ODOMETER button in the instrument cluster and turn the ignition to Accessory (1).</li><li>3 Keep the button pressed for approximately 5 more seconds until OIL SERVICE RESET (RE) or INSPECTION RESET (RE) appears in the display. Then release the button.</li><li>4 Press and hold the button again for approx. 5 seconds until RE or RESET flashes in the display. Then release the button.</li><li>5 With the display flashing, press the button briefly to reset and display the new Service Interval. After this, END SIA appears in the display for approximately 2 seconds.</li></ol>



### Phototach

- No. 3665 phototach can be used as a contact as well as a non-contact tachometer.
- Four styles of contact adapter tips clip easily to the top of the phototach.
- Infrared technology makes the phototach accurate, convenient, and easy to use.
- Infrared beam not affected by ambient light.
- Non-contact design results in (zero) torque loss for true precision.
- Phototach is equipped with a laser pointer for accurate targeting.
- Reflective tape placed on a revolving object can be measured at distances from 2" to 20".
- Wide measuring range and high resolution, 2.5 to 99,999 rpm with a large 5-digit display, autoranging, min/max memory storage, and low-battery indicator.

**No. 3665** – Phototach contact/non-contact.

**No. 3660** – Phototach non-contact only.

**No. 3660-03** – Replacement reflective tape, 10' roll.



Get a free  
battery-less  
flashlight with  
every purchase  
of a No. 3660  
Phototach.

### Flex-View UV Bore Scope

- Flex-View fluoresces UV dyes.
- Use as a traditional bore scope.
- Battery powered.
- Quick detection of leak dye in hard-to-see and reach places.
- Ability to inspect inside components.
- Confirms leaks where component removal would normally be required.
- Saves time trying to diagnose A/C evaporator leaks.
- Inspects the top side of fuel tanks for EVAP leaks without removal.
- Saves costs by eliminating the need to remove and replace unrelated components.
- A/C systems: Evaporator/condenser, hoses, compressor.
- EVAP system.
- Engine oil, transmission, and power steering fluid.
- Coolant and fuel systems.
- ACR2000.
- EVAP Tester.
- Any system using fluorescent dye.

**No. 3591** – 18" Flex-View UV bore scope in a sturdy case.

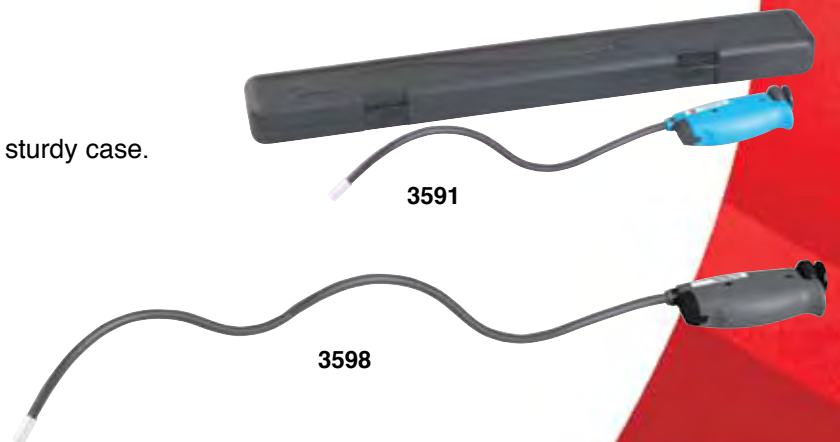


To check for leaks in the evaporator, the technician simply drills a 1/2" hole in the housing top and inserts the Flex-View. UV dye leak is fluoresced by the Flex-View.

### Flex-View Bore Scope

- Ultra-thin 1/4" cable.
- Small diameter cable allows for inspection in tighter locations.
- White light, non-fluorescent bulb.
- Uses two AA batteries.
- Flexible cable does not retain a set shape.

**No. 3598** – 36" Flex-View bore scope in a sturdy case.



# ELECTRONIC DIAGNOSTICS

## Fuel Injection and Ignition



3397

### Fuel Injection Tester

Fuel injectors can pass a resistance test but still fail under load. With this tool, you can check and balance fuel injectors. Also tests fuel injector coil windings under load, and detects intermittent fuel injector coil faults. Adjustable current output. Works on both throttle body and multiport fuel injectors. TBI adapter included.

**No. 3397** – Fuel injector tester. Wt., 3 lbs., 5 oz.



3398

306677  
Replacement Lead

### Fuel Injection Pulse Tester

Fuel injector testing requires precision equipment. This vehicle-powered tool fills that requirement. It enables you to check cylinder balance by firing individual injectors at 1/2-second increments in three different ranges: 1 pulse of 500 milliseconds, 50 pulses of 10 milliseconds, 100 pulses of 5 milliseconds.

- Power and output lights indicate test activation.
- Includes wiring harness adapter and instructions.

**No. 3398** – Fuel injection pulse tester. Wt., 8 oz.

**No. 306677** – Replacement lead. Wt., 2 oz.



3590

### Electronic Stethoscope

Quickly pinpoints noise and location of bad bearings, bushings, dirty fuel injectors, wind/air leaks, valves, and lifters.

- Flexible shaft reaches tight areas.
- Ultra-sensitive mic and amplifier provide a full range of sounds needed by the professional.
- 7 sound-level control settings; 60 dB to 120 dB.

**No. 3590** – Electronic stethoscope. Wt., 3 lbs., 7 oz.



3579  
Adapters

3589

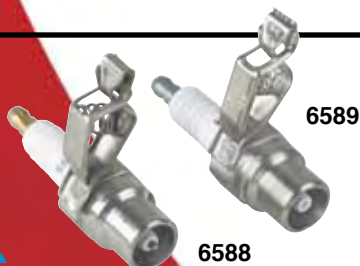
### Ignition System Quick Test Kit

This kit enables technicians to do power-balance tests and diagnose problems on standard, electronic, or distributorless ignition systems. Comes with brass adapters to fit all auto coils, test probes and leads, spark gap tester, and step-by-step instructions that lead technicians through the power-balance test.

- Performs power-balance in less than 5 minutes on standard, electronic, or distributorless ignition systems.
- Spark gap tester checks for adequate kV voltages on electronic ignition systems, providing instant diagnosis of problems—whether a faulty coil, ignition wire, or spark plug.
- Ideal for checking spark in no-start condition, instead of wasting time trying to “ground out your screwdriver.”
- Step-by-step instructions lead technician through tests to check if ignition has a bad ground all the way to defective coils.

**No. 3589** – Ignition system quick test kit. Wt., 2 lbs., 1 oz.

**No. 3579** – Ignition system adapters, set of six. Wt., 14 oz.



6589

6588

### Spark Testers

Check for spark on gasoline engines used in import and domestic cars and trucks, plus small engines.

**No. 6588** – Standard ignition spark tester. Wt., 4 oz.

**No. 6589** – Electronic ignition spark tester. Wt., 4 oz.



### Self-Contained Spark Plug kV Tester – Digital

Features a display providing live, minimum and maximum readings for the following spark plug measurements:

- Firing voltage
- Burn time
- Burn voltage

This information permits accurate, professional diagnosis of the spark plugs, plug wires, ignition system, fuel control, and most other factors affecting the spark plug voltage and combustion chamber. Fully tested on both conventional and distributorless ignition systems, and direct spark systems using an additional spark plug wire. A simple rotary switch selects firing voltage, burn time, and burn voltage. All readings are taken on each firing of the spark plug. The tester may be used on any gas engine, including those on motor vehicles, lawn mowers, snow blowers, motorcycles, personal watercrafts, snowmobiles, marine and industrial equipment, etc. Tester has an internal battery. On-screen indicator advises when battery replacement is needed. An operator's manual is included.

**No. 3141** – Self-contained spark plug kV tester – digital. Wt., 1 lb., 1 oz.

3141



### Self-Contained Spark Plug kV Tester – LED

- Display indicates spark plug firing voltage on either conventional or distributorless ignition systems (DIS).
- Permits accurate, professional diagnosis of spark plugs, plug wires, fuel control, and other factors affecting performance.

**No. 3142** – Self-contained spark plug kV tester – LED. Wt., 10 oz.

3142



### Two-in-One Idle Tester

- Idle Air Control
- Idle Speed Control

Now there's one convenient tester for GM idle speed control, GM idle air control, and Chrysler/AMC automatic idle speed control. Use for adjusting high- and low-idle speed settings and controlling rpm for ignition and cylinder balancing testing. See page 43 for IAC signal testers.

**No. 3320** – 2-in-1 tester for idle air control, idle speed control on GM and Chrysler/AMC vehicles. Wt., 10 oz.

**No. 46589** – GM/Chrysler replacement cable. Wt., 2 oz.

3320



### Anti-Static Wrist Strap

Virtually eliminates the possibility of static electricity causing damage while working on electronic components.

- One-size-fits-most adjustable wrist strap.
- Includes a 6' coil cord with alligator clip.

**No. 7744** – Anti-static wrist strap. Wt., 4 oz.

7744



### GM Code Retrieval Key

This key retrieves trouble codes from pre-OBD II model GM vehicles.

**No. 7739** – ECM code retrieval key. Jumps between A and B terminals on ALDL connector to retrieve trouble codes from the ECM. Wt., 2 oz.

7739



### Angle-Tip Relay Pliers

- Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
- Specially coated tips offer a solid grip on the relay.

**No. 4493** – Angle-Tip Relay Pliers. Wt., 10 oz.

4493





4497

### Ratcheting Terminal Crimper

- Heavy-gauge steel crimping tool designed for insulated wire terminals.
- Ratcheting action crimps terminal to correct tightness on the wire, making crimping fast and easy.
- For wire sizes: AWG 22–18 (0.6 mm–1.0 mm) red terminal; AWG 16–14 (1.3 mm–1.6 mm) blue terminal; AWG 12–10 (2.0 mm–2.6 mm) yellow terminal.
- Insulated handles with compound mechanical leverage for power.

**No. 4497** – Ratcheting terminal crimper. Wt., 1 lb., 3 oz.



4498

### 7-in-1 Wire Stripper and Crimper

- Strips insulation off electrical wires ranging from 10 AWG–22 AWG (0.6mm–2.6mm) in diameter. Pliers on tip of jaw for looping or grabbing wire in tight places.
- Heat-treated steel jaws cut solid or multi-strand wire.
- Screw cutter shears screws clean, with no thread clean-up required. Works on machine screw sizes 4-40, 5-40, 6-32, 8-32, 10-24, & 10-32.
- Crimps insulated and non-insulated wire terminals, 7mm–8mm spark plug wire connectors.

**No. 4498** – 7-in-1 wire stripper and crimper. Wt., 8 oz.

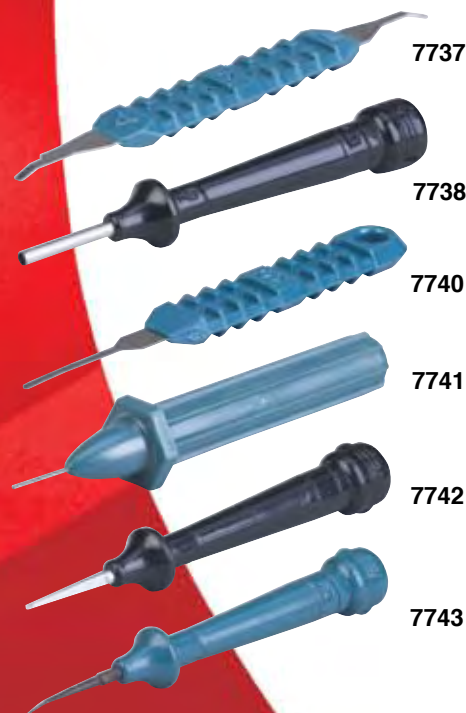


4499

### Wire Stripper and Cutter

- Only 6" in length. Clean size separations and markings allow ease of use in tight areas.
- Strips insulation off of electrical wires ranging from 10 AWG–22 AWG (0.6mm–2.6mm) in diameter. Heat-treated steel construction with durable grips.
- Spring-loaded jaws stay open for ease of use, and lock for storage; gripping area at tip of jaws for working in tight areas; wire cutter at base of jaws.

**No. 4499** – Wire stripper and cutter. Wt., 5 oz.



7737

7738

7740

7741

7742

7743

### Terminal Release Tools

- Covers GM, Ford, Chrysler, and a variety of import vehicles.
- Quickest and easiest way to release terminals from their plastic connectors without damaging them or delicate computer components.
- Design makes them easier to hold on to than the key-ring style release tools.

**No. 7737** – Computer edgeboard and header release tool. Each end of the tool works on different terminal connector configurations. Works on various domestic and import models. Wt., 2 oz.

**No. 7738** – Weather Pack sensor terminal release tool. Works on various domestic and import models. Wt., 2 oz.

**No. 7740** – Micro-style terminal release tool. Works on various domestic and import vehicles. Wt., 2 oz.

**No. 7741** – Specifically designed to release ID computer terminals on 1988 thru current GM W bodies, 1990 thru current Chevrolet Lumina sedans, and various other domestic and import vehicles. Wt., 2 oz.

**No. 7742** – Universal harness release tool designed for the RWAL (rear wheel anti-lock) microprocessor found on 1988 thru current GM pickups. Also works on various other domestic and import vehicles. Wt., 2 oz.

**No. 7743** – Releases terminals on most body wiring connectors on various domestic and import vehicles, including cold start injector and timer, water, O<sub>2</sub>, vacuum, and air temperature sensors. Wt., 2 oz.



### Universal Air Bag Simulator... includes PC diagnostic software!

Universal design emulates nearly all OE simulators currently available. You need only this one tool, not several vehicle specific tools.

- The No. 3770 replaces the air bag in the system and puts the proper electrical load on the circuit. With no air bag installed, there is no chance for accidental deployment during testing.
- If a deployment condition is present in the system, the simulator will "blow," not the expensive air bag. You can then find the problem and verify the fix before making the air bag "live" again.
- All systems typically turn themselves off after an intended deployment due to a collision. Use the No. 3770 to check for other problems before re-arming the system with an air bag scan tool such as the OTC No. 3761.

Included with the No. 3770 is an incredibly valuable tool— a Tools & Techniques CD which offers comprehensive air bag information on 1983–2000 vehicles. It includes diagnostic procedures, wiring schematics, and re-arming procedures on 1983 thru 2000 domestic and import cars, vans, and light trucks.

#### Schematic Drawings

Detailed drawings and component locations will lead you to easy repairs, if problems exist in an air bag system.

#### System Inspection

Recommended OE procedures for post-collision inspection. You can print this out, and attach it to the work order to show you've done the work by the book!

#### Trouble Code Diagnosis

Track down codes that keep the air bag warning light on! Procedures give you step-by-step information on all codes to help you find the problem.

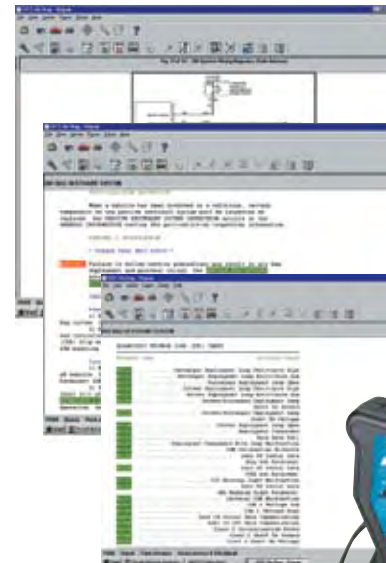
#### Applications

• GM • Ford • Chrysler • Saturn • Honda • Mitsubishi

**No. 3770** – Air bag simulator. Includes the simulator, leads for U.S. domestic and import vehicles, Tools & Techniques for air bags on CD-ROM, and a handy storage case. Wt., 5 lbs., 10 oz.



Schematic  
Drawings



System  
Inspection

Trouble  
Code  
Diagnosis

3770

Patent Pending



### Ford Air Bag Simulator

When plugged into the vehicle harness connector, power is restored to simulate a complete circuit for diagnostic purposes.

**No. 7954** – Ford air bag simulator. For use on most Ford 1989 to 1991 air bag systems and 1992 Ford air bag system I. Wt., 6 oz.

**No. 7955** – Ford air bag simulator. Special one-ohm resistor for use on air bags on Probe vehicles. Wt., 6 oz.

**No. 7956** – Ford air bag simulator. Special two-ohm resistor for use on 1993 and newer Ford system II air bags. Wt., 6 oz.

**No. 7957** – Ford air bag simulator. Special three-ohm resistor for use on Ford Villager air bag systems. Wt., 6 oz.



### Air Bag Release Tool Kit

- Use to remove the air bag module from the steering wheel.
- Work on many GM, Ford and Mercedes Benz vehicles.

**Applications:** Ford 2000-2004 Taurus/Sable, 1999-2003 Windstar Van, GM 1999-2005 Chevrolet Impala, Lumina, Monte Carlo, Venture, Pontiac Bonneville, Grand Prix, Montana, Buick LeSabre, Century, Regal, Olds Intrigue, Cadillac El Dorado, Deville, STS, SLS, Mercedes Benz Models 107, 123, 124, 126, 129, 140, 163, 164, 170, 201, 202, 203, 208, 209, 210, 211, 215, 219, 220, 221 and 463

**No. 5945** – Air bag release tool kit. Wt., 2 lbs.



5945

# ELECTRONIC DIAGNOSTICS

Vision Premier

## Vision Premier



3955



Instructions and Photos



3D Secondary with Cursor



Secondary Data in Min/Max Mode



Power Balance



Gas Analyzer



Quad Scope Adjustment Panel



Starter Test



Fuel Measurement Bar Graph



Custom Screen/  
Drop Down Menu

- State-of-the-Art Engine Analyzer
- Fast, High-Resolution Color Scope
- Preselect Waveforms
- Intuitive, Easy-to-Use Software
- On-line Help and Operator Guide
- Flexible Meter Display
- Automated Diagnostic System Tests
- Custom Fuel System Measurement Screen

Detailed diagnostic screens make for quick, accurate diagnostics!

### Coil-on-Plug (COP)

- Primary and secondary ignition pattern display capability; single- or multiple-cylinder display in parade, raster, or 3-D view.
- Dedicated COP vehicle-specific database.
- Easy-to-read test instructions.
- Actual pictures of lead connection points.

### Oscilloscope

- 4-channel display.
- Color separation of cylinder patterns.
- Fastest digital automotive scope on the market.

### Ignition Tests

- View primary and secondary data.
- Optional timing light.
- Review kV, firing time, and firing line kV.
- Easy navigation.

### Starting/Charging Tests

- Volts/amps graph.
- Procedural tests.
- Disable ignition.
- Display live diode. Waveforms.

### Cylinder Tests

- Measure cranking amps and vacuum per cylinder.
- Cylinder contribution for DIS, interprets and reports.
- Cylinder kill-measuring percentage drop for each cylinder.

### Fuel/Emission System Tests

- Optional 4- or 5-gas bench analyzer.
- Microgas 4- or 5-gas modules available for portable, cost effective, gas analysis.
- Horiba 4-gas module available for stationary, automated, gas analysis.

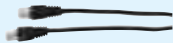
### Custom Screens

- For maximum flexibility, you can customize up to seven different screens using up to four measurements.



**No. 3955** – Vision Premier portable engine analyzer with boom. Vision Premier module, PC with stand, 9' leads, printer with cables, software, and manuals. (On-site setup and training provided.)

### Cable Descriptions



**534-07071**  
Interface Harness



**538-06766-002**  
Scope B Adapter



DIS Secondary Leads  
four pair shown  
(See options S44-5540)

**3947-14**  
9' Amp Probe



**000-31529**  
GM HEI



**000-31598**  
Nippondenso



**000-31568**  
Toyota



**0000-8103**  
Vacuum "T"



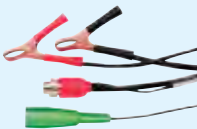
**3947-10**  
9' Sync Probe



**3947-13**  
9' Conventional Ignition "T" Clip



**3947-15**  
6' Engine Analyzer MUX Box



**3947-11**  
9' Battery/Primary Lead

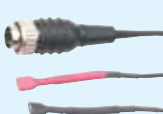


**3947-12**  
9' Scope A Lead Assembly

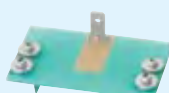


**3947-16**  
9' Scope B Lead Assembly

### Individual COP Leads and Adapters



**3947-02**  
COP Universal Lead  
(covers 2 cylinders)



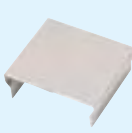
**3947-03**  
COP Chrysler



**3947-04**  
COP Ford



**3947-05**  
COP Honda/  
Isuzu/BMW



**3947-06**  
COP VW/Audi



**3947-07**  
COP Volvo

#### 3947-01 – COP Master Kit Includes:

COP Universal Lead (covers 2 cylinders)	(4 ea.)
COP Chrysler	(6 ea.)
COP Ford	(8 ea.)
COP Honda/Isuzu/BMW	(6 ea.)
COP VW/Audi	(4 ea.)
COP Volvo	(4 ea.)
Comes complete with storage case.	

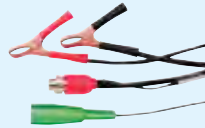
### No. 3947-09 – Replacement lead kit



**3947-10**  
9' Sync Probe



**3947-13**  
9' Conventional Ignition "T" Clip



**3947-11**  
9' Battery/Primary Lead



**3947-15**  
6' Engine Analyzer MUX Box



**3947-12**  
9' Scope A Lead Assembly



**3947-16**  
9' Scope B Lead Assembly

### Diesel Injection Adapter

Requires the use of piezo adapters.  
(Sold separately.)

- **3840-16** – Diesel timing adapter - 1/4" piezo
- **3840-15** – Diesel timing adapter - 6 mm piezo
- **3840-17** – Diesel timing adapter - 6.5 mm piezo



**No. 3947-17**

### Optional Components



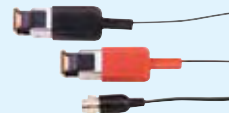
**3740** – 5-Gas module.  
Includes necessary  
cables and 5-gas module.



**S44557** – Vision Premier power adapter. Includes AC/DC converter, "Y" battery adapter, cigarette lighter battery plug, and power cord.



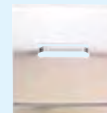
**3947-08** – Temp probe,  
two piece adapter cable.



**S44554** – Two-cylinder DIS secondary leads connect to MUX box for 10- and 12-cylinder capability. Optional coil-on-plug leads also available.



**S44555** – Vision Premier timing light. Includes timing light and instructions.



**00046160**  
– Cadillac HEI secondary adapter.



**00041920**  
– Propane enrichment.

# ELECTRONIC DIAGNOSTICS

## Gas Analyzers



3740

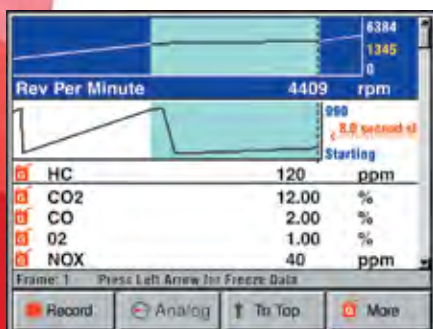
### Measurement Ranges:

- Hydrocarbons (HC): 0–30,000 ppm
- Carbon Monoxide (CO): 0–15%
- Carbon Dioxide (CO<sub>2</sub>): 0–20%
- Oxygen (O<sub>2</sub>): 0–25%
- Oxides of Nitrogen (NOx): 0–5000 ppm

**No. 3740** — Deluxe MicroGas 5-gas module kit for use with OTC Vision Premier engine analyzer or your shop PC with the PC gas software. Includes the module along with sampling hose, probe, cables, filters, and PC gas software with cable.

### MicroGas Accessories

- No. 3700-25** — Calibration gas, 5-gas
- No. 3700-26** — Sample inlet hose, 21'
- No. 3700-27** — Sample probe
- No. 3700-28** — Base filter, 10 pack
- No. 3700-29** — Nox upgrade/replacement cell
- No. 3700-30** — O<sub>2</sub> replacement cell
- No. 3700-36** — Water trap pre-filter 10 pack
- No. 3700-39** — Filter-internal water trap, 1 filter, and short hose
- No. 3700-41** — Power cable
- No. 3700-60** — Genisys/MicroGas Gas M-P vehicle diagnostic software
- No. 234977** — Cleaning kit
- No. 234978** — Replacement pump
- No. 234979** — Replacement sample cell
- No. 234980** — Annual maint. kit, includes: swabs, base filter kit (10), water trap pre-filter (10), internal water trap.
- No. 235973** — Manual
- No. 236404** — Replacement printer cable
- No. 236406** — Replacement calibration hoses
- No. 3780-05** — Regulator



Performance 5-Gas Analyzer Module—Powerful diagnostics software automatically detects out-of-range readings and describes the vehicle system most likely to be causing the condition.

### Measurement Ranges

- HC ..... 0–30,000 ppm
- CO ..... 0–15 %
- CO<sub>2</sub> ..... 0–18 %
- NOx ..... 0–5,000 ppm
- O<sub>2</sub> ..... 0–25 %

### Overall Dimensions

6.4"W x 4.9"H x 3.9"D

## Performance 5-Gas Module

### Complete Emission Analysis and Diagnostics!

When you combine the compact, repair grade, Performance 5-Gas Plug-in Module with the Genisys scan tool, you have the complete interactive emission repair solution. This powerful combo covers any emission-related diagnosis required, and also gives you the ability to test for mechanical failures.

The system meets or exceeds BAR 97, OIML Class 0 standards.

The module includes a reliable, heavy-duty pump, automatic water purge, water overload protection, automatic zero mode, easy pump and sensor servicing, and covers the full measurement ranges for HC, CO, CO<sub>2</sub>, NOx, and O<sub>2</sub> gases.

### Genisys—at the core of integrated diagnostics solutions!

Genisys takes the lead with new ID™ (Integrated Diagnostics) solutions—our exclusive capability lets you display 5-gas and scan data simultaneously. But this is just the beginning. It's the direction technology is going that will give technicians access to more usable data—from a variety of sources—to service today's high-tech vehicles faster and more accurately.



3855

## Solarity Performance 5-Gas

The Solarity emissions repair solution. Kit includes Solarity with plug-in 5-Gas Analyzer Module, hoses, exhaust probe, power cable and battery adapter, RS232 cable, AC power supply, Smart Card, Gas M-P software CD, filters, manual, and carrying case.

**No. 3855** — Solarity performance 5-gas.



### Smoke Check 1667 Diesel Emission Tester

In some states, failing the on-road emission test can result in a "must appear in court" citation, and up to an \$1,800 fine. Add the downtime, missed delivery, rescheduling, and the potential for lost business. More states are adopting emissions standards and testing programs. This can cost time and money for local and interstate fleets.

### SMOKE CHECK 1667 DIESEL EMISSION TESTER

- Fleets can determine immediately if the truck will pass state standards and interstate emission programs.
- Completely portable; all components in one case; there is no PC. One person can do the entire test. Windows-based, PC downloadable program transfers up to 100 stored tests.
- No warm-up time needed; perfect for random roadside testing or in your PM Service Program.
- The partial flow meter clips inside any smokestack; testing can be performed in any weather.
- Digital LCD screen walks you through each step; when testing is complete, a printout of results is produced for verification.
- This is the same meter used for enforcement in California, New York, Illinois, and the majority of states that test for diesel emissions compliance.
- Meets the latest SAE J1667 specifications.

### SPECIFICATIONS

Range.....	0–100%
Accuracy .....	+/-1.0%
Light Source .....	Green LED
Power .....	12 VDC battery (built-in)
Battery Life .....	40 hrs./charge
Warm-up Time .....	.5 sec.
Response Time .....	0.01 sec.
Control Unit .....	14" x 10" x 8"
Maintenance .....	Clean lens w/cotton swab
Weight:	
Control Unit .....	15.5 lbs.
Sensor.....	3.5 lbs.

### ORDERING INFORMATION

**No. RM1020CPC** – Smoke Check 1667 diesel smoke opacity tester. Includes partial flow meter, base unit with hand-held display, built-in printer, ambient sensors, two battery chargers – one for vehicle or shop, 20 ft. cable, telescoping rod, spring clamp, neutral density filter, and sensor head case.

### OPTIONAL ITEMS

**No. OTC3020CPC** – Standard meter listed above with OIL/RPM software and accessories. These options are required for state approval testing in New York and New Jersey.

**No. OTCSH** – New sensor head with quick detach release.

**No. OTCSHCS** – Sensor head case for new or existing meters and accessories.



Scrolling instructions walk you through the entire testing procedure.

Visual Inspection  
Press 1 for OK  
2 for REJECT  
All AUX Equip is off

PRESS  
1 = ENTER USER DATA  
2 = BEGIN TESTING  
3 = CHECK SENSORS

PRESS  
1 to TEST MENU  
2 to EDIT SETTINGS  
3 to CALIBRATE METER

Aluminum rod telescopes from 3 ft. to 8 ft.; reaches all stacks.

Optional pinch clamp holds head securely, on horizontal or downward facing stacks.

Three-point detachment quickly releases the sensor head for easy cleaning.

One person can run the entire test, even in the wind, since the sensor measures smoke inside the stack.



RM1020CPC

# ELECTRONIC DIAGNOSTICS

## Battery and Electrical Systems

### Sabre HP

Sabre HP is designed to let you quickly diagnose bad batteries in a discharged state without needing to charge them first. By utilizing a patented SPX micro-load testing method, this tester ensures accurate test results without any interpretation on vehicle battery, starting, and charging systems. Ships with 3' leads.

#### Features and Benefits

- Digital circuitry precisely controls battery test loads to accurately determine battery conditions using SPX patented micro-load test technology.
  - Tests the battery both statically and dynamically with multiple fixed loads.
  - Provides the most accurate test results.
  - Less susceptible to erroneous results from remote or bad connections, surface charge, and parasitic drains.
- Accurately tests both absorption glass mat (AGM) and flooded lead acid (FLA) batteries.
- Tests vehicle's starting and charging systems with minimal user interaction; automatically applies loads for accurate charging system tests.
- Tests all 6- and 12-volt batteries with a 50–2000 CCA operating range.
- Tests batteries down to 1 volt state of charge.
- Temperature and low charge compensation.
- Detects bad cells.
- Scales: CCA, CA, AHR, MCA, JIS, DIN.
- 4 x 20 backlit display shows CCAs, voltage, and good/bad status.
- Over-molded enclosure with soft-touch keys.
- Built-in infrared printer interface for remote printing (printer optional).
- Flash upgradeable memory in field.
- Removable/auto-sensing leads (3' leads included in kits; optional 10' leads available).
- Printout has date/time stamp and user definable header and footer.
- Optional amp clamps for current drain tests and starting/charging measurements—the only hand-held battery tester with this feature.
- Reverse polarity protection.
- Hard carrying case.
- 3-year warranty.



### SABRE HP

Includes SABRE HP, 3' test leads, side-post terminal adapters, instruction manual, and molded-plastic carrying case.

No. 3167 – SABRE HP.

### SABRE HP Deluxe Kit

Includes SABRE HP, 3' test leads, side-post terminal adapters, instruction manual, infrared wireless printer, and molded-plastic carrying case.

No. 3168 – SABRE HP deluxe kit.

#### Accessories:

No. 3169 – Infrared wireless printer for use with No. 3167 (included with No. 3168).

No. 3167-01 – 3' test leads.

No. 3172 – 10' test leads.



### Sabre Heavy-Duty Battery and Electrical System Diagnostic Tester

- Heavy-duty for 24-volt battery and electrical systems.
- Diagnoses battery packs in series, parallel, or series/parallel.
- Tests AGM/gel-cell batteries.

**HIGHEST CCA** capacity ranges (50–4000 CCA – 24V).

**LARGE DISPLAY** for less scrolling, more detailed instructions. It's also backlit for all light conditions.

**INDUSTRY FIRST** amp-clamp connection ports for live amperage readings using optional external amp-clamp.

**15 FT. CABLE** to perform tests from the cab of the vehicle.

**FIELD UPDATEABLE** to accommodate new battery types, system updates, feature additions.

#### Battery Testing

- Tests the following battery pack configurations:
  - One battery (6V or 12V).
  - Two batteries in series (24V); 2, 3, or 4 batteries in parallel (12V).
  - Two banks in parallel, each bank having 2 batteries in series (24V).
- Uses pack configuration in algorithm design.
- Step-by-step user instructions for easy test completion.
- Tester-applied loads used on all pack combinations.

#### Electrical System Testing

- 12V and 24V charging system tests.
- 12V and 24V starting system tests.
- 12V and 24V diode tests.
- Amp-clamps available (not included) for starting/charging and current draw tests.

#### Features

**Amp-Clamp Connection** – allows current drain tests and starting/charging analysis.

**Tests Both FLA** (flooded lead acid) and **AGM** (absorbed glass mat) battery types.

**Scales** – CCA, CA, AHR, MCA, JIS, DIN

**User Definable** – print header and footer.

**Removable Test Cables** – easily field replaceable.

**PC Interface Port** – allows for field updateable software.

**IR Compatible** – allows optional infrared wireless printer.

**Readout Display** – backlit for low light conditions, easy to view data in direct sunlight (4 x 20 character display).

**Security Cable Connection** – protects against stolen or dropped units.

**Over-molded Surround with Soft-touch Keys** – ruggedly built, easy to use, even with gloves.

**No. 3167-HD** – Sabre HD deluxe kit includes 24-volt heavy-duty battery tester, 15' test leads, instruction manual, molded-plastic carrying case.

**No. 3168-HD** – Same as No. 3167-HD above, but also includes an infrared wireless printer.

#### Accessories:

**No. 3172-15** – 15' lead set.

**No. 3169** – Infrared wireless printer.



No. 3168-HD

### Battery Charging/Starting System Professional Analyzer Kit

Made for the professional technician, No. 3185 tests batteries and starting/charging systems faster than ever before. The BCS system analyzer has an operating range of 50–2000 CCAs and is able to store data in memory or remotely print out the results using an infrared printer interface. It also measures voltage, and tests starting and charging systems at the push of a button.

#### Features and Benefits

- Utilizes cost effective, conductance test technology for accurate testing at a value price point.
- Quick 1-second initial results.
- Tests charging and starting systems 50–2000 CCA range accurate to 5 CCAs.
- Tests 6V and 12V batteries.
- Temperature and low charge compensation.
- Detects and identifies loose leads.
- Supports CCA, IEC, EN, BCI, and DIN scales.
- 4-line, 20-character LCD display shows CCAs, voltage, and good/bad status.
- Displays results in seven languages: English, French, Spanish, German, Italian, Dutch, Swedish.
- Built-in infrared printer interface for remote printing.
- Detachable cable leads.

**No. 3184** – BCS system analyzer kit. Includes BCS system analyzer, a 12' extension cable for in-cab testing, two voltmeter probes, battery side- and threaded-post adapters, detachable leads, 9-volt battery, soft-sided carrying case.

**No. 3185** – BCS system analyzer kit.

Same as No. 3184, but also includes an infrared printer.



3185

### Digital Battery Tester

Speed. Accuracy. Reliability. These are the cornerstones behind the technology in our digital battery testers. No. 3183 tests 12-volt batteries (125–1400 CCAs) and analyzes by measuring multiple parameters within the battery to deliver accurate results. A live voltmeter allows easy starting/charging system testing. Its bright, 4-digit LED display indicates the battery's good/bad status, voltage, and available CCAs. It even compensates for cold temperatures.

#### Features and Benefits

- Utilizes cost effective, conductance test technology for accurate testing at a value price point.
- Quick 1-second initial results.
- 125–1400 CCA range.
- Analyze starting/charging system voltages.
- Tests 12V batteries.
- Temperature and low charge compensation.
- Detects and identifies loose leads.
- Detects bad cells.
- Surface charge warning.
- Measures multiple international units: CCA, IEC, DIN, BCI, and EN.
- 4-digit LED display shows good/bad status, available CCAs, and voltage.

**No. 3183** – Includes digital battery tester. Includes digital battery tester and soft-sided carrying case.



3183



### 130-Amp Digital Battery Load Tester

Produce more accurate results with this 130-amp digital battery load tester. The compact, lightweight design is rugged enough for everyday testing of 6- and 12-volt batteries.

#### Features and Benefits

- Large, easy-to-read display.
- Side-clamp mount.
- Comfortable, easy-to-grip, ergonomic handle.
- Alternator test lead.
- Ripple detection light.
- 0–16 volt range.
- Dual jaw load clamp design.
- State of charge.
- Battery load test.
- Starter and charging system test.
- Alternator ripple test.

**No. 3182** – Digital battery tester.

Includes 130-amp digital battery tester and test leads.



3182

### 130-Amp Heavy-Duty Battery Load Tester

Applying an industry-leading 130-amp load, this ergonomically designed, heavy-duty battery tester provides accurate, reliable test results in just 10 seconds. It includes uniquely designed clamps for a positive grip on top- and side-post batteries and an extra-large, easy-to-read display.

#### Features and Benefits

- 130-amp load capacity for accurate results.
- 0–16 volt range.
- Uniquely designed clamps for both top- and side-post batteries.
- Extra-large display with zero adjust.
- Works on both 6V and 12V batteries.
- Ergonomic handle design.
- Side tabs for on-tool clamp storage.
- Back brackets for tool storage on wall or toolbox.

**No. 3181** – 130 amp heavy-duty battery load tester.



3181

### 100-Amp Battery Load Tester

Tests batteries on or off the car in just 10 seconds. Convenient, portable size and easy-to-read scales.

#### Features and Benefits

- Heavy-duty, copper-plated clamps.
- 100 amp load capacity.
- 0–16 volt range.
- Load safety switch prevents arcing.
- Heavy-duty, chrome-plated, ventilated steel case.
- Works on both 6V and 12V batteries.
- Ceramic insulators.
- Determines state-of-charge, cranking, and charging volts.
- Determines good/bad status.
- Extra-large display with zero adjust.

**No. 3180** – 100-amp battery load tester.



3180



7645

### Parasitic Draw Test Switch

Finding electrical problems that drain the battery is getting harder all the time. But using No. 7645 with your digital amp meter takes the guesswork out of a complicated job. Attach the test switch between the negative battery cable and the battery, and then road-test the vehicle. Next, connect an amp meter to the switch to determine the parasitic amperage draw, and locate the excessive electrical drain on the battery. Works on any vehicle with side- or top-post batteries.

**No. 7645** – Parasitic draw test switch. Wt., 8 oz.



3382

### Parasitic Drain Tester with Memory Saver

- Provides instant feedback of a possible battery drain condition, eliminating unnecessary replacement of battery or charging system components.
- Memory saver feature protects vehicle's computer memory, preserving stored fault codes, driveability parameters, and programmed electrical settings, such as clock, radio, seat position, etc.

**No. 3382** – Parasitic drain tester.

**No. 3382-01** – Charger.

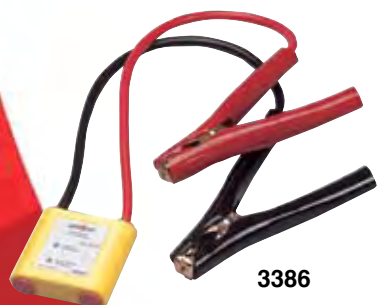


3381

### Parasitic Battery Drain Tester

- Connects between battery and negative battery cable, providing instant feedback of a possible parasitic battery drain condition in an undriven vehicle.
- Prevents unnecessary replacement of a suspected battery or charging system component by verifying that a parasitic drain is responsible for a low battery.
- Calibrated to vehicle manufacturer standards to allow certain parasitic loads while detecting those that are above acceptable limits.

**No. 3381** – Parasitic battery drain tester.



3386

12 Volts only

### Antizap Auto Surge Protector

- Connects to battery, and becomes part of vehicle's electrical circuit. If a voltage spike is detected, the Antizap automatically clips it to a safe level to prevent damage to sensitive electronic systems.
- Protects fuel gauge, ABS brakes, radios, tape and CD players, car alarms, SRS air bags, LED instrumentation, EFI, fuel, and climate control systems. Protects against welding (Arc, Mig, and TIG).

**No. 3386** – Antizap auto surge protector.



**MinuteMan Plus saves you hours when you're testing batteries, starters, alternators, regulators, and charging systems.**

### Features

- Special AGM test options for accurately diagnosing AGM and spiral (six-pack style) batteries.
- Can switch between English and Spanish languages with a menu-based selection.

### Battery Testing

The way it has been: Your customer brings in a dead battery and you have to charge it up to test it. Then, if it's a keeper, you have to recharge it. Hardly efficient use of your valuable time. With MinuteMan Plus on the job, you can test discharged batteries down to as low as two volts, and it won't drain a charged battery you are testing. You won't waste time charging bad batteries.

Works on all 12-volt automotive-type batteries with cold cranking amp ratings of 100–1500. This includes batteries found in motor-vehicle, marine, agricultural, forestry, and industrial applications. The tester operates from either 110 volts AC or its own internal, rechargeable 6-volt battery. Features self-calibration, an internal battery check, and an automatic shut-down to reduce power consumption.

On certain competitive, carbon-pile load battery testers, the technician must interpret the readings, then make the electrical system diagnosis. With MinuteMan Plus, all you have to do is read simple test results on the LCD display.

### Starter Testing

The MinuteMan Plus display shows cranking volts and amps, and indicates either "Good Starter" or "Bad Starter." Excessive starter current draw can indicate a defective starter. Excessive engine drag, due to tight or damaged bearings or piston drag, can also cause an abnormally high starter draw.

### Charging System Testing

Checks the charging system at high rpms and at idle, and stores the data. Results show regulator volts, peak amps, and a diode condition. MinuteMan Plus utilizes waveform analysis when testing alternator diodes, which provides more accuracy than the commonly used "ripple voltage" tests.

### Battery Tachometer Capability

Unique, patented direct-from-battery technology gives you tachometer readings without having to make complicated connections to the ignition system. Provides battery-sensing measurements to 4,000 rpm, with 1 rpm resolution.

### Order Information

**No. 3130AGM** – MinuteMan Plus multi-application electrical system tester. Includes connector cables, internal rechargeable battery, battery charger, and instructions. Wt., 27 lbs.

**No. 3131AGM** – Same as No. 3130AGM, but also includes roll-around cart with two additional shelves for other equipment. Wt., 53 lbs.

**No. 3135** – Printer kit.

**No. 3131-02** – Dust cover.

Updated  
Features

3130AGM



3130-003  
Voltage Harness

3130-01  
Amp Probe Assembly

Quick  
Starter Test  
...tests starter  
in seconds  
with no need  
to disable  
ignition.

3131AGM

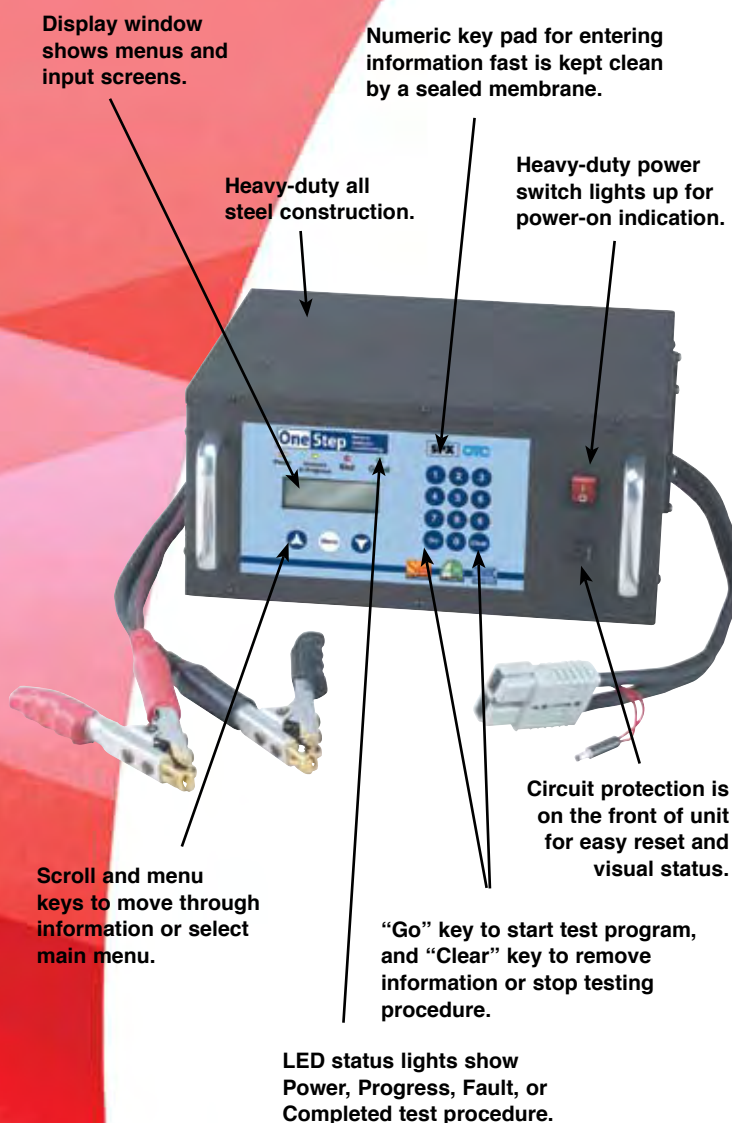


3130-02  
Dust cover



# ELECTRONIC DIAGNOSTICS

## Battery Analyzer and Charger



### Specifications:

**Battery Test Range:** 12 volt, 150 – 1500 CCA

**Battery Type:** Works on all constructions of 12-volt lead-acid, gel-cell, absorbed glass mat (AGM), wet cell, spiral-wound batteries.

**Operating Temperature Range:** 4° F – 158° F ambient air temperature.

**Humidity:** 0 – 85%

**Voltage Input:** 115 volt 20 amp dedicated. Optional 15 amp input available.

### OneStep™ Battery Analyzer and Charger

The OneStep is a bench-top battery tester and charger that provides extremely accurate battery diagnosis. The combination of SABRE heavy load, dynamic charge, and accuracy test technologies yields unparalleled accuracy, and the addition of charge acceptance into the test algorithms further increases the level of accuracy. Precise high-output charging can test, fully charge, and return a battery to service in under 45 minutes. It also provides analysis of a battery's charge acceptance by testing the battery again following the charge cycle. It is specifically designed for all forms of the newer AGM (including spiral wound types), gel cell and deep cycle batteries, as well as conventional FLA (lead-acid) batteries.

### Features and Benefits

OneStep gives the user one piece of equipment to completely test and charge batteries with the highest accuracy.

- **Precise High-output Charging**—returns charged batteries to service in less than 45 min.
- Compatible with **AGM, FLA, Gel Cell, and Spiral-Wound** batteries.
- Extremely accurate testing—combination of **Heavy-Load, Dynamic Charge and Accuracy Test Technology**.
- **Sealed Numeric Keyboard**—clear covering keeps unit clean as you enter data.
- **LED Status Lights**—quickly identify test status.
- **Built Rugged**—all-steel construction with solid copper transformer.
- **Compact Flash Card Port**—updates software and add memory as needed.
- **Low Cost of Ownership**—designed with internal overload protections for high volume use; field replaceable cables.
- **Precise Output Charging**—computerized control of charging voltage and current.
- **Easy-to-Use Menus**—screen prompts guide user through procedures.
- **Expandability**—easy to update and expand as new battery technologies are released.
- **Bar Code Reader**—optional feature for fast and accurate entry of battery specifications.
- **Battery Warranty Output Code**—allows easy warranty administration analysis.

**No. 3641** – OneStep battery analyzer/charger, 20-amp input. Wt., 68 lbs.

**No. 3640** – OneStep battery analyzer/charger, 15-amp input. Wt., 68 lbs.

**No. 3136** – Serial printer kit.



### The Judge—Rotating Electrical Alternator/Starter Bench Tester

This rotating electrical tester, using advanced computer technology, lets you quickly diagnose alternators and starters with extreme accuracy—validated by component manufacturers. It features an integrated self-test to eliminate bad test leads, thus improving test results and reducing warranty costs to the auto parts retailer. Your tester investment is protected by The Judge—it can be updated to accommodate manufacturer's new starters and alternators, or to change test parameters on existing devices.

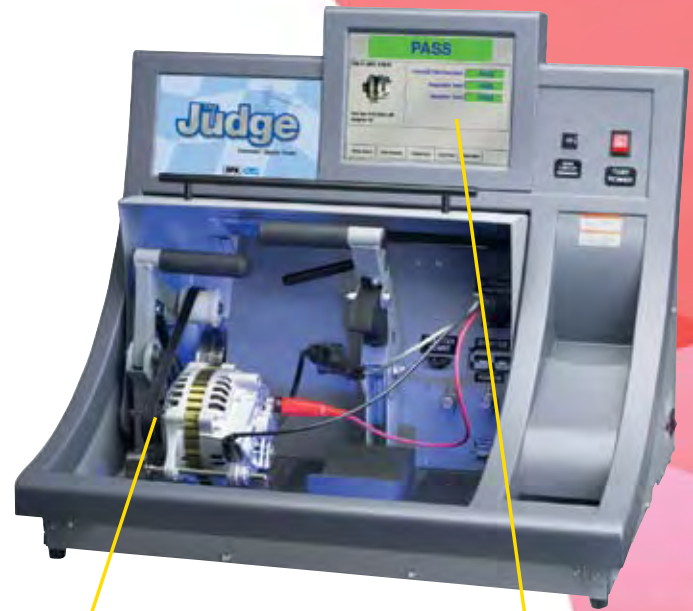
The Judge is easy to use and will test virtually every alternator and starter precisely, providing accurate results.

- **No More Flip Charts**—Integrated “Lester-based” part number database, or by vehicle selection.
- **Faster Set-up**—new improved mounting for alternators and starters.
- **Integrated Self-test Features** provide a lead check application—ensuring bad test leads are eliminated.
- **ETL Certified**—with circuitry specifically designed for reliability and durability.
- **Hooded Test Bay**—allows observation while capturing debris, grease, or oil when testing a well-used component.
- **Full-Color Touch Screen**—easy-to-use interface screen (10.5" display).
- **Ease of Component Mounting**—improved flexibility supports the latest mounting configurations.
- **Easy-to-Use Menus**—screen prompts guide technician through procedures.
- **Expandability**—easy to update and expand as new alternators/starters are developed.
- **Compact Flash Card Port**—update software and add memory as needed.
- **Bar Code Reader**—optional feature for fast and accurate test set-up.
- **Interlock Switch**—prevents operation when door is open.

**No. 3643** – Judge rotating electrical tester. Includes bench tester, mounting pins, alternator cable, starter cable, solenoid cable, test leads, manuals.

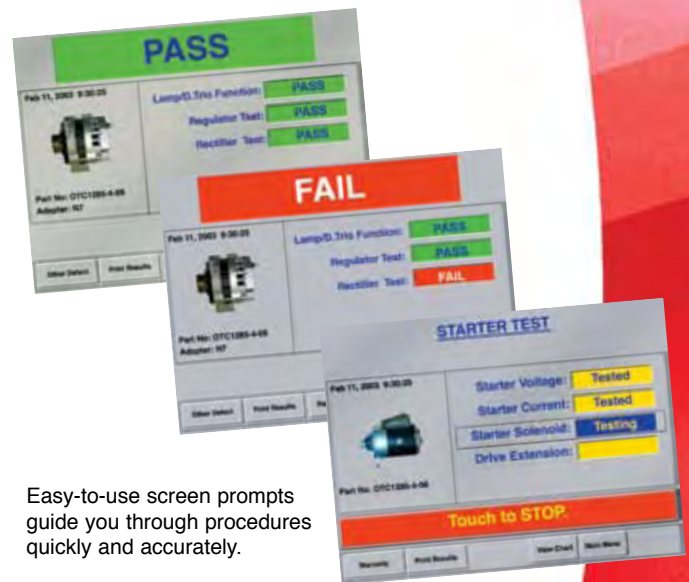
**No. 3643-01** – High-speed serial printer.

**No. 3643-78** – Printer mount.



Innovative alternator mounting with tensioned idler and a newly designed starter vise.

Easy-to-use, 10.5" color touchscreen allows intuitive user interface.



Easy-to-use screen prompts guide you through procedures quickly and accurately.

Hooded test bay with observation window improves safety. Door interlock switch prevents operation when door is open.



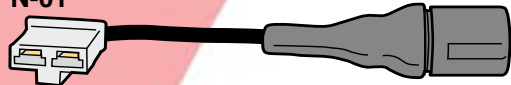
3643-01 High speed serial printer.

3643-78 Printer mount.

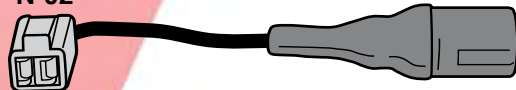
# ELECTRONIC DIAGNOSTICS

## The Judge Rotating Electrical Test Cable Chart

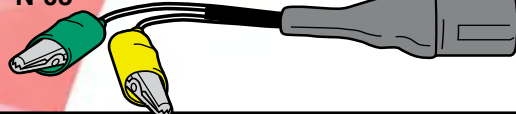
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3643-22 N-02



3643-23 N-03



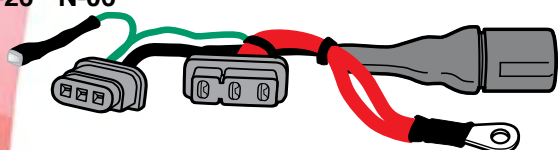
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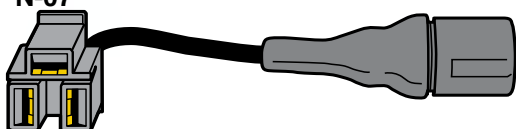
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3643-26 N-06



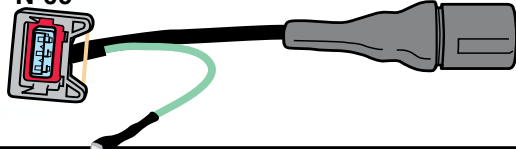
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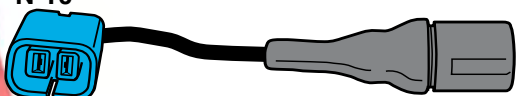
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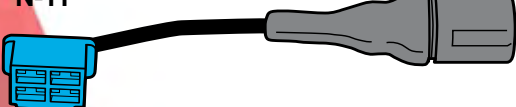
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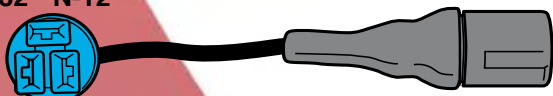
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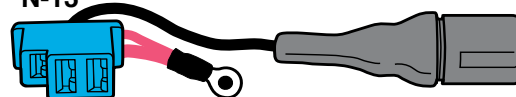
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3643-32 N-12



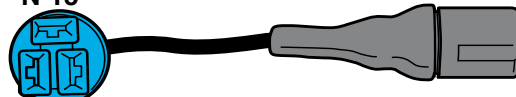
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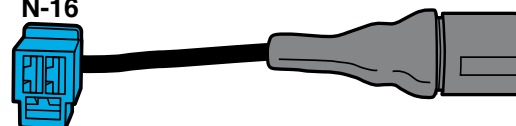
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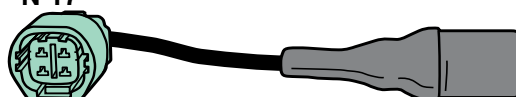
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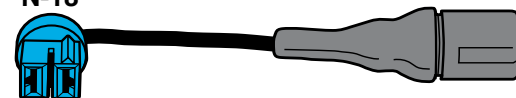
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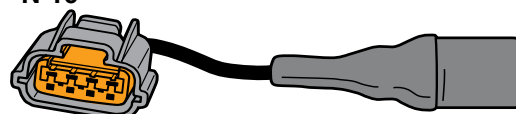
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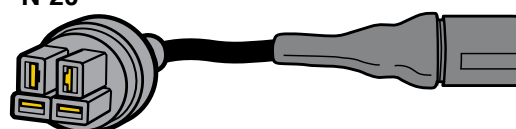
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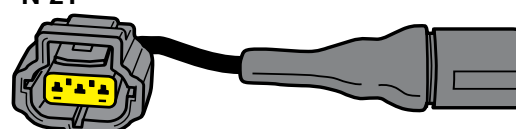
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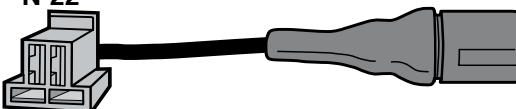
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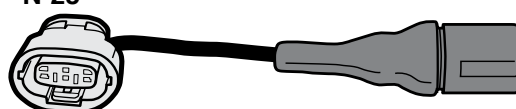
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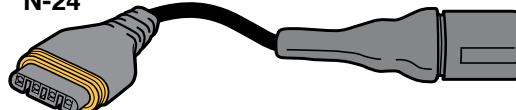
3643-42 N-22



3643-43 N-23



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### Quick Finder Index...

Fuel Injection Diagnostic and Cleaning Equipment and Tools . . . . .	66-74
Fuel Line Disconnect Tools . . . . .	75-76
Fuel Injection and Emission System Tools . . . . .	77-78

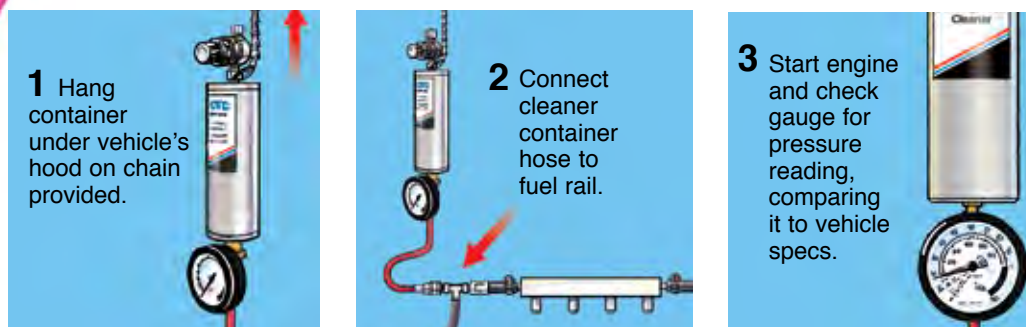


# FUEL SERVICE TOOLS

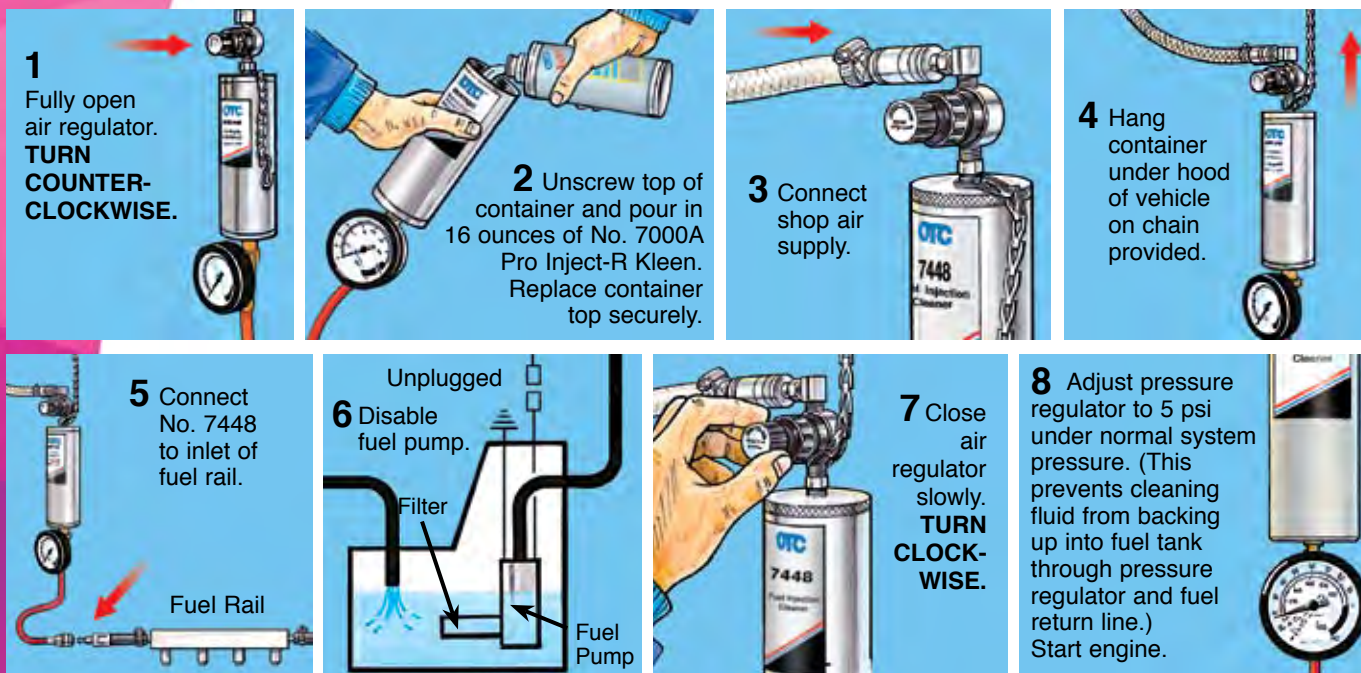
## Fuel Service Tools

Only  
OTC offers  
you complete  
fuel injection  
service  
coverage:

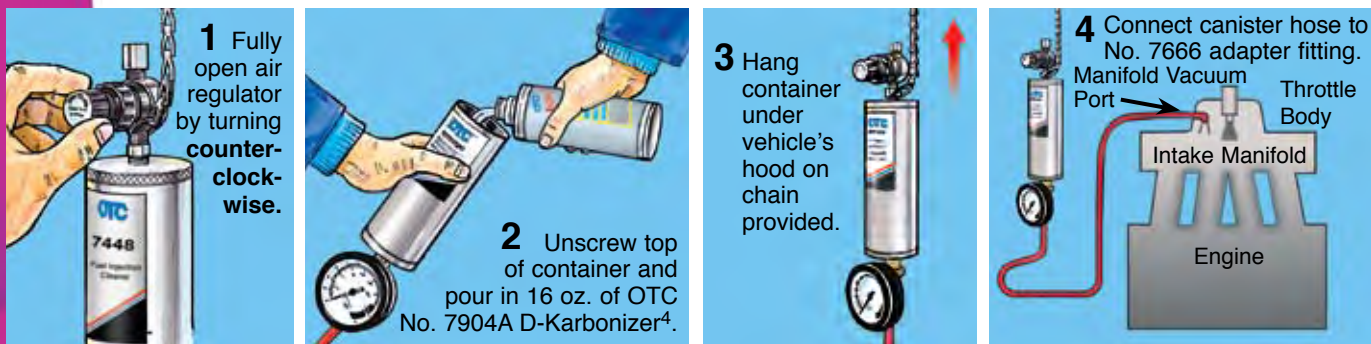
### Diagnostic (Fuel Pressure Check)



### Cleaning Injectors



### Intake System Decarbonizing



- 5** a) Locate a manifold vacuum port (NOT ported vacuum) near throttle body or carburetor to distribute decarbonizing solution evenly. Connect decarbonizer hose with adapter to vacuum port.
- b) Start engine. Manually increase throttle to 1,500 RPM. Slowly open shut-off valve until engine runs rough and RPM decreases. (Do not manually increase RPM at this point.)
- c) When 16 oz. of decarbonizer solution has been used, turn off engine. Remove adapter fitting from engine and reconnect vacuum hose. Do not start engine for at least 30 minutes, to allow cleaning solution to loosen carbon deposits.



### Fuel Injector Cleaning Kit

Clogged fuel injectors cause sluggish engine performance, poor fuel economy, and a rough idle. You can easily correct such problems with this injector cleaning kit. It works on a wide range of engines, both domestic and imported. Using our Pro Inject-R Kleen fluid, you can effectively clean injectors, restore their spray patterns, and prevent recurring deposits. The kit also enables you to do low- and high-pressure fuel system tests. It will also work with your shop's pressurized air supply for more powerful cleaning without expensive propellants.

- Removes carbon from intake and combustion systems when used with fitting No. 7666 and No. 7904A D-Karbonizer<sup>4</sup> fluid.
- Includes canister, gauge, hose, fittings, operating instructions.

**No. 7649** – Fuel injector cleaning kit. Wt., 9 lbs., 10 oz.

**No. 7659** – Fuel injector cleaning kit. Includes everything in kit No. 7649, plus twelve 16 oz. cans of Pro Inject-R Kleen fluid. Wt., 29 lbs.



7649

No. 7236 – Spring lock coupling adapter
No. 7272 – EFI quick-disconnect fitting (.307-32 internal; Ford)
No. 7273 – Pressure adapter TBI (5/16" and 3/8")
No. 7430 – Quick-disconnect 90° elbow fitting (7/16"-20 internal)
No. 7441 – Banjo fitting (M8 internal banjo)
No. 7442 – Banjo fitting (M10 internal banjo)
No. 7443 – Banjo fitting (M12 internal banjo)
No. 47955 – Fuel injector cleaner (canister)

### Canister-type Fuel Injector Cleaner

When connected to your shop's pressurized air supply, this tool provides the most effective method of cleaning fouled fuel injectors. It's much quicker than aerosol methods, and it works on many domestic and imported engines, with either low- or high-pressure systems. The canister, built with brass and aluminum, is rugged and holds 18 fluid ounces. The gauge's large dial is easy to read. We recommend that our No. 7000A Pro Inject-R Kleen fluid be used with this cleaner.

- Works with all OTC fuel injection system adapters.
- Will remove carbon from intake and combustion systems, when used with our No. 7666 adapter and No. 7904A D-Karbonizer<sup>4</sup> fluid.
- Includes gauge, 72" hose, under-hood hanger, and instructions.

**No. 7448** – Canister-type fuel injector cleaner. Wt., 6 lbs., 14 oz.



7448

No. 313575 – Pressure gauge
No. 213299 – Air regulator
No. 213209 – O-ring
No. 206878 – Coupler socket
No. 306905 – Hose

### Pro Inject-R Kleen Fluid

Clean fuel injectors mean cleaner running, more efficient engines – and lower emissions. This fluid restores injectors' original spray pattern, helps prevent recurring problems, and reduces intake and port deposits. We recommend it for all of our canister-type cleaning devices.

- No mixing; use right from the can.

**No. 7000A** – Pro Inject-R Kleen fluid. Case of 12 16-oz. cans. Wt., 13 lbs., 10 oz.

**No. 7000A-1** – Pro Inject-R Kleen fluid single can.



7000A

**Not a fuel additive**  
DO NOT POUR INTO  
FUEL TANK.

### D-Karbonizer<sup>4</sup> Intake System Cleaning

When you need serious intake system cleaning, you need our D-Karbonizer<sup>4</sup> fluid. It quickly strips away carbon, gum, and varnish. A clean intake and combustion system results in easier starting, less engine knocking, better fuel economy, and fewer emissions. We recommend it for all of our canister-type cleaning devices.

- No mixing; use right from the can.

**No. 7904A** – D-Karbonizer<sup>4</sup> intake system cleaning treatment. Case of 12 16-oz. cans. Wt., 13 lbs., 10 oz.

**No. 7904A-1** – D-Karbonizer<sup>4</sup> single can.



7904A

**Not a fuel additive**  
DO NOT POUR INTO  
FUEL TANK.

# FUEL SERVICE TOOLS

## Fuel Service Tools



7797



7635A

### Fuel Injection Diagnostic Set

With these sets, you can quickly and accurately diagnose fuel pressure problems on Chrysler, Ford, GM, or Jeep engines that have multi-port fuel injection systems. You can also bleed air from the system with the bleed valve. No. 7211 gauge assembly allows technicians to check fuel pressure and fuel volume.

Set Includes:

- No. 7665 – GM TBI fuel pressure adapter
- No. 7430 – Quick-disconnect 90° elbow fitting
- No. 7272 – Ford EFI quick-disconnect fitting
- No. 211398 – Pressure hose
- No. 206878 – Coupler
- No. 19088 – O-ring

**No. 7797** – Fuel injection diagnostic set. Wt., 1 lb., 13 oz.

**No. 7635A** – Basic fuel injection diagnostic set.  
(Same as No. 7797, but does not include No. 7665 GM TBI adapter.) Wt., 1 lb., 8 oz.



7211

### Gauge and Hose Assembly

This gauge is designed to work with any of our fittings for testing fuel injection systems. It features a sturdy 3-1/2" dial that reads 0–100 psi. It also has a built-in (100–150 psi) retard to prevent excess pressure damage. The assembly's disconnect fitting has a check valve to lessen chance of fuel spray.

- Includes 6-ft. bleed hose and 30" pressure hose.
- Bleed valve eliminates air from injection system and can be used to reduce pressure when disconnecting hoses.
- Bleed valve also allows gauge assembly to be used to check fuel pump volume.

**No. 7211** – Gauge and hose assembly. Wt., 1 lb., 3 oz.

**No. 306905** – Optional pressure hose, 70" long. Wt., 7 oz.

**No. 7211M** – Gauge, 6' bleed hose, and 70" pressure hose.



5630

### Fuel Pressure Tester Kit

Quickly and easily locate any malfunctioning fuel system component, including fuel filters, pressure regulators, fuel lines, and fuel pumps without removing it from the vehicle.

Features and benefits:

- Large, easy-to-read 0–100 psi scale, 0–700 kPa.
- Solid brass fittings.
- Pressure relief valve for safe, clean testing.

**No. 5630** – Fuel pressure tester kit. Wt., 1 lb., 4 oz.



### Master Fuel Injection Kit

Test fuel injection systems on most GMs, including GM TBI, Ford, Chrysler, and Jeep vehicles. Also works on imports, including CIS and CISE fuel systems. With this kit you can diagnose fuel-related problems, such as a weak fuel pump or restricted fuel filter, and perform leak-down tests. Kit includes 0–100 psi fuel pressure gauge and 35 of the popular OTC fuel injection adapters, each equipped with a quick-connect Schrader valve. Replacement seal kit also included.

**No. 6550** – Master fuel injection kit. Wt., 11 lb., 12 oz.



### Domestic Fuel Injection Kit

Test fuel injection systems on most GMs, including GM TBI, Ford, Chrysler, and Jeep vehicles. With this kit you can diagnose fuel-related problems, such as a weak fuel pump or restricted fuel filter, and perform leak-down tests. Kit includes 0–100 psi fuel pressure gauge and 17 of the popular OTC fuel injection adapters, each equipped with a quick-connect Schrader valve. Replacement seal kit also included.

**No. 6551** – Domestic fuel injection kit. Wt., 4 lb., 2 oz.



### Import Fuel Injection Kit

Test fuel injection systems on imports, including CIS and CISE fuel systems. With this kit you can diagnose fuel-related problems, such as a weak fuel pump or restricted fuel filter, and perform leak-down tests. Kit includes 0–100 psi fuel pressure gauge and 23 of the popular OTC fuel injection adapters, each equipped with a quick-connect Schrader valve for. Replacement seal kit also included.

**No. 6552** – Import fuel injection kit. Wt., 4 lb., 2 oz.



### Asian Fuel Injection Fitting Kit

The fittings in this kit enable you to connect OTC No. 7211 gauge (not included) to most Hyundai, Honda, Mitsubishi, and other Asian automotive engines, and diagnose most common fuel system problems involving low fuel pressure and low fuel volume at the injectors. Each fitting comes with a quick-connect Schrader valve for easy hookup to the gauge assembly.

- Fitting seals are compatible with most popular cleaning solvents.
- Includes operating instructions and handy blow-molded case.

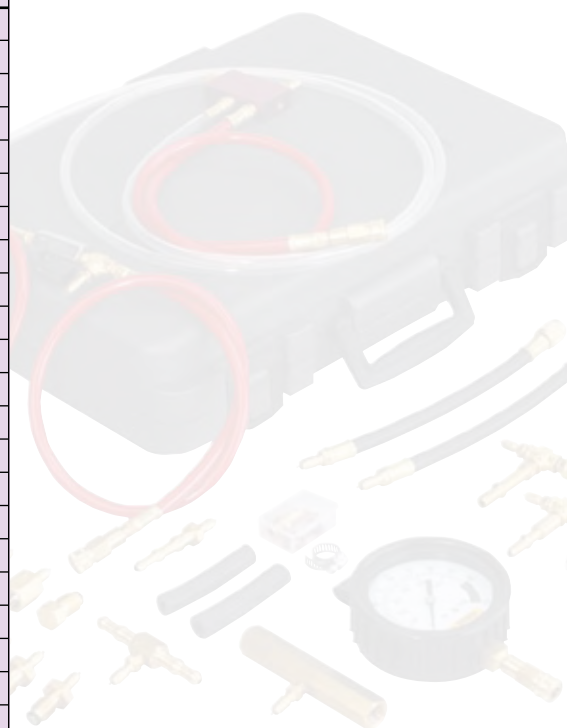
**No. 6570** – Asian fuel injection fitting kit. Wt., 3 lb.



# FUEL SERVICE TOOLS

## Fuel Injection Comparison Chart (Adapters, Fittings, and Accessories)


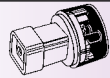
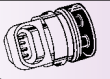
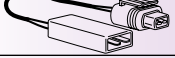
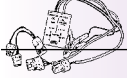







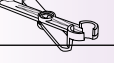



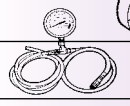
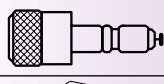
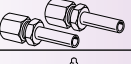
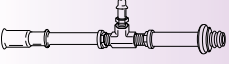

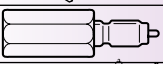
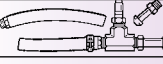


No.	Description	6550	6551	6552	6570
518356	CIS/TBI hose assembly with shutoff valve	•	•	•	
518472	16 mm x 1.5 internal o-ring adapter	•	•		
518473	14 mm x 1.5 external o-ring adapter	•	•		
518474	14 mm x 1.5 internal o-ring adapter	•	•		
518476	Ford hairpin adapter (5/16")	•	•		
518477	Seal Kit	•	•	•	
518478	Single-end hose adapter (1/4, 5/16, 3/8)	•	•	•	
518480	Double-end hose adapter (5/16, 3/8)	•	•	•	•
518481	16 mm x 1.5 external o-ring adapter	•	•		
518482	14 mm x 1.5 external o-ring plug	•	•		
518483	3-1/2" gauge, 0–100 psi (0–7 BAR)	•	•	•	
518484	M10 x 1.0 internal o-ring adapter	•		•	
518485	M8 x 1.0 internal o-ring adapter	•		•	
518486	M12 x 1.5 internal swivel adapter	•		•	
518487	GM TBI inline adapter (16 mm x 1.5)	•	•		
518488	M8 x 1.0 external o-ring adapter (long)	•		•	
518489	M10 x 1.0 external o-ring adapter	•		•	
518490	M6 x 1.0 external o-ring adapter	•		•	•
518491	M8 x 1.0 external banjo adapter	•		•	
518492	M10 x 1.0 external banjo adapter	•		•	
518493	M12 x 1.5 external banjo adapter	•		•	
518494	M12 x 1.25 external banjo adapter	•		•	•
518495	Ford flexible EFI adapter	•	•		
518496	M16 x 1.5 external & internal swivel adapter	•		•	
518497	1/4" BSPT external & internal swivel adapter	•		•	
518498	M14 x 1.5 external & internal swivel adapter	•		•	
518499	Ford spring lock adapter	•	•		
518501	M14 x 1.5 external banjo adapter	•		•	
518527	GM/Chrysler hairpin adapter (3/8")	•	•		
518530	Gauge hose assembly with relief valve	•	•	•	
518534	5/8" x 18 external flare adapter	•	•		
518535	5/8" x 18 internal flare adapter	•	•		
518536	M8 x 1.0 external o-ring adapter	•		•	
518537	M8 x 1.0 internal o-ring adapter (long)	•		•	
518542	7/16 x 20 GM/Chrysler flexible adapter	•	•		
528177	7/16 x 20 GM/Chrysler elbow adapter				
528178	7/16 x 20 GM/Chrysler straight adapter (short)				
528180	Low pressure gauge 0–15 psi (0–1 BAR)				
528182	16 mm x 1.5 elbow GM TBI fitting				
528183	3/8 hairpin adapter				
528541	5/8 x 18 flare straight adapter				
528766	M12 banjo adapter				•
528767	M8 x 1.0 double banjo bolt				•
528768	M12 x 1.25 double banjo bolt				•
528769	M8 banjo fitting				•
528770	.430 diameter adapter				•
528771	.560 diameter adapter				•
528772	5/8" diameter adapter				•
528773	O-ring & washer kit				
528774	O-ring & washer kit				•
528776	Ford EFI adapter				
528779	16 mm x 1.5 internal union adapter				

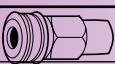


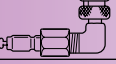










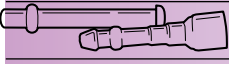


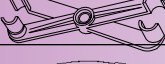










# FUEL SERVICE TOOLS

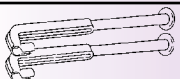
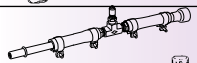





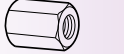
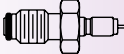




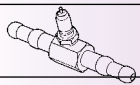
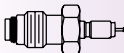

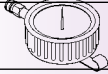

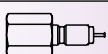
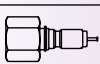
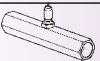
## Fuel Injection Comparison Chart (Adapters, Fittings, and Accessories)


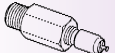
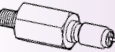
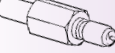
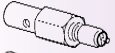


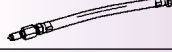




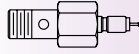
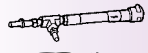

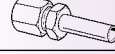


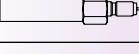







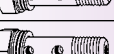

	Part No.	Description
	3054C	Noid Lite/IAC signal tester with fiber optic cable. Wt., 15 oz.
	3052S	IAC signal tester (GM). (Square 4-pin connector). Wt., 3 oz. See page 74.
	3053S	IAC signal tester (GM). (Flat 4-pin connector). Wt., 3 oz. See page 74.
	3305-53	TBI adapter. Wt., 11 oz.
	3320	2-in-1 idle air/idle speed control tester. Wt., 10 oz. See page 49.
	3397	Fuel injector tester (TBI adapter included). (Same as Kent-Moore J-39021-22.) Wt., 2 lbs., 10 oz. See page 48.
	3398	Fuel injection pulse tester. Wt., 10 oz. See page 74.
	4506	Fuel line clamp set. Wt., 6 oz.
	6023	Noid Lite (for GM Multec 2 injectors). Wt., 2 oz. See page 73.
	6260	Fiber Optic Noid Lite Extension Cable. Wt., 5 oz. See page 74.
	6266	Noid Lite (for GM Bosch 2 injectors). Wt., 2 oz.
	6509	Fuel line disconnect tool. Wt., 3 oz. See page 76.
	6511	Fuel line disconnect tool. Wt., 3 oz. See page 76.
	7000A	Injector cleaning fluid. case of 12 cans. Wt., 13 lb., 10 oz. See page 67.
	7187	Noid Lite (GM TBI). GM model 220, 300, 500 series TBI. Wt., 2 oz. See page 73.
	7188	Noid Lite (Bosch PFI). GM model 700 series TBI. Wt., 2 oz. See page 73.
	7211	Pressure gauge assembly (0-100 psi). Wt., 1 lb., 3 oz.
	7214A	Quick-disconnect straight fitting (1/16-20 internal). (Also conversion adapter for Champion and 3M.) Wt., 2 oz.
	7222A	Adapter set (5/8-18 internal, 45° flare inverted). Wt., 7 oz.
	7236	Spring lock coupling adapter same as Ford 310-D003 (D85L-9974-C). Wt., 7 oz.
	7244	Quick-disconnect tool (for duck bill clips). Same as Ford 307-123 (T82L-9500-AH). Wt., 2 oz.
	7272	EFI Quick coupler disconnect fitting (Ford .307-32 internal). Wt., 1 oz.
	7273	Pressure adapter (1/16" & 3/8" fuel line). Wt., 8 oz.
	7335	Fuel line disconnect tool (3/8") (yellow). Same as Ford 310-D004 (D87L-9280-A). Wt., 2 oz.
	7336	Fuel line disconnect tool (1/2") (green). Same as Ford 310-D005 (D87L-9280-B). Wt., 2 oz.

	Part No.	Description
	7342	Quick coupler adapter. Wt., 2 oz.
	7370	Fuel line disconnect tool (1/16") (gray). Same as Ford 310-040 (T90T-9550-B). Wt., 1 oz.
	7371	Fuel line disconnect tool (3/8") (blue). Same as Ford 310-041 (T90T-9550-C). Wt., 1 oz.
	7430	Quick-disconnect 90° elbow fitting (7/16-20 internal). Also conversion adapter for Champion & 3M. Wt., 3 oz.
	7433	Fuel return line plug (3/8" external). Wt., 2 oz.
	7439	Pressure gauge (0-100 psi). Has a built-in retard (100-150 psi). Wt., 11 oz.
	7442	Banjo fitting (M10 internal banjo). Wt., 3 oz.
	7443	Banjo fitting (M12 internal banjo). Wt., 3 oz.
	7448	Fuel injector canister-type cleaner. Wt., 6 lbs., 13 oz. See page 67.
	7472	Conversion adapter (M12 x 1.5 internal ball nose snap-on). Wt., 3 oz.
	7597	Conversion Adapter Kit (7430 & 7472 snap-on). Wt., 7 oz.
	7601	Noid Lite (Ford TBI). Wt., 1 oz. See page 73.
	7602	Noid Lite (GM PFI). Wt., 1 oz. See page 73.
	7608	Noid Lite (Geo TBI). Wt., 1 oz. See page 73.
	7628	Special fitting set (5/16"). Wt., 3 oz.
	7629	Special fitting set (3/8"). Wt., 3 oz.
	7631	Fuel return line plug (5/16"). Wt., 2 oz.
	7655	Pinch-off pliers. Wt., 13 oz.
	7660	Fuel line disconnect tool. Same as Ford 310-052 (T93T-9550-AH). Wt., 2 oz.
	7666	Decarbonizing adapter. Wt., 5 oz.
	519154	Ford fuel line coupling tool. Same as 310-052 (T90T-9550-A). Wt., 1 oz. See page 77.
	519155	Chrysler fuel line disconnect Tool. Wt., 10 oz.
	7828	GM SCPI Noid-Lite. Wt., 2 oz. See page 73.
	518501	EFI pressure test adapter (M14 x 1.5 external double banjo). Wt., 3 oz.

# FUEL SERVICE TOOLS






## Fuel Injection Comparison Chart (Adapters, Fittings, and Accessories)





Part No.	Description
 <b>7896</b>	Fuel line disconnect tool set, 5/16" red and 3/8" blue. (Same as Kent-Moore J-39504.) Wt., 7 oz.
 <b>7902</b>	Chrysler fuel injection fitting. Wt., 13 oz.
 <b>7904A</b>	D-Karbonizer® intake system cleaning fluid. Case of 12 cans. Wt., 13 lbs., 10 oz. See page 67.
 <b>7915</b>	Fuel injection quick coupler adapter. Wt., 2 oz.
 <b>7923</b>	Ford fuel injection adapter. Wt., 5 oz.
 <b>7951</b>	Ford idle speed control tester. Wt., 9 oz.
 <b>518356</b>	Fuel line adapter (CIS). Wt., 12 oz.
 <b>518472</b>	16 mm x 1.5 Internal o-ring adapter. Wt., 3 oz.
 <b>518473</b>	14 mm x 1.5 External o-ring adapter. Wt., 2 oz.
 <b>518474</b>	14 mm x 1.5 Internal o-ring adapter. Wt., 2 oz.
 <b>518476</b>	Ford hairpin adapter (5/16"). Wt., 5 oz.
 <b>518477</b>	Fuel injection seal kit. Wt., 2 oz.
 <b>518478</b>	Single-end hose adapter (1/4", 5/16", 3/8"). Wt., 12 oz..
 <b>518480</b>	Double-end hose adapter (5/16", 3/8"). Wt., 3 oz.
 <b>518481</b>	16 mm x 1.5 external o-ring. Wt., 2 oz.
 <b>518482</b>	Fuel return line plug (M14 x 1.5 external). Wt., 3 oz.
 <b>518483</b>	3-1/2" Gauge, 0-100 psi, 0-7 BAR. protective boot. Wt., 12 oz.
 <b>518484</b>	M10 x 1.0 internal o-ring adapter. Wt., 10 oz.
 <b>518485</b>	M8 x 1.0 Internal o-ring adapter. Wt., 10 oz.
 <b>518486</b>	M12 x 1.5 Internal swivel adapter. Wt., 1 oz.
 <b>518487</b>	GM TBI fuel pressure adapter. (16 mm x 1.5). Wt., 5 oz.

Part No.	Description
 <b>518488</b>	Quick-disconnect fitting (M8 x 1.0 x 3 3/8" long external o-ring). Wt., 3 oz.
 <b>518489</b>	Quick-disconnect fitting (M10 x 1.0 external o-ring). Wt., 2 oz.
 <b>518490</b>	Quick-disconnect fitting (M6 x 1.0 external o-ring). Wt., 3 oz.
 <b>518491</b>	Quick-disconnect banjo fitting (M8 x 1.0 external). Wt., 3 oz.
 <b>518492</b>	Quick-disconnect banjo fitting (M10 x 1.0 external). Wt., 3 oz.
 <b>518493</b>	Quick-disconnect banjo fitting (M12 x 1.5 external). Wt., 3 oz.
 <b>518494</b>	Quick-disconnect banjo fitting (M12 x 1.25 external). Wt., 3 oz.
 <b>518495</b>	Ford adapter, Schrader, .308 x 32 thread (Ford EFI). Wt., 2 oz.
 <b>518496</b>	M16 x 1.5 External & internal swivel adapter. Wt., 2 oz.
 <b>518497</b>	1/4" Pipe External & internal swivel adapter. Wt., 5 oz.
 <b>518498</b>	M14 x 1.5 External & internal swivel adapter. Wt., 2 oz.
 <b>518499</b>	Ford spring lock adapter. 2003 - newer with returnless fuel system. Wt., 7 oz.
 <b>518501</b>	M14 x 1.5 External banjo bolt. Wt., 2 oz.
 <b>518527</b>	3/8" Hairpin adapter. Wt., 5 oz.
 <b>518530</b>	Hose assembly with relief valve. Wt., 1 lb. 2 oz.
 <b>518534</b>	Adapter set (5/8-18 external, 45° inverted flare). Wt., 3.5 oz.
 <b>518535</b>	Adapter set (5/8-18 internal, 45° inverted flare). Wt., 3.5 oz.
 <b>518536</b>	Quick-disconnect fitting (M8 x 1.0 external o-ring). Wt., 2 oz.
 <b>518537</b>	M8 x 1.0 Internal o-ring adapter (long). Wt., 5 oz.
 <b>518542</b>	GMC/Chrysler adapter (7/16 x 20). Wt., 6 oz.
 <b>528177</b>	7/16 x 20 GM/Chrysler elbow adapter. Wt., 4 oz.
 <b>528178</b>	7/16 x 20 GM/Chrysler straight adapter (short). Wt. 4 oz.
 <b>528180</b>	Low-pressure gauge 0-15 psi (0-1 BAR). Wt. 12 oz.
 <b>528182</b>	16 mm x 1.5 elbow GM TBI fitting. Wt. 4 oz.
 <b>528183</b>	3/8 hairpin adapter. Wt. 4 oz.
 <b>528766</b>	M12 x 1.0 Double Banjo Bolt. Wt., 5 oz.
 <b>528767</b>	M8 x 1.0 Double Banjo Bolt. Wt., 2 oz.
 <b>528768</b>	M12 x 1.25 Double Banjo Bolt. Wt., 2 oz.



### Fuel Injection Adapters, Fittings, and Accessories

	Part No.	Description
	528541	5/8 x 18 flare straight adapter. Wt. 3 oz.
	528769	Banjo fitting (M8 banjo). Wt., 3 oz.
	528770	Quick-disconnect fitting (.430 Ø external) (Mitsubishi/Chrysler). Wt., 3 oz.
	528771	Quick-disconnect fitting (.580 Ø external) (Mitsubishi/Chrysler). Wt., 3 oz.
	528772	Quick-disconnect fitting (5/8" Ø external) (Mitsubishi). Wt., 5 oz.

	Part No.	Description
	528773	O-ring and washer set for kit No. 6571. Wt. 1 oz.
	528774	O-ring and washer set for kit No. 6570. Wt. 1 oz.
	528776	Ford EFI Adapter. Wt. 4 oz.
	528779	16 mm x 1.5 Internal union adapter. Wt. 2 oz.

### Noid Lite/IAC Test Kits

- Noid Lites are a proven test device to quickly determine if the electrical signal is present at the fuel injector.
- Simplest method for eliminating the EFI system or idle air control as possible faults on no-start vehicles.
- Disconnect the fuel injectors, plug in a Noid Lite, and crank the engine. A flashing noid light indicates normal pulsing voltage.

- Expanded set of eight specific Noid Lites covers: GM PFI, Ford TBI, Geo TBI, Bosch PFI, GM TBI, GM SCPI, Bosch 2, and Multec 2. Also includes two GM IAC testers (flat and square four-connector applications) with red and green LEDs.
- Kits come in molded plastic cases and include a fiber optic Noid Lite extension that allows for convenient remote viewing of noid lite flashing from the driver's seat.

**No. 3050C** – Noid Lite Test kit. Wt., 1 lb. 1 oz.

**Set includes: (available separately)**

**No. 7187** – GM TBI Noid Lite. Wt., 2 oz.

**No. 7188** – Bosch PFI Noid Lite. Wt., 2 oz.

**No. 7601** – Ford TBI Noid Lite. Wt., 2 oz.

**No. 6023** – GM Multec 2 Noid Lite. Wt., 2 oz.

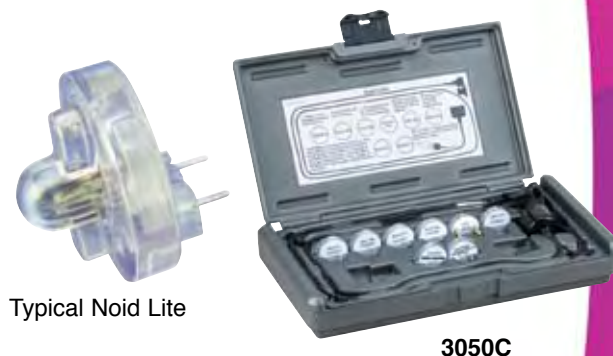
**No. 7602** – GM PFI Noid Lite. Wt., 2 oz.

**No. 7608** – Geo TBI Noid Lite. Wt., 2 oz.

**No. 7828** – GM SCPI Noid Lite. Wt., 2 oz.

**No. 6266** – Bosch 2 Noid Lite. Wt., 2 oz.

**No. 6260** – Fiber optic Noid Lite extension. Wt., 5 oz.



Typical Noid Lite

3050C

**No. 3054C** – Noid Lite/IAC test kit. Wt., 1 lb. 3 oz.

**Set includes: (available separately)**

**No. 7187** – GM TBI Noid Lite. Wt., 2 oz.

**No. 7188** – Bosch PFI Noid Lite. Wt., 2 oz.

**No. 7601** – Ford TBI Noid Lite. Wt., 2 oz.

**No. 6023** – GM Multec 2 Noid Lite. Wt., 2 oz.

**No. 7602** – GM PFI Noid Lite. Wt., 2 oz.

**No. 7608** – Geo TBI Noid Lite. Wt., 2 oz.

**No. 7828** – GM SCPI Noid Lite. Wt., 2 oz.

**No. 6266** – Bosch 2 Noid Lite. Wt., 2 oz.

**No. 6260** – Fiber optic Noid Lite extension. Wt., 5 oz.

**No. 3052S** – '82 and newer GM TBI/PFI IAC tester with square 4-pin connector. Wt., 2 oz.

**No. 3053S** – '87 and newer Model 700 TBI/PFI with flat 4-pin connector. Wt., 2 oz.



3054C

# FUEL SERVICE TOOLS

## Fuel Service Tools



Similar to Kent-Moore J-34730-225

### Fuel Injection Tester

Fuel injectors can pass a resistance test but still fail under load. With this tool, you can check and balance fuel injectors. Also tests fuel injector coil windings under load, and detects intermittent fuel injector coil faults. Adjustable current output. Works on both throttle body and multiport fuel injectors. TBI adapter included.

**No. 3397** – Fuel injector tester. Wt., 3 lbs., 5 oz.



### Fuel Injection Pulse Tester

Fuel injector testing requires precision equipment. This vehicle-powered tool fills that requirement. It enables you to check cylinder balance by firing individual injectors at 1/2-second increments in three different ranges: 1 pulse of 500 milliseconds, 50 pulses of 10 milliseconds, 100 pulses of 5 milliseconds.

- Power and output lights indicate test activation.
- Includes wiring harness adapter and instructions.

**No. 3398** – Fuel injection pulse tester. Wt., 8 oz.

**No. 306677** – Replacement lead. Wt., 2 oz.



### General Motors IAC Signal Test Lights

For checking the electronic control module signal that provides direction to the idle air control motor on General Motors vehicles with throttle body or port fuel injection systems.

**No. 3051** – Set consists of Nos. 3052S and 3053S. Wt., 4 oz.

**No. 3052S** – Signal test light for 1982 and newer GM TBI and PFI fuel injection systems with a square 4-pin connector. Wt., 2 oz.

**No. 3053S** – Signal test light for 1987 and newer GM Model 700 TBI and PFI fuel injection systems with a flat 4-pin connector. Wt., 2 oz.



### Fiber Optic Noid Lite Extension Cable

- Four-foot length permits easy viewing of Noid Lite signal. Used with OTC's Nos. 7187, 7188, 7601, 7602, 7608, 7828, 6023, and 6266, as well as other brands of Noid Lites.
- Noid Lite is inserted into cup end of extension cable, then plugged into vehicle's wiring harness. Fiber optic cable is routed out of engine compartment with end placed where it can be observed. Engine is cranked, and flashing at end of extension indicates normal injector pulsing voltage.
- Suction cup at end of extension cable permits secure placement on hood, fender, windshield, etc., without damage to surface.

**No. 6260** – Fiber optic Noid Lite extension cable. Wt., 5 oz.



### Full-Coverage Disconnect Tool Set

If you're working on Chrysler, Ford, or General Motors vehicles, this set will make your job easier. The tools are designed for heater hoses, transmission oil coolers, air conditioning and fuel lines. They're approved by vehicle manufacturers and will not damage the fittings being disconnected. Tool Nos. 518092, 518896, 518897, 518898, 518899, 518900, and 518901 are spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

- Comes in blow-molded case.

**No. 6508** – Disconnect tool set. Wt., 4 lbs., 8 oz.



#### Contents of set:

	Tool	Description
	<b>440384</b>	GM hydraulic clutch line disconnect tool.
	<b>440486</b>	GM transmission oil cooler line.
	<b>511410</b>	Fuel line disconnect tool.
	<b>511413</b>	Fuel line disconnect tool.
	<b>518902</b>	Heater hose disconnect tool.
	<b>519158</b>	Fuel line disconnect tool set.
	<b>518582</b>	Fuel line disconnect tool.
	<b>518583</b>	Fuel line disconnect tool.
	<b>518584</b>	Fuel line disconnect tool.
	<b>518896</b>	Fuel line disconnect tool. (Yellow, 3/8" )
	<b>518897</b>	A/C spring lock coupling tool. (Black, 5/8" )
	<b>518898</b>	A/C spring lock coupling tool. (Blue, 1/2" )
	<b>518899</b>	Fuel line disconnect tool. (Green, 1/2" )
	<b>518900</b>	A/C spring lock coupling tool. (Red, 3/8" )

	Tool	Description
	<b>518901</b>	A/C spring lock coupling tool. (White, 3/4" )
	<b>519067</b>	Fuel line disconnect tool.
	<b>519068</b>	Fuel line disconnect tool.
	<b>519151</b>	Quick disconnect tool.
	<b>519152</b>	Oil cooler line disconnect tool.
	<b>519153</b>	Clutch coupling tool.
	<b>519154</b>	Fuel line coupling tool.
	<b>519155</b>	Chrysler fuel line disconnect tool.
	<b>519156</b>	Ford heater hose disconnect tool.
	<b>519157</b>	GM heater line quick connect separator.
	<b>519159</b>	Oil cooler line disconnect tool.

# FUEL SERVICE TOOLS

## Fuel Service Tools



6517

### Disconnect Tool Set

Designed for A/C lines, fuel lines, and transmission cooler lines.

- Contains 3/8", 1/2", 5/8", and 3/4" spring lock disconnect tools for A/C lines on 1981 thru 2006 Ford cars and trucks, 1994 thru 2006 Chrysler and Jeep vehicles.
- Contains the 3/8" and 1/2" fuel line disconnect tool for Ford vehicles.
- Contains the 5/16" and 3/8" fuel line disconnect tools for GM and Chrysler vehicles.
- Contains the transmission oil cooler line disconnect tool used on many GM and Ford vehicles.

**No. 6517** – Disconnect tool set. Wt. 7 oz.



6603

Similar to Kent-Moore  
No. J-46363.

### GM Fuel Line Disconnect Tool

Applications: 2002–newer Tahoe and light-duty trucks with the 5.3L V8 engine.

- This is a required tool to remove the fuel line from the fuel filter.

**No. 6603** – GM fuel line disconnect tool. Wt. 1 oz.



7337

### Ford Fuel Line Disconnect Tool Set

These tools will easily disconnect the spring lock couplings of fuel lines on Ford's throttle body and port fuel injection systems. The tools are spring-loaded and durable, and they enclose the line to help deflect spray.

- Tools fit 3/8" and 1/2" lines.

**No. 7337** – Ford fuel line disconnect tool set. Includes 7335 (3/8" yellow) and 7336 (1/2" green) disconnect tools. Wt., 4 oz.



7361

Similar to Ford  
No. 310-5039  
(T90T-9550-S)

### Fuel Line Disconnect Tool Set

These two disconnect tools are designed to fit quick-connect fuel line fasteners. They'll work on Chrysler, Ford, or GM vehicles, and separate fuel lines without damaging the connectors.

- Tools fit 5/16" and 3/8" lines.

**No. 7361** – Fuel line disconnect tool set. Includes 7370 (5/16" gray) and 7371 (3/8" blue) disconnect tools. Wt., 1 oz.



6509



6511

### Fuel Line Disconnect Tools

- Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel line fittings and fuel filters, fuel rails, or sending units. Both tools are designed to access the center port on the GM fuel tank sending unit.

**No. 6509** – For 3/8" & 5/16" applications. Will also service 1999–current GM pickups, and 2000–current Suburban, Tahoe, and Yukon gasoline vehicles. Wt., 3 oz.

**No. 6511** – For 3/8" and 1/2" applications. Will also service 2001–current 3/4- & 1-ton trucks with the Duramax diesel engines. Wt., 3 oz.

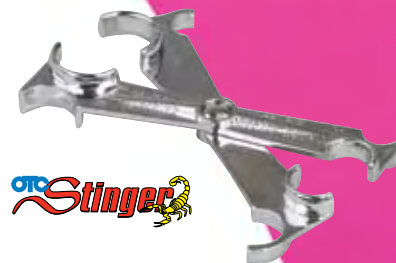


### Fuel and Air Conditioning Line Release Tool

- This spring-lock coupling release tool easily separates fittings on fuel and air conditioning lines.
- Tool sizes are 3/4", 5/8", 1/2", and 3/8".

**No. 4494** – Fuel and air conditioning line release tool. Wt., 5 oz.

4494



### Ford Fuel Line Disconnect Tool Set

Here's the best tool for easy, frustration-free fuel line separation. As you put the tool on the fuel line coupling, its fingers depress the retaining collar to release the fuel line, preventing component damage.

- Works on 1990 to 1995 Ford Ranger and Explorer models fitted with 4.0L, 6-cylinder engines.

**No. 519154** – Ford fuel line coupling tool. Wt., 2 oz.

519154

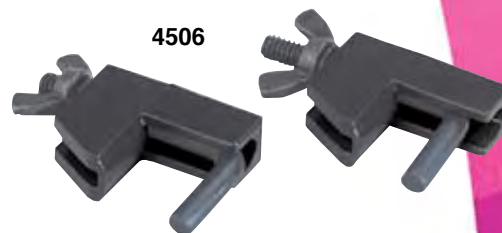


### Rubber Line Clamp Set

- Set of two clamps. Used to quickly shut off flow from vacuum, brake, and fuel lines.
- Enables you to clamp and hold hose without damage.

**No. 4506** – Rubber line clamp set. Wt., 6 oz.

4506



### 7-Piece Sensor Socket Set

Includes:

- No. 4673-1** – 29 mm pressure / vacuum switch socket.
- No. 4673-2** – 7/8" vacuum switch socket.
- No. 4673-3** – 27 mm oil pressure sending unit socket.
- No. 4673-4** – 7/8" vacuum switch socket.
- No. 4673-5** – 1-1/16" & 1" oil pressure sending unit socket.
- No. 4673-6** – 22 mm heated oxygen sensor wrench.
- No. 4673-7** – 7/8" short oxygen sensor socket.

**No. 4673** – 7-Piece sensor socket set. Wt. 4 lbs. 10 oz.

4673



### Oxygen Sensor Socket

- Designed to easily remove an oxygen sensor.
- Heat-treated cast steel.
- 7/8" hex, 1/2" square drive (double square for easy access).

**No. 7189** – Oxygen sensor socket. Wt., 8 oz.

Similar to Ford  
No. T79P-9472-A

7189



### Oxygen Sensor Socket

- Works on all domestic and imported vehicles with oxygen sensors.
- Slot in socket's side allows wire clearance.
- Outside rib provides added strength, yet does not restrict access to sensors.
- 1/2" square drive, 1" male hex drive on top, 7/8" six-point opening, 3-7/8" long

**No. 6931** – Oxygen sensor wrench. Wt., 1 lb.

6931



# FUEL SERVICE TOOLS

## Fuel Service Tools



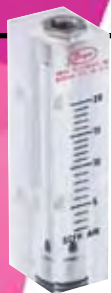
7215

### Exhaust Back Pressure Gauge

Now you can quickly read back pressure to determine the amount of restriction in an exhaust system. This gauge accurately measures through the oxygen sensor hole. Its large dial clearly shows pressure from 0–8 psi. The system has a stainless steel braided tube to withstand high-heat conditions.

- Includes a universal adapter for vehicles with thermactor systems.
- Works on domestic and imported vehicles.

**No. 7215** – Exhaust back pressure gauge with universal adapter. Wt., 1 lb., 3 oz.



7416

### Fuel Emission Flow Meter

- Enables precise adjustment of engine idle mixtures.
- Works with OTC No. 7148 propane enrichment kit to monitor the propane going into the engine.
- Works on domestic or imported vehicles that have carburetors.

**No. 7416** – Fuel emission flow meter. Wt., 6 oz.



Similar to Ford  
No. 310-003  
(T75L-9600-A)

7148

### Propane Enrichment Kit

- Ensures a correct idle mixture and compliance with emission standards.
- Works on domestic or imported vehicles that have carburetors.
- Uses standard 14-oz. propane cartridge.

**No. 7148** – Propane enrichment kit. Wt., 14 oz.



Similar to Miller  
No. 6856

7998

### Chrysler Fuel Pump Module Spanner Wrench

Removes and installs the fuel pump retaining ring that holds the fuel pump module onto the gas tank. Works on most 1994–2005 Chrysler vehicles, and 1995–2004 Jeep vehicles.

**No. 7998** – Chrysler fuel pump module spanner wrench. Wt., 1 lb., 5 oz.



6599

### Fuel Tank Lock Ring Wrench

Universal design allows tool to fit fuel tank lock rings on Ford, Chrysler, and GM vehicles with gas engines.

- Works on: 2004–newer Ford F-150 trucks; 2004–newer Chrysler / Dodge minivans, PT Cruiser, Dakota, and Durango; 2004–newer Chevy 1/2-ton and 3/4-ton trucks; and 2005–newer Jeep vehicles.
- Tool easily removes and installs lock ring on the fuel tank when servicing the fuel pump or fuel sending unit.
- Used with a 1/2" drive ratchet or breaker bar.

**No. 6599** – Fuel tank lock ring wrench. Wt. 1 lb. 8 oz.



6598

### Mercedes-Benz Fuel Tank Service Tool Kit

- Tool kit designed to remove fuel tank lids and plastic fuel tank cups to allow service on the fuel pump and/or the fuel sending unit.
- Works on Mercedes-Benz models W202 and W210.

**No. 6598** – Mercedes-Benz Fuel Tank Service Tool Kit. Wt. 4 lb. 2 oz.

# *AUTOMOTIVE SPECIAL TOOLS*

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# AUTOMOTIVE SPECIAL TOOLS

## Leak Detector Systems



### OTC LeakMaster and LeakTamer Plus Evap System Specifications

	No. 6521	No. 6525
Height	23 in. (58.4 cm)	23 in. (58.4 cm)
Width	18 in. (45.7 cm)	18 in. (45.7 cm)
Depth	9-1/2 in. (24.1 cm)	9-1/2 in. (24.1 cm)
Weight	17 lb. (7.6 kg)	17 lb. (7.6 kg)
Ship Weight	20 lb. (9.0 kg)	20 lb. (9.0 kg)
Power Supply	12-volt DC	12-volt DC
Amperage Usage	15 amps	15 amps
Supply Pressure	13.0 in. H <sub>2</sub> O	13.0 in. H <sub>2</sub> O
Supply Volume	15 liters per minute	15 liters per minute
Operating Temperature Range	45° F to 140° F (7.2° C to 60° C)	45° F to 140° F (7.2° C to 60° C)
Smoke Supply Line	10 feet (3m)	10 feet (3m)
Power Supply Line	10 feet (3m)	10 feet (3m)
Remote Starter Cable	10 feet (3m)	10 feet (3m)

## LeakMaster™ & LeakTamer™ Plus Evap Systems

- Vacuum Leak Testing
- Exhaust Leaks
- Crankcase Oil
- Cooling System Testing
- Wind and Water Leaks
- 1-Year Warranty

The LeakMaster and LeakTamer Plus Evap are the latest generation of leak detection systems, providing more smoke and better control. Solid-state circuitry improves reliability and ensures more consistent smoke output. A wide assortment of accessories make the LeakMaster and LeakTamer Plus Evap versatile tools for quickly locating different kinds of leaks.

### The LeakMaster and LeakTamer Plus Evap offer:

- Densest smoke in the industry.
- Newly redesigned smoke chamber and control system.
- More complete line of accessories.
- User refillable.
- More than 1000 tests per refill.
- Non-toxic, non-corrosive smoke.
- Built-in flowmeter to verify flow (6525 only).

**No. 6521** – LeakTamer Plus Evap system. Wt., 20 lb.

**No. 6525** – LeakMaster leak detection system. Wt., 22 lb.

### OTC LeakMaster & LeakTamer Plus Evap System Parts included and available separately

Number	Description	6525	6521
CEA-01	Exhaust Cone (2 each)	X	X
CEA-02	Cap Plug Kit	X	X
CEA-03	Smoke Diffuser Adapter	X	
CEA-04	Standard Service Port Adapter	X	X
CEA-041	Nitrogen Coiled Hose 25 ft.	X	
CEA-042	Small Service Port Adapter	X	
CEA-049	Schrader Removal Tool	X	X
HS-400AC	Halogen Spotlight	X	X
6525-1	Pressure Regulator	X	
6525-2	Dipstick	X	X
6525-3	Pointer Flag (for flow meter)	X	X
6525-4	Water Trap w/filter	X	X
6525-5	Battery Power Cable Assembly	X	
6525-6	Remote On/Off (switch only)	X	X
6525-7	Remote Cable Assembly (w/switch)	X	X
6525-8	Brass Nozzle	X	X
6525-9	Brass Nozzle and Hose Assembly	X	X
6525-10	Rubber Feet (4 reqd.)	X	X
6525-11	Accessory Storage Bag	X	
6525-12	Tech Tips Manual	X	
P-0716-UV	Smoke Producing Solution	X	X

### LeakMaster with EVAP cart

- Recessed area on top of the cart allows smoke machine to fit tightly and ensures its safety from tipping.
- Includes holding well for a standard sized 60 or 75 cubic foot SAE nitrogen tank.
- Large shelf area for the adapters and other accessories that come with the smoke machine.
- Raised handle, large recessed rollers, and a minimum floor footprint for ease in moving the unit around the shop floor.

**No. 6625** – EVAP cart only. Wt., 35 lbs., 2 oz.

6625



(Tank not included.)

6625

6625

### Clamshell Strut Spring Compressor

Servicing MacPherson struts is convenient and affordable with this compressor. It fits a wide range of struts and requires no special adapter shoes.

- Locking pins hold the compressor jaws in place.
- Tool compresses springs of 4 in. to 9 in. O.D., with wire diameters of 7/16" to 11/16".
- Built to use with an impact wrench

**No. 6494** – Clamshell strut spring compressor.  
Wt., 19 lbs.



Patent Pending



6494

**Note: Not to be used on conventional coil springs.**

# AUTOMOTIVE SPECIAL TOOLS

## Strut Tamer™ HD & Strut Tamer™ Elite



6585



6586

Shown with strut



6587



### StrutTamer™ HD Strut Spring Compressor

Simply the most effective compressor for virtually any straight, conical, or offset spring.

- Four-point locking jaws securely hold the spring in place.
- Open-ended design means you can take the strut in and out, quickly and easily.
- The arms adjust in and out, up and down, to accept many sizes of springs.  
(2-1/2" to 10" diameter)  
(2-1/2" to 24" vertical stroke)
- Extra long 3-bar handle gives user the leverage needed to compress the big strut springs.
- No need to change shoes for different size springs.
- Easy to transport when mounted on optional stand (No. 6586 – StrutTamer HD with stand; No. 6582 – stand only).
- Comes with No. 6583 Bridge accessory to be used on springs that cannot be compressed enough to remove the retaining nut.



6583

**No. 6585** – StrutTamer HD strut spring compressor, and No. 6583 Bridge accessory. Wt., 82 lbs.

**No. 6586** – StrutTamer HD. Includes StrutTamer spring compressor, No. 6583 Bridge accessory, and No. 6582 mobile stand. Wt., 150 lbs.

**No. 6582** – StrutTamer stand. Wt., 68 lbs.

**No. 6587** – 2:1 reduction gearbox. Allows a 2:1 torque compression increase when compressing struts.



6580



6582



6581

Shown with strut

### StrutTamer™ Elite Strut Spring Compressor

Our new StrutTamer Elite for MacPherson strut springs is an effective compressor for handling almost any straight, conical, or offset spring. With its adjustable arms and four-point locking jaws, the StrutTamer Elite securely holds the spring.

#### The StrutTamer features:

- Adjustable center screw that keeps a strut and spring aligned.
- Crank designed to compress a spring faster and easier.
- Coverage: 2-1/2" to 10" spring diameters, 2-1/2" to 24" vertical stroke range.
- Comes with No. 6583 Bridge accessory to be used on springs that cannot be compressed enough to remove the retaining nut.
- Easy mounting to wall or optional stand.
- Welded steel frame with two wheels that enable easy movement of the unit. (6581)
- Non-slip rubber pads that keep the stand firmly in place during compression. (6581)



6583

**No. 6580** – StrutTamer Elite strut spring compressor, and No. 6583 Bridge accessory. Wt., 81 lb.

**No. 6581** – Master StrutTamer Elite set. Includes StrutTamer spring compressor, No. 6583 Bridge accessory, and portable stand. Wt., 142 lb.

**No. 6582** – StrutTamer Elite portable stand. Wt., 61 lb.



### StrutTamer™ HD and StrutTamer™ Elite Strut Compressor Bridge Accessory

- Used to compress strut springs if technician prefers to press on the top plate of the strut rather than attaching the locking jaws to the top coils of the spring.
- Attaches to the locking jaws and is manually adjusted to bridge the strut top plate to be compressed. Lower part of spring is still held in the two lower locking jaws.
- Included with the 6580 & 6585. Available separately for owners of previous model No. 6070. Also works with 6494.

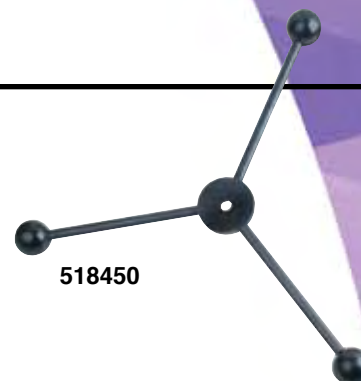
**No. 6583** – Bridge accessory for StrutTamer Elite and HD. Wt., 2 lbs. 5 oz.



### 3-Knob Handle for StrutTamer Elite

- Large, easy-to-grasp knobs provide ease of spring compression when using the StrutTamer Elite strut spring compressor.
- Included with the 6580. Available separately for owners of previous model No. 6070.

**No. 518450** – 3-knob handle for StrutTamer Elite. Wt., 1 lb. 5 oz.



### MacPherson Strut Spring Hook Compressor

These devices quickly and easily compress most sizes of MacPherson strut springs. Setup is fast and simple. Compression is achieved by alternating from one assembly to another. Each device has a heat-treated alloy thrust screw (5/8"-11 x 12") with forged hooks.

**No. 7294** – MacPherson strut spring hook compressor, for most sizes of MacPherson strut springs. Wt., 7 lbs., 3 oz.



### Front Coil Spring Compressor

This compressor fits most late-model rear wheel drive domestic vehicles in which the coil springs are between the upper and lower control arms. The tool features four case-hardened, self-aligning plates to ensure correct load distribution under tension. Includes two 3-3/8" ID plates and two 4" ID plates. Will not work on Mercedes-Benz vehicles.

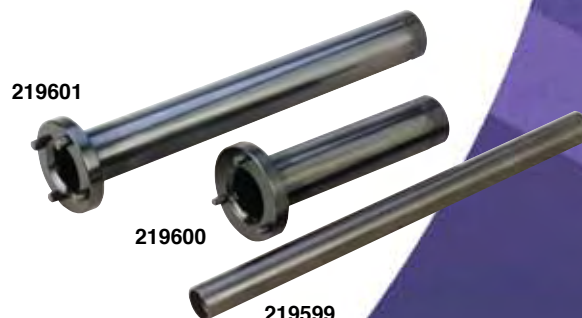
**No. 7045B** – Front coil spring compressor. Wt., 13 lbs.



### GM W-Body Strut Service Set

This set has the tools needed for removing and installing gas-charged or oil-filled strut cartridges on 1988-96 Pontiac Grand Prix, 1988-98 Oldsmobile Cutlass Supreme, 1988-99 Chevrolet Lumina sedan, 1995-99 Chevrolet Monte Carlo, and 1988-96 Buick Regal. It enables you to work through the strut tower without removing the strut assembly from the vehicle.

**No. 7568A** – GM W-body strut service set. Includes No. 219600 jounce bumper retainer wrench, No. 219601 strut cap nut wrench, and No. 219599 strut extension rod. Wt., 3 lbs., 7 oz.



# AUTOMOTIVE SPECIAL TOOLS

## Suspension Service



4533

### GM W-Body Strut Tool Kit

- Includes one T50 TORX® bit, a universal drive handle, and a double-ended socket.
- Use one end of the socket to remove/install the jounce bumper; the other end to remove/install the strut cap nut.

#### Works on GM W-body vehicles:

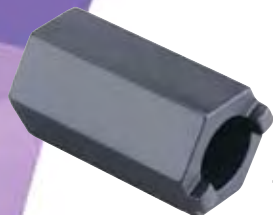
1988–96 Pontiac Grand Prix

1988–98 Olds Cutlass Supreme & Chevrolet Lumina Sedan

1995–99 Chevrolet Monte Carlo

1988–96 Buick Regal

**No. 4533** – GM W-body strut tool kit. Wt., 3 lbs., 14 oz.



7707

### VW and Audi Strut Nut Socket

This 1-3/4" long socket is built for VW and Audi FWD cars in which the top shock-retaining nut is recessed inside the strut tower. The tool's center bore allows you to hold the strut shaft from turning, using a 7/8" (22 mm) hex key and appropriately sized wrench.

**No. 7707** – VW / Audi strut nut socket. Wt., 4 oz.

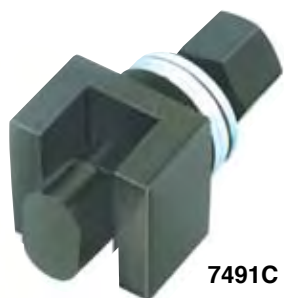


7544

### Strut Rod Nut Socket (24 mm)

This specially designed socket is needed to loosen and tighten the top strut nut when servicing the strut spring or strut cartridge. The socket is used with a 1/2" ratchet or breaker bar to turn the strut nut while holding the strut rod with the appropriate wrench. The socket fits 24 mm strut rod nuts found on many domestic FWD vehicles including 1988–96 Pontiac Grand Prix, 1988–98 Oldsmobile Cutlass Supreme, 1988–99 Chevrolet Lumina sedan, 1995–99 Chevrolet Monte Carlo, and 1988–96 Buick Regal.

**No. 7544** – Strut rod nut socket. Wt., 8 oz.



7491C

### GM Upper Control Arm Knock-Out Tool

Here's the tool you need to remove the inserts on the upper control arm alignment brackets of light-duty GM trucks. It features an indexed forcing bolt that pulls straight and evenly, and works with off-center knock-outs. The tool fits 1989–2001 Chevrolet and GMC 1/2-, 3/4-, and 1-ton trucks, two- or four-wheel drive. Also works on 1990–2001 all-wheel drive Chevrolet Astro vans and GMC Safari vans. 1997–2002 1/2-, 3/4-, and 1-ton full size vans.

**No. 7491C** – GM upper control arm knock-out tool. Wt., 8 oz.



7826

### Ford Truck Torsion Bar Tool

This tool firmly holds the torsion bar on Ford light-duty trucks while you adjust or service the front suspension. Without it, a torsion bar could unwind and possibly cause damage. The tool fits 1997–2003 Ford F-150 4WD pickups, 1995–2001 Ford Explorer 4WD, 1998–2001 Mercury Mountaineer, and 1998–2001 Ford Ranger.

**No. 7826** – Ford truck torsion bar tool. Wt., 2 lbs., 10 oz.

### Ford Torsion Bar Adjustment Tool

Before servicing a torsion bar on 1995–2001 Ford Explorer and 1998–2001 Mercury Mountaineer vehicles, you must first contain the bar to avoid possible damage. This tool securely accomplishes that task, allowing you to make adjustments.

**No. 7816** – Ford torsion bar adjustment tool.  
Wt., 3 lbs., 10 oz.



### GM Torsion Bar Unloading Tool

This rugged tool is built for GM's K-3500 series trucks with heavy-duty chassis and a larger torsion bar. It features a larger C-frame opening to accommodate beefier torsion bars. The tool holds the torsion bar while you make adjustments. It also works on 1988 to 2003 GMC and Chevrolet 1/2-, 3/4-, and 1-ton pickups; the S-10 Blazer and S-15 Jimmy, 4WD pickups with 4.3L V-6 engines; and 1991 to 2001 Oldsmobile Bravada.

**No. 7822A** – GM torsion bar unloading tool.  
Wt., 4 lbs., 3 oz.



### Ford/Mercury Rear Toe Adjustment Wrench

With this wrench and a 1/2" drive ratchet or breaker bar, you can easily adjust the rear toe cams on 1986–95 Taurus and Sable station wagons – from outside the suspension area, even while the vehicle sits on alignment plates.

**No. 7706** – Ford/Mercury rear toe adjustment wrench.  
Wt., 8 oz.



### Ford Rear Toe Adjustment Wrench

This wrench is designed for the larger 2-1/2" star-shaped adjusting cam on late model Ford cars. It works on 1995 to 2003 Lincoln Continentals, and 1996 to 2003 Taurus/Sable station wagons.

**No. 7899** – Ford rear toe adjustment wrench.  
Wt., 1 lb., 8 oz.



### Ford Rear Toe Adjustment Wrench Set

This set contains two wrenches for adjusting the rear toe on Ford and Mercury vehicles. One wrench fits the 1984–94 Tempo and Topaz; the other fits 1986–95 Taurus and Sable sedans, and 1986–95 FWD Continental. Each wrench accommodates a 1/2" ratchet or breaker bar.

- No. 49885 – for Taurus/Sable with 2-1/2" opening.
- No. 49884 – for Tempo/Topaz with 2" opening.

**No. 7814** – Ford rear toe adjustment wrench set.  
Wt., 1 lb., 6 oz.





# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



7891

### Chrysler LH Toe Adjustment Set

Here's a tool set that will quicken front toe adjustments on Chrysler LH series cars. Consisting of a wrench, socket, and retainer, this set is for the 1993–97 Chrysler Concorde and New Yorker, Dodge Intrepid, and Eagle Vision.

**No. 7891** – Chrysler LH toe adjustment set. Wt., 1 lb., 14 oz.



6272

### Chrysler LH Toe Adjusting Tool Set

This set enables the technician to adjust toe, to obtain a straight steering wheel, and correctly center the tie rod end. Permits easily reaching and breaking loose the tie rod jam nuts, while the entire assembly is held stable. Services 1998–newer Chrysler Concorde, Concorde 300M, New Yorker LHS, Dodge Intrepid, Dodge R/T, and Eagle Vision.

**No. 6272** – Chrysler LH toe adjusting tool set. Wt., 1 lb., 13 oz.



6295

### Front End Service Set

Kit includes five popular tools used for servicing Pitman arms, ball joints, and tie rods on most vehicles.

**No. 6295** – Front end service set. Wt., 12 lbs., 8 oz.

Set includes:

No. 7314A – Pitman arm puller.

No. 7315A – Tie rod end remover.

No. 7503 – Outer tie rod remover/ball joint separator.

No. 6296 – Pitman arm/tie rod end puller.

No. 6297 – Ball joint separator.



7314A

### Pitman Arm Puller

This puller will handle nearly any Pitman arm job on passenger cars and light trucks. It features special forged jaws shaped to fit the job, ensuring a positive grip every time. Spread between jaw tips: 1-5/16".

**No. 7314A** – Pitman arm puller. Wt., 2 lbs., 11 oz.

Similar to  
Ford No. 211-001  
(TOOL-3290-D)



7315A

### Tie Rod End Remover

Redesigned to use on imports and many front wheel drive vehicles, including SUVs with rack and pinion steering. Live center tip on forcing screw swivels to align tool to tie rod stud to ease in removal and prevent damage to stud.

**No. 7315A** – Tie rod end remover. Wt., 1 lb. 7 oz.



7503

### Outer Tie Rod Remover/Ball Joint Separator

This tool is a must when you're servicing outer tie rods and ball joints. It works on imported and domestic models, front or rear wheel drive, cast or stamped-steel steering knuckles.

- Handles up to 5 tons of force.
- Jaws spread to 3" and has a 4" reach.
- Jaws, once tightened, won't slip on the knuckle.

**No. 7503** – Outer tie rod remover. Wt., 2 lbs., 12 oz.

### Ball Joint Separator

This tool is used to separate the ball joint from the spindle support arm. It works on many domestic and import front wheel drive vehicles, and is adjustable up to 2" for different size ball joints.

**No. 6297** – Ball joint separator. Wt., 2 lbs., 13 oz.

6297



### Pitman Arm/Tie Rod End Puller

The versatile design allows this tool to be used as a Pitman arm remover for many small, domestic rear wheel drive vehicles, or as a tie rod end puller for many domestic and import vehicles. The jaws, with a spread of 1", give a positive grip in tight work places.

**No. 6296** – Pitman arm/tie rod end remover. Wt., 1 lb., 3 oz.

6296



### Super-Duty Pitman Arm Puller

- Works on 2005 and newer Ford F-250 and F-350 four-wheel-drive Super Duty trucks.
- Allows the Pitman arm to be removed from the steering gear while the steering gear is still in the vehicle.
- Two clamp bolts lock the jaws on the Pitman arm, ensuring a solid grip.
- Maximum jaw spread is 3-1/4".

**No. 6497** – Super-duty Pitman arm puller. Wt., 5 lbs.

6497



### Pitman Arm Puller

**Cuts Removal Time from 3½ Hours to 40 Minutes!**

- Labor intensive removal of steering sector not necessary.
- Compact design allows easy access to the Pitman arm.
- Works on most domestic SUVs and pickups.
- Live center on forcing screw and use of a standard wrench results in less effort required.
- Tool is forged steel for durability and long life.

Works on the following four-wheel-drive vehicles	
1998 – 2003	Ford Navigator
1997 – 2004	Ford F-150 and Expedition
1991 – 2001	Oldsmobile Bravada
1992 – 2006	Chevy Suburban
1988 – 2005	S-10 / S-15 GMC Trucks & Chevy Blazers
1988 – 2006	GMC & Chevy 1/2, 3/4, & 1 ton pickups
1995 – 2006	Chevy Tahoe and GMC Yukon/Denali

**No. 6496** – Pitman arm puller. Wt., 2 lbs. 8 oz.

6496



### Pitman Arm Puller

The No. 8149 conical tool is designed to fit Pitman arms on compact and intermediate cars.

- Conical design gives increased strength, stability, and fits securely on a Pitman arm.
- Spread is 1-1/4" with a reach of 2-1/4".
- 3/4-16 x 4-3/4" forcing screw provides enough power to remove stubborn Pitman arms.

**No. 8149** – Pitman arm puller. Wt., 1 lb., 5 oz.

8149



# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



8150

### Pitman Arm Puller

The No. 8150 conical tool is designed to fit Pitman arms on domestic cars and light-duty trucks.

- Conical design gives increased strength, stability, and fits securely on a Pitman arm.
- Spread is 1-1/2" with a reach of 2-1/2".
- 3/4-16 x 4-3/4" forcing screw provides enough power to remove stubborn Pitman arms.

**No. 8150** – Pitman arm puller. Wt., 1 lb., 13 oz.



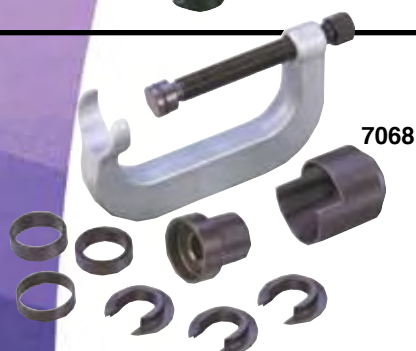
7311A Similar to  
Ford No. 211-003  
(T64P-3590-F)

### Pitman Arm Pullers

These pullers are designed for the toughest Pitman arm jobs. They're adjustable and have rugged forged jaws shaped to fit the job. Two clamp bolts lock the jaws on the Pitman arm, ensuring a solid grip. Puller No. 7310A includes an adapter for added versatility. Both pullers cover a variety of pulling jobs.

**No. 7310A** – Pitman arm puller for medium- and heavy-duty trucks. Max jaw spread: 2-1/4". Wt., 4 lbs., 8 oz.

**No. 7311A** – Pitman arm puller for cars and light trucks to 3/4 ton. Max jaw spread: 2-1/8". Wt., 3 lbs.



7068

### Upper Control Arm Bushing Service Set

Now you can easily replace press-in type upper control arm bushings on most rear wheel drive Chrysler, Ford, and GM vehicles. Mechanical screw power does the work. Set includes C-frame, screw assembly, and all adapters needed for quick removal or installation of bushings without removing or damaging the control arm.

**No. 7068** – Upper control arm bushing service set. Wt., 8 lbs., 3 oz.



8348

### GM Truck Bushing Adapter Set

- Works on 2000–2003 Chevy and GMC 1/2-ton and 3/4-ton trucks, 2- and 4-wheel drive.
- Adapter set is designed for quick and easy removal of the OE control arm bushing and installation of the offset camber bushing.
- Saves shop time by being able to install the offset camber bushing while aligning the front end.
- Saves replacement cost of the control arm assembly.
- Use with OTC No. 7248 C-Frame.

**No. 8348** – GM truck bushing adapter set. Wt., 2 lbs., 10 oz.



6531

### Pitman Arm Separator

Separating Pitman arms on cars and light trucks is quick and easy with this wedge and an appropriate sized hammer.

- 11" long and has a 1-1/8" fork spread.

**No. 6531** – Pitman arm separator. Wt., 2 lbs., 2 oz.



### GM Pitman Arm Remover

Removes Pitman arms on pickups and sport utility vehicles. The wedge end is placed between the Pitman arm and steering gear box, and with just a few hammer blows, it separates them. Works on 1988 and newer Chevrolet and GMC 1/2- and 3/4-ton 4WD pickups, Suburban, Tahoe, and Yukon.

- 11-3/4" long with a 1-5/8" fork spread.

**No. 6532** – GM Pitman arm remover. Wt., 2 lbs., 2 oz.



### Separator Tool

This handy tool is multipurpose. It will remove camber adjustment sleeves on 1980-86 F-150 & F-250 and 1982-88 Bronco II & Ranger Ford pickups that have an adjustable camber. It's also a separating tool for tie rods on medium- and heavy-duty trucks. And it works as a Pitman arm wedge on light trucks.

- 11-5/8" long with a 1-7/16" fork spread.

**No. 6533** – Separator tool. Wt., 2 lbs.

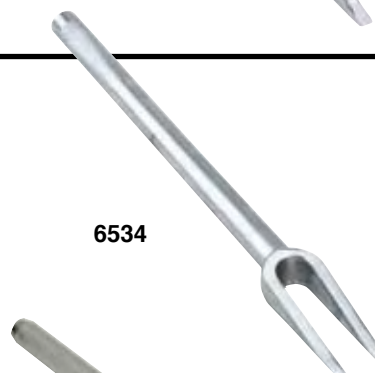


### Shock Link and Tie Rod Separator

Here's a tool that will convince even the most stubborn shock links and tie rods to part company. Just insert the tapered wedge between the seized parts, and smack the other end with a hammer.

- 16" long with 11/16" fork spread.

**No. 6534** – Shock link/tie rod separator. Wt., 2 lbs., 7 oz.



### Ball Joint Separator

Ball joint service is easier with this tool. It was designed to remove ball joints from spindle support arms, and can be used on a wide variety of vehicles, from compact cars to light-duty trucks.

- 16" long and has a 15/16" fork spread.

**No. 6535** – Ball joint separator. Wt., 2 lbs., 11 oz.



### Separator Set (5 piece)

- Features five popular "pickle forks" in a blow-molded case.
- Used to remove shock linkage, tie rods, and ball joints. Also for general service on many cars and light trucks.

Includes:

- No. 6531 – Size 11" x 1-1/8" Fork Spread.
- No. 6532 – Size 11-3/4" x 1-5/8" Fork Spread.
- No. 6533 – Size 11-5/8" x 1-7/16" Fork Spread.
- No. 6534 – Size 16" x 11/16" Fork Spread.
- No. 6535 – Size 16" x 15/16" Fork Spread.

**6299** – Separator set. Wt., 10 lbs.



# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



### Manual / Pneumatic Pickle Fork Set

- Use to separate ball joints, tie rods, and Pitman arms.
  - Set contains two handles: knurled handle allows use of a hammer; smooth handle fits in a pneumatic hammer.
  - Three sizes of pickle forks included: 1-1/8", 15/16", and 11/16".
1. Select the correct size fork head that fits the work piece.
  2. Completely thread the fork head onto the appropriate handle: knurled handle allows use of a hammer; smooth handle fits in a pneumatic hammer.
  3. Tighten the handle's jam nut to the fork to secure the fork to the handle assembly.

Set contains:

No. 4559-1 fork heads (set of three: 11/16", 15/16", and 1-1/8").

No. 4559-2 handles (set of two: knurled handle for use with a hammer; smooth handle for use with an air hammer).

**No. 4559** – Manual / pneumatic pickle fork set.

Wt., 4 lbs., 2 oz.



### Chrysler/Jeep Truck and SUV Ball Joint Set

- All new kit with more applications.
- Works on newer vehicle applications:
  - High clearance C-frame for most Chrysler/Jeep trucks and SUVs.
  - 2WD & 4WD.
  - 1992 to 2006 and other larger 4x4s.
- Includes adapters to service 2002–2006 Jeep Liberty lower ball joints.
- Kit comes in a blow-molded case and includes an application chart and instructions.

**No. 8031** – Chrysler/Jeep truck ball joint set. Wt., 26 lbs.



### C-Frame Update Kit

Kit contains two adapters which, when coupled with the large C-frame included in OTC No. 8031 SUV Ball Joint Kit, make it possible to use any adapter designed for use with the smaller OTC No. 7248 C-frame.

**No. 6730** – C-frame update kit. Wt., 1 lb., 11 oz.



### Ball Joint Super Set

This set allows for the removal and installation of press-fit ball joints on many GM and Ford light-duty trucks, vans, and SUVs through 2003; Dodge light trucks through 1998; Dodge vans, Durango, and Dakota through 2003; and Honda Accord, Civic, del Sol, and Prelude through 2001.

- Combines the popular OTC Nos. 7249, 7918, and 7996 ball joint sets into one SUPER set, competitively priced.
- The OTC designed and produced C-frame tool can be used alone to remove and replace universal joints.
- Comes complete with an application cross-reference and instructions in a blow-molded case.

**No. 6530** – Ball joint super set. Wt., 30 lbs.

### Ball Joint Service Tool Set

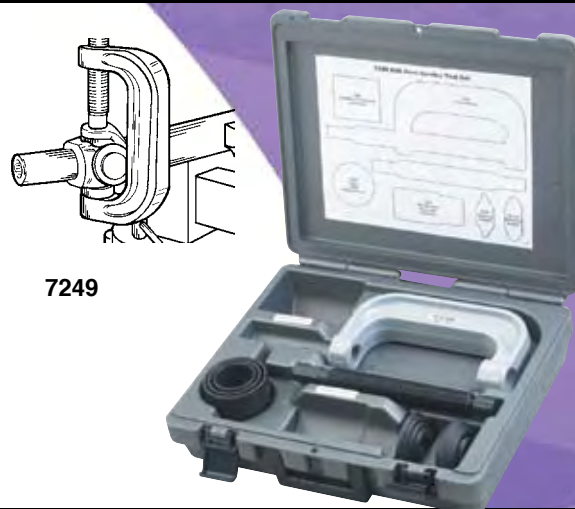
The tools in this set will press in, or out, most sizes of press-fit ball joints. Plus, the C-frame press can be used alone to remove and replace universal joints.

Set Includes:

- No. 7248 – C-frame press.
- No. 29503 – Receiver tube (3" O.D. x 2-3/4" I.D.).
- No. 29504 – Receiver tube (2-1/2" O.D. x 2-1/4" I.D.).
- No. 29505 – Receiver tube (2" O.D. x 1-3/4" I.D.).
- No. 305227 – Installing adapter.
- No. 305228 – Removing adapter.
- No. 62810 – Plastic carrying case only.

**No. 7249** – Ball joint removing/installing set.

Wt., 15 lbs., 3 oz.



### Ford Ball Joint Adapter Set

- Allows easy removal and installation of the lower ball joint on 1996–2006 Ford Taurus and Mercury Sable vehicles.
- Lower ball joint can now be replaced without having to replace the entire spindle assembly.
- Adapters are used with OTC No. 7248 C-Frame.

**No. 8032** – Ford ball joint adapter set. Wt., 1 lb., 15 oz.



### Ford Ball Joint Remover

This tool enables you to quickly remove the lower ball joint on 1992 to current 3/4- and 1-ton vans (E-250 and E-350) when used with ball joint service set Nos. 6530, 7248, and 7249.

**No. 7825** – Ford ball joint remover. Wt., 1 lb., 5 oz.



### 4WD Ball Joint Service Kit

This kit is used with ball joint service set Nos. 6530, 7248, and 7249 to remove and install upper and lower ball joints on 1967 to 1992 1/2- and 3/4-ton 4WD vehicles fitted with Dana 44 front axles (found on Ford, Dodge, GM, International, and Jeep vehicles).

**No. 7704** – 4WD ball joint service kit for Dana 44 front axles. Wt., 2 lbs., 5 oz.



### Jeep/Dodge Ram Ball Joint Service Adapter Kit

Use with ball joint service set Nos. 6530, 7248, and 7249 to remove or install aftermarket and original equipment upper and lower ball joints, and the offset ball joints used to change caster/camber. Works on 1984–1989 “downsized” Jeep Wagoneer, Cherokee and Comanche; 1987–1998 Wrangler; 1993–2004 Grand Cherokee; 1994–2001 Dodge Ram 4WD 1/2-ton pickup.

**No. 7894** – Jeep/Dodge Ram ball joint adapter kit. Wt., 3 lbs.





# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



### 2WD Ford Van Ball Joint Adapter Set

This set is designed to remove and install press-fit upper and lower ball joints. Fits most Ford 1992 to '97 2WD 3/4- and 1-ton vans.

**No. 7919** – 2WD Ford van ball joint adapter set.  
Wt., 3 lbs., 14 oz.



### Ford Ball Joint Adapter Update Kit

Three-piece kit contains specialty ball joint adapters for use with the industry standard OTC No. 7248 C-frame.

**Designed to work with the following Ford vehicles:**

Make	Years	Make	Years
F-150	1997-2003	F-250	1997-2004
F-350	1992-2004	F-450	1999-2002
F550	1999-2002	Excursion	2000-2004
Expedition	1997-2002	Explorer	1995-2004
Ranger	1998-2004	—	—

**No. 6731** – Ford ball joint adapter update kit.  
Wt., 2 lbs., 2 oz.



### 4WD GM Ball Joint Adapter Set

Use with ball joint service set Nos. 6530, 7248, and 7249 to service GM's 1996 to 2001 4WD 1/2- and 3/4-ton pickups, and Suburban, Yukon, and Tahoe SUVs. Easily remove or install either aftermarket or original equipment press-fit lower ball joints.

**No. 7920** – 4WD GM ball joint adapter set. Wt., 2 lbs., 3 oz.



### GM Ball Joint Adapter Update Kit

Four-piece kit designed to be used with the industry standard OTC No. 7248 C-frame. Contains specialty ball joint adapters to fit the following GM vehicles:

TrailBlazer & Envoy	2002-2005
1500 Silverado	1999-2004
Suburban & Tahoe	1995-2004
Avalanche	2002-2004
Escalade	1999-2004
Express & Savana	2003-2004
Hummer H2	2003-2004

**No. 6732** – GM ball joint adapter update kit. Wt., 3 lbs., 4 oz.



### Honda Lower Ball Joint Tool Set

Use with ball joint service set Nos. 6530, 7248, and 7249 to remove and install both sizes of ball joints on Honda 1986–97 Accord, 1988–00 Civic, 1993–99 del Sol, 1988–91 CRX, and 1983–98 Prelude.

**No. 7996** – Honda lower ball joint service set.  
Wt., 2 lbs., 6 oz.

### Asian Vehicle Ball Joint Adapter Update Kit

Two-piece kit contains specialty ball joint adapters for use with the industry standard OTC No. 7248 C-frame. Designed to work with the following Honda and Toyota vehicles:

Honda CR-V	1997-2005
Honda Odyssey	1995-2004
Toyota 4Runner	1996-2005
Toyota Sequoia	2001-2003
Toyota Tacoma	1995-2005

**No. 6733** – Asian vehicle ball joint adapter update kit. Wt., 2 lbs., 2 oz.



6733

### Live Center Forcing Screw Plug

This plug replaces the existing forcing screw on the No. 7248 C-frame to allow its use on heavy-duty ball joints. The shorter length gives the C-frame a wider opening to accommodate the larger ball joints on 3/4- and 1-ton trucks.

**No. 7917** – Live center forcing screw plug. Wt., 6 oz.



7917

### Master Ball Joint Adapter Set

This set is designed to expand the capability of ball joint service set Nos. 6530, 7248, and 7249. It includes all the receiver tubes and removing/installing adapters needed to work on press-fit ball joints on most GM, Ford, and Dodge pickups, vans, and SUVs, through 1997. It also includes the No. 7917 live center forcing screw plug. Packaged in a plastic carrying case.

**No. 7918** – Master ball joint adapter set. Includes application chart. Wt., 14 lbs., 5 oz.

**No. 514479** – Plastic carrying case. Wt., 4 lbs., 10 oz.

See charts on next page.



7918

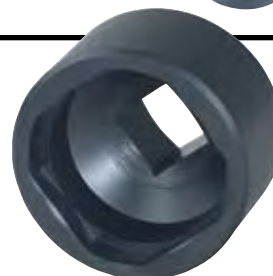
### Chrysler Ball Joint Socket

- Removes and installs the screw-in type ball joints used on mid-size, rear-wheel drive Chrysler cars.
- Similar to Miller Tools No. C-3560.
- Socket is 2" long with a 3/4" drive; fits 1-59/64" ball joints.

**No. 8033** – Chrysler ball joint socket. Wt., 5 oz.

Similar to  
Miller Tools  
No. C-3560

8033



### Chrysler Ball Joint Socket

- Removes and installs the screw-in type ball joints used on Chrysler / Dodge light trucks and vans.
- Similar to Miller Tools No. C-3561.
- Socket is 2" long with a 3/4" drive; fits 2-9/64" ball joints.

**No. 8034** – Chrysler ball joint socket. Wt., 5 oz.

Similar to  
Miller Tools  
No. C-3561

8034



### Ball Joint Spanner Wrench

Designed for removal and installation of ball joint adjusting sleeves on 1/2-, 3/4-, and 1-ton Dana 44 open yoke front axles found on Chrysler, Ford, GM, International, and Jeep 4WD vehicles.

- Permits easy torquing with 1" socket for correct upper ball-joint preload.

**No. 7080** – Ball joint spanner wrench. Wt., 8 oz.

7080

Similar to  
Ford No. T71T-3010-G



# AUTOMOTIVE SPECIAL TOOLS

## Ball Joint Application Chart

Upper or Lower Ball Joint	Application  R = Remove I = Install	29501	29503	29504	29505	38354	38355A	39976	204508A	222304	222305	222306	222307	305227	305228	313444	313967	313968	313969	313970	314392	531738	531739	537499	537500	537501
DODGE / CHRYSLER / PLYMOUTH																										
Lower	1998-03 4WD Dakota & Durango			R						I				R	I					I						
Lower	1987-01 2WD Dakota & Durango 1972-93 1/2-, 3/4-ton 2WD Pickup 1974-93 1/2-ton 2WD Ramcharger 1979-03 1/2-, 3/4-, 1-ton 2WD van								I								RI	R								
Lower	1972-93 3/4-, 1-ton 2WD Pickup 1979-03 1-ton 2WD van		R	I						I				I	RI			R								
Lower	1984-01 Caravan, Voyager, Town & Country				RI									I	RI			R								
Upper	1994-99 1/2-, 3/4-, 1-ton 2WD Pickup (IFS)		R	I					I					RI	R											
Lower	1994-99 1/2-, 3/4-, 1-ton 2WD Pickup (IFS)		R	I						I				RI	I											
Upper	1994-99 1-ton solid axle, 2WD 1994-01 3/4-, 1-ton Dana 60 axle, 4WD (not HD axle)			R			I		I						R											
Lower	1994-99 1-ton solid axle, 2WD 1994-99 3/4-, 1-ton Dana 60 axle, 4WD	RI		R		I				I				R	I						RI					
Lower	1994-01 1/2-ton Dana 44 axle, 4WD 1994-98 3/4-ton Dana 44 axle, 4WD 1972-93 1/2-, 3/4-, 1-ton 4WD & Ramcharger															R	R	I	I							
Upper	1994-01 1/2-ton Dana 44 axle, 4WD 1994-98 3/4-ton Dana 44 axle, 4WD															R	R	I	I							
Upper	1972-93 1/2-, 3/4-, 1-ton 4WD & Ramcharger					R	I		I																	
JEEP																										
Upper	1993-98 2WD Grand Cherokee 1993-98 4WD Grand Cherokee, Grand Wagoneer 1987-98 4WD Wrangler 1984-99 4WD Wagoneer, Comanche, Cherokee																R	R	I	I						
Lower	1993-98 2WD Grand Cherokee 1990-98 2WD Cherokee, Wagoneer, Comanche 1993-98 4WD Grand Cherokee, Grand Wagoneer 1990-98 4WD Wrangler 1990-95 2WD & 4WD Wagoneer, Comanche, Cherokee																R	R	I	I						
Upper	1984-99 2WD Cherokee, Wagoneer, Comanche																R	R	I	I						
Lower	1984-89 2WD Cherokee, Wagoneer, Comache 1987-89 4WD Wrangler 1984-89 4WD Wagoneer, Comanche, Cherokee																R	R	I	I						
Upper	1984-92 full size 4WD Grand Wagoneer 1972-88 4WD Truck, CJ, full size Cherokee, Wagoneer					R	I		I																	
Lower	1984-92 full size 4WD Grand Wagoneer 1972-88 4WD Truck, CJ, full size Cherokee, Wagoneer					R	I		I																	



# AUTOMOTIVE SPECIAL TOOLS

## Ball Joint Application Chart

Upper or Lower Ball Joint	Application R = Remove I = Install	29501	29503	29504	29505	38354	38355A	39976	204508A	222304	222305	222306	222307	305227	305228	313444	313967	313968	313969	313970	314392	531738	531739	537499	537500	537501
<b>GM</b>																										
Lower	1982-05 2WD S-10 Blazer, Jimmy & Pickup			R		I	R		I						R											
Lower	1993-99 2WD 1/2-, 3/4-, 1-ton Pickup; Suburban 1996-04 1/2-, 3/4-, & 1-ton 2WD G Van		R	RI										RI	RI											
Lower	1988-92 2WD 1/2-, 3/4-, 1-ton, Pickup; Suburban		R	RI										RI	RI											
Lower	1985-05 Astro, Safari van		R	I					I					RI	R											
Lower	1973-95 1/2-, 3/4-ton 2WD G van			R	I				I					RI	R											
Lower	1996-00 1/2-, 3/4-, 1-ton 4x4								I			R	I	RI												
Lower	2002-05 TrailBlazer, Envoy, & Bravada 2WD/4WD					I			I			R		R												
Upper	2002-05 TrailBlazer, Envoy, & Bravada 2WD/4WD						R											I	I			R				
Lower	1999-00 1/2-ton Silverado & Sierra 4WD std. cab 2001-04 1/2-ton Silverado, Sierra, Denali 2WD/4WD std. & extd cab 2000-04 1/2-ton Suburban, Tahoe, Yukon, Denali 2WD/4WD 2002-04 1/2-ton Avalanche 2WD/4WD 2002-04 Cadillac Escalade 2WD/4WD 2003-04 1/2- & 3/4-ton Express, & Savana Van 4WD			I				I	I					RI										R		
Upper	1999-00 1/2-ton Silverado & Sierra 2WD/4WD std. cab 2001-04 1/2-ton Silverado, Sierra, Denali 2WD/4WD std. & extd cab 2000-04 1/2-ton Suburban, Tahoe, Yukon, Denali 2WD/4WD 2002-04 1/2-ton Avalanche 2WD/4WD 2002-04 Cadillac Escalade 2WD/4WD 2003-04 1/2- & 3/4-ton Express & Savana Van 4WD	RI		R				I							R				I						R	
Lower	2001-03 1/2-ton Silverado, Sierra, 2WD/4WD HD Crew Cab 1999-04 3/4-ton Silverado, Sierra, 2WD/4WD 2000-04 3/4-ton Suburban, Yukon 2WD/4WD 2001-04 1-ton Silverado, Sierra 4WD 2002-04 3/4-TON AVALANCHE 2WD/4WD 2003-04 Hummer H2			I					I			R	I	RI												
Upper	2001-03 1/2-ton Silverado, Sierra, 2WD/4WD HD Crew Cab 1999-04 3/4-ton Silverado, Sierra, 2WD/4WD 2000-04 3/4-ton Suburban, Yukon 2WD/4WD 2001-04 1-ton Silverado, Sierra 4WD 2002-04 3/4-Ton Avalanche 2WD/4WD 2003-04 Hummer H2	RI		RI				I						I	R				I							R
Lower	1995-99 Tahoe, Yukon 4WD 2000 Tahoe Z71 4WD (old style) 1995-99 1/2- & 3/4-ton Suburban 4WD								I			R	I	RI												

# AUTOMOTIVE SPECIAL TOOLS

## Ball Joint Application Chart

Upper or Lower Ball Joint	Application R = Remove I = Install	29501	29503	29504	29505	38354	38355A	39976	204508A	222304	222305	222306	222307	305227	305228	313444	313967	313968	313969	313970	314392	531738	531739	537499	537500	537501
<b>FORD</b>																										
Lower	1986-97 Aerostar			RI					I					RI	R											
Upper	1989-90 2WD Bronco II 1991-94 2WD Explorer 1989-97 2WD Ranger			R			I		I					R												
Upper	1986-88 2WD Bronco 1983-88 2WD Ranger			R	I				I					RI												
Lower	1989-90 2WD Bronco II 1991-94 2WD Explorer 1989-97 2WD Ranger			R	I				I					RI												
Lower	1986-88 2WD Bronco II 1983-88 2WD Ranger						I		I								R	R								
Lower	1997-03 1/2-ton Pickup, 2WD & 4WD 1997-99 3/4-ton Pickup, 2WD & 4WD	RI	R	I						I				RI	I											
Upper	1987-96 1/2-ton 2WD Pickup 1987-97 3/4-, 1-ton 2WD Pickup						I		I								R	R								
Lower	1987-98 1/2-ton 2WD Pickup			RI										RI												
Upper	1981-86 1/2-ton 2WD Pickup 1990 4WD Bronco II w/Dana 28 1984-89 4WD Bronco II 1991-94 4WD Explorer w/Dana 28 1990-97 4WD Ranger w/Dana 28 1983-89 4WD Ranger		R	I					I					RI												
Lower	1981-86 1/2-ton 2WD Pickup 1980-96 4WD Bronco 1981 1-ton (3800 axle) 4WD 1980-96 1/2- & 3/4-ton 4WD					R	I		I																	
Lower	1987-98 3/4-ton & 1-ton 2WD Pickup	RI		R		I				I				R	I							RI			R	
Upper	1992-03 1/2-, 3/4-, 1-ton 2WD Van 1992-03 E 150, 250, 350 Econoline Van & Club Wagon 1999-03 E 350 Superduty Van 2WD 2002-03 E 450 Superduty Van 2WD 1999-04 F 250, 350 Superduty Twin I Beam 2WD 2000-04 Excursion Twin I Beam 2WD				I				I		R				RI			R								
Lower	1992-03 3/4- & 1-ton 2WD Van							I		I					I	R										
Lower	1992-03 1/2-ton 2WD Van			R	I				I					RI												
Upper	1990 4WD Bronco II w/Dana 35 1991-94 4WD Explorer w/Dana 35 1990-97 4WD Ranger w/Dana 35		R	I						I				RI												
Lower	1990 4WD Bronco II w/Dana 28 1984-89 4WD Bronco II 1991-97 4WD Explorer w/Dana 28 1990-97 4WD Ranger w/Dana 28 1983-89 4WD Ranger		R												I											
Lower	1990 4WD Bronco II w/Dana 35 1991-94 4WD Explorer w/Dana 35 1990-97 4WD Ranger w/Dana 35		R												I											
Upper	1980-96 4WD Bronco 1992-02 1-ton 4WD 1980-96 1/2-, 3/4- & 1-ton 4WD (IFS)						I		I																	

# AUTOMOTIVE SPECIAL TOOLS

## Ball Joint Application Chart

Upper or Lower Ball Joint	Application  R = Remove I = Install	29501	29503	29504	29505	38354	38355A	39976	204508A	222304	222305	222306	222307	305227	305228	313444	313967	313968	313969	313970	314392	531738	531739	537499	537500	537501
FORD																										
Lower	1992-99 1-ton 4WD w/solid axle														I						RI					
Lower	1980-95 3/4- & 1-ton 4WD spindle														I						RI					
Lower	1992-97 F350 4WD (monobeam) 1999-04 F250, 350, 450 & 550 Superduty 4WD (monobeam) 2000-02 Excursion 4WD (monobeam) 1999-02 F250, 350, 450 & 550 Superduty 2WD (monobeam) 1999-04 F250, 350 Superduty 2WD (twin I beam) 2000-04 Excursion 2WD (twin I beam)								I		R				I											
Upper	1992-97 F350 4WD (monobeam) 1999-04 F250, 350, 450 & 550 Superduty 4WD (monobeam) 2000-02 Excursion 4WD (monobeam) 1999-02 F250, 350, 450 & 550 Superduty 2WD (monobeam) 1997 F250 HD 4WD (twin I beam) 1980-96 F150, 250 4WD 1980-85 F350 4WD before 2-1-85 (twin I beam)				I		I		I						I											
Lower	1997-03 F150 2WD/4WD 1997-99 F250 2WD/4WD 1997-02 Expedition 2WD/4WD 1998-04 Ranger 2WD/4WD (w/torsion bar susp.) 1995-04 Explorer, Explorer Sport & Sport Trac 2WD/4WD		R						I						I								I			
Lower	1980-97 F250 4WD (3850 axle and larger) 1980-85 F350 4WD (except 3800 axle)								I						I											

Component Dimensions					Set Contents					
Tool No.	Description	O.D.	I.D.	Length	7249	7918	7919	7920	7704	7894
29501	Plug	7/8"	—	3-5/8"						
29503	Receiving Tube	3"	2-3/4"	2-3/16"	X					
29504	Receiving Tube	2-1/2"	2-1/4"	1-11/16"	X					
29505	Receiving Tube	2"	1-3/4"	1-11/16"	X					
38354	Receiving Tube	2-1/4"	2"	2"		X			X	
38355A	Installing Tube	2"	1-13/16"	3"		X			X	
39976	Receiving Tube	2-1/2"	2-1/4"	1-1/2"		X	X			
204508A	Receiving Cup	2-1/4"	2"	7/16"		X	X	X	X	
222304	Receiving Tube	2-1/2"	2-1/4"	3/4"		X	X			
222305	Receiving Tube	2-1/2"	2-1/4"	2-3/4"		X	X			
222306	Receiving Tube	3"	2-3/4"	2-1/4"		X		X		
222307	Receiving Tube	2-3/4"	2-7/16"	2-1/4"		X		X		
305227	Installing Adapter	3"	15/16"	1-1/8"	X					
305228	Removing Adapter	3-1/16"	—	1-1/8"	X					
313444	Receiving Tube	2-7/8"	2-5/8"	2-7/8"		X	X			
313967	Receiving Tube	2-7/16"	2-3/16"	3-3/16"		X				X
313968	Remover/Installer	1-7/16"	3/4"	1"		X	X			X
313969	Installing Tube	2"	1-3/4"	2-5/16"		X				X
313970	Receiving Cup	2-1/8"	1-3/4"	1/2"		X				X
314392	Plug	7/8"	—	3"						
531738	Installing Tube	1-9/16"	1-5/16"	2-1/8"						
531739	Receiving Tube	2-1/2"	2-1/4"	1-1/2"						
537499	Receiving Tube	2-3/4"	2-7/16"	2"						
537500	Remover	1-9/16"	13/16"	2-3/16"						
537501	Remover	1-3/4"	13/16"	2-3/16"						



# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service

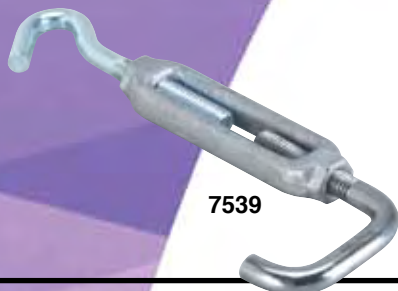


6007

### Lower Control Arm Prying Tool

Installing a ball joint on a lower control arm typically requires the effort of two people. However, with this tool and our No. 7420 or 7421 pry bar – or any 7/8" diameter pry bar – it's a one-person job.

**No. 6007** – Lower control arm prying tool. Wt., 8 oz.



7539

### GM F-Body Camber Adjusting Tool

This unique tool works like an extra hand to hold the strut while you're making camber adjustments. For use on 1982 to '92 Camaro and Firebird.

**No. 7539** – GM F-body camber adjusting tool. Wt., 8 oz.



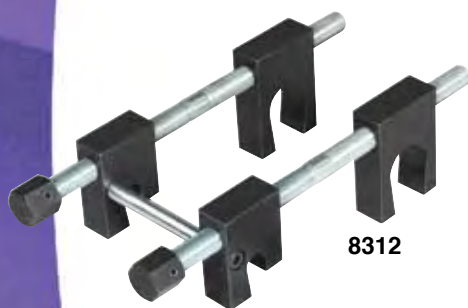
Similar to  
Kent Moore J-38658

7840

### GM Caster/Camber Adjusting Tool

This tool is designed to make caster/camber adjustments quick and easy. Simply place it into the holes in the cross-member and lower control arm, then turn the tool's turnbuckle nut to hold the correct adjustment. This allows you to tighten the adjusting bolts. For use on 1993 to 2000 Chevrolet Camaro and Pontiac Firebird. Also works on 1986–92 Buick Riviera, Cadillac Seville, Oldsmobile Toronado, and 1986–91 Buick Regal.

**No. 7840** – GM caster/camber adjusting tool. Wt., 2 lbs., 14 oz.



8312

### Ford Caster/Camber Adjusting Tool

- Works on 2002–2005 Ford Explorer and Mercury Mountaineer.
- Tool allows you to slide control arm in the positive or negative direction.
- Saves up to 30 minutes and allows more accuracy. Adjust caster/camber while maintaining live alignment reading.

**No. 8312** – Ford caster/camber adjusting tool. Wt., 3 lbs., 5 oz.



7829

### Ford Caster/Camber Adjusting Wrench

This wrench is specially bent to fit on the caster/camber adjusting cam on 1995 to 2001 Ford Explorer 4WD SUVs, and 1997 2WD and 4WD F-150 pickups. You can use it on the nut to loosen the adjusting cam, and on the bolt to set the caster/camber.

- Has a 21 mm, 12-point design.
- Accommodates a 1/2" drive ratchet or breaker bar.

**No. 7829** – Ford caster/camber adjusting wrench. Wt., 13 oz.

### Upper Arm Alignment Wrenches

These specialized 1/2" drive wrenches provide easy access to the upper control arm bolts for front wheel alignment jobs.

**No. 7414** – 13/16" hex wrench for use on 1985 to '97 Ford Aerostar vans. Wt., 12 oz.

**No. 7534** – 22 mm hex wrench for use on 1990–2005 2WD Chevrolet Astro and GMC Safari, and 1991–2005 AWD Chevrolet Astro and GMC Safari vans. Wt., 12 oz.

**No. 7536** – 3/4" hex wrench for use on 1973 to '87 Chevrolet 2WD pickups, and Canadian-built 1985 to '90 current GM Astro and Safari vans. Wt., 12 oz.

**No. 7537** – 18 mm hex wrench for use on U.S.-built 1985 to '90 GM Astro vans. Wt., 13 oz.

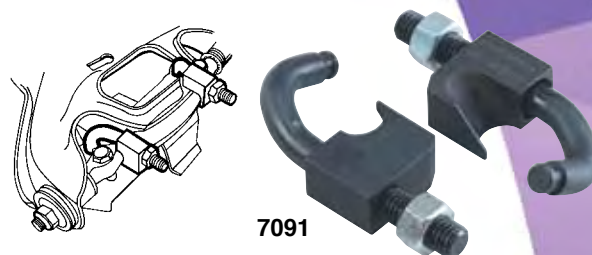


7414 is similar to Ford No. 204-DO13 (D87T-3068-A)

### Ford Caster/Camber Alignment Set

The tools in this set help ensure accurate caster/camber adjustment on the front suspensions of 1979 to 1991 Ford and Mercury full size, rear wheel drive vehicles. They effectively limit movement of the front suspension once the cross shaft bolts are loosened.

**No. 7091** – Ford caster/camber alignment set. Wt., 1 lb., 2 oz.



### Ford 4WD Caster/Camber Sleeve Puller

Rusted or seized bushings are no match for this puller. It easily pulls most aftermarket and OEM bushings on Ford 4WD vehicles. It's the only tool that works on any angle OEM bushing, removing it quickly and without damage. For 1980 to '96 Ford Broncos, full-size E- and F-series vans and pickups; 1983 to '89 Ranger and Bronco II. The puller comes with adapters to pull most aftermarket bushings having removable retaining rings.

**No. 7588A** – Ford 4WD caster/camber sleeve puller. Wt., 1 lb., 14 oz.

**No. 221476** – Arnwood-style bushing adapter. Wt., 1 oz.

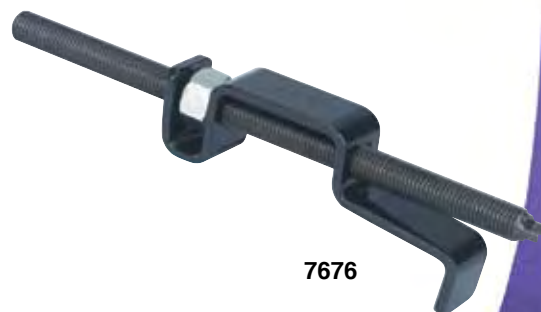


Similar to Ford No. 204-D019 (D93T-3000-A)

### Alignment Assist Tool

With this tool, you won't need to remove tires to adjust the camber on most GM and some Chrysler FWD vehicles. The tool sits on top of a tire and presses against the strut to prevent the tire from moving, allowing you to do the adjustments. For Chrysler and GM vehicles with slotted strut mounts that don't use eccentric washers on the through slots for camber adjustment. (Applications do not include Buick Park Avenue, Cadillac Fleetwood, Oldsmobile 88 and 98, and Pontiac Bonneville – if they have rear air suspension.)

**No. 7676** – Alignment assist tool. Wt., 3 lbs., 2 oz.

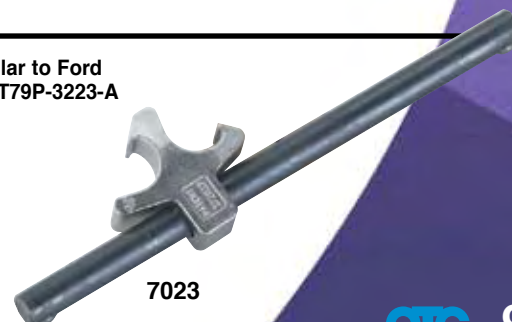


### Tie Rod Adjusting Tool

Here's a tool that will fit most models of compact and standard-size cars and light trucks. It has a four-position feature and 360° rotation that lets you locate the tool to grip the sleeve correctly, even when access is limited.

**No. 7023** – Universal tie rod adjusting tool. Wt., 13 oz.

Similar to Ford No. T79P-3223-A



# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



These tools are also available individually.

**6275**

### Tie Rod/Pitman Arm Adjusting Set

These tools have a unique design that permits 360° rotation of the adjusting sleeve, even where space is limited.

- Accommodates 1/2" drive ratchet or breaker bar.
- Set consists of the following tools in a blow-molded case:
  - No. 7095 – For compact cars with 3/4" diameter adjusting sleeves. Wt., 7 oz.
  - No. 7096 – For full size cars with 7/8" diameter adjusting sleeves. Wt., 7 oz.
  - No. 7097 – For light trucks with 1-1/8" diameter adjusting sleeves. Wt., 8 oz.
  - No. 6274 – For Ford 3/4-ton and 1-ton trucks with 1-13/16" diameter adjusting sleeves. Wt., 10 oz.
  - No. 6084 – Pitman arm adjusting tool for Ford F-250 thru F-450 trucks with 1-7/16" dia. adjusting sleeves. Wt., 7 oz.

**No. 6275** – Tie rod/Pitman arm adjusting set. Wt., 3 lbs.

Similar to  
Ford No. 211-D029  
(D93L-3395-A)



**7572**

**7678**

**7594**

**7593**

Important: When removing and installing inner tie rods, hold steering rack shaft to prevent damage to pinion gear.

### Inner Tie Rod Removal Set

Remove and install inner tie rods without removing steering gear. The adapters fit into the tie rod socket, and a 1/2" drive ratchet or breaker bar fits the drive end.

- Services both old and new style inner tie rods.
- For use on most Chrysler, Ford, and GM vehicles.
- No. 7572 socket is 16" long and is "stepped" to accept 1-3/16" tie rods and 1-5/16" tie rods.
- Nos. 7678, 7593, and 7594 adapters fit into socket and work on 1-3/16", 1-5/16", and 1-7/16" tie rods.

**No. 7595A** – Inner tie rod removal set. Wt., 5 lbs., 2 oz.

Important: When removing and installing inner tie rods, hold steering rack shaft to prevent damage to pinion gear.



**7572**

### 2-in-1 Inner Tie Rod Socket Tool

Using "piggy-backed" sockets, this tool makes short work of inner tie rod removal or installation.

- For use on Ford and Chrysler vehicles with rack and pinion steering.
- Accommodates 1/2" drive ratchet or breaker bar.
- Socket is 16" long and is "stepped" to accept 1-3/16" tie rods and 1-5/16" tie rods.

**No. 7572** – 2-in-1 inner tie rod socket tool. Fits Ford and most Chrysler vehicles with rack and pinion power steering. Wt., 2 lbs., 2 oz.



**7593**

**7594**

**7678**

Important: When removing and installing inner tie rods, hold steering rack shaft to prevent damage to pinion gear.

### Inner Tie Rod Adapter Sockets

These sockets enable you to remove and install inner tie rods without removing steering gear. Drive end fits No. 7572 inner tie rod sockets.

**No. 7593** – 1-3/16" socket fits tie rod on Ford FWD vehicles with rack and pinion steering. Wt., 15 oz.

**No. 7594** – 1-5/16" socket fits tie rod on Ford RWD and most Chrysler vehicles with rack and pinion steering. Wt., 1 lb.

**No. 7678** – 1-7/16" socket fits GM and Chrysler FWD cars with Saginaw steering gear. Wt., 1 lb.



### Tie Rod Socket for Medium-Duty Trucks

Here's a heavy-duty tool for removing tie rod ends on Chrysler, Ford, and GM 1-ton trucks. It also works on many medium-duty trucks, Class 2 through 6.

- Accommodates a 1/2" drive impact wrench.

**No. 6065** – Truck tie rod socket. Wt., 1 lb., 8 oz.

6065

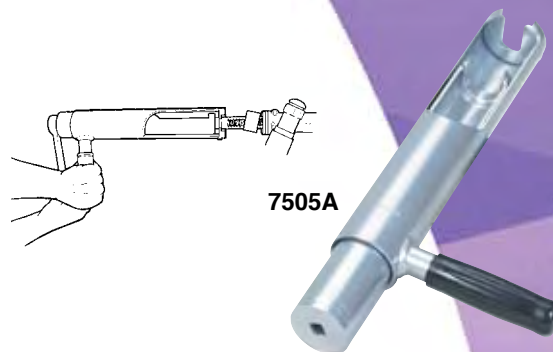


### Inner Tie Rod Tool

Now you can work on inner tie rods without removing the steering gear, saving time and effort. The tool's design has a dual purpose: The outer tube supports the steering rack, preventing damage to the pinion gear. The inner socket fits on the tie rod end.

- For use on Chrysler and GM vehicles with Saginaw steering gear assemblies.
- Accommodates 1/2" drive ratchet or breaker bar.
- Used with No. 7504 tie rod crimping tool.

**No. 7505A** – Inner tie rod tool. Wt., 9 lbs., 7 oz.



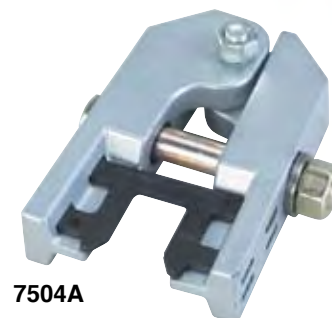
7505A

### Inner Tie Rod Crimper Tool

This handy tool will crimp a tie rod housing to the flats on the rack to keep it from coming loose, while the steering gear remains mounted. It's much easier and neater than the hammer and chisel method.

- For use on GM and Chrysler vehicles having Saginaw steering gear assemblies.
- Used with No. 7505 inner tie rod tool.

**No. 7504A** – Inner tie rod crimper tool. Wt., 2 lbs., 11 oz.



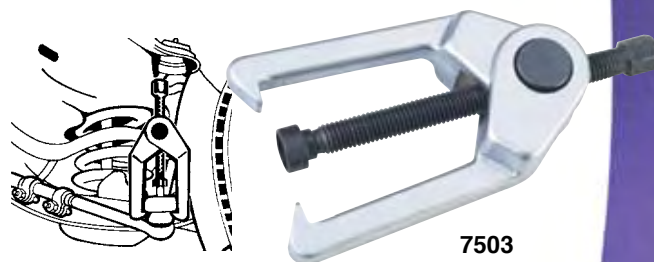
7504A

### Outer Tie Rod Ball Joint Separator

This tool is a must when you're servicing outer tie rods and ball joints on imported and domestic models, front or rear wheel drive, cast or stamped-steel steering knuckles.

- Handles up to 5 tons of force.
- Jaws, once tightened, won't slip on the knuckle.

**No. 7503** – Outer tie rod ball joint separator. Wt., 2 lbs., 12 oz.

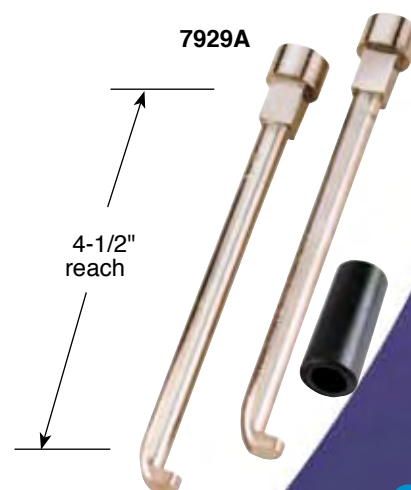


7503

### Steering Wheel Puller Leg Set

- Particularly useful during steering wheel removal when there are no tapped holes in the assembly.
- The 7929A is designed for use with either the No. 7245 or No. 7403 OTC steering wheel puller.
- These legs get behind the steering wheel assembly to provide an even, straight pull. The collar is designed for use on Ford and Chrysler vehicles.
- Works on:
  - 1988–1993 Pontiac LeMans
  - 1997–newer GM cars, SUVs, and light trucks
  - 1997–newer Ford SUVs and light trucks
  - 1999–newer Jeep Grand Cherokee
  - 2003–newer Jeep Liberty
  - 2004–newer Dodge Sprinter van

**No. 7929A** – Steering wheel puller leg set. Wt., 8 oz.



7929A

4-1/2"  
reach

# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



7245

### Steering Wheel Puller

This puller removes steering wheels on most domestic and imported vehicles, with or without telescoping steering columns. Five sets of cap screws are included for various thread requirements. The forcing screw features a swivel end to protect steering shaft. Cap screws included (pairs): 3/8-16 x 3-1/2; 5/16-18 x 3-1/2; 5/16-24 x 3-1/2; M8-1.25 x 90 mm; and 5/16-18 x 4 (SIR).

**No. 7245** – Steering wheel puller with five pairs of cap screws. Bar measures 4" x 1" x 1". Wt., 1 lb., 15 oz.



7403

### Steering Wheel, Pulley, and Flywheel Puller

Here's a puller that works in a variety of applications. It pulls steering wheels on most late model cars. It also works as a regular 2/3-way puller to remove pulleys and small engine flywheels. Cap screws included (pairs): 3/8-16 x 3-1/2 in.; 5/16-18 x 3-1/2 in.; 5/16-24 x 3-1/2 in.; M8-1.25 x 90 mm; and 5/16-18 x 4 in. (SIR).

- Works on domestic cars with or without collapsible steering columns.

**No. 7403** – Steering wheel/pulley/flywheel puller. Wt., 1 lb., 10 oz.



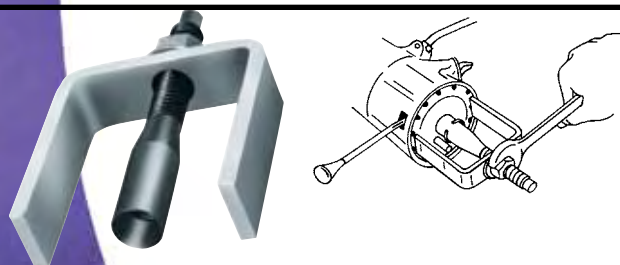
7927A

### Steering Wheel Remover/ Lock Plate Compressor Set

With this set, it's easy to remove the steering wheels of most domestic and imported vehicles, with or without tilt steering columns. Also accesses the turn signal switch and SIR modules on current GM vehicles.

- Includes No. 7815 steering wheel lock plate remover, No. 7889 steering pivot pin remover for Saginaw steering columns, No. 7245 steering wheel puller, plus four sets of cap screws (2 of each size: M8-1.25 x 90 mm, 3/8"-16 x 3-1/2", 5/16"-24 x 3-1/2", and 5/16"-18 x 4").
- Contained in convenient plastic blow-molded case.

**No. 7927A** – Steering wheel remover/lock plate compressor set. Wt., 4 lbs., 5 oz.



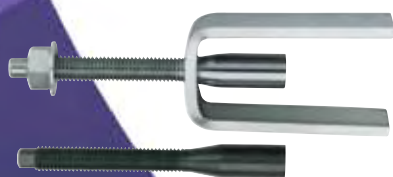
7031A

### Steering Wheel Lock Plate Remover

This tool simplifies the removal and installation of round wire snap rings that hold steering wheel lock plates. It's a must for accessing turn signal switches on AMC, Chrysler, and GM model cars, with or without tilt steering columns. Will not work on GM SIR steering columns.

- Also works on metric columns.

**No. 7031A** – Steering wheel lock plate remover. Wt., 1 lb., 8 oz.



7815

### Steering Wheel Lock Plate Remover

This is an essential tool for compressing steering wheel lock plates on AMC, Chrysler, and GM vehicles, with or without tilt steering columns. It's also necessary for accessing the turn signal switch and SIR modules on GM vehicles.

- Also works on metric columns.

**No. 7815** – Steering wheel lock plate remover. Wt., 1 lb., 12 oz.

### Steering Pivot Pin Remover

Tilt steering columns are much easier to service when your tool box has one of these pivot pin removers in it. Works on GM, Chrysler, and Ford vehicles with Saginaw tilt steering columns.

**No. 7889** – Steering pivot pin remover. Wt., 3 oz.

7889

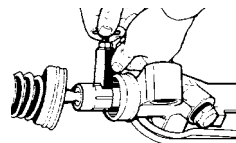
Similar to  
Kent Moore J-21894-01

### Ford Lock Pin Remover

Removes tie rod inner socket retaining pin on Ford vehicles with rack and pinion power steering. Replacement tips available separately.

**No. 7122R** – Lock pin remover. Wt., 5 oz.

**No. 37907** – Tip for 7122R. Wt., 1 oz.



7122R

### GM Power Steering Pump Pulley Installer

This tool offers easy, damage-free installation of power steering pump pulleys. It works on 1988–95 GM Quad 4 engines; 1990–94 Chevrolet Lumina APV, Oldsmobile Silhouette, and Pontiac Trans Sport vehicles; 1990–94 3.1L V6 engines; 1994–newer 3100 GM V6; 1999–newer 3400 GM V6. Threads are 3/8–16" to fit pulley shaft threads.

**No. 7209** – GM power steering pump pulley installer. Wt., 7 oz.



7209

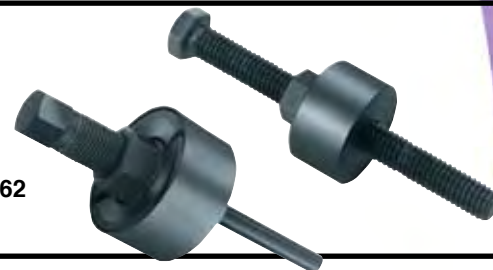
### GM Power Steering Pump Pulley Service Kit

Remove and install the power steering pump pulley easily and without damaging the pump shaft or pulley.

- Includes remover and installer.

**No. 7362** – GM power steering pump pulley service kit. Wt., 1 lb., 3 oz.

7362



### Ford Power Steering Pump Pulley Installer

Installs power steering pump pulleys on 1992–newer Ford Crown Victoria and Mercury Grand Marquis with 4.6 V8 engine, 1997–newer Ford truck with 4.2 & 4.6 V6, 5.4 V8, and 6.8 V10 engines.

- 8 mm x 1.25" threads fit Ford's C111 pump.

**No. 7771** – Ford power steering pump pulley installer. Wt., 1 lb., 8 oz.



7771

Similar to  
211-185

### Ford Air Bag Simulator

Today's air bag systems have self-diagnostic capabilities, but sometimes these internal diagnostics must be serviced or replaced. That's when our air bag simulators come in handy. In fact, it's almost impossible to check and resolve air bag fault codes without such tools. This makes the simulators essential equipment for body shops and other types of service centers.

**No. 7955** – Special one-ohm resistor for use on air bags on Probe vehicles. Wt., 6 oz.

**No. 7956** – Special two-ohm resistor for use on 1993–02 Ford System II air bags. Wt., 6 oz.

**No. 7957** – Special three-ohm resistor for use on Mercury Villager air bag systems. Wt., 6 oz.





# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service



4681



### Power Steering Pump/ Alternator Remover/Installer Tool

- Reversible 2-in-1 tool removes and installs press-fit alternator and power steering pump pulleys.
- Also removes and installs other press-fit pulleys with a hub diameter of 1-1/8" (28 mm), 1-1/4" (32 mm), 1-5/16" (34 mm), or 1-3/8" (35 mm).

**No. 4681** – Power steering pump/alternator remover/installer tool. Wt., 2 lbs.



4529



### Power Steering/Alternator Pulley Puller/ Installer Set

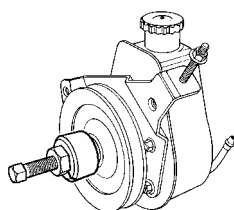
- Properly replaces pressed-on power steering and alternator pulleys on Ford, Chrysler, and late GM engines.
- Housed in a blow-molded plastic storage case.

**No. 4529** – Power steering and alternator pulley puller/installer. Wt., 1 lb., 14 oz.



7185

Similar to  
Ford No. 211-016  
(T69L-10300-B)



### Power Steering Pump/Alternator Pulley Remover

This puller removes pulleys on most Chrysler, Ford, GM, and VW vehicles fitted with Saginaw, Thompson, or Ford's C2 and C111 power steering pumps; GM belt-driven vacuum pumps on cars; and press-on water pump pulleys on GM 4- and 6-cylinder engines. It works on pulleys with hub diameters of 1-1/8", 1-1/4", 1-5/16", and 1-3/8".

- Designed to ensure damage-free removal.

**No. 7185** – Power steering pump/alternator pulley remover. Wt., 13 oz.



4530



### Power Steering Pump Pulley Service Set

- A complete set of tools required to remove and install power steering pump pulleys of most domestic vehicles.
- Fits pulley hubs with diameters of 1-1/8", 1-1/4", 1-5/16" and 1-3/8".
- Includes the necessary adapters for servicing: GM 3.1L, 3100, 3400, and 3800 V6 engines, GM 2.3L Quad 4 four-cylinder engines, and Ford 4.6L & 5.4L V8, 6.8 V10 engines.

**No. 4530** – Power steering pump pulley puller/installer set. Wt. 2 lbs., 5 oz.



7830A

### Power Steering Pump Pulley Kit

This kit has nearly everything you need to remove and install power steering pump pulleys in Chrysler, Ford, and GM vehicles with Saginaw, Thompson, and Ford C111 and C2 power steering pumps. Fits 1-1/8", 1-1/4", 1-5/16" and 1-3/8" pulley hub diameters, including 1988–newer GM cars equipped with Quad 4 engines; 1991–94 GM 3.1L V6; 1991–newer 3800 V6 engines; 1994–newer GM 3100 V6; 1999–newer GM 3400 V6, and 1992–newer Ford Crown Victoria and Mercury Grand Marquis with 4.6 V8 engine, 1997–newer Ford truck with 4.2 & 4.6 V6, 5.4 V8, and 6.8 V10 engines.

- Also includes No. 7931 spacer for work on Chrysler Cirrus, Dodge Stratus, and Plymouth Breeze.

**No. 7830A** – Power steering pump pulley kit. Wt., 1 lb., 10 oz.

# AUTOMOTIVE SPECIAL TOOLS

## Suspension & Steering Service and Ford Cam Tools

### Ford Diesel Vacuum Pump Pulley Remover Jaws

These jaws, together with No. 7185 pulley remover, make quick work of vacuum pump removal on newer Ford diesel engines.

- For use on 1984 to '87 6.9L, and 1988–2003 7.3L.

**No. 7922** – Ford diesel vacuum pump pulley remover jaws. Wt., 8 oz.

Similar to  
Ford No. 300-D054  
(D84T-9486-A)

7922



### Power Steering Pump Pulley Installer

This is an ideal companion to our No. 7185 pulley remover. It's a real timesaver for installing power steering pump pulleys and GM press-on water pump pulleys.

- Designed to ensure damage-free installation.
- Internal roller bearing allows for easy turning.
- Threads are 3/8"-16 to match pulley shafts.

**No. 7005** – Power steering pump pulley installer. Wt., 11 oz.

Similar to  
Ford No. 211-009  
(T65P-3A733-C)

7005



**The OTC Ford cam tools ensure correct cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.**

### Ford Cam Tool Kit

**No. 6486** – Ford cam tool kit for 2.0L Zetec engines in Contour, Mystique, and Focus. Contains tool Nos. 6474 and No. 6475. Wt., 1 lb.

6486



### Ford Cam Tool Kit

**No. 6487** – Ford cam tool kit for 1992 thru 2004 4.6L, 5.4L V8, and 6.8L V10 engines. Contains tool Nos. 6476, 6477, 6009, 6020, and molded storage case. Wt., 5 lbs.

6487

**Note:** See page 106, kit 6489 for applications.



### Ford Cam Tool Kit

**No. 6488** – Ford cam tool kit for 1997 thru 2004 4.0L Explorer/Mountaineer SOHC V6 engines. Kit contains tool Nos. 6478, 6479, 6480, 6481, 6482, 6484, 6485, and molded storage case. Wt., 7 lbs. 10 oz.

6488

**Note:** See page 106, kit 6489 for applications.



# AUTOMOTIVE SPECIAL TOOLS

## Ford Cam Tool Application Chart



### Ford Cam Tool Kit

**No. 6489** – Ford master cam tool kit containing all 22 cam tools covering 1992 thru 2004 for over 50 applications, in a molded storage case. Wt., 12 lbs. 5 oz.

### Ford cam tool application chart for No. 6489

Note: Some applications require more than one tool to accomplish the task.

Year	Make & Model	Engine	Tool Description	OTC Part No.	Ford Am. Part No.	Global Part No.
1995–1997	Aerostar	3.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1996–1998	Aerostar	4.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1994–2002	Contour	2.0L 4 cyl. DOHC Zetec	Cam Alignment Tool	6474	T94P-6256-CH	303-465
1997–2002	Contour	2.0L 4 cyl. DOHC Zetec	Crankshaft TDC Timing Pin	6475	T97P-6000-A	303-574
1991–1998	Crown Victoria	4.6L 2V V8	Cam Positioning Tool	6009	T91P-6256-A	303-380
1992–1998	Crown Victoria	4.6L 2V V8	Cam Positioning Tool	6020	T92P-6256-A	303-413
1997–2003	Econoline	4.2L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1997–1998	Econoline	4.6L & 5.4L V8, 6.8L V10	Cam Positioning Tool	6009	T91P-6256-A	303-380
			Cam Positioning Tool	6020	T92P-6256-A	303-413
1997–2006	Econoline	4.6L & 5.4L	Cam Positioning Tool Set	6476	T96T-6256-AR	303-S568
1997–2006	Econoline	5.4L V8	Cam Holding Tool	6477	T96T-6256-B	303-557
1997–2006	Econoline	6.8L V10	Cam Positioning Tool Set	6476	T96T-6256-AR	303-S568
			Cam Holding Tool	6477	T96T-6256-B	303-557
1997–2006	Econoline	Windsor V8	Cam Holding Tool	6477	T96T-6256-B	303-557
1997–1998	Expedition	5.4L V8	Cam Positioning Tool	6009	T91P-6256-A	303-380
			Cam Positioning Tool	6020	T92P-6256-A	303-413
1997–2004	Expedition	5.4L V8	Cam Positioning Tool Set	6476	T96T-6256-AR	303-S568
			Cam Holding Tool	6477	T96T-6256-B	303-557
1996–1998	Explorer	4.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1997–2006	Explorer	4.0L SOHC V6	Cam Gear Holding Tool	6478	T97T-6256-B	303-564
			Crankshaft Holding Tool	6479	T97T-6303-A	303-573
			Cam Holding Tool Adapter	6480	T97T-6256-D	303-576
			Cam Holding Tool	6481	T97T-6256-C	303-577
			Cam Gear Hldg Tool Adapter	6482	T97T-6256-A	303-578
			Timing Chain Tensioner Tool	6484	T97T-6K254-A	303-571
			Cam Gear Bolt Socket & Ext.	6485	T97T-6256-F, -G	303-565, -575
1999–2002	Explorer	4.0L Push Rod V6	Cam Sensor Sync Tool	6483		303-638
1996–1998	Explorer	5.0L V8	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1999–2002	Explorer	5.0L V8	Cam Sensor Sync Tool	6470		303-630
1997–2003	F-Series Truck	4.2L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1997–1998	F-Series Truck	4.6L & 5.4L V8	Cam Positioning Tool	6009	T91P-6256-A	303-380
			Cam Positioning Tool	6020	T92P-6256-A	303-413
1997–2004	F-Series Truck	4.6L & 5.4L	Cam Positioning Tool Set	6476	T96T-6256-AR	303-S568
1997–2004	F-Series Truck	5.4L V8	Cam Holding Tool	6477	T96T-6256-B	303-557
1997–2004	F-Series Truck	Windsor V8	Cam Holding Tool	6477	T96T-6256-B	303-557
1994–1995	Mustang	3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1996–1998	Mustang	3.8L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1999–2004	Mustang	3.8L V6	Cam Sensor Sync Tool	6470		303-630



# AUTOMOTIVE SPECIAL TOOLS

## Ford Cam Tool Application Chart

### Ford cam tool application chart for No. 6489

Note: Some applications require more than one tool to accomplish the task.

Year	Make & Model	Engine	Tool Description	OTC Part No.	Ford Am. Part No.	Global Part No.
1996–2001	Mustang	4.6L 4V	Camshaft Positioning Tool	525216		303-445
1996–2004	Mustang	4.6L 4V	Camshaft Holding Tool	525217		303-446
1993–1997	Probe	2.0L 4 cyl.	Cam Pulley Holding Tool	6468	T92C-6256-AH	303-398
1989–1997	Ranger	2.3L, 4 cyl. dual plug	Crankshaft Sensor Positioner	6466	T89P-6316-A	303-354
1995–1997	Ranger	3.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1998–2006	Ranger	3.0L V6	Cam Sensor Sync Tool	6473		303-589
1996–1998	Ranger	4.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1993–1995	Taurus	3.0L V6	Cam Sensor Sync Tool	6471	T93P-12200-A	303-453
1996–1997	Taurus	3.0L V6 2-valve	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1998–2006	Taurus	3.0L V6	Cam Sensor Sync Tool	6473		303-589
1989–1995	Thunderbird	Supercharged 3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1990–1995	Thunderbird	3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1997	Thunderbird	3.8L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1995–1997	Windstar	3.0L V6	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1998–2003	Windstar	3.0L V6	Cam Sensor Sync Tool	6473		303-589
1995	Windstar	3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1996–1998	Windstar	3.8L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1999–2003	Windstar	3.8L V6	Cam Sensor Sync Tool	6470		303-630
1998	Lincoln Navigator	5.4L V8	Cam Positioning Tool	6009	T91P-6256-A	303-380
			Cam Positioning Tool	6020	T92P-6256-A	303-413
1998–2004	Lincoln Navigator	5.4L V8	Cam Positioning Tool Set	6476	T96T-6256-AR	303-S568
			Cam Holding Tool	6477	T96T-6256-B	303-557
1993–1997	Lincoln Mark Series	4.6L 4V	Secondary Timing Chain Tensioner	525218		303-447
1993–1998	Lincoln Mark Series	4.6L 4V	Camshaft Positioning Tool	525216		303-445
			Camshaft Holding Tool	525217		303-446
1995–2002	Lincoln Continental	4.6L 4V	Camshaft Positioning Tool	525216		303-445
			Camshaft Holding Tool	525217		303-446
2003–2005	Lincoln Aviator	4.6L 4V	Camshaft Holding Tool	525217		303-446
1989–1995	Cougar	Supercharged 3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1990–1995	Cougar	3.8L V6	Cam Sensor Sync Tool	6467	T89P-12200-A	303-358
1997	Cougar	3.8L V6	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1991–1998	Grand Marquis	4.6L 2V V8	Cam Positioning Tool	6009	T91P-6256-A	303-380
1992–1998	Grand Marquis	4.6L 2V V8	Cam Positioning Tool	6020	T92P-6256-A	303-413
1997–2006	Mountaineer	4.0L SOHC V6	Cam Gear Holding Tool	6478	T97T-6256-B	303-564
			Crankshaft Holding Tool	6479	T97T-6303-A	303-573
			Cam Holding Tool Adapter	6480	T97T-6256-D	303-576
			Cam Holding Tool	6481	T97T-6256-C	303-577
			Cam Gear Holding Tool Adapter	6482	T97T-6256-A	303-578
			Timing Chain Tensioner Tool	6484	T97T-6K254-A	303-571
			Cam Gear Bolt Socket & Ext.	6485	T97T-6256-F, -G	303-565, -575
1999–2004	Mountaineer	4.0L Push Rod V6	Cam Sensor Sync Tool	6483		303-638
1996–1998	Mountaineer	5.0L V8	Cam Sensor Sync Tool	6469	T96T-12200-A	303-562
1999–2001	Mountaineer	5.0L V8	Cam Sensor Sync Tool	6470		303-630
1994–2002	Mystique	2.0L 4 cyl. DOHC Zetec	Cam Alignment Tool	6474	T94P-6256-CH	303-465
1997–2002	Mystique	2.0L 4 cyl. DOHC Zetec	Crankshaft TDC Timing Pin	6475	T97P-6000-A	303-574
1993–1995	Sable	3.0L V6	Cam Sensor Sync Tool	6471	T93P-12200-A	303-453
1996–1997	Sable	3.0L V6 2-valve	Cam Sensor Sync Tool	6472	T95T-12200-A	303-529
1998–2004	Sable	3.0L V6	Cam Sensor Sync Tool	6473		303-589
2003–2004	Mercury Marauder	4.6L 4V	Camshaft Positioning Tool	525217		303-446
			Camshaft Holding Tool	525217		303-446

# AUTOMOTIVE SPECIAL TOOLS

## Ford Cam Tool Application Chart

The OTC Ford cam tools ensure correct cam timing when servicing timing belts, chains, head gaskets, or other valve train repairs.

### Ford 4.6L 4-Valve Cam Timing Kit

- Kit includes: Camshaft positioning tool, camshaft holding tool, crankshaft positioning tool, secondary chain tensioner tool.
- Saves time; all tools required for camshaft timing are in one kit.

**No. 6498** – Ford 4.6L 4-valve cam timing kit.  
Wt., 6 lbs., 11 oz.



6498

**Ford 4.6L V8 4 valve Cam Timing application chart for 6498** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
1993-1998	Lincoln	Mark VIII	4.6L VIN V	Camshaft Positioning Tool	525216	303-445
1995-2002	Lincoln	Contiental	4.6L VIN V	Camshaft Positioning Tool	525216	303-445
1996-2001	Ford	Mustang	4.6L VIN V	Camshaft Positioning Tool	525216	303-445
2003-2004	Mercury	Marauder	4.6L VIN V	Camshaft Positioning Tool	525216	303-445
1993-1998	Lincoln	Mark VIII	4.6L VIN V	Camshaft Holding Tool	525217	303-446
1995-2002	Lincoln	Contiental	4.6L VIN V	Camshaft Holding Tool	525217	303-446
1996-2002	Ford	Mustang	4.6L VIN V	Camshaft Holding Tool	525217	303-446
2003-2004	Ford	Mustang	4.6L VIN Y	Camshaft Holding Tool	525217	303-446
2005-2006	Ford	Mustang	4.6: VIN H	Camshaft Holding Tool	525217	303-446
2003-2004	Mercury	Marauder	4.6L VIN V	Camshaft Holding Tool	525217	303-446
2003-2005	Lincoln	Aviator	4.6L VIN H	Camshaft Holding Tool	525217	303-446
1993-1997	Lincoln	Mark VIII	4.6L VIN V	Secondary Timing Chain Tensioner tool	525218	303-447
1995-1997	Lincoln	Contiental	4.6L VIN V	Secondary Timing Chain Tensioner tool	525218	303-447
1996-1997	Ford	Mustang	4.6L VIN V	Secondary Timing Chain Tensioner tool	525218	303-447
1993-1998	Lincoln	Mark VIII	4.6L VIN V	Crankshaft Positioning Tool	525219	303-448
1995-2002	Lincoln	Contiental	4.6L VIN V	Crankshaft Positioning Tool	525219	303-448
1996-2001	Ford	Mustang	4.6L VIN V	Crankshaft Positioning Tool	525219	303-448
2003-2004	Mercury	Marauder	4.6L VIN V	Crankshaft Positioning Tool	525219	303-448
2003-2004	Ford	Mustang	4.6L VIN Y	Crankshaft Positioning Tool	525219	303-448
2005-2006	Ford	Mustang	4.6: VIN H	Crankshaft Positioning Tool	525219	303-448
2003-2005	Lincoln	Aviator	4.6L VIN H	Crankshaft Positioning Tool	525219	303-448

# AUTOMOTIVE SPECIAL TOOLS

## Chrysler/Jeep Cam Tool Set

The Chrysler/Jeep cam timing tools are provided to ensure correct cam timing when servicing timing belts, chains, head gaskets, or performing other valve train repairs.

These 15 tools are based on OE designs and are offered to service the following applications:

Cam positioning is an IMPORTANT procedure. If cam timing is not correct, the engine may still run, but emissions and mileage will be affected. The engine computer may also initiate the "Check Engine" light.

**No. 6689** – Chrysler/Jeep cam tool set. Wt., 25 lbs.



**Chrysler / Jeep Cam Tool application chart for 6689** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
1990-2006	Chrysler	Town & Country Van	3.3 L V6	Crankshaft Damper Puller	6667 or 513990	8454
1990-2006	Dodge	Caravan & Grand Caravan	3.3 L V6	Crankshaft Damper Puller	6667 or 513990	8454
1990-2000	Plymouth	Voyager & Grand Voyager	3.3 L V6	Crankshaft Damper Puller	6667 or 513990	8454
1993-1996	Chrysler	Conorde	3.3 L V6	Crankshaft Damper Puller	6667 or 513990	8454
1993-1997	Dodge	Intrepid	3.3 L V6	Crankshaft Damper Puller	6667 or 513990	8454
1993-1997	Chrysler	Conorde	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
1993-1997	Dodge	Intrepid	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
1994-2006	Chrysler	Town & Country Van	3.8L V6	Crankshaft Damper Puller	6667 or 513990	8454
1994-2006	Dodge	Caravan & Grand Caravan	3.8L V6	Crankshaft Damper Puller	6667 or 513990	8454
1994-2000	Plymouth	Voyager & Grand Voyager	3.8L V6	Crankshaft Damper Puller	6667 or 513990	8454
1994-2006	Dodge	Ram Truck	8.0L V10	Crankshaft Damper Puller	6667 or 513990	8454
1995-2006	Dodge	Neon	2.0L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-1999	Dodge	Avanger	2.0L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Dodge	Avanger	2.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
2003-2006	Dodge	Neon	2.4L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-1999	Chrysler	Sebring	2.0L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Chrysler	Sebring	2.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Chrysler	Cirrus	2.4L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Chrysler	Cirrus	2.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
2001-2006	Chrysler	Sebring	2.4L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2001	Plymouth	Neon	2.0L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Plymouth	Breeze	2.0L I4	Crankshaft Damper Puller	6667 or 513990	8454
1995-2000	Plymouth	Breeze	2.4L I4	Crankshaft Damper Puller	6667 or 513990	8454
2001-2006	Chrysler	PT Cruiser	2.4L I4	Crankshaft Damper Puller	6667 or 513990	8454
1998-2004	Chrysler	Conorde	2.7L V6	Crankshaft Damper Puller	6667 or 513990	8454
1998-2004	Chrysler	Conorde	3.2L V6	Crankshaft Damper Puller	6667 or 513990	8454
1999-2006	Chrysler	300	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
2005-2006	Chrysler	300	2.7L V6	Crankshaft Damper Puller	6667 or 513990	8454
2005-2006	Chrysler	PT Cruiser	2.7L V6	Crankshaft Damper Puller	6667 or 513990	8454
2004-2006	Chrysler	Pacifica	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
2006	Dodge	Charger	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
2006	Dodge	Charger	2.7L V6	Crankshaft Damper Puller	6667 or 513990	8454
1998-2006	Dodge	Intrepid	2.7L V6	Crankshaft Damper Puller	6667 or 513990	8454
1998-2006	Dodge	Intrepid	3.2L V6	Crankshaft Damper Puller	6667 or 513990	8454
2000-2006	Dodge	Dakota	4.7L V8	Crankshaft Damper Puller	6667 or 513990	8454
2000-2006	Dodge	Durango	4.7L V8	Crankshaft Damper Puller	6667 or 513990	8454
1999-2006	Jeep	Grand Cherokee	4.7L V8	Crankshaft Damper Puller	6667 or 513990	8454



# AUTOMOTIVE SPECIAL TOOLS

## Chrysler/Jeep Cam Tool Application Chart

**Chrysler / Jeep Cam Tool application chart for 6689** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2006	Jeep	Commander	4.7L V8	Crankshaft Damper Puller	6667 or 513990	8454
1994-1997	Chrysler	New Yorker & LHS	3.5L V6	Crankshaft Damper Puller	6667 or 513990	8454
1993-1997	Chrysler	Conorde	3.5L V6	Camshaft alignment tools	7999 or 522888	6642
1994-1997	Chrysler	New Yorker & LHS	3.5L V6	Camshaft alignment tools	7999 or 522888	6642
1993-1997	Dodge	Intrepid	3.5L V6	Timing Chain Tensioner Reset Tool	522890	8186
2002-2006	Chrysler	Sebring	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
2005-2006	Chrysler	300	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
1998-2004	Dodge	Intrepid	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
2002-2006	Dodge	Stratus	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
2005-2006	Dodge	Magnum	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
2006	Dodge	Charger	2.7L V6 vin R	Timing Chain Tensioner Reset Tool	522890	8186
1999-2006	Jeep	Grand Cherokee	4.7L V8	Timing Chain Wedge	522892	8350
2006	Jeep	Commander	4.7L V8	Timing Chain Wedge	522892	8350
2000-2006	Dodge	Durango	4.7L V8	Timing Chain Wedge	522892	8350
2000-2006	Dodge	Dakota	4.7L V8	Timing Chain Wedge	522892	8350
2002-2006	Dodge	Ram Truck	4.7L V8	Timing Chain Wedge	522892	8350
2002-2006	Jeep	Liberty	3.7L V6	Timing Chain Wedge	522893	8379
2004-2006	Jeep	Grand Cherokee	3.7L V6	Timing Chain Wedge	522893	8379
2002-2006	Dodge	Ram Truck	3.7L V6	Timing Chain Wedge	522893	8379
2004-2006	Dodge	Dakota	3.7L V6	Timing Chain Wedge	522893	8379
2004-2006	Dodge	Durango	3.7L V6	Timing Chain Wedge	522893	8379
2002-2006	Jeep	Liberty	3.7L V6	Camshaft Wrench	522894	8428
2004-2006	Jeep	Grand Cherokee	3.7L V6	Camshaft Wrench	522894	8428
2002-2006	Dodge	Ram Truck	3.7L V6	Camshaft Wrench	522894	8428
2004-2006	Dodge	Dakota	3.7L V6	Camshaft Wrench	522894	8428
2004-2006	Dodge	Durango	3.7L V6	Camshaft Wrench	522894	8428
1999-2006	Jeep	Grand Cherokee	4.7L V8	Idle Shaft Remover	522896	8517
2006	Jeep	Commander	4.7L V8	Idle Shaft Remover	522896	8517
2000-2006	Dodge	Durango	4.7L V8	Idle Shaft Remover	522896	8517
2000-2006	Dodge	Dakota	4.7L V8	Idle Shaft Remover	522896	8517
2002-2006	Dodge	Ram Truck	4.7L V8	Idle Shaft Remover	522896	8517
1999-2006	Jeep	Grand Cherokee	4.7L V8	Tensioner lock pin	522897	8514
2006	Jeep	Commander	4.7L V8	Tensioner lock pin	522897	8514
2000-2006	Dodge	Durango	4.7L V8	Tensioner lock pin	522897	8514
2000-2006	Dodge	Dakota	4.7L V8	Tensioner lock pin	522897	8514
2002-2006	Dodge	Ram Truck	4.7L V8	Tensioner lock pin	522897	8514
2001-2005	Chrysler	Sebring	2.4L I4 vin G	Camshaft Holding Pins	522898	8599
2001-2005	Dodge	Stratus	2.4L I4 vin G	Camshaft Holding Pins	522898	8599
2001-2005	Chrysler	Sebring	3.0L V6 vin H	Camshaft Holding Pins	522898	8599
2001-2005	Dodge	Stratus	3.0L V6 vin H	Camshaft Holding Pins	522898	8599
1981-1988	Dodge	Omni	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1981-1989	Dodge	Aries	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1982-1983	Dodge	400	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1983-1988	Dodge	600	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1984-1986	Dodge	Charger	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1984-1989	Dodge	Daytona	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1984-1987	Dodge	Caravan & Grand Caravan	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1983-1990	Dodge	Shelby	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1987-1994	Dodge	Shadow	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1985-1989	Dodge	Lancer	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1993	Dodge	Daytona	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703

# AUTOMOTIVE SPECIAL TOOLS

## Chrysler/Jeep Cam Tool Application Chart

**Chrysler / Jeep Cam Tool application chart for 6689** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
1986-1989	Dodge	Aries	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1988	Dodge	600	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1987-1989	Dodge	Lancer	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1987-1995	Dodge	Caravan & Grand Caravan	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1988-1991	Dodge	Shelby	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1988-1993	Dodge	Dynasty	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1989-1994	Dodge	Shadow	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1989-1995	Dodge	Spirit	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1982-1990	Chrysler	Lebaron	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1983-1988	Chrysler	New Yorker	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1984-1986	Chrysler	Laser	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1993	Chrysler	Lebaron	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1987	Chrysler	New Yorker	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1981-1989	Plymouth	Horizon	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1981-1989	Plymouth	Reliant	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1984-1988	Plymouth	Voyager	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1982-1986	Plymouth	Turismo	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1989-1994	Plymouth	Sundance	2.2 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1988	Plymouth	Caravelle	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1986-1989	Plymouth	Reliant	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1987-1995	Plymouth	Voyager	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1987-1994	Plymouth	Sundance	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1990-1995	Plymouth	Acclaim	2.5 L I4	Timing Belt Tensioner	7695 or 522899	C-4703
1989-1995	Dodge	Colt	2.4L I4	Timing Belt Tensioner	522900A	MD-998738
1989-1995	Eagle	Summit	2.4L I4	Timing Belt Tensioner	522900A	MD-998738
1991-1997	Dodge	Stealth	3.0L V6	Timing Belt Wrench	7997 or 522901	MD-998767
1992-1994	Eagle	Summit	2.4L I4	Timing Belt Wrench	7997 or 522901	MD-998767
1992-1994	Dodge	Colt	2.4L I4	Timing Belt Wrench	7997 or 522901	MD-998767
1984-1991	Dodge	Colt	2.0L I4	Timing Belt Wrench	7997 or 522901	MD-998767
1999-2006	Jeep	Grand Cherokee	4.7L V8	Secondary Timing Chain Holder	522902	8515
2006	Jeep	Commander	4.7L V8	Secondary Timing Chain Holder	522902	8515
2000-2006	Dodge	Durango	4.7L V8	Secondary Timing Chain Holder	522902	8515
2000-2006	Dodge	Dakota	4.7L V8	Secondary Timing Chain Holder	522902	8515
2002-2006	Dodge	Ram Truck	4.7L V8	Secondary Timing Chain Holder	522902	8515
1999-2006	Jeep	Grand Cherokee	4.7L V8	Secondary Timing Chain Holder	522902	8515
2006	Jeep	Commander	4.7L V8	Secondary Timing Chain Holder	522902	8515
2000-2006	Dodge	Durango	4.7L V8	Secondary Timing Chain Holder	522902	8515
2000-2006	Dodge	Dakota	4.7L V8	Secondary Timing Chain Holder	522902	8515
2002-2006	Dodge	Ram Truck	4.7L V8	Secondary Timing Chain Holder	522902	8515

# AUTOMOTIVE SPECIAL TOOLS

## GM Cam Tool Application Chart



### GM In-line 4-Cylinder Cam Tool Set

- Comprehensive tool kit designed to save time when servicing GM 4-cylinder engines.
- Tools are actually easier to use than the original OE essential tools.

**No. 6685** – GM In-line 4-Cylinder Cam Tool Set.  
Wt., 17 lbs., 8 oz.

**GM In-line 4-Cylinder Cam Tool Application Chart for 6685** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
1988-1995	Buick	Skylark	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1990-1991	Oldsmobile	Cutlass Supreme	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1987-1991	Oldsmobile	Calais	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1992-1995	Oldsmobile	Achieva	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1988-1995	Pontiac	Grand Am	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1995	Pontiac	Sunfire	2.3L	Camshaft Sprocket Wrench	527046	J-36013
1996-1998	Buick	Skylark	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1996-2002	Chevrolet	Cavalier	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1996-1998	Oldsmobile	Achieva	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1999-2001	Oldsmobile	Alero	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1996-2001	Pontiac	Grand Am	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1996-2002	Pontiac	Sunfire	2.4L	Camshaft Sprocket Wrench	527049	J-39579
1988-1998	Buick	Skylark	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1996-2002	Chevrolet	Cavalier	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1987-1991	Oldsmobile	Calais	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1990-1991	Oldsmobile	Cutlass Supreme	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1992-1998	Oldsmobile	Achieva	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1999-2001	Oldsmobile	Alero	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1998-2001	Pontiac	Grand Am	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1995-2002	Pontiac	Sunfire	2.3L/2.4L	Camshaft Timing Alignment Pins	527045	J-36008A
1996-1998	Buick	Skylark	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1996-2002	Chevrolet	Cavalier	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1996-1998	Oldsmobile	Achieva	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1999-2001	Oldsmobile	Alero	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1996-2001	Pontiac	Grand Am	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1996-2002	Pontiac	Sunfire	2.4L	Timing Chain Tensioner & Shoe Retainer	532174	NA
1988-1995	Buick	Skylark	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
1987-1991	Oldsmobile	Calais	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
1990-1991	Oldsmobile	Cutlass Supreme	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
1992-1995	Oldsmobile	Achieva	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
1988-1995	Pontiac	Grand Am	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
1995	Pontiac	Sunfire	2.3L	Timing Chain Tensioner Retainer	532195	J-36589
2002-2005	Chevrolet	Cavalier	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2003-2006	Chevrolet	Malibu	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2004-2005	Chevrolet	Malibu Classic	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2002-2004	Oldsmobile	Alero	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2002-2005	Pontiac	Sunfire	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2002-2005	Pontiac	Grand Am	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027



# AUTOMOTIVE SPECIAL TOOLS

## GM Cam Tool Application Chart

**GM In-line 4-Cylinder Cam Tool Application Chart for 6685** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2000-2005	Saturn	L Series	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2002-2006	Saturn	Vue	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2003-2006	Saturn	Ion	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2005-2006	Chevrolet	Cobalt	2.2L vin F	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2005-2006	Chevrolet	Cobalt	2.4L vin B	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2006	Chevrolet	HHR	2.4L vin B	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2006	Pontiac	G6	2.4L vin B	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2006	Pontiac	Pursuit	2.4L vin B	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2006	Pontiac	Solstice	2.4L vin B	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2005-2006	Chevrolet	Cobalt	2.0L	Timing Chain Tensioner Loading Tools	527061-1 & 527061-2	J-45027
2002-2005	Chevrolet	Cavalier	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2003-2006	Chevrolet	Malibu	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2004-2005	Chevrolet	Malibu Classic	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2002-2004	Oldsmobile	Alero	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2002-2005	Pontiac	Sunfire	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2002-2005	Pontiac	Grand Am	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2000-2005	Saturn	L Series	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2002-2006	Saturn	Vue	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2003-2006	Saturn	Ion	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2005-2006	Chevrolet	Cobalt	2.2L vin F	Camshaft Sprocket Holding Tool	527056	J-43655
2005-2006	Chevrolet	Cobalt	2.0L	Camshaft Sprocket Holding Tool	527056	J-43655
2005-2006	Chevrolet	Cobalt	2.4L vin B	Camshaft Sprocket Holding Tool	527056	J-43655
2006	Chevrolet	HHR	2.4L vin B	Camshaft Sprocket Holding Tool	527056	J-43655
2006	Pontiac	G6	2.4L vin B	Camshaft Sprocket Holding Tool	527056	J-43655
2006	Pontiac	Pursuit	2.4L vin B	Camshaft Sprocket Holding Tool	527056	J-43655
2006	Pontiac	Solstice	2.4L vin B	Camshaft Sprocket Holding Tool	527056	J-43655
2002-2005	Chevrolet	Cavalier	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2003-2006	Chevrolet	Malibu	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2004-2005	Chevrolet	Malibu Classic	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2002-2004	Oldsmobile	Alero	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2002-2005	Pontiac	Sunfire	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2002-2005	Pontiac	Grand Am	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2000-2005	Saturn	L Series	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2002-2006	Saturn	Vue	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2003-2006	Saturn	Ion	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2005-2006	Chevrolet	Cobalt	2.2L vin F	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2005-2006	Chevrolet	Cobalt	2.0L	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2005-2006	Chevrolet	Cobalt	2.4L vin B	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2

# AUTOMOTIVE SPECIAL TOOLS

## GM Cam Tool Application Chart

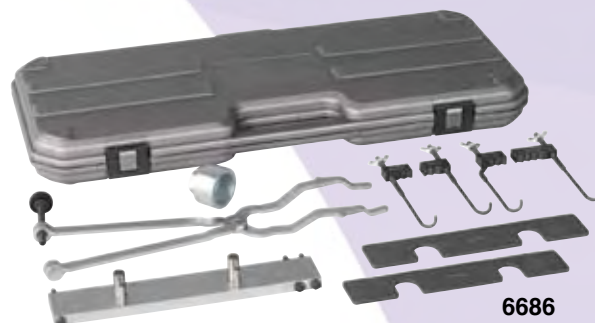
**GM In-line 4-Cylinder Cam Tool Application Chart for 6685** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2006	Chevrolet	HHR	2.4L vin B	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2006	Pontiac	G6	2.4L vin B	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2006	Pontiac	Pursuit	2.4L vin B	Timing Chain Holders	536186 & 536187	J-44217-1 & J44217-2
2006	Pontiac	Solstice	2.4L vin B	Timing Chain Holders	536186 & 536187	J-44217-1 & J 44217-2
2004-2006	Chevrolet	Colorado	2.8L	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	GMC	Canyon	2.8L	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	Chevrolet	Colorado	2.8L	Camshaft Holding Tool	536172	J-44221
2004-2006	GMC	Canyon	2.8L	Camshaft Holding Tool	536172	J-44221
2002-2005	Chevrolet	Cavalier	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2003-2006	Chevrolet	Malibu	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2004-2005	Chevrolet	Malibu Classic	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2002-2004	Oldsmobile	Alero	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2002-2005	Pontiac	Sunfire	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2002-2005	Pontiac	Grand Am	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2000-2005	Saturn	L Series	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2002-2006	Saturn	Vue	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2003-2006	Saturn	Ion	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2005-2006	Chevrolet	Cobalt	2.2L vin F	Crankshaft Pulley Holder	536178	J-38122
2005-2006	Chevrolet	Cobalt	2.0L	Crankshaft Pulley Holder	536178	J-38122
2005-2006	Chevrolet	Cobalt	2.4L vin B	Crankshaft Pulley Holder	536178	J-38122
2006	Chevrolet	HHR	2.4L vin B	Crankshaft Pulley Holder	536178	J-38122
2006	Pontiac	G6	2.4L vin B	Crankshaft Pulley Holder	536178	J-38122
2006	Pontiac	Pursuit	2.4L vin B	Crankshaft Pulley Holder	536178	J-38122
2006	Pontiac	Solstice	2.4L vin B	Crankshaft Pulley Holder	536178	J-38122
1996-1998	Buick	Skylark	2.4L	Crankshaft Pulley Holder	536178	J-38122
1996-2002	Chevrolet	Cavalier	2.4L	Crankshaft Pulley Holder	536178	J-38122
1996-1998	Oldsmobile	Achieva	2.4L	Crankshaft Pulley Holder	536178	J-38122
1999-2001	Oldsmobile	Alero	2.4L	Crankshaft Pulley Holder	536178	J-38122
1996-2001	Pontiac	Grand Am	2.4L	Crankshaft Pulley Holder	536178	J-38122
1996-2002	Pontiac	Sunfire	2.4L	Crankshaft Pulley Holder	536178	J-38122
2004-2006	Chevrolet	Aveo	1.6L	Timing Belt Adjuster	536173	J-42492A
2000-2002	Saturn	SC-2,SL-2, SW-2	1.9L vin 7	Camshaft Holding Tool	536174	J-43299
1999-2002	Saturn	SC-2,SL-2, SW-2	1.9L vin 7	Camshaft Timing Alignment Pins	536254	NA
1999-2002	Saturn	SC-2,SL-2, SW-2	1.9L vin 7	Timing Chain Tensioner Retainer	536255	NA
2004-2006	Chevrolet	Colorado	2.8L	Timing Chain Holder	536265	J-44217-46
2004-2006	GMC	Canyon	2.8L	Timing Chain Holder	536265	J-44217-46

### GM NorthStar V8 Cam Tool Set

- Kit is indispensable for quickly and correctly servicing GM NorthStar 4.0L and 4.6L V8 engines.
- Over one million NorthStar V8s have been sold since 1993; cylinder heads and valve trains tend to wear out somewhere between 80,000 to 120,000 miles.

**No. 6686** – GM NorthStar V8 cam tool kit.  
Wt., 5 lbs., 1 oz.



**GM NorthStar V8 Cam Tool Application Chart for 6686** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
1993-1999	Cadillac	Eldorado Seville	4.6L	Cam Chain Tension Tool	527048	J-38822
1994- 1999	Cadillac	Deville Concours	4.6L	Cam Chain Tension Tool	527048	J-38822
2000-2002	Cadillac	Eldorado	4.6L	Crankshaft Rotating Tool	527050	J-39946
2000-2005	Cadillac	Seville Deville	4.6L	Crankshaft Rotating Tool	527050	J-39946
2004-2006	Cadillac	XLR, SRX	4.6L	Crankshaft Rotating Tool	527050	J-39946
2005-2006	Cadillac	STS	4.6L	Crankshaft Rotating Tool	527050	J-39946
2006	Cadillac	DTS	4.6L	Crankshaft Rotating Tool	527050	J-39946
2001-2003	Oldsmobile	Aurora	4.0L	Crankshaft Rotating Tool	527050	J-39946
2000-2002	Cadillac	Eldorado	4.6L	Camshaft Holding Tool	527057	J-44212
2000-2005	Cadillac	Seville Deville	4.6L	Camshaft Holding Tool	527050	J-44212
2004-2006	Cadillac	XLR, SRX	4.6L	Camshaft Holding Tool	527057	J-44212
2005-2006	Cadillac	STS	4.6L	Camshaft Holding Tool	527057	J-44212
2006	Cadillac	DTS	4.6L	Camshaft Holding Tool	527057	J-44212
2001-2003	Oldsmobile	Aurora	4.0L	Camshaft Holding Tool	527057	J-44212
2000-2002	Cadillac	Eldorado	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2000-2005	Cadillac	Seville Deville	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2004-2006	Cadillac	XLR, SRX	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2005-2006	Cadillac	STS	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2006	Cadillac	DTS	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2004-2006	Pontiac	Bonneville	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2006	Buick	Lucerne	4.6L	Secondary Drive Sprocket Fixture	527058	J-44213
2001-2003	Oldsmobile	Aurora	4.0L	Secondary Drive Sprocket Fixture	527058	J-44213
2004-2006	Cadillac	SRX, STS, XLR	4.6L VIN A	Timing Chain Retention Tools	529636	
2004-2006	Cadillac	SRX, STS, XLR	4.6L VIN A	Timing Chain Retention Tools	529637	
2004-2006	Cadillac	SRX, STS, XLR	4.6L VIN A	Timing Chain Retention Tools	529638	
2004-2006	Pontiac	Bonneville GPX	4.6L VIN A	Timing Chain Retention Tools	529636	
2004-2006	Pontiac	Bonneville GPX	4.6L VIN A	Timing Chain Retention Tools	529637	
2004-2006	Pontiac	Bonneville GPX	4.6L VIN A	Timing Chain Retention Tools	529638	



# AUTOMOTIVE SPECIAL TOOLS

## GM Cam Tool Application Chart



### GM 6 Cylinder Cam Tool Set

- Required tools to adjust and hold cam shaft timing on GM 3.0 and 3.2 V-6 engines.
- Kit is designed to save shop time when servicing GM 3.0 and 3.2 V-6 engines.

**No. 6687** – GM 6 cylinder cam tool set. Wt., 4 lbs., 13 oz.

**GM 6-Cylinder Cam Tool Application Chart for 6687** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2002-2003	Cadillac	CTS	3.2L vin N	Camshaft Locking Tool	536594	J-42069-1
1997-2001	Cadillac	Catera	3.0L vin R	Camshaft Locking Tool	536594	J-42069-1
2002-2003	Cadillac	CTS	3.2L vin N	Camshaft Locking Tool	536595	J-42069-2
1997-2001	Cadillac	Catera	3.0L vin R	Camshaft Locking Tool	536595	J-42069-2
2002-2003	Cadillac	CTS	3.2L vin N	Crankshaft Holding Tool	536596	J-42069-10
1997-2001	Cadillac	Catera	3.0L vin R	Crankshaft Holding Tool	536596	J-42069-10
2002-2003	Cadillac	CTS	3.2L vin N	Camshaft Alignment Gauge	536608	J-42069-20
1997-2001	Cadillac	Catera	3.0L vin R	Camshaft Alignment Gauge	536608	J-42069-20
2002-2003	Cadillac	CTS	3.2L vin N	Timing Belt Installation Tool	536611	J-42069-30
1997-2001	Cadillac	Catera	3.0L vin R	Timing Belt Installation Tool	536611	J-42069-30
2002-2003	Cadillac	CTS	3.2L vin N	Timing Belt Tensioner Wrench	536612	J-42069-40
1997-2001	Cadillac	Catera	3.0L vin R	Timing Belt Tensioner Wrench	536612	J-42069-40
2002-2003	Cadillac	CTS	3.2L vin N	Crankshaft socket	536613	MKM-602-21
1997-2001	Cadillac	Catera	3.0L vin R	Crankshaft socket	536613	MKM-602-21



### GM In-line 5, 6, or V6 Cam Tool Set

- Comprehensive tool kit designed to save time when servicing GM 5-, 6-cylinder engines.
- Tools are actually easier to use than the original OE essential tools.

**No. 6688** – GM In-line 5, 6, or V6 cam tool set. Wt., 17 lbs., 4 oz.

**GM In-line 5, 6, or V6 Cam Tool Application Chart for 6688** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2005-2006	Buick	Lacrosse	3.6L vin 7	Timing Chain Retention Tools	536589 & 536590	EN-46108
2004-2006	Buick	Rendezvous	3.6L vin 7	Timing Chain Retention Tools	536589 & 536590	EN-46108
2004-2006	Cadillac	CTS	3.6L vin 7	Timing Chain Retention Tools	536589 & 536590	EN-46108
2005-2006	Cadillac	STS	3.6L vin 7	Timing Chain Retention Tools	536589 & 536590	EN-46108
2004-2006	Cadillac	SRX	3.6L vin 7	Timing Chain Retention Tools	536589 & 536590	EN-46108
2004-2006	Cadillac	CTS	2.8L vin T	Timing Chain Retention Tools	536589 & 536590	EN-46108
2005-2006	Buick	Lacrosse	3.6L vin 7	Crankshaft Turning Socket	536588	EN-46111
2004-2006	Buick	Rendezvous	3.6L vin 7	Crankshaft Turning Socket	536588	EN-46111
2004-2006	Cadillac	CTS	3.6L vin 7	Crankshaft Turning Socket	536588	EN-46111
2005-2006	Cadillac	STS	3.6L vin 7	Crankshaft Turning Socket	536588	EN-46111

# AUTOMOTIVE SPECIAL TOOLS

## GM Cam Tool Application Chart

**GM In-line 5, 6, or V6 Cam Tool Application Chart for 6688** Note: Some applications require more than one tool to accomplish the task.

Year	Make	Model	Engine	Tool Description	OTC PN	OE PN
2004-2006	Cadillac	SRX	3.6L vin 7	Crankshaft Turning Socket	536588	EN-46111
2004-2006	Cadillac	CTS	2.8L vin T	Crankshaft Turning Socket	536588	EN-46111
2005-2006	Buick	Lacrosse	3.6L vin 7	Timing Chain Tensioner Pins	536587	EN-46112
2004-2006	Buick	Rendezvous	3.6L vin 7	Timing Chain Tensioner Pins	536587	EN-46112
2004-2006	Cadillac	CTS	3.6L vin 7	Timing Chain Tensioner Pins	536587	EN-46112
2005-2006	Cadillac	STS	3.6L vin 7	Timing Chain Tensioner Pins	536587	EN-46112
2004-2006	Cadillac	SRX	3.6L vin 7	Timing Chain Tensioner Pins	536587	EN-46112
2004-2006	Cadillac	CTS	2.8L vin T	Timing Chain Tensioner Pins	536587	EN-46112
2005-2006	Buick	Lacrosse	3.6L vin 7	Timing Chain Tensioner Tool	536587	J-45027
2004-2006	Buick	Rendezvous	3.6L vin 7	Timing Chain Tensioner Tool	536587	J-45027
2004-2006	Cadillac	CTS	3.6L vin 7	Timing Chain Tensioner Tool	536587	J-45027
2005-2006	Cadillac	STS	3.6L vin 7	Timing Chain Tensioner Tool	536587	J-45027
2004-2006	Cadillac	SRX	3.6L vin 7	Timing Chain Tensioner Tool	536587	J-45027
2004-2006	Cadillac	CTS	2.8L vin T	Timing Chain Tensioner Tool	536587	J-45027
2005-2006	Buick	Lacrosse	3.6L vin 7	Camshaft Locking Tool	536584 & 586585	EN-46105
2004-2006	Buick	Rendezvous	3.6L vin 7	Camshaft Locking Tool	536584 & 586585	EN-46105
2004-2006	Cadillac	CTS	3.6L vin 7	Camshaft Locking Tool	536584 & 586585	EN-46105
2005-2006	Cadillac	STS	3.6L vin 7	Camshaft Locking Tool	536584 & 586585	EN-46105
2004-2006	Cadillac	SRX	3.6L vin 7	Camshaft Locking Tool	536584 & 586585	EN-46105
2004-2006	Cadillac	CTS	2.8L vin T	Camshaft Locking Tool	536584 & 586585	EN-46105
2002-2004	Oldsmobile	Bravada	4.2L vin S	Camshaft Holding Tool	536172	J-44221
2004-2006	Buick	Rainier	4.2L vin S	Camshaft Holding Tool	536172	J-44221
2002-2006	Chevrolet	Trailblazer	4.2L vin S	Camshaft Holding Tool	536172	J-44221
2002-2006	GMC	Envoy	4.2L vin S	Camshaft Holding Tool	536172	J-44221
2004-2006	Chevrolet	Colorado	3.5L vin 5 5 cylinder	Camshaft Holding Tool	536172	J-44221
2004-2006	GMC	Canyon	3.5L vin 5 5 cylinder	Camshaft Holding Tool	536172	J-44221
2004-2006	Cadillac	CTS	2.8L vin T	Camshaft Sprocket Holding Tool	536181	J-44222
2002-2004	Oldsmobile	Bravada	4.2L vin S	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	Buick	Rainier	4.2L vin S	Camshaft Sprocket Holding Tool	536181	J-44222
2002-2006	Chevrolet	Trailblazer	4.2L vin S	Camshaft Sprocket Holding Tool	536181	J-44222
2002-2006	GMC	Envoy	4.2L vin S	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	Chevrolet	Colorado	3.5L vin 5 5 cylinder	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	GMC	Canyon	3.5L vin 5 5 cylinder	Camshaft Sprocket Holding Tool	536181	J-44222
2004-2006	Cadillac	CTS	2.8L vin T	Timing Chain Retention Tools	536189 & 536187	J-44217
2002-2004	Oldsmobile	Bravada	4.2L vin S	Timing Chain Retention Tools	536189 & 536187	J-44217
2004-2006	Buick	Rainier	4.2L vin S	Timing Chain Retention Tools	536189 & 536187	J-44217
2002-2006	Chevrolet	Trailblazer	4.2L vin S	Timing Chain Retention Tools	536189 & 536187	J-44217
2002-2006	GMC	Envoy	4.2L vin S	Timing Chain Retention Tools	536189 & 536187	J-44217
2004-2006	Chevrolet	Colorado	3.5L vin 5 5 cylinder	Timing Chain Retention Tools	536189 & 536187	J-44217
2004-2006	GMC	Canyon	3.5L vin 5 5 cylinder	Timing Chain Retention Tools	536189 & 536187	J-44217
2001-2004	Chevrolet	Tracker	2.5L	Timing Chain Tensioner Pin	536586	EN-46330
2001-2002	Oldsmobile	Aurora	3.5L vin H	Timing Chain Tensioner Pin	536586	EN-46330
1999-2002	Oldsmobile	Intrigue	3.5L vin H	Timing Chain Tensioner Pin	536586	EN-46330
2001-2002	Oldsmobile	Aurora	3.5L vin H	Camshaft Holding Tool	527051	J-42038
1999-2002	Oldsmobile	Intrigue	3.5L vin H	Camshaft Holding Tool	527051	J-42038
2001-2002	Oldsmobile	Aurora	3.5L vin H	Cam Gear Holding Fixture	527052	J-42042
1999-2002	Oldsmobile	Intrigue	3.5L vin H	Cam Gear Holding Fixture	527052	J-42042
2001-2002	Oldsmobile	Aurora	3.5L vin H	Crankshaft Socket	527055	J-43032
1999-2002	Oldsmobile	Intrigue	3.5L vin H	Crankshaft Socket	527055	J-43032
2004-2005	Saturn	Vue	3.5L vin 4	Camshaft Holding Tool	536583	EN-46337
2004-2005	Saturn	Vue	3.5L vin 4	Timing Chain Tensioner Pin	536586	EN-46330
2004-2005	Saturn	Vue	3.5L vin 4	Timing Belt Tensioner Retainer	536582	EN-46331

# AUTOMOTIVE SPECIAL TOOLS

## Engine Service



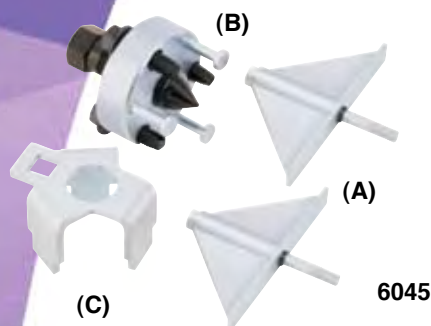
6024

Similar to Ford  
No. 303-448.

### Ford Crankshaft Positioning Tool

- Designed for use on Ford 1993–2004 4.2L, 4.6L 2-valve, 4.6L 4-valve, 5.4L V8, and 6.8L V10 engines when installing timing chains. These engines are not free-wheeling, and if an engine has “jumped time,” it is possible the cylinder heads have to be removed because of damage to the valves or pistons.
- Easily installs over the crankshaft and engine front cover alignment dowel to position the crankshaft at top-dead-center — the correct position for timing chain installation. OTC recommends the No. 6024 be used with Nos. 6009 and 6020 (but it is not required).

**No. 6024** – Ford crankshaft positioning tool. Wt., 10 oz.



6045

### Camshaft Timing Tools

- Indispensable for servicing timing belts on GM 3.4L V6 DOHC engine. Works on 1991–1996 Chevrolet Lumina and 1995–1997 Monte Carlo, 1991–1998 Olds Cutlass Supreme and Pontiac Grand Prix.
- Tool (A) holds the camshaft in the correct position; tool (B) is used to pull the cam gear from the camshaft; and tool (C) is used to turn the cam gear to time the camshaft.

**No. 6045** – Camshaft timing tools. Wt., 3 lbs., 12 oz.



Similar to Miller  
No. 6642

7999

### Chrysler Camshaft Alignment Tool Set

These special brackets are necessary to ensure exact alignment of the camshaft sprockets during timing belt installation on all 1993–current LH vehicles with a 3.5L OHC engine.

**No. 7999** – Chrysler camshaft alignment tool set. Wt., 8 oz.



Similar to  
Miller No. MD-998767

7997

### Chrysler Timing Belt Wrench

Correctly adjusts the timing belt tension on 1991–1994 3.0L DOHC Dodge Stealth, 1992–1994 Eagle Summit, 1992–1994 Dodge Colt, and 1984–1991 2.0L Dodge Colt. For use with a 1/4" drive ratchet.

**No. 7997** – Chrysler timing belt wrench. Wt., 3 oz.



Similar to  
Miller No. C-4703

7695

### Chrysler Timing Belt Adjustment Wrench

Guessing at the correct tension on timing belts is bad news – for you and your customers. To make belt tension adjustment easier on Chrysler's 2.2L and 2.5L engines, this wrench is a big help. It holds the tension on the belt for you, while you tighten the nut to the correct torque—eliminates over or under tightening. Plus, the weight can be shifted from one side of the wrench to the other to accommodate confining areas.

**No. 7695** – Chrysler timing belt adjustment wrench. Wt., 13 oz.



### Universal Belt Tension Gauge

- Belt tension gauges are used to check drive belt tension on drive belts to ensure maximum belt and bearing life.
- Scale reads 30–180 inch lbs.

**No. 6673** – Universal belt tension gauge.  
Wt., 1 lb., 7 oz.



6673

### Ford Spark Plug Socket

- This unique and patented design works on 2004–newer Ford vehicles with 5.4L, 4.6L, 5.4L, 3-valve Triton V8 & 6.8L Triton V10 engines.
- Socket end is 9/16". Soft rubber insert holds and protects spark plug during removal and installation.
- Extension is part of the socket. Easily fits down spark plug tube in cylinder head.
- Socket has a 3/8" drive for use with a ratchet or breaker bar.

**No. 6900** – Ford F-150 spark plug socket, 5-7/8" long. Wt., 7 oz.



6900

### 5/8" & 13/16" Spark Plug Sockets

- Works on GM, Chrysler, Ford, and many import vehicles with 5/8" or 13/16" spark plugs.
- Socket end has a soft rubber insert to hold and protect the spark plug during removal and installation.
- Drive end is 3/8" for use with ratchet or breaker bar.

**No. 6899** – 5/8" Spark plug socket, 4-7/8" long. Wt., 7 oz.

**No. 6898** – 13/16" Spark plug socket, 4-7/8" long. Wt., 7 oz.



6899

6898

### 3-Piece Spark Plug Socket Set

This kit combines the most popular spark plug sockets. Each socket has a 3/8" drive end for use with a ratchet or breaker bar. Socket ends have soft rubber inserts to hold and protect the spark plug during removal and installation.

- No. 6898 works on GM, Chrysler, Ford, and many import vehicles with 13/16" spark plugs, 4-7/8" long.
- No. 6899 works on GM, Chrysler, Ford, and many import vehicles with 5/8" spark plugs, 4-7/8" long.
- No. 6900 works on 2004–newer Ford vehicles with 5.4L, 4.6L, 5.4L, 3-valve Triton V8 & 6.8L Triton V10 engines, 5-7/8" long.

**No. 6897** – 3-piece spark plug socket set. Wt., 2 lbs., 2 oz.



6897

### Ford Valve Spring Compressor Tool

Compresses valve springs for quicker, easier camshaft, valve seal, valve spring, or retainer service—because you don't have to remove the head from the engine first! It's an OEM-approved tool that you use with a 3/8" ratchet or breaker bar. Works on: 1991–2004 Ford vehicles with 4.6L, two-valve, V8 engines; 4.6 4V, 5.4 V8 and 6.8 V10.

**No. 7928** – Ford valve spring compressor tool. Wt., 6 oz.

Similar to  
Ford No. 303-567



7928

# AUTOMOTIVE SPECIAL TOOLS

## Engine Service



7786



Similar to  
Ford No. 303-178  
(T82L-6701-A)

### Ford Rear Main Seal Installer

This installer is the most accurate way to ensure that the rear main seal is set to the correct depth on the crankshaft. The installer fits over the seal, and with the two bolts included, attaches to the engine crankshaft. By alternately tightening the bolts, the seal is pulled into place quickly, easily, and with no damage to the rear main seal. Works on 2.0L, 2.3L, 2.3L OHC, 2.5L, 2.5L OHC 4-cylinder engines; 3.0L 2V, 3.0L 4V, 3.4L SOHC, 3.8L, 3.8L SC V6 engines; 4.6L 2V, 4.6L 4V, 5.0L and 5.8L V8 engines.

**No. 7786** – Ford rear main seal installer. Wt., 2 lbs., 4 oz.



7834



Similar to  
Ford No. 303-5524

### Ford Rear Crankshaft Seal Installer

- This installer works on crankshaft rear oil seals that come with or without a metal wear sleeve.
- Designed for use on 1993–1997 Aerostar or 1993–2006 Ranger and Explorer w/4.0L V6 engine

**No. 7834** – Ford rear crankshaft seal installer. Wt., 1 lbs., 12 oz.



7943



### GM Oil Pump Drive Removal Tool

On certain GM V6 engines, the oil pump drive is difficult to get at, making it a real hassle to remove it to repair o-ring leaks. This tool removes the oil pump drive from the engine without first having to remove the exhaust cross-over pipe or other components.

For 1987–89 2.8L V6 engines; 1990–94 3.1L V6 engines; 1994 and newer 3100 V6 engines; and 1999 and newer 3400 engines.

**No. 7943** – GM oil pump drive removal tool. Wt., 8 oz..



7912



7911

### GM Crankshaft Balancer Puller Kit and Adapter Set

Everything you need to pull harmonic balancers having three tapped holes. The shoulder bolts are designed to prevent them from being installed too deeply, protecting the crank sensor and/or interrupter rings from damage. The spacer adapter gives the puller's forcing screw something to push against. The kit works on 1990–2002 3300 and 3800 V6 engines. The No. 7911 adapter set consists of the spacer adapter and shoulder bolts only, for use with your No. 518 or No. 6930 flange-type puller.

**No. 7911** – GM crankshaft balancer puller adapter set. Includes shoulder bolts and spacer adapter only. Wt., 8 oz.

**No. 7912** – GM crankshaft balancer puller kit. Includes No. 518 flange-type puller and No. 7911 adapter set. Wt., 3 lbs., 2 oz.



6495

### Chrysler Harmonic Balancer Holding Tool

- Designed as a holding ring with three pins to fit into the openings on a harmonic balancer.
- Use with a 1/2" ratchet or breaker bar to hold the harmonic balancer in place when turning the bolt that holds the balancer to the crankshaft. Also use to hold the balancer when removing it from the engine.
- Works on 1990–newer 3.3L V6 vans; 1994–newer 3.8L V6; 1993–1997 3.3L and 3.5L V6 cars; 1998–newer 2.7L, 3.2L, and 3.5L V6 cars.

**No. 6495** – Chrysler harmonic balancer holding tool. Wt., 1 lb., 10 oz.

### Harmonic Balancer Puller

Designed for removing damper pulleys in tight engine compartments, without removing the radiator. Use on the following:

- GM 2000 Generation III 4.8L, 5.3L, 5.7L 6.0L, and 8.1L V8s. Also works on Cadillac 4.5, 4.6, and 4.9L V8s beginning in 1988. Chevrolet trucks 2003–later 4.2L I6, 2004–current 3.5L I5 and 2005–current 2.8L I4.
- Chrysler engines from 1990–later, including 2.0L, 2.4L-4s; plus 2.5L, 2.7L, 3.3L, 3.5L, and 3.8L V6s.
- Ford 1995–later V8 engines with 3 spoke pressed on damper.
- Mitsubishi Eclipse 1995–1999 2.0L DOHC non-turbo.
- Kit contains the 3-jaw puller, four lengths of forcing rods, and a forcing screw with a 3/8" square drive for ratchet use, and a 3/4" hex for wrench or socket use.

#### Replacement rods:

No. 537757-4 – 5/16" x 4"

No. 537757-5 – 5/16" x 5-13/32"

No. 537757-6 – 5/16" x 6-1/2"

No. 537757-7 – 5/16" x 7-13/32"

**No. 6667** – Harmonic balancer puller. Wt., 2 lbs., 11 oz.



6667

### Harmonic Balancer Puller Set

- Includes No. 6267 puller, which removes the harmonic balancer from the crankshaft; and No. 6495 holding tool, which holds the harmonic balancer when tightening or loosening the crankshaft bolt, or removing the balancer.

**No. 6284** – Harmonic balancer puller set, includes both the No. 6267 and the No. 6495 tools. Wt., 3 lbs., 7 oz.



6284

### Chrysler Crankshaft Damper Remover/Installer Kit

The special 3-jaw puller is used with the insert to remove the crankshaft damper whenever timing belt, water pump, or front cover service is required. The tool kit includes a damper installing tool with bearing.

- Services Chrysler-built 2.0L, 2.4L, 2.5L, 3.3L and 3.5L engines.
- 1995–newer 3.3L and 3.5L V6 used in Chrysler New Yorker and Concorde, Dodge Intrepid, and Eagle Vision; 1995–newer 2.0L, 2.4L 4-cyl., and 2.5L V6 used in Cirrus, Stratus, and Breeze; 1995–newer 2.0L 4-cyl. used in Neon.

**No. 6075** – Chrysler crankshaft damper remover/installer kit. Wt., 4 lbs., 8 oz.



6075

### Distributor Bushing Remover

- Used to remove the distributor drive shaft lower bushing from the engine block.
- Works on Chrysler, Dodge, and Plymouth 3.9L V6, 5.2L and 5.9L V8 vehicles with distributors.

**No. 6292** – Distributor bushing remover. Wt., 1 lb., 4 oz.

Similar to  
Miller No. C-3054



6292



# AUTOMOTIVE SPECIAL TOOLS

## Engine Service

6293



Similar to  
Miller No. C-3053

### Distributor Bushing Installer/Reamer

- Used to install the distributor drive shaft lower bushing into the engine block. Then use this same tool to ream the new bushing so the distributor drive shaft correctly fits into the bushing.
- Works on Chrysler, Dodge, and Plymouth 3.9L V6, 5.2L & 5.9L V8 vehicles with distributors.
- Compatible with OEM and aftermarket distributor drive bushings.

**No. 6293** – Distributor bushing installer/reamer. Wt., 2 lbs.

5603



### Compression Tester - Deep Well Connector

Use with OTC compression testers or other compression

Features and benefits:

- Solid steel 8" length shaft.
- Upper t-wing grip for ease of installation and removal.
- Popular 14 mm thread for both flat and tapered seat plugs.
- Corrosion resistant nickel plated finish.

**No. 5603** – Compression tester – deep well connector. Wt., 15 oz.

5607



### Compression Tester Ford Adapter

Use with OTC compression testers to access hard to reach spark plug holes.

Features and benefits:

- Works on 2004 and newer Ford 4.6 and 5.4 L, 3 valve Triton™ V-8 engines. (Triton is a Registered Trade Mark of the Ford Motor Co.)
- Easy-to-turn feature makes starting thread fast.
- Use with compression testers with 14 mm thread.
- Patent pending.

**No. 5607** – Compression tester Ford adapter. Wt., 15 oz.

5606



### Compression Tester Kit

Designed for complete compression testing on gasoline engines, including domestic, imports, motorcycles, marine, and small engines. Unique problem solving features for today's limited space engine compartments.

Features and benefits:

- Corrosion resistant nickel plated finish.
- Adapters work on both flat and tapered seat plugs.
- Extra long 25" flex hose gauge assembly with quick coupler, allows easy viewing out of cluttered engine compartment.
- 2-1/2" gauge features chrome bezel and rugged protective outer boot.
- Dual scale gauge reads 0-300 psi and 0-2100 kPa.
- 12" flex-14 mm standard reach.
- 12" flex-14 mm long reach.
- 10 mm, 12 mm, and 18 mm thread adapters.
- Rugged blow molded hard case with removable lid.
- Repair parts kit.

**No. 5606** – Compression tester kit. Wt., 3 lbs., 11 oz.

### Motorcycle Compression Tester Kit

Designed specifically for testing motorcycle and small engines, this kit features a specially designed compression gauge and hose assembly, plus three different size hose adapters. Compression Tester and hose lengths are designed for optimal viewing along side engine. Covers most popular motorcycle and small engine plug sizes.

#### Functions and Features:

- Corrosion resistant nickel plated finish
- 10" flex hose gauge assembly with quick coupler.
- 2-1/2" gauge features chrome bezel and rugged protective outer boot
- Dual scale gauge reads 0-300 psi and 0-2100 kPa
- 12" flex hose -14 mm standard/plus reach (extra length supports V-Twin applications)
- 12" flex hose -12 mm standard reach
- 12" flex hose -10 mm standard reach
- Rugged blow molded hard case with removable lid
- Repair parts kit

**No. 5604** – Motorcycle compression tester kit. Wt., 3 lbs., 14 oz.



### Deluxe Compression Tester Kit

Complete with standard and specialty adapters, this deluxe kit offers a complete package for compression testing on gasoline engines. Kit includes the deep well connector used on recessed plug well style heads and the new Ford Triton™ engine adapter using 16 mm thread plugs.

#### Functions and Features:

- Corrosion resistant nickel plated finish
- Adapters work on both flat and tapered seat plugs
- Extra long 25" flex hose gauge assembly with quick coupler, allows easy viewing out of cluttered engine compartment
- 2-1/2" gauge features chrome bezel and rugged protective outer boot
- Dual scale gauge reads 0-300 psi and 0-2100 kPa
- 8" deep well 14 mm connector
- 5" flex Ford Triton™ 16mm adapter
- 12" flex-14 mm standard reach
- 12" flex-14 mm long reach
- 10 mm, 12mm, and 18 mm thread adapters
- Rugged blow molded hard case with removable lid
- Repair parts kit

**No. 5605** – Deluxe compression tester kit. Wt., 4 lbs., 10 oz.



Ford Triton is a Registered Trade Mark of the Ford Motor Company. Patent Pending

# AUTOMOTIVE SPECIAL TOOLS

## Engine Service



### Cylinder Leakage Tester Kit

Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit come complete with adapters for most applications.

Features and benefits:

- Dual 2-1/2" gauges feature chrome bezel and rugged protective outer boot.
- Scales read 0-100 psi and 0-700 kPa.
- Pressure regulated manifold includes quick couplers.
- Long flex 24" 14 mm hose.
- 10 mm, 12 mm and 18 mm thread adapters.
- Blow molded hard case with removable lid.
- Detailed instruction chart.

**No. 5609** – Cylinder leakage tester kit. Wt., 4 lbs.



### Transmission/Engine Oil Pressure Kit

The 5610 professional kit can be used for domestic and import applications. High and low pressure gauges make this kit useful for both transmission and engine work. Kit comes complete with adapter for most applications. Designed to be used for both static and on road testing.

Features and benefits:

- Large 3-1/2" gauges feature a chrome bezel and rugged protective outer boot.
- Low pressure gauge reads 0-100 psi and 0-700 kPa.
- High pressure gauge reads 0-400 psi and 0-2800 kPa.
- Both gauges include rear hook to allow gauge to be hung conveniently out of the way.
- Gauges and hose assembly incorporate quick couplers for easy disconnect.
- Kit includes 13 adapters and a detailed instruction manual.
- Blow molded hard case with removable lid.

**No. 5610** – Transmission/engine oil pressure kit. Wt., 5 lbs., 3 oz.



### Vacuum/Pressure Gauge Kit

The 5613 is deal for testing vacuum lines and components. Accurately tests low-pressure fuel systems. Quickly diagnose internal engine problems such as bad rings, valves and leaking head gaskets. Kit comes complete with adapter for most applications. Pin point hard to find problems such as cracked lines, PCV, fuel pump, fuel filters and more.

Features and benefits:

- Large 3-1/2" gauge features a chrome bezel and rugged protective outer boot.
- Dual purpose gauge reads vacuum and pressure.
- Dual scale gauge reads 0-30 in. Hg vac and 0-70 cm Hg, also reads 0-15 psi and 0-100 kPa.
- Built in rear hook allows gauge to be hung at eye level.
- Adapters for most applications.
- Blow molded hard case with removable lid.
- Detailed instruction chart.

**No. 5613** – Vacuum/pressure gauge kit. Wt., 3 lbs.



### Universal Overhead Valve Spring Compressor

- Permits removal and installation of valve springs without removing the cylinder head on many cars and light trucks. Durable steel construction.
- Spring loaded offset jaws easily grip and compress valve springs.

**No. 4573** – Universal overhead valve spring compressor. Wt. 1 lb.



4573

### Large Valve Spring Compressor

- Designed to compress valve springs on overhead valve engines.
- Includes two valve spring adapters, which fit valve spring retainers up to 1" (25 mm) and 1-3/16" (30 mm).
- Unique, direct action compressor lever gives better visibility of valve spring retainers located in difficult access areas.
- Jaw opening of 1-3/8" to 5-5/8" (35 mm to 142 mm); throat clearance of 5-7/8" (150 mm).

**No. 4572** – Large valve spring compressor. Wt. 5 lbs.



4572

### Honda / Acura Crankshaft Damper Holding Tool

- Tool allows the technician to hold the crankshaft damper when tightening or loosening the crankshaft bolt.
- 50mm hex on holding tool.
- Works on the following Honda and Acura engines:

1990–1997 Honda Accord 2.2L 4 cyl.

1996–1997 Honda Accord 2.7L V6

1998–newer Honda Accord 2.3L 4 cyl. & 3.0L V6

1992–newer Honda Civic 1.6L 4 cyl.

1997–newer Honda CR-V 2.0L 4 cyl.

1993–1997 Honda Del Sol 1.6L 4 cyl.

2000–newer Honda Insight 1.0L 3 cyl.

1995–1997 Honda Odyssey 2.2L 4 cyl.

1998 Honda Odyssey 2.3L 4 cyl.

1999–newer Honda Odyssey 3.5L V6

1992–newer Honda Prelude 2.2L 4 cyl.

1992–1996 Honda Prelude 2.3L 4 cyl.

2000–newer Honda S2000 2.0L 4 cyl.

1997 Acura CL 2.2L 4 cyl.

1997–1998 Acura CL 3.0L V6

1998–1999 Acura CL 2.3L 4 cyl.

2000–newer Acura CL 3.2L V6

1990–1992 Acura Integra 1.6L 4 cyl.

1992–1993 Acura Integra 1.7L 4 cyl.

1993–newer Acura Integra 1.8L 4 cyl.

1991–1995 Acura Legend 3.2L V6

1996–newer Acura RL 3.5L V6

1995–newer Acura TL 3.2L V6



4731

**No. 4731** – Honda/Acura crankshaft damper holding tool.

### Flange Puller

Pulls harmonic balancers, timing gears, and parts having two or three tapped holes. Slotted holes in puller body permit cap screws to be positioned to handle bolt circle diameters from 1/2" to 4-5/8". Reach of puller is 4-1/4". Includes three cap screws (3/8"–24 x 3"), and three cap screws (3/8"–16 x 3").

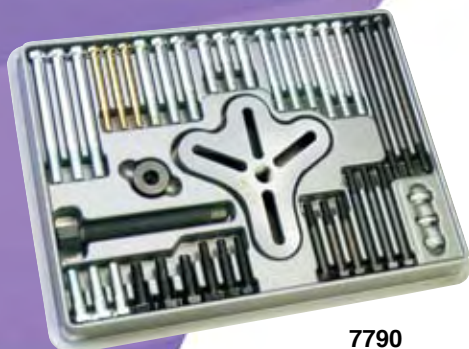
**No. 6930** – Flange puller. Wt., 3 lbs. 4 oz.



6930

# AUTOMOTIVE SPECIAL TOOLS

## Engine Service



7790

### Flange-Type Puller Set – 48 Piece

- Versatile puller capable of removing a wide variety of components having tapped pulling holes, including harmonic balancers, gears, crankshaft pulleys, etc.
- Capable of handling 2- or 3-way bolt pulling applications.
- Works on many cars, pickups, SUVs, and small engines.
- Carries the OTC Lifetime Marathon Warranty® against defects in workmanship and material.

#### Contents of set:

- Puller flange: adapts to bolt circle dia. of 1-1/2" to 4-5/8".
- Forcing screw: 5-5/8" lg., 5/8-18 thread.
- Shaft protector: 1-3/16" dia. x 3/4" thick.
- Three each of the following flat washers: 1/4"; 5/16"; 3/8".
- Three each of the following bolt sizes:

1/4"-28 x 3" lg.	3/8"-16 x 3" lg.
5/16"-24 x 3" lg.	3/8"-16 x 4-1/2" lg.
5/16"-18 x 3-1/2" lg.	M8 x 1.25 x 45 mm lg.
5/16"-18 x 6" lg.	M8 x 1.25 x 65 mm lg.
3/8"-24 x 1-1/2" lg.	M8 x 1.25 x 90 mm lg.
3/8"-16 x 2" lg.	M10 x 1.5 x 35 mm lg.

**No. 7790** – Flange-type puller set – 48 piece. Wt., 7 lbs., 3 oz.



6294

### Flange-Type Puller Set

- Covers almost every car, pick-up, SUV, and small engine.
- Capable of handling almost every two- or three-way bolt pull possible.
- For use on a variety of jobs: harmonic balancers, steering wheels, crankshaft pulleys, and gears.
- OTC Lifetime Marathon Warranty® covers defects in workmanship or materials.
- Storage tray and detailed application chart included.
- Slotted holes in puller flange permit cap screws to be positioned to handle bolt circles from 1-1/2" to 4-1/4".

#### Contents of set:

- Three each of the following washer head bolts (Grade 8):

M8 x 1.25 x 90 mm	M8 x 1.25 x 45 mm	1/4-28 UNF x 3"
M8 x 1.25 x 65 mm	5/16-18 UNC x 3.5"	5/16-24 UNF x 3"
3/8-24 UNF x 1.5"	3/8-16 UNC x 2"	3/8-16 UNC x 3"
3/8-16 UNC x 4.5"	M10 x 1.5 x 35 mm	
- Special stepped bolts– 1990–2002 GM 3300-3800 V6 crankshaft pulleys.
- Two forcing screws: 6" long and 3" long.
- Two pointed forcing screw center tips.
- Two flat forcing screw center tips.

**No. 6294** – Flange-type puller set. Wt., 6 lbs., 13 oz.



6505

### Master Harmonic Balancer Installer

- 11 special adapters make this a complete master harmonic balancer installer set for most car and light truck applications.
- The heavy-duty 7/8" diameter forcing screw has internal threads to fit the threaded adapters.
- Plastic storage tray keeps set components organized for easy selection.

**No. 6505** – Master harmonic balancer installer.  
Wt., 2 lbs., 13 oz.

### Harmonic Balancer Puller/Installer Set

- For easy removal of most harmonic balancers and drive pulleys which are press-fitted onto the crankshaft. A bearing-centered circular 2/3-way puller flange and an assortment of metric and fractional bolts and adapters provide wide coverage.
- A heavy-duty, 3/4" dia. forcing screw is internally threaded to fit the eight adapters to install harmonic balancers. Adapter sizes included: M16 x 2.0, M14 x 1.5, M12 x 1.5, 3/4"-16, 5/8"-18, 9/16"-18, 1/2"-20 and 7/16"-20.
- A blow-molded plastic storage case keeps set contents organized and protected from loss.

**No. 4531** – Harmonic balancer puller/installer set.  
Wt., 8 lbs., 13 oz.



### BMW Head Bolt Socket

- Socket is designed to fit in the cylinder head on M42 and M50 engines to remove and install cylinder head bolts.
- Spring loaded detent ball holds bolt in place.
- Works with 1/2 inch ratchet, breaker bar, or torque wrench.
- Socket size is E12 for external TORX® bolts.

**No. 5940** – BMW head bolt socket. Wt., 8 oz.



### Toyota Head Bolt Socket

- Specially designed socket is needed to tighten or loosen head bolts on Toyota Paseo vehicles with 3S-GE and 3S-FE engines.
- 8 mm socket features a 12-point, 1/2 inch drive socket.

**No. 6022** – Toyota head bolt socket. Wt., 13 oz.



### Universal Pulley Holder

- Universal design fits many different size pulleys having slots or holes, such as camshaft pulleys or crankshaft pulleys.
- Wrench is adjustable from 1-1/2" to 8-5/8"; four different size step pins are interchangeable.
- Long handle enables technician to easily hold the pulley when tightening or loosening retaining bolts.

**No. 4754** – Universal pulley holder. Wt., 4 lbs., 15 oz.



### Serpentine Belt Tool

- Fits tensioner pulleys with 13 mm–16 mm, 18 mm hex or 3/8" and 1/2" square drives.
- For hard to access tensioners; there are 13 mm and 15 mm 12-point wrenches built into the handle.
- 13 mm, 14 mm and 15 mm crows foot wrenches also included.

**No. 4645** – Serpentine belt tool. Wt., 4 lbs., 13 oz.





# AUTOMOTIVE SPECIAL TOOLS

## Engine Service

### Engine Preluber Kit

- Ensures oil is present to internal engine components on the first start of a new or rebuilt engine, or after major engine work is performed.
- Required to prime the oil pump and fill the oil galleries and internal engine components with clean, new oil.
- Connects to engine oil system at the oil pressure sensor on a variety of domestic and import engines.
- Oil pressure sensor adapters included.

**No. 6492** – Engine preluber kit. Wt., 2 lbs., 5 oz.



### Variable Pin Spanner Wrench

- Universal design fits many different types of pulleys having slots or holes, including camshaft pulleys and crankshaft pulleys.
- Wrench is adjustable from 1-1/4 inch to 5 inches; works with a 1/2 inch drive ratchet or breaker bar.

Replacement Parts:

526908-1 .....	3.5 mm pin	526908-5 .....	6 mm pin
526908-2 .....	4 mm pin	526908-6 .....	7 mm pin
526908-3 .....	4.5 mm pin	526908-7 .....	10 mm pin
526908-4 .....	5 mm pin	526908-8 .....	Handle

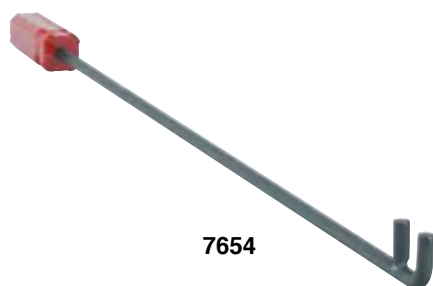
**No. 6613** – Variable pin spanner wrench. Wt., 2 lbs.



### Belt Installation Tool

With this tool and the correct serpentine belt tool for the job, installing those almost impossible serpentine belts is a lot less frustrating and time-consuming. The two-pin hook end holds the belt for precise placement, and the handle gives you the grip you need to maneuver it around the pulleys easier. It's also a handy tool to have around for installing V-belts and timing belts that are never in easy-to-reach places. 25" long.

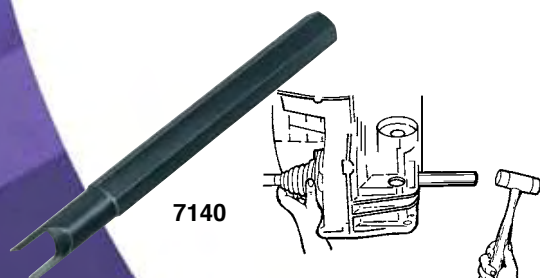
**No. 7654** – Belt installation tool. Wt., 10 oz.



### Ford Halfshaft Remover/Differential Rotator

No. 7140 is essential when removing the left-hand halfshaft from Escort/Lynx transaxles. It ensures correct removal and allows the technician to turn the differential.

**No. 7140** – Ford halfshaft remover/differential rotator. Wt., 1 lb., 13 oz.



### Delco Alternator Insulator Wrench

Getting the positive battery wire off the back of Delco alternators should be a quick and easy job. But if you turn the nut holding the battery wire and don't keep the terminal stud from twisting, there's a good chance the insulator will break. Keep a simple job simple with the No. 7780 insulator wrench. It steadies the insulator block on new Delco CS and older Delco SI alternators found on many GM vehicles (1972 and newer), and 1975–90 AMC and Jeep vehicles.

**No. 7780** – Delco alternator insulator wrench. Wt., 3 oz.



7780

### Frost Plug Installer Set

- Designed to install frost plugs in liquid-cooled gas and diesel engines found in automobiles, trucks, SUVs, agricultural equipment, and construction equipment.
- Simply use an air hammer with the driver and appropriate disc to install frost plugs ranging from 1" to 2-1/16" in diameter.

Set contains: No. 4604-1 Driver (14" lg.); No. 4604-2 Frost Plug Disc Set (3 qty.).

**No. 4604** – Frost plug installer set. Wt., 1 lb., 13 oz.



4604

### Frost Plug Remover/Installer Set

- Designed to remove and install frost plugs used in liquid-cooled gas and diesel engines found in automobiles, trucks, SUVs, agricultural equipment, and construction equipment.
- Simply use a hammer with the driver and appropriate disc to install frost plugs ranging from 1" to 2-3/8" in diameter.

Set contains: No. 4603-1 Installer Handle (18" lg.); No. 4604-2 Frost Plug Remover; No. 4604-3 Frost Plug Disc Set (7 ea., plus 1 retaining nut).

**No. 4603** – Frost plug remover/installer set. Wt., 6 lbs.



4603

### Glow Plug Remover

Set includes 10 mm and 12 mm split nuts, three spacers (3/16", 1/4", and 5/16"), plastic storage/organizer case and instructions. The 10 mm split nut will work on Ford 6.9L and 7.3L diesels; GM 5.7L, 6.2L, and 6.5L diesels; and various diesels in import vehicles. The 12 mm split nut works on various diesels in import vehicles, plus many agricultural and construction diesel applications.

**No. 6005** – Glow plug removal tool. Wt., 5 oz.



6005

### Fuel Injector Nozzle Puller

- Pulls fuel injection nozzles on Ford 6.9L/7.3L and Navistar DT466/9L diesel engines.
- Slide hammer action gives an even, straight pull on the nozzle for fast, easy removal.
- Puller nut screws onto injector nozzle inlet port.

**No. 7454** – Fuel injector nozzle puller. Wt., 1 lb., 15 oz.



7454

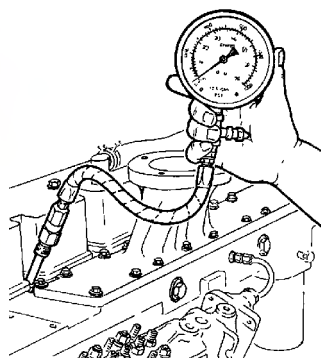
# AUTOMOTIVE SPECIAL TOOLS

## Engine Service



5020

Similar to  
Ford No. 303-D091  
(D93T-6000-A)



### Diesel Compression Tester with Adapters

Easy-to-use compression tester is designed specifically for medium-duty diesel engines equipped with glow plugs. Dual reading gauge measures compression to 1000 psi and 7000 kPa. Gauge has a push-button release valve and quick disconnect fittings on the hose end. Tester comes with all the necessary glow plug and nozzle adapters in a handy storage case.

Tester services these engines:

- Cummins B and C
- Navistar DT466/DT360
- Ford/Navistar 6.9 & 7.3L
- GM 6.2L and 6.5L
- Hino diesel and Mitsubishi Fuso truck engines

**No. 5020** – Diesel compression tester with adapters. Wt., 7 lbs., 13 oz.

Replacement Adapters (available separately):

**No. 47484** – Hino diesel truck engines with 12 mm x 1.25 threads.

**No. 209633** – Ford 6.6L & 7.8L diesels.

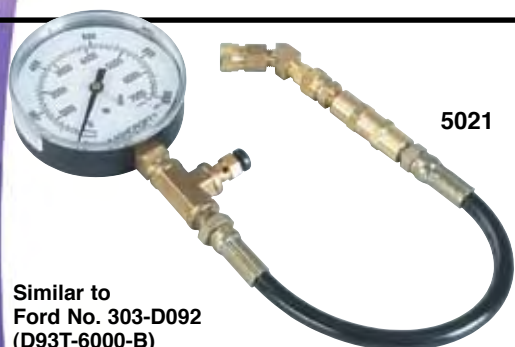
**No. 217791** – Cummins B & 5.9L.

**No. 308472** – Mitsubishi Fuso truck 4D & 6D engines with 10 mm x 1.25 threads.

**No. 310810** – Cummins C.

**No. 310832** – Ford/Navistar 6.9 & 7.3L, Detroit 6.2L with 10 mm x 1.0 threads.

**No. 310840** – Navistar DT466/DT360.



5021

Similar to  
Ford No. 303-D092  
(D93T-6000-B)

### Universal Diesel Engine Compression Gauge

Works on any diesel engine to test compression up to 1000 psi and 7000 kPa. Features include a check valve, push button compression release, and a quick disconnect fitting on the hose end. Straight and 45° hose connectors are included.

**No. 5021** – Universal diesel engine compression gauge. Wt., 1 lb., 8 oz.

**No. 304802** – Replacement gauge. Wt., 8 oz.



6076

### Ford Diesel Compression Test Adapter

When the glow plug is removed from the cylinder, this adapter is used to connect the No. 5021 gauge to perform a compression test.

- Works on 1994–newer Ford vans and pickups with 7.3L direct-injected turbocharged (DIT) diesel engine.

**No. 6076** – Ford diesel compression test adapter. Wt., 5 oz.



6660

### Compression Tester

- Use with OTC No. 5021 diesel engine compression gauge.
- Works on 2003-2006 Ford vans and trucks with 6.0L diesel engines.

**No. 6660** – Compression tester. Wt., 7 oz.



### Ford Rear Main Oil Seal Kit

- Works on 1994–2003 7.3L diesel engine in Ford 3/4- and 1-ton trucks.
- A complete kit with the tools you need to correctly remove and install the rear main oil seal and wear ring on the crankshaft.
- Eliminates makeshift methods of seal removal and installation that could damage the new seal or crankshaft.

**No. 7835** – Ford rear main oil seal kit. Wt., 7 lbs.



### Ford 5-pin Connector Harness for Glow Plug Testing

- Provides an easy way to check glow plug resistance without having to remove the valve cover of 1994–98 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
- Used with any standard digital volt ohmmeter to check glow plug resistance.

**No. 6088** – Ford 5-pin connector harness for glow plug testing. Wt., 3 oz.



### Ford 9-pin Connector Harness for Glow Plug Testing

- Permits testing glow plug resistance without having to remove the valve cover of 1998-1/2 thru 2003 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
- Use with any standard digital volt ohmmeter to check glow plug resistance.

**No. 6089** – Ford 9-pin connector harness for glow plug testing. Wt., 4 oz.



### Ford Oil Line Disconnect Tool for 6.0 L

- Use to disconnect the high-pressure oil rail supply line from the fuel rail when removing fuel injectors.
- Works on the 6.0: diesel engine found in 2003–newer F-250, F-350, F-450, and F-550 trucks, and Ford Excursions.

**No. 6594** – Ford oil line disconnect tool for 6.0 L. Wt., 5 oz.

Similar to  
Ford No. 303-755



# AUTOMOTIVE SPECIAL TOOLS

## Engine Service

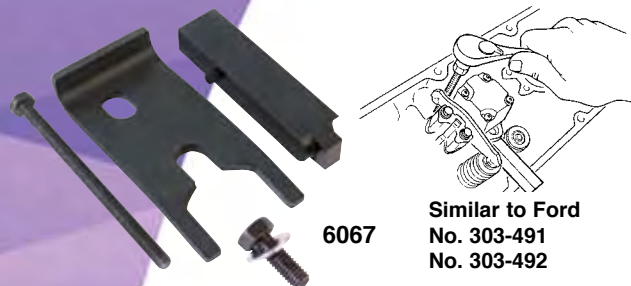


Similar to Ford  
303-625

### Ford High Pressure Oil Line Disconnect Tool

- Use to disconnect the high pressure oil line from the cylinder head.
- Works on 1998 - 2003 Ford vans and trucks with 7.3L direct-injected, turbo-charged (DIT) diesel engines.

**No. 6595** – High pressure oil line disconnect tool.  
Wt., 3 oz.



6067

Similar to Ford  
No. 303-491  
No. 303-492

### Ford Injector Remover / Installer Kit

- Removes and installs injectors without damaging the injector or cylinder head.

Application: 1994–2003 Ford 3/4- and 1-ton trucks, Super Duty trucks, and vans with 7.3L direct-injected turbocharged (DIT) diesel engine.

**No. 6067** – Ford injector remover/installer kit.  
Wt., 6 oz.



Similar to  
Miller No. 8318

6069

### Cummins Diesel Fuel Injector Remover Kit

Kit contains a fuel injector connector tube remover and fuel injector puller. The fuel injector connector tube must be removed before removal of the injector, or both will be damaged.

Application: 1998-1/2–2002 Dodge pickups and vans with 5.9L 24-valve Cummins diesel turbo engine.

**No. 6069** – Cummins diesel fuel injector remover kit.  
Wt., 8 oz.



Similar to  
Kent-Moore J-41089

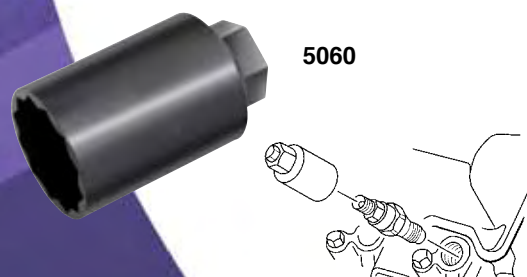
6087

Similar to  
Kent-Moore J-41711

### GM Injection Pump Wrench Set

- Use to loosen or tighten injection pump retaining bolts whenever pump timing adjustment or pump service is required. Services 1996–1999 GM full-size 2- and 4-wheel drive trucks, vans, and Suburbans with 6.5L diesel engine.
- Two specially bent wrenches are needed, due to the location of the throttle, cruise control, T.V. cable bracket, cooling system crossover pipe and bracket, and the thermostat housing on vans and pickups.
- Wrenches are 15 mm, 12-point, double box-end type.

**No. 6087** – GM injection pump wrench set. Wt., 1 lb.



5060

### Detroit Diesel Injector Socket

Used on GM 6.2L and 6.5L engines. This 30 mm socket ensures proper fit during nozzle removal and installation. The 3/8" square drive and 7/8" hex permit easy access in tight quarters, and prevent damage to nozzle and related components.

**No. 5060** – Detroit diesel injector socket. Wt., 8 oz.

### Cummins Engine Barring Tool

Need to manually rotate an engine? This tool makes the job easy. Just insert the tool into the flywheel housing until it engages the ring gear, then attach a 1/2" square drive ratchet or breaker bar and turn. The tool's load-bearing collar provides friction-free operation while rotating the tool in the housing.

- Works on Cummins B and C series diesel engines and 5.9L liter diesels used in Dodge pickups.

**No. 7471A** – Cummins engine barring tool. Wt., 11 oz.



7471A

### Master Cummins Diesel Fuel Injection Test Kit

Includes the fittings and gauge needed to check fuel pressure, fuel volume, and fuel restrictions from the delivery pump to the injection pump.

Contents:

- No. 518501 - Special quick-disconnect banjo fitting (M14 x 1.5 male).
- No. 7915 - Two fuel injection quick-coupler adapters.
- No. 518493 - Quick-disconnect banjo fitting (M12 x 1.5 male).
- No. 223336 - Gauge assembly.
- No. 6082 - Fuel volume test adapter.
- No. 6078 - Diesel fuel inlet restriction test adapter.
- For 1988–98 Dodge pickups and vans with 5.9L 12-valve, and 1998-1/2–newer 5.9L 24-valve Cummins diesel engines.

**No. 6080** – Master Cummins diesel fuel injection test kit. Wt., 5 lbs.



6080

### Cummins Diesel Fuel Volume Test Adapter

Used to perform fuel volume test of fuel transfer pump. Fuel volume is as important as fuel pressure. Pump may pass pressure test, but fail volume test. No. 6082 fitting is threaded into transfer pump. The end of the 2 ft. tubing is placed into a container for fuel to be measured.

This adapter is included in OTC Master Kit No. 6080.

Application: 1994–1998-1/2 Dodge pickups and vans with 5.9L 12-valve Cummins diesel engine.

**No. 6082** – Cummins diesel fuel volume test adapter. Wt., 3 oz.



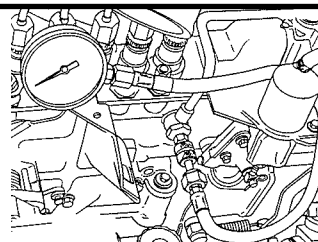
6082

### Special Quick-Disconnect Banjo Fitting

Adapter fitting (M14 x 1.5 male) is used to check fuel pressure from the delivery pump to the injection pump. Used with gauge assembly of OTC set No. 6079. Has quick-connect schrader valve on end of fitting for safety and ease of hook-up to gauge. Included in OTC kit No. 6080.

Application: 1996–1998-1/2 Dodge pickups and vans with 5.9L 12-valve Cummins engine.

**No. 518501** – Special quick-disconnect banjo fitting. Wt., 3 oz.



518501



# AUTOMOTIVE SPECIAL TOOLS

## Coolant Exchange

Works on both pressurized and non-pressurized cooling systems



10-Minute Exchange Process

**COOLTECH**  
75700 COOLXCHANGE



Back View:  
7-gallon capacity  
supply tanks allow  
storage of different  
coolants.



75700

### Specifications:

Power Supply – 90 psi shop air

Tanks – Internal waste – 15-gallon capacity  
– External supply (2) 7-gallon capacity (removable)

Dimensions: 47" H x 26" W x 33" D (119 cm x 66 cm x 84 cm)

Medium Step Adapter. . . . . Two included;  
fits hose size 1-1/4", 1-3/8", and 1-1/2"

Large Step Adapter . . . . . Two included;  
fits hose size 1-3/4", 2", and 2-1/4"

### Coolant Exchange Unit

Designed with the user in mind.

#### Increase Your Profits

- Our 10-minute exchange process means no more waiting for the engine to warm up!

#### Safety First

- Our "engine off" feature removes pulleys, belts, and fan blades from the safety equation.
- No additional ventilation required.
- Vacuum mode creates a "push/pull" exchange process allowing the technician to safely remove high pressure in a hot system.
- "Hands-off" transfer of used coolant to a bulk tank prevents spills and helps protect the technician.

#### Simple to Operate

- Two clearly marked valves and an easy-to-read gauge make this machine very simple to use.
- Sight glass clearly shows the amount of coolant in the waste tank.
- One valve controls the flow of coolant; process is easy to understand—no special training needed.
- No electricity required. 90 psi shop air drives the exchange process, as well as the 2 gpm pump on the waste tank.

#### Designed to Survive

- Impact-resistant polypropylene cabinet will not scratch or dent vehicle.
- Cabinet is impervious to chemicals commonly used in the shop.
- Large, inflatable tires carry a well-balanced platform easily across any shop floor.
- Easy to maneuver between bays and vehicles.

#### Extra Design Features

- Two external new coolant supply tanks allow on-board storage of two different coolant types.
- Graduations on tanks show user the amount of new coolant on board.
- On-board storage of step adapters.
- Adapter kit included.
- No hoses to cut.
- 96" hoses can be neatly stored on unit.
- One-year warranty.

**No. 75700** – Coolant exchange unit. Wt., 180 lbs.

**No. 75115** – Replacement coolant 5-gallon tank.

**No. 75360** – Heavy-duty adapter kit. Links the two tanks for 14 gal. capacity to service class A vehicles. (Note: must have 7-gallon tank No. 75370).

**No. 75370** – Replacement coolant 7-gallon tank.

**No. 17490** – Protect your investment with a heavy-duty vinyl dust cover. Features corded seams for durability; medium gray color with CoolTech logo.

1-800-822-5561  
**Robinair  
Technical  
Services**

### Coolant and Battery Refractometer

This can be used for measuring the freezing point of either propylene and ethylene glycol based cooling systems. It can also be used for checking the strength of electrolyte solution in batteries. This precision instrument features high quality optics with ultra smooth focusing on the body. Coolant scale range: 32° F/0° C to -60° F/-51° C.

**No. 75240** – Coolant and battery refractometer (C & F scales). Wt., 12 oz.

75240



### Econo-Clean Coolant Service Accessories

To ensure coolant will provide adequate protection to the vehicle, the coolant should be adjusted to the manufacturer's specifications. These accessories will help you quickly test coolant.

**No. 75133** – Pocket pH pen – Quickly shows the pH of the coolant, whether used or recycled. Wt., 7 oz.

**No. 75134** – Coolant test strips – Just dip a strip in coolant and it shows the freeze point and the pH; bottle of 50 strips. Wt., 15 oz.

**No. 75234** – 3-way heavy-duty truck coolant test strips – shows pH, freeze point, and nitrite (0–4000 ppm), pH <7.5–11+, glycol 0–60%. Wt., 1 lb.

75133

75234

75134



### Coolant Refiller

- 26" Hg vacuum refills cooling system without air lock.
- Eliminates the need for "bleeding."
- Checks for system leaks and utilizes OEM approved technology.
- Universal "fits all" cone adapter.
- Built-in gauge protector.

**No. 75260** – Coolant refiller. Wt., 1 lb., 12 oz.

75260



### Radiator Coolant Dye

- Pinpoint leaks in radiators, hoses/fittings, water pumps, and head gaskets.
- Extended-life dye is specifically formulated for use in extended-life coolants. This eliminates the color distortion problem found in the existing regular radiator coolant dye when mixed with extended-life coolant.
- Extended-life dye is for use with red, orange, or yellow extended-life coolants.
- Each bottle services one vehicle.

**No. 16266** – Extended-life radiator coolant dye. Six (1 oz./30 ml) bottles. Wt., 8 oz.

**No. 16255** – Standard radiator coolant dye. Six 1/4 oz. (7.5 ml) bottles. Wt., 4 oz.

16266

16255



# AUTOMOTIVE SPECIAL TOOLS

## Coolant Service



### Cooling System Pressure Tester

Now you can pressure test the cooling system on most cars, light commercial trucks, motorcycles, and even marine applications. The tester's universal fit eliminates the need for multiple adapters.

**Note:** Will not work on Saturn and Kia cars or Jeep with the plastic reservoir.

**No. 7991** – Cooling system pressure tester.

Wt., 3 lbs., 2 oz.

**No. 70600-96** – Replacement bladder.

Wt., 1 oz.



### Hose Clamp Pliers Set (2 piece)

- Includes a cross-slotted jaw pliers and a wide, flat-band hose clamp pliers. Services most ring-type or flat-band hose clamps.
- The clamps are held open with a ratchet locking mechanism. Jaws swivel to access hose clamps in any position.

**No. 4502** – Hose clamp pliers set. Wt., 1 lb., 3 oz.



### Hose Clamp Pliers Set

- Contains five different styles of hose clamp pliers, which will service most flat-band and ring-style hose clamps. Also contains a hose removal tool.

Set Contains:

- Straight hose clamp pliers set
- Hose removal tool
- Flat-type hose clamp pliers
- Offset hose clamp pliers
- 45° hose clamp pliers

**No. 4496** – Hose clamp pliers set.

Wt., 3 lbs., 13 oz.



### Vacuum Hose and Fuel Line Removal Tool

- Designed to remove vacuum hose or fuel lines (3/16" to 1/2") from fittings or tubing.
- Simply place the black jaw on the fitting or tubing – the jaw will grip the material. Then use the silver jaw to push the vacuum hose or fuel line off the fitting or tube.

**No. 4522** – Vacuum hose and fuel line removal tool.

Wt., 3 oz.



### Offset Hose Clamp Pliers

- Head is offset from handle to allow access to hard-to-reach clamps.
- Swivel jaws allow pliers to be used on many different flat-band and ring-type hose clamps.

**No. 4523** – Offset hose clamp pliers. Wt., 5 oz.



4523

### 45° Hose Clamp Pliers

- Jaws are bent at a 45° angle and pliers tips swivel to allow easy access to confined areas.
- Ratchet lock mechanism holds jaws open.
- Works on most flat-band hose clamps.

**No. 4524** – 45° hose clamp pliers. Wt., 5 oz.



4524

### Flexible Hose Clamp Pliers

- Allows technician to access the flat-type hose clamps located in hard-to-access areas.
- Pliers has locking mechanism to hold clamp in the open position – makes removal and installation of clamp much easier.
- Heavy-duty, 24" cable flexes to almost any position.

**No. 4525** – Flexible hose clamp pliers. Wt., 5 oz.



4525

### Hose Removal Tool

- Unique tip easily fits between hose and fitting to break stubborn hoses loose.
- Large handle provides a good grip on tool during hose removal.
- Works on radiator hoses, heater hoses, transmission lines – any place a rubber hose is clamped to a fitting.

**No. 4521** – Hose removal tool. Wt., 7 oz.



4521

# AUTOMOTIVE SPECIAL TOOLS

## Water Pump & Multipurpose Cleaning Gun



6060A

### GM Water Pump Socket

- Works on 1993–newer Cadillac 4.6L V8 Northstar engine, and 1995–1999 Oldsmobile Aurora 4.0L V8.
- 1/2" sq. drive for use with 1/2" drive breaker bar or ratchet.
- Tool is designed to self-center in the water pump housing, allowing the tangs to fully engage the water pump for removal or installation.

**No. 6060A** – GM water pump socket. Wt., 2 lbs., 10 oz.



6046

Similar to  
Kent-Moore J-43181

### GM Heater Line Quick-Connect Release Tool

- Specially designed for separating quick-connect fittings on heater lines of 1999–2006 Chevy and GMC C/K trucks.
- Tool snaps around the hose and simultaneously depresses the locking tabs to disengage the fitting.

**No. 6046** – GM heater line quick-connect release tool. Wt., 2 oz.



7784

Similar to Ford  
No. 303-249  
(T92P-70010-AH)

### Ford Gear-Position Sensor Adjuster

When you're adjusting the manual-lever position sensor on a Ford automatic transmission, this tool gets the detent setting right the first time.

- For use on E40D, AXOD-E, AX4N, AX4NS, C6, and AOD-E automatic transaxles and transmissions.

**No. 7784** – Ford gear-position sensor adjuster. Wt., 2 oz.



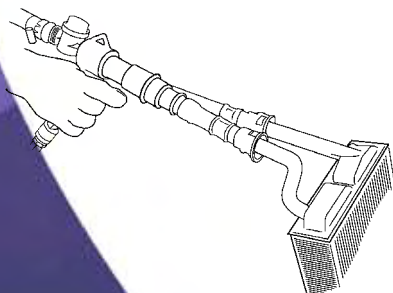
6043

### "Blast-Vac" Multipurpose Cleaning Gun

- Perfectly suited for quick and efficient cooling system flushing. Simply attach it to radiator or heater hoses and you're in business.
- Also usable in washing engines and even shop floors.
- Two simple connections: one to shop air and one to a typical water faucet.
- No. 6043 creates a unique vortex air/water blast for powerful cleaning applications.
- The tool can also be used to vacuum by turning the venturi inside the gun in the opposite direction. Air flow is reversed to create a strong vacuum.

**Note:** While normal water pressure will handle the majority of a cooling system flush, short blasts are sometimes needed to loosen some contaminants from within the system.

**No. 6043** – "Blast-Vac" multipurpose cleaning gun. Wt., 13 oz.



### Fan Clutch Wrench Master Set

Conventional wrenches are just too wide for the job of removing the fan clutch assembly on some engines. Here's the solution: You hold the fan clutch stationary with the clutch holder tool, and turn the fan clutch nut with the special wrench. Most wrenches feature a square drive for attaching a breaker bar for extra torque. Time savers when replacing water pumps, or for any other front engine service in body or repair shops. Holding tools and wrenches are available individually and in sets (see chart on next page).

**No. 7885** – Fan clutch wrench master set – Includes all individual components except Nos. 7925-1, 7925-2, and 6068. Includes molded carrying case. Wt., 16 lbs.



### Individual Holding Tools, Wrenches, and Sets

#### Individual Components

- No. 7204E1** – Holding tool. 2-1/4" (57 mm). Wt., 14 oz.
- No. 7204E2** – Wrench. 1-7/16" (36 mm). Wt., 1 lb., 14 oz.
- No. 7205E1** – Holding tool. 3-1/4" (82 mm). Wt., 1 lb., 8 oz.
- No. 7205E2** – Wrench. 1-7/8" (47 mm). Wt., 3 lbs., 10 oz.
- No. 6068** – Wrench. 1-7/8" (47 mm). Wt., 2 lbs., 8 oz.
- No. 7818** – Holding tool. 2-1/8" (54 mm). Wt., 1 lb., 8 oz.
- No. 7823** – Wrench. 1-9/16" (39 mm). Wt., 1 lb., 11 oz.
- No. 7855** – Holding tool. 2-3/8" (60 mm). Wt., 14 oz.
- No. 7887** – Holding tool. 3" (76 mm). Wt., 1 lb., 8 oz.
- No. 7925-1** – Wrench. 2" (51 mm). Wt., 2 lbs.
- No. 7925-2** – Holding tool. 2-1/4" (57 mm). Wt., 2 lbs., 5 oz.

#### Sets:

- No. 7204E Set** – (7204E1 & 7204E2). Wt., 2 lbs., 8 oz.
- No. 7205E Set** – (7205E1 & 7205E2). Wt., 4 lbs., 13 oz.
- No. 7817 Set** – (7205E2 & 7818). Wt., 4 lbs., 10 oz.
- No. 7854 Set** – (7204E2 & 7855). Wt., 2 lbs., 8 oz.
- No. 7925 Set** – (7925-1 & 7925-2). Wt., 4 lbs., 5 oz.



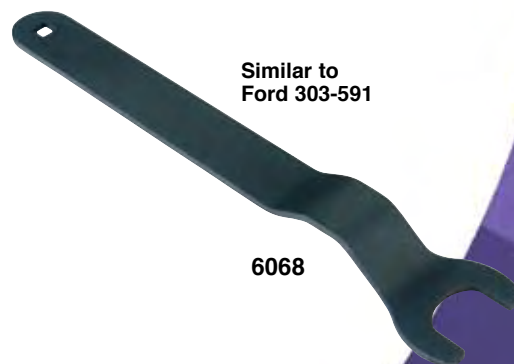
### Ford Diesel Fan Clutch Wrench

- Designed for use with OTC No. 7205E1 holding tool to remove fan clutch assembly.

Has the same size opening as the OTC No. 7205E2 wrench, but has a special bend in the handle to provide clearance for accessories found on some vehicles.

Application: 1998–2003 Ford vans and pickups with 7.3L direct-injected turbocharged (DIT) diesel engine.

**No. 6068** – Ford diesel fan clutch wrench. Wt., 2 lbs., 2 oz.



Similar to  
Ford 303-591

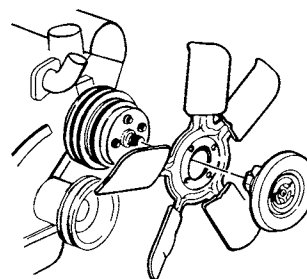
6068



# AUTOMOTIVE SPECIAL TOOLS

## Fan Clutch Service

### Individual Holding Tools, Wrenches, and Sets



Year	Make / Model	Engine	U.S. Size	Metric Size	OTC Tool No.	OTC Tool Set	Global Number	Ford Tool No.
1983–1993	Ford / F-Series Truck, E-Series Van	6.9L, 7.3L Diesel	3-1/4" 1-7/8"	82 mm 47 mm	7205E1	7205E	303-213	T83T-6312-A
					7205E2		303-214	T83T-6312-B
1984–1991	Ford / F-Series Truck, E-Series Van	4.9L Inline 6	2-1/4" 1-7/16"	57 mm 36 mm	7204E1	7204E	303-239	T84T-6312-C
					7204E2		303-240	T84T-6312-D
1987–1997	Ford / F-Series Truck, E-Series Van	5.0L, 5.8L, 7.5L V8	2-1/4" 1-7/16"	57 mm 36 mm	7204E1	7204E	303-239	T84T-6312-C
					7204E2		303-240	T84T-6312-D
1992–1996	Ford / F-Series Truck, E-Series Van	4.9L Inline 6	2-1/4" 1-7/16"	57 mm 39 mm	7204E1		303-239	T84T-6312-C
					7823		308-454	T93T-6312-B
1994–1997	Ford / F-Series Truck, E-Series Van	7.3 D.I. Diesel	2-1/8" 1-7/8"	54 mm 47 mm	7818	7817	303-478	T94T-6312-AH
					7205E2		303-454	T83T-6312-B
1983–1989	Ford / Ranger, Bronco II	2.8L, 2.9L V6	2-1/4" 1-7/16"	57 mm 36 mm	7204E1	7204E	303-239	T84T-6312-C
					7204E2		303-240	T84T-6312-D
1990–2004	Ford / Ranger, Explorer, Bronco II	4.0L V6	2-1/4" 1-7/16"	57 mm 36 mm	7204E1	7204E	303-239	T84T-6312-C
					7204E2		303-240	T84T-6312-D
1998–2003	Ford / F-Series Truck, E-Series Van	7.3 DIT Diesel	3-1/4" 1-7/8"	82 mm 47 mm	7205E1		303-213	T83T-6312-A
					6068		303-591	N/A
1988–2004	Dodge / Full Size Pickup, Full Size Van	5.9L Diesel	3" 1-7/16"	76 mm 36 mm	7887			N/A
					7204E2			N/A
1992–2004	Dodge / Dakota, Ram Pickup, Ram Van	3.9L V6, 5.2L, 5.9L V8 8.0L V10	3" 1-7/16"	76 mm 36 mm	7887			N/A
					7204E2			N/A
1993–1998	Jeep / Grand Cherokee	5.2L V8	3" 1-7/16"	76 mm 36 mm	7887			N/A
					7204E2			N/A
1996–2004	GM / Full Size Pickup, Full Size Van, Astro / Safari Vans, S-Truck, Blazer / Jimmy, Yukon / Tahoe	4.3L V6 5.0L, 5.7L V8	2-3/8" 1-7/16"	60 mm 36 mm	7855	7854		N/A
					7204E2			N/A
1994–1999	Navistar / medium-duty trucks and school buses	466	2" 2-1/4"	51 mm 57 mm	7925-1	7925		N/A
					7925-2			N/A



#### Adjustable Fan Clutch Holding Tool

- Adjustable jaws fit various water pump pulley bolt patterns.
- Jaws adjust from 1/2" to 8-5/16" opening.
- Jaws lock in place to securely hold water pump bolts.
- Long handle offers leverage for extra torque.

**No. 4652** – Adjustable fan clutch holding tool.  
Wt., 2 lbs., 5 oz.



### Ford Fan Clutch Wrench Set

- Set contains five of the most popular wrenches used to service water pumps and fan clutches, and other components on the front of Ford engines.
- Set contains three holding tools and two turning tools. Use with a 1/2" breaker bar or ratchet.

**Note:** Wrench Nos. 4585-2, 4585-3, and 4585-5 are used to hold the water pump; wrench Nos. 4585-1 and 4585-4 are used to turn the fan clutch.

1. Select the wrench that most closely fits the water pump, and attach it to a 1/2" breaker bar or ratchet.
2. Select the wrench that most closely fits the O.D. of the fan clutch nut.
3. Hold the water pump, and turn the fan clutch nut to remove or install the fan clutch.

**Note:** Some Ford vehicles have left-hand threads on the fan clutch. Refer to each vehicle service manual for the correct thread specifications.

#### Replacement parts:

Part No.	Description
4585-1	– 48 mm (1-7/16") turning wrench.
4585-2	– 83 mm (3-1/4") holding wrench.
4585-3	– 72 mm (2-13/16") & 54 mm (2-1/8") holding wrench.
4585-4	– 40 mm (1-1/2") turning wrench.
4585-5	– 76 mm (3") & 68 mm (2-11/16") holding wrench.

**No. 4585** – Ford fan clutch wrench set. Wt., 8 lbs., 6 oz.



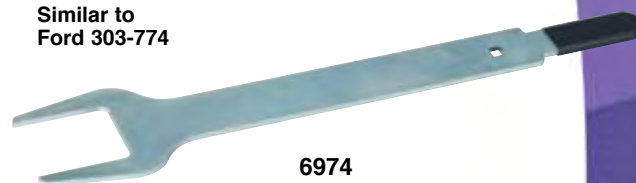
### Ford 6.0L Diesel Fan Clutch Wrench

Applications: 2003–newer Ford F-550 and F-650 Super Duty trucks with the 6.0L diesel engine.

- This is a required tool to tighten or loosen the fan clutch on the water pump.
- Wrench has a 68.45 mm (2-11/16") opening.

**No. 6974** – Ford 6.0L diesel fan clutch wrench.  
Wt., 3 lbs., 2 oz.

Similar to  
Ford 303-774



# AUTOMOTIVE SPECIAL TOOLS

## Hub Service



6985

### Mercedes-Benz and BMW Fan Clutch Service Kit

- Mercedes-Benz fan clutch holding wrench holds the water pump pulley to allow release of the fan.
- BMW Fan clutch holding wrench holds the water pump pulley in place while loosening the radiator fan. Works on BMW M10, M20, M30, & other late model vehicles. (Holes at 38 mm & 44.5 mm.)
- Mercedes-Benz fan clutch wrench removes the thermo-viscous radiator fans found on Mercedes-Benz and Ford vehicles. Works on M-B engines: M111, OM604, OM605, and OM606 (C & E Class; 36 mm opening).
- Mercedes-Benz fan clutch wrench is used to remove or install the fan clutch assembly. Slim shaft handle lets you easily work in tight spaces. Works on M-B engines: M103, M104, M119, and M120 (65 mm opening).
- BMW fan clutch wrench is used to remove and install the thermo-viscous fan on BMWs and Fords (32 mm opening).
- Mercedes-Benz Fan Clutch Holding Tool is used to remove / replace thermo-viscous fan coupling with the radiator in place.
- Universal fan belt adjustment wrench services Mercedes-Benz, Nissan Quest, and Mercury Villager radiator fans and pulley belts. It also can be used for loosening the A/C idler pulley tensioner lock nuts for A/C belt adjustment or replacement. Also contains 2.5 mm, 8 mm, and 10 mm Allen keys.

**No. 6985** – Mercedes-Benz and BMW fan clutch service kit. Wt., 10 lbs., 2 oz.



6537

### HubTamer Elite Bearing Service Set

From start to finish, complete front wheel bearing service using just one set of tools. Take off the hub, remove the old bearing and install the new one, and then reinstall the hub. All this is done while the knuckle assembly remains on the car; no shop press or unnecessary alignments are needed.

- Works on virtually all floating and trapped rotors found on domestic and import vehicles.
- Cuts service time 50% when replacing front wheel bearings.
- Pushes on the steering knuckle, **not** the rotor.
- Fits easily behind the rotor, leaving plenty of room for positioning the tool and wrench. One-piece design has no sliding arms to adjust and is impact wrench compatible.

#### The HubTamer Elite gives you these added benefits:

- Puller weldment adapter has been improved with the addition of a beveled edge for use in tight fitting applications!
- Ford adapter for use on Taurus/Sable 1986–1995 and Contour/Mystique 1995 – 2001 vehicles.

**No. 6537** – HubTamer elite bearing service set. Includes all adapters and tools necessary for removing hubs and replacing front wheel bearings on most domestic and import vehicles with floating or trapped rotors. Also includes updated case and application information. Wt., 42 lbs., 13 oz.

If you want to update your current No. 6490 HubTamer, you can purchase the weldment and Ford adapter separately.

**No. 6573** – Weldment with beveled edge. Wt., 9 lbs.

**No. 6536** – Ford adapter for Taurus/Sable and Contour/Mystique. Wt., 1 lb., 3 oz.



6536



### Front Hub Installer and Puller Set

Here are three tools that make front hub service easier. The universal puller removes front hubs from most FWD cars without damaging wheel bearings. The installer is used to pull the axle shaft into the front hub on Ford vehicles.

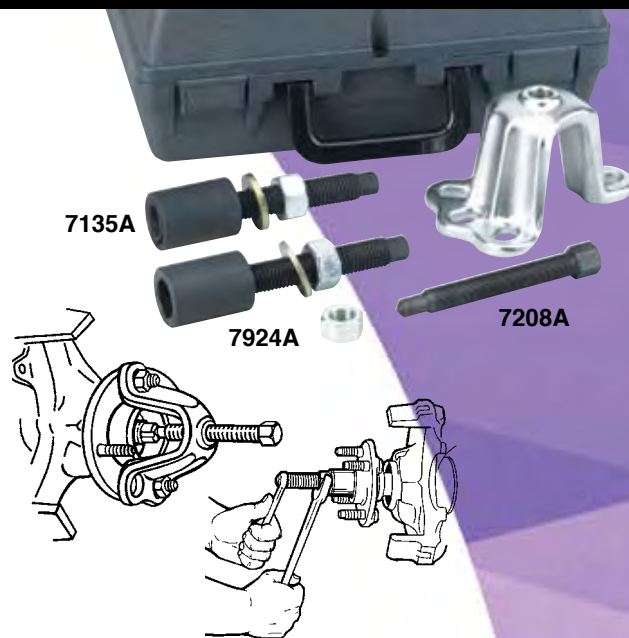
- Spare locknut works with a standard slide hammer puller and the 7208A for rear axle flanges.
- Tools are available separately.

**No. 6298** – Front hub installer and puller set includes the No. 7208A, 7135A, and 7924A in a molded plastic case. Wt., 61 lbs., 8 oz.

**No. 7208A** – Hub remover to push the axle shaft from the front hub. Wt., 2 lbs., 7 oz.

**No. 7135A** – Installer is used to pull the axle shaft into the front hubs on Ford Taurus/Sable vehicles. Fits axle shafts with 20 mm x 1.5 thread. Wt., 1 lb., 7 oz.

**No. 7924A** – Installer is used to pull the axle shaft into the front hub. Fits axle shafts with 22 mm x 1.5 thread on Ford Contour/Mystique, Probe, and Focus. Wt., 1 lb., 5 oz.



### Universal Hub Puller

With its adjustable sliding arms, this puller makes wheel-hub removal quick, easy, and damage free. It has maximum bolt circle of 7-1/2".

- The No. 32937 puller leg is available separately to complete the five necessary for Cadillac and Jeep hub removal.
- Includes striking wrench and puller screw.

**No. 7394** – Universal hub puller. Wt., 9 lbs., 2 oz.

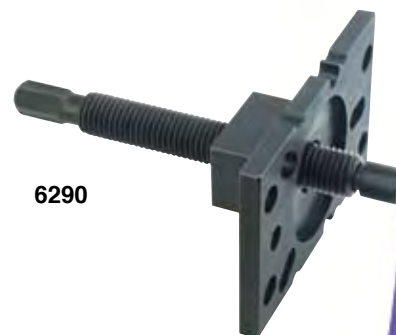
**No. 32937** – Puller leg. Wt., 1 lb.



### Front Hub Puller for 4WD Vehicles

- For removal of the front hub assembly, necessary for wheel bearing or brake rotor service. Provides the mechanical advantage and straight pull not possible with a slide hammer.
- Will not work on trucks with dual rear wheels.
- Services:
  - 1988–2004 GM 1/2-ton, 3/4-ton, and 1-ton trucks, Tahoe, Suburban, and Yukon.
  - 1994–2004 Dodge 1/2-ton, 3/4-ton, and 1-ton Ram trucks.
  - 1997–2004 Ford 1/2-ton trucks and Expeditions.
  - 1985–2001 Jeep Cherokee.

**No. 6290** – Front hub puller for 4WD vehicles. Wt., 7 lbs. 2 oz.



### Front Hub Puller for 4WD Vehicles

This puller is required for removing a front hub assembly in 3/4- and 1-ton 4WD pickups with 8-bolt hubs. It works on 1994 to 2004 Dodge Ram and 1988 to 2004 Ford and GM.

- Fits bolt hole pattern 8 x 6.5".
- Will not work on trucks with dual rear wheels.
- Use with our No. 7703 10-lb. slide hammer for maximum pulling force.

**No. 7901** – Front hub puller for 4WD vehicles. Wt., 5 lbs.



# AUTOMOTIVE SPECIAL TOOLS

## Hub & CV Joint Service

Similar to  
Ford 202-405



7932

### Ford Vacuum Front Hub Release Tool Set

Here's the equipment you need to safely remove the plastic vacuum hubs on Ford pickups. Standard tools won't work for the job, but this set has special clips that slip into slots on the hub to release it.

- For use on 1998 to 2000 4WD Ranger with vacuum front hubs.

**No. 7932** – Ford vacuum front hub release tool set. Wt., 10 oz.

**No. 7932-1** – Ford vacuum front hub puller. Wt., 8 oz.

**No. 7932-2** – Ford vacuum front hub removal clip set. Wt., 3 oz.

Similar to  
Ford 205-404



6695

Similar to  
Ford 303-429

### Ford Axle Shaft Seal Installer

- Works on 1998-newer Ford F-250, F-350, F-450, and F-550 4X4s having the vacuum-operated front axle.
- Correctly installs the seal onto the axle shaft and into the wheel knuckle, preventing front hub vacuum leaks that would cause the 4WD to not engage.

**No. 6695** – Ford axle shaft seal installer. Wt., 10 lbs., 8 oz.

7942A



### Hub Resurfacing Kit

- Fits your power drill to quickly sand rust off lug studs and rotors on the hub assembly. Sanding pads attach with Velcro™.
- For most domestic and import vehicles with either front or rear disc brakes. Includes holder and five sanding discs.
- Run at speeds of 1200 rpm or less for best results. (Do not exceed 1200 rpm.)

**No. 7942A** – Hub resurfacing kit. Wt., 5 oz.

**No. 222548** – 10 pack of replacement sanding pads for No. 7942A. Wt., 1 oz.

**No. J-42450-9** – Replacement holder for No. 7942A. Wt., 4 oz.

Similar to  
Ford 204-D020  
(D93T-3206-A)



7502

### 4WD Front Spindle Puller

This puller enables you to remove the front spindle on light-duty 4WD trucks. It's designed for full-size Ford, GM, International, and Jeep pickups with Dana front axles. Also works on Ford Ranger and Bronco II.

- 5/8" fine thread makes it ideal for use with our No. 1155 slide hammer.
- Fits spindle thread sizes 2"-16, 1-5/8"-16 and 38 mm-1.5.

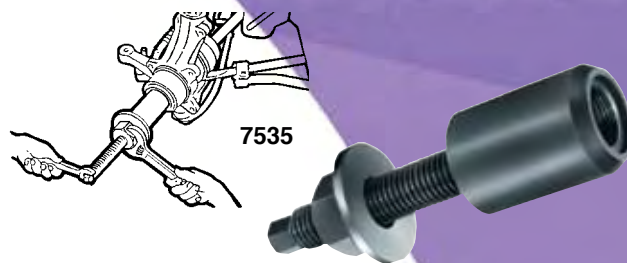
**No. 7502** – 4WD front spindle puller. Wt., 2 lbs., 8 oz.

### Subaru Front Axle Shaft Installer

Here's a real time saver when servicing front axles, CV joints, or wheel bearings on 1980 to current Subaru.

- Fits 24 mm x 1.5 axle shafts.

**No. 7535** – Subaru front axle shaft installer.  
Wt., 2 lbs., 8 oz.

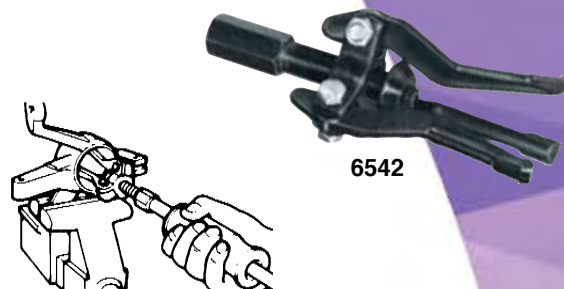


### Bearing Cup Remover

This is an ideal tool for servicing hubs on today's small FWD cars. It's perfect for pulling internal bearing cups, seals, and bushings.

- Jaws spread 15/16" to 3-1/4" and reach to 3-1/2".
- Use with any slide hammer having 5/8"-18 thread (our Nos. 1155 or 1156, or the 927 Push-Puller).

**No. 6542** – Universal bearing cup remover. Wt., 1 lb., 8 oz.

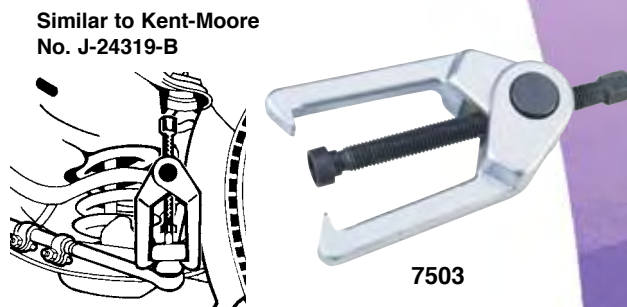


### Outer Tie Rod Remover/Ball Joint Separator

This tool is a must when you're servicing outer tie rods. It works on imported and domestic models, front- or rear-wheel drive, cast or stamped-steel steering knuckles.

- Handles up to 5 tons of knuckle twisting force.
- Jaw reach is 3" with a spread of 3".
- Jaws, once tightened, won't slip on the knuckle.
- Can be used to separate lower ball joints on import FWD vehicles.

**No. 7503** – Outer tie rod remover. Wt., 2 lbs., 12 oz.



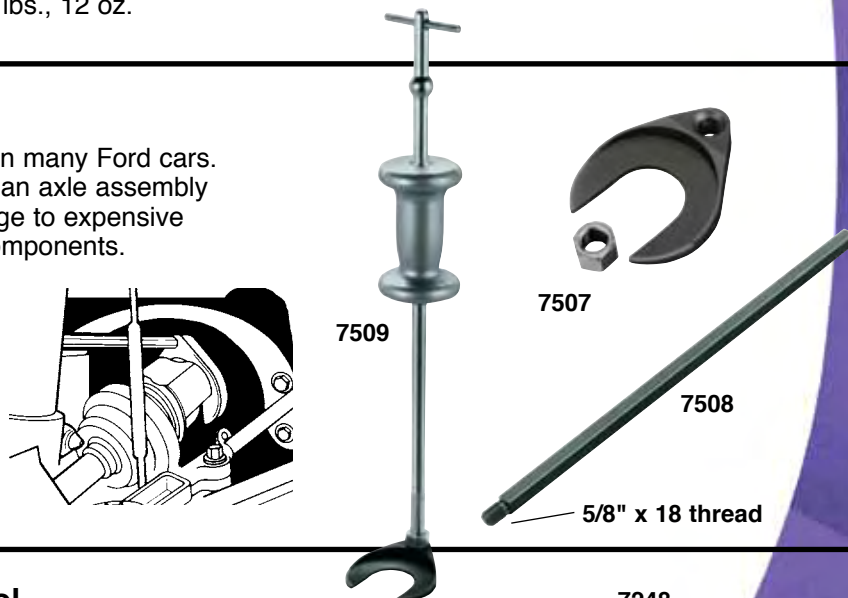
### Inner CV Joint Puller

This is the puller you need for CV work on many Ford cars. Used with a slide hammer, it will remove an axle assembly from the transaxle without causing damage to expensive aluminum transmission cases or other components.

**No. 7507** – CV joint fork only. Use with OTC slide hammer No. 1155, extension No. 7508, or both. Wt., 13 oz.

**No. 7508** – 17-1/2"-long slide hammer extension. Wt., 2 lbs., 7 oz.

**No. 7509** – Complete CV joint tool.  
Wt., 8 lbs.

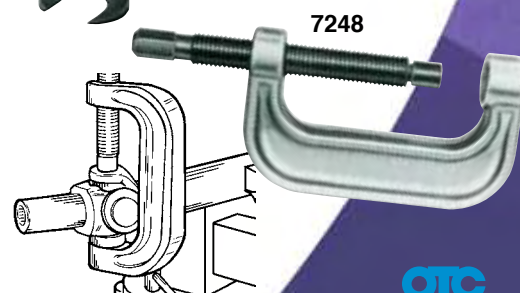


### U-Joint Removing/Installing Tool

This helpful tool uses a forcing-screw press to safely remove and replace automotive universal joints with needle bearings, including GM plastic pin CV U-joints.

**No. 7248** – U-joint removing/installing tool. Wt., 9 lbs., 7 oz.

Similar to Ford  
No. 205-086  
(T74P-4635-C)





# AUTOMOTIVE SPECIAL TOOLS

## CV Joint Service



7995

### Outer CV Joint Remover

Removes the outer CV joint on most front-wheel drive vehicles with a concealed internal circlip.

- Use with OTC No. 1155 or 1156 slide hammer with 5/8-18 UNF thread.

**No. 7995** – Outer CV joint remover. Wt., 2 lbs., 6 oz.



4703

### Outer CV Joint Remover

- Use to remove the outer CV joint on most front-wheel drive vehicles with a concealed internal circlip.
- Use with slide hammer that has 5/8-18 UNF thread.
- Do NOT use this tool to remove front axle assemblies. The inner or outer CV joint may be pulled apart inside the axle boot.

**No 4703** – Outer CV joint remover. Wt., 1 lbs. 10 oz.

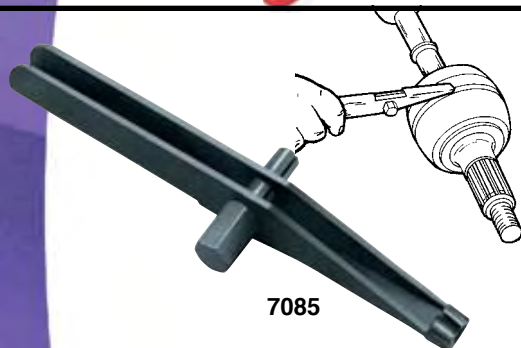


4720

### Boot Clamp Pliers – Chrysler

- Required tool for correct installation of strap-and-buckle style CV boot clamps.
- Works on A.C.I. and G.K.N. boots found on various Chrysler, Plymouth, and Dodge front-wheel drive vehicles.
- Prevents damage to CV boot and clamp during installation.

**No 4720** – Boot clamp pliers – Chrysler. Wt., 7 oz.



7085

### Dust Boot Cap Installer

Works on all vehicles with band-type boot clamps (up to 1/4" wide & .020" thick). The clamp must be installed correctly after servicing to prevent moisture and foreign material from entering the CV joint area. This tool provides exact installation of those clamps with ease.

**No. 7085** – Boot clamp installer. Wt., 8 oz.



4724

### CV Boot Clamp Pliers

- Special tips work on the ear-less type CV boot clamps.
- Grips clamp in many positions to tighten clamp around boot.

**No. 4724** – CV boot clamp pliers. Wt., 12 oz.

### Ear-type CV Boot Clamp Pliers

- For removal of the front hub assembly, necessary for wheel bearing or brake rotor service. Provides the mechanical advantage and straight pull not possible with a slide hammer.
- Services:
  - 1988–2000 GM 1/2-ton, 3/4-ton, and 1-ton trucks, Tahoe, Suburban, and Yukon.
  - 1994–2000 Dodge 1/2-ton, 3/4-ton, and 1-ton Ram trucks.
  - 1997–2000 Ford 1/2-ton trucks and Expeditions.
  - 1985–2001 Jeep Cherokee.

**No. 4723** – Ear-type CV boot clamp pliers. Wt., 13 oz.



### Heavy-Duty CV Boot Clamp Installer

- Designed to clamp the ear-type CV boot clamps used on front-wheel drive vehicles.
- May also be used to crimp the clamps used on fuel and cooling system hoses.
- Ensures even, precise crimping, and eliminates possibility of damage to the clamp, boot, or hose.

**No. 4722** – Heavy-duty CV boot clamp installer. Wt., 1 lb., 7 oz.



### CV Boot Clamp Cutter

- Designed to easily cut the CV boot clamp without damaging the boot.
- Will cut boot clamps up to 10 mm wide and .7 mm thick.
- Handles are spring loaded to the open position to allow easy access to the clamp.

**No. 4721** – CV boot clamp cutter. Wt., 12 oz.



### CV Joint Banding Tool and Cutter

- Use to install and tighten the “band-it” or strap style clamps on CV joint boots, or on power steering rack and pinion steering gear boots.
- Once installed into the tool, tighten the band by turning the handle on the tool; use a socket or wrench on the handle to torque the band to OE specifications.
- When the boot clamp has been tightened to specs, cut the band to the correct length by flipping the lever (at the front of the tool) forward.

**No. 4623** – CV joint banding tool and cutter. Wt., 10 oz.



# AUTOMOTIVE SPECIAL TOOLS

## Rear Axle Service



7792

### Rear Axle Service Set

The tools you need for flange-type rear axle and bearing removal on most late model passenger cars and light trucks. Set includes the No. 7374 rear axle pulling plate and 5 lb. slide hammer. The axle bearing pullers, used with the slide hammer, make short work of removing semi-floating rear axle bearings.

**No. 7792** – Rear axle service set. Wt., 11 lbs., 4 oz.

Consists of:

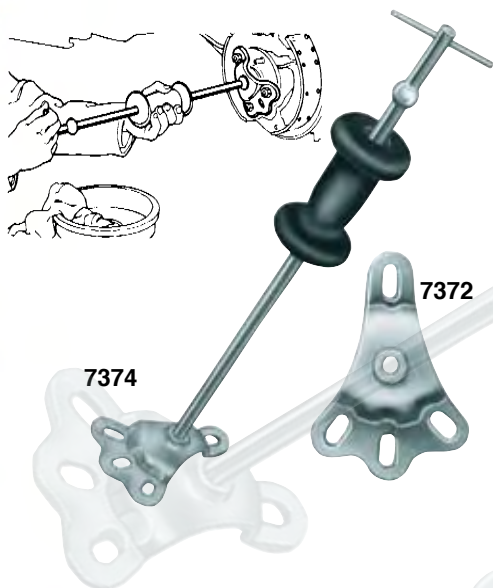
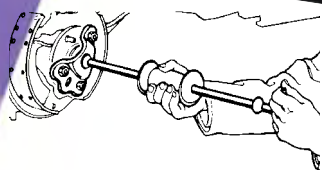
No. 7374 - Rear axle pulling plate with 5 lb. slide hammer.

No. 7495A - Rear axle bearing puller. Fits min. bearing tube I.D. of 1" and max. axle tube I.D. of 1-7/8".

No. 7496A - Rear axle bearing puller. Fits min. bearing tube I.D. of 15/16" and max. axle tube I.D. of 2-3/8".

No. 7497A - Rear axle bearing puller. Fits min. bearing tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".

No. 27315 - Puller hook for use with the 5 lb. slide hammer. Removes oil seals, bearings, etc.



7372

7374

### Slide Hammer Rear Axle Puller

This puller will enable you to remove flange-type rear axles from most late model cars and light trucks. It works on axles having bolts and studs up to 9/16" diameter.

- Fits 4-, 5-, or 6-bolt patterns and stud circles from 4-1/4" to 5-9/16".

**No. 7372** – Rear axle pulling plate. Wt., 1 lb., 7 oz.

**No. 7374** – Rear axle pulling plate with 5-lb. slide hammer assembly. Wt., 8 lbs., 13 oz.



6541

### Pulling Hook

- This slide hammer puller attachment is used to remove seals, bearings, and other press-fit parts.
- Designed to be used with OTC No. 1155 (5 lb.) or No. 1156 (2-1/2 lb.) slide hammer, or other slide hammers having 5/8-18 threads.

**No. 6541** – Pulling hook. Wt., 8 oz.



### Rear Axle Bearing Puller Set

- Set contains slide hammer and popular attachments needed for servicing flange-type, floating rear axle bearings and seals in most late model, rear-wheel drive cars and light trucks; comes in a molded case.
- Rear axle bearing puller fits min. bearing tube I.D. of 1" and max. axle tube I.D. of 1-7/8".
- Rear axle bearing puller, fits min. bearing tube I.D. of 1-5/16" and max. axle tube I.D. of 2-3/8".
- Rear axle bearing puller fits min. tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".

#### Also includes:

Slide hammer tee bar, slide hammer 5 lb. weight, pulling hook, rear axle pulling plate, bearing cup remover

**No. 6540** – Rear axle bearing puller set. Wt., 11 lbs., 7 oz.



### Rear Axle Bearing Service Set

All three pullers have been redesigned to make the removal of semi-floating rear axle bearings easier. The new design allows you to capture the bearing firmly, distributing the pulling force over the entire bearing. This reduces damage and increases the amount of applications. Set includes three pullers to service most domestic cars. Use with OTC Nos. 1155 or 1156 slide hammer with 5/8"-18 UNF thread. Pullers also available separately.

**No. 7494A** – Rear axle bearing puller set. Includes one each Nos. 7495A, 7496A, and 7497A, and a storage case. Wt., 2 lbs., 8 oz.

**No. 7495A** – Rear axle bearing puller. Fits minimum bearing tube I.D. of 1" and maximum axle tube I.D. of 1-7/8". Wt., 12 oz.

**No. 7496A** – Rear axle bearing puller. Fits minimum bearing tube I.D. of 1-5/16" and maximum axle tube I.D. of 2-3/8" including 1988–1997 Chevrolet and GMC 8-1/2", 1/2-ton rear axle bearing. Wt., 12 oz.

**No. 7497A** – Rear axle bearing puller. Fits minimum bearing tube I.D. of 1-3/8" and a maximum axle tube I.D. of 2-7/8". Wt., 12 oz.



## When does your clock start?

**Robinair's new transmission oil exchanger has the vehicle in and out of the service bay in less than 20 minutes!**

**Our unique approach to exchanging fluid... through the transmission oil dipstick!**

- Exchange oil in the pan before it passes through the transmission filter.
- Easy, convenient, and no damage to other engine components.
- It cannot be hooked up backwards.
- No rusty fittings to break loose.



# AUTOMOTIVE SPECIAL TOOLS

## Transmission Fluid Exchanger



92500

1-800-822-5561

**Robinair  
Technical  
Services**



92001

### Transmission Fluid Exchanger

- Top-off feature. Add or subtract in 1/10 qt. increments.
- "Low Fluid Alarm" and "Indicator Light" to alert operator.
- "Drain Waste" feature automatically pumps used fluid from the machine into a waste oil container.
- "Drain Pan" feature drains the pan for easy filter replacement. No mess.

**Three modes of operations: Dipstick only, cooler line, or a combination of the two!**

#### Specifications

Electrical	12V DC
Exchange Accuracy	+/- 1/4 qt.
Controls	Microprocessor with digital keypad and LEDs
Fluid Tanks	32 quarts (24.6 liters) each for both new and used fluids
Hoses	91" black and red (Exchange); 76" white transfer tube (Straw)
Fluid Types	Multiple fluid capability.
Adapter Set	Complete set for most applications. Standard adapters for Ford, GM, Chrysler, European, and Universal (covering most Asian imports).
Pump	Positive displacement gear pump, 2 gallons per minute maximum
Weight	158 lbs. (72 kg)
Dimensions	52"H x 33"W x 20"D (132 cm x 84 cm x 51 cm)
Process Time	Depends on mode
Warranty	1 year parts and labor

- Exchange accuracy approximately +/- 1/4 qt.
- 32-quart supply tank; 34-quart waste tank.
- Unprecedented one-tenth quart flow metering for adding or subtracting fluid from the pan.
- Complete set of cooler line adapters for most foreign and domestic vehicles.
- Works with all types of automatic transmission fluid.
- Integral performance designed hose and tool compartment with drain.

**No. 92500** – Transmission fluid exchanger. Wt., 215 lbs.

**No. 529734** – Replacement nylon tube.

### Automatic Transmission Fluid Diagnostic Pads

Easy, quick way to test automatic transmission fluid to determine when service is necessary. Simply place a few drops of transmission fluid from transmission dipstick onto test pad. Pad will change color indicating condition of transmission fluid. Package contains 100 pads.

**No. 92001** – Automatic transmission fluid diagnostic pads. Wt., 4 oz.

### Transflow Transmission Oil Cooler Flusher

**Fix it right the first time...** designed to measure oil flow capacity within the transmission oil cooler, and also has the capability to flush contaminated oil from the TOC after repairs.

- Only unit in the industry that performs a flow rate test.
- Flush and flow test time is 5 to 8 minutes.
- 32-quart supply tank; 34-quart waste tank.
- Supply and waste hoses each 10' long.
- 10' long, 12V DC power cables with battery lead clips.
- Requires shop air (90 psi, min.) and 12V DC source.

**No. 92000** – Transflow transmission oil cooler flusher. Wt., 173 lbs.



92000

### Portable Torque Converter and Oil Cooler Cleaner

When a newly overhauled transmission fails, it's goodbye to profits and customer goodwill! Often a dirty torque converter or oil cooler is the culprit—sludge and metal particles can jam up valve bodies and clog filter screens, causing malfunctions and costly comebacks. Developed with the cooperation and approval of leading auto manufacturers, this cleaner effectively removes contaminants from converters and also performs the essential job of flushing out transmission oil cooler and cooler lines on most popular makes, 1960–current. A pair of hoses for attachment to the cooler lines is provided. The vehicle's converter is bolted to a universal mounting plate, and the adjustable timer is set for desired cycle period. As the converter is rotated at 20 rpm, cleaning solvent is circulated through it and intermittent injections of compressed air into the solvent provide an effective pulsating, cleaning action.

**No. 60081** – Torque converter/cleaner, complete with cooler flushing hoses, one 200251 adapter, two 10017 cap screws for C-3 transmissions, and three 15677 metric cap screws. Instruction manual. Wt., 230 lbs.

### SPECIFICATIONS

<b>Pump</b>	Fixed displacement-type. Delivers a maximum of 6-1/2 gallons per minute.
<b>*Pump Motor</b>	1/3 hp, 110 volt AC single-phase. Fused for thermal protection.
<b>*Gear Motor</b>	1/15 hp, 110V AC single-phase, d.p.s.p., 20 r.p.m.
<b>Reservoir</b>	Five-gallon capacity. Equipped with easily accessible drain cock.
<b>Filter</b>	Replaceable, full-flow, 5-micron diesel fuel filter.
<b>Timer</b>	30-minute maximum cycle mechanical timer. Can be set in 1 minute increments if desired.
<b>Cabinet</b>	41" high x 28" wide x 19-1/2" deep. Welded steel construction. Has free-wheeling casters.

**\*Note:** Products are available in other voltages. Contact your customer service representative for the part numbers to order.

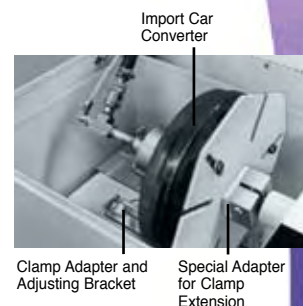
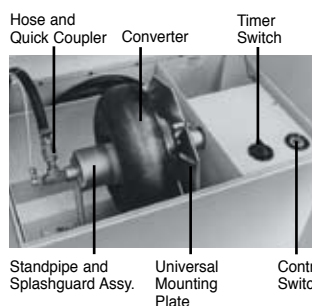
### Accessories

For added versatility, you may order the accessories listed to the left, which adapt the 60081 unit for cleaning a variety of foreign and small domestic automatic transmission converters.

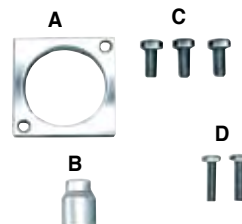


LR 19814

60081



Item	Part No.	Description	Req'd.
A	200251	Spacer adapter	1
B	200231	End cap	1
C	15677	Cap screw	3
D	10017	Cap screw	2





# AUTOMOTIVE SPECIAL TOOLS

## Transmission Service



Similar to  
Ford No. 307-437

### Transmission Fluid Fill Adapter

- This is a required tool to fill or add fluid to the 5R55W automatic transmission used on 2003–newer Ford Explorers.
- Operating Instructions: Remove fill plug from transmission; install No. 6604; fill transmission to correct fluid level; remove No. 6604; and reinstall fill plug in transmission.

**No. 6604** – Transmission fluid fill adapter. Wt., 1 oz.



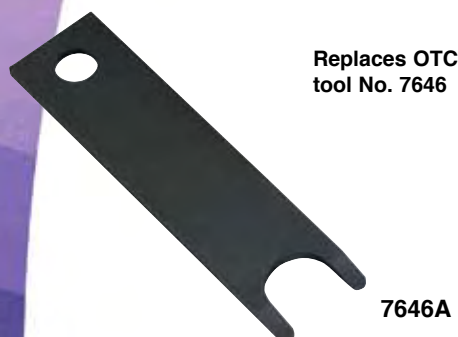
7118

### Transmission Adapter Kit

Converts your OTC No. 1726 or No. 1735 engine stand into a transmission service stand. Kit replaces the adjustment arms of the stand to hold and position the transmission at workbench height for repair.

- The transmission is held with three sides fully exposed for working convenience.
- Can be rotated a full 360° for complete access to all parts.
- Comes with mounting hardware.

**No. 7118** – Transmission adapter kit. Wt., 10 lbs., 8 oz.



Replaces OTC  
tool No. 7646

7646A

### Ford Clutch Coupling Tool

- Disconnects the hydraulic clutch line from the clutch slave cylinder on the following vehicles with manual transmissions and hydraulic clutches: 1988–2006 F-series trucks, Bronco II, Ranger, Explorer, and 1989–1997 Ford Thunderbird and Mercury Cougar.
- Wedge-shaped design allows easy removal of clutch line without damaging clutch line, coupling, or slave cylinder. No need to pry the coupler apart.

**No. 7646A** – Ford clutch coupling tool. Wt., 4 oz.

No. 7244 – Similar to  
Ford No. 307-123  
(T82L-9500-AH) and  
Kent-Moore No. J-36391



No. 7587 – Similar to  
Ford No. 307-176  
(T86P-77265-AH)

### Quick-Disconnect Tool

Two popular disconnect tools in one set give you the versatility to quickly separate the quick connectors found on everything from radiators to transmission and power steering lines. The quick-disconnect coupler tool, No. 7244, works on late model Ford and GM vehicles without disturbing the quick-connect seals. No. 7587 releases the finger on the transmission-to-radiator oil cooler line quickly, without damaging the hose or connector. Works on 1986 and newer Ford Tauruses and Mercury Sables with an AXOD, AOD, or ATX transmission.

- Tools available separately.

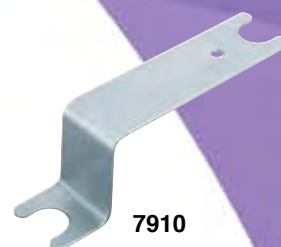
**No. 7244** – Quick-disconnect coupler tool. Wt., 2 oz.

**No. 7587** – Ford oil cooler line disconnect tool. Wt., 5 oz.

### GM Hydraulic Clutch Line Disconnect Tool

This is a versatile tool for disconnecting clutch lines when you're working on clutch assemblies or slave and master cylinders. The bent end, intended for NVG3500 and NV4500 manual transmissions, works on 1996 to 2004 full-size 2WD and 4WD trucks, Chevrolet S-10 Blazer, and pickups. The straight end is for 1993 to '94 Chevrolet Lumina sedan, 1995 to 2000 Chevrolet Monte Carlo, 1993 to '99 Buick Regal, 1998 to 2002 Olds Intrique, 1993 to '97 Olds Cutlass Supreme and Pontiac Grand Prix.

**No. 7910** – GM hydraulic clutch line disconnect tool. Wt., 5 oz.



Similar to Kent-Moore  
J-42371, J-36221

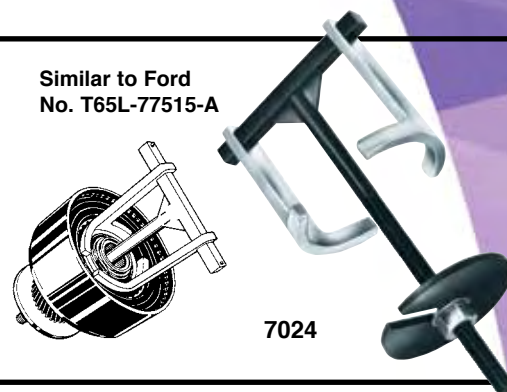
### Automatic Transmission Clutch Spring Compressor

This is a handy, adjustable tool for removing or installing the snap ring on a transmission rear clutch piston. It applies pressure to the clutch drum's retaining washer to compress piston return springs.

- For use on most American cars and light trucks.

**No. 7024** – Automatic transmission clutch spring compressor. Wt., 2 lbs., 13 oz.

Similar to Ford  
No. T65L-77515-A



7024

### Transmission Disconnect Set

This set is used to service automatic transmission cooler lines and manual transmission hydraulic clutch lines.

Set includes:

- No. 7937 – GM transmission oil cooler line disconnect tool.
- No. 7646A – Ford clutch coupling tool.
- No. 7910 – GM hydraulic clutch line disconnect tool.
- No. 7244 – GM & Ford oil cooler line disconnect tool.
- No. 7798 – Ford oil cooler line disconnect tool.
- No. 519378 – Chrysler/Jeep oil cooler line disconnect tool.

**No. 6520** – Transmission disconnect set. Wt., 1 lbs., 15 oz.



6520

### Ford Transmission Cooler Line Disconnect Set

- Snap around cooler line, push into the fitting, fitting releases. The cooler line can then be removed.
- 3/8" disconnect is used on 2003–newer Ford Explorers with the 5R55W transmission.
- 1/2" disconnect is used on 2003–newer Ford Super Duty trucks with the 4R100 transmission.

**No. 6593** – Ford transmission cooler line disconnect set. Wt., 8 oz.

1/2" is similar to  
Ford No. 307-459.

3/8" is similar to  
Ford No. 307-441.



6593

### Transmission Line Disconnects

- Used on 2001 to current Chevrolet Corvette with the 4L60E transmission, and 2003 to current Cadillac CTS with the 5L40E transmission.
- 6 per pack.

**No. 6611** – Transmission line disconnects. Wt., 4 oz.



6611

# AUTOMOTIVE SPECIAL TOOLS

## Transmission Service



Similar to  
Miller No. 8218

6047

### Dodge Transmission Cooler Line Disconnect Tool

- Designed for removing the cooler line from the radiator to transmission on 1995 and newer Dodge pickups with automatic transmissions.
- Tool encloses the quick connect fittings and releases the locking fingers on the line. It works on both 3/8" and 1/2" lines.

**No. 6047** – Dodge transmission cooler line disconnect tool. Wt., 4 oz.



7937

### GM Transmission Oil Cooler Line Disconnect Tool

- Specially designed to work in tight places. So simple to operate, you can do it with just one hand.
- After insertion into the quick-connect fitting on 1/2" dia. lines, a quarter turn of the tool quickly and easily releases the fitting on the transmission end of the transmission-to-radiator oil cooler line.
- Works on 2WD and 4WD pickups and vans with electronic shift overdrive automatic transmissions: 1991–newer 4L80E transmissions, and 1993–newer 4L60E transmissions.

**No. 7937** – GM transmission oil cooler line disconnect tool. Wt., 2 oz.



4528

### Clutch Alignment Tool Set (17 piece)

- Essential for clutch installation on virtually all cars and light-duty trucks. Aligns clutch plate by using tapered cones and pilot adapters.
- Includes seven fractional pilot adapters, 1", 13/16", 25/32", 3/4", 11/16", 5/8", 19/32" one clutch disc centering adapter, and one alignment shaft.
- Includes five metric pilot adapters, 19mm, 17mm, 16mm, 14mm, 12mm, two clutch disc centering adapters, and one alignment shaft.
- Housed in a blow-molded storage case.

**No. 4528** – Clutch alignment tool set (17 piece). Wt., 4 lbs., 3 oz.



### Differential Bearing Pullers

For removing differential side carrier bearings on a wide variety of passenger cars and light trucks. Use with step plate adapters Nos. 8060, 8061, 8063, and 8064. (Step plate adapters are not included with 1028 or 1031.)

**No. 1028** – Puller with 3-1/2" maximum reach, 1-1/4" to 4-1/2" spread. Primarily for servicing Ford products. Wt., 1 lb., 13 oz.

**No. 1031** – Puller with 3-1/4" maximum reach, 6" maximum spread. For servicing most General Motors, American Motors, and Chrysler products. Wt., 2 lbs.



1028

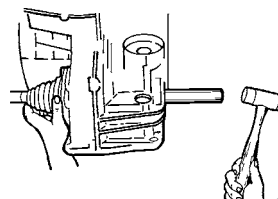


1031

### Escort/Lynx Half-Shaft Remover/ Differential Rotator

This tool is required when you're removing the left-hand half-shaft from Escort/Lynx transaxles. It ensures removal and enables you to turn the differential.

**No. 7140** – Escort/Lynx half-shaft remover/differential rotator. Wt., 1 lb., 13 oz.



7140

### Differential Bearing Preload Wrench

- Similar to Miller C-4164.
- Use to adjust differential bearing free play on Chrysler/Dodge vehicles with 7-1/4", 8-1/4", 8-3/4", and 9-1/4" rear axles.
- Tool fits inside axle tube to access the threaded adjusters.

**No. 6602** – Differential bearing preload wrench. Wt., 2 lbs., 14 oz.



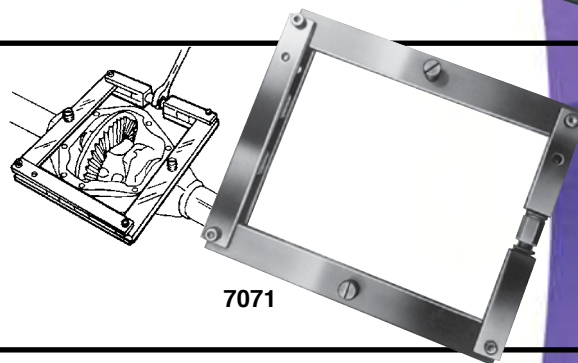
Similar to  
Miller C-4164

6602

### Differential Housing Spreader

Here's a tool that eases the job of removing or installing differential ring-gear assemblies on Dana axle models 30 through 70. It's a heavy-duty device using mechanical screw power to spread the housing. It helps prevent the component damage that often results from the use of homemade devices.

**No. 7071** – Differential housing spreader. Wt., 34 lbs.



7071

### Toyota A/C Disconnect Tool

- Used to release the plastic quick-connect fittings on the high- and low-pressure air conditioning lines at the evaporator.
- Services 1998–newer Toyota Corolla, 1998–newer Geo Prizm, 1998-1/2–newer Toyota Land Cruiser and Lexus LX470, 1999–newer Toyota Avalon, Camry, Solara, and Sienna mini vans.
- Easy to use: Plastic fitting on A/C line is rotated to show access to the two release holes in the fitting; tool is inserted into release holes, and pushed to release the fitting.

**No. 6073** – Toyota A/C disconnect tool. Wt., 4 oz.



6073

# AUTOMOTIVE SPECIAL TOOLS

## Fuel & A/C Service

518898 – Similar to  
Ford No. 412-027  
(T81P-19623-G2)



518901 – Similar to  
Ford No. 412-040  
(T85L-19623-A)

518897 – Similar to  
Ford No. 412-038  
(T83P-19623-C)

518900 – Similar to  
Ford No. 412-026  
(T81P-19623-G1)

6538 – Similar to Ford No.  
412-039 (T84L-19623-B)

### A/C Spring-Lock Coupling Tool Set

These tools will quickly separate spring-lock refrigerant pressure lines on the air conditioning systems of 1981 to 2002 Ford vehicles, and 1994 to 2002 Chrysler and Jeep vehicles.

- Spring-loaded in the closed position to deflect spray that occurs when a line is disconnected.
- Tools available separately.

**No. 6538** – Set of four A/C spring-lock coupling tools:  
Wt., 3 oz.

**No. 518901** – 3/4" (white). Wt., 2 oz.

**No. 518900** – 3/8" (red). Wt., 2 oz.

**No. 518898** – 1/2" (blue). Wt., 2 oz.

**No. 518897** – 5/8" (black). Wt., 2 oz.



### A/C and Fuel Line Disconnect Set

- Used to remove A/C and fuel line quick-disconnect fittings from hard-to-reach areas.
- Six sizes (5/16", 3/8", 1/2", 5/8", 3/4", and 7/8") available to work on many import and domestic vehicles.

**No. 4495** – A/C and fuel line disconnect set.  
Wt., 5 oz.



### Fuel and Air Conditioning Line Release Tool

- This spring-lock coupling release tool easily separates fittings on fuel and air conditioning lines.
- Tool sizes are 3/4", 5/8", 1/2", and 3/8".

**No. 4494** – Fuel and air conditioning line release tool.  
Wt., 5 oz.

### Full-Coverage Disconnect Tool Set

If you're working on Chrysler, Ford, or General Motors vehicles, this set will make your job easier. The tools are designed for heater hoses, transmission oil coolers, air conditioning and fuel lines. They're approved by vehicle manufacturers and will not damage the fittings being disconnected. Tool Nos. 518092, 518896, 518897, 518898, 518899, 518900, and 518901 are spring-loaded in the closed position to deflect any spray that occurs when lines are disconnected.

- Comes in blow-molded case.

**No. 6508** – Disconnect tool set. Wt., 4 lbs., 8 oz.



6508

#### Contents of set:

	Tool	Description
	<b>440384</b>	GM hydraulic clutch line disconnect tool.
	<b>440486</b>	GM transmission oil cooler line.
	<b>511410</b>	Fuel line disconnect tool.
	<b>511413</b>	Fuel line disconnect tool.
	<b>518902</b>	Heater hose disconnect tool.
	<b>519158</b>	Fuel line disconnect tool set.
	<b>518582</b>	Fuel line disconnect tool.
	<b>518583</b>	Fuel line disconnect tool.
	<b>518584</b>	Fuel line disconnect tool.
	<b>518896</b>	Fuel line disconnect tool. (Yellow, 3/8" )
	<b>518897</b>	A/C spring lock coupling tool. (Black, 5/8" )
	<b>518898</b>	A/C spring lock coupling tool. (Blue, 1/2" )
	<b>518899</b>	Fuel line disconnect tool. (Green, 1/2" )
	<b>518900</b>	A/C spring lock coupling tool. (Red, 3/8" )

	Tool	Description
	<b>518901</b>	A/C spring lock coupling tool. (White, 3/4" )
	<b>519067</b>	Fuel line disconnect tool.
	<b>519068</b>	Fuel line disconnect tool.
	<b>519151</b>	Quick disconnect tool.
	<b>519152</b>	Oil cooler line disconnect tool.
	<b>519153</b>	Clutch coupling tool
	<b>519154</b>	Fuel line coupling tool.
	<b>519155</b>	Chrysler fuel line disconnect tool.
	<b>519156</b>	Ford heater hose disconnect tool.
	<b>519157</b>	GM heater line quick connect separator.
	<b>519159</b>	Oil cooler line disconnect tool.



# AUTOMOTIVE SPECIAL TOOLS

## Locknut Sockets

### Locknut Sockets

**No. 7090A** – Services 1978–84 Ford F-series H.D. 3/4- and 1-ton 4WD trucks; 1973–81 GM 3/4- and 1-ton 4WD trucks. 1/2" sq. drive. Wt., 1 lb., 11 oz.

**No. 7157** – Services 1993–newer Ford Ranger Bronco II and Explorer with manual hubs; 1995–96 Ford F-series 1/2-ton truck and full-size Bronco with manual hubs; 1995–newer Ford F-series 3/4-ton and 1-ton trucks with manual hubs; 1959–85 Ford F-series 1/2- and 3/4-ton trucks and full-size Bronco; 1960–90 GM 1/2-ton truck and full-size Blazer/Jimmy; 1969–89 Dodge 1/2-ton truck with manual hubs; 1969–72 International 1/2-ton truck. 1/2" sq. drive. Wt., 1 lb., 8 oz.

**No. 7158** – Services 1985-1/2–95 Ford F-series H.D. 3/4- and 1-ton Dana 50 IFS of Dana 60 front axle; 1982–90 GM H.D. 3/4- and 1-ton trucks, 1994–newer Dodge Dana 60 with Cummins. 1/2" sq. drive. Wt., 1 lb., 13 oz.

**No. 7795** – Services 1995–1996 Ford F-series 1/2-ton trucks and full-size Bronco with automatic hubs. 1/2" sq. drive. Wt., 1 lb., 11 oz.

**No. 7796** – Services 1995–1998 Ford F-series 3/4- and 1-ton trucks with automatic hubs. 1/2" sq. drive. Wt., 2 lbs., 2 oz.

**No. 7270A** – Services 1984–92 Ford Ranger and Bronco II with manual hubs; 1986–95 Ford F-series 1/2-ton truck; full-size Bronco with Dana 44 front axle; 1990–93 Dodge trucks with Dana 44 automatic hubs. 1/2" sq. drive. Wt., 1 lb., 8 oz.

**No. 7269** – Services 1985–newer Ford F-series 3/4- and 1-ton trucks with Dana 80 rear axle. 1/2" sq. drive. Wt., 3 lbs.

**No. 7698** – Services 1988–1995 Isuzu Trooper, Rodeo, Amigo, and pickup; 1989–1995 Honda Passport; Jeep J20 pickups with Dana 60 axle. 1/2" sq. drive. Wt., 1 lb., 5 oz.

**No. 7913** – Used to remove and install locknut on 1997–2000 Suzuki Samurai and Geo Tracker front hubs. Wt., 2 lbs., 2 oz.

**No. 7612** – 54 mm hex socket fits front wheel bearing adjusting nut of Toyota FJ, LN, and RN. Has 1/2" square drive end, permitting use of a torque wrench. 1/2" sq. drive. Wt., 1 lb., 15 oz.

**No. 7941** – Specially designed to fit 4WD lock-out hubs on Toyota's 1995–2002 Tacoma, and 1996–2002 T100 and 4Runner. Similar to Toyota No. 09318-12010-01. Wt., 8 oz.

**No. 6006** – Services 1994–newer Dodge 1/2-ton 4x4 pickups with Dana 44 front axle and Dana 60 axle with vacuum disconnect front axle. Wt., 1 lb., 10 oz.

**No. 1902** – Services 1984–92 Ford Ranger and Bronco II with automatic hubs; 1993–1997 Ford Ranger, Bronco II, and Explorer with automatic hubs. 1/2" sq. drive. Wt., 1 lb., 14 oz.

**No. 1928** – Services 1990–93 Dodge truck with Dana 60 manual hubs. 3/4" sq. drive. Wt., 2 lbs., 2 oz.

**No. 1936** – Services 1990–newer Ford Ranger, Bronco II, and Explorer with automatic hubs. Wt., 1 lb., 15 oz.

**No. 6601** – Services 2003–newer Ford F-250, F-350, and F-450 Super Duty trucks with 10-1/2 inch rear axle. Wt., 2 lb., 15 oz.

**7090A**  
2-5/8"  
Similar to Ford  
No. 205-D001  
(D78T-1197-A)

**7157**  
2-1/4"  
Similar to Ford  
No. 205-192  
(T83T-1197-B)

**7158**  
2-1/2"  
Similar to Ford  
No. 205-D065 (D85T-1197-A)

**7795**  
2-1/2"  
Similar to Ford  
No. 205-348  
(T95T-1197-A)

**7796**  
2-3/4"  
Similar to Ford  
No. 205-349  
(T95T-1197-B)

**7270A**  
2-3/8"  
Similar to Ford  
No. 205-244  
(T86T-1197-AR)

**7269**  
2-3/4"  
Similar to Ford  
No. 205-282  
(T88T-4252-A)  
Kent Moore  
No. J-42855

**7698**  
2-1/4"

**6601**  
Similar to Ford  
No. 205-448

**FW Bearing Locknut Sockets Application Chart**

Vehicle	OTC No.	Ford No.	Global No.
1984-92 Ford Ranger & Bronco II with manual hubs with automatic hubs	<b>7270A</b> <b>1902</b>	T86T-1197-AR T70T-4252-B	205-244 205-039
1993-95 Ford Ranger, Bronco II, and Explorer with manual hubs with automatic hubs	<b>7157</b> <b>1902</b>	T83T-1197-B T70T-4252-B	205-192 205-039
1990-95 Ford Ranger, Bronco II, and Explorer with automatic hubs	<b>1936</b>	N/A	N/A
1995-96 Ford F-series 1/2-ton trucks and full-size Bronco with manual hubs with automatic hubs	<b>7157</b> <b>7795</b>	T83T-1197-B T95T-1197-A	205-192 205-348
1995-98 Ford F-series 3/4- and 1-ton trucks with manual hubs with automatic hubs	<b>7157</b> <b>7796</b>	T83T-1197-B T95T-1197-B	205-192 205-349
1978-84 Ford F-series H.D. 3/4- and 1-ton 4WD trucks	<b>7090A</b>	D78T-1197-A	205-D001
1985 1/2-95 Ford F-series H.D. 3/4- and 1-ton Dana 50 IFS or Dana 60 front axle	<b>7158</b>	D85T-1197-A	205-D065
1985-95 Ford F-series 1/2-ton truck and full-size Bronco with Dana 28 front axle	<b>7158</b>	D85T-1197-A	205-D065
1959-85 Ford F-series 1/2- and 3/4-ton truck and full-size Bronco	<b>7157</b>	T83T-1197-B	205-192
1986-95 Ford F-series 1/2-ton truck and full-size Bronco with Dana 44 front axle	<b>7270A</b>	T86T-1197-AR	205-244
1985 and 2002 Ford F-series 3/4- and 1-ton truck with Dana 80 rear axle	<b>7269</b>	T85T-4252-AH T88T-4252-A	205-230 205-282
2003-newer Ford F-250, 350, 450 Super Duty w/10-1/2" rear axle	<b>6601</b>	N/A	205-448
1973-81 GM 3/4- and 1-ton 4WD trucks	<b>7090A</b>	N/A	N/A
1960-90 GM 1/2-ton truck and full-size Blazer/Jimmy	<b>7157</b>	N/A	N/A
1982-90 GM H.D. 3/4- and 1-ton trucks	<b>7158</b>	N/A	N/A
1989-96 Tracker	<b>6283</b>	N/A	N/A
1969-72 International 1/2-ton trucks	<b>7157</b>	N/A	N/A
1969-89 Dodge 1/2-ton trucks with manual hubs	<b>7157</b>	N/A	N/A
1990-93 Dodge trucks with Dana 44 automatic hubs	<b>7270A</b>	N/A	N/A
1990-93 Dodge trucks with Dana 60 manual hubs	<b>1928</b>	N/A	N/A
1988-95 Isuzu Trooper, Rodeo, Amigo, and pickup; 1989-95 Honda Passport; and Jeep J20 pickups with Dana 60 axle	<b>7698</b>	N/A	N/A
1982-97 Toyota trucks, models FJ, LN, RN, with 54 mm 6 pt. nuts	<b>7612</b>	N/A	N/A
1995-2002 4WD Toyota Tacoma and 1996-2002 4WD Toyota T100 and 4Runner, all with lockout hubs	<b>7941</b>	N/A	N/A
1997-2000 4WD Geo Tracker and Suzuki Samurai	<b>7913</b>	N/A	N/A



**7913**

Similar to Kent-Moore No. J-42119



**6601**  
2-3/4" O.D.  
Similar to Ford No. 205-448



**7612**  
2-1/8"  
54 mm



**7941**

2.366 center to center on pins



**6006**  
1-11/16"  
43 mm



**6064**

1.972 center to center on pins



**1902**  
2-3/8"



**1928**  
2-9/16"



**1936**  
2-3/8"



**6283**  
2-29/64"

# AUTOMOTIVE SPECIAL TOOLS

## Locknut Sockets



4542

### 7-Piece Wheel Bearing Locknut Socket Set

- For use with 1/2" ratchet or breaker bar.

Set contains:

No. 519097-7 – 55 mm hex locknut socket designed for use on front wheel adjusting nuts found on Toyota models FJ, LN, and RN.

No. 519097-1 – 2-3/8" hex locknut socket works on 1984–92 Ford Rangers and Bronco IIs with automatic locking hubs. Similar to Ford No. 205-040 (T70T-4252-B).

No. 519097-3 – 2-1/2" hex locknut socket fits the hex nut found on rear axles and various front axle applications on light-duty trucks.

No. 519097-5 – 2-1/2" rounded hex locknut socket works on 1995–96 Ford F-150 trucks and full-sized Broncos with automatic locking hubs. Similar to Ford No. 205-348 (T95T-1197-A).

No. 519097-4 – 2-3/4" rounded hex locknut socket works on 3/4-ton and 1-ton Ford F-250 and F-350 trucks with automatic locking hubs. Similar to Ford No. 205-349 (T95T-1197-B).

No. 519097-2 – 2-9/16" rounded hex locknut socket works on 1990–93 Dodge trucks with Dana 60 manual hubs.

No. 519097-6 – 2-3/8" rounded hex locknut socket works on 1990–newer Ford Rangers, Bronco IIs, and Explorers with automatic locking hubs.

**No. 4542** – Wheel bearing locknut socket set (7 piece).  
Wt., 11 lbs., 7 oz.



4547

### Axle Nut Socket Set – FWD (7 piece)

- Extra long, 1/2" drive chrome molybdenum sockets for heavy-duty use in removing and installing axle nuts.
- Use with a ratchet, breaker bar, or torque wrench.
- Contained in a blow-molded plastic storage case.

Contents of set:

No. 4547-29 – 29 mm socket services various late model GM, Ford, and Asian imports.

No. 4547-30 – 30 mm socket services GM body styles A, J, and N, plus Asian imports.

No. 4547-32 – 32 mm socket services late model Honda and Chrysler vehicles.

No. 4547-34 – 34 mm socket services many GM mid-size vehicles.

No. 4547-35 – 35 mm socket services many GM vehicles.

No. 4547-36 – 36 mm socket services many GM, Ford, and Chrysler full-size vehicles.

No. 4547-38 – 38 mm socket services various full-size vehicles including SUVs.

**No. 4547** – Axle nut socket set (7 piece).  
Wt., 10 lbs., 6 oz.



### Locknut Socket Set – 4WD (6 piece)

- Chrome vanadium steel sockets cover most SUV and light truck applications.
- Sockets have 1/2" square drive, allowing use of a torque wrench, ratchet, or breaker bar.

Contents of set:

No. 4543-1 – Toyota 4-lug locknut socket. Services high-torque locknuts on Toyota 4WD vehicles having free-wheel (lock out) hubs: 1995–newer Tacoma; 1996–newer T100 and 4Runner.

No. 4543-2 – Ford 4-lug locknut socket for high-shear rotating nuts on 1985–newer F-250 and F-350 truck rear axles, and Dana 80 rear axles of Ford Super Duty trucks.

No. 4543-3 – 4-lug socket for removing and installing 4-slot front axle locknuts on 1986–newer F-Series 1/2-ton trucks, full-size Bronco with Dana 44 axle, 1984–92 Ford Ranger, and Bronco II with manual hubs. Also, Dodge trucks using Dana 44 axle with automatic hubs.

No. 4543-4 – 6-lug socket for removing and installing 4-slot front axle locknuts on 1978–84 Ford F-Series 4WD heavy-duty 3/4- and 1-ton trucks; 1973–81 GM 4WD 3/4- and 1-ton trucks.

No. 4543-5 – 4-lug socket for removing and installing 4-slot front axle locknuts on 1993–newer Ford Ranger, Bronco II, and Explorer with manual hubs; 1995–newer F-Series 1/2-, 3/4-, and 1-ton trucks and full-size Bronco with manual hubs; 1959–85 F-Series 1/2- and 3/4-ton trucks and full-size Bronco; 1960–90 GM 1/2-ton trucks and full-size Blazer/Jimmy; 1969–72 International 1/2-ton trucks; 1969–89 Dodge 1/2-ton trucks with manual hubs.

No. 4543-6 – FWD front spindle puller. Removes front spindle to access needle bearing, when lubricating and aligning front wheels. 5/8"-18 fine thread permits use with OTC No. 1155 slide hammer. Fits spindle thread sizes 2"-16, 1-5/8"-16 and 38 mm-1.5. Applications: Full-size GM, Ford, Jeep, and International pickups with Dana front axles, plus Ranger and Bronco II.

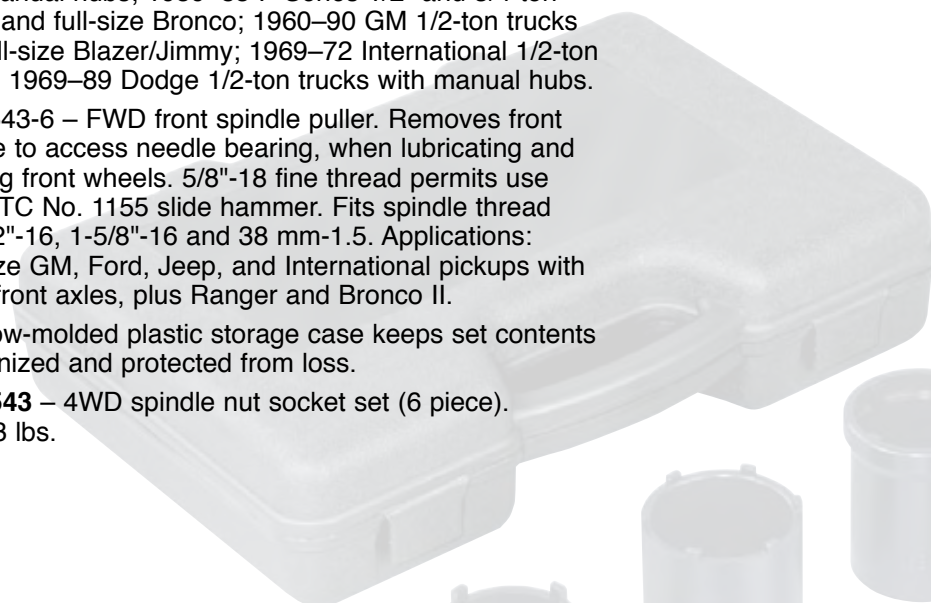
- A blow-molded plastic storage case keeps set contents organized and protected from loss.

**No. 4543** – 4WD spindle nut socket set (6 piece).

Wt., 13 lbs.



4543

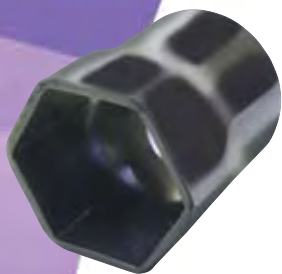


# AUTOMOTIVE SPECIAL TOOLS

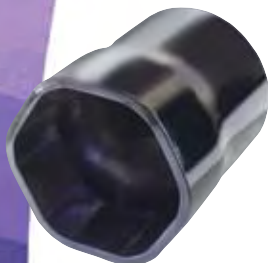
## Locknut Sockets & Brake Service



6010



6612, 6902, 6921



6795, 6796, 6928, 6936

### 1/2" Drive Locknut Socket Set

- These are not light-hearted sockets; they feature a 1/2" square drive, and can be used with an extension and torque wrench for accurate tightening.
- For use on the rounded and standard hex nuts found on the most popular light-duty trucks on the road.
- Unlike the competition, these sockets are backed by the famous OTC Lifetime Marathon Warranty® against defects in materials and workmanship.

**No. 6010** – Locknut socket set. Includes one each: Nos. 6612, 6795, 6796, 6902, 6921, 6928, 6936. Wt., 12 lbs.

#### Set includes one each of the following:

**No. 6612** – 54 mm hex locknut socket designed for use on front wheel adjusting nuts found on Toyota FJ, LN, and RN models. Wt., 1 lb., 8 oz.

**No. 6902** – 2-3/8" hex locknut socket works on 1984–92 Ford Rangers and Bronco IIs with automatic locking hubs. (Ford No. T70T-4252-B and 205-040). Wt., 1 lb., 8 oz.

**No. 6921** – 2-1/2" hex locknut socket fits hex nut found on rear axles and various front axle applications on light-duty trucks. Wt., 1 lb., 8 oz.

**No. 6795** – 2-1/2" rounded hex locknut socket. Works on 1995–96 Ford F-150 trucks and full-sized Broncos with automatic locking hubs. (Ford No. T95T-1197-A and 205-348). Wt., 1 lb., 8 oz.

**No. 6796** – 2-3/4" rounded hex locknut socket. Works on 3/4- and 1-ton Ford F-250 and F-350 trucks with automatic locking hubs. (Ford No. T95T-1197-B and 205-349). Wt., 1 lb., 8 oz.

**No. 6928** – 2-9/16" rounded hex locknut socket. Works on 1990–93 Dodge trucks with Dana 60 manual hubs. Wt., 1 lb., 8 oz.

**No. 6936** – 2-3/8" rounded hex locknut socket. Works on 1990–newer Ford Rangers, Bronco IIs, and Explorers with automatic locking hubs. Wt., 1 lb., 8 oz.



7488A

### Brake Pressure Test Kit

Kit contains a complete set of fittings and gauges for pressure testing ABS and conventional brake systems on Chrysler, Ford, GM, Jeep, and import vehicles.

- Includes an organizer case

**No. 7488A** – Brake pressure test kit. Includes two 0–3,000 psi gauges, 16 adapter fittings, two Bosch ABS adapters, one Teves/Delco Powermaster III adapter, one Ford (Teves) adapter, one 90° elbow fitting, one 45° elbow fitting, bleeder, and instructions. Wt., 7 lbs., 10 oz.

### Brake Fluid Safety Meter

#### Check condition of brake fluid in less than a minute!

Water can enter a brake system through microscopic holes anywhere in the system. Once inside, it can cause corrosion in system components...it can vaporize under the high heat conditions of hard braking situations...it can cause dangerous degradation of your customer's ability to stop safely! The No. 3890 can diagnose a brake system in under a minute. It actually boils a small sample of brake fluid in the reservoir to test for water contamination.

#### FEATURES:

- Powered by the vehicle battery; won't operate if connected to the wrong polarity.
- On-screen prompts lead you quickly through testing.
- You'll find the minimum boiling (vaporizing) point along with minimum recommended levels for various types of brake fluid.
- Works on DOT 3, DOT 4, and DOT 5.1 fluids.
- No consumable test strips; buy this tool and test every vehicle that comes into your shop.

**No. 3890** – Brake fluid safety meter. Wt., 2 lbs., 8 oz.



3890

#### Specifications:

Accuracy at 212°–356°F....1% typical, 3% max.  
Accuracy above 356°F....3% typical, 5% max.  
Testing Time....15–60 seconds  
Operating Temp Range....32°–122°F

### Steering Wheel Holder & Pedal Depressor Kit

- This kit has two applications: 1) holds steering wheel in position for alignment adjustments, and 2) depresses brake pedal for various brake checks, including brake lamp operation.
- Rod easily slides in actuator for fast, easy installation of tool on brake pedal or steering wheel. Simply hand squeeze the actuator to accomplish fine adjustments.
- Kit includes: actuator assembly; extension rod for actuator (use when depressing brake pedal); hook assembly (hooks on steering wheel when depressing brake pedal or holding steering wheel); and flat pad (rests on front seal when holding steering wheel).

**No. 4546** – Steering wheel holder and pedal depressor kit. Wt., 5 lbs., 2 oz.

No. 4546-1 – Handle and Rod. Wt., 2 lbs.

No. 4546-2 – Steering Wheel and Pedal Holder. Wt., 2 lbs., 7 oz.



4546

### One-Man Brake Bleeder Hose

- Removes air from brake system, one wheel at a time, and eliminates the need for an assistant.
- Hose easily attaches to bleeder screw, which holds hose in place and prevents leaking.
- Check valve on end of hose prevents air from entering brake system when pumping brake pedal.

**No. 4599** – One-man brake bleeder hose. Wt., 5 oz.



4599



# AUTOMOTIVE SPECIAL TOOLS

## Brake Service



### Fluid Evacuation / Brake Bleeding Tools

- Use to bleed brake systems and remove a variety of fluid from vehicles, such as antifreeze, oil, transmission fluid, gear lube, etc.
- Quick connect locking hose adapters and ball-style on/off valve on hose prevent fluid leakage.
- Equipped with a relief valve to prevent over-pressurizing the tank.

**No. 8100** – Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm and 7 mm); 10-liter capacity tank. Wt., 10 lbs.

**No. 8101** – Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank. Wt., 10 lbs., 13 oz.



Similar to Kent-Moore J-35856

### ABS Brake Proportioning Valve Depressor

The proportioning valve depressor works on various GM utility vehicles, vans, and pickups fitted with Kelsey Hayes anti-lock brake systems. It also works on rear-wheel anti-lock brakes.

- Two depressors work best for four-wheel anti-lock systems.

**No. 7853** – ABS brake proportioning valve depressor. Wt., 4 oz



### Disc Park Brake Caliper Tool Kit

This tool set is a must when you're installing brake pads on vehicles with 4-wheel disc brakes. It works on most GM vehicles, most Ford vehicles, and imported vehicles.

- Includes tool to retract the piston on a parking brake actuator.

**No. 7317A** – Disc park brake caliper tool kit. Wt., 4 lbs., 5 oz.

Kit includes one each of the following:

No. 214963 – Plate.

No. 214964 – 3/8" extension.

No. 308649 – Forcing screw.

No. 308644 – Disc brake adapter tool for 1-1/2" pistons. Usable two ways: one side fits Dodge Conquest, Ford, GM, Honda, Mazda, and Mitsubishi; other side fits Pontiac Fiero, Subaru, and Toyota. Wt., 3 oz.

No. 308645 – Four wheel disc brake adapter tool. Fits 1-11/16" pistons on Subaru, Nissan, Datsun, and Ford Thunderbird. Wt., 5 oz.

No. 308646 – Disc brake adapter tool for GM vehicles with 1-7/8" pistons. Wt., 5 oz.

No. 308647 – Disc brake adapter tool for GM vehicles with 2-1/8" pistons. Wt., 7 oz.

No. 308648 – Disc brake adapter tool for GM vehicles with 2-1/2" pistons. Wt., 10 oz.



OTC *Stinger*

4589

### Disc Brake Piston Tool

- This "cube" tool rotates pistons back into brake calipers when replacing brake pads on vehicles with rear wheel disc brakes.
- Tool has 3/8" square drive, provides six drive pin configurations to fit most cars and light trucks. This updated version fits more applications than many competitors' tools.

**No. 4589** – Disc brake piston tool. Wt., 3 oz.

### Universal Brake Caliper Bit Socket Set (9 Piece)

**No. 6135** – Universal brake caliper bit socket set (9 piece).  
Wt., 1 lb. 8 oz.

Set includes one each of the following:

- No. 6107 – Size T40, sq. drive 3/8"
- No. 6108 – Size T45, sq. drive 3/8"
- No. 6110 – Size T50, sq. drive 3/8"
- No. 6112 – Size T60, sq. drive 1/2"
- No. 6165 – Size 1/4", sq. drive 3/8"
- No. 6167 – Size 3/8", sq. drive 3/8"
- No. 6175 – Size 7 mm, sq. drive 3/8"
- No. 6176 – Size 8 mm, sq. drive 3/8"
- No. 6177 – Size 10 mm, sq. drive 3/8"



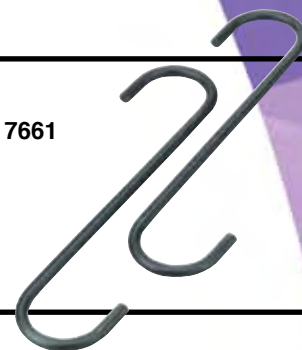
6135

### Caliper Hanger Set

These hangers are designed to hold brake calipers out of your way during brake, bearing, suspension, or axle work. In doing so, they make the jobs easier and faster, and reduce possible brake hose damage.

**No. 7661** – Caliper hanger set. Wt., 8 oz.

7661



### Hub Resurfacing Kit

- Fits your power drill to quickly sand rust off lug studs and rotors on the hub assembly. Sanding pads attach with Velcro™.
- For most domestic and import vehicles with either front or rear disc brakes. Includes holder and five sanding discs.
- Run at speeds of 1200 rpm or less for best results. (Do not exceed 1200 rpm).

**No. 7942A** – Hub resurfacing kit.  
Wt., 3 oz.

**No. 222548** – 10 pack of replacement sanding pads for No. 7942A. Wt., 1 oz.

**No. J-42450-9** – Holder only. Wt., 2 oz.



7942A

### Disc Brake Pad Spreader

- Works on:
  - 1998–2001 Chev. Lumina
  - 1998–2004 Chev. Monte Carlo
  - 2000–2004 Chev. Impala
  - 1998–2004 Buick Regal
  - 1998–1999 Olds Cutlass
  - 1998–2004 Pontiac Grand Prix
  - 1997–2004 Ford F-250, F-300, F-450 trucks
- Can be used on or off the vehicle during brake pad replacement to push the piston back into the caliper. Thick pushing plate (3/16") and wide, threaded collars are designed for heavy-duty applications.

**No. 6093** – Disc brake pad spreader. Wt., 2 lbs. 3 oz.



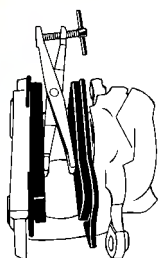
6093

# AUTOMOTIVE SPECIAL TOOLS

## Brake Service



Similar to Ford  
No. 206-D001  
(D79L-2196-A)



### Disc Brake Pad Spreader

Disc brake pad installation is much easier when you're using this spreader, which fits between the new pads and expands to retract the piston. This leaves your hands free to slide the caliper over the rotor. Designed to work on standard and four-piston caliper disc brakes, this tool will shorten installation time.

**No. 7034** – Disc brake pad spreader. Wt., 10 oz.



7456

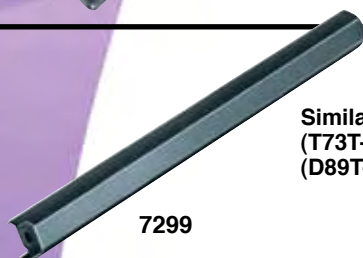
Similar to Ford  
No. 206-008  
(T73T-2300-A)

### Ford Brake Spring Tool

The hold-down springs on rear brake drums can now be easily removed or installed with the help of this tool – without causing damage or injuries.

- For use on 1967 to 2004 3/4- and 1-ton pickups and vans.

**No. 7456** – Ford brake spring tool. Wt., 7 oz.



7299

Similar to Ford No. 206-0004  
(T73T-2300-A)  
(D89T-2196-A)

### Ford Caliper Pin Remover

This is the damage-free way to remove brake caliper pins on 1986 to '88 Aerostar, Bronco, and E- and F-series pickups; 1983 to '88 Ranger; and 1984 to '88 Bronco II.

**No. 7299** – Ford caliper pin remover. Wt., 7 oz.



7499

### Ford Disc Brake Caliper Pin Remover

Forget those makeshift methods of disc brake caliper pin removal. With one of these tools, you can handle jobs on a variety of light-duty Ford models.

- For use on 1989 to 1996 Aerostar, Bronco, Ranger, E- and F-series pickups; 1989 to '91 Bronco II; and 1991 to 1995 Explorer.

**No. 7499** – Ford disc brake caliper pin remover. Wt., 8 oz.



7639

Similar to  
Kent-Moore  
J-39495

### GM W-Body Brake Bushing Service Set

Here's the complete set for servicing seized disc-brake rear-caliper slides on GM W-body cars. It includes a bushing driver, 180 grit hone, and a 1-1/4" diameter wire brush.

- For use on 1988 to 1993 Buick Regal, Oldsmobile Cutlass Supreme, Pontiac Grand Prix; 1990 to 1993 Chevrolet Lumina sedan.

**No. 7639** – GM W-body brake bushing service set. Wt., 13 oz.



6515

### 3-in-1 180° Tubing Bender

- Capable of making 180° bends in copper, brass, aluminum, and steel tubing.
- Just one tool works on three sizes of tubing: 1/4", 5/16", and 3/8".

**No. 6515** – 3-in-1 180° tubing bender. Wt., 1 lbs., 5 oz.



### Heavy-Duty Tubing Cutter

- Works on tubing sizes 1/8" to 1-1/8" O.D. (3 mm to 29 mm).
- Easily cuts copper, brass, aluminum, and steel brake lines.
- Ream folds onto cutter body for storage.
- Extra cutting wheel stored under ream.

**No. 6512** – Heavy-duty tubing cutter. Wt., 6 oz.

6512



### Mini Tubing Cutter

- Works on tubing sizes 1/8" to 5/8" O.D. (3 mm to 16 mm).
- Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
- Ream folds onto cutter body for storage.
- Extra cutting wheel stored under ream.

**No. 6514** – Mini tubing cutter. Wt., 3 oz.

6514

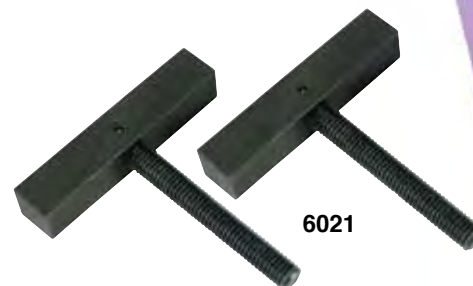


### Brake Drum and Rotor Remover

Having trouble pulling brake drums off hubs? This tool is the solution for that common problem.

- For use on Mercury Villager vans and many import vehicles.
- The No. 6021 tools simply thread into the 8 mm x 1.25 holes in the drum, then are tightened simultaneously to free the hub from the drum. Then the handles are used to pull off the drum.

**No. 6021** – Brake drum and rotor remover. Wt., 5 oz.



6021

### Brake Tool Set (8 piece)

- Set contains the most popular brake tools for servicing drum brakes on many import and domestic vehicles.
- Features BMC and high quality handles.
- Includes three different brake spoons to adjust most brake drums, five different brake spring tools that will service most drum brakes.

**No. 6516** – Brake tool set. Wt., 3 lbs. 2 oz.

6516



### GM Code Retrieval Keys

These keys enable you to easily retrieve trouble codes from pre-OBDII GM vehicles.

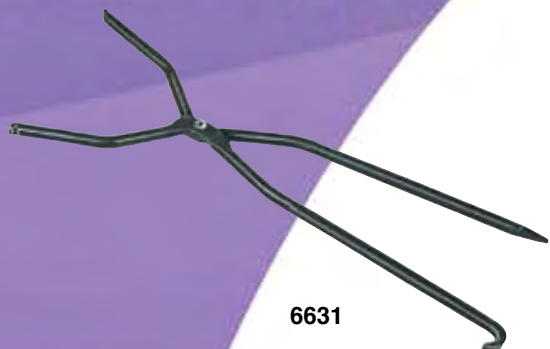
**No. 7739** – ECM code retrieval key. Jumps between A and B terminals on ALDL connector. Wt., 2 oz.

7739



# AUTOMOTIVE SPECIAL TOOLS

## Brake Service & Flaring Tools



### GM Brake Shoe Spanner and Spring Remover

Our brake shoe spanner and spring remover tool is essential for removing the rear brake shoe retaining springs. It also removes and installs adjuster springs, and can be used to activate the brake self-adjuster mechanism.

- For use on 1991 to 1997 H-body, 1992 to 1997 C- and U-body vehicles, and 1995 and newer Chevrolet Monte Carlo and Lumina.

**No. 6631** – GM brake shoe spanner and spring remover. Wt., 11 oz.



### Brake Spring Pliers and Claw

- Effectively removes and replaces shoe return springs of drum brakes on domestic cars and trucks. Thin, narrow point provides straight, in-line pull on spring.
- Robust handle provides powerful leverage. Double-ended design. Plated steel resists corrosion.

**No. 4590** – Brake spring pliers and claw. Wt., 14 oz.



### Brake Spring Compressor Tool

- Provides leverage to remove and install stubborn hold down springs of drum brakes on cars and light trucks.
- Special beveled cup end and notched design grips the retaining washers (11/16" to 7/8") used to hold the springs in place. Comfortable handle and knurled base for solid gripping.

**No. 4591** – Brake spring compressor tool. Wt. 3 oz.



### Double Flaring Tool Set with Cutter

- Designed for steel brake lines where double flaring is required.
- Also performs 45° single flares on 3/16", 1/4", 3/8", 7/16", 1/2", and 5/8" copper, aluminum, brass, and magnesium tubing.
- Includes the No. 6514 tubing cutter and adapters for double flaring 3/16", 1/4", 5/16", 3/8", and 1/2" tubing.
- Housed in a plastic blow-molded case.

**No. 6503** – Double flaring tool set with cutter. Wt., 3 lbs., 7 oz.

### Bubble (I.S.O.) Flaring Tool Set with Cutter

- Designed for metric, steel brake lines where an ISO or bubble flare is required.
- Includes the No. 6514 tubing cutter and adapters for 4.75 mm, 6 mm, 8 mm, and 10 mm tubing.
- Housed in a plastic blow-molded case.

**No. 6504** – Bubble (I.S.O.) flaring tool set with cutter.  
Wt., 3 lbs., 7 oz.



### Metric Double Flaring Tool Set with Cutter

- Designed for metric, steel brake lines where double flaring is required.
- Also performs 45° single flares on 4 mm, 4.75 mm, 6 mm, 8 mm, 10 mm, 12 mm, and 14 mm copper, aluminum, brass, and magnesium tubing.
- Includes the No. 6514 tubing cutter and adapters for double flaring 4 mm, 4.75 mm, 6 mm, 8 mm, and 10 mm tubing.
- Housed in a plastic blow-molded case.

**No. 6506** – Metric double flaring tool set with cutter.  
Wt., 3 lbs., 7 oz.



### Double Flaring Tool Kit

- Designed for double or single flare in copper, aluminum, soft steel brake line, and brass tubing (to 45 degrees).
- Includes five adapters 3/16" through 1/2" (4.8 mm through 12.7 mm).
- Chrome swivel, made of alloy steel, reduces friction. Forged yoke made of heat-treated steel. Housed in a blow-molded storage case.

**No. 4503** – Double flaring tool kit. Wt., 2 lbs., 10 oz.



### Bubble (I.S.O.) Flaring Tool Kit

- Designed for crack-free bubble flares on soft steel tubing used in automotive brake systems.
- Includes four dies: 4.75, 6, 8, and 10 mm adapters.
- Forged steel yoke, flaring bar, and all the adapters needed for ISO bubble flaring.
- The most economical "Bubble" flare tool to date. Housed in a blow-molded storage.

**No. 4504** – Bubble (I.S.O.) flaring tool kit. Wt., 2 lbs., 10 oz.





# AUTOMOTIVE SPECIAL TOOLS

## Torx Bit Sockets



5900A

### Master TORX® Socket Set

51-piece, professional socket set in a blow-molded case.

**Hundreds of applications from front to rear on cars and trucks:**

- seat belt bolts      – interior and exterior trim screws
- engine assemblies      – tail lamp lenses & assemblies
- bumpers      – headlight bezels
- door strikers & latches
- brake rotor bolts
- GM front-wheel drive front wheel bearings
- truck box liners
- Styles available: TORX bit sockets, TORX PLUS bits sockets, tamper-resistant TORX bits, and TORX sockets for external bolts.
- Made from superior S2 steel to meet or exceed torque specifications.

**No. 5900A** – Master TORX® socket set. 51-piece set in blow-molded case. Wt., 7 lbs.

### Master Torx Socket Set includes:

#### TORX® Bit Socket Set T6 to T60 (14 piece)



No.	Size	Sq. Drive	No.	Size	Sq. Drive
5906	T6	1/4"	6106	T30	1/4"
5908	T8	1/4"	6107	T40	3/8"
6101	T10	1/4"	6108	T45	3/8"
6102	T15	1/4"	6109	T47	3/8"
6103	T20	1/4"	6110	T50	3/8"
6104	T25	1/4"	6111	T55	3/8"
6105	T27	1/4"	6112	T60	1/2"
No.	Size	Sq. Drive			

#### TORX PLUS® Bit Sockets TP8 to TP60 (12 piece)



No.	Size	Sq. Drive	No.	Size	Sq. Drive
5918	TP8	1/4"	6186	TP30	1/4"
6181	TP10	1/4"	6187	TP40	3/8"
6182	TP15	1/4"	6188	TP45	3/8"
6183	TP20	1/4"	6191	TP50	3/8"
6184	TP25	1/4"	5915	TP55	3/8"
6185	TP27	1/4"	5916	TP60	1/2"

#### TORX® External Socket E4 to E24 (13 piece)



No.	Size	Sq. Drive	No.	Size	Sq. Drive
5934	E4	1/4"	6156	E14	3/8"
5935	E5	1/4"	6157	E16	3/8"
6151	E6	1/4"	5936	E18	3/8"
6152	E7	1/4"	5937	E20	3/8"
6153	E8	1/4"	5938	E22	1/2"
6154	E10	3/8"	5939	E24	1/2"
6155	E12	3/8"			

#### TORX® Tamper-Resistant Bits TT8 to TT60 (12 piece)



No.	Size	Hex Insert	No.	Size	Hex Insert
5919	TT8	1/4"	5925	TT30	1/4"
5920	TT10	1/4"	5926	TT40	3/8"
5921	TT15	1/4"	5927	TT45	3/8"
5922	TT20	1/4"	5928	TT50	3/8"
5923	TT25	1/4"	5929	TT55	3/8"
5924	TT27	1/4"	5930	TT60	1/2"



6100

### TORX® Bit Socket Set (12 Piece)

**No. 6100** – TORX® bit socket set (12 piece).  
Wt., 1 lb. 3 oz.

Set includes one each of the following:

- No. 6101** – Size T10, Sq. Drive 1/4"
- No. 6102** – Size T15, Sq. Drive 1/4"
- No. 6103** – Size T20, Sq. Drive 1/4"
- No. 6104** – Size T25, Sq. Drive 1/4"
- No. 6105** – Size T27, Sq. Drive 1/4"
- No. 6106** – Size T30, Sq. Drive 1/4"
- No. 6107** – Size T40, Sq. Drive 3/8"
- No. 6108** – Size T45, Sq. Drive 3/8"
- No. 6109** – Size T47, Sq. Drive 3/8"
- No. 6110** – Size T50, Sq. Drive 3/8"
- No. 6111** – Size T55, Sq. Drive 3/8"
- No. 6112** – Size T60, Sq. Drive 1/2"



### TORX® Tamper-Resistant Bit Set (8 Piece)

**No. 6145** – TORX® tamper-resistant bit set (8 piece).  
Wt., 4 oz.

Set includes one each of the following:

- No. 6141** – Size T10H, Hex Insert 1/4"
- No. 6142** – Size T15H, Hex Insert 1/4"
- No. 6143** – Size T20H, Hex Insert 1/4"
- No. 6144** – Size T25H, Hex Insert 1/4"
- No. 6146** – Size T27H, Hex Insert 1/4"
- No. 6147** – Size T30H, Hex Insert 1/4"
- No. 6148** – Size T40H, Hex Insert 1/4"
- No. 6130** – Sq. Drive 1/4", Bit Holder 1/4"



6145

### TORX PLUS® Bit Socket Set (9 Piece)

**No. 6180** – TORX PLUS® bit socket set (9 piece).  
Wt., 11 oz.

Set includes one each of the following:

- No. 6181** – Size TP10, Sq. Drive 1/4"
- No. 6182** – Size TP15, Sq. Drive 1/4"
- No. 6183** – Size TP20, Sq. Drive 1/4"
- No. 6184** – Size TP25, Sq. Drive 1/4"
- No. 6185** – Size TP27, Sq. Drive 1/4"
- No. 6186** – Size TP30, Sq. Drive 1/4"
- No. 6187** – Size TP40, Sq. Drive 3/8"
- No. 6188** – Size TP45, Sq. Drive 3/8"
- No. 6191** – Size TP50, Sq. Drive 3/8"



6180

### TORX® Socket Set (For External Bolts; 7 Piece)

**No. 6150** – TORX® socket set for external bolts  
(7 piece). Wt., 10 oz.

Set includes one each of the following:

- No. 6151** – Size E6, Sq. Drive 1/4"
- No. 6152** – Size E7, Sq. Drive 1/4"
- No. 6153** – Size E8, Sq. Drive 1/4"
- No. 6154** – Size E10, Sq. Drive 3/8"
- No. 6155** – Size E12, Sq. Drive 3/8"
- No. 6156** – Size E14, Sq. Drive 3/8"
- No. 6157** – Size E16, Sq. Drive 3/8"



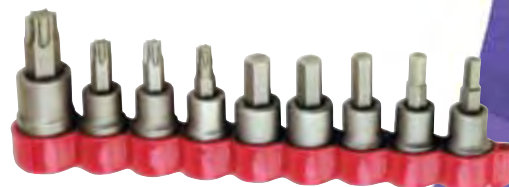
6150

### Universal Brake Caliper Bit Socket Set (9 Piece)

**No. 6135** – Universal brake caliper bit socket set  
(9 piece). Wt., 1 lb. 8 oz.

Set includes one each of the following:

- No. 6107** – Size T40, Sq. Drive 3/8"
- No. 6108** – Size T45, Sq. Drive 3/8"
- No. 6110** – Size T50, Sq. Drive 3/8"
- No. 6112** – Size T60, Sq. Drive 1/2"
- No. 6165** – Size 1/4", Sq. Drive 3/8"
- No. 6167** – Size 3/8", Sq. Drive 3/8"
- No. 6175** – Size 7 mm, Sq. Drive 3/8"
- No. 6176** – Size 8 mm, Sq. Drive 3/8"
- No. 6177** – Size 10 mm, Sq. Drive 3/8"



6135

# AUTOMOTIVE SPECIAL TOOLS

## Torx Bit Sockets



6160

### Hex Bit Socket Set (Fractional; 7 Piece)

**No. 6160** – Hex bit socket set (Fractional; 7 piece).  
Wt., 1 lb.

Set includes one each of the following:

- No. 6161** – Size Hex 1/8", Sq. Drive 3/8"
- No. 6162** – Size Hex 5/32", Sq. Drive 3/8"
- No. 6163** – Size Hex 3/16", Sq. Drive 3/8"
- No. 6164** – Size Hex 7/32", Sq. Drive 3/8"
- No. 6165** – Size Hex 1/4", Sq. Drive 3/8"
- No. 6166** – Size Hex 5/16", Sq. Drive 3/8"
- No. 6167** – Size Hex 3/8", Sq. Drive 3/8"



HEX



6170

### Hex Bit Socket Set (Metric; 7 Piece)

**No. 6170** – Hex bit socket set (Metric; 7 piece).  
Wt., 1 lb.

Set includes one each of the following:

- No. 6171** – Size Hex 3 mm, Sq. Drive 3/8"
- No. 6172** – Size Hex 4 mm, Sq. Drive 3/8"
- No. 6173** – Size Hex 5 mm, Sq. Drive 3/8"
- No. 6174** – Size Hex 6 mm, Sq. Drive 3/8"
- No. 6175** – Size Hex 7 mm, Sq. Drive 3/8"
- No. 6176** – Size Hex 8 mm, Sq. Drive 3/8"
- No. 6177** – Size Hex 10 mm, Sq. Drive 3/8"



HEX

## Individually sold items.

### TORX® Bits

- No. 5906** – Size T6, Sq. Drive 1/4"
- No. 5908** – Size T8, Sq. Drive 1/4"
- No. 6121** – Size T10, Hex Insert 1/4"
- No. 6122** – Size T15, Hex Insert 1/4"
- No. 6123** – Size T20, Hex Insert 1/4"
- No. 6124** – Size T25, Hex Insert 1/4"
- No. 6125** – Size T27, Hex Insert 1/4"
- No. 6126** – Size T30, Hex Insert 1/4"
- No. 6127** – Size T40, Hex Insert 5/16"
- No. 6128** – Size T45, Hex Insert 5/16"
- No. 6114** – Size T47, Hex Insert 5/16"
- No. 6129** – Size T50, Hex Insert 5/16"
- No. 6117** – Size T55, Hex Insert 7/16"
- No. 6119** – Size T60, Hex Insert 1/2"



TORX®

### TORX PLUS® Bits

- No. 5918** – Size TP8, Sq. Drive 1/4"
- No. 6132** – Size TP10, Hex Insert 1/4"
- No. 6133** – Size TP15, Hex Insert 1/4"
- No. 6134** – Size TP20, Hex Insert 1/4"
- No. 6158** – Size TP25, Hex Insert 1/4"
- No. 6159** – Size TP27, Hex Insert 1/4"
- No. 6168** – Size TP30, Hex Insert 1/4"
- No. 6169** – Size TP40, Hex Insert 5/16"
- No. 6178** – Size TP45, Hex Insert 5/16"
- No. 6194** – Size TP50, Hex Insert 5/16"
- No. 5915** – Size TP55, Sq. Drive 3/8"
- No. 6195** – Size TP55, Hex Insert 7/16"
- No. 5916** – Size TP60, Sq. Drive 1/2"
- No. 6196** – Size TP60, Hex Insert 1/2"



TORX  
PLUS®



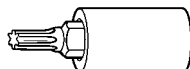
### TORX® Tamper-Resistant Bits

- No. 5919 – Size TT8, Hex Insert 1/4"
- No. 5920 – Size TT10, Hex Insert 1/4"
- No. 5921 – Size TT15, Hex Insert 1/4"
- No. 5922 – Size TT20, Hex Insert 1/4"
- No. 5923 – Size TT25, Hex Insert 1/4"
- No. 5924 – Size TT27, Hex Insert 1/4"
- No. 5925 – Size TT30, Hex Insert 1/4"
- No. 5926 – Size TT40, Hex Insert 3/8"
- No. 5927 – Size TT45, Hex Insert 3/8"
- No. 5928 – Size TT50, Hex Insert 3/8"
- No. 5929 – Size TT55, Hex Insert 3/8"
- No. 5930 – Size TT60, Hex Insert 1/2"
- No. 6141 – Size T10H, Hex Insert 1/4"
- No. 6142 – Size T15H, Hex Insert 1/4"
- No. 6143 – Size T20H, Hex Insert 1/4"
- No. 6144 – Size T25H, Hex Insert 1/4"
- No. 6146 – Size T27H, Hex Insert 1/4"
- No. 6147 – Size T30H, Hex Insert 1/4"
- No. 6148 – Size T40H, Hex Insert 1/4"
- No. 6149 – Size T45H, Hex Insert 5/16"



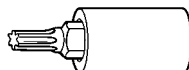
### TORX® Bit Sockets

- No. 6101 – Size T10, Sq. Drive 1/4"
- No. 6102 – Size T15, Sq. Drive 1/4"
- No. 6103 – Size T20, Sq. Drive 1/4"
- No. 6104 – Size T25, Sq. Drive 1/4"
- No. 6105 – Size T27, Sq. Drive 1/4"
- No. 6106 – Size T30, Sq. Drive 1/4"
- No. 6107 – Size T40, Sq. Drive 3/8"
- No. 6108 – Size T45, Sq. Drive 3/8"
- No. 6109 – Size T47, Sq. Drive 3/8"
- No. 6110 – Size T50, Sq. Drive 3/8"
- No. 6111 – Size T55, Sq. Drive 3/8"
- No. 6112 – Size T60, Sq. Drive 1/2"



### TORX PLUS® Bit Sockets

- No. 6181 – Size TP10, Sq. Drive 1/4"
- No. 6182 – Size TP15, Sq. Drive 1/4"
- No. 6183 – Size TP20, Sq. Drive 1/4"
- No. 6184 – Size TP25, Sq. Drive 1/4"
- No. 6185 – Size TP27, Sq. Drive 1/4"
- No. 6186 – Size TP30, Sq. Drive 1/4"
- No. 6187 – Size TP40, Sq. Drive 3/8"
- No. 6188 – Size TP45, Sq. Drive 3/8"
- No. 6191 – Size TP50, Sq. Drive 3/8"
- No. 6192 – Size TP55, Sq. Drive 3/8"
- No. 6193 – Size TP60, Sq. Drive 1/2"



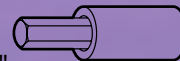
### Bit Holders

- No. 6130 – Sq. Drive 1/4", Bit Size 1/4"
- No. 6131 – Sq. Drive 3/8", Bit Size 5/16"
- No. 6136 – Sq. Drive 3/8", Bit Size 7/16"
- No. 6113 – Sq. Drive 1/2", Bit Size 1/2"



### Hex Bit Sockets (Fractional)

- No. 6161 – Size Hex 1/8", Sq. Drive 3/8"
- No. 6162 – Size Hex 5/32", Sq. Drive 3/8"
- No. 6163 – Size Hex 3/16", Sq. Drive 3/8"
- No. 6164 – Size Hex 7/32", Sq. Drive 3/8"
- No. 6165 – Size Hex 1/4", Sq. Drive 3/8"
- No. 6166 – Size Hex 5/16", Sq. Drive 3/8"
- No. 6167 – Size Hex 3/8", Sq. Drive 3/8"



### Hex Bit Sockets (Metric)

- No. 6171 – Size Hex 3 mm, Sq. Drive 3/8"
- No. 6172 – Size Hex 4 mm, Sq. Drive 3/8"
- No. 6173 – Size Hex 5 mm, Sq. Drive 3/8"
- No. 6174 – Size Hex 6 mm, Sq. Drive 3/8"
- No. 6175 – Size Hex 7 mm, Sq. Drive 3/8"
- No. 6176 – Size Hex 8 mm, Sq. Drive 3/8"
- No. 6177 – Size Hex 10 mm, Sq. Drive 3/8"



### TORX® Sockets for External Bolts

- No. 5934 – Size E4, Sq. Drive 1/4"
- No. 5935 – Size E5, Sq. Drive 1/4"
- No. 6151 – Size E6, Sq. Drive 1/4"
- No. 6152 – Size E7, Sq. Drive 1/4"
- No. 6153 – Size E8, Sq. Drive 1/4"
- No. 6154 – Size E10, Sq. Drive 3/8"
- No. 6155 – Size E12, Sq. Drive 3/8"
- No. 6156 – Size E14, Sq. Drive 3/8"
- No. 6157 – Size E16, Sq. Drive 3/8"
- No. 5936 – Size E18, Sq. Drive 3/8"
- No. 5937 – Size E20, Sq. Drive 3/8"
- No. 5938 – Size E22, Sq. Drive 1/2"
- No. 5939 – Size E24, Sq. Drive 1/2"



# AUTOMOTIVE SPECIAL TOOLS

## Ribe Key, Seat Belt Tool



4609

### Ribe Key Set

- These keys work on late model Volkswagen, Audi, Lancer, Fiat, and Lancia vehicles.
- Ribe-style bolts are used on cylinder heads, headlights, and transmission fill plugs.
- Set includes seven keys: M4, M5, M6, M7, M8, M9, and M10.

**No. 4609** – Ribe key set. Wt., 1 lb., 9 oz.



Similar to  
Kent-Moore  
BO-47549



5901

### GM Seat Belt Bolt Removal Tool

- Allows use of 1/2" impact wrench to remove the seat belt retaining bolts on most GM cars and light trucks.
- Outer collar fits over the TORX® bit to center the impact wrench and bit to the seat belt bolt, preventing damage to the bit and seat belt bolt.

**No. 5901** – GM seat belt bolt removal tool. Wt., 8 oz.



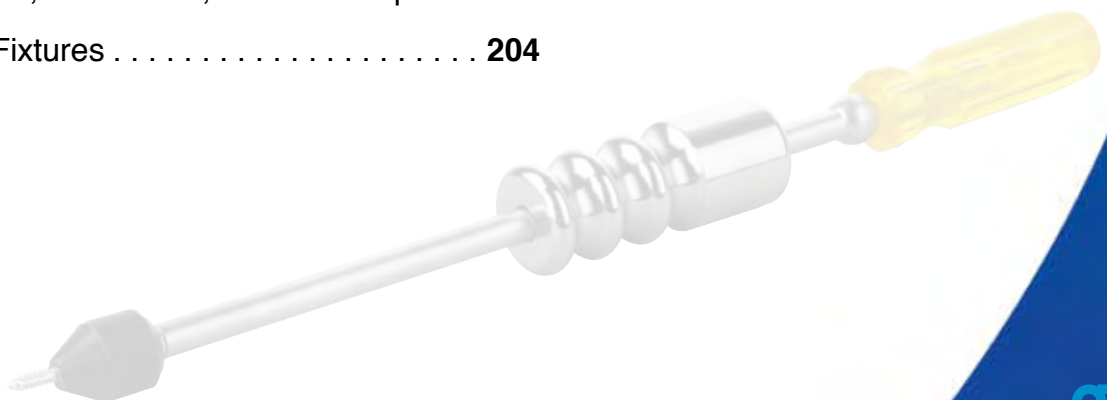
5909

### RIBE Bit Set – 24 Piece

The bit pattern known as "RIBE" or "polydrive" is now used on most European cars and light trucks, and is fast becoming more common with U.S. manufacturers. Packaged in a metal box, this is the largest collection of RIBE bits on the market.

**No. 5909** – RIBE bit set–24 piece. Wt., 8 lbs.

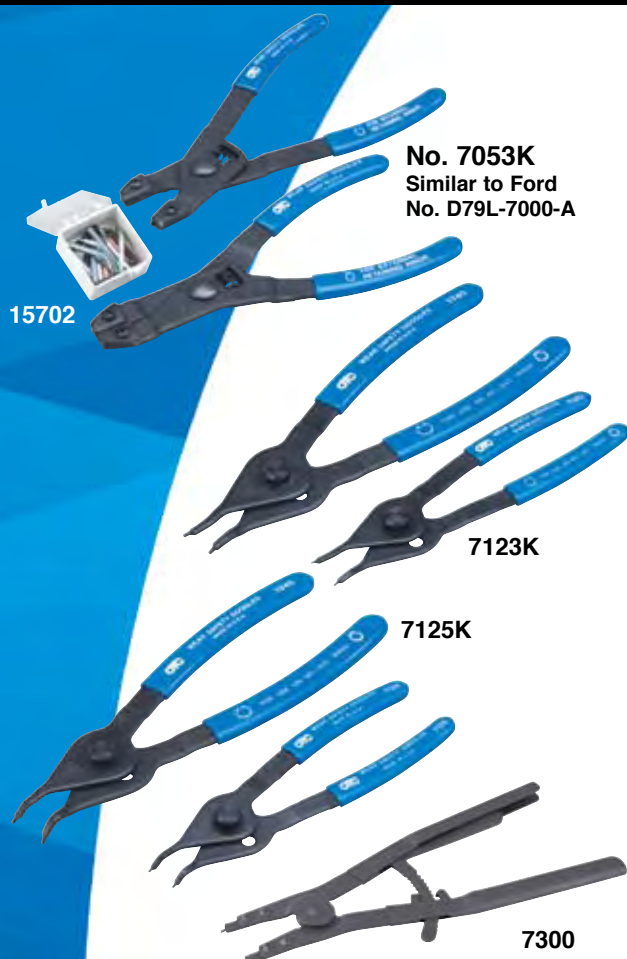
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# GENERAL PURPOSE TOOLS

## Retaining Ring Pliers



**No. 7053K**  
Similar to Ford  
No. D79L-7000-A

15702

7123K

7125K

7300

## Retaining Ring Pliers

Here are a variety of retaining ring pliers, available individually or in sets, to handle many applications.

**No. 7053K** – Internal/external retaining ring pliers kit. Includes four 90° tips (.038" diameter), four 45° tips (.047" diameter), and eight straight tips (.047" and .070" diameter). Wt., 11 oz.

**No. 15702** – Replacement tip kit. Contains 4 sets, 4 tips per set. Wt., 2 oz.

**No. 7123K** – Convertible retaining ring pliers kit. For internal or external rings. Contains one No. 1120 (.038" diameter) and one No. 1340 (.070" diameter) straight tip pliers. Wt., 15 oz.

**No. 7125K** – Convertible retaining ring pliers kit. For internal or external rings. Contains one No. 1125 (.038" diameter) and one No. 1345 (.070" diameter) 45° pliers. Wt., 15 oz.

**No. 7300** – Internal, straight tip retaining ring pliers. 16" long. Wt., 2 lbs., 2 oz.

**No. 7301** – External, straight tip retaining ring pliers. 16" long. Wt., 2 lbs., 2 oz.

### Replacement tips (pairs):

**No. 209201** – For pliers Nos. 7300 and 7301. Wt., 2 oz.

**No. 222029** – 45° for pliers Nos. 7300 and 7301. Wt., 2 oz.

**No. 222030** – 90° for pliers Nos. 7300 and 7301. Wt., 2 oz.

### How to select the correct pliers:

1. If ring number is known, locate ring number in chart —pliers are listed in right-hand column.
2. Or, measure diameter of shaft bore and locate size in chart —pliers are in right-hand column.

Internal		
No. 0100 No. 0300 No. 0500		No. 7300
Convertible		
		No. 1120 No. 1125 No. 1340 No. 1345
External		
No. 0200 No. 0400 No. 0600		No. 7301

Ring Series No.	Size Range (Ring Size No.)	Bore of Shaft Dia. Range ("Inch" equiv.)	Pliers No.
	12 to 87	1/8" to 7/8"	0200
	12, 15, 25 to 66	1/8" to 21/32"	1120, 1125
	25 to 143	1/4" to 1-7/16"	7053K, 7123K, or 7125K
	93 to 143	15/16" to 1-7/16"	1340, 1345, or 0400
	31 to 75	5/16" to 3/4"	
	150 to 350	1-1/2" to 3-1/2"	0600
5100 5101 5102 5555	75	3/4"	
	354 to 650	3-35/64" to 6-1/2"	7301
	50 to 100	1/2" to 1"	0200
	50 to 78	1/2" to 25/32"	1120
	50 to 200	1/2" to 2"	7053K, 7123K, or 7125K
	106 to 200	1-1/16" to 2"	1340, 1345, or 0400
	215 to 334	2-1/8" to 3-11/32"	0600
	350 to 400	3-1/2" to 4"	7301
	37 to 102	3/8" to 1-1/32"	0100
	37 to 56	3/8" to 9/16"	1120, 1125
	37 to 200	3/8" to 1-3/4"	7053K, 7123K, or 7125K
	106 to 175	1-1/16" to 1-3/4"	1340, 0300
	181 to 300	1-13/16" to 3-1/2"	0500
	306 to 625	3-1/16" to 6-1/4"	7300
	75 to 137	3/4" to 1-3/8"	0100
	75 to 100	3/4" to 1"	1120, 1125
	75 to 200	3/4" to 2"	7053K, 7123K, or 7125K
	143 to 200	1-7/16" to 2"	1340, 1345, or 0300
	206 to 300	2-1/16" to 3"	0500
	315 to 400	3-5/32" to 4"	7300

### Retaining Ring Pliers Set

This set includes 12 of our most popular retaining ring pliers, in sizes for automotive applications. Tips include straight, 45°, and 90° angles in four different sizes (.038, .047, .070, and .090" diameter).

- Includes a sturdy plastic organizer box.

**No. 7412K** – Retaining ring pliers set. Wt., 5 lbs.

#### No. 7412K includes:

Tool No.	Description	Ship. Wt.
1120	.038" dia., straight	4 oz.
1125	.038" dia., 45°	4 oz.
1131	.038" dia., 90°	4 oz.
1320	.047" dia., straight	4 oz.
1325	.047" dia., 45°	4 oz.
1329	.047" dia., 90°	4 oz.
1340	.070" dia., straight	7 oz.
1345	.070" dia., 45°	7 oz.
1349	.070" dia., 90°	7 oz.
1560	.090" dia., straight	9 oz.
1565	.090" dia., 45°	9 oz.
1569	.090" dia., 90°	9 oz.

All items can be purchased separately.



7412K

### Snap Ring Pliers Set – Internal/External

- For internal or external snap rings; thumbscrew permits quick conversion.
- Made of heavy-gauge tempered steel.
- Includes two stainless steel handled picks.
- Contained in a blow-molded plastic storage case.

**No. 4512** – Snap ring pliers set. Wt., 4 lbs., 3 oz.

#### No. 4512 includes:

Tool No.	Description
4512-1	.090" tip, straight pliers
4512-2	.090" tip, 90° pliers
4512-3	.070" tip, straight pliers
4512-4	.070" tip, 90° pliers
4512-5	.047" tip, straight pliers
4512-6	.047" tip, 90° pliers
4512-7	.038" tip, straight pliers
4512-8	.038" tip, 90° pliers
4512-9	straight tip pick
4512-10	90° tip pick



4512



### Convertible Retaining Ring Pliers Set

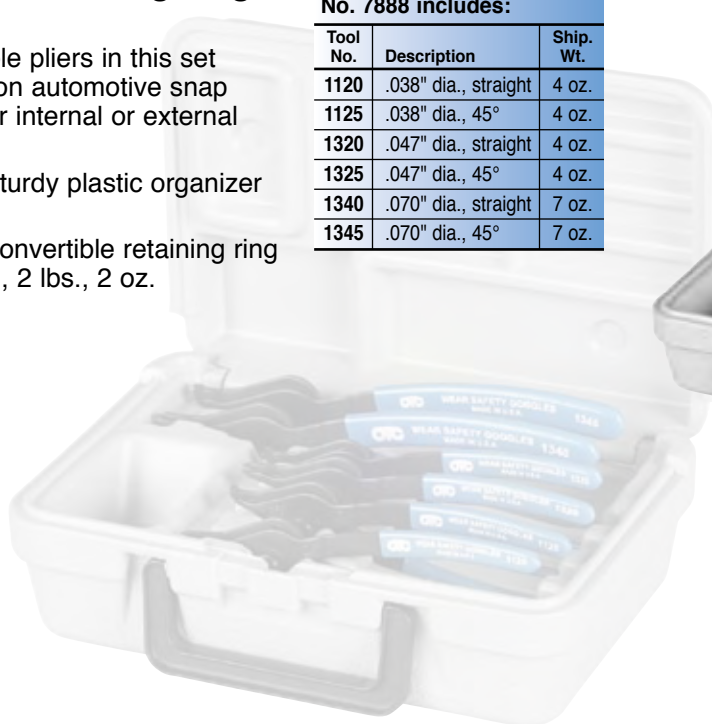
The convertible pliers in this set can be used on automotive snap rings, in either internal or external applications.

- Includes a sturdy plastic organizer box.

**No. 7888** – Convertible retaining ring pliers set. Wt., 2 lbs., 2 oz.

#### No. 7888 includes:

Tool No.	Description	Ship. Wt.
1120	.038" dia., straight	4 oz.
1125	.038" dia., 45°	4 oz.
1320	.047" dia., straight	4 oz.
1325	.047" dia., 45°	4 oz.
1340	.070" dia., straight	7 oz.
1345	.070" dia., 45°	7 oz.



7888

# GENERAL PURPOSE TOOLS

## Snap Ring Pliers



4514

### Mini Snap Ring Pliers Set (4 piece)

- Small-size pliers for work in tight areas. Service S-ring and R-ring clips, internal or external, straight or angled. Ruggedly built of heat-treated chrome molybdenum steel.
- Set includes two internal snap ring pliers (one straight, one 45°) and two external snap ring pliers (one straight, one 45°).
- All pliers have .038" (1.0mm) diameter tips.
- Overall length 3"; handle length 2".

**No. 4514** – Mini snap ring pliers set. Wt., 6 oz.



4513

### Heavy-Duty Snap Ring Pliers Set (2 piece)

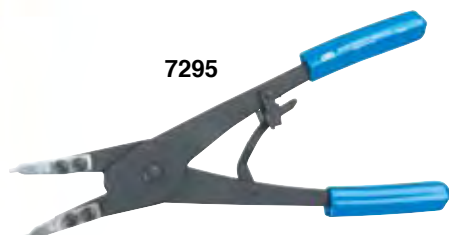
- Heat treated steel "circlip" pliers for large equipment repair. Replaceable tips and spring ratchet locking mechanism to securely hold against snap ring tension.
- Internal pliers' capacity 3-1/16" to 6-1/4" (78 mm to 159 mm) snap rings.
- External pliers' capacity 3-1/2" to 6-1/2" (89 mm to 165 mm) snap rings.
- Blow-molded storage case includes extra sets of replaceable tips.
- Overall length 16"; handle length 12-1/2".

**No. 4513** – Heavy-duty snap ring pliers set. Wt., 7 lbs., 3 oz.

#### No. 4513 includes:

Tool No.	Description
4513-1	Internal snap ring pliers
4513-2	External snap ring pliers
4513-3	(2) .12" (3 mm) straight tip
4513-4	(2) .12" (3 mm) 45° tips
4513-5	(2) .12" (3 mm) 90° tips
4513-6	4 tip retaining screws

7295



### Retaining Ring Pliers

The "squeeze-lock" ratchet action of this tool locks retaining rings in position, making removal and installation easy. It features cushioned handles to ensure a secure grip.

- Will handle rings 3/16" thick and up to 4" in diameter.
- Pliers is 12" long.

**No. 7295** – Retaining ring pliers. Wt., 1 lb., 2 oz.

**No. 211051** – Pair of replacement tips. Wt., 2 oz.

7313



### Retaining Ring Pliers

This tool removes the external retaining rings used in transmissions, differentials and other automotive components.

- Maximum spread is 1-1/16".

**No. 7313** – Retaining ring pliers, 7-3/4" long. Wt., 8 oz.



714

### Horseshoe Lock Ring Pliers

This ruggedly built pliers is designed to spread and remove horseshoe lock rings used on hydraulic brakes, differentials, transmissions, and CV joints.

- Handles are 8" long.

**No. 714** – Horseshoe lock ring pliers. Wt., 8 oz.



### Retaining Ring Pliers

An ideal tool for any transmission shop, this 13" long pliers with a maximum spread of 2.5" features replaceable tips and a spring-return handle.

**No. 7410** – Retaining ring pliers with replaceable tips.  
Wt., 1 lb., 5 oz.

**No. 214903** – Set of replacement tips. Wt., 2 oz.

7410



### Fluid Evacuation / Brake Bleeding Tools

- Use to bleed brake systems and remove a variety of fluid from vehicles, such as antifreeze, oil, transmission fluid, gear lube, etc.
- Quick connect locking hose adapters and ball-style on/off valve on hose prevent fluid leakage.
- Equipped with a relief valve to prevent over-pressurizing the tank.

**No. 8100** – Operates by shop air or a hand pump; shipped complete with a brake bleeding hose, fluid evacuation hose, and two suction hoses (6 mm and 7 mm); 10-liter capacity tank. Wt., 10 lbs.

**No. 8101** – Operates with shop air; shipped with a brake bleeding hose and fluid evacuation hose; 6-liter capacity tank. Wt., 10 lbs., 13 oz.

8101

8100



### Deluxe Metal Vacuum Pump

With this multipurpose pump, vacuum testing and brake bleeding are one-person operations. Made of die cast metal, the repairable pump will develop and hold about 25" of mercury vacuum. It comes with all the components needed to help speed you through most brake jobs.

- Includes an easy-to-read gauge (inch and mm graduations), reservoir jar, transfer and storage lids, rubber cup adapter, brake-bleeding adapters, tubing, and carrying case.

**No. 7559** – Deluxe metal vacuum pump.  
Wt., 3 lbs., 12 oz.

7559



### Vacuum / Pressure Pump Kit

- Hand pump may be set to create vacuum or pressure.
- Gauge on pump reads 0–30 in. Hg (0 to -1 BAR) vacuum; 0–60 psi (0–4 BAR) pressure.
- Includes an assortment of fittings and hoses to adapt to most components that need to be tested.
- Includes brake fluid reservoir for bleeding brake systems.

**No. 4752** – Vacuum/pressure pump kit.  
Wt., 4 lbs., 4 oz.

4752



# GENERAL PURPOSE TOOLS

## Stud, Screw Extractor & Torque Wrenches



### Combination Stud Extractor and Drill Bit Set

- Removes bolts and screws up to 5/8" diameter.
- **Set contains:**
  - Five left-handed stud extractors: 5/64", 7/64", 5/32", 1/4", and 19/64".
  - Five left-handed cobalt drill bits: 5/64", 7/64", 5/32", 1/4", and 19/64".

**No. 4545** – Combination stud extractor and drill bit set. Wt., 13 oz.



### Fingertip Ratchet Bit and Socket Kit (29 piece)

- Two fingertip ratchets (three-positions: forward, lock, reverse). One bit driver; one socket driver with quick release.
- 13-piece, 1/4" drive sockets. SAE: 1/4", 9/32", 5/16", 11/32", 3/8", 7/16". Metric: 6 mm, 7 mm, 8 mm, 9 mm, 10 mm, 12 mm, 13 mm.
- 14-piece, 4.5, 6.5 slotted bits, #1 and #2 Phillips bits TORX: T10, T15, T20, T25, T27, T30; Tamper resistant T10, T15, T20, T25.

**No. 5910** – Fingertip ratchet bit and socket kit (29 piece). Wt., 1 lb.



### Screw Extractor Set

- Removes broken studs and bolts.
- Includes ten guide bushings, five drill bits and five screw extractors with extractor nuts.
- Drill bits are left handed to help removal.

**No. 4651** – Screw extractor set. Wt., 1 lbs., 7 oz.



### Accutorq™ Klikker Torque Wrenches

These precision torque wrenches make a loud click when you've reached the torque setting. They feature ratcheting heads, all-metal construction, permanently roll-marked scales, and soft-grip rubber handles that enable you to firmly grasp the wrench for right- or left-hand torquing.

- Includes molded plastic case.
- One-year warranty.

**No. 7375** – 150–750 in. lbs. Accutorq Klikker torque wrench. Wt., 2 lbs., 8 oz.

**No. 7377** – 30–150 ft. lbs. Accutorq Klikker torque wrench. Wt., 4 lbs., 3 oz.

**No. 7378** – 50–250 ft. lbs. Accutorq Klikker torque wrench. Wt., 4 lbs., 3 oz.

**No. 7379** – 100–600 ft. lbs. Accutorq Klikker torque wrench. Wt., 14 lbs.

OTC No.	Torque Range	Graduations	Square Drive	Length	Wt. (Lbs.)
7375	150–750 in. lbs. (17–85 N·m)	10 in. lbs.	3/8"	15-1/8"	2.8
7377	30–150 ft. lbs. (41–203 N·m)	2 ft. lbs.	1/2"	17-3/4"	4.2
7378	50–250 ft. lbs. (68–339 N·m)	2 ft. lbs.	1/2"	19-3/8"	4.2
7379	100–600 ft. lbs. (136–813 N·m)	10 ft. lbs.	3/4"	42-1/4"	14

### Torque Multipliers

These 4:1 ratio torque multipliers provide the power to tighten threaded fasteners in a number of truck and tractor repair operations.

**No. 5073** – 1,000 lb. capacity torque multiplier. Has 1/2" square drive and 3/4" square drive output. Includes 14" extension handle. Wt., 7 lbs.

**No. 5074** – 2,000 lb. capacity torque multiplier. Has 3/4" square drive and 1" square drive output. Includes 18" extension handle. Wt., 14 lbs.



### Accutorq™ Dial Torque Wrench

This torque wrench features a large, easy-to-read dial scale with memory needle, and has chrome-plated steel surrounding the bezel to protect the scale, lens, and needle.

- Meets all federal specifications.
- Includes molded plastic case.
- One-year warranty.

**No. 7380** – Accutorq™ dial torque wrench. Wt., 1 lb., 12 oz.



OTC No.	Torque Range	Graduations	Square Drive	Length	Wt. (Lbs.)
7380	0-150 in. lbs. (0-17 N·m)	3 in. lbs.	3/8"	10"	1.7

### Torque Angle Meter

This meter simply connects to any standard 1/2" socket extension and measures angle rotation, electronically! Clip unit to socket extension and enter desired angle. No support arm to connect between each fastener, fast and accurate to use. Unit will beep and flash when desired angle is reached. 0-199 degree capability, +/- 1% accuracy.

**No. 3559** – Torque angle meter. Wt., 11 oz.

3559



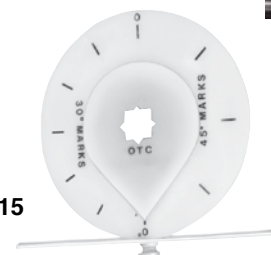
### Torque Angle Gauge

Many manufacturers specify a torque angle procedure for tightening fasteners and head bolts because it helps ensure more accurate tightening. This torque angle gauge, featuring an easy-to-read gauge, will provide a precise reading.

- Accommodates a 1/2" drive torque wrench.

**No. 7415** – Torque angle gauge. Wt., 2 oz.

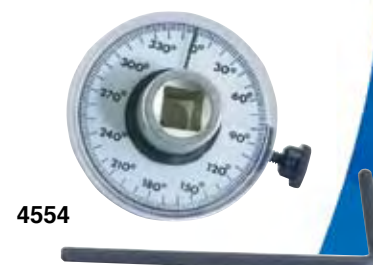
7415



### Torque Angle Gauge

- Required when servicing many late model engines that use torque-to-yield fasteners. Measures angle of rotation after pre-torque in torque-angle applications.
- The 360° scale is marked in 2° increments and intervals of 10° and 30°; easily zeroed for next application by turning the tool housing.
- Has 1/2" male and female square drives.

**No. 4554** – Torque angle gauge. Wt., 6 oz.

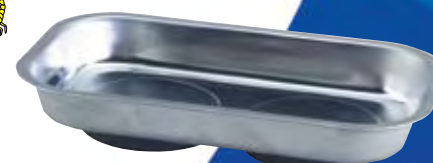


4554

### Magnetic Parts Tray

- Rectangular, stainless steel tray is 9-1/2" x 5-1/2" and 1-1/4" deep. Holds tools and small metal parts, so they don't get lost or misplaced during repair work.
- Two heavy-duty magnets on bottom of tray, with non-marring contact pads, securely hold tray to metal objects such as a tool box, air cleaner cover, frame rail, fender, etc.

**No. 4490** – Magnetic parts tray. Wt., 1 lb., 11 oz.



4490



# GENERAL PURPOSE TOOLS

## Radio Service Tools



### Air Bag Release Tool Kit

- Use to remove the air bag module from the steering wheel.
- Work on many GM, Ford and Mercedes Benz vehicles.

Applications:

Ford 2000-2004 Taurus/Sable, 1999-2003 Windstar Van.

GM 1999-2005 Chevrolet Impala, Lumina, Monte Carlo, Venture, Pontiac Bonneville, Grand Prix, Montana, Buick LeSabre, Century, Regal, Olds Intrigue, Cadillac El Dorado, Deville, STS, SLS.

Mercedes Benz Models 107,123, 124, 126, 129, 140, 163, 164, 170, 201, 202, 203, 208, 209, 210, 211, 215, 219, 220, 221 and 463.

**No. 5945** – Air bag release tool kit. Wt., 2 lbs.



### Deluxe Radio and Antenna Service Kit

- Eleven-piece kit in molded case.
- Universal antenna wrench.
- Ford radio removal tool.
- Deep sockets to remove and install the tamper-proof radio nuts from many GM, Chrysler, and other aftermarket radios.
- Antenna nut sockets cover most import and domestic antenna nuts.

**No. 4711** – Radio and antenna kit. Wt., 1 lbs., 13 oz.



### Euro Radio Removal Tool Kit

- Includes the popular tools needed to remove the radio from the dash on the following European vehicles: BMW, VW, Audi, and Mercedes-Benz.
- Easily removes the radio without damaging the radio or the dash panel.

**No. 4712** – Euro radio removal tool kit. Wt., 13 oz.



### Deluxe European Radio Tool Set

- 18-piece set of tools used to remove radios on most European vehicles sold in the U.S. and Europe.
- Quickly and easily removes the radio from the dash without damage to the radio or dash.

#### Replacement Parts

Part No.	Description	Application
4715-1	Removal Keys (4 pieces)	Audi, Becker, Mercedes-Benz, VW
4715-2	Removal Keys (2 pieces)	Becker, Mercedes-Benz, Porsche
4715-3	Removal Keys (2 pieces)	VW
4715-4	Removal Keys (2 pieces)	Skoda
4715-5	Removal Keys (2 pieces)	Becker
4715-6	Pentagon Wrench	BMW
4715-7	Bent U-hook (2 pieces)	Blaupunkt
4715-8	U-hook (2 pieces)	Audi, Blaupunkt, Ford, Grundig, VW
4715-9	Allen Hex Wrench	BMW, Opel

**No. 4715** – Deluxe European radio tool set. Wt., 1 lbs., 3 oz.



Similar to  
SA9148B

### Saturn Window Glass Socket

This specially designed socket enables you to easily remove the tricky fasteners that Saturn uses to hold window glass to the regulator in its car doors. Our tool won't cause the damage that often results from makeshift methods.

- For use on 1991 to current models.
- Accommodates a 3/8" drive ratchet and extension.

**No. 7827** – Saturn window glass socket. Wt., 3 oz.

### Mercedes-Benz Dashboard Service Tool Kit

- 8-piece tool kit contains:
- (2) removal tools for ignition lock on model W126.
- (2) removal tools for ignition locks on models W124 & W201.
- (2) removal hooks for instrument cluster on models W107, W116, W123, W124, W126, W140, and W201.
- (2) radio removal tools on models W129, W140, W202, and W210.
- Covers virtually all Mercedes-Benz models since 1992.

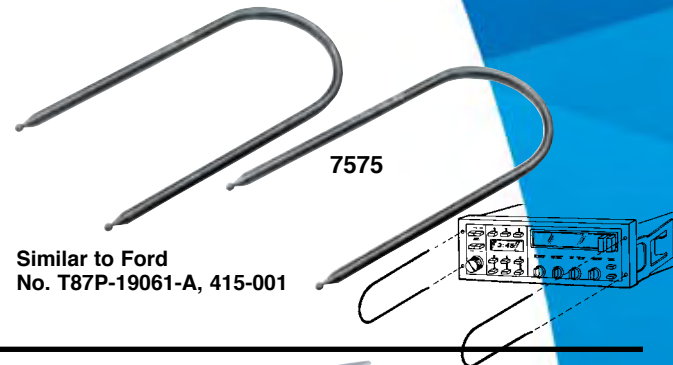
**No. 6711** – Mercedes-Benz dashboard service tool kit. Wt., 10 oz.



### Ford Radio Removal Tool Kit

These dual-purpose tools release the retaining clips of a radio faceplate so you can pull the radio from the instrument panel. For use on 1987 to current Mustang; 1988 and newer Tempo/Topaz; 1989 to current Lincoln Continental; 1990 to current Taurus/Sable, Ranger/Bronco II, Probe, Lincoln Town Car, Mark VII, Crown Victoria/ Grand Marquis, Thunderbird/ Cougar, F-series pickups and E-series vans; 1991 to current Explorer; 1995 to 2003 Windstar.

**No. 7575** – Ford radio removal tool kit. Wt., 2 oz.



### Hose Pinch-off Pliers Set (3 piece)

- Shuts off flow through vacuum, fuel, and coolant lines, etc.
- Cocking ratchet mechanism holds pivoting jaws tightly in place. Heavy-duty swivel jaws pivot to ensure parallel pinching.
- These three tools are available separately:  
**No. 4510-8** – 8" tool for small hoses and tight areas  
**No. 4510-10** – 10" tool for radiator and vacuum lines  
**No. 4510-12** – 12" tool for radiator and vacuum lines

**No. 4510** – Set of three pinch-off pliers. Wt., 2 lbs., 11 oz.



### Hose Cutter – “Guillotine”

- Hooks and cuts plastic lines and rubber hoses from 1/8" to 1" diameter. Simply hook hose in V-shaped end, and squeeze handle to cut. Compound mechanical leverage provides power. Spring-loaded blade returns to open position after use, so blade is not exposed.
- Linear design hook reaches and cuts hoses in tight areas.
- Replacement steel cutter blade No. 4511-1 is available.

**No. 4511** – Hose cutter tool. Wt., 8 oz.

**No. 4511-1** – Replacement blades. Wt., 2 oz..



### Straight-Blade Hose Cutter

- Cuts rubber hoses ranging from 1/4" to 1-1/2".
- Simply place hose in tool and squeeze handle to cut.
- Replacement steel cutter blade No. 4509-1 is available.

**No. 4509** – Straight blade hose cutter. Wt., 5 oz.



### Rubber Hose Pinch-off Pliers

These pliers keep rubber fuel and water lines clamped tightly when you're servicing engine components. The grip pads provide a damage-free method of shutting off flow without having to drain the hoses. Pivoting jaws and locking ratchet provide a tight grip in just about any position.

**No. 7655** – Hose pinch-off pliers. Wt., 13 oz.



# GENERAL PURPOSE TOOLS

## Pliers, Crimpers & Puller



4493

### Angle-Tip Relay Pliers

- Designed to remove and install relays, which are usually located in confined, hard-to-reach areas.
- Specially coated tips offer a solid grip on the relay.

**No. 4493** – Angle-tip relay pliers. Wt., 10 oz.



4497

### Ratcheting Terminal Crimper

- Heavy-gauge steel crimping tool designed for insulated wire terminals.
- Ratcheting action crimps terminal to correct tightness on the wire, making crimping fast and easy.
- For wire sizes: AWG 22–18 (0.6 mm–1.0 mm) red terminal; AWG 16–14 (1.3 mm–1.6 mm) blue terminal; AWG 12–10 (2.0 mm–2.6 mm) yellow terminal.
- Insulated handles with compound mechanical leverage for power.

**No. 4497** – Ratcheting terminal crimper. Wt., 1 lb., 3 oz.



4498

### 7-in-1 Wire Stripper and Crimper

- Strips insulation off electrical wires ranging from 10 AWG–22 AWG (0.6mm–2.6mm) in diameter. Pliers on tip of jaw for looping or grabbing wire in tight places.
- Heat-treated steel jaws cut solid or multi-strand wire.
- Screw cutter shears screws clean, with no thread clean-up required. Works on machine screw sizes 4-40, 5-40, 6-32, 8-32, 10-24, and 10-32.
- Crimps insulated and non-insulated wire terminals, 7mm–8mm spark plug wire connectors.

**No. 4498** – 7-in-1 wire stripper and crimper. Wt., 8 oz.



4499

### Wire Stripper and Cutter

- Only 6" in length. Clean size separations and markings allow ease of use in tight areas.
- Strips insulation off of electrical wires ranging from 10 AWG–22 AWG (0.6mm–2.6mm) in diameter. Heat-treated steel construction with durable grips.
- Spring-loaded jaws stay open for ease of use, and lock for storage; gripping area at tip of jaws for working in tight areas; wire cutter at base of jaws.

**No. 4499** – Wire stripper and cutter. Wt., 5 oz.



4611

### Battery Terminal Puller

- Designed to remove the battery cable clamp from the post without causing damage to the battery.
- Spring-loaded sharp jaws get under the clamp for a secure grip.

**No. 4611** – Battery terminal puller. Wt., 14 oz.



### 3-Way Battery Post Cleaner

- Steel blades quickly clean top-post battery terminals and cable clamps; cleaners are marked "positive" and "negative."
- Ream is tapered to clean both positive and negative battery cable clamps.

**No. 4612** – 3-Way battery post cleaner. Wt., 6 oz.



### Battery Pliers

- Serrated jaws firmly grip the battery terminal nut or bolt.
- Offset handles allow access in hard-to-reach areas.
- Works on both top-post and side-post battery terminals.

**No. 4613** – Battery pliers. Wt., 10 oz.



### Side Terminal Battery Wrench

- Designed for use on GM side-terminal batteries, or any 5/16" hex head battery bolt.
- 5/16", 6 point, box end, 5-1/2" long, ratcheting wrench; insulated handle.

**No. 4614** – Side-terminal battery wrench. Wt., 5 oz.



### Long-Side Terminal Battery Wrench

- Designed for use on GM side-terminal batteries, or any 5/16" hex head battery bolt.
- Long handle allows access to hard-to-reach battery terminal bolts.
- 5/16", 6 point, box end, 10" long, ratcheting wrench; insulated handle.

**No. 4615** – Long-side terminal battery wrench. Wt., 8 oz.



### Battery Terminal Wrench – 10mm

- Designed for use on 10 mm battery terminal bolts found on many import and domestic vehicles.
- 10 mm, 12 pt., box-end ratcheting wrench; 5-1/2" long with insulated handle.

**No. 4616** – Battery terminal wrench - 10 mm. Wt., 3 oz.



### Side Terminal Battery Brush

- Designed to clean corrosion from side post batteries.
- One brush used to clean battery terminals; other brush used to clean battery cable ends.
- Plastic handle resists battery acid.

**No. 4617** – Side terminal battery brush. Wt., 3 oz.



# GENERAL PURPOSE TOOLS

## Battery Service



4618

### Battery Brush

- Cleans dirt and corrosion from positive and negative battery posts and cable clamps.
- Plastic case resists battery acid and most cleaning solvents.

**No. 4618** – Battery brush. Wt., 3 oz.



4620

### Battery Carrier

- Use to lift and install most top post and side terminal batteries.
- Designed to transfer lifting force to a secure hold on the battery; teeth on jaws offer a secure grip.
- Vinyl strap resists battery acid and will not conduct electricity.

**No. 4620** – Battery carrier. Wt., 14 oz.



4619

### Professional Battery Hydrometer

- Displays a battery's specific gravity on an easy-to-read float; scale ranges from 1.100 to 1.300.
- Thermometer indicates what must be added or subtracted from the float reading to arrive at an accurate specific gravity reading for each battery cell.
- Flexible tip offers easy access to the battery cells while the battery is still in the vehicle.

**No. 4619** – Professional battery hydrometer. Wt., 6 oz.



4621

### Two-Liter Battery Filler

- Replenish battery water the easy way! The fill nozzle on this container has an automatic shut-off that prevents overfilling; the handle on the side of the container makes the job a snap. Container holds up to two liters of distilled water.

**No. 4621** – Two-liter battery filler. Wt., 1 lb.



4622

### Battery Cable Cutter

- Designed to cut copper battery cable and aluminum electrical cable. **IMPORTANT:** Do not cut steel cable; damage to blades will occur.
- Precision-ground cutting blades provide a clean, square cut.
- 7" long handle gives extra leverage when cutting thick cable.

**No. 4622** – Battery cable cutter. Wt., 1 lb. 2 oz.



4689

### Ford Headlamp Alignment Tool

- Use to adjust aerodynamic headlamps with rear mounted adjuster on Fords.
- 4 mm hex with one-way roller clutch for precise adjustments.
- Long, ratcheting handle for easy access.

**No. 4689** – Ford headlamp alignment tool. Wt., 7 oz.



### Ford Mirror Removal Tool

Save shop labor time and cost by allowing mirror to be removed without damaging or removing the mirror assembly.

#### Works on these outside door mirrors:

- 1997–2002 Windstar
- 1998–2004 Crown Vic, Grand Marq, Marauder, Taurus, Sable, Mustang, Town Car
- 1999–2004 Ranger, Excursion, Super Crew (F-250–F-550), F-650, F-750
- 2001–2004 Escape
- 2002–2004 Thunderbird
- 1996–2004 Explorer
- 1997–2004 Mountaineer
- 1998–2004 Expedition, Navigator, F-150
- 1999–2004 E-Series van
- 2000–2004 LS
- 2001–2004 Explorer Sport, Explorer Sport Trac
- 2003–2004 Aviator
- 1999–2004 Dual arm mirror used on Excursion, Super Crew (F-250–F-550), F-650, F-750
- Also works on 1999 and newer Ford interior / rearview mirrors that have the detachable (screwless) mount.



8200

**No. 8200** – Ford mirror removal tool. Wt., 4 oz.

### Gland Nut Wrench

This wrench is fully adjustable to fit hydraulic cylinders on vehicles having gland nuts from 1" to 3-3/4" in diameter. It also reverses to work on either 1/4" or 7/32" pinholes.

- Accommodates a 1/2" drive ratchet.

**No. 7463** – Gland nut wrench. Wt., 10 oz.

**No. 215128** – Replacement pin. Wt., 1 oz.



7463

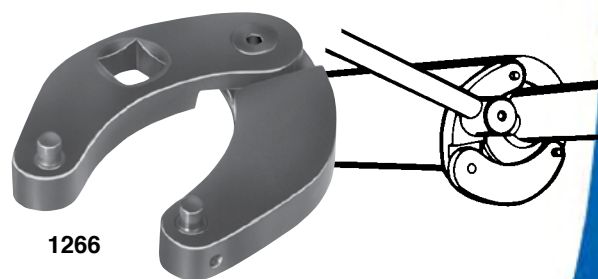
### Adjustable Gland Nut Wrench

Here's a wrench designed to fit hydraulic cylinders on most farm and construction equipment. It fits gland nuts from 2" to 6" diameter pin to pin. And it's reversible to fit 1/4" and 5/16" diameter pinholes.

- Accommodates a 3/4" drive ratchet or breaker bar.

**No. 1266** – Adjustable gland nut wrench. Wt., 2 lbs., 3 oz.

**No. 204928** – Replacement pin. Wt., 1 oz.



1266

### Euro Door Handle Kit

- This kit contains the tools needed to service most door hinges and door handles on Audi, Mercedes-Benz, Porsche, and Volkswagen vehicles.
- Kit includes: A ratchet wrench with three 12-point bits (4 mm, 8 mm, 10 mm), one T40 and one T45 TORX® bit; a T30 TORX® long handled driver; and a T20 TORX® T-handle driver.
- T30 driver, 14" long; T20 driver, 9-1/2" long; hex ratchet, 9-1/2" long.

**No. 6785** – Euro door handle kit. Wt., 15 oz.



6785



# GENERAL PURPOSE TOOLS

## Punch & Misc. Tools



### Spot Weld Cutter Set

- Use with electric drill or air drill to cut 5/16" and 3/8" spot welds.
- Cutter bits have cutting teeth on each end.
- Replacement kit No. 4485-1 consists of (3) 5/16" cutter bits; (3) 3/8" cutter bits; and (4) centering tips.

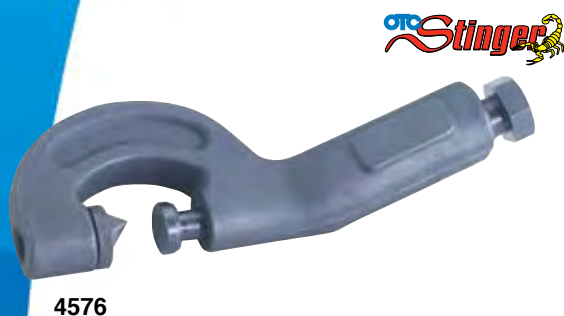
**No. 4485** – Spot weld cutter set. Wt., 5 oz.



### Exhaust Hanger Pliers

Many cars and trucks have rubber blocks supporting their exhaust system hanger brackets. These pliers will enable you to quickly and easily remove those push-through brackets from their hangers. These pliers feature a two-position slip joint for use on many sizes of hanger blocks.

**No. 7677** – Exhaust hanger pliers. Wt., 1 lb., 5 oz.



### Universal C-Frame Nut Splitter

- Forged and heat-treated frame with offset handle works where ordinary nut splitters may fail. Smooth action cracks nuts without damaging bolt threads.
- Chisel rotates to line up parallel to bolt. Splits non-heat-treated nuts of 7/16" (11 mm) through 3/4" (19 mm) diameter. Tool is 6-3/4" in length.

**No. 4576** – Universal C-frame nut splitter. Wt., 1 lb., 8 oz.



### Punch and Chisel Set (16 piece)

- Durable set of heat-treated chrome vanadium steel punches and chisels. Storage tray included.

Contents of set, available separately:

- 3 – Cold chisels (with gauge): 3/8" x 5-1/2"; 1/2" x 6"; 5/8" x 6-1/2"
- 2 – Center punches: 1/8" x 5"; 3/16" x 6"
- 5 – Pin punches: 3/32" x 4-1/4"; 1/8" x 4-3/4"; 5/32" x 5"; 3/16" x 5-1/4"; 1/4" x 5-3/4"
- 5 – Taper punches: 3/32" x 5-1/4"; 1/8" x 5-3/4"; 5/32" x 6"; 3/16" x 6-1/4"; 1/4" x 6-3/4"
- 1 – Chisel gauge

**No. 4600** – Punch and chisel set (16 piece). Wt., 2 lbs., 11 oz.



### Brass Punch Set (2 piece)

- Two large, brass non-sparking punches. Ideal for use near precision parts or in locations where sparks from ferrous metal could be hazardous.
- Includes an 8" punch (5/8" hex, tapered to 3/8") and 10" straight punch (3/4" dia., chamfered at both ends).

**No. 4602** – Brass punch set. Wt., 2 lbs., 3 oz.

# GENERAL PURPOSE TOOLS

## Chisel & Punch Sets, Steering Wheel Holder

### Steering Wheel Holder & Pedal Depressor Kit



- This kit has two applications: 1) holds steering wheel in position for alignment adjustments, and 2) depresses brake pedal for various brake checks, including brake lamp operation.
- Rod easily slides in actuator for fast, easy installation of tool on brake pedal or steering wheel. Simply hand squeeze the actuator to accomplish fine adjustments.
- Kit includes: actuator assembly; extension rod for actuator (use when depressing brake pedal); hook assembly (hooks on steering wheel when depressing brake pedal or holding steering wheel); and flat pad (rests on front seal when holding steering wheel).

**No. 4546** – Steering wheel holder and pedal depressor kit.  
Wt., 5 lbs., 2 oz.

**4546-1** – Handle and Rod. Wt., 2 lbs.

**4546-2** – Steering wheel and pedal holder.  
Wt., 2 lbs., 3 oz.



### Interchangeable Punch and Chisel Set



- Handle allows easy grip and protects hand from being hit by hammer.
- 12 punches and chisels:
  - 1 cape chisel: 1/4" wide blade
  - 5 flat chisels: 1/2", 5/8", 3/4", 7/8", and 1" wide blades
  - 2 taper punches: 1/8" and 1/4" diameter
  - 2 pin punches: 3/16" and 1/4" diameter
  - 2 center punches: 1/8" and 3/16" diameter
- Double-locking ball detent holds punch or chisel securely in the driver handle.

**No. 4605** – Interchangeable punch and chisel set.  
Wt., 4 lbs., 7 oz.



### Interchangeable Autobody Forming and Punch Kit



Includes:

- 4605-1** – Drive handle
- 4756-1** – Small curve tool
- 4756-2** – Cross curve tool
- 4756-3** – Rounded ball-peen tool
- 4756-4** – One-sided flat blade tool
- 4756-5** – Curve blade tool
- 4756-6** – Pointed ball-peen tool
- 4756-7** – Angle face tool
- 4756-8** – Flat blade tool
- 4756-9** – Square face tool
- 4756-10** – Angle groove tool
- 4756-11** – Round face tool

**No. 4756** – Interchangeable autobody forming and punch kit.  
Wt., 4 lbs., 13 oz.



# GENERAL PURPOSE TOOLS

## Drivers & Misc. Tools



4608

### Impact Drivers

- Loosens hard-to-turn screws, bolts or nuts.
- Handle design prevents possibility of hitting hand with hammer when striking impact driver.
- Bit holder has 3/8" drive (No. 4608), 1/2" (No. 4607) drive, and 5/16" hex for Phillips and flat screwdriver bits.
- Includes eight screwdriver bits:
  - No. 2 Phillips bit, 1-3/8" long with 5/16" hex
  - No. 2 Phillips bit, 3-1/8" long with 5/16" hex
  - No. 3 Phillips bit, 1-3/8" long with 5/16" hex
  - No. 3 Phillips bit, 3-1/8" long with 5/16" hex
  - 5/16" wide x 1-3/8" long with 5/16" hex slotted bit
  - 5/16" wide x 3-1/8" long with 5/16" hex slotted bit
  - 3/8" wide x 1-3/8" long with 5/16" hex slotted bit
  - 3/8" wide x 3-1/8" long with 5/16" hex slotted bit

**No. 4607** – 1/2" impact driver. Wt., 2 lbs., 4 oz.

**No. 4608** – 3/8" impact driver. Wt., 2 lbs., 4 oz.

4606



### Brass Hammer and Punch Set

- Brass-head hammer and punches are ideal to use where sparks from ferrous metals would be hazardous, or where precision metal parts could be damaged by steel tools.
- Hammer head weighs 24 oz.; brass drift punch is 10" x 3/4" diameter; brass tapered punch is 8" x 5/8" hex tapered to 3/8" diameter point.

**No. 4606** – Brass hammer and punch set.

Wt., 4 lbs., 2 oz.



4489

### Trim Fastener and Molding Removal Set

- Set includes five different sizes and styles of tools that allow easy removal of trim fasteners, moldings, and wheel hubs.
- Tools are made of plastic to prevent damage to trim, moldings, alloy wheels, or vehicle paint.
- Can be used on trim fasteners and moldings inside, or outside, the vehicle.

**No. 4489** – Trim fastener and molding removal set. Wt., 13 oz.



6789

### Mercedes-Benz Molding Removal Kit

- 3-piece kit designed to save time for the shop when servicing M-B vehicle interiors.
- Works on/in virtually all Mercedes-Benz.
- No. 6789 along with the No. 4489 set cover most vehicle interiors on the road today.

**No. 6789** – Mercedes-Benz molding removal kit. Wt., 12 oz.



### 5-Piece E-Clip Tool Set

- Dual operation tool: one end of tool releases e-clip; other end of tool installs e-clip.
- Tools fit four sizes of e-clips: 6 mm, 7 mm, 8 mm, and 9 mm.
- Each tool easily locks into handle provided.

**No. 4492** – 5-piece E-clip tool set. Wt., 10 oz.



### Door Panel & Upholstery Tool Set

Heavy-duty door panel and upholstery tools:

**No. 4549-1** – removes window and door handle clips, and upholstery tucking.

**No. 4549-2** – V-notched door panel clip removal tool.

**No. 4549-3** – U-notched door panel clip removal tool.

**No. 4549** – Door panel and upholstery tool set – 3-piece. Wt., 1 lb.



### Small Door Panel & Upholstery Tool Set

Heavy-duty tools with stainless steel blades used for removing small door panels and upholstery clips:

**No. 4551-1** – U-notched tool

**No. 4551-2** – V-notched tool

**No. 4551** – Small door panel and upholstery tool set. Wt., 8 oz.



### Putty Knife Set

Heavy-duty stainless steel, precision ground, and polished. Blades taper at tip to provide great flexibility and blade action. Ergonomic, two-component plastic handles provide a non-slip grip.

- Packaged in a storage tray. Includes three flexible blade knives: 1-1/4", 2", and 3".

**No. 4552-1** – Large putty knife.

**No. 4552-2** – Medium putty knife.

**No. 4552-3** – Small putty knife.

**No. 4552** – Putty knife set. Wt., 13 oz.



### Scraper Set

Scrapers feature polished, heat-treated, stiff, stainless steel blades. Handles are ergonomic two-component plastic and feature a non-slip grip and steel bolstered end.

- Packaged in a storage tray. Includes: 1-1/4" straight blade, 1-1/4" bent blade, and 2" straight blade.

**No. 4550-1** – Medium scraper.

**No. 4550-2** – Small scraper.

**No. 4550-3** – Angled scraper.

**No. 4550** – Scraper set. Wt., 1 lb., 2 oz.

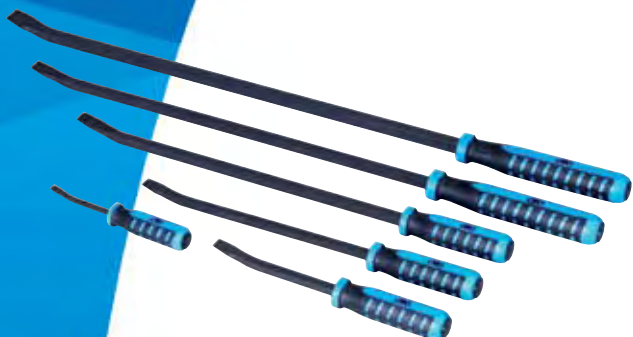


# GENERAL PURPOSE TOOLS

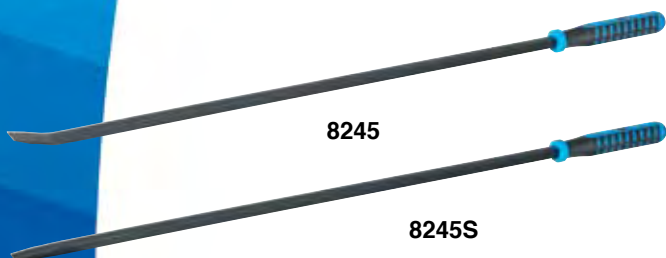
## Prying Tools



8203



8206



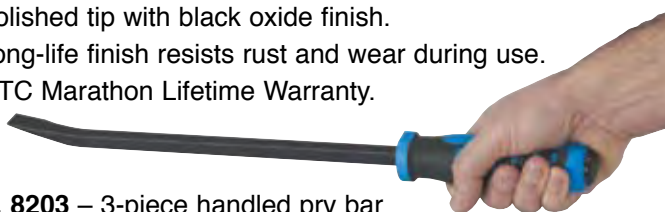
8245

8245S

### Handled Pry Bars

**Finally, a heavy-duty pry bar made of tempered square steel that you can hit without damaging the handle.**

- Black chrome striking cap allows hitting the bar without damage to the handle.
- Ergonomic handle – dual durometer composite handle for user comfort; reduces hand fatigue.
- Polished tip with black oxide finish.
- Long-life finish resists rust and wear during use.
- OTC Marathon Lifetime Warranty.



**No. 8203** – 3-piece handled pry bar set in gray molded tray. Includes 12", 18", and 24" sizes. Wt., 3 lbs.

**No. 8206** – 6-piece handled pry bar set in gray molded tray. Includes 8", 12", 18", 24", 32" and 36" sizes. Wt., 6 lbs., 10 oz.

**No. 8208** – 8" handled pry bar. Wt., 8 oz.

**No. 8212** – 12" handled pry bar. Wt., 10 oz.

**No. 8218** – 18" handled pry bar. Wt., 1 lb.

**No. 8224** – 24" handled pry bar. Wt., 1 lbs., 4 oz.

**No. 8232** – 32" handled pry bar. Wt., 1 lbs., 12 oz.

**No. 8236** – 36" handled pry bar. Wt., 2 lbs., 2 oz.

**No. 8245** – 45" handled pry bar. Wt., 5 lbs.

**No. 8245S** – 45" handled pry bar with straight blade. Wt., 5 lbs.

### Jimmy Bars

We've forged these bars from chrome alloy steel, then heat-treated them to resist bending and breaking.

**No. 7166** – 5/8" diameter, 18" long. Wt., 1 lb., 8 oz.

**No. 7167** – 3/4" diameter, 24" long. Wt., 2 lbs., 10 oz.

**No. 7168** – 7/8" diameter, 30" long. Wt., 4 lbs., 7 oz.

**No. 7420** – 7/8" diameter, 46" long. Wt., 8 lbs.

**No. 7421** – 1" diameter, 54" long. Wt., 11 lbs., 3 oz.



# GENERAL PURPOSE TOOLS

## Pry Bars, Picks and Magnets

### Rolling Head Pry Bars

You'll have a lot of leverage using one of these rolling head pry bars. The long, tapered body will also serve as an aligning drift.

**No. 7162** – Pry bar; 6" long. Wt., 3 oz.

**No. 7163** – Pry bar; 12" long. Wt., 10 oz.

**No. 7164** – Pry bar; 16" long. Wt., 1 lb., 8 oz.

**No. 7165** – Pry bar; 18" long. Wt., 2 lbs., 7 oz.



### Pry Pac

Three pry bars in one economical pack. You get 12" and 18" rolling head pry bars and a 24" jimmy bar.

- Heat-treated chrome alloy steel.

**No. 7171** – Pry pac. Wt., 6 lbs., 13 oz.



7171

### Mini Pick and Hook Set – 4-Piece

- Sturdy stainless steel points and shafts designed for marking, removing o-rings, accessing snap rings, and performing other tasks. Assorted angle tips allow you to reach awkward locations.

- Knurled shaft design enhances finger control for delicate jobs.

**No. 4515** – Mini pick and hook set. Wt., 5 oz.



4515

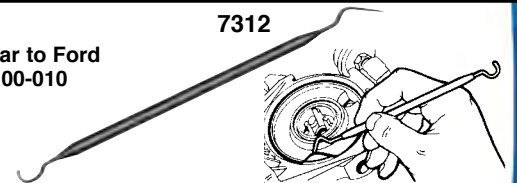
### O-Ring / Oil Seal Pick

Here's an extremely handy tool that makes quick work of oil seal and o-ring removal and installation.

**No. 7312** – O-ring/oil seal pick. Wt., 2 oz.

Similar to Ford  
No. 100-010

7312



### O-Ring / Oil Seal Pick Set

Fishing a stubborn o-ring or oil seal out of its seat is easy if you have this pair of picks in your toolbox.

**No. 7103** – O-ring/oil seal pick set. Wt., 7 oz.



7103

### Mirror and Magnet Set

- Handles telescope from 6-1/2" to 25". Swivel heads allow access to tight areas.

- Large, rectangular swivel mirror is 2" x 3-1/2", and is attached to one telescoping handle; small mirror is 1-1/4" in diameter, and is interchangeable with magnets on the other handle.

- Magnets can lift up to 8 lbs.

**No. 4650** – Mirror and magnet set. Wt., 13 oz.

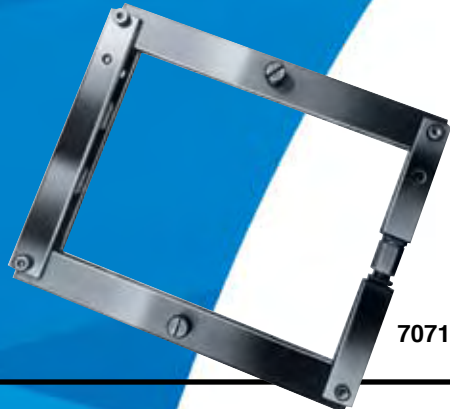


4650



# GENERAL PURPOSE TOOLS

## Misc. Tools

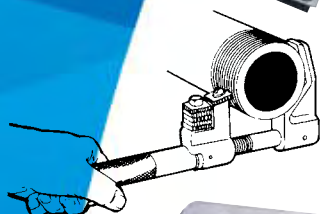
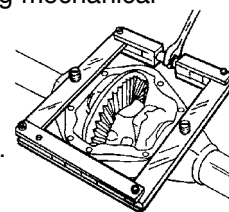


7071

### Differential Housing Spreader

Here's a tool that eases the job of removing or installing differential ring-gear assemblies on Dana axle models 30 through 70. It's a heavy-duty device using mechanical screw power to spread the housing. It helps prevent the component damage that often results from the use of homemade devices.

**No. 7071** – Differential housing spreader. Wt., 34 lbs.



7402

### Universal Outside Thread Chaser

Damaged bolt or nut threads can be an annoying, costly problem—unless you have one of our thread chasers. It will quickly restore threads to near original condition without the use of expensive thread-cutting equipment.

- Replaceable V-pads and dies.
- 1-1/4" to 5" O.D.

**No. 7402** – Thread chaser with 6 dies: threads per inch - 4, 5, 6, 7, 7-1/2, 8, 9, 10, 11, 11-1/2, 12, 14, 16, 18, 20, and 24. Wt., 2 lbs., 13 oz.

**No. 216884** – Standard die set. Includes 6 dies, in the sizes listed above. Wt., 3 oz.

**No. 202817** – Metric die set. Includes three dies: 1 mm-1.25 mm-1.5 mm-1.75 mm, 2 mm-2.5 mm-3.0 mm-3.5 mm; 4 mm pitch dies. Wt., 3 oz.

**No. 206803** – V-pad. Wt., 10 oz.

OTC No.	Size	Fits Set Screws	Fits HH Cap Screws
7345*	1/16"	6	—
7346*	5/64"	8	—
7347*	3/32"	10 & 12	—
7348*	1/8"	1/4"	8
7349*	5/32"	5/16"	10
7350*	3/16"	3/8"	1/4"
7351*	7/32"	7/16"	5/16"
7352*	1/4"	1/2"	3/8"
7353*	5/16"	5/8"	3/8" & 7/16"
7354*	3/8"	3/4"	1/2"
7355†	7/16"	13/16"	9/16"
7356†	1/2"	7/8"	5/8"
7357†	9/16"	1" & 1-1/8"	3/4"
7358†	5/8"	1-1/4" & 1-3/8"	1"
7359†	3/4"	1-1/2"	1-1/8" & 1-1/4"
7360†	1"	1-3/4" & 2"	1-1/2"

\* Included in No. 7365 set.

† Available separately; not included in set.



### Hex Key Wrenches

Allen head cap screws are everywhere, which makes a set of these wrenches a necessity.

- They're extra long for added leverage and accessibility.
- Meets ANSI specs.

**No. 7365** – Plastic pouch containing wrench Nos. 7345 through 7354. Wt., 15 oz.

7365

7334



OTC No.	Size (mm)
7321*	1.5
7322*	2
7323*	2.5
7324*	3
7325*	4
7326*	5
7327*	6
7328*	8
7329*	10
7330†	12
7331†	14
7332†	17
7333†	19

\* Included in No. 7334 set.

† Available separately; not included in set.

### Metric Hex Key Wrench Set

These long-arm hex key wrenches provide added leverage and accessibility.

- Rust-resistant black oxide finish.
- There are 9 sizes, from 1.5 mm to 10 mm.
- Available separately: 12 mm, 14 mm, 17 mm, and 19 mm.

**No. 7334** – Metric hex key set in plastic pouch. Sizes: 1.5 mm, 2 mm, 2.5 mm, 3 mm, 4 mm, 5 mm, 6 mm, 8 mm, and 10 mm. Wt., 15 oz.

### Windshield Wiper Puller

- Removes wiper arms on many foreign and domestic cars and light trucks.
- Will not damage wiper arm or hood cowling during removal.
- Simply place puller feet under wiper arm and tighten forcing screw against wiper shaft.

**No. 4676** – Windshield wiper puller. Wt., 4 oz.



4676

### Metric/SAE T-Handle Motorcycle Kit

- 7-piece metric tool kit with ball point and hex key ends for motorcycles, autos, and diesel trucks contains adapters: 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 4.0 mm, 5.0 mm, 6.0 mm, and one driver handle/holder.
- 7-piece standard tool kit with ball point and hex key ends for motorcycles, autos, and diesel trucks contains adapters: 1/16", 5/64", 3/32", 1/8", 5/32", 3/16", 1/4", and one driver handle/holder.
- Combines low-torque handle with key storage!

**No. 4710** – Metric/SAE T-handle motorcycle kit. Wt., 15 oz.



4710

### Motorcycle / ATV Chain Tension Puller

- Tool is designed to work on drive chains found on motorcycles and all-terrain vehicles (ATVs). Fits the following size chains: 428, 520, 525, 528, and 530.
- Tool jaws fit in chain link ends. Tightening the forcing screw pulls the jaws together to hold the chain for easy removal or installation of the chain connector or master link.

**No. 4758** – Motorcycle/ATV chain tension puller. Wt., 13 oz.



4758

### Universal Pulley Holder

- Universal design fits many different size pulleys having slots or holes, such as camshaft pulleys or crankshaft pulleys.
- Wrench is adjustable from 1-1/2" to 8-5/8"; four different size step pins are interchangeable.
- Long handle enables technician to easily hold the pulley when tightening or loosening retaining bolts.

**No. 4754** – Universal pulley holder. Wt., 4 lbs., 15 oz.



4754

# GENERAL PURPOSE TOOLS

## Pullers & Wrenches



6676

### Heavy-Duty Wiper Arm Puller

- Designed to remove aluminum wiper arm from the steel stud that often galvanizes, locking the arm and stud together.
- Investment cast design is strong, easier to use, and saves time.
- Live center and more precise alignment save labor. Works on these and many other vehicles: Jeep Liberty, Grand Cherokee, Dodge Caravan, Stratus, Ram Diesels, Dakota & PT Cruiser, Chrysler LHS, Town & Country, Saturn Vue Buick Rendevous, Cadillac CTS, Ford Focus, Ford Windstar, Honda Civic, Odyssey Toyota Camry.

**No. 6676** – Heavy-duty wiper arm puller. Wt., 12 oz.



6613

### Variable Pin Spanner Wrench

- Universal design fits many different types of pulleys having slots or holes, including camshaft pulleys and crankshaft pulleys.
- Wrench is adjustable from 1-1/4 inch to 5 inches; works with a 1/2 inch ratchet or breaker bar.

Replacement Parts:

**No. 526908-1** – 3.5 mm pin

**No. 526908-2** – 4 mm pin

**No. 526908-3** – 4.5 mm pin

**No. 526908-4** – 5 mm pin

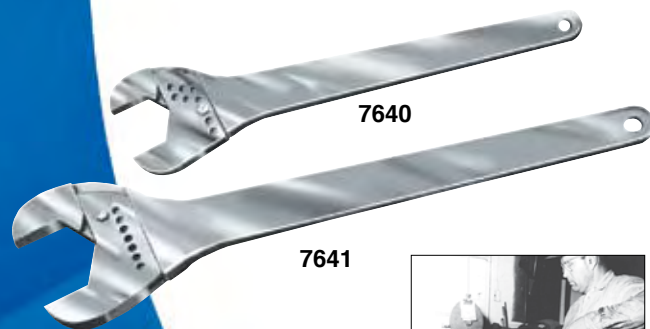
**No. 526908-5** – 6 mm pin

**No. 526908-6** – 7 mm pin

**No. 526908-7** – 10 mm pin

**No. 526908-8** – Handle

**No. 6613** – Variable pin spanner wrench. Wt., 2 lbs.



7640

7641



Fed. Spec.: GG-W-631B

### Giant Adjustable Wrenches

The really big jobs call for really big tools. These wrenches will handle 42 bolt sizes from 1-3/8" to 4-3/4". Together, both wrenches weigh just 41 lbs., but can replace over 1,000 lbs. of fixed-size wrenches.

**No 7640** – Giant adjustable wrench. Rated to withstand 2,000 ft. lbs. of torque. Wt., 10 lbs. 10 oz.

**No. 7641** – Giant adjustable wrench. Rated to withstand 5,000 ft. lbs. of torque. Wt., 30 lbs. 5 oz.

Order No.	Nut / Bolt Size	Increments of Jaw Adjustment	Lgth.	Head Thickness	Wt. (lbs.)
7640	1-3/8" to 2-7/8"	1/8"	24"	7/8"	10.6
7641	2-3/4" to 4-3/4"	1/8"	36"	1-1/8"	30.3



# GENERAL PURPOSE TOOLS

## Spanner Wrenches & Stud Remover

### Adjustable Spanner Wrench

This tool is Ideal for adjusting pillow block bearings. It also works well on International model "M" water pumps and on all International power-takeoff units.

- This wrench adjusts from 1/2" to 2-3/4".

**No. 7246** – Adjustable spanner wrench. 9-1/4" long.  
Wt., 11 oz.



### Adjustable Hook Spanner Wrench

Here's a tool that's needed wherever turret adjusting nuts or packing gland nuts are used.

- Capacity is 1-1/2" to 4".
- Handle is 24" long, 11/16" diameter.

**No. 885** – Adjustable hook spanner wrench. Wt., 3 lbs., 2 oz.

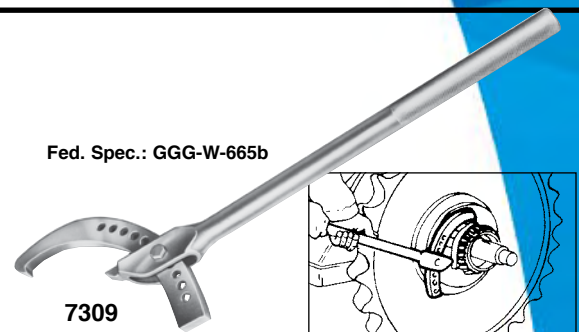


### Heavy-Duty Adjustable Hook Spanner Wrench

Some jobs require beefier tools. Here's a wrench to fill that need. It's drop-forged and features extra heavy construction and a 3/4" thick, 11-position hook jaw that's capable of gripping fasteners from 4-3/4" to 12-3/4" O.D.

- Handle is 25-3/4" long and 15/16" in diameter.

**No. 7309** – Heavy-duty adjustable hook spanner wrench.  
Wt., 13 lbs., 7 oz.



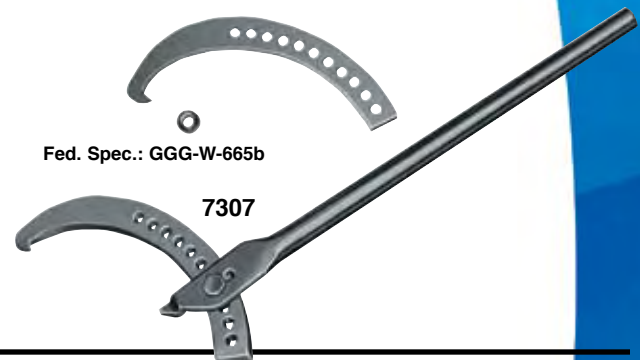
### Adjustable Hook Spanner Wrenches

These pieces will replace many fixed-size wrenches needed to service industrial tractors and other equipment. Their drop-forged jaws adjust to 11 positions for a capacity of 4-3/4" to 12-3/4" O.D.

- Handle is 24" long and 1" in diameter.

**No. 7307** – Spanner wrench with one 3/8" thick jaw.  
Wt., 5 lbs., 15 oz.

**No. 7308** – Spanner wrench with two interchangeable jaws: one 3/8" thick, one 3/4" thick. Wt., 11 lbs., 7 oz.



### Stud Remover Sets

These metric and SAE, 4-piece, stud remover sets offer the best professional extractors available. Designed and tested to reach studs in difficult work areas.

- Housed in a blow-molded storage case.

**No. 6986-1** – 1/4" stud remover    **No. 6986-2** – 5/16" stud remover

**No. 6986-3** – 3/8" stud remover    **No. 6986-4** – 7/16" stud remover

**No. 6986** – SAE stud remover set. 3/8" drive for 1/4" and 5/16" stud sizes, and 1/2" drive for 3/8" and 7/16" stud sizes.  
Wt., 1 lb., 2 oz.

**No. 6987-6** – 6 mm stud remover

**No. 6987-8** – 8 mm stud remover

**No. 6987-10** – 10 mm stud remover

**No. 6987-12** – 12 mm stud remover

**No. 6987** – Metric stud remover set. 3/8" drive for 6 mm and 8 mm stud sizes, and 1/2" drive for 10 mm & 12 mm stud sizes. Wt., 1 lb., 2 oz.



# GENERAL PURPOSE TOOLS

## Drivers & Pullers



4507

### Bearing Race and Seal Driver Set (10 piece)

- This aluminum constructed set permits installation of tapered bearing races and seals without damage to the component or housing.
- Tapered side of driver is used to install races. Invert the driver to the flat side to install seals.
- Set is housed in a blow-molded plastic storage case.
- Includes driver handle with bolt, plus these tool sizes: 1.565", 1.750", 1.965", 2.325", 2.470", 2.555", 2.830", 2.995", and 3.180".

**No. 4507** – Bearing race and seal driver set (10 piece).  
Wt., 4 lbs., 2 oz.

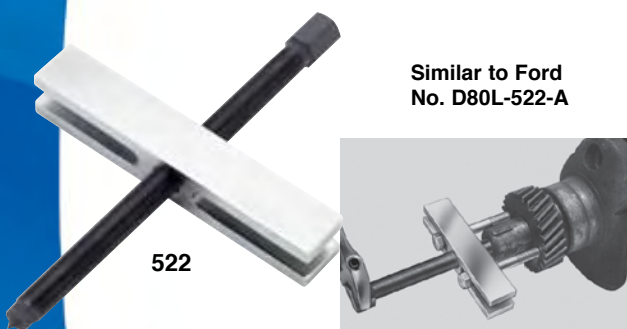


4407

### Metric Bushing Driver Set

- 14-piece tool kit for motorcycles, Asian and European vehicles contains adapters: 10-12 mm, 14-16 mm, 15-17 mm, 16-18 mm, 18-20 mm, 20-22 mm, 22-24 mm, 25-27 mm, 28-30 mm, 30-34 mm, 32-36 mm, 35-40 mm, 38-42 mm; one small driver handle; one medium driver handle; one large driver handle.
- Aluminum construction won't mar the bushing or affect bushing tolerance, which is critical for efficient operation of the engine, transmission, and hubs.

**No. 4407** – Metric bushing driver set. Wt., 2 lbs.



522

Similar to Ford  
No. D80L-522-A

### Large Gear and Pulley Puller

Using this tool, you can easily remove a wide range of gears, pulleys, or other parts that have tapped holes.

- The puller will spread from 2" to 7-3/4". Its block is 8-1/4" wide, and its forcing screw is 3/4"-16 x 11-5/8" long.
- Accommodates any cap screws up to 1/2" diameter.

**No. 522** – Large gear and pulley puller. Wt., 4 lbs., 8 oz.



7393

7392

### Gear and Pulley Pullers

These tools are perfect for removing timing gears, fan pulleys, harmonic balancers, and many other parts having tapped holes.

- Each puller will spread from 1-1/2" to 4-1/4". The puller blocks are 4-7/8" wide.
- Both include two hex head cap screws, 3/8"-16 x 3" long.

**No. 7392** – Puller with 13" long screw.  
Wt., 2 lbs., 4 oz.

**No. 7393** – Puller with 5-1/2" long screw.  
Wt., 1 lb., 8 oz.

# GENERAL PURPOSE TOOLS

## Drivers & Filter Wrench

### "Custom-made" Driver Tools

Now you can have the proper-size driver for nearly any automotive seal, bearing, or bushing installation job. These sets include discs and handles, spacers and drivers.

- Discs range from 1/2" to 4-1/2" in diameter, in 1/16" increments.

**No. 27793** – Starter set. Includes a handle and discs (5/8" to 2" diameter) specially selected to provide the driver sizes usually needed in automotive service. Includes plastic storage box. Wt., 4 lbs., 2 oz.

**No. 27794** – Basic set. Includes two handle sizes and 41 discs, ranging from 1/2" to 3" diameter along with plastic storage box and insert. Wt., 22 lbs., 13 oz.

**No. 27795** – Big-job set for servicing large components. Includes a handle and 24 discs, ranging from 3-1/16" to 4-1/2" diameter. Wt., 48 lbs., 3 oz.

**No. 27796** – Intermediate set. Includes a handle and 25 discs, ranging from 2" to 3-1/2" diameter. Wt., 27 lbs., 7 oz.

**No. 27797** – Master set. Includes three handle sizes and 65 discs, ranging from 1/2" to 4-1/2" diameter. Wt., 80 lbs.

**No. 27810** – Tool organizer board for holding all components in No. 27797 master set. Wt., 6 lbs., 13 oz.

No.	Description	No.	Description	No.	Description
10012*	Cap Screw	27507*	Disc, 1-1/2" dia.	27532	Disc, 3-1/16" dia.
10020*	Cap Screw	27508	Disc, 1-9/16" dia.	27533	Disc, 3-1/8" dia.
10854*	Cap Screw	27509*	Disc, 1-5/8" dia.	27534	Disc, 3-3/16" dia.
10855*	Cap Screw	27510	Disc, 1-11/16" dia.	27535	Disc, 3-1/4" dia.
12001*	Cap Screw	27511*	Disc, 1-3/4" dia.	27536	Disc, 3-5/16" dia.
27487*	Small Handle	27512	Disc, 1-13/16" dia.	27537	Disc, 3-3/8" dia.
27488	Medium Handle	27513*	Disc, 1-7/8" dia.	27538	Disc, 3-7/16" dia.
27489	Large Handle	27514	Disc, 1-15/16" dia.	27539	Disc, 3-1/2" dia.
27490	Extension Tube	27515*	Disc, 2" dia.	27540	Disc, 3-9/16" dia.
27491	Disc, 1/2" dia.	27516	Disc, 2-1/16" dia.	27541	Disc, 3-5/8" dia.
27492	Disc, 9/16" dia.	27517	Disc, 2-1/8" dia.	27542	Disc, 3-11/16" dia.
27493*	Disc, 5/8" dia.	27518	Disc, 2-3/16" dia.	27543	Disc, 3-3/4" dia.
27494	Disc, 11/16" dia.	27519	Disc, 2-1/4" dia.	27544	Disc, 3-13/16" dia.
27495*	Disc, 3/4" dia.	27520	Disc, 25/16" dia.	27545	Disc, 3-7/8" dia.
27496	Disc, 13/16" dia.	27521	Disc, 2-3/8" dia.	27546	Disc, 3-15/16" dia.
27497*	Disc, 7/8" dia.	27522	Disc, 2-7/16" dia.	27547	Disc, 4" dia.
27498	Disc, 15/16" dia.	27523	Disc, 2-1/2" dia.	27548	Disc, 4-1/16" dia.
27499*	Disc, 1" dia.	27524	Disc, 2-9/16" dia.	27549	Disc, 4-1/8" dia.
27500	Disc, 1-1/16" dia.	27525	Disc, 2-5/8" dia.	27550	Disc, 4-3/16" dia.
27501*	Disc, 1-1/8" dia.	27526	Disc, 2-11/16" dia.	27551	Disc, 4-1/4" dia.
27502	Disc, 1-3/16" dia.	27527	Disc, 2-3/4" dia.	27552	Disc, 4-5/16" dia.
27503*	Disc, 1-1/4" dia.	27528	Disc, 2-13/16" dia.	27553	Disc, 4-3/8" dia.
27504	Disc, 1-5/16" dia.	27529	Disc, 2-7/8" dia.	27554	Disc, 4-7/16" dia.
27505*	Disc, 1-3/8" dia.	27530	Disc, 2-15/16" dia.	27555	Disc, 4-1/2" dia.
27506	Disc, 1-7/16" dia.	27531	Disc, 3" dia.	7350*	Allen Wrench

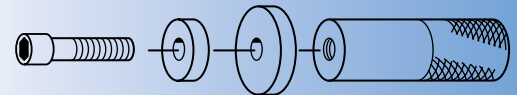
NOTE: All discs are 1/2" thick. \* Included in set No. 27793.



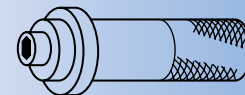
**Starter Set  
No. 27793**

It's this easy...

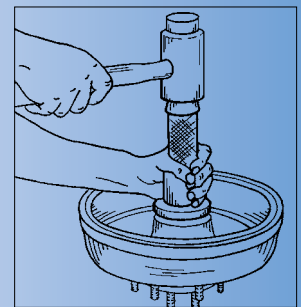
1. Select the proper size components...



2. Assemble your driver tool...



3. Perform the job easily.



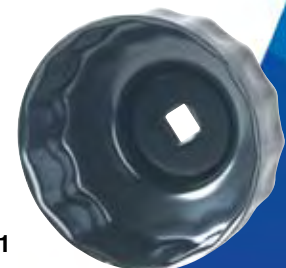
### GM Oil Filter Wrench

Applications: 1999–2002 Olds Intrigue and 2001–2002 Olds Aurora with 3.5L V6 engine.

- This is a required tool to remove the oil filter cap from the oil pan to access the filter cartridge.

**No. 6901** – GM oil filter wrench (74mm, 15 flutes). Wt., 9 oz.

Similar to  
Kent-Moore  
No. J-29142.



**6901**



# GENERAL PURPOSE TOOLS

## Filter Sockets and Wrenches



6903

### Ford/Mazda 2.3L Oil Socket

- Oil socket designed at 76.5 mm to fit new 2.3L 4-cylinder engines.
- Works on Mazda 3, Mazda 5, Mazda 6, Ford Fusion, & Mercury Milan 2.3L 4-cylinder engines.

**No. 6903** – Ford/Mazda 2.3L oil socket. Wt., 4 oz.



6904

### Hyundai / Kia 3.3L V6 Oil Socket

- Works on 2006 Hyundai Sonata 3.3L V6 engine and soon to be released new models of Hyundai and Kia.
- Oil socket designed at 88.22mm to fit new 3.3L 6-cylinder engines.

**No. 6904** – Hyundai / Kia 3.3L V6 oil socket. Wt., 4 oz.



6905

### Subaru Oil Filter Socket

- Works on 2003–newer Subaru vehicles having the 2.5L, 4-cylinder, turbo engine.
- Socket fits between the exhaust manifold and the oil filter for easy removal and installation of the filter.

**No. 6905** – Subaru oil filter socket. Wt., 4 oz.



6784

### Euro/GM Oil Socket Kit

Popular oil filter wrenches for the GM, BMW, Audi, and VW. High quality, 3/8" drive, forged sockets designed to last a lifetime.

3-piece oil socket kit contains:

- 27 mm socket for the Cadillac STS 3.2L V6 and the Mercedes-Benz 1.8L I4.
- 32 mm socket for the 2.2L GM Ecotec and Saabs.
- 36 mm for the BMW M52, M60, M62, M70, & M73 engines; M-B OM604, 605, & 606 engines; VW/Audi VR6 engine.

**No. 6784** – Euro/GM oil socket kit. Wt., 1 lbs., 5 oz.



4555



4556



4557

### Heavy-Duty Oil Filter Wrenches

- Fit filters ranging from 4-1/8" to 5-21/32" (104 mm to 144 mm) in diameter.
- Feature a 1-1/2" wide steel band that can stand up to the high torque needed to remove filters from trucks, tractors, and other heavy equipment.
- Use with a 1/2" drive ratchet or breaker bar.

**No. 4555** – Heavy-duty oil filter wrench. Fits filters ranging from 4-1/8" to 4-21/32" (104 mm to 118 mm) in diameter. Wt., 1 lb., 6 oz.

**No. 4556** – Heavy-duty oil filter wrench. Fits filters ranging from 4-21/32" to 5-5/32" (118 mm to 131 mm) in diameter. Wt., 1 lb., 6 oz.

**No. 4557** – Heavy-duty oil filter wrench. Fits filters ranging from 5-5/32" to 5-21/32" (131 mm to 144 mm) in diameter. Wt., 1 lb. 7 oz.

### Swivel Handle Oil Filter Wrenches

- Fit filters ranging from 2-7/8" to 4-3/8" (73 mm to 111 mm) in diameter.
- Feature a 1" wide stainless steel band for positive grip on the filter; swivel handle makes it easy to turn filters in hard-to-reach areas.

**No. 4565** – Swivel handle oil filter wrench. Fits filters ranging from 2-7/8" to 3-3/8" (73 mm to 85 mm) in diameter. Wt., 13 oz.

**No. 4566** – Swivel handle oil filter wrench. Fits filters ranging from 3-3/8" to 3-3/4" (85 mm to 95 mm) in diameter. Wt., 13 oz.

**No. 4567** – Swivel handle oil filter wrench. Fits filters ranging from 3-3/4" to 4-3/8" (95 mm to 111 mm) in diameter. Wt., 13 oz.



### Adjustable Oil Filter Pliers

- Forged jaws with sure-grip teeth grab the filter for easy removal.
- Slip-joint ratchet and lock mechanism allows a secure grip on filter diameters of 2-1/4" to 7" (57 mm to 178 mm).

**No. 4560** – Small adjustable oil filter pliers. Pliers is 13-1/2" long; fits filters ranging from 2-1/4" to 5" (57 mm to 127 mm) in diameter. Wt., 1 lb., 3 oz.

**No. 4561** – Large adjustable oil filter pliers. Pliers is 18" long; fits filters ranging from 3-3/4" to 7" (95 mm to 178 mm) in diameter. Wt., 3 lbs., 4 oz.

**No. 4562** – Adjustable oil filter pliers set. Includes small pliers: 13-1/2" long and fits filters ranging from 2-1/4" to 5" (57 mm to 127 mm) in diameter. Large pliers: 18" long and fits filters ranging from 3-3/4" to 7" (95 mm to 178 mm) in diameter. Wt., 4 lbs., 7 oz.



### 3-Leg Oil Filter Wrench

- Fits filters ranging from 2-1/2" to 5-1/4" (65 mm to 135 mm) in diameter.
- To turn the tool, use a 1/2" ratchet in the ratchet drive or a 13/16" wrench on the nut.
- Knurled legs provide extra gripping power.

**No. 4568** – 3-Leg oil filter wrench. Wt., 1 lb., 6 oz.



### Universal Filter Wrench

This filter wrench will stand up to the job of removing nearly any spin-on filter (up to 6"). Universal design permits use on most vehicles. The tough 2" wide nylon strap holds firmly. In fact, the more leverage applied, the tighter it grips.

- Accommodates a 3/8" drive ratchet.

**No. 7062A** – Universal filter wrench. Wt., 10 oz.

Similar to Ford  
No. D79L-6731-A

7062A



# GENERAL PURPOSE TOOLS

## Strap & Chain Wrenches



### Grooved Pulley Strap Wrench

- Use to hold a grooved pulley when servicing alternators, water pumps, power steering pumps, etc. Also may be used to rotate the camshaft or crankshaft for engine service.

- Holds tighter than a standard strap wrench.

**No. 4475** – Grooved pulley strap wrench. Wt., 10 oz.



### Multipurpose Strap Wrench

You'll find many uses for this heavy-duty strap wrench. The 53" long nylon strap won't mar precision surfaces of shafts, pulleys, or other components. It's especially useful on small engine pulleys. Special head design self-tightens the strap as force is applied.

- Lightweight, with 12" long handle.

**No. 7206** – Strap wrench. Wt., 1 lb.

**No. 305085** – Replacement strap. Wt., 1 oz.



### Ratcheting Chain Wrench – 12"

- Works on many different-shaped objects, such as square, round, hexagon, oval, etc.

- Handle is 12" long; chain grips objects ranging from 1/2" to 4-1/2" O.D.

**No. 6968** – Ratcheting chain wrench – 12". Wt., 2 lb., 8 oz.

**No. 516941** – Replacement chain for 6968. Wt., 10 oz.



### Ratcheting Chain Wrench – 24"

- Ratcheting action makes it possible to re-grip without removing wrench.

- Handles parts of most any shape... round, square, hexagon, or octagon.

- Handle is 24" long; chain grips objects ranging from 3" to 6-1/2" O.D.

**No. 6969** – Ratcheting chain wrench – 24".

Wt., 4 lb., 8 oz.

**No. 516942** – Replacement chain for 6969. Wt., 13 oz.



### Ratcheting Chain Wrenches

This multi-purpose tool will grip parts of nearly any shape. It features a ratcheting head design that lets you turn in either direction without removing wrench from the work.

**No. 7400** – Chain wrench, 13" handle with capacity from 1/2" to 4-3/4" O.D.

Wt., 2 lbs., 5 oz.

**No. 7401** – Chain wrench, 19" handle with capacity from 3" to 6-3/4" O.D.

Wt., 5 lbs., 3 oz.

**No. 209199** – Replacement chain for 7400.

Wt., 12 oz.

**No. 209200** – Replacement chain for 7401.

Wt., 1 lb., 13 oz.



### Body and Fender Dent Puller

Often, the biggest time-consuming part of dent removal is the removal and installation of interior panels and upholstery. This tool eliminates those steps. Simply drill a hole at the base of the dent and thread in the tool's self-tapping screw. A few sharp blows of the slide hammer will pull the dent out.

- Puller is 17" long with Pyralin handle grip.
- Replaceable self-tapping screw. Instructions included.

**No. 898A** – Body and fender dent puller. Wt., 2 lbs., 8 oz.

**No. 104427** – Replacement screw. Wt., 2 oz.



### Professional Style Seal Puller

- Designed to remove oil and grease seals when servicing cars, SUVs, and light trucks without damaging the housing or bearing.
- Hook tips in two sizes and professional handle design allows removal of hard-to-get-at seals by getting under them.
- The tool is 12" long and the hook tip is double-secured (versus competitors' designs), for durability.
- An extra blade is included, and additional replacements (No. 4508-1) may be ordered.

**No. 4508** – Professional style seal puller. Wt., 1 lb.

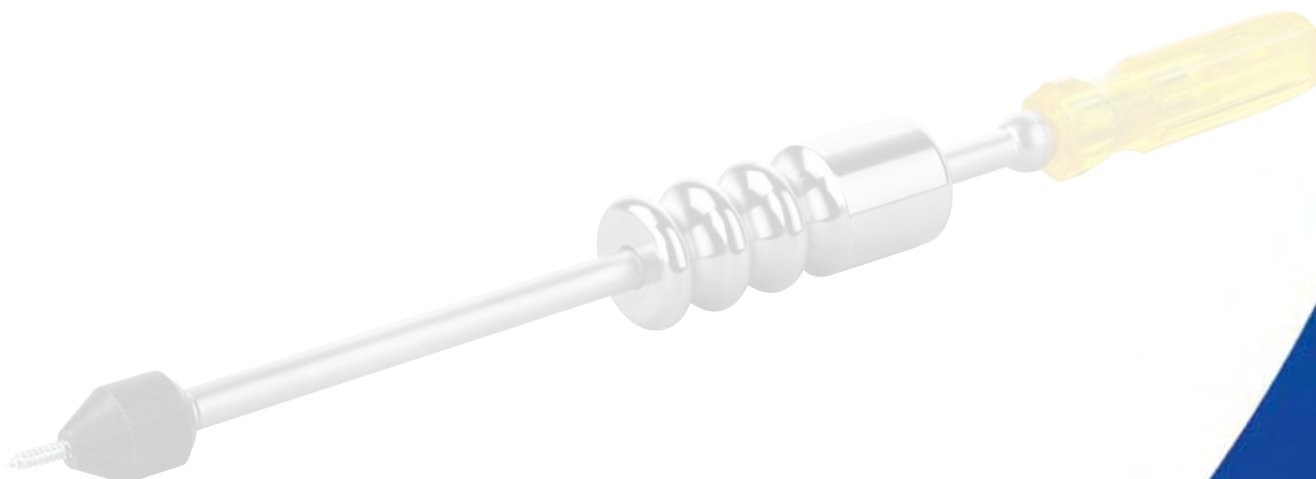
**No. 4508-1** – Replacement blade for 4508. Wt., 4 oz.



### Mechanic's Stethoscope

- Quick and accurate way to locate vehicle noise.
- Spring diaphragm on end of hose amplifies noise.
- Includes two hose ends: long rod helps pinpoint noises in hard-to-access areas; short adapter helps locate noise in a broader area of the vehicle.

**No. 4491** – Mechanic's stethoscope. Wt., 8 oz.



# GENERAL PURPOSE TOOLS

## Holding Fixture



**7020**  
Similar to Ford  
No. T57L-500-B

### Bench-Mounted Holding Fixture

Here's a helpful device that enables you to securely hold and rotate small engines, transmissions, and other components while you're working on them.

- This holding fixture will handle pieces weighing up to 250 lbs., and it offers 360° of rotation with positive stops at 90° increments.
- Three sides of the mounted unit remain fully exposed.

**No. 7020** – Bench fixture.

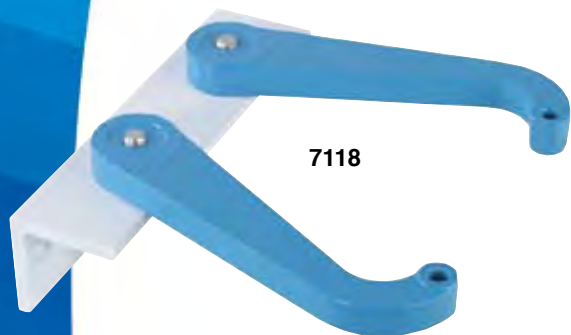
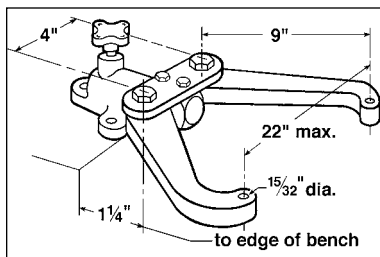
Wt., 10 lbs., 13 oz.

**No. 34607** – Base assembly only.

Wt., 2 lbs., 8 oz.



**34607**  
Similar to Ford  
No. D83L-500-B1



**7118**

### Transmission Adapter Kit

Converts your OTC engine stand into a transmission service stand.

- Kit replaces the adjustable arms of the stand to hold and position the transmission at workbench height for repair.
- The transmission is held with three sides fully exposed for working convenience, and can be rotated a full 360° for complete access to all parts.
- Comes complete with mounting hardware. Adapter is for use on No. 1726 and No. 1735 engine stands.

**No. 7118** – Transmission adapter kit.

Wt., 10 lbs., 5 oz.



### Quick Finder Index...

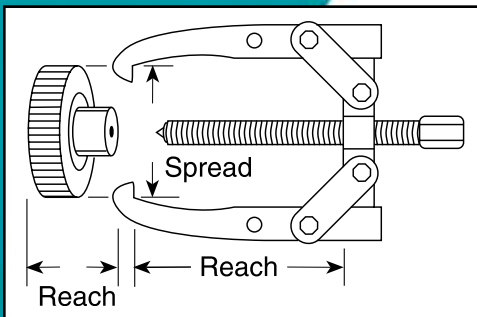
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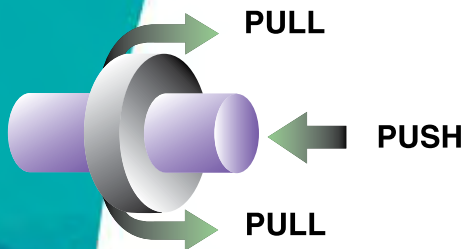
# PULLERS

## Selecting the “Right” Puller



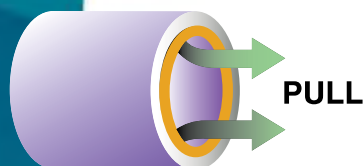
**General Rule of Thumb:** Manual pullers require that the puller screw be at least half as large (in diameter) as the shaft of the pulling job.

Hydraulic pullers need the maximum force exerted in tons to be 7–10 times the diameter of the shaft in inches.



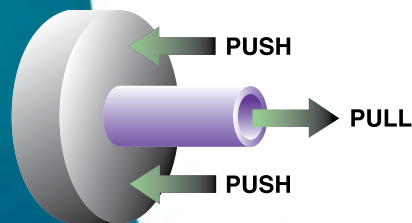
### 1 Pulling something off a shaft.

Removing a gear, bearing, wheel, pulley, etc., to replace it or get at another part.



### 2 Pulling something out of a hole.

Internal bearing cups, retainers, or oil seals are usually press-fitted and are difficult to remove.



### 3 Pulling a shaft out of something.

A transmission shaft or pinion shaft is often hard to remove from a bore or housing. Use a Push-Puller with adapters if you can “get ahold of” the threaded end of the shaft. Sometimes it’s possible to push a shaft through a housing, rather than pull it out. In applications of this type, the puller legs must be securely fastened to the housing and the screw may simply bear against the shaft.

## You can solve the 3 basic pulling problems...

The first thing you have to do is identify exactly what your particular pulling problem is. Once you recognize the problem, you can go on to select the right tool to solve it.

## How to select the “RIGHT” puller

### 1: Determine the type of puller or puller combination.

Which puller type is best for “getting a grip” on the part? Is a combination of puller types required?

**2: Determine the “REACH” needed.** The puller you select must have a “reach” equal to or larger than the corresponding sizes of the part.

**3: Determine the “SPREAD” needed.** The width of the part to be pulled will determine the “spread” required.

**4: Estimate the force required.** A puller with the correct “reach” and “spread” will **usually** have enough power. When in doubt, always use the next larger size. More power may be needed for rusted parts, or when the “area of resistance” is large.

### The tools to use when pulling something off a shaft:

**Jaw-type puller**, either manual or hydraulic. (For extra force and convenience use a hydraulic puller.) Both are available in 2- or 3-jaw versions and are used to grip the outer circumference of an attachment.

**Bearing pulling attachment.** Provides “knife-like” edges to get behind the component, or when there isn’t a good gripping area on the part to be pulled.

**Push-Puller®** with attachments. External-internal adapters can thread directly into tapped holes on a component. The splitter gets behind the component to prevent damage to the part.

**Slide hammer** puller with selected attachments for multiple light-duty pulling tasks.

A variety of OTC **adapters** can be used to protect a shaft, bridge a hole, thread into tapped holes, or assist installation.

### The tools to use when pulling something out of a hole:

**Internal pulling attachments** have narrow jaws which extend through the center of the part to be pulled. They provide a straight pull and avoid damage to housings. Designed for use with Push-Pullers or slide hammer pullers.

**Push-Puller** in combination with internal pulling attachment. Both mechanical and hydraulically powered versions are available.

Here a **slide hammer** puller is combined with an internal pulling attachment. Ideal for removing parts from blind holes, especially when there is no housing to brace puller legs against.

When there is a shaft to bear against, a **forcing screw** of the correct size may be used in combination with an internal pulling attachment.

### The tools to use when pulling a shaft out of something:

**Push-Puller®** with threaded adapter. Use a mechanical or hydraulic puller, depending on the size of the shaft to be pulled.

When the housing lacks sufficient surface for the puller legs to bear against, a **pulling attachment** may be used to provide support.

**Slide hammer** puller with threaded adapter – either external-internal or internal can be used.

**Internal adapters** are fastened to the external threaded end of the shaft to pull while pushing against the housing.

**External-internal adapters** are threaded into the shaft to pull it while pushing against the housing.

Your pulling system exerts tons of force. You must respect this force, and observe safety precautions at all times.

### **Caution**

It is impossible to predict the exact force required for every pulling job: setup requirements and the size, shape, and condition of the parts being pulled vary a great deal. In addition, the OTC Pulling System is so versatile, it is possible that components in a pulling setup may have different tonnage ratings. The lowest “capacity” component, then, determines the capacity of the setup. For example: When an accessory with a 1-ton capacity is used with a 10-ton capacity puller, the setup can be used only at a force of one ton.

These tools should be used only by trained personnel familiar with them. Always wear eye protection during a job, since work parts, or the pulling tool itself, may break and parts may fly. It is recommended to cover the work with an OTC Protective Blanket or use a shield while force is being applied.

If you are at all unsure which tool or attachment to select, contact Technical Services.

### **A Few Easy Tips to Remember**

#### **Wear safety glasses at all times!**

You have only one set of eyes, so protect them from possible flying parts.

#### **Keep your pulling tools in shape!**

Clean and lubricate the puller’s forcing screw frequently, from threads to tip, to ensure long service life and correct operation.

#### **Cover work with a protective blanket!**

With high forces being exerted on the part being pulled, breakage may sometimes result. By covering the work with a protective blanket, the user reduces the danger of flying parts.

#### **Apply force gradually!**

The component should give a little at a time. Do not try to speed up removal by using an impact wrench on the puller screw.

#### **Use the right size puller!**

If you have applied maximum force and the part has not moved, go to a larger capacity puller. Resist sledging.

### **Protective Blankets**

Think of them as “security blankets.” They wrap around pulling, pressing, and other high-force jobs to protect you and your employees from work-related injuries as much as possible. They’re made of high tensile, tear resistant ballistic nylon – similar to military flak jackets – that, when tested, withstood the shattering of a neck-down grade 8 bolt without any visible damage.

**NOTE:** Always reduce the force from the workpiece prior to removing the blanket. Protective blankets may afford protection from injuries to users and others should part breakage occur. Because of the variety of situations that require guarding, it is the user’s responsibility to determine the best method of protection.

**No. 1230PB** – Protective blanket. 12" x 30". Wt., 2 lbs., 3 oz.

**No. 2036PB** – Protective blanket. 20" x 36". Wt., 3 lbs.

**No. 2860PB** – Protective blanket. 28" x 60". Wt., 7 lbs.



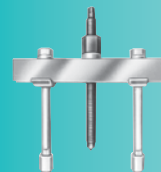
### **Grip-O-Matic pullers**

#### **Align puller legs and jaws.**

Be sure the setup is rigid and the puller is square with the work.

#### **Mount puller so grip is tight!**

Tighten the adjusting strap bolts when using a jaw-type puller.



### **Push-Pullers**

#### **Do not couple puller legs!**

The tonnage capacity of a Push-Puller is reduced when longer-than-standard legs are used, or when legs are in compression. The chance of breaking, bending, or misaligning legs increases. Always use the shortest legs possible to do the job.



### **Bearing pulling attachments**

These attachments may not withstand the full tonnage of the pullers with which they are used. The shape and condition of the part being pulled affects the tonnage at which the puller blocks and/or studs may bend or break. Always select the largest attachment that will fit the part to be pulled.



**1230PB**

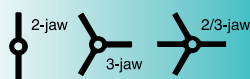
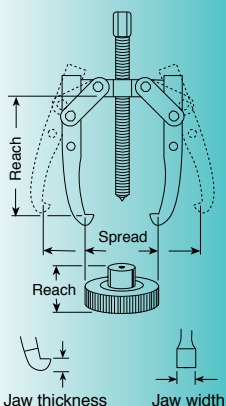
# PULLERS

## Mechanical Grip-O-Matic® Pullers

### Mechanical Grip-O-Matic® Pullers

OTC has developed the most complete line of gear and bearing pullers, enabling you to remove and install parts for fast, effective repairs. The pullers are forged from quality steel, heat treated, and subjected to rigorous tests which exceed their rated capacity.

#### No. 1020-1050



### WARNING

Wear approved eye protection when using pullers. See page 207 for protective blankets for your pulling jobs.

	Tool No.	MAX.		Screw Size	JAW		Capacity, Style, and Weight
		Reach	Spread		Thickness	Width	
	1020	2-1/8"	3-1/4"	5/16"-24 x 3-7/8"	9/64"	1/4"	1-Ton, 2-Jaw; 5 oz.
	1021	2-1/8"	3-1/4"	5/16"-24 x 3-7/8"	9/64"	1/4"	1-Ton, 3-Jaw; 8 oz.
	1022	3-1/4"	4"	3/8"-24 x 4-7/8"	Upper 3/16" Lower 1/8"	Upper 1/4" Lower 1/2"	2-ton, 2-Jaw; 14 oz. (Reversible Jaws)
	1023	3-1/4"	4-3/4"	3/8"-24 x 4-7/8"	Upper 3/16" Lower 1/8"	Upper 1/4" Lower 1/2"	2-ton, 2/3-Jaw; 1 lb., 5 oz. (Reversible Jaws)
	1024	3-1/4"	6"	9/16"-20 x 6-15/16"	Upper 5/16" Lower 1/4"	Upper 3/8" Lower 3/4"	5-Ton, 2-Jaw; 1 lb., 12 oz. (Reversible Jaws)
	1026	3-1/4"	7"	9/16"-20 x 6-15/16"	Upper 5/16" Lower 1/4"	Upper 3/8" Lower 3/4"	5-Ton, 2/3-Jaw; 2 lbs., 12 oz. (Reversible Jaws)
	1025	5-1/2"	6"	9/16"-20 x 6-15/16"	Upper 5/16" Lower 1/4"	Upper 3/8" Lower 3/4"	5-Ton, Long 2-Jaw; 2 lbs. (Reversible Jaws)
	1027	5-1/2"	7"	9/16"-20 x 6-15/16"	Upper 5/16" Lower 1/4"	Upper 3/8" Lower 3/4"	5-Ton, Long 2/3-Jaw; 3 lbs., 10 oz. (Rev. Jaws)
	1035	5"	9"	11/16"-18 x 9"	Upper 5/16" Lower 11/32"	Upper 1" Lower 1"	7-Ton, 2-Jaw; 4 lbs., 8 oz. (Reversible Jaws)
	1037	5"	10-1/2"	11/16"-18 x 9"	Upper 5/16" Lower 11/32"	Upper 1" Lower 1"	7-Ton, 2/3-Jaw; 6 lbs., 2 oz. (Rev. Jaws)
	1036	8-3/4"	9-1/2"	11/16"-18 x 9"	11/32"	1"	7-Ton, Long 2-Jaw; 5 lbs., 6 oz.
	1038	8-3/4"	11"	11/16"-18 x 9"	11/32"	1"	7-Ton, Long 2/3-Jaw; 8 lbs., 2 oz.
	1039	11"	12"	13/16"-16 x 12"	9/16"	1"	13-Ton, 2-Jaw; 10 lbs., 13 oz.
	1041	11"	12"	13/16"-16 x 12"	9/16"	1"	13-Ton, 2/3-Jaw; 16 lbs., 4 oz.
	1040	15-1/4"	15-1/2"	13/16"-16 x 12"	9/16"	1"	13-Ton, Long 2-Jaw; 13 lbs.
	1042	15-1/4"	17"	13/16"-16 x 12"	9/16"	1"	13-Ton, Long 2/3-Jaw; 18 lbs., 12 oz.
	1043	14-1/2"	14"	1"-14 x 13-1/2"	13/16"	1-9/32"	17-1/2-Ton, 2-Jaw; 23 lbs.
	1045	14-1/2"	14"	1"-14 x 13-1/2"	13/16"	1-9/32"	17-1/2-Ton, 3-Jaw; 33 lbs.
	1044	18-3/4"	16"	1"-14 x 13-1/2"	13/16"	1-9/32"	17-1/2-Ton, Long 2-Jaw; 26 lbs.
	1046	18-3/4"	16"	1"-14 x 13-1/2"	13/16"	1-9/32"	17-1/2-Ton, Long 3-Jaw; 37 lbs.
	1047	15-1/2"	18"	1-1/4"-12 x 15-15/16"	1-1/16"	1-1/2"	25-Ton, 2-Jaw; 37 lbs., 8 oz.
	1049	15-1/2"	18"	1-1/4"-12 x 15-15/16"	1-1/16"	1-1/2"	25-Ton, 3-Jaw; 54 lbs.
	1048	22-1/4"	20"	1-1/4"-12 x 15-15/16"	1-1/16"	1-1/2"	25-Ton, Long 2-Jaw; 42 lbs., 12 oz.
	1050	22-1/4"	20"	1-1/4"-12 x 15-15/16"	1-1/16"	1-1/2"	25-Ton, Long 3-Jaw; 60 lbs.



### Hydraulic Grip-O-Matic® Puller

**No. 1065-1080** Available in 17-1/2 to 50-ton capacities. Reliable single-acting Power Twin ram is matched with a versatile 2-jaw or 3-jaw puller. Lightweight ram can be used in other applications. You also get an adjusting screw, speed crank, and coupler where applicable. Hydraulic pump is not included; see index for pump listings.

Tool No.	MAX.		Ram Capacity & Number	JAW		Screw Size & Crank No.	Style and Weight
	Reach	Spread		Thickness	Width		
1065	11-1/2"	16"	17-1/2 Ton, No. 4120	13/16"	1-9/32"	1"-8 x 20" No. 24814	17-1/2 Ton, 2-Jaw; 40 lbs.
1064	11-1/2"	16"	N/A	13/16"	1-9/32"	N/A	17-1/2 Ton, 2-Jaw Puller Only; 24 lbs.
1067	11-1/2"	20"	17-1/2 Ton, No. 4120	13/16"	1-9/32"	1"-8 x 20" No. 24814	17-1/2 Ton, 3-Jaw; 53 lbs.
1066	11-1/2"	20"	N/A	13/16"	1-9/32"	N/A	17-1/2 Ton, 3-Jaw Puller Only; 37 lbs.
1073	19-7/16"	26"	30-Ton, No. 4121	1-1/8"	1-5/8"	1-1/4"-7 x 24" No. 27198	30-Ton, 2-Jaw; 91 lbs.
1072	19-7/16"	26"	N/A	1-1/8"	1-5/8"	N/A	30-Ton, 2-Jaw Puller Only; 59 lbs.
1075	19-7/16"	34"	30-Ton, No. 4121	1-1/8"	1-5/8"	1-1/4"-7 x 24" No. 27198	30-Ton, 3-Jaw; 122 lbs.
1074	19-7/16"	34"	N/A	1-1/8"	1-5/8"	N/A	30-Ton, 3-Jaw
1080	19-7/16"	44"	N/A	1-1/8"	1-5/8"	N/A	50-Ton, 3-Jaw Puller Only; 187 lbs.



Puller components

	No.	Description	Capacity in Tons
	24814	Speed Crank	17-1/2
	27198	Speed Crank	30
	29595	Speed Crank	50
	32118	Adjusting Screw	17-1/2
	34758	Adjusting Screw	30
	32698	Adjusting Screw	50
	39448	Lube for pullers	

### Push-Pullers®

**No. 927 – 10-Ton Capacity** Can be used with No. 1123 bearing pulling attachment or No. 679 pulley pulling attachment. May also be used with Nos. 1150, 1151, 1152, or 1153 internal pulling attachments.

**No. 938 – 17-1/2 Ton Capacity** Can be used with Nos. 1124 and 1130 bearing pulling attachments or Nos. 679 and 680 pulley pulling attachments. May also be used with Nos. 1150, 1151, 1153, 1165, or 1166 internal pulling attachments.

**No. 939 – 30-Ton Capacity** Can be used with Nos. 1126 and 1127 bearing pulling attachments or No. 680 pulley pulling attachment (two 8012 adapters are required to connect 680 to puller). Can be used with No. 1165 internal pulling attachment.

Tool No.	MAX.		Screw Size	Notes / Weight
	Reach	Spread		
927	8-1/4"	2-1/8" – 7-1/4"	3/4"-16 x 12"	1/2" of forcing screw tip end is threaded 5/8"-18. No. 1100 legs and No. 24827 leg ends included. Wt., 7 lbs.

Extra Legs (pair) for No. 927 Push-Puller (Reach equals leg length plus 1-1/2" with leg end caps.)

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1103	4-3/4" 1 lb.	1102	11-3/4" 2 lbs., 4 oz.
1100	6-3/4" 1 lb., 8 oz.	1101	15-3/4" 3 lbs., 4 oz.

938	11-1/2"	3-1/8"-11-3/4"	1"-14 x 13-1/4"	Leg ends threaded 5/8"-18. No. 1106 legs and No. 24827 leg ends included. Wt., 20 lbs., 12 oz.
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Extra Legs (pair) for No. 938 Push-Puller (Reach equals leg length plus 2" with leg end caps.)

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1107	4-1/2" 2 lbs., 8 oz.	1105	22-1/2" 9 lbs.
1106	9-1/2" 4 lbs., 8 oz.	1108	30" 11-1/2 lbs.
1104	16-1/2" 6 lbs., 8 oz.		

939	10-1/2"	7"-16-1/4"	1-1/2"-12 x 17-1/4"	Leg ends threaded 1"-14. No. 1109 legs and No. 28390 leg ends included. Wt., 44 lbs.
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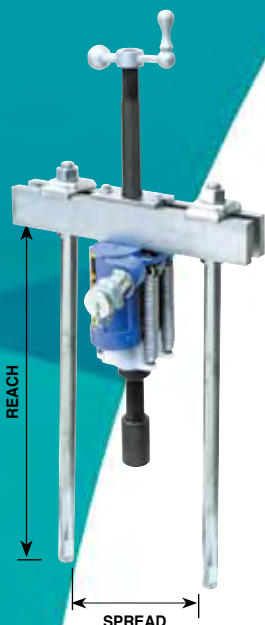
Extra Legs (pair) for No. 939 Push-Puller (Reach equals leg length plus 2-5/8" with leg end caps.)

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1109	8" 8 lbs.	1111	28" 22 lbs.
1110	18" 15 lbs.		



# PULLERS

## Hydraulic Push-Pullers



No. 1062 & 1063  
Usable reach equals leg length minus 4-7/8" when using leg ends.

No. 1070 & 1071  
Usable reach equals leg length minus 5-7/8" when using leg ends.

No. 1076  
Usable reach equals leg length minus 10-5/8".

### Hydraulic Push-Puller

**No. 1062, 1063 – 17-1/2" Ton Capacity** Can be used with Nos. 1124 and 1130 bearing pulling attachments or No. 680 pulley pulling attachment. May also be used with No. 1154 internal pulling attachment. Ends of legs are threaded 5/8"-18. Usable reach: 11-5/8".

Tool No.	MAX. Reach	MAX. Spread	Screw Size	Notes / Weight
1063	18-1/2"	5-3/4"-11-3/4"	1"-8 x 20"	Puller with No. 1104 legs, No. 24827 leg ends, No. 4120 hyd. ram, No. 32118 adjusting screw, and No. 24814 adjusting crank. 38 lbs.
1062	18-1/2"	5-3/4"-11-3/4"	1"-8 x 20"	Puller only. 22 lbs.

Extra Legs (pair) for No. 1062, 1063 (Reach equals leg length plus 2" with leg end caps.)

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1107	4-1/2" 2 lbs., 8 oz.	1105	22-1/2" 9 lbs.
1106	9-1/2" 4 lbs., 8 oz.	1108	30" 11-1/2 lbs.
1104	16-1/2" 6 lbs., 8 oz.	<b>Note:</b> 3/4"-14 thread on leg upper end.	

**No. 1070, 1071 – 30-Ton Capacity** Can be used with Nos. 1126 and 1127 bearing pulling attachments or No. 680 pulley pulling attachment (two No. 8012 adapters are required to connect No. 680 to puller). Also may be used with No. 1166 internal pulling attachment. Ends of legs are threaded 1"-14. Usable reach: 12-1/8".

Tool No.	MAX. Reach	MAX. Spread	Screw Size	Notes / Weight
1071	20-1/2"	7"-16-1/4"	1-1/4"-7 x 24"	Puller with No. 1110 legs, No. 28390 leg ends, No. 4121 hyd. ram, No. 34758 adjusting screw, and No. 27198 adjusting crank. 90 lbs.
1070	20-1/2"	7"-16-1/4"	1-1/4"-7 x 24"	Puller only. 56 lbs.

Extra Legs (pair) for No. 1070, 1071 (Reach equals leg length plus 2-5/8" with leg end caps.)

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1109	8" 8 lbs.	1111	28" 22 lbs.
1110	18" 15 lbs.	<b>Note:</b> 1"-14 thread on both ends of legs	

**No. 1076 – 50-Ton Capacity** Can be used with Nos. 1128 and 1129 bearing pulling attachments. Ends of legs are threaded 1-1/4"-12. Usable reach: 13-3/8". See pages 211-212 to order threaded adapters for use with these pullers.

Tool No.	MAX. Reach	MAX. Spread	Screw Size	Notes / Weight
1076	24"	8-1/2"-20-1/2"	1-5/8"-5-1/2 x 30-3/8"	Puller only. 106 lbs.

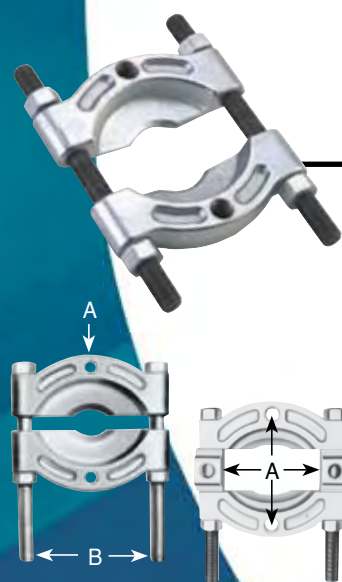
Extra Legs (pair) for No. 1076 (Reach equals leg length.) **Note:** 1-1/4"-12 thd. on both leg ends.

Tool No.	Leg Length & Wt.	Tool No.	Leg Length & Wt.
1112	24" 34 lbs.	1113	34" 47 lbs.

### Bearing Splitters

**No. 1121-1130** These versatile accessories feature "knife-like" edges which are easily placed behind the part to secure a gripping surface, even when clearances are extremely limited. When used with an OTC Grip-O-Matic® puller, puller jaws grip attachment's outer edge; when used with a Push-Puller, puller legs are threaded into the attachment's two tapped holes.

Tool No.	MAX. Spread	MIN. Spread	A	B	Weight	Application
1121	15/16"	1/4"	15/16"-18	1-11/16"	12 oz.	Use with puller Nos. 1020, 1022, & 1023.
1122	2"	1/8"	3/8"-16	2-7/16"	1 lb., 4 oz.	Use with puller Nos. 1024, 1025, 1026, 1027, 7392, & 7393.
1123	4-5/8"	1/2"	5/8"-18	4-3/8"	5 lbs.	Use with puller Nos. 1035, 1036, 1037, 1038, & 927.
1124	5-3/4"	1/2"	5/8"-18	6"	12 lbs.	Use with puller Nos. 1035, 1040, 1041, 1042, 1065, 1063, & 938.
1130	9"	1/2"	5/8"-18	6"	12 lbs., 9 oz.	Use with puller Nos. 1035, 1040, 1041, 1042, 1065, 1063, & 938.
1126	8"	5/8"	1"-14	7-1/8"	19 lbs., 12 oz.	Use with puller Nos. 1047, 1043, & 939.
1127	13-3/8"	3/4"	1"-14	10-1/4"	41 lbs., 12 oz.	Use with puller Nos. 1047, 1073, & 939.
1128	12-7/8"	5"	1-3/4"-12	13"	100 lbs.	Use with puller Nos. 1073, 1079.

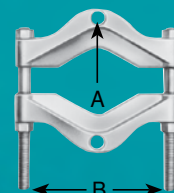
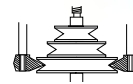


**A** = Thread of tapped hole in adapter.  
**B** = Distance between adjusting screws.

### Pulley Pulling Attachments

Attachment clamps down into V-groove to distribute load. Use with Grip-O-Matic® pullers or Push-Pullers.

Tool No.	MAX. Spread	MIN. Spread	A	B	Weight	Application
679	5-7/8"	1-3/4"	5/8"-18	6"	4 lbs., 4 oz.	Use with puller Nos. 1035, 1036, 1037, 1038, and 927.
680	10"	1-5/8"	5/8"-18	10-1/16"	22 lbs., 4 oz.	Use with puller Nos. 1039, 1040, 1041, 1063, 1065, and 938.



A = Thread of tapped hole in adapter.  
B = Distance between adjusting screws.

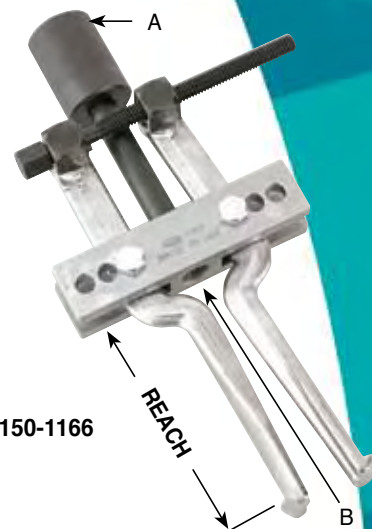
### Internal Pulling Attachments

Approved by leading bearing manufacturers, OTC's internal pulling attachments remove bearing cups, oil seals, bushings, and other parts from blind holes quickly and easily. Each attachment is designed for use with a corresponding Push-Puller or slide hammer assembly.

Tool No.	JAW Spread	JAW Reach	A	B	Weight	Application
1153	1-1/2"-5"	2-1/8"	1"-14	5/8"-18	4 lbs., 4 oz.	Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 and 24833 puller screw.
1150	1-1/2"-6"	4"	1"-14	5/8"-18	4 lbs., 4 oz.	
1152	1-1/2"-6"	4"	—	5/8"-18	3 lbs., 8 oz.	
1151	1-1/2"-7"	5-1/4"	1"-14	5/8"-18	4 lbs., 8 oz.	Use with Nos. 927 and 938 Push-Pullers, 1155 and 1156 slide hammer pullers, or 24832 puller screw.
1165	3"-9"	5-7/8"	1-1/2"-12	1"-14	13 lbs., 8 oz.	Use with No. 939 Push-Puller.
1154	1-1/2"-9"	4"	1"-8	5/8"-18	4 lbs., 8 oz.	Use with No. 1063 hyd. Push-Puller.
1166	3"-9"	5-7/8"	1-1/4"-7	1"-14	13 lbs., 8 oz.	Use with No. 1071 hyd. Push-Puller.

#### Puller Screws

24832	13-3/4" long	5/8"-18	1 lb.	Use with Nos. 1150, 1151, 1152, and 1153. Acts as a regular forcing screw when threaded directly into the block of pulling attachment.
24833	5-1/2" long	5/8"-18	6 oz.	Use with Nos. 1150, 1152, and 1153. Acts as a regular forcing screw when threaded directly into the block of pulling attachment.



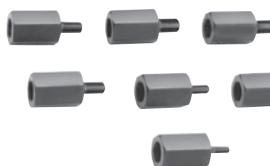
A = Thread of tapped hole in adapter.  
B = Internal thread of tapped cross block.

### Metric Adapter Sets\*

No. 8110-8140 Add metric capability to your Push-Puller legs or forcing screws! Four different sets to choose from. A storage/organizer case is included with each set.

Tool No.	Internal End	External End	Length
8111	5/8"-18	M6 x 1.0	2-1/4"
8112	5/8"-18	M8 x 1.0	2-1/4"
8113	5/8"-18	M8 x 1.25	2-1/4"
8114	5/8"-18	M10 x 1.25	2-1/4"
8115	5/8"-18	M10 x 1.5	2-1/4"
8116	5/8"-18	M12 x 1.25	2-1/4"
8117	5/8"-18	M12 x 1.75	2-1/4"
8121	5/8"-18	M14 x 1.5	2-1/4"
8122	5/8"-18	M14 x 2.0	2-1/4"
8123	5/8"-18	M16 x 1.5	2-3/4"
8124	5/8"-18	M16 x 2.0	2-3/4"
8125	5/8"-18	M20 x 1.5	2-3/4"
8126	5/8"-18	M20 x 2.5	2-3/4"
Tool No.	Std. End	Metric End	Length
8131	5/8"-18	M6 x 1.0	1-5/8"
8132	5/8"-18	M8 x 1.25	1-5/8"
8133	5/8"-18	M10 x 1.5	1-5/8"
8134	5/8"-18	M12 x 1.75	1-5/8"
8135	5/8"-18	M14 x 2.0	1-5/8"
8136	5/8"-18	M16 x 2.0	1-5/8"
8137	5/8"-18	M20 x 2.5	1-5/8"
Tool No.	Female End	Male End	Length
8141	1"-14	M16 x 1.5	3"
8142	1"-14	M16 x 2.0	3"
8143	1"-14	M18 x 1.5	3"
8144	1"-14	M20 x 1.5	3"
8145	1"-14	M20 x 2.5	3"
8146	1"-14	M22 x 1.5	3"

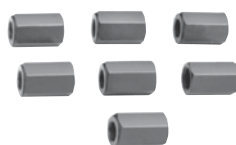
NOTE: The adapters in each of these sets are also available separately.



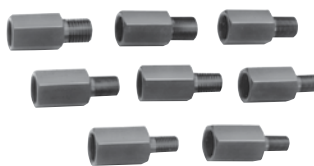
No. 8110 – External/internal metric adapter kit. Wt., 3 lbs.



No. 8120 – External/internal metric adapter kit. Wt., 3 lbs.



No. 8130 – External/internal adapter kit. Wt., 2 lbs., 12 oz.

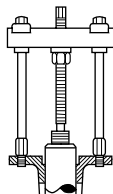


No. 8140 – External/internal adapter kit. Wt., 5 lbs., 5 oz.



# PULLERS

## External-Internal Threaded Adapters



### External-Internal Threaded Adapters

For use on the ends of Push-Puller legs or forcing screws when pulling shafts, bearing caps, pinions, etc.

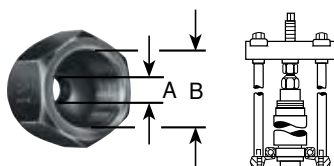
Tool No.	Internal End	External End	Length
206437	1/2"-20	5/8"-18	2-1/4"
8000	5/8"-18	1/4"-20	2-1/4"
8001	5/8"-18	5/16"-18	2-1/4"
8002	5/8"-18	7/16"-14	2-1/4"
8003	5/8"-18	7/16"-20	2-1/4"
8004	5/8"-18	3/8"-24	2-1/4"
8005	5/8"-18	3/8"-16	2-1/4"
8006	5/8"-18	1/2"-20	2-1/4"
8007	5/8"-18	1/2"-13	2-1/4"
8008	5/8"-18	9/16"-18	2-1/4"
8009	5/8"-18	9/16"-12	2-1/4"
8010	5/8"-18	5/8"-11	2-1/4"
8013	5/8"-18	3/4"-16	2-1/4"
8015	5/8"-18	3/4"-10	2-1/4"
8017	5/8"-18	7/8"-14	2-1/4"
8018	5/8"-18	7/8"-9	2-1/4"

Tool No.	Internal End	External End	Length
8019	5/8"-18	1"-14	2-1/4"
8022	5/8"-18	1/8" pipe	2-1/4"
8012	1"-14	5/8"-18	3-3/16"
8011	1"-14	5/8"-11	2-1/2"
8014	1"-14	3/4"-16	2-1/2"
8016	1"-14	3/4"-10	2-1/2"
8020	1"-8	5/8"-18	3"
8021	1"-8	1"-14	3"
8023	1-1/4"-12	1"-14	4-1/2"
8024	1-1/4"-12	1-3/4"-12	4-3/4"
8025	1-1/4"-7	5/8"-18	4"
8027	1-1/4"-7	1"-14	4"
8029	1-5/8"-5/2	1"-14	4"
8028	1-5/8"-5/2	1"-8	4"
8030	3/4"-16	5/8"-18	2-1/4"

### Internal Threaded Adapter Set

For use on the ends of Push-Puller legs or forcing screws to aid in the removal and installation of shafts, axles, and housings.

No. 8044 – Internal adapters. Wt., 3 lbs.



Tool No.	Internal End "A"	Internal End "B"
8035*	1/2"-20	5/8"-18
8036*	1"-14	1"-14
8037	5/8"-18	5/8"-18
8038	5/8"-18	3/4"-16
8039	5/8"-18	7/8"-14

Tool No.	Internal End "A"	Internal End "B"
8040	5/8"-18	1"-14
8041	5/8"-18	1-1/8"-12
8042	5/8"-18	1-1/4"-12
8043*	5/8"-18	1-1/2"-12

\*Not included in set No. 8044. Order separately. All adapters are available separately.

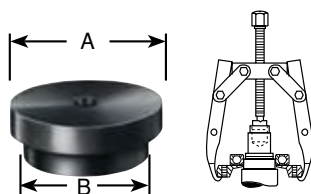
### Step Plate Adapter Sets

Necessary for pulling and installing bearings, gears, or other parts found on hollow shafts or housings. They may be used with Grip-O-Matic® pullers and Push-Pullers®, as well as shop presses. All adapters are available separately.

No. 8074 – Wt., 1 lb., 5 oz.

No. 8075 – Wt., 5 lbs., 5 oz.

No. 8076 – Wt., 10 lbs., 6 oz.



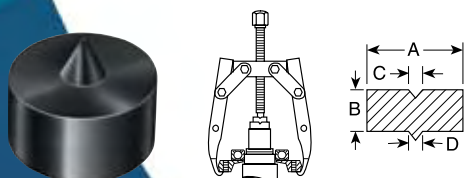
Tool No.	Set No.	8074	8075	8076	Dia. "A"	Dia. "B"
8057	•	•	•	•	1"	3/4"
8058	•	•	•	•	1-1/8"	7/8"
8059	•	•	•	•	1-1/4"	1"
8060	•	•	•	•	1-3/8"	1-1/8"
8061	•	•	•	•	1-5/8"	1-1/4"
8062	•	•	•	•	1-3/4"	1-3/8"
8063	•	•	•	•	1-7/8"	1-1/2"
8064	•	•	•	•	2"	1-5/8"
8065	•	•	•	•	2-1/8"	1-3/4"

Tool No.	Set No.	8074	8075	8076	Dia. "A"	Dia. "B"
8066	•	•	•	•	2-3/8"	1-7/8"
8067	•	•	•	•	2-1/2"	2"
8068	•	•	•	•	2-5/8"	2-1/8"
8069	•	•	•	•	2-3/4"	2-1/4"
8070	•	•	•	•	2-7/8"	2-3/8"
8071	•	•	•	•	3"	2-1/2"
8072	•	•	•	•	3-1/4"	2-3/4"
8073	•	•	•	•	3-1/2"	3"

### Shaft Protector Set

Designed to protect shaft centers from distortion when extreme pressures are applied with either Grip-O-Matic® pullers or Push-Pullers. Shaft protectors are available separately.

No. 8056 – Shaft protectors. Wt., 1 lb., 2 oz.



Tool No.	"A"	"B"	"C" (60°)	"D" (60°)
8050	1-1/2"	3/4"	3/8"	7/16"
8051	1-1/4"	3/4"	3/8"	3/8"
8052	1"	3/4"	3/8"	5/16"

Tool No.	"A"	"B"	"C" (60°)	"D" (60°)
8053	3/4"	3/4"	1/4"	1/4"
8054	5/8"	5/8"	1/4"	1/4"
8055	5/8"	5/8"	3/16"	3/16"

### Reversible-Jaw Slide Hammer Pullers

Here are two extremely versatile pullers, which will accomplish many pulling jobs involving gears, bearings, outer races, grease retainers, oil seals, etc. Either two or three puller jaws may be used to handle "inside" pulling jobs such as bearing cups and outer races, as well as regular "outside" pulling jobs. The basic slide hammer unit can be removed and used independently. The No. 1177 slide hammer puller has a 5 lb. hammer, and the No. 1176 has a 2-1/2 lb. hammer.

**No. 1176** – Puller with 2-1/2 lb. hammer, 2-way and 3-way head, 27" long. Wt., 8 lbs.

**No. 1177** – Same as 1176, except has a 5 lb. hammer. Wt., 10 lbs., 8 oz.



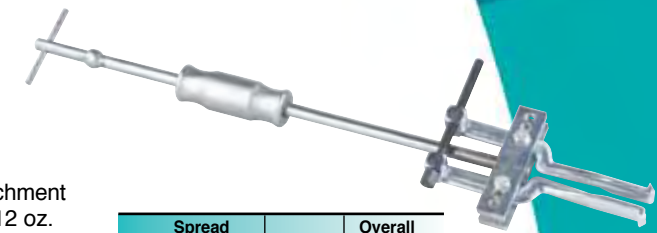
2-Jaw Spread				3-Jaw Spread				Overall Length
Inside Min.	Inside Max.	Outside Min.	Outside Max.	Inside Min.	Inside Max.	Outside Min.	Outside Max.	
1-1/4"	3-1/2"	1"	4-1/2"	1-1/2"	4-1/4"	1-1/2"	4-1/2"	27"

### Slide Hammer Pullers with Cup Pulling Attachments

These pullers combine a basic slide hammer unit with a No. 1152 internal pulling attachment (described on page 211). Ideal for removing bearing cups, outer races, and oil seals from blind holes. Upon removal of the internal pulling attachment, the basic slide hammer unit, which has a 5/8"-18 threaded end, may be used with various adapters for a multitude of pulling jobs.

**No. 1157** – Slide hammer puller, consisting of an 1152 internal pulling attachment and an 1156 basic slide hammer unit with a 2-1/2 lb. hammer. Wt., 9 lbs., 12 oz.

**No. 1158** – Slide hammer puller (not shown), consisting of an 1152 internal pulling attachment and an 1155 basic slide hammer unit with a 5 lb. hammer. Wt., 12 lbs., 4 oz.



Spread		Reach	Overall Length
Min.	Max.		
1-5/8"	6"	4"	28"

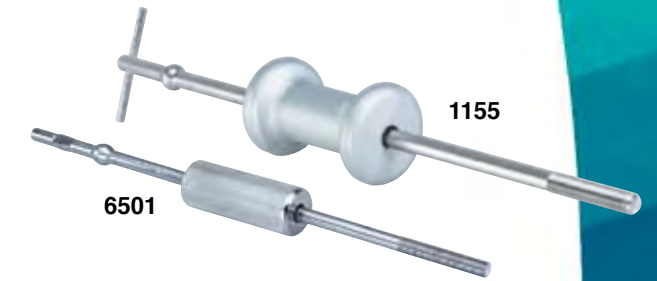
### Basic Slide Hammer Units

May be used with an OTC internal pulling attachment (page 211), or with internal or external-internal threaded adapters (page 212).

**No. 1155** – Basic slide hammer unit is 24" long with a 5 lb. hammer and a 5/8"-18 threaded end. Wt., 7 lbs., 4 oz.

**No. 1156** – Basic slide hammer unit is 24" long with a 2-1/2 lb. hammer and a 5/8"-18 threaded end. Wt., 4 lbs., 12 oz. (not shown)

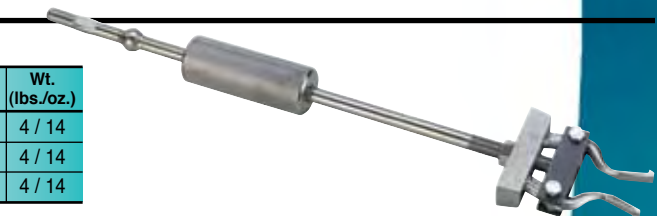
**No. 6501** – Basic slide hammer unit is 17" long with a 1-3/4 lb. hammer and a 1/2"-20 threaded end. Wt., 3 lbs.



### Pilot Bearing Pullers

These very versatile pullers are built specially for inside pulling jobs, and particularly for removing flywheel pilot bearings on automobiles, trucks, and tractors. Also very practical for pulling motor, generator, and magneto bearings.

Tool No.	Reach	I.D. Spread		Wt. (lbs./oz.)
		Min.	Max.	
1170	3/4"	1/2"	1-1/2"	4 / 14
1171	1"	7/8"	2-1/8"	4 / 14
1172	1-3/4"	1/2"	2"	4 / 14



### Special Slide Hammer Puller

Ideal for pulling jobs in very close quarters, as in removal of small-bore bushings, bearings, oil seals, etc. Internal pulling attachment has a jaw spread of 1/2" to 1-3/8", adjusted by turning the slide hammer handle. Handle end has a 1/2"-20 thread.

**No. 1173** – Slide hammer puller with head assembly. Wt., 3 lbs., 8 oz.

**No. 1174** – Head assembly only. Wt., 10 oz.



### Slide Hammer Puller

Just 8-1/2" long to fit into tight spots, but its 1-1/2 pound hammer gives you a little extra muscle for stubborn jobs. It's perfect for pulling injector nozzles. The shank is threaded 1/2"-20 and has a 5/8"-18 threaded adapter included. Works with many OTC pulling attachments.

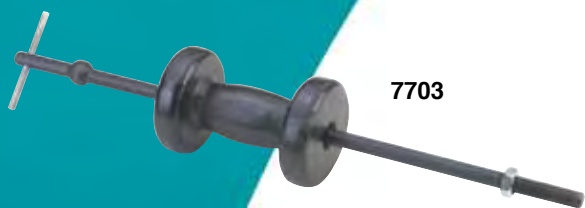
**No. 5028** – Slide hammer puller. Wt., 2 lbs.



5028

# PULLERS

## Grip Wrench Adapters & Bearing Pullers



7703

### Ten-Pound Slide Hammer Puller

This heavy-duty slide hammer puller gets tough with those really stuck parts. It has all the features of our smaller versions – heat treated, 24" long, and a 5/8"-18 threaded end to adapt to any of OTC's pulling attachments. The difference is the ten-pound hammer that gives you the extra muscle for really stubborn pulling jobs.

**No. 7703** – Ten-pound slide hammer puller. Wt., 12 lbs., 5 oz.



22185

34331

### Sliding Hammers

**No. 22185** – 2-1/2 lb. sliding hammer.

**No. 34331** – 5 lb. sliding hammer.



### Grip Wrench Adapters

For grip wrenches using single- or double-lead thread adjusting screw. Adapter threads onto a slide hammer with a 5/8"-18 thread. Grip wrench threads onto a 7/16"-14 end of adapter for pulling use.

**No. 205378** – Grip wrench adapter with single lead thread. Wt., 4 oz.

**No. 218875** – Grip wrench adapter with double lead thread. Wt., 4 oz.



464

465

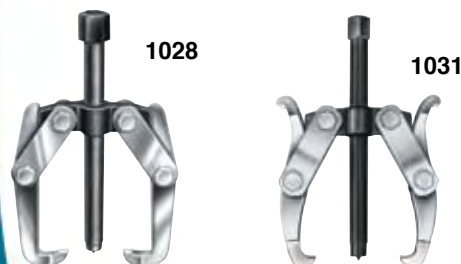
### OTC "GripLock" Pullers

Manufactured to our rigorous specifications to ensure the quality professionals expect from OTC

- Pressure bearing yoke cap holds jaws in place for ease of set up - in any orientation.
- 2 or 3 Jaw application.
- Both External and Internal Pulling Action.
- "Live Center" action forcing screw.
- Professional finished for long lasting durability...

**No. 464** – Puller with a 4" maximum reach, 3" to 4" spread. Wt., 3 lb., 4 oz.

**No. 465** – Puller with a 7" maximum reach, 3" to 7" spread. Wt., 7 lb., 13 oz.



1028

1031

### Differential Bearing Pullers

For removing differential side carrier bearings on a wide variety of passenger cars and light trucks. Use with step plate adapter Nos. 8060, 8061, 8063, and 8064. (Step plate adapters are not included with 1028 or 1031. See page 212.)

**No. 1028** – Puller with a 3-1/2" maximum reach, 1-1/4" to 4-1/2" spread. Primarily for servicing Ford products. Wt., 1 lb., 13 oz.

**No. 1031** – Puller with a 3-1/4" maximum reach, 6" maximum spread. For servicing most General Motors, American Motors, and Chrysler products. Wt., 2 lbs.



4520

### Differential Side Bearing Pullers

- Use to remove differential side carrier bearing. Works on a wide variety of cars and light-duty trucks.
- Includes four step plate adapters to fit carrier bearings.
- Reach: 1-5/8". Spread: 2-5/8" to 3-3/8". Forcing screw is 3/4"-16 mm x 6-11/16" lg.

Set includes:

#### Part No. Description

**4520-1** Forcing Screw / Cross Block Assembly

**4520-2** Puller Jaws / Pins (set of two each)

**4520-3** Puller Jaws Retaining Yoke

**4520-4** Step Plate Adapters (set of four)

15/16" – 1-11/32" diameter

1-1/8" – 1-1/2" diameter

1-1/4" – 1-5/8" diameter

1-1/8" – 1-3/4" diameter

**No. 4520** – Differential side bearing puller. Wt., 4 lbs., 10 oz.

#### Specifications

**Reach:** 1-5/8"

**Spread:** 2-5/8" on inside holes in crossbar  
3-3/8" on outside holes in crossbar

**Forcing screw:** 3/4"-16 mm x 6-11/16" lg.

**Adapter sizes:** 15/16" to 1-3/4" diameter



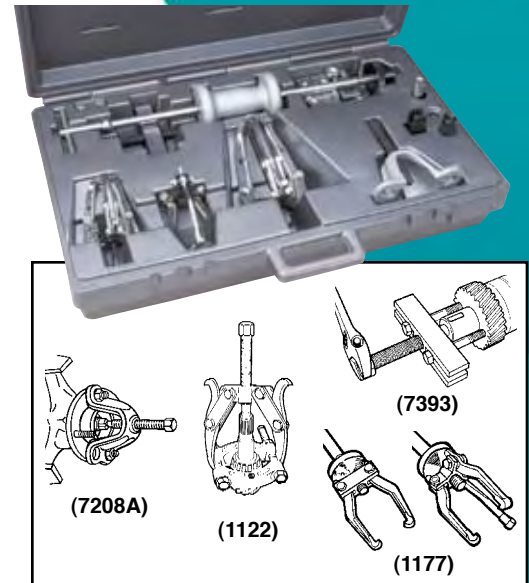


### Multipurpose Puller Set

This assortment of puller tools gives you a wide range of job versatility. You get a 5 lb. slide hammer puller, hub puller, two sizes of OTC Grip-O-Matic® jaw-type pullers, a bearing pulling attachment, plus a cross-bar gear and pulley puller, all contained in a handy plastic storage case.

**No. 1181** – Multi-purpose puller set. Wt., 25 lbs.

Set No. 1181 consists of:	
No.	Description
1177	Slide hammer puller with a 5 lb. hammer, 2-way and 3-way heads. Reversible: either two or three jaws may be used to handle both "inside" and "outside" pulling jobs.
7208A	Front hub puller for servicing front-wheel-drive cars. Includes a spare locknut, which permits use with a No. 1177 slide hammer for rear axle flanges.
1023	2-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 3-3/8" max. reach, 4-3/4" max. spread.
1027	5-ton combination 2- or 3-jaw Grip-O-Matic puller. Has 5-1/2" max. reach, 7" max. spread.
7393	Bar-type gear and pulley puller with a 5-1/2" long screw. Includes two hex head cap screws, 3/8"-16 x 3" long. Spread range: 1-1/2" to 4-1/4".
1122	Bearing pulling attachment for use with No. 1027 and No. 7393 pullers. Has 2" max spread, 1/8" min. spread.



### Cone-type Puller

Reversible jaws permit handling of both internal and external pulling jobs. The 2-way/3-way head permits assembly of puller to suit the job at hand. Turning the cone on the puller head securely locks its jaws on the part to be removed.

**Puller reach:** 2-7/8"

**2-jaw spread:**

Inside: 1-1/2" to 4-1/2"

Outside: 3/4" to 5"

**3-jaw spread:**

Inside: 1-1/2" to 4-3/4"

Outside: 1" to 4-1/2"

**No. 1184** – Cone-type puller. Wt., 2 lbs., 6 oz.



### Bearing Cup Remover

Ideal for servicing hubs on today's popular front-wheel-drive small cars. The cone holds the jaws in place during pulling. No. 7136 is perfect for pulling internal bearing cups, seals, bushings, etc. Jaw spread: 15/16" to 3-1/4", reach to 3-1/2". Use with any slide hammer having a 5/8"-18 thread (OTC No. 1155 or No. 1156 or the No. 927 Push-Puller).

**No. 6542** – Universal bearing cup remover. Wt., 1 lb., 8 oz.

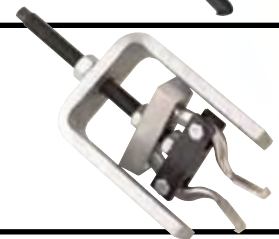


### Pilot Bearing Pullers

Designed to pull flywheel pilot bearings in close quarters where a slide hammer cannot be used. Operates on many models with engine in chassis.

**No. 7318** – Pilot bearing puller. Capacity: 1/2" to 1-1/2". I.D. reach: 3/4". Wt., 3 lbs., 7 oz.

**No. 7319** – Pilot bearing puller. Capacity: 7/8" to 2". I.D. reach: 1". Wt., 3 lbs., 8 oz.



### "Silver Slapper" 8-Way Slide Hammer Puller Set

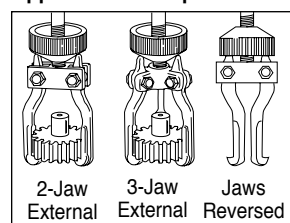
You can pull flange-type rear axles, stubborn oil seals and bearings, and other press-fit parts. Jaws can be set up for 2/3-way internal or external pulling jobs.

**No. 1179** – 8-way slide hammer puller set with a 5 lb. hammer and attachments. Wt., 12 lbs.

Set No. 1179 consists of:

No.	Description
1155	Slide hammer w/5 lb. hammer
7372	Rear axle pulling attachment
24544	3-way cross-head
24545	Cone
27241	2-way cross-block
27315	Puller hook attachment
34698	Pulling jaws (3) for internal or external pulling jobs
205378	Grip wrench adapter w/single lead (wrench not included)
205377	Dent puller attachment

#### Application Examples



1179

# PULLERS

## Slide Hammer Puller Sets



7792

### Rear Axle Puller Set

The tools you need for flange-type rear axle and bearing removal on most late model passenger cars and light trucks. Set includes the No. 7374 rear axle pulling plate and a 5 lb. slide hammer. The axle bearing pullers, used with the slide hammer, make short work of removing semi-floating rear axle bearings.

**No. 7792** – Rear axle puller set. Wt., 11 lbs., 4 oz.

Set No. 7792 consists of:

No.	Description
7374	Rear axle pulling plate with a 5 lb. slide hammer.
7495	Rear axle bearing puller. Fits a min. bearing tube I.D. of 1" and a max. axle tube I.D. of 1-7/8".
7496	Rear axle bearing puller. Fits min. bearing tube I.D. of 5/16" and max. axle tube I.D. of 2-3/8".
7497	Rear axle bearing puller. Fits min. bearing tube I.D. of 1-3/8" and max. axle tube I.D. of 2-7/8".
27315	Puller hook for use with 5 lb. slide hammer in set. Removes oil seals, bearings, etc.



4579

### 9-Way Slide Hammer Puller Set

Pulls flange type rear axles and most front wheel drive hubs.

- Internal and external jaws provide a variety of combinations to pull bearings, gears and seals.
- Two and three way cross blocks and cone provide the perfect jaw configuration for most jobs.
- Set also includes a grip wrench adapter and a dent puller attachment for sheet metal or other unique pulling requirements.

**No. 4579** – 9-Way Slide Hammer Set.



7948

### 8-Way and 10-Way Slide Hammer Puller Sets

Our two most popular slide hammer puller sets—the Silver Slapper and the Silver Slapper Plus—now come packaged in a convenient plastic, blow-molded carrying/storage case. They're the same great sets with the same versatile pullers and attachments, now made even better with the addition of an organizer case. Or, if you already own either our No. 1179 or No. 1189 puller sets, we offer the plastic case separately. The case will hold either set.

**No. 7947** – Eight-way slide hammer puller set. Same contents as No. 1179 Silver Slapper set, but includes plastic carrying/storage case. Wt., 19 lbs.

**No. 7948** – Ten-way slide hammer puller set. Same contents as No. 1189 Silver Slapper Plus set, but includes plastic carrying / storage case. Wt., 25 lbs.

**No. 63106** – Puller storage case. Blow-molded plastic. Wt., 7 lbs.



1178

### Slide Hammer Puller Set

This useful set contains OTC's popular No. 1176 reversible-jaw slide hammer puller, plus an assortment of special jaws and adapters. You get all the versatility of the No. 1176 (described fully on page 213), plus attachments for pulling various size pilot bearings, oil seals, bushings, timing gears, harmonic balancers, and other tightly fitted parts!

**No. 1178** – Slide hammer puller set. Wt., 10 lbs., 3 oz.

No. 1178 set consists of:

Tool No.	2-Jaw Spread				Tool No.	3-Jaw Spread			
	Inside Min.	Inside Max.	Outside Min.	Outside Max.		Inside Min.	Inside Max.	Outside Min.	Outside Max.
44195	1-1/2"	4-1/2"	3/4"	5"	44195	1-1/2"	4-3/4"	1"	4-1/2"
32054	3/4"	2-3/8"	—	—	32054	1"	2-3/4"	—	—
44148	2-3/4"	5-1/2"	3/4"	7-1/2"	44148	3-1/4"	6-1/4"	1"	6-1/4"
34698	1-1/4"	3-1/2"	1"	4-1/2"	34698	1-1/2"	4-1/4"	1-1/2"	4-1/2"

No.	Description
1176	Reversible-jaw slide hammer puller with 2-1/2 lb. hammer
44195	Medium jaw (3 incl.)
32054	Pilot bearing jaw (3 incl.)
44148	Long jaw (3 incl.)
27315	Puller hook. Removes oil seals, bearings, etc.
27241	2-way cross head
36578	Cross block. Removes timing gears, harmonic balancers, pulleys, other parts having tapped holes. Uses cap screws up to 3/8" diameter. Spread with 3/8" dia. cap screws: 1-7/8" – 5-5/8".

### Blind Hole Puller Set

This set provides a complete selection of expanding collets ranging in size from 5/16" to 1-3/4". Collet is placed through bore of part to be removed, then expanded with actuator pin so that lips of collet secure a positive grip for pulling. Force is exerted by means of a forcing screw and a bridge assembly or a slide hammer. Individual pieces can be ordered separately.

**No. 981** – Blind hole puller set. Wt., 21 lbs.

Set No. 981 consists of:

No.	Description
24835	Forcing screw
24836	Forcing screw nut
22185	2-1/2 lb. hammer
208627	Shank and tee bar assembly
28250	Actuator pin, 1/8" dia., for use with collets 33856 & 33857

No.	Description
28253	Actuator pin, 3/16" dia., for use w/collets 33858-33862
28256	Actuator pin, 1/2" dia., for use with collets 33863-33865
28323	Metal box (not shown)
33856	Collet 5/16" to 3/8"

No.	Description
33857	Collet 3/8" to 7/16"
33858	Collet 7/16" to 1/2"
33859	Collet 1/2" to 5/8"
33860	Collet 5/8" to 3/4"
33861	Collet 3/4" to 7/8"

No.	Description
33862	Collet 7/8" to 1"
33863	Collet 1" to 1-1/4"
33864	Collet 1-1/4" to 1-1/2"
33865	Collet 1-1/2" to 1-3/4"
41331	Bridge



### Blind Hole Bearing Puller Set

- For pulling jobs requiring an internal pull.
- Set includes four collets, which fit a wide range of applications. Select the appropriate sized collet by comparing it with the application. Insert the collet, expand it to fit the hole, then attach the slide hammer.
- Four collet sizes: 7/16" to 1/2", 9/16" to 11/16", 5/8" to 1", and 1" to 1-1/4".
- Set includes a 2-1/2 lb. slide hammer with a T-handle.
- Housed in a blow-molded plastic storage case.

**No. 4581** – Blind hole bearing puller set. Wt., 7 lbs., 2 oz.



### A/C Clutch Pulley Puller Set

- For removal of stubborn air conditioning clutch pulleys. Also can be used on many alternator, generator, power steering, and crankshaft pulleys, harmonic balancers, and fiber timing gears.
- Set includes drop-forged components: one 3/4"-16 x 5" live center forcing screw, 5-1/2" crossbar with 3 spread settings, two pairs of jaws, and a clamp bolt.
- Spread: 3" to 5"; Reach: 1" to 5".
- Includes a blow-molded plastic case.

**No. 4536** – A/C clutch pulley puller set. Wt., 4 lbs., 11 oz.



### Multipurpose Bearing and Pulley Puller Set

- For a wide range of pulling jobs, including: bearings, alternators, generators, power steering and crankshaft pulleys, timing gears, and harmonic balancers.
- Set includes drop-forged components, which can be used in a variety of combinations.

Contents of Set:

- 2 – Forcing Screws (live center): 3/4"-16 x 6-11/16" & 3/4"-16 x 5"
- 2 – Cross-bar Yokes: 3 pin-hole @ 3-1/4" to 5-1/2", 2 pin-hole @ 2-3/8" to 3-3/8"
- 2 – Clamp Bolts
- 3 – Pairs of Puller Jaws: 1-3/8" Max, 1-5/8" Max, 1-3/4" Max
- 1 – Pair of Jaw Pins with Ball Spring
- 3 – Pairs of Capped Bolts

- Spread: 3" to 5", Reach: 1" to 2-1/4"
- Housed in a blow-molded plastic storage case.

**No. 4534** – Multipurpose bearing and pulley puller set. Wt., 8 lbs., 2 oz.





# PULLERS

## Puller/Bearing Sets

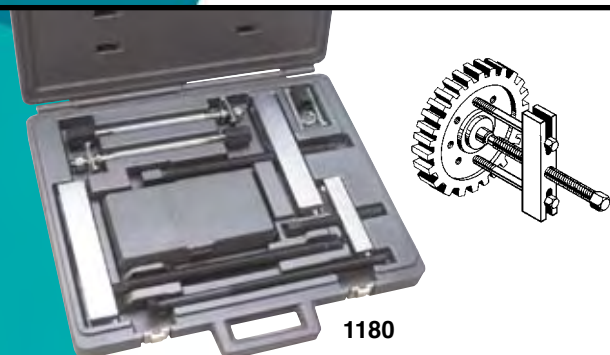


1182

### Lock-on, Jaw-type Puller Set

Components can be assembled to create several versatile puller versions for both internal and external pulling tasks. The puller head is turned to securely lock the jaws onto the part being removed. Both a 2-way and 3-way puller head are included, plus three long-reach and three short-reach puller jaws. Plastic storage box included. Easily removes gears, bearings, timing gears, harmonic balancers, and other press-fitted parts.

**No. 1182** – Jaw-type puller set. Wt., 6 lbs., 10 oz.



1180

### 10-Ton Capacity Push-Puller Set

Contains three popular OTC bar-type pullers in one versatile set, packed in a handy plastic storage case. Tools included permit damage-free pulling of gears, bearings, harmonic balancers, and other parts having tapped holes. Ideal for servicing heavy-duty trucks, off-road construction equipment, and machinery.

**No. 1180** – 10-ton push-puller set, in plastic case. Wt., 25 lbs.

Set No. 1180 consists of:

No.	Description
927	10-ton Push-Puller, 8-3/8" reach, 2-1/8" to 7-1/4" spread. 6-3/4" puller legs. Other leg sizes are available separately. (See pages 209–210.)
522	Gear and pulley puller; spread range when used with 1/2" cap screws: 2" to 7-3/4". Cap screws not included.
7393	Gear and pulley puller with standard 5-1/2" forcing screw, plus special 13" forcing screw. Includes two hex head cap screws, 3/8"–16 x 3" long. Special range: 1-1/2" to 4-1/4".



1183

### Bearing Splitter Combo Set

This combo pack contains four of OTC's most popular bearing splitters, plus a pulley pulling attachment. A rugged organizer case is included, enabling you to keep the tools together for instant use.

Set No. 1183 consists of:

No.	Description
1121	Bearing splitter. Has 15/16" max. spread and 1/4" min. spread.
1122	Bearing splitter. Has 2" max. spread and 1/8" min. spread.
1123	Bearing splitter. Has 4-5/8" max. spread and 1/2" min. spread.
1130	Bearing splitter. Has 9" max. spread and 1/2" min. spread.
679	Pulley pulling attachment with a 5-7/8" max. and 1-3/4" min. spread

**No. 1183** – Bearing splitter combo set. Wt., 30 lbs., 5 oz.

**No. 62885** – Organizer case only (for 1183). Wt. 5 lbs., 5 oz.



4518

### 5-Ton Bar-type Puller/Bearing Separator Set

- This combination set includes our two most popular bearing "splitters" (2" and 3"), four sets of hex push-puller legs, and a bar-type puller head with a 9/16" forcing screw. Separator tools are used with bar puller and legs for a wide variety of pulling jobs.
- The 5" puller cross-bar with a 6-1/4" forcing screw and each of the bearing separators may be used separately or in combination with other pullers or tools.
- A blow-molded plastic storage case keeps set contents organized and protected from loss.

**No. 4518** – Bearing separator/bar-type puller set. Wt., 10 lbs., 8 oz.

### Flange-Type Puller Combination

Two specialty pullers in one box. You get a flange-type puller for removal of harmonic balancers, timing gears, and other parts with two or three tapped holes. You also get a steering wheel, pulley, and flywheel puller.

**No. 525** – Flange-type puller combination. Includes flange-type puller and steering wheel puller with four sets of cap screws. Wt., 5 lbs., 8 oz.

525



### Flange-Type Puller

Heavy-duty flange puller features a live center forcing screw. Includes two live center forcing screw tips and two sets of commonly used automotive bolts. Puller will work on bolt circles from 1-1/2" to 4-1/4". Three cap screws, 3/8-24 x 3" long, and three cap screws, 3/8-16 x 3" long.

**No. 6930** – Flange-type puller. Wt., 3 lbs., 4 oz.



6930

### 7-Ton Capacity Four-In-One™ Puller Set

With the parts included in the PA7, you can quickly assemble a 2/3-jaw puller with standard or long reach. 7-ton capacity, the max. reach of 8-3/4", and max. spread of 11" make it ideal for hundreds of pulling jobs.

**No. PA7** – Four-in-one puller set, 7-ton cap. Standard jaw max. reach: 5". Max. spread: 10-1/2". Long jaw max. reach: 8-3/4". Max. spread: 11". Wt., 12 lbs.



PA7

### Flange-Type Puller Set

Covers almost every car, pick-up, SUV, and small engine. Capable of handling almost every two- or three-way bolt pull possible. For use on a variety of jobs: harmonic balancers, steering wheels, crankshaft pulleys, and gears. Storage tray and detailed application chart included. Slotted holes in puller flange permit cap screws to be positioned to handle bolt circles from 1-1/2" to 4-1/4".

Includes three each of the following washer head bolts (Grade 8):

M8 x 1.25 x 90 mm	3/8-16 UNF x 3"	M8 x 1.25 x 90 mm
1/4-28 UNF x 3"	M10 x 1.5 x 35 mm	M8 x 1.25 x 60 mm
5/16-24 UNF x 3"	5/16-18 UNF x 3.5"	3/8-16 UNF x 4.5"
3/8-24 UNF x 1.5"	3/8-16 UNF x 2"	

Special Stepped Bolts – 1990 & newer GM 3300–3800 V-6 crankshaft pulleys

**No. 6294** – Flange-type puller set. Wt., 7 lbs., 4 oz.

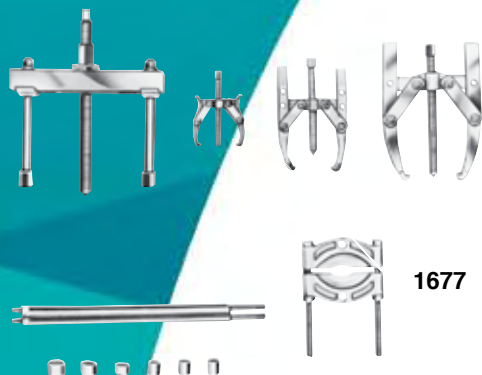
6294





# PULLERS

## Puller Sets



1677

### 17-1/2 Ton Capacity Puller Set

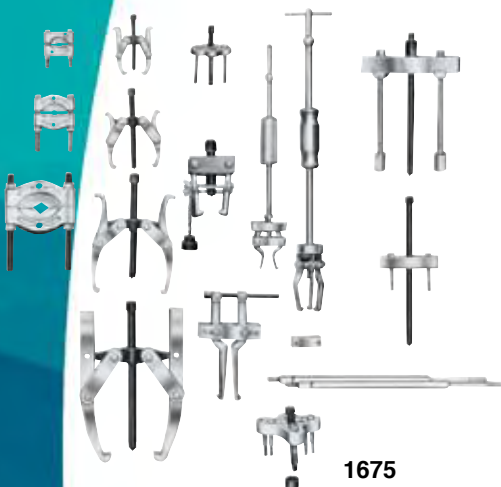
This puller set gives you the versatility you want and the tonnage capacity you need to tackle parts removal and installation on many models of cars, trucks, tractors, power shovels, road building machinery, etc. Maintenance operations involving the removal and replacement of gears, bearings, wheels, and other press-fit parts can be done with ease.

**No. 1677** – 17-1/2 ton capacity puller set. Wt., 65 lbs.

**No. 1621** – Board (3' x 4') for storing No. 1677 set (not included with set). Wt., 37 lbs.

No.	Description
938	Push-Puller w/ 9-1/2" legs
1104	16-1/2" legs for 938 (pr.)
1024	2-jaw puller
1036	2-jaw puller
1039	2-jaw puller
1130	Bearing splitter

No.	Description
	Internal threaded adapters
8037	5/8"-18 x 5/8"-18
8038	5/8"-18 x 3/4"-16 (2)
8039	5/8"-18 x 7/8"-14
8040	5/8"-18 x 1"-14
8041	5/8"-18 x 1-1/8"-12
8043	5/8"-18 x 1-1/2"-12



1675

### 13-Ton Capacity Puller Set

This versatile 13-ton capacity puller set removes gears, bearings, shafts, pinions, bearing outer races, and other tightly fitted parts. The set includes a Push-Puller, Grip-O-Matic® pullers, bearing pulling attachments, specialized pullers, and many accessories. You can work on all makes and models of cars and light trucks with this set.

**No. 1675** – 13-ton capacity puller set. Wt., 74 lbs.

**No. 1620** – Board (3' x 4') for storing No. 1675 set (not included with set). Wt., 40 lbs.

No.	Description
927	Push-Puller w/ 6-3/4" legs
1101	15-3/4" legs for 927 (pr.)
1022	2-jaw puller
1024	2-jaw puller
1035	2-jaw puller
1039	2-jaw puller
7392	Gear and pulley puller
518	Flange-type puller
7403	Steering wheel puller
1170	Pilot bearing puller

No.	Description
1176	Slide hammer puller
7310A	Pitman arm puller
8075	Step plate adapter set
8035	Internal threaded adapter: 1/2" -20 x 5/8" -18 (2)
8044	Internal threaded adapter set
1152	Bearing cup pulling attach.
1121	Bearing splitter
1122	Bearing splitter
1123	Bearing splitter



1676

### Strong Box Puller Set

Here's a set of pullers that gives you almost unheard of versatility. You get eight pullers, five attachments, and extra puller jaws. They enable you to pull gears, bearings, pulleys, wheels, and more on cars and light trucks. All these tools are contained in a rugged, lockable metal storage cabinet you can either mount on a wall or stand on a work bench, so they are handy when you need them. Just imagine the jobs you can do with this set!

**No. 1676** – Strong box puller set. Wt., 85 lbs.

**No. 18886** – Storage box only. 29-1/2" wide x 25-3/4" high x 10" deep. Wt., 47 lbs.

No.	Description
1026	2/3-jaw puller
1037	2/3-jaw puller
7393	Gear and pulley puller
518	Flange-type puller
7403	Steering wheel puller
1170	Pilot bearing puller
1177	Slide hammer puller

No.	Description
7311A	Pitman arm puller
1122	Bearing splitter
1123	Bearing splitter
7372	Rear axle pulling adapter
43888	Long jaws for No. 1026 (3)
43892	Long jaws for No. 1037 (3)
18886	Metal storage box



### Hydraulic Puller Sets

**17-1/2, 30-, and 50-Ton Capacity** – Individual items in the sets are fully described elsewhere in this catalog. . . consult index.

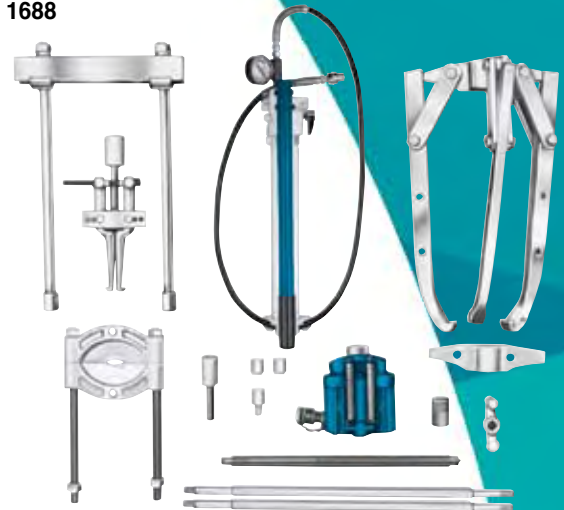
**No. 1688** – 17-1/2 ton capacity hydraulic puller set. Wt., 139 lbs.

**No. 1689** – 30-ton capacity hydraulic puller set. Wt., 330 lbs.

**No. 1690** – 50-ton capacity hydraulic puller set. Wt., 576 lbs.

No.	Description	Set 1688	Set 1689	Set 1690
<b>HYDRAULICS</b>				
4002	Single stage hydraulic hand pump assy.	•	•	•
4120	17-1/2 ton ram with threaded insert	•		
4121	30-ton ram with threaded insert		•	
4122	50-ton ram with threaded insert			•
24815	Tee adapter	•	•	•
9650	Pressure gauge	•	•	•
9767	Hydraulic hose – 6 foot	•	•	•
9798	Hose half coupler with dust cap	•	•	•
<b>PULLERS</b>				
1062	17-1/2 ton Push-Puller with 16-1/2" legs	•		
1066	17-1/2 ton 3-jaw hydraulic puller	•		
1070	30-ton hydraulic Push-Puller with 18" legs		•	
1074	30-ton 3-jaw hydraulic puller		•	
1076	50-ton hydraulic Push-Puller with 24" legs			•
1080	50-ton 3-jaw hydraulic puller			•
<b>ACCESSORIES</b>				
1105	Puller leg – 22-1/2"	•		
1111	28" legs for No. 1070		•	
1113	34" legs for No. 1076			•
1127	Bearing pulling attachment		•	•
1130	Bearing pulling attachment	•		
1154	Bearing cup pulling attachment	•		
1166	Bearing cup pulling attachment		•	
201454	Pushing adapter	•		
24814	Speed crank	•		
27198	Speed crank		•	
28228	Pushing adapter	•		
28229	Ram cap		•	
28230	Ram cap for No. 1076			•
29595	Speed crank			•
32118	Ram adjusting screw	•		
32698	Adjusting screw			•
34510	Pushing adapter		•	
34755	Pushing adapter			•
34758	Adjusting screw		•	
41226	2-way head for No. 1074		•	
41224	2-way head for No. 1066	•		
50449	2-way head for No. 1080			•
8020	1"-8 F. x 5/8"-18 M. threaded adpt.	•		
8023	1-1/4"-12 F. x 1"-14 M. threaded adpt. (2)			•
8028	1-5/8"-5-1/2 F. x 1"-8 M. threaded adpt.			•
8029	1-5/8"-5-1/2 F. x 1"-14 M. threaded adpt.			•
8036	Female thd. adpt. 1"-14 x 1"-14 (2)		•	
8038	Female thd. adpt. 5/8"-18 x 3/4"-16 (2)	•		

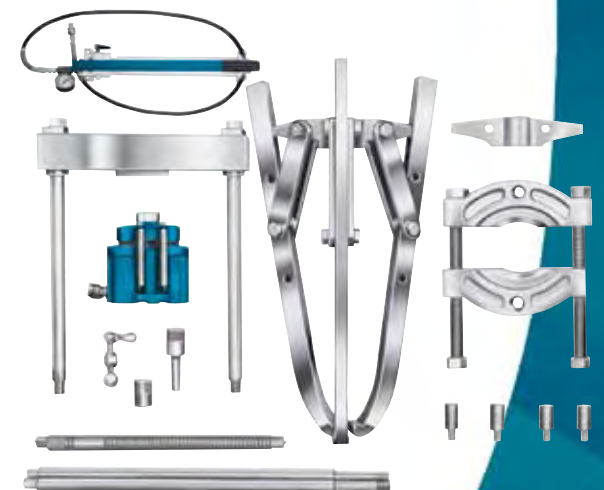
1688



1689

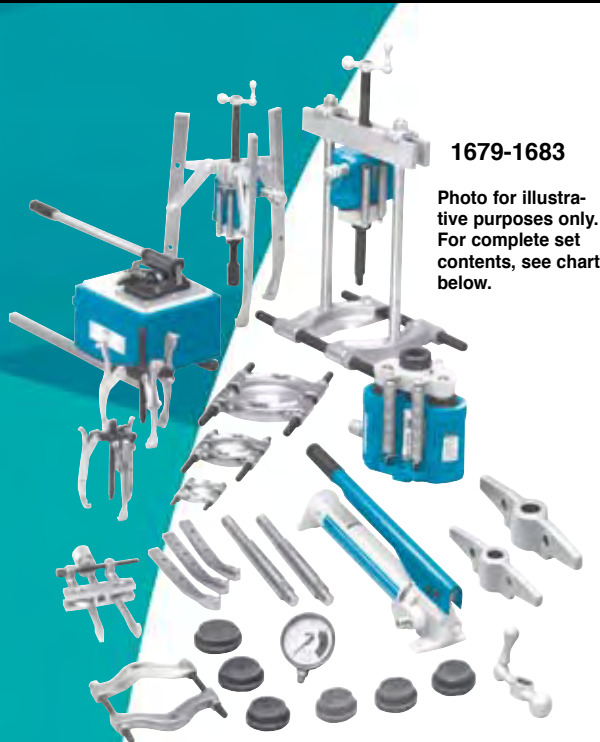


1690



# PULLERS

## Hydraulic Puller Sets



1679-1683

Photo for illustrative purposes only. For complete set contents, see chart below.

Individual items in the sets are fully described elsewhere in this catalog. . . consult index.

Tool No.	Description	Set 1679	Set 1680	Set 1681	Set 1682	Set 1683
<b>HYDRAULICS</b>						
4002	Single-stage hydraulic hand pump assembly	•	•	•	•	•
4008	2-stage hyd. hand pump w/3-way control valve				•	
9650	Pressure gauge	•	•	•	(2)	•
9798	Hose half coupler w/dust cap	•	•	•	(2)	•
9767	Hydraulic hose – 6 ft.	•	•	•	(2)	•
<b>RAMS</b>						
4120	17-1/2 ton ram with threaded insert	•	•	•	•	•
4121	30-ton ram with threaded insert			•	•	
4122	50-ton ram with threaded insert				•	•
<b>PULLERS</b>						
1025	2-jaw puller		•			
1027	5-ton capacity 2/3-jaw puller	•		•	•	•
1035	2-jaw puller		•			
1039	2-jaw puller		•			
1062	17-1/2 ton cap. hyd. Push-Puller w/16-1/2" legs	•	•	•	•	•
1105	22-1/2" legs for No. 1062 (pair)	•	•	•	•	•
1106	9-1/2" legs for No. 1062 (pair)				•	
1107	4-1/2" legs for No. 1062 (pair)				•	
1070	30-ton cap. hyd. Push-Puller w/18" legs			•	•	
1109	8" legs for No. 1070 (pair)				•	
1111	28" legs for No. 1070 (pair)			•	•	
1076	50-ton cap. hyd. Push-Puller w/24" legs				•	•
1113	34" legs for No. 1076 (pair)				•	•
1066	17-1/2 ton 3-jaw Grip-O-Matic® puller	•	•	•	•	•
41224	17-1/2 ton 2-jaw puller head	•	•	•	•	•
1074	30-ton 3-jaw hyd. puller			•	•	
1080	50-ton 3-jaw hyd. puller				•	•
50449	50-ton 2-jaw puller head				•	•
1037	Combination 2/3-jaw puller	•		•	•	•

## Hydraulic Puller Sets

No. 1679 – 17-1/2 ton hydraulic puller set. Wt., 238 lbs.

No. 1680 – 17-1/2 ton hyd. farm implement service set. Wt., 186 lbs.

No. 1681 – 17-1/2 ton and 30-ton hydraulic puller set. Wt., 543 lbs.

No. 1682 – 17-1/2 ton, 30-ton, & 50-ton master puller set. Wt., 1260 lbs.

No. 1683 – 17-1/2 ton & 50-ton hydraulic construction equipment service set. Wt., 821 lbs.

Tool No.	Description	Set 1679	Set 1680	Set 1681	Set 1682	Set 1683
41226	30-ton 2-jaw puller head			•	•	
43892	Long jaws for No. 1037 (3)			•	•	•
1041	Combination 2/3-jaw puller	•		•	•	•
30902	Long jaws for No. 1041 (3)			•	•	•
1170	Pilot bearing puller		•			
1176	Slide hammer puller		•			
7392	Gear and pulley puller		•			•
24833	Short forcing screw for No. 7392		•			•
<b>ACCESSORIES</b>						
8005	5/8"-18 F x 3/8"-16 M threaded adapter (2)	•	•	•	•	•
8006	5/8"-18 F x 1/2"-20 M threaded adapter (2)	•	•	•	•	•
8007	5/8"-18 F x 1/2"-13 M threaded adapter (2)	•	•	•	•	•
8010	5/8"-18 F x 5/8"-11 M threaded adapter (2)	•	•	•	•	•
8013	5/8"-18 F x 3/4"-16 M threaded adapter (2)	•	•	•	•	•
8015	5/8"-18 F x 3/4"-10 M threaded adapter (2)	•	•	•	•	•
8017	5/8"-18 F x 7/8"-14 M threaded adapter (2)	•		•	•	
8018	5/8"-18 F x 7/8"-9 M threaded adapter (2)	•		•	•	
8019	5/8"-18 F x 1"-14 M threaded adapter (2)	•	•	•	•	•
8020	1"-8 F x 5/8"-18 M threaded adapter (1)	•	•	•	•	•
8021	1"-8 F x 1"-14 M threaded adapter (1)	•	•	•	•	•
8012	1"-14 F x 5/8"-18 M threaded adapter (2)				•	•
8025	1-1/4"-7 F x 5/8"-18 M threaded adapter (2)			•	•	
8027	1-1/4"-7 F x 1"-14 M threaded adapter (2)			•	•	
8023	1-1/4"-12 F x 1"-14 M threaded adapter (2)				•	•
8024	1-1/4"-12 F x 1-3/4"-12 M threaded adapter (2)				•	
8028	1-5/8"-5-1/2 F x 1"-8 M threaded adapter (1)				•	•
8029	1-5/8"-5-1/2 F x 1"-14 M threaded adapter (1)				•	•
8036	1"-14 F x 1"-14 F threaded adapter (2)			•	•	
8038	5/8"-18 F x 3/4"-16 F threaded adapter	(2)	•	(2)	(2)	•
8056	Shaft protector set	•	•	•	•	•
8075	Step plate adapter set	•	•	•	•	•
8076	Step plate adapter set			•	•	•
679	Pulley pulling attachment	•		•	•	
680	Pulley pulling attachment			•	•	
8044	Internal threaded adapter set	•	•	•	•	•
10215	Hex nut: 3/4"-16 (2)					•
1154	Bearing cup pulling attachment	•	•	•	•	•
32136	Long jaws for No. 1154 (2)			•	•	
1166	Bearing cup pulling attachment			•	•	•
34479	Reducing adapter for use with No. 1166				•	•
1122	Bearing splitter	•	•	•	•	•
1123	Bearing splitter	•	•	•	•	•
1126	Bearing splitter			•	•	•
1127	Bearing splitter				•	•
1128	Bearing splitter				•	
1130	Bearing splitter	•	•	•	•	•
24814	Speed crank	•	•	•	•	•
24815	Tee adapter	•	•	•	•	•
24829	Short bolt (2)					•
24832	Special puller forcing screw	•		•	•	
27198	Speed crank			•	•	
29595	Speed crank				•	•
28228	Ram cap	•	•	•	•	•
28229	Ram cap			•	•	
28230	Ram cap				•	•
32118	Ram adjusting screw	•	•	•	•	•
32698	Ram adjusting screw				•	•
34758	Ram adjusting screw			•	•	
34510	Pushing adapter			•	•	
34755	Pushing adapter				•	•
201923	Pushing adapter	•	•	•	•	•



- Engineered in the U.S.A.
- Lifetime Marathon Warranty®

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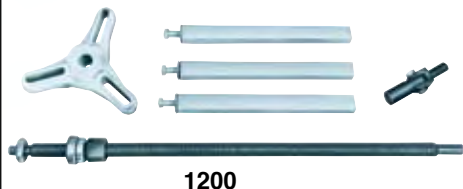
## Heavy-Duty Class 4 – 8 Trucks

Category	Class	GVWR2	Representative Vehicles
Medium	4	62 - 71 kN (14,001 - 16,000 lbs.)	city cargo van, beverage delivery truck, wrecker, school bus
	5	71 - 87 kN (16,001 - 19,500 lbs.)	
	6	87 - 116 kN (19,501 - 26,000 lbs.)	
	7	116 - 147 kN (26,001 - 33,000 lbs.)	
Heavy	8	147 kN and over (33,00 lbs. and over)	truck tractor, concrete mixer, dump truck, fire truck, city transit bus



# HEAVY-DUTY TOOLS

## Sleeve Puller / Installer Sets



1200

### Sleeve Puller / Installer Sets

These sets work on a wide array of truck, bus, and tractor engines, as well as those in other vehicles. They'll handle wet and dry sleeves – and you won't need to remove head studs. Save time, effort, and money.

- Choice of two sets: manual or 17-1/2 ton hydraulic powered.
- Wide range of adapter plates available to fit most engines.

### Manual Sleeve Puller Set

This manually operated, screw-powered device removes cylinder sleeves from most truck, bus, and tractor engines. Adapter plates (not included in the set) accommodate a wide range of bore sizes. See application chart on next page. The puller enables one technician to handle sleeve-pulling tasks.

**Not recommended for Mack engines (use No. 1202 set).**

No.	Description
24824	Thrust washer
37592	Three-way head
27908	13" risers (3 required)
22205	Forcing nut
208675	Swivel assembly
10088	Cap screws, hex hd. (3)
10586	Flat washers (3)
11466	Thrust bearing
32976	Pulling screw

**No. 1200** – Manual sleeve puller set. Wt., 26 lbs.



4180

1201

### Installing Conversion Kit for 1200 Set

Permits the No. 1200 sleeve puller to handle both removing and installing operations. Use plate Nos. 1253–1256 for installing, and plate Nos. 1219–1250 for removing. Plates are not included with kit.

No.	Description
33769	Screw extension
41291	Installing bar
302340	Yoke assembly

**No. 1201** – Installing conversion kit. Includes screw ext., installing bar, and yoke assembly. Wt., 17 lbs., 13 oz.

#### SLEEVE PULLER PLATE APPLICATION CHART

The puller plates listed here work with manual and 17-1/2 ton hydraulic sleeve pullers	Bore Dia.	Plate No.
<b>J.I. CASE</b> – 207 Diesel	4"	1227
<b>CATERPILLAR</b> – 1673C; 1674; 3304; 3306; D330C; D333C; D334	4-3/4"	1240
D326, D337	5-1/8"	1246
<b>CUMMINS</b> – V Series 903 NT855	5-1/2"	1250
H & NH	4-7/8"	1242
<b>GENERAL MOTORS</b> – 53 Series	3-7/8"	1225
71 Series	4-1/4"	1232
<b>INT'L HARVESTER</b> – C-221, C-263	3-9/16"	1221
D-166, D-188, D-236, D-282, C-248, D-248, D-310, D-358, D-155	3-11/16"	1222
D-179, D-206, D-239	3-7/8"	1225
C-281, D-281, D-361	4-1/8"	1230
D-691, D-461	4-3/4"	1240
D-407	4-5/16"	1233
<b>JOHN DEERE</b> – 4-270, 6-404	4-1/4"	1232
6-531	4-3/4"	1240
6-619	5.12"	1246
8-955	5.512"	1250
<b>MACK</b> – END(T) 673, 675, 676	4-7/8"	1243
672	4-7/8"	1242
END (T) 711, 707	5"	1245
<b>PERKINS</b> – AD3.152, AG3.152, AD4.203	3.6"	1219
AG4.212, A4.236, AG4.236, A6.354, A6.3541, ATC6.3541, AT6.354, AT6.3541	3-7/8"	1223
Universal puller for wet-type sleeves, see following page.		

### 17-1/2 Ton Hydraulic Sleeve Puller Set

Removes and installs sleeves of many makes and models of trucks, buses, and tractors. See chart at left and on next page.

#### Contents of Set No. 1202:

No.	Description	No.	Description
37592	Three-way head	27908	13" risers (3 req'd)
33769	Screw extension	41291	Installing bar
302482	Speed nut	10221	Hex safety nut
302340	Yoke assembly	208675	Swivel assembly
10088	Cap screws, hex hd (3)	10586	Flat washers (3)
32976	Pulling screw	21714	Insert
4180	Hyd. ram/pump assy.		

**No. 1202** – 17-1/2 ton hydraulic sleeve puller set. Wt., 86 lbs.

**No. 1203** – Sleeve puller without hydraulic assembly. Wt., 45 lbs., 10 oz.

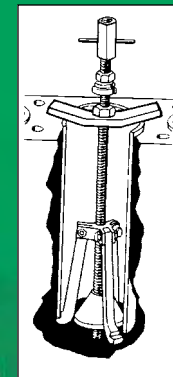
### Universal Puller for Wet-Type Sleeves

This tool will remove cylinder sleeves faster than ordinary pullers because it requires very little setup time. Cone adjustment positions the puller jaws quickly, locking bar is tightened. To aid in breaking "frozen" sleeves loose, adjustable bridge is positioned on the cylinder block and the bearing-mounted forcing nut is tightened. Next, bridge is removed and slide hammer assembly is attached. With a few sharp hammer blows, sleeve is pulled. In most cases, job time will average less than two minutes per cylinder. The puller features a 5 lb. slide hammer to help bust loose even the most stubborn sleeves.

- Special adapters are unnecessary.
- Adjustable jaws fit sleeves 3" to 6-1/2" in diameter.

**No. 1205** – Sleeve puller with 5 lb. slide hammer assembly. Wt., 20 lbs., 10 oz.

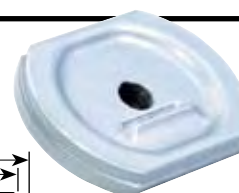
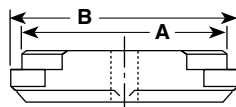
**No. 1204** – Sleeve puller without 5 lb. slide-hammer assembly. Wt., 14 lbs.



Bore Inches	"A" I.D. +.010 -.000	"B" O.D. +.015 -.015	OTC Plate Number
3.600"	3.585	3.657	1219
3-9/16"	3.547	3.663	1221
3-11/16"	3.671	3.792	1222
3-7/8"	3.840	4.047	1223
3-7/8"	3.859	4.093	1225
4"	3.984	4.218	1227
4-1/8"	4.109	4.229	1230
4-1/4"	4.235	4.470	1232
4-5/16"	4.302	4.450	1233
4-3/4"	4.734	5.171	1240
4-7/8"	4.860	4.980	1242
4-7/8"	4.860	5.045	1243
5"	4.977	5.120	1245
5-1/8"	5.093	5.593	1246
5-1/2"	5.484	5.718	1250

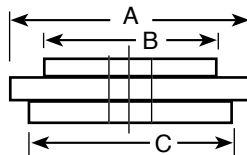
### Sleeve Removal Plates

Designed to work with set Nos. 1200, 1202, and 1203, these removal plates fit the full spectrum of cylinder sleeve sizes. Determine engine bore size ("A" dimension) and O.D. of sleeve to be pulled ("B" dimension). Then consult chart to the right.



### Sleeve Installation Plates

Each of these dry-sleeve installation plates covers a range of bore sizes. Their reversible design makes both sides usable. The plates work with our manual or 17-1/2 ton hydraulic puller/installers (Nos. 1200, 1202, and 1203). Check chart at right to ensure correct sleeve selection.

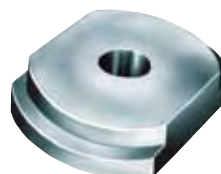
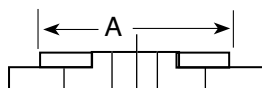


Fits Sleeves From	"A"	"B"	"C"	No.
3-3/16" to 3-7/16"	3-7/8"	3.171"	3.421"	1252
3-9/16" to 3-7/8"	4-1/4"	3.546"	3.859"	1253
4-1/8" to 4-3/8"	4-3/4"	4.109"	4.359"	1254
4-3/8" to 4-3/4"	5-1/4"	4.390"	4.734"	1255
4-13/16" to 5-3/4"	6-3/8"	4.797"	5.734"	1256

### Blank Sleeve Remover Plates

These sleeve puller blanks supplement the sleeve puller plates listed above. Should a standard plate be unavailable, you can machine these blanks to the required bore size.

- Includes instructions.



Machined Bore Dim. "A"	Will Machine to Bore Size Dim. "A"	Blank Number
5.250	4.750	39058
4.750	4.400	39057
4.400	3.812	38722
3.812	3.437	38724
3.437	3.000	38723

### Oil Seal and Wear Ring Installer

This two-piece tool makes the difficult job of correctly installing the rear crankshaft seal and wear ring on most Navistar DT-360 and DT-466 engines thru 1996 an easy task. Bolt the adapter to the crankshaft and wrench the component home.

- Eliminates damage to seals or wear ring that can occur when driving them into place.

**No. 5022** – Oil seal and wear ring installer for 5.0" dia. seals (ZTSE4749 for 6.5" dia.). Wt., 32 lbs.



5022

# HEAVY-DUTY TOOLS

## Glow Plug / Compression Service

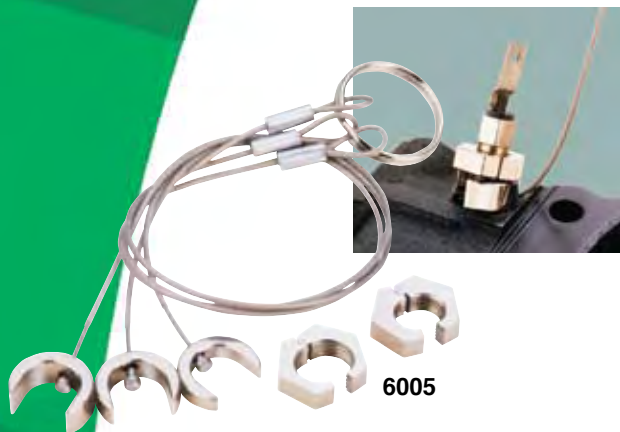


7106

### Cylinder Liner Height Gauge with Hold-Down Bar

This set lets you meet those exacting specifications necessary for optimum diesel engine performance. It accurately measures cylinder bore flatness and depth. The hold-down bar correctly seats the liner for accurate measurement of liner protrusion. The easy-to-read dial is in .001 inch graduations, 1.000" range.

**No. 7106** – Cylinder liner height gauge with hold-down bar, in plastic case. Wt., 7 lbs., 7 oz.



6005

### Diesel Glow Plug Removal Tool

- Removes damaged, stuck-in glow plugs on diesel engines without having to remove cylinder head, saving hours of service time!
- When glow plug tip is melted and plug cannot be removed without breaking it off, this tool is the only answer.
- Tool includes 10 mm and 12 mm split nuts that provide added threads for pulling. One of three furnished spacers is installed under split nut to give a solid base for extraction without breaking glow plug off. Split nut is held with a wrench as the glow plug is unscrewed from the head.
- Services diesels in popular 3/4- and 1-ton pickups. Comes in a plastic storage case.

**No. 6005** – Includes 10 mm x 1.00 mm and 12 mm x 1.25 mm split nuts, three spacers (3/16", 1/4", 5/16"), plastic storage/organizer case, and instructions. Wt., 5 oz.

Serves Ford – 1983-87 6.9L, 1988-98 7.3L, GM – 1992-2000 6.5L, 1982-93 6.2L, 1980-85 5.7L, plus many import and ag. diesel engines



5020

Similar to Ford 303-D091 (D93T-6000-A)

5021

Similar to Ford No. 303-D092 (D93T-6000-B)

### Diesel Compression Tester with Adapters

This easy-to-use compression tester is designed for light- and medium-duty diesel engines equipped with glow plugs. A dual-reading gauge, featuring a push-button release valve, measures compression to 1000 PSI and 7000 kPa. The hose end has quick disconnect fittings. The tester comes with glow plug and nozzle adapters in a handy storage case.

Tester services these engines:

- Cummins B and C
- Navistar DT466/DT360
- Ford/Navistar 6.9L & 7.3L
- Detroit 6.2L & 6.5L
- Hino diesel and Mitsubishi Fuso truck engines

**No. 5020** – Diesel compression tester with adapters. Wt., 7 lbs., 13 oz.

**No. 5021** – Universal diesel engine compression gauge. Wt., 1 lb., 8 oz.

**No. 304802** – Replacement gauge. Wt., 8 oz.

#### Replacement Adapters (available separately)

**No. 47484** – Hino diesel truck engines with 12 mm x 1.25 thread

**No. 209633** – Ford 6.6L & 7.8L diesels

**No. 217791** – Cummins B 3.9L 4 cyl. & 5.9L 6 cyl. '89-'98

**No. 308472** – Mitsubishi Fuso truck 4D & 6D engines with 10 mm x 1.25 thread

**No. 310810** – Cummins C 8.3L 6 cyl. '88-'96

**No. 310832** – Ford/Navistar 6.9L & 7.3L, Detroit 6.2L & 6.5L with 10 mm x 1.0 thread

**No. 310840** – Navistar DT466/DT360



### Ford Diesel Compression Test Adapter

- Use with OTC No. 5021 diesel engine compression gauge.
- Remove glow plug; this adapter is used to connect the No. 5021 gauge to perform a compression test.
- Application: 1994–2003 Ford vans and pickups with 7.3L direct-injected turbocharged (DIT) diesel engine.

**No. 6076** – Ford diesel compression test adapter. Wt., 5 oz.

Similar to  
Ford 303-D103  
(D94T-6600-E)



6076

### Ford Diesel Compression Test Adapter

- Use with OTC No. 5021 diesel engine compression gauge.
- Works on 2003-2006 Ford vans and trucks—with 6.0L diesel engines.

**6660** – Ford diesel compression test adapter. Wt., 7 oz.

Similar to  
Ford 303-757



6660

### Ford 5-pin Connector Harness for Glow Plug Testing

- Provides an easy way to check glow plug resistance without having to remove the valve cover of 1994-98 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engine.
- Use with any standard digital volt ohmmeter to check glow plug resistance.

**No. 6088** – Ford 5-pin connector harness for glow plug testing. Wt., 4 oz.



6088

### Ford 9-pin Connector Harness for Glow Plug Testing

- Permits testing glow plug resistance without having to remove the valve cover of 1998-1/2–2003 Ford trucks and vans with 7.3L DIT (direct-injected turbocharged) diesel engines.
- Use with any standard digital volt ohmmeter to check glow plug resistance.

**No. 6089** – Ford 9-pin connector harness for glow plug testing. Wt., 8 oz.



6089

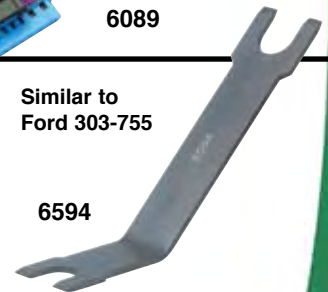
### Ford Oil Line Disconnect Tool

- Use to disconnect the high-pressure oil rail supply line from the fuel rail when removing fuel injectors.
- Works on the 6.0L diesel engine found in 2003–'07 F-250, F-350, F-450, and F-550 trucks, and Ford Excursions.

**No. 6594** – Ford oil line disconnect tool. Wt., 5 oz.

Similar to  
Ford 303-755

6594



### High Pressure Oil Line Disconnect Tool

- Use to disconnect the high pressure oil line from the cylinder head.
- Works on 1998 - 2003 Ford vans and trucks with 7.3L direct-injected, turbo-charged (DIT) diesel engines.

**No. 6595** – High pressure oil line disconnect tool. Wt., 3 oz.

Similar to Ford  
303-625

6595



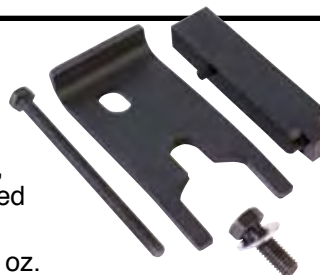
### Ford Injector Remover/Installer Kit

- Removes and installs injectors without damaging the injector or cylinder head.
- Application: 1994–2003 Ford 3/4- and 1-ton trucks, Super Duty trucks, and vans with 7.3L direct-injected turbocharged (DIT) diesel engine.

**No. 6067** – Ford injector remover/installer kit. Wt., 6 oz.

Similar to  
Ford 303-491  
and 303-492

6067



# HEAVY-DUTY TOOLS

## Diesel Injector & Fuel Tools



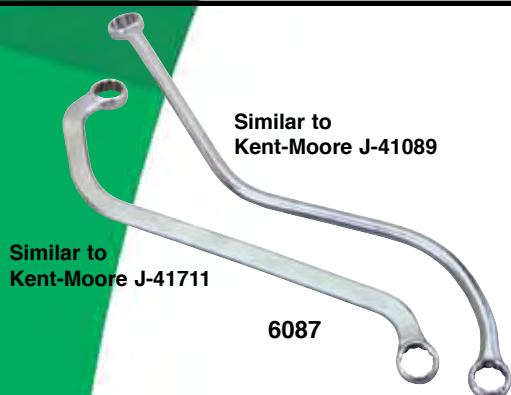
6069

Similar to  
Miller 8318

### Cummins Diesel Fuel Injector Remover Kit

- Kit contains a fuel injector connector tube remover and fuel injector puller. The fuel injector connector tube must be removed before pulling the injector, or both will be damaged.
- Application: 1998-1/2–2002 Dodge pickups and vans with 5.9L 24-valve Cummins diesel turbo engine.

**No. 6069** – Cummins diesel fuel injector remover kit. Wt., 8 oz.



Similar to  
Kent-Moore J-41089

Similar to  
Kent-Moore J-41711

6087

### GM Injection Pump Wrench Set

- Use to loosen or tighten injection pump retaining bolts whenever pump timing adjustment or pump service is required. Services 1996–2000 GM full-size 2- and 4-wheel drive trucks, vans, and Suburbans with 6.5L diesel engine.
- Two specially bent wrenches are needed, due to the location of the throttle, cruise control, T.V. cable bracket, cooling system crossover pipe and bracket, and the thermostat housing.
- Wrenches are 15 mm, 12-point, double box-end type.

**No. 6087** – GM injection pump wrench set. Wt., 1 lb.



5060

### Detroit Diesel Injector Socket

Because of their location, some injectors are difficult to remove or install. But with this 30 mm socket, you'll be able to attach a 3/8" square-drive tool or 7/8" wrench. The socket fits injectors snugly to provide a good grip and avoid damage.

- Works on 6.2L and 6.5L engines.

**No. 5060** – Detroit Diesel injector socket. Wt., 8 oz.



6080

### Master Cummins Diesel Fuel Injection Test Kit

- Includes the fittings and gauge needed to check fuel pressure, fuel volume, and fuel restrictions from the delivery pump to the injection pump.

Contents:

**No. 518501** – Special quick-disconnect banjo fitting (M14 x 1.5 external).

**No. 7915** – Two fuel injection quick-coupler adapters.

**No. 7426** – Quick-disconnect banjo fitting (M12 x 1.5 external).

**No. 223336** – Gauge assembly.

**No. 6082** – Fuel volume test adapter.

**No. 6078** – Diesel fuel inlet restriction test adapter.

- Application: 1988–98 Dodge pickups and vans with 5.9L 12-valve, & 1998-1/2–2003 5.9L 24-valve Cummins diesel engines.

**No. 6080** – Master Cummins diesel fuel injection test kit. Wt., 5 lbs.

### Cummins Diesel Fuel Volume Test Adapter

- Use to perform fuel volume test on fuel transfer pump. Fuel volume is as important as fuel pressure. Pump may pass pressure test, but fail volume test. Fitting is threaded into transfer pump, and No. 6082 is attached to the barbed end. The end of the 2 ft. tubing is placed into a container for fuel to be measured.
- Application: 1994–1998-1/2 Dodge pickups and vans with 5.9L 12-valve Cummins diesel engine.

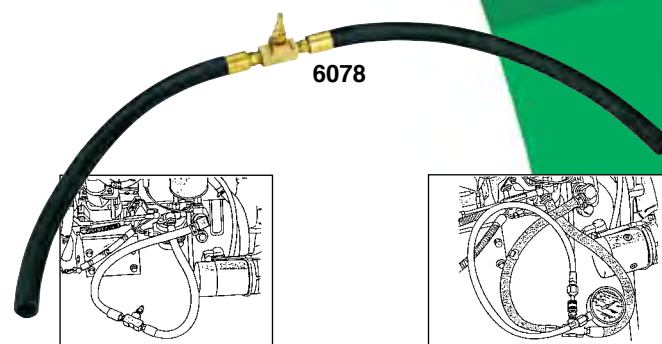
**No. 6082** – Cummins diesel fuel volume test adapter. Wt., 3 oz.



### Cummins Diesel Fuel Inlet Restriction Test Adapter

- Adapter is used to perform a vacuum test on the transfer pump; excessive vacuum reading indicates a fuel inlet restriction.
- Application: 1988–95 Dodge trucks and vans with 5.9L 12-valve Cummins diesel engine. Included in OTC set No. 6080.

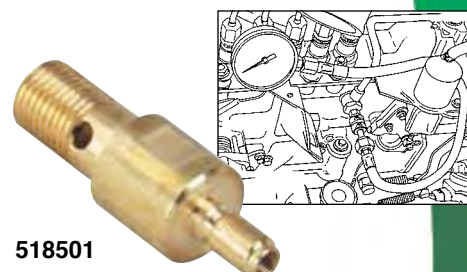
**No. 6078** – Cummins diesel fuel inlet restriction test adapter. Wt., 1 lb., 3 oz.



### Special Quick-Disconnect Banjo Fitting

- Adapter fitting (M14 x 1.5 male) is used to check fuel pressure from the delivery pump to the injection pump. Use with gauge assembly of OTC set No. 6079.
- Has quick-connect Schrader valve on end of fitting for safety and ease of hook-up to gauge. Included in OTC kit No. 6080.
- Application: 1996–1998-1/2 Dodge pickups and vans with 5.9L 12-valve Cummins engine.

**No. 518501** – Special quick-disconnect banjo fitting. Wt., 3 oz.



### Cummins Engine Barring Tool

Need to manually rotate an engine? This tool makes the job easy. Just insert the tool into the flywheel housing until it engages the ring gear. Then attach a 1/2" square drive ratchet or breaker bar and turn. The tool's load-bearing collar provides friction-free operation while rotating the tool in the housing.

- Works on Cummins B and C series diesel engines and 5.9L diesels used in Dodge pickups.

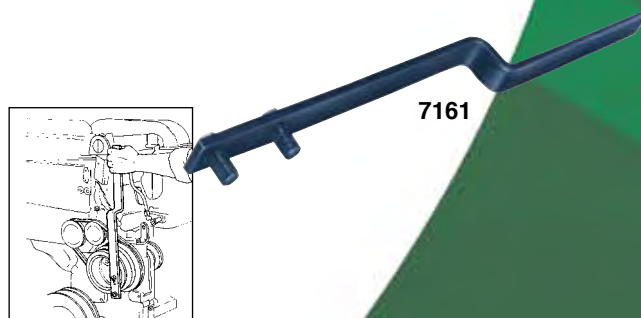
**No. 7471A** – Cummins engine barring tool. Wt., 11 oz.



### Cummins Engine Turning Tool

This tool makes easy work of manually rotating a Cummins 855 cubic inch engine. It's essential hardware when you're bringing pistons to top dead center to adjust injector timing.

**No. 7161** – Cummins engine turning tool. Wt., 4 lbs., 5 oz.





# HEAVY-DUTY TOOLS

## Pullers, Air Cooler Tester



7119

Similar to  
Kent-Moore J-29953-A

### Compressor Drive-Gear Coupling Puller

Here's the solution for removing the coupling from the Cummins Compact and Bendix air compressors found on many Cummins 855 cubic inch engines. The split collet design fits over the coupling, and mechanical force does the work.

- Works on compressors with 1-3/4" O.D. shaft.

**No. 7119** – Compressor drive-gear coupling puller. Wt., 2 lbs., 7 oz.



7120B

7120A

### Cummins Drive-Pulley Tool Set

This two-piece set is designed to remove and install the drive pulley on Cummins NH and NTC 855 cubic inch engines. The 7120B remover simply bolts into the tapped holes for pulling. The 7120A installer threads onto the pulley accessory drive shaft for easy installation.

**No. 7120** – Cummins drive-pulley tool set. Wt., 5 lbs., 5 oz.

**No. 7120A** – Drive-pulley installer. Wt., 2 lbs., 3 oz.

**No. 7120B** – Drive-pulley remover. Wt., 3 lbs.

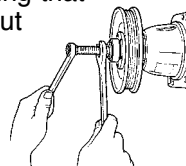


5071

### Cummins Water Pump Pulley Tool

This heavy-duty tool is designed to remove or install water pump pulleys on Cummins L10 and M11 engines, 1991 and newer. The installer has a rugged thrust bearing that allows for friction-free pulley installation without damaging pump components.

**No. 5071** – Cummins water pump pulley tool. Wt., 2 lbs., 4 oz.

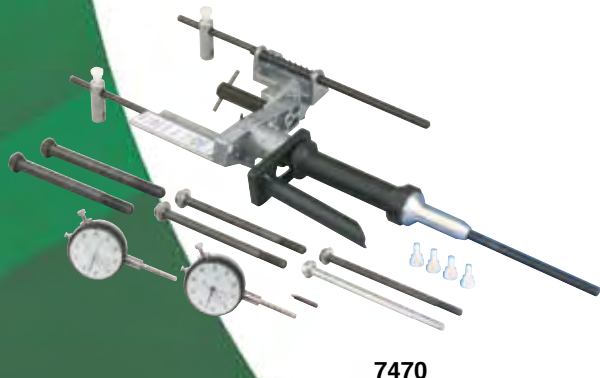


5039

### Charged Air Cooler Tester

This is the easy way to find air leaks in the charged air cooler systems used on class 7 & 8 truck engines. The tester features a large 2-1/2", 0-60 PSI pressure gauge, regulator and relief valve, and two safety cables. It also has quick disconnect air fittings that attach to a 3", 3-1/2", or 4" cooler hose.

**No. 5039** – Charged air cooler tester. Wt., 7 lbs., 6 oz.



7470

### Cummins Diesel Injector Timing Kit

Measures static timing on Cummins J, K, N, NH, V-12, N-14, and L-10 series diesel engines. With this tool you can determine the injector push tube travel in relation to piston travel. Tool is installed with one dial indicator in the injector bore and the other on the injector push tube. Turn the engine over manually to find top dead center. By checking the gauges, you can determine if timing is within factory specifications, then make adjustments to the cam followers.

**No. 7470** – Cummins diesel injector timing kit. Wt., 15 lbs.

### Truck Clutch Alignment Shafts

These 10-spline clutch alignment shafts are available in the three most popular sizes: 1-1/2", 1-3/4", 2" O.D., and are designed for use on heavy-duty single, two-plate, push/pull, manual, and self-adjust clutches. The shafts are constructed of lightweight fiberglass-reinforced nylon that won't hang up in clutch disc splines. Yet, they're rugged and will easily support the weight of heavy pressure plates.

**No. 5070** – Truck clutch alignment shaft. 1-1/2" O.D., 30 mm pilot. Wt., 10 oz.

**No. 7072A** – Truck clutch alignment shaft. 1-1/2" O.D., 1" pilot, 10 splines, 3.25" long. Similar to Ford 308-D001 (D79T-7550-A). Wt., 10 oz.

**No. 7073A** – Truck clutch alignment shaft. 1-3/4" O.D., 1-1/4" pilot, spline 3.75" long. Similar to Ford 308-D002 (D79T-7550-B). Wt., 11 oz.

**No. 7074A** – Truck clutch alignment shaft. 2" O.D., 1-1/4" pilot. 10 splines, 3.6" long. Similar to Ford 308-D003 (D79T-7550-C). Wt., 13 oz.

**No. 7480** – Truck clutch alignment shaft. 1-3/4" O.D., 1" pilot. Similar to Ford 308-D010 (D93T-7550-A). Wt., 7 oz.

**No. 5029** – Clutch alignment shaft. 2" O.D., 1-1/4" pilot. 10 splines, 7.3" long. Similar to Ford 308-D011 (D93T-7550-B). Wt., 1 lb.

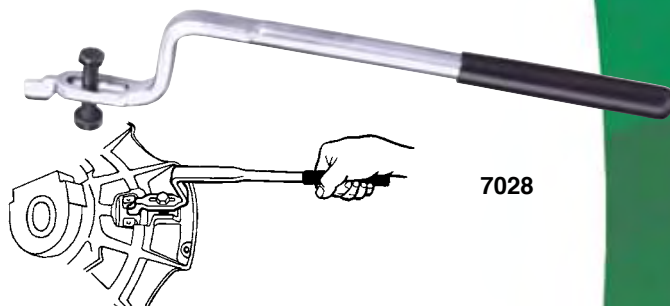
**No. 5030** – Clutch alignment shaft. 1-3/4" O.D., 1-1/4" pilot, spline 7.375" long. Similar to Ford 308-D012 (D93T-7550-C). Wt., 13 oz.



### Clutch-Adjusting Wrench

This clutch-adjusting wrench will solve the difficult, time-consuming job of internally adjusting heavy-duty Spicer clutches. Using this wrench is much quicker and easier than makeshift methods such as pry bars, which often result in component damage, poor job performance, or extra downtime.

**No. 7028** – Clutch-adjusting wrench. Wt., 1 lb., 8 oz.



### Self-Adjusting Clutch Rotating Tool

This handy tool replaces the self-adjuster mechanism on Spicer self-adjusting clutches, allowing you to manually adjust them with a wrench or socket.

- 3/4" hex drive.

**No. 5044** – Self-adjusting clutch rotating tool. Wt., 7 oz.



### Truck Clutch Adjustment Set

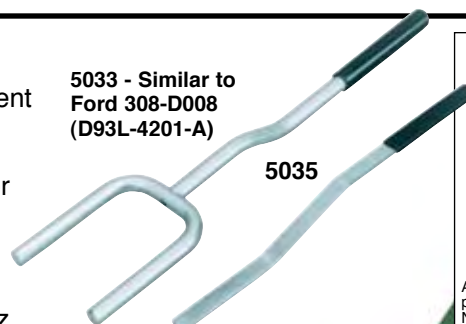
The gauges in this set enable you to check the adjustment of pull-type, heavy-duty clutches, ensuring their correct operation. One gauge checks the amount of free play between the yoke and the bearing's wear pad. The other gauge lets you determine the amount of travel between the release bearing and transmission bearing cap.

**No. 5035** – Truck clutch adjustment set. Wt., 1 lb., 8 oz.

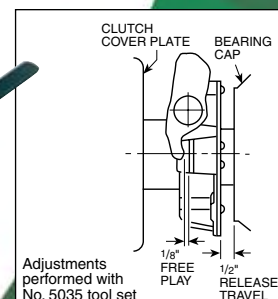
**No. 5034** – Clutch pedal free play gauge. Wt., 1 lb., 4 oz.

**No. 5033** – Release bearing travel gauge. Wt., 4 oz.

**5033 - Similar to Ford 308-D008 (D93L-4201-A)**



**5034 - Similar to Ford 308-D009 (D93L-7025-A)**



# HEAVY-DUTY TOOLS

## Clutch & Flywheel Tools



### Clutch Service Set

Here's an ideal companion set to the No. 5015 clutch handler. Designed for Spicer heavy-duty clutches, the nine tools in this set help with a variety of jobs, from clutch installation and removal to flywheel drive-pin installation to clutch adjustment.

- Includes handy plastic carrying case.

**No. 5043** – Clutch service set.  
Wt., 15 lbs., 13 oz.

OTC No.	Description
5044*	Self-adjust clutch rotating tool. Rotates adjusting ring.
5045*	Flywheel drive pin installing tool. Aligns and installs drive pins in 14" heavy-duty truck pot-type flywheels.
5046*	Clutch release tool. Removes shipping blocks from between clutch housing and release bearing.
7028*	Adjusting wrench. For internal adjustment of multiple lever and angle-spring clutches.
7073A*	Clutch alignment tool. 1-3/4" O.D. Provides perfect fit to spline of clutch disc.
7074A*	Clutch alignment tool. 2" O.D. Provides perfect fit to spline of clutch disc.
213013	Pair of 3/8" flywheel to clutch guide pins.
213014	Pair of 7/16" flywheel to clutch guide pins.
213015	Hex key wrench. Removes/installs flywheel drive pin set screws.

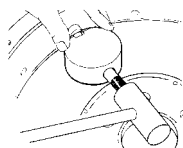
\* Tool is available separately.



### Clutch Release Tool

- Permits removal of the shipping blocks from new clutch assemblies.

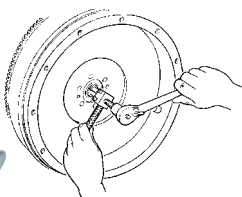
**No. 5046** – Clutch release tool. Wt., 3 lbs., 10 oz.



### Drive Pin Installing Tool

- Enables precise alignment and installation of the spacer plate drive pins on a pot-type 14" flywheel.
- Ensures free action of clutch assembly.

**No. 5045** – Drive pin installing tool. Wt., 3 lbs.

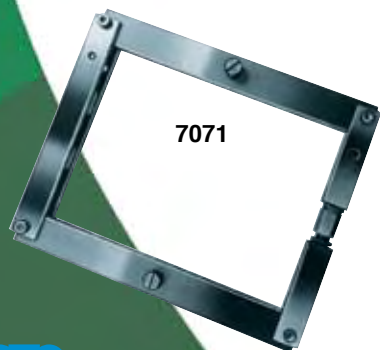


### Pilot Bearing Pullers

These tools make quick work of pulling stubborn, rusted pilot bearings. No. 5048 fits 1-1/4" I.D. bearings, and No. 5049 fits 1" I.D. bearings. The puller's forcing screw expands the jaws inside the bearing and simultaneously pushes against the crankshaft.

**No. 5048** – Pilot bearing puller for 1-1/4" I.D.  
Wt., 1 lb., 3 oz.

**No. 5049** – Pilot bearing puller for 1" I.D.  
Wt., 1 lb., 3 oz.



### Differential Housing Spreader

Removing and installing differential ring gear assemblies is typically a difficult, time-consuming chore – that is, unless you're using this differential housing spreader. This device uses mechanical screw power to spread the housing, allowing easy removal of the differential assembly while eliminating damage often caused by makeshift methods.

- Works on Dana axle models 30 through 70.

**No. 7071** – Differential housing spreader.  
Wt., 34 lbs.



### U-Joint Puller

This service tool easily removes stubborn, corroded bearings without damaging U-joint components, even in limited space. The tool applies up to 7 tons of force to separate yoke assemblies and remove bearings. Far superior to sledgehammer methods.

- Works on Meritor 16N, 17N, 18N, and 1710 series U-joints and Spicer 1600/1610 to 1880 series U-joints.
- Includes plastic storage box, No. 1036 2-jaw puller, and instructions.

**No. 7057** – U-joint puller. Wt., 16 lbs., 3 oz.



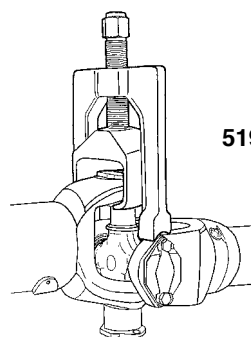
7057

### Heavy-Duty U-Joint Puller

The ideal tool for disassembling drivelines.

- May be used with up to a one-inch impact wrench.
- Quickly and easily removes sealed U-joint cups without the need for hammering or heat.
- Will not damage the driveshaft, yoke, bearing cups, or joints.
- Fits practically all Class 7 and 8 trucks, including:
  - Spicer driveline 1610, 1710, 1760, 1810, 1880
  - Spicer SPL 140, 170, and 250 "Life Series"
  - Meritor (Rockwell) 16N, 17N, 18N, 1710
  - Meritor RPL 20 and 25 "Permalube" Series

**No. 5190** – Heavy-duty universal joint puller. Wt., 11.4 lbs.



5190



### Heavy-Duty Bearing Cup Installer

Quickly and easily installs bearing cups on Dana/Spicer SPL "Life Series" quick-disconnect universal joints.

- Three individual adapters press bearings to the manufacturer's recommended depths.
- Adapters fit Spicer SPL 140, 170, and 250 series drivelines.

**No. 5191** – Heavy-duty bearing cup installer. Wt., 18 lbs.



5191

### Heavy-Duty Bearing Cup Installer

Quickly and easily installs bearing cups on bolt-retained universal joints. Fits series 1610 to 1880 and nearly all other heavy-duty truck and machine type u-joints with bolt-retained bearing cups.

- Automatically aligns bearing cups during installation.
- Eliminates the possibility of damage to the needle bearing.

**No. 5192** – Heavy-duty bearing cup installer. Wt., 1 lb., 11 oz.



5192

### U-Joint Tool

Designed for a 1/2" impact wrench, this U-joint tool removes even the most stubborn U-joints with ease. It's compact and easily set up, making it ideal for service calls. And it can be used at different angles and in tight places, eliminating those damaging makeshift methods. The puller's legs have holes for bolt storage.

- Bolts included: 5/16"-24 x 1-1/2", 3/8"-24 x 1-1/2", 7/16"-20 x 1-1/2", M8-1.25 mm x 35 mm.
- Works on most Dana Spicer and Meritor U-joints – **except** Spicer's Life series model SPL250X.

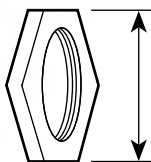
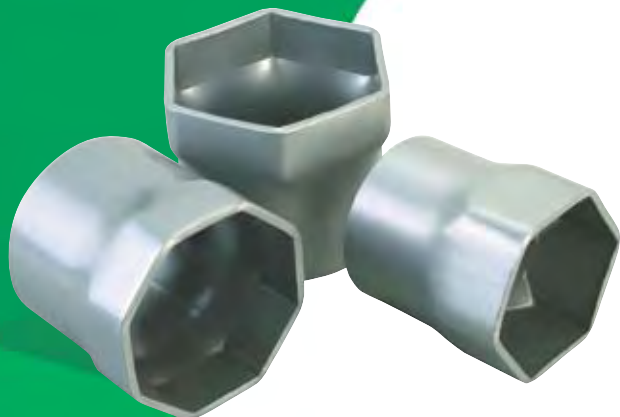
**No. 7490** – U-joint tool. Wt., 10 lbs., 7 oz.



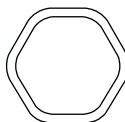
7490

# HEAVY-DUTY TOOLS

## Truck Wheel Bearing Locknut Sockets

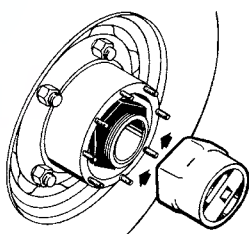


Measure from flat to flat to determine size of locknut, then consult chart to select a socket. **Warranty is void if tool is subjected to impact wrench use.**



\* Fits special "rounded" hex nut found on Dana axles of some Ford trucks.

\* Depth of locknut sockets is 5".



Wheel bearing locknuts are easy to remove or install with these specially designed sockets. They're made of high-strength steel and resist rounding out.

NOTE: Sockets are designed for use with 3/4" square-drive manual tools only. Impact tool use voids sockets' warranty.

**1902** – Similar to Ford No. 205-039 (T70T-4252-B)

**1904** – Similar to Ford No. 205-040 (T70T-4252-D)

**1905** – Similar to Ford No. 205-041 (T70T-4252-E)

**1910** – Similar to Ford No. 205-042 (T70T-4252-K)

**1928** – Similar to Ford No. 205-043 (T70T-4252-W)

Measure from flat to flat to determine size of locknut, then consult chart to find the correct socket.

Socket No.	Opening Size	Socket No.	Opening Size
1901	2-3/32" (6 pt.)	1924	3-3/8" (8 pt.)
1920	2-1/4" (6 pt.)	1910	3-1/2" (6 pt.)
1902	2-3/8" (6 pt.)	1911	3-1/2" (8 pt.)
1936*	2-3/8" (6 pt.)	1925	3-3/4" (8 pt.)
1903	2-3/8" (8 pt.)	1926	3-3/4" (6 pt.)
1921	2-1/2" (6 pt.)	1927	3-13/16" (8 pt.)
1904	2-9/16" (6 pt.)	1912	3-7/8" (6 pt.)
1905	2-9/16" (8 pt.)	1913	3-7/8" (8 pt.)
1928*	2-9/16" (6 pt.)	1914	4" (6 pt.)
1922	2-5/8" (6 pt.)	1915	4-1/8" (6 pt.)
1923	2-3/4" (6 pt.)	1940	4-1/8" (8 pt.)
1937	2-3/4" (8 pt.)	1916	4-3/8" (6 pt.)
1932	2-7/8" (6 pt.)	1917	4-3/8" (8 pt.)
1933	2-7/8" (8 pt.)	1938	4-1/2" (8 pt.)
1906	3" (6 pt.)	1941	4-13/16" (8 pt.)
1907	3" (8 pt.)	1918	4-7/8" (6 pt.)
1934	3-1/8" (6 pt.)	1919	4-7/8" (8 pt.)
1935	3-1/8" (8 pt.)	1939	5-1/4" (6 pt.)
1908	3-1/4" (6 pt.)	7795	2-1/2" (6 pt.)
1909	3-1/4" (8 pt.)	7796	2-3/4" (6 pt.)

## Metric Truck Wheel Bearing Locknut Sockets

Socket No.	Opening Size	Socket No.	Opening Size
1950M	54 mm (6 pt.)	1957M	90 mm (8 pt.)
1951M	55 mm (6 pt.)	1958M	94 mm (8 pt.)
1952M	60 mm (6 pt.)	1962M	100 mm (8 pt.)
1953M	70 mm (6 pt.)	1959M	106 mm (8 pt.)
1954M	71 mm (6 pt.)	1960M	110 mm (8 pt.)
1955M	80 mm (6 pt.)	1961M	120 mm (8 pt.)
1956M	82 mm (8 pt.)		

## Truck Wheel Bearing Locknut Sockets (6-pt.)

**No. 9850** – 21 wheel bearing locknut sockets with tool board.

Wt., 54 lbs., 7 oz.

**No. 62908** – Display board only. Wt., 5 lbs., 7 oz.

No.	Qty.	Description
1901	1	Locknut socket (2-3/32")
1902	1	Locknut socket (2-3/8")
1904	1	Locknut socket (2-9/16")
1906	1	Locknut socket (3")
1908	1	Locknut socket (3-1/4")
1910	1	Locknut socket (3-1/2")
1912	1	Locknut socket (3-7/8")
1914	1	Locknut socket (4")
1915	1	Locknut socket (4-1/8")
1916	1	Locknut socket (4-3/8")
1918	1	Locknut socket (4-7/8")
1920	1	Locknut socket (2-1/4")
1921	1	Locknut socket (2-1/2")
1922	1	Locknut socket (2-5/8")
1923	1	Locknut socket (2-3/4")
1926	1	Locknut socket (3-3/4")
1928	1	Lknt. skt. (2-9/16" rounded)
1932	1	Locknut socket (2-7/8")
1934	1	Locknut socket (3-1/8")
1936	1	Lknt. skt. (2-3/8" rounded)
1939	1	Locknut socket (5-1/4")



9850



### Wheel Bearing Locknut Sockets (8 pt.)

No.	Qty.	Description	No.	Qty.	Description	No.	Qty.	Description
1903	1	Locknut socket (2-3/8")	1917	1	Locknut socket (4-3/8")	1930	1	Locknut socket (2-7/8")
1905	1	Locknut socket (2-9/16")	1919	1	Locknut socket (4-7/8")	1931	1	Locknut socket (3-5/8")
1907	1	Locknut socket (3")	1924	1	Locknut socket (3-3/8")	1933	1	Locknut socket (2-7/8")
1909	1	Locknut socket (3-1/4")	1925	1	Locknut socket (3-3/4")	1935	1	Locknut socket (3-1/8")
1911	1	Locknut socket (3-1/2")	1927	1	Locknut socket (3-13/16")	1937	1	Locknut socket (2-3/4")
1913	1	Locknut socket (3-7/8")	1929	1	Locknut socket (2-5/8")	1938	1	Locknut socket (4-1/2")

**No. 9851** – 18 wheel bearing locknut sockets (8 pt.) with tool board. Wt., 53 lbs., 14 oz.

**No. 62909** – Display board only. Wt., 6 lbs., 11 oz.

### Wheel Bearing Locknut Sockets

- A selection of popular sizes in 6- or 8-point.

**No. 9852** – 12 wheel bearing locknut sockets and tool board. Wt., 34 lbs., 4 oz.

**No. 62910** – Display board only. Wt., 5 lbs., 3 oz.

No.	Qty.	Description	No.	Qty.	Description
1904	1	Locknut skt. (2-9/16" hex)	1921	1	Locknut skt. (2-1/2" hex)
1908	1	Locknut skt. (3-1/4" hex)	1922	1	Locknut skt. (2-5/8" hex)
1909	1	Locknut skt. (3-1/4" 8 pt.)	1923	1	Locknut skt. (2-3/4" hex)
1910	1	Locknut skt. (3-1/2" hex)	1928	1	Locknut socket (2-9/16" hex rounded)
1913	1	Locknut skt. (3-7/8" 8 pt.)	1932	1	Locknut skt. (2-7/8" hex)
1914	1	Locknut socket (4" hex)			
1915	1	Locknut skt. (4-1/8" hex)			



9851

9852

### Tubular Spanner Wrenches

- Six-lug, spanner-type wrenches remove and install rear wheel bearing locknuts. They're built for use with a 3/4" square-drive ratchet or breaker bar.

**No. 1929** – Wrench for servicing Chevrolet and GMC 5,200 and 7,200 lb. axles. Socket O.D. is 2-5/8". Wt., 1 lb., 11 oz.

**No. 1930** – Wrench for servicing Chevrolet and GMC 11,000 to 13,500 lb. axles. Socket O.D. is 2-7/8". Wt., 2 lbs., 5 oz.

**No. 1931** – Wrench for servicing Chevrolet and GMC 15,000 lb. axles; 17,000 lb. 2-spd. axles; 15,000 lb. trailing axles. Socket O.D. is 3-5/8". Wt., 3 lbs., 14 oz.



### Budd Wheel Sockets

- Metric sizes for Isuzu, Hino, Mitsubishi Fuso, and import trucks; fit front and rear axle wheels.
- 1-1/2" hex Budd wheel socket for American-made trucks with dual rear wheels.

These sockets work on the import truck Budd wheels. Their extra deep design lets you remove both nut and stud with just the one socket. Usable with a 1" square drive impact wrench.

**No. 1944** – Consists of 1945A, 1946A, 1947A, 1948A, and 1949A, in a blow molded organizer case.

**No. 1945A** – 35 mm hex socket with 17 mm sq. Wt., 2 lbs.

**No. 1946A** – 38 mm hex socket with 20 mm sq. Wt., 2 lbs., 8 oz.

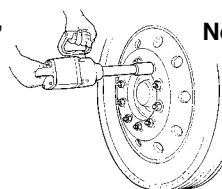
**No. 1947A** – 41 mm hex socket with 21 mm sq. Wt., 2 lbs., 14 oz.

**No. 1948A** – 33 mm hex Budd wheel socket. For Mack Midliners, White Volvo, and other import trucks w/dual rear wheels. Wt., 1 lb., 8 oz.

**No. 1949A** – 1-1/2" hex Budd with 13/16" square wheel socket. For American-made trucks with dual rear wheels. Wt., 2 lbs., 8 oz.



No. 1944





# HEAVY-DUTY TOOLS

## Locknut, Lug, Hubcap Tools



9814

### Truck Pinion Sockets

We've designed and built these sockets to have the correct clearance for yoke and locknut assemblies on a variety of truck transmissions and differentials. The sockets have 3" of usable depth and are 4" long. Using the right tools saves time and effort, eliminating the need to destroy standard sockets by grinding them down to fit tight pinion clearances.

**No. 9814** – Tool board and six sockets, 1975 thru 1980 listed above. Wt., 22 lbs., 6 oz.

**No. 1981\*** – Socket only, not included in set. Wt., 3 lbs., 10 oz.

**No. 62911** – Tool board only. Wt. 2 lbs.

Socket No.	Opening Size
1975	2" (6 pt.)
1976	2-1/8" (6 pt.)
1977	2-1/4" (6 pt.)
1978	2-3/8" (6 pt.)
1979	2-5/8" (6 pt.)
1980	2-3/4" (6 pt.)
1981*	2-1/2" (6 pt.)

**NOTE:** Use sockets with 3/4" square-drive, manually powered handles only. Warranty void if tool is subjected to impact wrench use.



9901

### "Major Persuader" Pry Bar Merchandiser

- Displays five of OTC's biggest pry bars on a bright, eye-level merchandiser.
- Display measures 16"w x 18"d x 64"h.
- Includes 5 pry bars: two 30", two 46", and one 54" in length.

**No. 9901** – Heavy-duty pry bar merchandiser display. Wt., 40 lbs.

Bar No.	Qty.	Desc.
7168	2	30" jimmy bar
7420	2	46" jimmy bar
7421	1	54" jimmy bar



5047

### Lug Nut Cap Remover

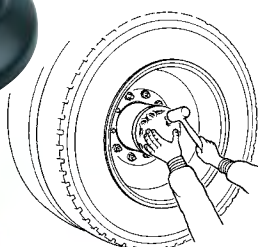
Chrome-plated lug nut caps found on many heavy-duty trucks and trailers can be tough to remove, and they're easily damaged if you pry them off or use an ordinary cap remover. This tool avoids those problems. It is ruggedly built and features specially coated jaws that won't slip off the caps, no matter how much squeezing force you apply.

- Features cushioned handles.

**No. 5047** – Lug nut cap remover. Wt., 13 oz.



5059



### Hubcap Installer

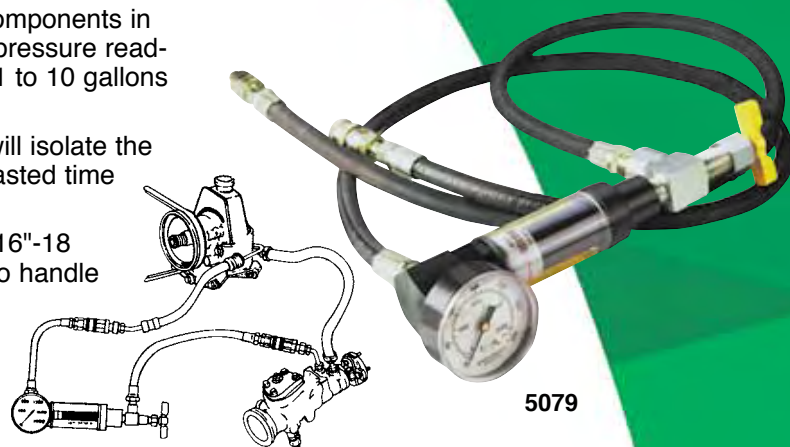
Truckers like chrome, and many of them accent their truck's drive axle with chrome hubcaps designed to snugly fit around the axle-shaft bolts. Unfortunately for service shops, these hubcaps are often tricky to install without causing damage. That's where our hubcap installer comes in handy. Constructed of high-density polyethylene, this tool guides the cap into place over the axle nuts, protecting it from unwanted and costly dents.

**No. 5059** – Hubcap installer. Wt., 1 lb.

### Heavy-Duty Power Steering Pump Analyzer

- There is only one way to troubleshoot problem components in a heavy-duty power steering system: a flow and pressure reading meter. OTC's new No. 5079 measures both: 1 to 10 gallons oil flow and up to 3,000 psi of pressure.
- When connected in line, this universal analyzer will isolate the failed components in just minutes. There is no wasted time as in trial and error methods.
- The set is complete with high pressure hoses, 9/16"-18 standard fittings, and quick disconnect couplers to handle Eaton/Vickers, TRW, Ross, and Shepard power steering systems.

**No. 5079** – Heavy-duty power steering pump analyzer. Wt., 6 lbs.



### Kingpin & Brake Anchor Pin Pusher

With this pin remover, hydraulic force and precision tooling replace torch-and-hammer methods for getting the job done quickly and easily. Five special collars and two pins allow this unit to work on both straight and tapered kingpins and accommodates sizes from 7/8" to 2" in diameter and up to 11-1/4" long. The tool delivers 30 tons of hydraulic force to push out even the most corroded kingpins. A job that could consume the better part of a day is done in minutes. The anchor pin can be removed quickly by using the special adapter installed in the pusher's base block and the unit positioned over the brake's spider.

- Works on many models of trucks and buses.
- 27-1/2" high x 8-1/2" wide. • 30-ton capacity.
- Set includes No. 4002 hydraulic hand pump, No. 9767 hose, No. 9798 hose-half coupler, No. 4121 Power Twin 30-ton ram, and No. 29424 anchor pin adapter.

**No. 4240** – Complete kingpin and anchor pin pusher set with hydraulics. Wt., 114 lbs.

**No. 4241** – King- and anchor-pin pusher with anchor pin adapter without hydraulics. Wt., 59 lbs., 3 oz.

**No. 29424** – Anchor pin adapter only. Wt., 1 lb., 12 oz.



### Mack Kingpin Socket

Here is a socket that makes life a little easier for anyone who works on Mack trucks. Designed for 1/2" square drive ratchet or breaker bar, the socket fits the slotted adjusting screw in tapered kingpins used on most Mack front axles (12,000 to 20,000 lbs.).

**No. 5053** – Mack kingpin socket. Wt., 13 oz.

Socket O.D. 1.8"



### Truck Tie Rod Socket

Designed to withstand the force of a 3/4" drive impact wrench, this rugged socket makes truck tie-rod end removal quick and simple.

- Works on inner and outer tie rod ends on 12,000 to 16,000 lb. truck axles.

**No. 5068** – Truck tie rod socket. Wt., 3 lbs., 4 oz.

Socket I.D. 2-3/4"



# HEAVY-DUTY TOOLS

## Steering, Brake, and Suspension Service



6065

Socket I.D. 2-1/8"

### Tie Rod Socket for Medium-Duty Trucks

- Services GM-, Ford-, and Chrysler-built 1-ton 2WD and 4WD trucks.
- Also works on medium-duty Class 2 through Class 6 trucks.
- Use with a 1/2" drive impact wrench to easily remove the tie rod ends from the tie rod.

**No. 6065** – Tie rod socket for medium-duty trucks.  
Wt., 1 lb., 13 oz.

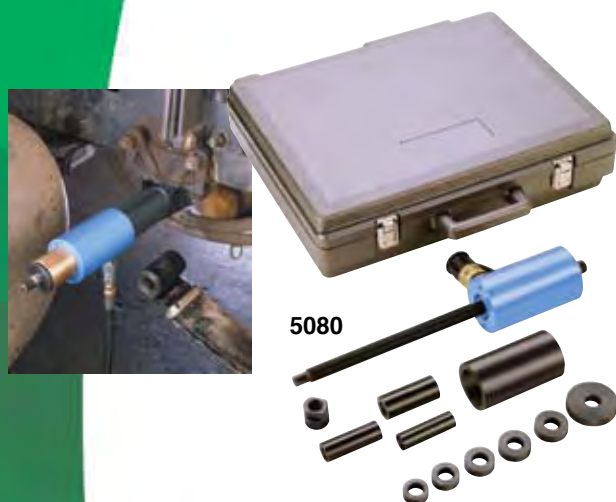


1767

### Hendrickson Primaax Quick Alignment Socket

- Hendrickson – Approved tool.
- Used to adjust axle alignment on the Primaax air suspension.
- Works on Primaax models 230, 460, and 690 rear suspensions.

**No. 1767** – Hendrickson Primaax quick alignment socket.  
Wt., 3 lbs., 8 oz.



5080

### Truck Front Leaf Spring, Pin, and Bushing Service Set

- Delivers 10 tons of hydraulic force to remove and install truck front spring eye bushing assemblies quickly and easily.
- Services bushings with diameters from 1-1/4" through 1-7/8", and pin diameters from 7/8" through 1-1/8". Handles all popular OE and aftermarket components, including Horton pin and bushing assemblies.
- Service bushing assemblies, in many cases, without removing leaf spring hangers and spring assemblies from the vehicle.
- All accessories are included except the hydraulic hand pump, which must be purchased separately.

**No. 5080** – Truck front leaf spring, pin, & bushing service set.  
Wt., 20 lbs. 8 oz.



5085



### Hub Oil Seal Puller

- Eliminates bearing and hub damage that can occur when a punch and hammer is used to remove the seal.
- Extra long 28" handle provides leverage, unique pulling head design quickly and easily removes the seal in one piece.
- Built from the highest quality heat-treated steel.
- Removes hub seals on trailer and truck axles, including truck steering axles.

**No. 5085** – Hub oil seal puller.  
Wt., 6 lbs., 12 oz.



### Universal Bearing Cup Installer

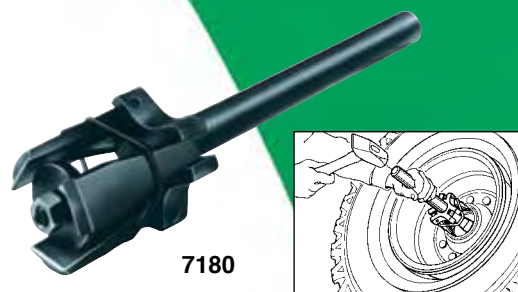
This handy, adjustable tool is designed to install wheel-bearing cups in a wide range of heavy-duty axles. Simply adjust and lock the jaws to the cup I.D., slip on the new cup, set it in the bore, and drive it in with a hammer. The tool helps eliminate the damage caused by makeshift methods.

- Works on axles from 11,000 to 50,000 lb. capacity.
- Adjusts to fit 3-5/8" to 6-1/2" O.D. bearing cups, which adds up to as many as 30 individual drivers.

**No. 7180** – Universal bearing cup installer. Wt., 11 lbs.

**No. 52038** – Replacement jaw.

**No. 207561** – Replacement retaining spring.



### Slack Adjuster Pullers

These pullers will yank even the most corroded slack adjuster off the S-cam — and do so in just a fraction of the time needed with “heat and beat” methods. Plus, they won’t damage components. Both pullers have a rugged forcing screw and cast steel body. Puller No. 5055 fits many manual types, and the No. 5056 works on Rockwell, Haldex, Gunite, and Bendix automatic adjusters.

**No. 5055** – Manual slack adjuster puller. Wt., 5 lbs.

**No. 5056** – Automatic slack adjuster puller. Wt., 6 lbs.



### Air Brake Service Kit

This kit has the tools needed to remove slack adjusters and push-rod clevis pins used in the S-cam brake systems of class 7 and 8 vehicles.

- Works on manual or automatic slack adjusters.
- Includes Nos. 5055 and 5056 slack adjuster pullers, 5057 brake clevis pin press, and a plastic storage case.

**No. 5054** – Air brake service kit. Wt., 14 lbs., 10 oz.



### Clevis Pin Press

Removing corroded clevis pins from a brake air-chamber pushrod can be a maddening and time-consuming task — unless you’re using our clevis pin press. This handy screw-operated tool applies the force just where it’s needed. The pin is easily removed from its hole without damaging nearby components.

**No. 5057** – Clevis pin press. Wt., 1 lb., 13 oz.



### Slack Check

This tool enables you to quickly check the brake adjustment on class 7 and 8 trucks and trailers having S-cam brakes. It features a sturdy, four-position handle to provide the leverage you need at the proper angle.

- Works on manual or automatic slack adjusters.

**No. 5052** – Slack check. Wt., 1 lb., 3 oz.

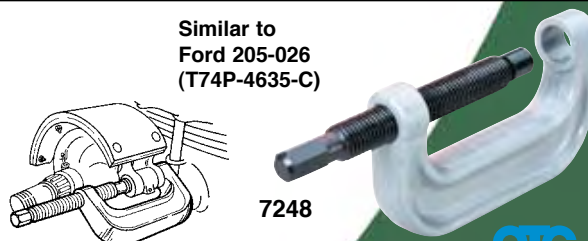


### Heavy-Duty Anchor Pin Press

With this rugged C-frame press, you can easily remove stubborn and rusted brake anchor pins from spyders on heavy-duty vehicles. Mechanical screw power does the job quickly and efficiently.

- Works on brake pins up to 1-1/4" in diameter.

**No. 7248** – Heavy-duty anchor pin press. Wt., 9 lbs., 6 oz.



Similar to  
Ford 205-026  
(T74P-4635-C)

# HEAVY-DUTY TOOLS

## Brake Service



### Brake Anchor Pin and Bushing Service Set

With the No. 5038, there's no need to remove the bearing hub assembly just to replace the pins and bushings on 16-1/2" S-cam trailer and tractor "Q" brake systems. Much less complicated and time consuming!

- Special tooling and our C-frame press get you past the hub assembly, so you can do the job quickly and professionally without damaging other parts.
- Includes everything needed for removal and replacement.
- Tooling is available separately for the tech who already owns the 7248 C-frame press.

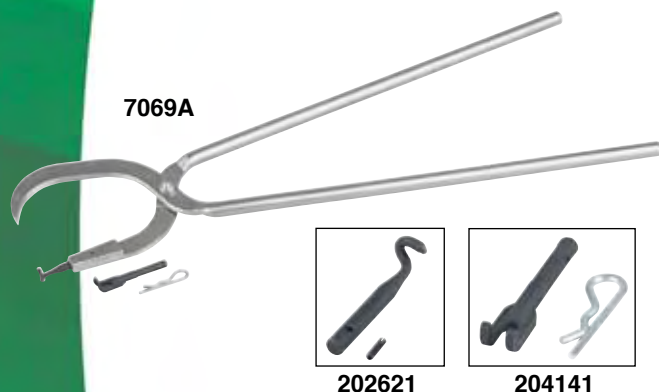
**No. 5038** – Brake anchor pin and bushing service set includes C-frame press and tooling in a plastic storage case. Wt., 13 lbs., 9 oz.



### Axle-Stud Cone Pliers

Now you can easily remove the tapered cone from studs used on the rear axles of medium and heavy-duty trucks. This specially designed tool gives you the leverage needed to expand the cone and remove it from the stud for axle removal.

**No. 7077** – Axle stud cone pliers. Wt., 13 oz.



### Heavy-Duty Brake Spring Pliers

Save time and effort when removing and installing return springs on the brake shoes of heavy-duty vehicles. This specially designed pliers works for hydraulic wedge-type and "S" cam air brakes. Its 26-1/4" length gives you the leverage to do the job more easily, and the huge jaw opening accommodates even the widest brake shoes.

**No. 7069A** – Heavy-duty brake spring pliers with "S" cam and wedge-type replaceable tips. Wt., 4 lbs., 8 oz.

**No. 202621** – Wedge-type replacement tip. Wt., 2 oz.

**No. 204141** – "S" cam replacement tip. Wt., 2 oz.

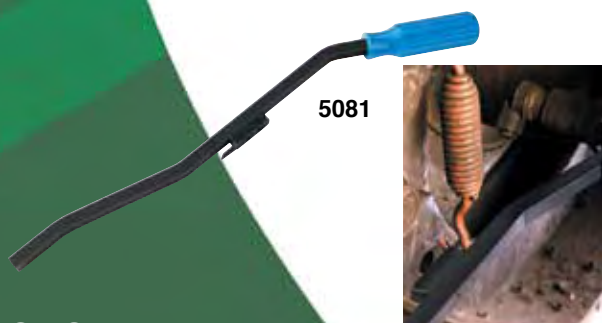


### Truck Brake Spring Pliers

- Designed to remove and install the brake shoe return springs on medium-duty and heavy-duty drum brakes.

**No. 4592** – Truck Brake Spring Pliers. Wt., 2 lbs., 13 oz.

**No. 4592-1** – Replacement tip.



### S-Cam Air Brake Spring Tool

- Eliminate makeshift, unsafe methods of unhooking and reconnecting retaining springs when replacing brake shoes on heavy-duty tractors and trailers.
- Simply hook the retaining spring loop and press down. Lever action against the axle makes the job a snap!

**No. 5081** – S cam air brake spring tool. Wt., 1 lb., 6-oz.

**No. 314548** – Replacement hook kit. Wt., .5 lb.

### Hydraulic Brake Spring Tool

Here's a tool to remove and install the return springs in Lucas Girling hydraulic brake systems. The tool's machined tip cradles the return spring securely, and its sliding fulcrum gives you all the leverage needed to do the job. A knurled handle helps prevent slipping.

- Works on 1984 to current Ford F600, F700, and F800 series having Lucas Girling hydraulic brakes.

**No. 7462** – Hydraulic brake spring tool.  
Wt., 10 oz.



### Lucas Rear Brake Adjusting Tool

If you're working on a lot of medium-duty hydraulic brake systems, you need our adjusting tool. It enables you to easily adjust Lucas Girling hydraulic brake systems (popular in Ford F700, F800, and F900 series). The tool's offset design and extra handle length get the job done quickly.

**No. 5072** – Lucas rear brake adjusting tool.  
Wt., 1 lb., 2 oz.

Similar to Ford  
206-D005 (D90T-2588-A)

5072



### Truck Transmission Bearing Service Set

The set is designed to help you remove input shaft bearings and countershaft bearings, in both the main and auxiliary boxes of heavy-duty Fuller transmissions. It will also remove end yokes from 1600/1610–1810 series transmissions. The puller delivers 10 tons of mechanical power— essential force for working on big gearboxes.

- Works on Fuller twin-countershaft transmissions: 125, 600, 660, 900, 9500, 1100, 12500, 12600, 13000, 14600, 15600, and 8600 series, 910–913, 915, and 9513.

**No. 7070A** – Truck transmission bearing service set.  
Wt., 14 lbs., 3 oz.

**No. 7075** – Transmission output shaft end yoke remover only. Wt., 4 lbs., 3 oz.

**No. 7207** – Collet only. Wt., 4 lbs., 13 oz.



7070A



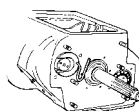
7075

### Transmission Timing Block Sets

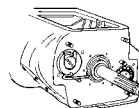
These sets enable one-man installation of front and rear countershaft bearings on Fuller twin-countershaft transmissions. The set positions the upper countershaft, yet lets you slide it aside to insert the main shaft. When the main shaft is in place and timing marks line up, turn the tool vertically to engage and position the countershaft to main shaft.

**No. 7108** – Timing block set for Fuller RTO 610/613 transmissions. Wt., 1 lb., 2 oz.

**No. 7109** – Timing block set for Fuller RT and RTO 910, 915, 9513, 12509, 12510, 12513, and 12515 transmissions. Wt., 1 lb., 12 oz.



Positioned for main shaft timing.



Positioned for bearing installation.





# HEAVY-DUTY TOOLS

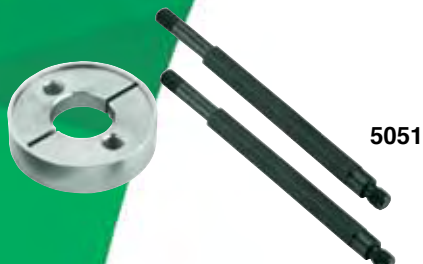
## Transmission Service Tools



### Bearing Puller Set

This puller set, designed for use with our No. 7070A transmission service set (sold separately), is designed to remove front countershaft and input shaft bearings on Fuller RT, RTO 610/613 twin countershaft transmissions.

**No. 205776** – Bearing puller set. Wt., 2 lbs., 10 oz.



### Bearing Puller Set

When teamed with our No. 7070A puller, this puller set will remove front and rear countershaft bearings from the main case of Eaton® Fuller® 2 Series Roadranger® transmissions.

- Includes pulling collet, sleeve, and a pair of puller legs.

**No. 5051** – Bearing puller set. Wt., 3 lbs., 12 oz.



### Timing Tool

- Designed to support the main-case upper countershaft during transmission assembly and timing.
- Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

**No. 5063** – Timing tool. Wt., 2 lbs., 5 oz.



### Countershaft Pushing Tool

Replacing rear countershaft bearing snap rings in Eaton Fuller transmissions? With this tool, you can easily move the countershaft rearward to expose the snap ring.

- Works on Eaton® Fuller® Roadranger® transmissions (series 2, 5, 6, and 7).

**No. 5064** – Countershaft pushing tool. Wt., 4 lbs., 11 oz.



### Countershaft Bearing Driver

- Eases the task of installing a main-case countershaft bearing.
- Works on Eaton® Fuller® 2 Series Roadranger® transmissions.

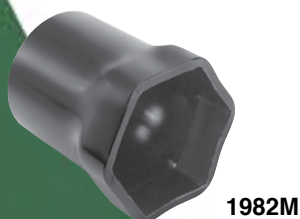
**No. 5065** – Countershaft bearing driver. Wt., 3 lbs., 14 oz.



### Bearing Driver

This tool is designed to install the bearing on 2" diameter input shafts used in Eaton® Fuller® Roadranger® transmissions.

**No. 5066** – Bearing driver. Wt., 5 lbs., 6 oz.



### 70 mm Hex Socket

Attach this heavy-duty socket to your 3/4" drive ratchet or breaker bar, and you'll be able to easily remove the end-yoke locknut on Eaton® Fuller® 2 Series Roadranger® transmissions.

**No. 1982M** – 70 mm hex socket. Wt., 3 lbs., 13 oz.

### Auxiliary Countershaft Shim Tool

When you're working on Eaton® Fuller® 2 Series Roadranger® transmissions, this tool holds the auxiliary countershaft in place while you set the bearing end play.

- Includes a support strap for .100 and .125 shim settings, and metric and standard mounting bolts.

**No. 5062** – Auxiliary countershaft shim tool.  
Wt., 3 lbs., 13 oz.

5062



### Cummins® Injector Puller

This helpful puller will handle a variety of injectors found in Cummins engines: mechanical L-10, PDT, and PTD top-stop 855NH. Its two-jaw design firmly grips the injector while it is being removed by the slide hammer.

- Includes storage case and special adapter for pulling STC injectors.

**No. 5042** – Cummins injector puller.  
Wt., 6 lbs.

5042



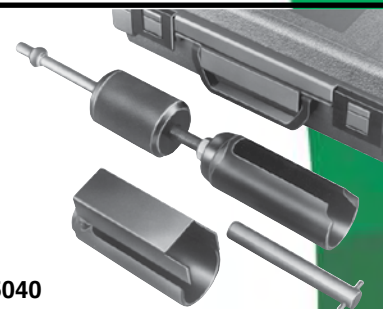
### Cummins® Injector Remover/ Installer

This is our best tool for removing or installing fuel injectors on Cummins L10 and N14 Celect electronically controlled engines. The large slide hammer and pin-type pulling adapter easily— and safely— handle injector jobs.

- Includes storage case.
- Two installing adapters help prevent damage to an injector's electronic solenoid.

**No. 5040** – Cummins injector remover/installer.  
Wt., 7 lbs., 1 oz.

5040



### Cummins® Fuel Injector Puller Adapter

When combined with our No. 5028 injector puller or a slide hammer with a 1/2"-20 threaded shaft, this adapter gives you an easy, damage-free way to remove fuel injectors from Cummins B and C series engines.

**No. 217793** – Cummins fuel injector puller adapter for B and C series engines with 12 mm x 1.5 injector threads. Wt., 5 oz.

**No. 215844** – Cummins fuel injector puller adapter for B and C series engines with 14 mm x 1.5 injector threads. Wt., 5 oz.

217793

215844



### Mack Fuel Injector Nozzle Tool

Here's a handy tool for removing or installing injector nozzles on Mack E-6 4 VH and E-9 4 VH four-valve engines. The puller threads directly into the nozzle holder, and mechanical screw power does the pulling while a cylindrical guide holds the injector steady.

- Includes gauge to ensure correct injector depth during installation.

**No. 7455** – Mack fuel injector nozzle tool.  
Wt., 2 lbs., 2 oz.

7455



# HEAVY-DUTY TOOLS

## Fuel and Injector Tools



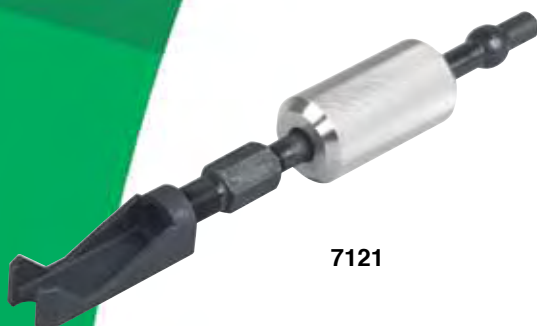
7117

### Caterpillar Fuel Injector Nozzle Puller

We've designed this nozzle puller to remove pencil nozzles on Cat engines. The tool applies straight, even pulling power through a bridge assembly and mechanical forcing screw. The job is done quickly— and without damage.

- Works on Caterpillar 1100/3208 diesel engines.

**No. 7117** – Caterpillar fuel injector nozzle puller.  
Wt., 1 lb., 13 oz.



7121

### Fuel Injector Nozzle Puller

We've designed this puller to remove the pencil-type fuel injector nozzles used in many agricultural and construction engines. The slide hammer action gives a straight, even pull without damaging components.

- Works on Case, Caterpillar, GM, John Deere, Waukesha, and White diesel engines.

**No. 7121** – Fuel injector nozzle puller.  
Wt., 2 lbs., 5 oz.

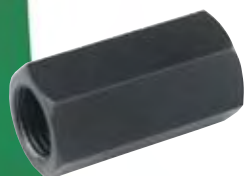


5028

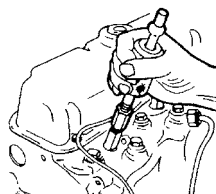
### Slide Hammer Puller

The No. 5028 slide hammer is just 8-1/2" long to fit into tight spots, but its 1-1/2 pound hammer gives you a little extra muscle for stubborn jobs. It's perfect for pulling injector nozzles. The shank is threaded 1/2" –20 and has a 5/8" –18 threaded adapter included. Works with many OTC pulling attachments.

**No. 5028** – Slide hammer puller.  
Wt., 2 lbs.



218163

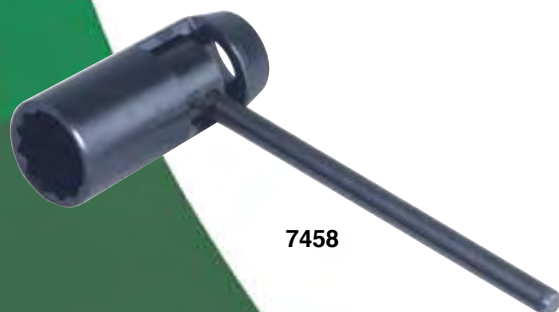


### Ford Fuel Injector Puller Adapter

Designed to work with the No. 5028 slide-hammer puller, this adapter removes injectors from Ford 6.6L and 7.8L diesel engines without damage.

- Slide-hammer threads are 1/2" x 20. Threaded end for injector is 14 mm x 1.5.

**No. 218163** – Ford fuel injector puller adapter.  
Wt., 3 oz.



7458

### Bosch Nozzle Socket

Here's a helpful multipurpose tool for removing or installing injector nozzles. You use the inner socket to hold the nozzle stationary, and the outer socket to loosen or tighten the nozzle's gland nut.

- Works on Bosch KDEL 21 mm injector nozzles used in John Deere engines.

**No. 7458** – Bosch nozzle socket. Wt., 11 oz.



### Fuel Injector Pump Rotating Tool

Maximum fuel economy requires precise injector timing. The tool securely grips the front of the fuel injection pump so you can rotate it while fine-tuning the system.

- Works on Stanadyne rotary fuel pumps found on International's 6.9 and 7.3 liter engines.

**No. 7461** – Fuel injection pump rotating tool. Wt., 1 lb., 14 oz.

Similar to  
Ford No. 303-228  
(T83T-9000-C)



### Diesel Fuel Line Wrenches

Fuel line nuts are often hard to reach, but these unique 3/8" square-drive tools solve that problem. With them, you can loosen or tighten fuel lines at the fuel injector nozzle or fuel injection pump without damaging the nut.

**No. 7453A** – Fuel line wrench, 2.6" long. For International DT466 and 9L diesel engines. Fits 19 mm fuel line nuts. Wt., 4 oz.

**No. 7460** – Fuel line wrench, 2.6" long. For International 6.9L and 7.3L diesel engines. Fits 5/8" hex nut. Wt., 5 oz.

Similar to  
Ford No. 303-230  
(T83T-9396-A)



### Injector Seat Cleaner

Carbon buildup on an injector seat surface prevents proper seating of new injectors. With this tool, you'll be able to clear away carbon deposits and avoid seating problems.

- Works on 6.9L and 7.3L Ford/Navistar diesels.
- Thread size is 24 mm x 2-6g.

**No. 5023** – Injector seat cleaner. Wt., 10 oz.

Similar to  
Ford No. 303-232  
(T83T-9527-A)

5023



### Injector Sleeve Set

Here are the ideal tools for removing and installing the injector sleeves of International DT466 engines. The removing tool threads onto a slide hammer with 5/8" - 18 threads to remove sleeves quickly. The installer seats new sleeves equally fast, without damage.

**No. 5024** – Injector sleeve set. Wt., 1 lb., 8 oz.



### Calibration Fluid

- For use in diesel injection pump testers and injector nozzle testers, such as our Nos. 4200 Nozlrater and No. 4210 Nozlrater II.
- 1 gallon

**No. 208629** – Calibration fluid. Wt., 7 lbs.

208629



# HEAVY-DUTY TOOLS

## Injector Nozzle Tester Tools



4200

Specifications	
Overall width	5-3/4"
Overall length (includes handle)	26"
Overall height	11-1/4"
Weight (empty)	15 lbs., 10 oz.
Max. pressure	5000 PSI (350 bar)
Max. reservoir cap.	.692 gal. of diesel fuel (160 cu. in.)
Usable reservoir cap.	.628 gal. of diesel fuel (145 cu. in.)
Outlet port	For 3/8" tube
Gauge	Calibrated 0-5000 PSI (350 bar) Has 3-1/2" dial face with maximum reading indicator needle.
Gauge connection	1/4" NPT internal
Stroke of 1/2" dia. piston	3/4"
Volume per full stroke	.147 cu. in. (2.4 cc)
Intake filter	2 micron

### Nozlrater Diesel Injector Nozzle Tester

Here is the ultimate tool for diagnosing a number of problems that affect diesel fuel injector nozzles. The Nozlrater tester enables you to check for leakage, pop-off pressure, spray pattern, and chatter. This tool will accommodate a wide range of injectors. We also offer adapters so you can troubleshoot nozzles used in popular automotive, agricultural, and construction engines. Nozlrater features a rugged, lightweight reservoir that holds 7/10 of a gallon of fuel. It is equipped with a replaceable 2-micron filter. The large, dual-scale, high-pressure gauge is protected by a guard and includes an indicator needle to record maximum pressure reached. The tester is light enough to be easily carried for field use. Or you can bench-mount it, using the holes in its base.

- Not designed for Cummins or Detroit injectors.

**No. 4200** – Nozlrater diesel injector nozzle tester. 5000 PSI maximum pressure capacity. Wt., 15 lbs., 10 oz.

**No. 17169** – Replacement filter. Wt., 1 oz.

**No. 11565** – Gauge. Wt., 10 oz.



4202

### Nozzle Tester Manifold/Adapter Sets

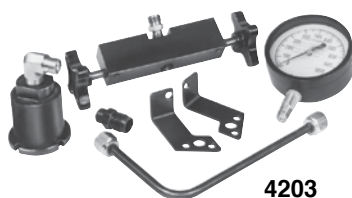
These adapter sets expand our No. 4200 Nozlrater to troubleshoot a wide range of diesel engine injector nozzles.

**No. 4202** – Adapters for servicing Audi, GM, Mercedes-Benz, Nissan/Datsun, Toyota, and VW Rabbit diesel engines. Wt., 2 lbs., 14 oz.

**No. 4203** – Manifold/adapter set. Tests Caterpillar high- and low-pressure, capsule-type nozzles, and high-pressure, pencil-type nozzles on 1100 and 3200 series engines. Complete with Nos. 39870 and 206168 adapters, low-pressure gauge (up to 1,000 PSI), cap plug and mounting brackets. Wt., 6 lbs., 13 oz.

#### No. 4203 optional adapters

No.	Description
209197	Adapter to convert the 4203 for testing other high-pressure, pencil-type nozzles with adapters in the 4201 set.
207036	Straight adapter for pencil-type nozzles on 3300 and 3406-B.



4203

Adapter No.	No. 4202 set includes: Description	Chevy Chevette & GM 1980 & newer C.A.V. nozzles	GM 1979 & newer pencil nozzles	GM 1978 pencil nozzles	Nissan, Toyota, & VW Rabbit Diesels	Audi & Mercedes-Benz
36352	Fuel line assy., 9/16"-18 R.H. thd. with 24° on pipe.	•	•	•	•	•
23617	90° adapter, 9/16"-18 external R.H. thd. (Ermeto 24°) to 9/16"-18 internal R.H. thd. (Ermeto 24°).	•	•	•	•	•
23621	Straight adapter, 9/16"-18 external R.H. thd. (Ermeto 24°) to 1/2"-20 external L.H. thd. (60° seat).	•	•	•	•	•
23622	Adapter nut, 12 X 1.5 mm internal R.H. thd. to 1/2"-20 internal L.H. thd.	•	•	•	•	•
201917	Adapter nut, 9/16"-18 internal R.H. thd. to 1/2"-20 internal L.H. thd.	•	•	•	•	•
23693	Straight adapter, 1/2"-20 external L.H. thd. (Ermeto 24° & 90° seat) to 9/16"-18 external R.H. thd. (Ermeto 24°).	•	•	•	•	•

### Nozzle-Tester Adapter Set

This is our universal adapter set for testing injection nozzles on the most popular automotive, agricultural, and construction diesel engines. The set has 17 adapters that connect to our No. 4200 Nozlrater testing unit.

- Includes handy metal storage box.
- 23622— used on 1989–95 Cummins 5.9L, 1983–94 Ford 6.9L and 7.3L.
- 23623— used on 1996–2000 Cummins 5.9L and Navistar 6.6L and 7.8L

**No. 4201** – Nozzle-tester adapter set.  
Wt., 4 lbs., 2 oz.



4201

Adapter No.	No. 4201 Application Chart		Description	I.H. Truck	I.H. Farm Construction	John Deere	Oliver & Allis	Waukesha	Case, Ford Tractor, Massey, & Perkins	White	Mack	Caterpillar Pencil Nozzles	Deutz	GM Autos	VW, Audi, & Mercedes Autos	Mercedes & Magaris Truck
36352			Fuel line assembly, 9/16"–18 R.H. thd. with 24° on pipe.	•	•	•	•	•	•	•	•	•	•	•	•	•
23622			Adapter nut, 12 X 1.5 mm internal R.H. thd. to 1/2"–20 internal L.H. thd.	•		•	•	•	•	•			•	•	•	
23623			Adapter nut, 14 X 1.5 mm internal R.H. thd. to 1/2"–20 internal L.H. thd.	•	•	•	•	•	•		•		•			•
23624			Adapter nut, 18 X 1.5 mm internal R.H. thd. to 1/2"–20 internal L.H. thd.		•		•	•	•							
201917			Adapter nut, 9/16"–18 internal R.H. thd. to 1/2"–20 internal L.H. thd.	•	•	•	•	•	•	•				•		
23626			Adapter nut, 5/8"–18 internal R.H. thd. to 1/2"–20 internal L.H. thd.	•	•		•	•	•							
201912			Adapter nut, 3/4"–16 internal R.H. thd. to 1/2"–20 internal L.H. thd.					•								
201913			Adapter nut, 9/16"–24 internal R.H. thd. to 1/2"–20 internal L.H. thd.	•	•											
23693			Straight adapter, 1/2"–20 external L.H. thd. (Ermeto 24° & 90° seat) to 9/16"–18 external R.H. thd. (Ermeto 24°).	•	•	•	•	•	•	•				•		
23692			Straight adapter, 3/8"–24 external R.H. thd. to 9/16"–18 external R.H. thd. (internal Ermeto 24°).	•	•											
23617			90° adapter, 9/16"–18 external R.H. thd. (Ermeto 24°) to 9/16"–18 internal R.H. thd. (Ermeto 24°).	•	•	•	•		•		•		•	•	•	•
23621			Straight adapter, 9/16"–18 external R.H. thd. (Ermeto 24°) to 1/2"–20 external L.H. thd. (60° seat).	•	•	•			•	•	•		•	•	•	•
208370			Banjo adapter, 9/16"–18 external R.H. thd. (24° seat).		•	•										
201916			Adapter, 9/16"–18 external R.H. thd. to 9/16"–18 internal R.H. thd. ferrule.			•										
208369			90° adapter, 9/16"–18 external R.H. thd. to 9/16"–18 internal R.H. thd.	•												
38279			Straight adapter, 14 X 1.5 mm external R.H. thd. (Ermeto 60°) to 9/16"–18 external R.H. thd. (internal Ermeto 24°).			•										
43468			Straight adapter, 1/2"–20 external R.H. thd. (Ermeto 24°) to 9/16"–18 external R.H. thd. (internal Ermeto 24°).							•						
<b>Additional Accessories Available (not included in 4201 Set)</b>																
44026			Straight adapter, 9/16"–18" R.H. thd. (Ermeto 24°) to Caterpillar 1100 & 3200 series pencil nozzle.								•					
201920			Adapter nut, 14 X 1.5 mm external thd. to o"–18 internal R.H. thread	Connects OTC 4200 Nozlrater to other fittings used in the industry.												
309277			Adapter nut, 14 X 1.5 mm internal thread	For use only on Mack 4-valve diesels. (E6 & E9)												



# HEAVY-DUTY TOOLS

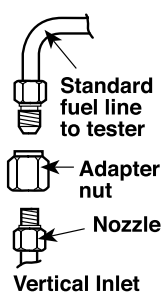
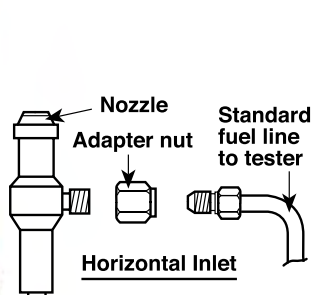
## Injector Nozzle Tester Tools



4210

### Specifications:

Overall width	5-3/4"
Overall length (incl. handle)	15"
Overall height	10-3/4"
Weight (empty)	13 lbs., 15 oz.
Maximum pressure	5000 PSI (350 bar)
Max. reservoir capacity	.68 gal. (157 cu. in.)
Usable reservoir capacity	.58 gal. (134 cu. in.)
Outlet port	For 1/4" tube
Gauge	Dual calibrated, 0-5000 PSI, 0-350 bar, 1% accuracy, 2-1/2" dial with dual scale (PSI & bar).
Gauge connection	1/4" NPTF
Stroke of 1/2" dia. piston	5/8"
Volume per full stroke	1 cc
Intake filter	2 micron



## Nozlrater® II Injector Nozzle Tester

The No. 4210 tests the small injector nozzles used in smaller car and light-truck engines. It enables you to diagnose leakage, pop-off pressure, spray pattern, and chatter. It has a .68-gallon reservoir and is equipped with a replaceable 2-micron filter. It delivers 1cc of fuel per stroke and won't flood small nozzles. The unit is light enough to be easily carried for field use, or you can bench-mount it.

- Includes fittings, fuel line, and 5,000 PSI (350 bar) gauge.
- Works on nozzles from Audi, GM, Mercedes-Benz, Nissan/Datsun, Toyota, and VW Rabbit diesels.

**No. 4210** – Nozlrater II injector nozzle tester.  
Wt. 13 lbs., 15 oz.

**No. 17169** – Replacement filter. Wt., 1 oz.

**No. 303292** – Gauge. Wt., 6 oz.

### Accessory Fittings (for use with, but not included with, No. 4210 Nozlrater® II)

No.		Description
303570		Fuel line used on nozzles with 90° horizontal inlets. 1/2"-20 internal R.H. thread to 1/2"-20 external L.H. thread (60° seat).
23624		Adapter nut, 18 X 1.5 mm internal R.H. thread to 1/2"-20 internal L.H. thread.
201917		Adapter nut, 9/16"-18 internal R.H. thread to 1/2"-20 L.H. internal thread.
23626		Adapter nut, 5/8"-18 internal R.H. thread to 1/2"-20 internal L.H. thread.
201912		Adapter R.H. thd. to 1/2"-20 internal L.H. thread.
201913		Adapter nut, 9/16"-24 internal R.H. thread to 1/2"-20 internal L.H. thread.
208384		Used to adapt standard fuel lines to the following adapters.
23693		Straight adapter, 1/2"-20 external L.H. thread (Ermeto 24° and 90° seat) to 9/16"-18 external R.H. thread (Ermeto 24°).
201916		Adapter, 9/16"-18" external R.H. thread to 9/16"-18 internal R.H. thread ferrule.
38279		Straight adapter, 14 X 1.5 mm external R.H. thread (external 60° seat) to 9/16"-18 external R.H. thread (internal Ermeto 24°).
43468		Straight adapter, 1/2"-20 external R.H. thread (Ermeto 24°) to 9/16"-18 external R.H. thread (internal Ermeto 24°).
44026		Straight adapter, 9/16"-18 external R.H. thread (Ermeto 24°) to Caterpillar 1100 & 3200 series pencil nozzle.

Adapter No.	Description	GM 1980 & Newer Poppet Nozzles	GM 6.2L Diesels	Chevy Chevette	Audi & Mercedes-Benz	Datsun, Toyota, & VW Rabbit	1989-95 5.9L Dodge (Cummins)	1996-2000 5.9L Dodge (Cummins)	1983-94 6.9L & 7.3L Ford (with Navistar)	6.6L & 7.8L Ford (with Navistar)
23622	Adapter nut, 12 X 1.5 mm female R.H. thd. to 1/2"-20 internal L.H. thd.	•		•	•	•	•		•	
23623	Adapter nut, 14 X 1.5 mm female R.H. thd. to 1/2"-20 internal L.H. thd.		•					•		•
201917	Adapter nut, 9/16"-18 internal R.H. thd. to 1/2"-20 internal L.H. thd.	GM 1979 & Newer Pencil Nozzles (not included with 4210)								



- Engineered in the U.S.A.
- Lifetime Marathon Warranty®

*For more than 75 years, automotive service professionals have depended on the quality and durability of OTC's heavy-duty tools and shop equipment.*

OTC's full range of tools and equipment has been designed for the professional service technician and represents the highest standard in quality and reliability. Engineered in the U.S.A. and backed by a Lifetime Marathon Warranty, OTC-branded tools and equipment set the standard by which all other tools and equipment are measured.

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- Competitively priced
- Two-year limited warranty

*In addition to offering "the right tool for every job," OTC also offers "the right line of tools for every budget!"*

OTC's **Stinger** line of products is designed for the cost-conscious shop owner who still wants the reliability of an OTC product. Since being introduced in 2000, Stinger products have become recognized for their value and performance. Competitively priced, Stinger products carry a two-year limited warranty.

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# SHOP EQUIPMENT

## Power Train Lifts



1585

ANSI  
PALD



62338



215324

### Power Train Lift – 1,250 lb. Capacity

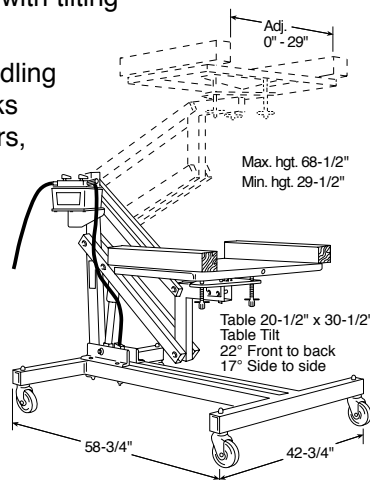
- For easy removal and installation of engine/transaxle assemblies on FWD vehicles. Also handy for pulling rear ends, leaf springs, and more.
- Your shop air supply is the only thing you need to get the precise control offered by this OTC power train lift.
- Width between wooden support blocks is adjustable from 0–29". Load is secured with a tough nylon strap.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1585** – Power train lift with tilting plate. Wt., 303 lbs.

**No. 62338** – Fuel tank handling adapter for No. 1585. Works on domestic and import cars, and light trucks. Includes nylon tie-down straps and safety grounding straps. Wt., 62 lbs., 3 oz.

**No. 215324** – Universal transmission adapter for No. 1585. Wt., 33 lbs.

**No. 61243** – Replacement reservoir.



1595

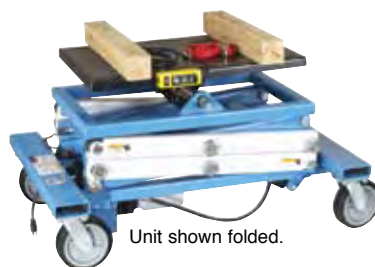
ANSI  
PALD

### 2,500 lb. Capacity Power Train Lift

This lift will handle engine and transmission assemblies, gas tanks, drive axle assemblies, engine / transaxle assemblies, electric bus batteries, and more.

- Scissors-type design allows access to all four sides of a component.
- Powered by a quiet, 110V 14 amp. electric/hydraulic pump.
- Smooth, steady lifting and lowering motion controlled by hand-held remote.
- Width between wooden support blocks is adjustable from 0–29". Load is secured with a tough nylon strap.
- Lifting range is from 29" to 80".
- Two patent pending, independent, adjusting screws tilt the table  $\pm 15^\circ$  side-to-side, or fore-and-aft, and ensure maximum stability of the table in any position.
- Larger casters accommodate heavy loads.

**No. 1595** – 2,500 lb. capacity power train lift. Wt. 525 lbs.



Unit shown folded.



### 2,200 lb. Capacity Low-Lift Transmission Jack

- The 8-1/4" low height is perfect for aerodynamic trucks with low ground clearance.
- Special mounting adapter fits popular Eaton® Fuller® RoadRanger® transmissions used on nearly all Class 7 and 8 heavy-duty trucks. Mounting plate angle is adjusted with the turn of a wrench.
- Degree of tilt: 20° back, 15° forward, 12° side-to-side.
- Swiveling pump handle permits ease of operation in restricted working spaces. Fast-acting pump quickly raises lifting arm.

**No. 5019** – Low-lift transmission jack. Includes No. 220492 adapter for Eaton® Fuller® RoadRanger® transmissions (also available separately). Wt., 330 lbs.

Model	Capacity (tons)	Overall Length	Overall Width	Max. Height	Min. Height	Weight
5019	1.1	52"	32-1/2"	36-1/2"	8-1/4"	330 lbs.



5019



### Air-Assisted 2,000 lb. Capacity High-Lift Transmission Jack...for Trucks and Buses

- For shops with in-ground or above-the-floor vehicle hoists. Covered by OTC Lifetime Marathon Warranty®.
- Low height of 41-1/2" allows transmission to be rolled out from under bus or other vehicle's frame; a clearance problem with competitors' jacks.
- Metered, foot-operated air pump allows effortless lifting of the transmission into place, controlling the load precisely during removal and installation.
- Operation is twice as fast as competitive jacks powered by a hand pump, and it costs less!
- A dedicated adapter that fits the popular Allison 500 and 600 series automatic transmissions is included with No. 5078. (Adapter is also available separately as No. 314729.)
- Safety bypass prevents damage caused by a system overload.

**No. 5078** – High-lift transmission jack with air-assist. Wt., 254 lbs.

Model	Max. Load Capacity	Overall Height (low pos.)	Max. Height	Max. Forward Tilt	Max. Backward Tilt	Max. Side Tilt (either side)	Leg Width
5078	2,000 lbs.	41-1/2"	65"	50°	38°	14°	46"



5078



### Accessories for No. 5019 and No. 5078 Jacks

**No. 221790** – Mack transmission mounting brackets. Provides a stable platform for Mack T200 series transmissions. Wt., 20 lbs., 14 oz.

**No. 49611** – Eaton® Fuller® RoadRanger® auxiliary housing adapter. Bolts directly to the countershaft bearing caps to provide a stable platform for removing and installing the auxiliary housing. Wt., 11 lbs., 13 oz.

**No. 305811** – AdjustaGrip® mounting arm (one only). Each arm has five points of adjustment, permitting its attachment to the normal mounting holes of the component. Wt., 3 lbs., 11 oz.

**No. 220492** – Eaton® Fuller® Road Ranger® transmission adapter. Wt., 22 lbs.

**No. 528150** – Eaton® "Lightning" adapter. Used with the No. 5019 transmission jack. Wt., 12 lbs.

**No. 314729** – Allison 500/600 series automatic transmission adapter used with No. 5078 transmission jack. Wt., 39 lbs., 4 oz.





### Air-Assisted 1,000 lb. Capacity High-Lift Transmission Jack

- Unique foot pedal design gives you complete control over the air-driven first stage to rapidly raise the mounting head to the transmission; second stage is hydraulically actuated — permitting precise operator control during removal and installation.
- Transmission mounting head features four ratcheting brackets that adjust to fit a wide range of transmissions. Four-wheel base with locking swivel casters provides stability and portability.
- Safety bypass prevents damage caused by a system overload.
- Carries OTC Lifetime Marathon Warranty®.

**No. 1728** – 1,000 lb. air/hydraulic transmission jack. Wt. 117 lbs.

**No. 1728-19** – Replacement air valve. Wt., 2 lbs.

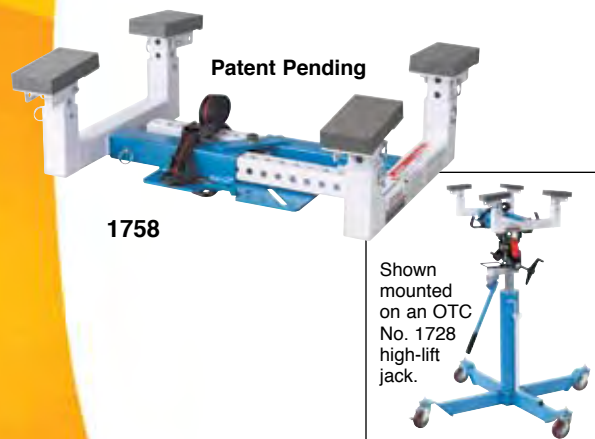
Model	Max. Load Capacity	Overall Height (low pos.)	Max. Height	Max. Forward Tilt	Max. Backward Tilt	Max. Side Tilt (either side)	Leg Width
1728	1,000 lbs.	34-1/2"	75"	50°	20°	10°	41"



### Transmission Jack Mounting Adapter Set

- Used with No. 1728 transmission jack. Ideal for use on larger standard transmissions with irregularly shaped oil pans.
- Four adjustable arms help stabilize transmissions that have rounded bottom surfaces.

**No. 223196** – Mounting adapter set of (4). Wt., 12 lbs., 6 oz.



### Fuel Tank Handler

- Provides safe and efficient handling of fuel tanks. Adjustable from 24" to 38" horizontally, and 7" to 11" vertically, to service tanks up to 40 gallons.
- Universal adapter plate fits all OTC, Stinger, and virtually all competitive transmission jacks in the market.
- Patent-pending gearing mechanism ensures equal extension of lift arms to ensure load is properly balanced over jack.
- Four adjustable support risers can be individually adjusted to ensure a perfect fit to any fuel tank design.
- Cross-link polyethylene foam pads protect tank from damage.

**No. 1758** – Fuel tank handler. Wt., 32 lbs.

...adapters for earlier model  
**No. 1789 Economy High-Lift Transmission Jack.**

### Transmission Jack Adapters

**No. 310355** – Reducer adapter. Needed when using adapter Nos. 61968, 61516, and 51085. Wt., 2 lbs.

**No. 61968** – Universal transmission adapter. Must be used with reducer adapter No. 310355. Wt., 33 lbs.

**No. 51085** – Transfer case adapter for New Process 4WD transfer cases. Must be used with reducer adapter No. 310355 and universal transmission adapter No. 61968. Wt., 8 lbs., 3 oz.

**No. 61516** – Transmission jack adapter for GM 125/440 and Ford E4OD transmissions. Must be used with reducer adapter No. 310355 and universal transmission adapter No. 61968. Wt., 15 lbs.

### 1,000 lb. Capacity High-Lift Transmission Jack

- Universal mounting head provides wide fore and aft tilt range, making alignment of transmission easier.
- Foot pump and pedal release mechanism of No. 1791 gives precise control when positioning or removing a transmission.
- Adjustable nylon tie-down strap safely secures load.
- Two-stage hydraulic cylinder design speeds lifting of transmission into position for installing.
- Carries OTC's Lifetime Marathon Warranty®.

**No. 1791** – High-lift transmission jack with foot pump. Wt., 118 lbs.

**No. 1792** – Same features and construction as No. 1791, except it has a hand-operated integral hydraulic pump. Handle is conveniently located for precise control when removing or replacing a transmission.

Model	Max. Load Capacity	Overall Height (low pos.)	Max. Height	Max. Forward Tilt	Max. Backward Tilt	Max. Side Tilt (either side)	Leg Width
1791	1,000 lbs.	36"	73-1/2"	50°	38°	14°	40"
1792	1,000 lbs.	36"	73-1/2"	50°	38°	14°	40"



### Mobile Vehicle Lift System

- Mobile, tandem system is air-operated to handle your class 7 and 8 tractor lifting needs. No need to waste time re-blocking and making additional lifts for the clearance you need for under-vehicle service. Roll the system to the vehicle anywhere in the shop or outside on a level surface.
- Unique design provides lift from the tires, not the frame or axle members. Ideal for situations where limited ground clearance or a lack of clear access complicates lifting.
- Single controller operates both sides of the system for a smooth, level lift up to two full feet from the bottom of the tires to the ground. Units can double as support stands when retention pin is inserted.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1520** – Lifting system. Includes two lifts. Wt., 1,080 lbs.

Specifications	1520
Capacity	10-tons (20,000 lbs.) (pair)
Air pressure	150 PSI
Lifting range	0"-24"
Saddle width	19-1/2"-24" dia. rim sizes
Height	53-1/4"
Width	41-1/2"
Length	39-1/2"







1590



### 10-Ton Capacity Air Lift Jack for Trucks and Trailers

- Just roll it under a load, adjust the lifting saddles, connect an air line, and actuate. That's all it takes to lift the end of a truck or trailer. Lifting range is 13" to 52" with a 14" reach.
- Develops 10 tons of lift at 200 PSI air pressure. An automatic mechanical safety catch engages in five height positions; it must be manually released to lower the load.
- Two large swivel casters and pneumatic tires make it easy to maneuver, even on loose gravel.
- Covered by OTC Marathon Lifetime Warranty®.

**No. 1590** – Air lift. Wt., 697 lbs.

Specifications	1590
Capacity	10 tons (at 200 PSI air)
Air pressure	100–200 PSI
Lifting range	13"–52"
Saddle width	29"–41-3/4"
Height	67-1/2"
Width	41"
Length	36"
Distance from lift arm to floor support	12-1/2"



1591A

### 10-Ton Capacity Combination Air Lift Jack and Support Stand

- Commonly used in pairs, these air-operated units are perfect for heavy-duty lifting jobs.
- Remote actuating valve and an 8 ft. air hose give you control from a distance.
- Can be used as a support stand, as well as a lift, thanks to an innovative internal design.
- Wide range of height adjustment and durable, free-rolling wheels make the jack easy to maneuver and position where it's needed.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1591A** – Combination air lift jack and support stand. Wt., 179 lbs.

Specifications	1591A
Capacity	10 tons (at 200 PSI air)
Minimum height (unpinned, no extension)	19-1/2"
Maximum height (pinned in top hole, with extension)	49-1/4"
Stroke	10-7/8"



222338



222337

### Tractor Lift Kits

- When used with an air lift jack, these kits will raise the front end of Freightliner 120 series cab-over and conventional tractors utilizing air dam plastic bumpers and low-profile farings. Applies to 1988 through 2002 class 7 and 8 vehicles.
- Kits include extension tube and frame lifting bracket.

**No. 222337** – Tractor lift kit for No. 1591A air lift jack. Wt., 61 lbs.

**No. 222338** – Tractor lift kit for No. 1590 air lift jack. Wt., 54 lbs.

### 20-Ton Truck Ramps

- Long, retractable T-handle enhances mobility.
- Non-skid rubber matting prevents slippage during use.
- Durable, heavy-duty rubber wheels.
- Capacity per pair is 20 tons
- Covered by OTC Lifetime Marathon Warranty®.

**No. 5268** – 20-ton truck ramps handle up to 10" tread width. Wt., 230 lbs./pair

**No. 5269** – Wide 20-ton truck ramps handle up to 16" tread width. Wt., 312 lbs./pair

Model	Frame Height	Frame Width	Frame Length	Wheel Diameter	Handle Length
5268	9-1/4" (23.5 cm)	13-1/2" (34.29 cm)	47" (119.38 cm)	5" (12.7 cm)	33" (83.82 cm)
5269	9-1/4" (23.5 cm)	18-1/4" (46.36 cm)	47" (119.38 cm)	5" (12.7 cm)	33" (83.82 cm)



5268



5269

### 25-Ton Capacity Under-Axle Jack and Accessories

- Self-retracting, air-driven ram uses standard shop air. Release valve automatically applies air to retract ram.
- Low 8" minimum working height enables jack to get under any truck in the shop.
- Positioning jack is easy, even under vehicles with set-back axles, thanks to a 53" handle that locks into any of three positions, from vertical to horizontal.
- Maximum lift is 21" when used with the 3" lifting extension.
- Covered by the OTC Lifetime Marathon Warranty®. Exceeds ANSI PALD standards.

**No. 5012A** – Under-axle hydraulic jack with a 25-ton capacity, self-retracting ram. Includes No. 220972 – 3" lifting extension. Wt., 117 lbs.

**No. 220972** – Replacement lifting extension for 5012A, 3" long and has a 1" diameter. Wt., 3 lbs., 4 oz.

**No. 215009\*** – In-line oil lubricator. Add to air line to meter precise flow of lubricant to air motor. Has 1/4" NPT fitting. Wt., 8 oz.

Specifications	5012A
Lifting range, screw retracted	8" min. height 13-1/8" max. height
Lifting range, screw extended	12-7/8" min. height 18" max. height
Cylinder stroke	5-1/8"
Extended screw length	4-7/8"
PSI range	100-200

\*Not included, order separately. Prevents harmful contamination caused by moisture in the air line!



Now includes  
No. 220972 –  
3" lifting  
extension.



215009



220972

5012A





# SHOP EQUIPMENT

## Under-Axle Jacks



Operate hand lever to move handle to one of four positions: horizontal, 45 degrees, vertical, or collapsed for easier transport.

Single control switch, handy and easy to use.



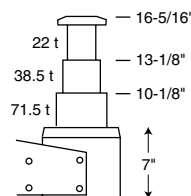
A reduced width for easy access to the lifting point.

### 3-Stage Under-Axle Jack

Three-stage lift capacity – 71.5-, 38.5-, and 22-tons. Ideal for lifting loaded trailers, buses, and other Class 7 and 8 vehicles.

- Piston and cylinders are made from chromium molybdenum vanadium steel for durability and then liquid nitrated to prevent rust and seizing.
- Features a high load-approach speed.
- Self-retracting, air-driven cylinder eliminates manual lowering.
- 4-position handle: horizontal, 45 degrees, vertical, or collapsed.
- 7-inch minimum height for low clearance vehicles.
- Comes complete with a 3-15/16 in. (100 mm) lifting extension.
- Complies with ASME / PALD test requirements.

**No. 5093A** – 3-stage under-axle jack. Wt., 165 lbs.



**5225**

**ANSI  
PALD**

### Portable Under-Axle Jack (27.5-/11-Ton)

Ideal for roadside service – ultra low weight and integrated design – no loose tubes, handles, or valves.

- Portable – only 65 lbs.
- User friendly - control valve, steering, and carrying handle integrated into one function.
- Built-in safety valve to prevent overloading.
- Complies with ASME / PALD and CE standards.
- Hard chrome-plated piston rods for long life.
- Manually operated dead man's control.
- Comes with two extensions: 2" and 3-7/8".

**No. 5225** – Portable under-axle jack. Wt., 65 lbs.

#### Specifications:

**No. 5225**

A	Handle length	20"
B	Frame length	21-1/4"
C	Min. height	6-3/8"
D	Lifting height/capacity	9-3/16"/27.5-ton
E	Lifting height/capacity	12-1/2"/11-ton
F	Frame width	8-7/8"
G	Frame width incl. wheels	10-11/16"
H	Standard extensions	1-15/16"
I	Standard extensions	3-15/16"



**No. 539288** – Transit locking device offers an option for safe storage in service trucks or in the workshop.



**No. 539287** – 17-5/8" extension handle.



### 6-Ton and 10-Ton

#### Air/Hydraulic Service Jacks

- Bring the versatility of air-assist operation to your shop's lifting tasks. The 10-ton model can also be operated manually, when shop air is not available.
- Huge front wheels mounted in bearings provide trouble-free service life. Rugged steel frame members.
- Rear swivel casters make spotting the jack easy. Spring-loaded handle may be locked in three positions, from horizontal to vertical.

**No. 5106** – 6-ton air/hydraulic service jack.  
OTC Lifetime Marathon Warranty®. Wt., 294 lbs.

**No. 5110** – 10-ton air/hydraulic service jack.  
OTC Lifetime Marathon Warranty®. Wt., 410 lbs.

Specifications:	No. 5106	No. 5110
Capacity	6 ton	10 ton
Air pressure	90–175 PSI	90–175 PSI
Lifting range	4-3/4" to 23-1/4"	6-1/2" to 26-5/8"
Saddle dia.	7"	7-3/8"
Overall reach	87"	93"
Frame height	8"	9-3/4"
Handle length	45"	46"



5106, 5110



### 4-Ton, 10-Ton, and 20-Ton

#### Hydraulic Service Jacks

- Built of the highest quality heavy gauge steel, these jacks feature precision hydraulics for a lifetime of hard work.
- Low-profile stance and extended height add to versatility. They lift everything from cars to trucks to heavy-duty commercial vehicles. Huge metal wheels and swivel casters roll effortlessly on internal bearings.
- Either the foot pedal or jack handle may be used for pumping action. Counter-balanced, spring-assisted handle has a three-position lock.
- OTC Lifetime Marathon Warranty®.

**No. 5007** – 4-ton service jack. Wt., 212 lbs.

**No. 5008** – 10-ton service jack. Wt., 356 lbs.

**No. 5009** – 20-ton service jack. Wt., 531 lbs.

Specifications:	No. 5007	No. 5008	No. 5009
Capacity	4 ton	10 ton	20 ton
Lifting range	5-1/2" to 26-1/2"	7" to 25-1/2"	7-1/2" to 26-1/4"
Saddle	7-7/8" dia.	9" dia.	9-1/4" sq.
Overall reach	58"	66"	69"
Frame height	5-1/2"	7"	10-1/4"
Handle length	40"	40"	40"



5007, 5008



5009



# SHOP EQUIPMENT

## Service Jacks, Wheel Step



### 2- & 3-Ton Service Jacks

Unique, innovative design featuring...

- Ergonomic handle for user comfort and easy mobility.
- CE marked – ASME/PALD tested.
- Minimum clearance of 3" (2-Ton).
- Tensile and virtually indestructible to usual impact, and bending stress.
- Demonstrate exceptional resistance to wear and tear.
- Will not damage garage floors, do not rust, and are quiet in operation.

**No. 5202** – Two-ton service jack. Wt., 71 lbs.

**No. 5203** – Three-ton service jack. Wt., 110 lbs.



Polyamide wheels are superior to cast wheels due to their high mechanical strength and durability.



Foot pedal for quick approach of the lifting saddle to load.



Built-in tray for fasteners and tools.

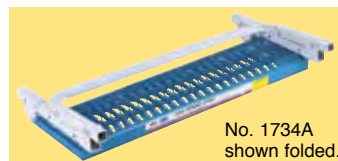
Model	Capacity (tons)	Overall Length	Overall Width	Min. Height	Max. Height	Weight
5202	2-Ton	34-5/8"	14-3/6"	3"	18-1/4"	71 lbs.
5203	3-Ton	45-3/4"	14-3/6"	5-1/2"	20-3/4"	110 lbs.



### Heavy-Duty Wheel Step

- Tire-mounted wheel step provides quick, easy access to under-hood components.
- Fits heavy-duty vehicles (Class 7/8).
- Installs in seconds; adjusts to fit 22-1/2" to 24" wheel sizes and folds for easy storage.
- 300 pound capacity.
- Non-skid platform surface.

**No. 1734A** – Heavy-duty wheel step. Wt., 14 lbs.



No. 1734A shown folded.

### 2-Ton Service Jack

- The strongest jack frame in its class; features flanged edges, both top and bottom, to resist twisting.
- Sealed cylinder prevents contamination of hydraulic system.
- Conforms to ANSI PALD Part 10. Carries OTC Lifetime Marathon Warranty®.

**No. 1525** – 2-ton service jack. Wt., 105 lbs.

**FloorBoss™**



### Nylon Wheel Kit

- Can be used on OTC service jack Nos. 1525, 1717, and 1739.
- Nylon wheels will not damage the epoxy paint coating found on many shop floors.

**No. 530097** – Nylon wheel kit. Wt., 4 lbs.

**530097**



### Jack Replacement Saddles

- Can be used on OTC service jack Nos. 1525, 1717, and 1739.
- The stem on this saddle will fit jack lift arms measuring 1" diameter. Bushing included will enable this saddle to also be used on jack lift arms of 1-5/32" diameter.
- Form-fitted saddle top is made of rubber to prevent damage to the finish of the undercarriage.

**No. 529219** – Jack replacement saddles. Wt., 5 lbs.

**529219**



### Aluminum Racing Jack

**Lifts two tons and weighs only 43 lbs.!**

- Five pumps to max. height – 18".
- Low profile – 3-1/2" – makes it perfect for ground hugging, high performance cars.
- Includes side-mounted handles for quick and easy carrying.
- Made from aircraft-grade aluminum.
- Two-piece, 45" long handle snaps together for quick setup.
- Removable, rubber saddle pad protects vehicle and prevents slipping.

**No. 1532** – 2-ton aluminum racing jack. Wt. 43 lbs.



**ANSI  
PALD**



### Aluminum Jack Stands

- 2-ton capacity.
- 10-1/4" min. height.
- 15-1/4" max. height.
- The pair weighs only 11 lbs.!
- Made from aircraft-grade aluminum.

**No. 1582** – A pair of 2-ton aluminum jack stands. Wt. 11 lbs.

### 2-Ton Racing Jack Pack

**No. 1533** – 2-ton racing jack pack. Includes 2-ton aluminum racing jack and a pair of 2-ton aluminum jack stands. Wt. 54 lbs.

Cap. (tons)	Min. Hgt.	Max. Lift Hgt.	Body Lgth.	Handle Lgth.	Saddle Dia.	Rear Wheel	Front Caster	Wt. (lbs.)
2	3-1/2"	18"	25"	45"	4-1/2"	2"	1-3/4"	43





1733, 1736

ANSI  
PALD

### 3-Ton and 6-Ton Capacity Ratcheting Jack Stands

- These jack stands feature a formed steel frame for strength and long life, and rolled base edges that resist sinking into soft ground or asphalt.
- Recessed column saddle for acceptance of vehicle panel rail (pinch weld).
- Dual purpose handle serves as carrying handle and column release.
- Investment cast rack bar for long life strength.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1733** – Pair of 3-ton jack stands. Height range of 12-1/2" to 18-1/2". Wt., 20 lbs., 1 oz.

**No. 1736** – Pair of 6-ton jack stands. Height range of 15-1/2" to 24-1/2". Wt., 44 lbs., 4 oz.



53872

53871

ANSI  
PALD

1778A

ANSI  
PALD

1779A

### 12-Ton Capacity Low and High Jack Stands

- Spun steel base won't dig or sink into asphalt or sand. Covered by OTC Lifetime Marathon Warranty®.

**No. 1778A** – 12-ton low jack stand. **One only.** Height range of 19" to 29-1/2". Wt., 32 lbs., 8 oz.

**No. 1779A** – 12-ton high jack stand. **One only.** Height range of 33-3/4" to 44-1/4". Wt., 40 lbs., 8 oz.

**No. 53871** – Extension tube for low jack stand. Wt., 8 lbs., 8 oz.

**No. 53872** – Extension tube for high jack stand. Wt., 16 lbs.



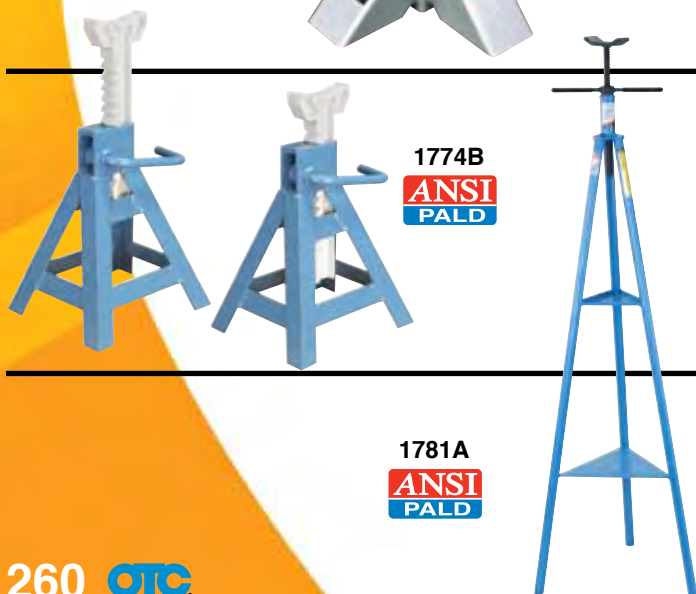
1783

ANSI  
PALD

### Heavy-Duty 20-Ton Capacity Adjustable Support

- Designed for the really big service jobs. Rugged steel construction, and large 15-1/2" square base will satisfy support requirements up to 40,000 lbs.
- Features include 4-point adjustment. Height range is 15-1/4" to 24". Saddle diameter is 6".
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1783** – Adjustable support stand. **One only.** Wt., 54 lbs.



1774B

ANSI  
PALD

### 10-Ton Capacity Ratcheting Jack Stands (pair)

- These ratcheting jack stands are highest quality steel and factory tested to ANSI PALD standards.
- The form-fit saddle design and 12" x 14" base ensures stability.
- Height range is 20" to 31-1/2".

**No. 1774B** – 10-ton capacity ratcheting jack stands (pair) Wt., 82 lbs

1781A

ANSI  
PALD

### 4,000 lb. Capacity Underhoist Tripod Stand

- Ideal for undercar maintenance. An ACME take-up screw precisely positions and secures the support stand in place.
- Height range of 65-3/4" to 74-5/8".

**No. 1781A** – Tripod stand. Wt., 28 lbs.

### Truck Clutch and Flywheel Handler – Low Clearance

- Open stance for ease of access to the work. Unique, patented linkage design raises the load from horizontal to vertical as the pump is cycled. This eliminates any lifting of the clutch by the operator.
- Handles 14" and 15-1/2" clutch assemblies weighing up to 250 lbs. Swivel casters provide easy maneuverability. Includes a 2" splined shaft with a 1-1/4" pilot to aid in alignment.
- 360° swivel head.
- Minimum height of 15" allows access below side faring.
- When raised, centerline of clutch will be 38-1/4" off floor.
- Floor space is 32-3/8" long by 24-1/2" at widest point.
- Makes the task an easy, one-person job.

**No. 5018** – Truck clutch handler – low clearance.  
Wt., 125 lbs.

#### Optional Accessories:

**No. 516160** – Flywheel handling attachment for use on No. 5018 only. Wt., 5 lbs., 11 oz.

**No. 515686** – Splined shaft, 1-3/4" dia. with 1-1/4" pilot. Wt., 5 lbs., 7 oz.

**No. 516159** – Splined shaft, 1-3/4" dia. with 1" pilot. Needed for clutch service on some Navistar 466 series engines. Wt., 5 lbs., 7 oz.

**No. 506981** – Replacement handle.



### Truck Clutch and Flywheel Handler

- Handles 14" and 15-1/2" clutch assemblies weighing up to 150 lbs. Lifting range of 9" to 37". Swivel casters provide easy maneuverability. Includes a 2" spline shaft with a 1-1/4" pilot to aid in alignment.
- Makes the task an easy, one-person job.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 5015A** – Clutch and flywheel handler.  
Wt., 95 lbs., 3 oz.

**No. 218174** – Flywheel handling attachment for use on No. 5015 only. Wt., 5 lbs., 13 oz.

**No. 48625** – Optional splined shaft, 1-3/4" dia. with a 1-1/4" pilot. Wt., 5 lbs., 7 oz.

**No. 440533** – Optional splined shaft, 1-3/4" dia. with a 1" pilot. Needed for clutch service on some Navistar 466 series engines. Wt., 5 lbs., 7 oz.

**No. 314386** – Optional 1-3/4" dia. alignment shaft extension. Used for 2-plate clutch of Navistar 466 series engine. Wt., 2 lbs., 12 oz.

**No. 207050** – Replacement swivel caster wheel.

**No. 310945** – Replacement bottle jack assembly.



# SHOP EQUIPMENT

## Wheel & Drum Service



5090



Adapter



Adapter Set

### Back Buddy™ II

Takes the strain and pain out of wheel-end work, enabling mechanics to easily—and safely—remove, transport, service, and install heavy truck brake drums and hub assemblies.

- Fast-motion ratcheting jack with a 14" vertical lift.
- Floor space dimensions are 24" by 34" and total height is 49".
- Pneumatic rear tires roll smoothly across any shop floor.
- Tilting mechanism to achieve the exact angle necessary for precise reassembly.
- Fold-down handle for open access to the work area.
- Onboard lube tray and toolbox.
- An array of optional adapter sets capable of grabbing almost any truck hub assembly or brake drum, inboard or outboard.

**No. 513926** – 10 stud inboard hub & drum assemblies – 335 mm.

**No. 513927** – 10 hole outboard drums – 3/4" thick back plates

**No. 5090** – Back Buddy™ II. Wt., 115 lbs.

### Truck Hub / Brake Drum Adapter Sets (sold separately)

**No. 513926** – 10 stud inboard hub & drum assemblies – 335 mm

**No. 513927** – 10 hole outboard drums – 3/4" thick back plates

**No. 513925** – 5 & 6 spoke wheels

**No. 514644** – 8 stud inboard hub & drum assemblies

**No. 514645** – 8 hole outboard drums

**No. 514646** – 6 stud inboard hub & drum assemblies

**No. 514647** – 6 hole outboard drums

**No. 514648** – Humvee/Hummer geared hubs

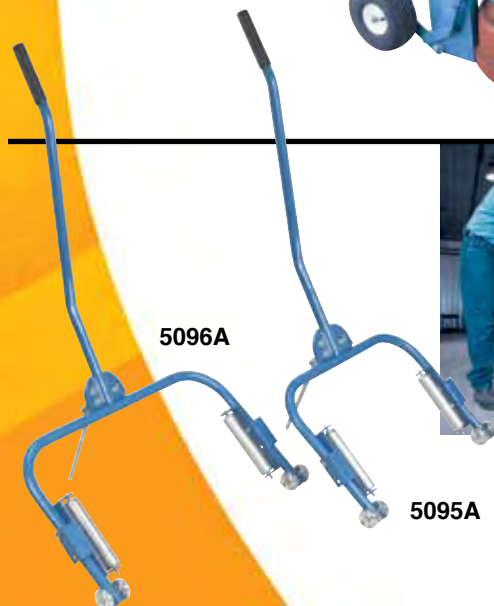


5017

### Brake Drum Dolly

- Removes, installs, and transports truck brake drums without physically to lift them.
- Works on all 15" and 16-1/2" drums found on most class 7 and 8 tractor and trailer brake systems.
- 5" height adjustment (13" to 18") aids installation.
- Heavy-gauge steel construction, 10" pneumatic tires, and telescoping, adjustable handle, which adjusts from 37" to 55".
- OTC Lifetime Marathon Warranty®.

**No. 5017** – Brake drum dolly. Wt., 52 lbs.



5096A

5095A



### Easy Lever Wheel Dollies

Gives technicians the leverage they need to easily remove or install truck tire-and-wheel assemblies.

- Heavy-duty construction capable of toting 300 pounds.
- Onboard rollers that make stud-hole alignment a snap.
- Spring-loaded kickstand for handy parking.
- Rugged tubular steel construction.
- Two models that, together, can accommodate tire diameters from 24 to 48 inches.

**No. 5095A** – Easy Lever wheel dolly. With a width of 22", this dolly handles tire diameters of 24" to 36". Wt., 20 lbs.

**No. 5096A** – Heavy-duty Easy Lever wheel dolly. With a width of 26", this dolly handles tire diameters of 36" to 48". Wt., 20 lbs.



### Wheel Mate™

Enables truck technicians to easily remove, install, rotate, and transport single tire-wheel assemblies.

- Internal ratcheting jack with 14 inches of vertical travel —almost a foot higher than conventional dollies.
- U-shaped chassis that provides close, unhindered access to work area.
- A design that accommodates—and securely holds—almost any truck wheel, including wide-based singles, without restraining chains.
- Heavy-duty ball-bearing wheels mounted under ball-bearing swivel casters for maximum maneuverability.
- Foot-operated wheel lock.
- Rugged structural steel tubing construction that meets the demands of the toughest shop environments.

**No. 5100** – Wheel Mate™. Wt., 120 lbs.



### Truck Dual Wheel Dolly

- Remove, transport, and replace dual wheel and tire assemblies without strain or struggle. 1,500 lb. capacity and 3-1/2" swivel casters provide easy maneuverability.
- No. 1770A hydraulic jack provides 0 to 5" of lift and tilts wheel assembly 4° to prevent damage to wheel seal.
- Floor space is 45" by 41".
- Includes a 6' support chain to hold load in place.

**No. 1770A** – Truck dual wheel dolly. Wt., 165 lbs.

1770A



### High-Lift Dual Wheel Dolly

- Effortless air-powered hydraulic lift system for a variety of applications.
- 1,500 lb. capacity.
- 0 to 42" lifting range.
- Six-inch lateral adjustment.
- Tilt adjustment of +15° to -8° ensures easy alignment.
- Features four swivel casters, two locking, for enhanced mobility.

**No. 5105** – High-lift dual wheel dolly. Wt., 360 lbs.



5105

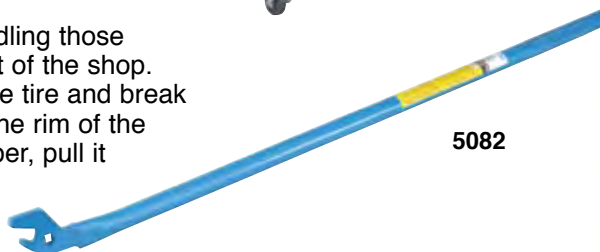


### Wheel Tipper

This heavy-duty wheel tipper makes handling those hard-to-manage truck tires easy, in or out of the shop. To use the wheel tipper, simply deflate the tire and break the bead, then hook the wheel tipper to the rim of the wheel. With both hands on the wheel tipper, pull it towards you.

- Designed for both aluminum and steel wheels.
- Reduces back strain when tilting deflated wheel assemblies for maintenance – won't damage wheel rim.

**No. 5082** – Wheel tipper. Wt., 7 lbs.



5082



# SHOP EQUIPMENT

## Blade Buddy, Fork Lift Jack & Transfer Tanker



### Blade Buddy™

Handles cutting edges on plows and motor graders.

- Replacing the cutting edges of front, wing, or underbody plows is now done with speed and ease. Greatly reduces the risk of back injury and the workers' comp claims which can result.
- One person can bring heavy, awkward cutting edges to the plow and raise them into position easily with the built-in, 4-ton capacity hydraulic jack. Handles cutting edges from three to 12 feet in length, weighing as much as 140 lbs.

**No. 5083** – Blade Buddy. Wt., 80 lbs.



5083



223171

#### Specifications:

**No. 5083**

Minimum cradle height

5-1/4"

Maximum cradle height

19"

Floor space

24-1/2" x 41"

**No. 223171** – Cutting edge extension adapter. This 60" extension bolts onto the Blade Buddy. Accommodates a 10-ft. or 12-ft. long cutting edge and up to three 4-ft. pieces. Wt., 40 lbs.

### 4-Ton Capacity Fork Lift Jack

- 8,000 lb. capacity with a low starting height of 2-1/4".
- Two-position lift pad permits handling of all lift truck configurations with flat or edged surfaces.
- Minimum low lift: 2-1/4". Maximum high lift: 16".
- Features include high-quality seals, chrome-plated internal components, and high-strength steel construction.

**No. 5014** – 4-ton fork lift jack. Wt., 68 lbs.



ANSI  
PALD

5014

### Transfer Tanker

- Draining oil from a large displacement engine and getting it to your bulk storage container is a snap with OTC's Transfer Tanker on your team.
- Used oil is collected in a reservoir, and then rolls smoothly on 4" free-wheeling casters to your storage location.
- Pump moves five gallons a minute through the 8-foot transfer hose to the a 15-gallon reservoir.
- Handle is removable for easy storage.
- Screen attached to reservoir allows assembly to be stored on its side.
- Can also be used for transferring antifreeze.

**No. 5077** – Low profile Transfer Tanker is only 7-1/2" from floor to top of reservoir. Comes equipped with an electric pump (No. 528093). Wt., 49 lbs.

**No. 5097** – Low profile Transfer Tanker is only 7-1/2" from floor to top of reservoir. Comes equipped with a pneumatic pump (No. 529966). Wt., 49 lbs.



5097



### 10-Ton Capacity, Air-operated Automotive Oil Filter Crusher

- Crushes up to four automotive filters (3-7/8" dia. x 9" high) at one time, in approximately 20 seconds. Engineered and built for dependable operation. Covered by OTC Lifetime Marathon Warranty®.
- 100% air operation eliminates electrical connections. Generous size of crushing chamber easily accommodates the largest automotive spin-on filters.
- Includes mounting stand. No wall mounting or time consuming installation required.

**No. 1821** – Oil filter crusher. Wt., 245 lbs.

### Why crush your used oil filters?

- EPA standards for landfills and hazardous waste are becoming tougher and tougher...crushing filters and collecting the used oil helps your firm comply to avoid a fine and a negative image.
- Crushing eliminates the need for costly TCLP testing of wastes, which may otherwise be necessary for disposal in a landfill.
- Reducing the size of the filter helps reduce your trash removal costs. In some locations, crushed filters can be recycled as scrap metal.



### 25-Ton Capacity Press Accessory Automotive Oil Filter Crusher

- Works with any 25-ton or smaller shop press, removing 95% of the oil from pre-drained filters.
- Crushes most filters to just 1/4 of their original size. Works on most automotive and light truck filters, up to 6" long and 4" in diameter. Covered by OTC Lifetime Marathon Warranty®.

**No. 1874** – Press accessory oil filter crusher. Includes adjustable press plate, shield, and drain hose. Wt., 32 lbs.



### 25-Ton Capacity Automotive Oil Filter Crusher

- Crushes most automotive and light truck filters up to 6" long.
- Automatic cycle feature: load the filter, push a button, and walk away. Includes air/hydraulic pump that works on standard shop air. No electrical components needed.
- Removes 95% of the residual oil from a pre-drained filter, and crushes filter to 1/6 of original size. Covered by OTC Lifetime Marathon Warranty®.

**No. 1875** – Oil filter crusher with air/hydraulic pump. Wt., 104 lbs.

**No. 1876** – Optional floor stand for No. 1875. Wt., 40 lbs.







### 25-Ton Capacity Heavy-Duty Oil Filter Crusher

- Handles the big filters (up to 6" dia. and 12-1/2" long) found in trucks, construction equipment, farm implements, etc. May also be used for automotive and light truck filters. It does it all!
- Crushes filters to 1/4 of original size, removing up to 95% of filter's oil capacity. Automatic cycle feature: load the filter, push a button, and walk away.
- Air/hydraulic pump works on standard shop air (requires 9 CFM at 100 psi). Special valving returns ram automatically at the end of each cycle. No electrical connections needed.
- Built-in floor stand (completely assembled). Whole unit requires just 5 square feet of floor space.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1877** – Oil filter crusher with stand. Wt., 242 lbs.



### 25-Ton Capacity High-Speed Heavy-Duty/Automotive Oil Filter Crusher

- Automotive and heavy-duty filters up to 15-1/4" long and 6" diameter are crushed in approximately 8 to 16 seconds. Filters are reduced to 20% of original size, with 95% of residual oil removed.
- Automatic cycle feature lets you load the filter, push a button, and walk away.
- Powered by 2 hp electric/hydraulic pump, 230 volt, 20 amp, 60 cycle, single phase, 3,450 rpm. Has a 2-gallon reservoir.
- Built-in, heavy-duty floor stand with leveling pads is designed to accept a 30-gallon drum for oil drainage. Comes assembled. Covered by OTC Lifetime Marathon Warranty®.

**No. 1896** – Oil filter crusher. **Shipped assembled.** Wt., 363 lbs.



Note: Crushing times are approximate; crushing times may vary depending on air pressure available, size of filter, type of filter, etc.

**Oil Filter Crusher Comparison Chart**

No.	Tonnage	Pump	Crushing Time	% Oil Removed	Filter Size	Stand Dimensions
1821	10-ton	Air	20 Seconds	95%	Chamber: 8" x 8" x 9" H.	18 1/2" W x 24" D x 63 1/2" H
1875	25-ton	Air/Hyd.	49 Seconds	95%	4 1/2" Dia. - 6" Long	18 1/2" W x 24" D x 63 1/2" H
1877	25-ton	Air/Hyd.	80 Seconds	95%	6" Dia. - 12 1/2" Long	18 1/2" W x 30" D x 74 1/2" H
1896	25-ton	Elec./Hyd.	16 Seconds	95%	6" Dia. - 15 1/4" Long	27" W x 30" D x 78" H

### 1,000 lb. Capacity Engine Stand

- A timesaver for passenger car and light truck engine rebuilding or repair. Four adjustable attachment arms make engine mounting fast and easy.
- Engine can be rotated a full 360° with a turn of the handle; a locking pin secures the work in any of eight positions.
- Two rear wheels lock tightly to anchor the stand in place.
- Easy one-bolt disassembly for transport of stand.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1726** – Engine stand. Wt., 96 lbs.

**No. 60796** – Drip pan (ABS material) for No. 1726. Wt., 3 lbs., 3 oz.

Model	Capacity	Height To Center Line	Length	Width	Wheel Diameter	Front Wheels	Back Wheels	Handle Length
1726	1,000 lbs.	28"	46"	35-1/2"	3-1/2"	Swivel Caster	Fixed	24"

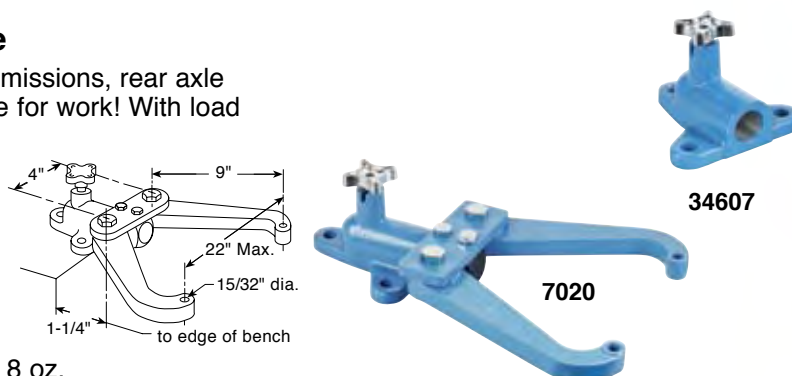


### Bench-Mounted Holding Fixture

Holds and positions small engines, transmissions, rear axle differentials, etc., leaving both hands free for work! With load correctly positioned, any component weighing 250 lbs. or less may be safely rotated 360° with positive stops at 90° increments. Movable arms can be removed when not in use.

**No. 7020** – Bench-mounted holding fixture. Wt., 10 lbs., 13 oz.

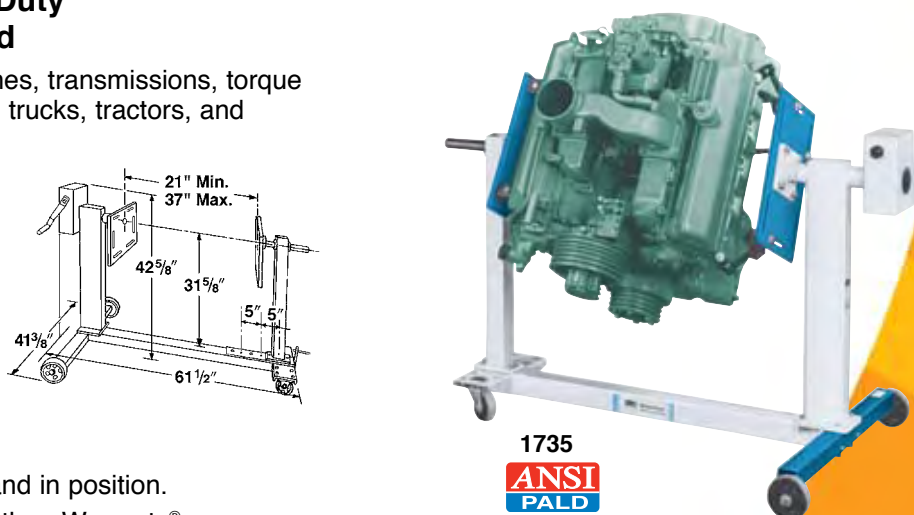
**No. 34607** – Base assembly. Wt., 2 lbs., 8 oz.



### 2,000 lb. Capacity Heavy-Duty Motor-Rotor® Repair Stand

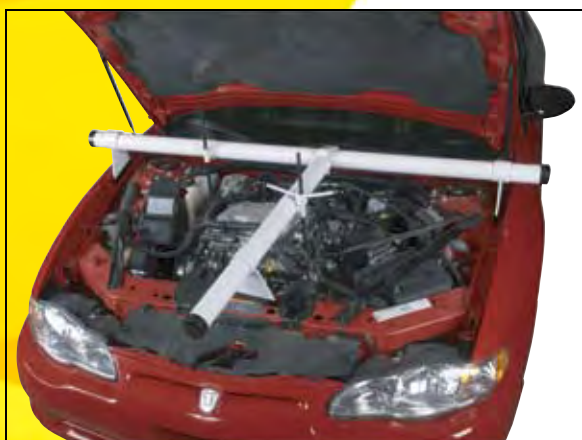
- Handles a wide variety of engines, transmissions, torque converters, and rear axles from trucks, tractors, and construction machinery.
- Twin-post design, featuring laterally adjustable, 3-position outboard support; provides an extremely stable work-holding unit.
- The 50:1 ratio gearbox allows full rotation of mounted unit with just a turn of the crank and locks in position. Easily maneuvered when loaded.
- Locking rear wheels anchor stand in position.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1735** – Motor-Rotor® repair stand. Wt., 265 lbs.



# SHOP EQUIPMENT

## Engine Support Bar & Stand



### Engine Support Bars

Unique, innovative design featuring...

- Cutting edge, patent pending design self-centers load to prevent tipping on inclined surfaces.
- Smooth sliding legs adjust easily to different vehicle widths.
- PVC-coated support legs don't scratch vehicle surfaces.
- "Quick Connect" third-point bar (No.1725) makes setup a snap.
- Spinner handle enables lightning fast adjustment.

**No. 1723** – Engine support bar (2-Point), 500 lb. capacity. Wt., 37 lbs.

**No. 1725** – Engine support bar (3-Point), 700 lb. capacity. Wt., 53 lbs



1750A

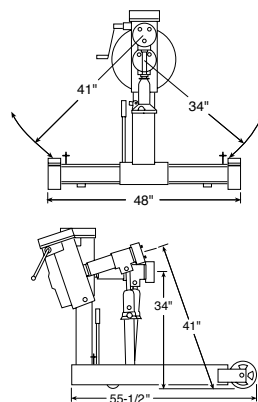


### 6,000 lb. Capacity Revolver® Diesel Engine Stand...handles the Big Ones!

- Rotating even a 6,000 lb. diesel engine is easy; a 96:1 ratio worm and gear set does the job. The crank handle can be locked in any position. Covered by OTC Lifetime Marathon Warranty®.
- Integral 12-ton jack raises the work to provide the swing radius needed for clearance. Two front wheels and two rear casters provide mobility.
- Universal adapter assembly permits use with a wide variety of mounting plates for Caterpillar, Cummins, Mack, IH, and Detroit in-line or "V" series diesel engines, as well as Allison transmissions.

**No. 1750A** – Revolver diesel engine stand with No. 205061 universal engine adapter assembly. Wt., 722 lbs.

**No. 1750** – Engine stand without universal engine adapter assembly. Wt., 626 lbs.





### Revolver® Engine Adapter Plates

You can order only those plates you need for the engines you work on. The universal adapter assembly is required for mounting all plates to the stand.

**No. 205061 – Universal Adapter Plate Assembly.** Included with 1750A engine stand. (Must be used with all plates below.) Wt., 110 lbs.

#### Detroit Diesel

**No. 205058\*** – For Detroit engines: 53 series in-line 6 cyl., 6V & 8V; 71 series in-line 6 cyl., 6V, 8V, & 12V; 92 series 6V & 8V; 8.2 liter V-8. Wt., 61 lbs., 8 oz.

**No. 52871\*** – For coach 6V and 8V series 71 Detroit Diesel. Wt., 55 lbs.

**No. 218504\*** – For Detroit series 60 in-line 6-cylinder engines. Wt., 38 lbs.

#### Detroit Allison

**No. 208160\*** – Allison transmission mounting plate for transmission Nos. AT500, MT600, MT 6-speed, VH, VS, and V730. Wt., 26 lbs., 13 oz.

**No. 61373\*** – Allison transmission adapter plate for transmission series HT-750, CLBT, HT-740D, CR/DR, and HT-750CT. Wt., 42 lbs.

#### Cummins

**No. 205059\*** – For Cummins engines: All NH, NTC, NTE, N14 855 series in-line 6 cyl; 378 series V6; 504, 555, & 903 series V8; KT 1150 series in-line 6 cyl., L10. Wt., 59 lbs.

**No. 61405\*** – For Cummins L-10 and M11 series engines. Plate attaches to the left side of engine for complete teardown. Wt., 85 lbs.

#### Cummins

**No. 218098\*** – For Cummins "B" series 5.9L in-line 6 cyl. engines. Wt., 15 lbs., 10 oz.

**No. 218099\*** – For Cummins "C" series 8.3L in-line 6 cylinder engines. Wt., 41 lbs.

#### Caterpillar

**No. 205060\*** – For Caterpillar engines: Nos. 1673, 1674, 1693, 3306, & 3406 in-line 6 cyl.; Nos. 1100, 3208, 3408 V8 and 3406E. Wt., 72 lbs.

**No. 217687\*** – For Caterpillar 3114, 3116, and 3176 in-line 6 cylinder and C12 engines. Wt., 48 lbs., 3 oz.

#### Mack

**No. 205101\*** – For Mack engines: All 672, 673, 675, & 711 series in-line 6 cyl. Wt., 68 lbs.

**No. 206629\*** – For Mack engines: V8 1000, E6, & E7 in-line 6 cyl. Wt., 42 lbs., 13 oz.

**No. 528854\*** – For Mack E3, E5, & Midliner. Wt., 50 lbs.

**No. 528858\*** – For Mack 865, and 868. Wt., 62 lbs.

#### International Harvester

**No. 206386\*** – For International Harvester engines: DT-466, DT-360, DT408, and 530 in-line 6 cylinder; DV-550, MV-404, MV-446, V304, V345, V392, 4-152, 4-196, 4-194; 9.0 liter and T444E V8; and Ford 6.9L, and 7.3L DIT. Wt., 61 lbs., 13 oz.

**No. 528856\*** – For IH300 & 400 Series. Wt., 59 lbs.

**No. 528857\*** – For IH BC144, BD154, C200, D155A, D179, D239, D310, D361. Wt., 41 lbs.

**No. 528867\*** – For International 1313. Wt., 40 lbs.

**No. 528868\*** – For International VT365. Wt., 30 lbs.

#### Ford

**No. 61681\*** – For mounting Ford 6.6L/7.8L engines. Wt., 63 lbs.

**No. 206386\*** – For Ford 7.3 engines. Wt., 60 lbs.

#### Volvo

**No. 528853\*** – For Volvo TD67 and TD71 engines. Wt., 49 lbs.

#### Isuzu

**No. 528855\*** – For Isuzu HE1-TC. Wt., 38 lbs.

#### John Deere

**No. 528859\*** – For JD 400 and 500 engines. Wt., 132 lbs.

**No. 528860\*** – For JD 300 engines. Wt., 39 lbs.

**No. 528861\*** – For JD Powertech 4.5L & 6.8L. Wt., 40 lbs.

**No. 528862\*** – For JD Powertech 2.4L & 3.0L. Wt., 23 lbs.

**No. 528863\*** – For JD 8995 V6, must be used with 528859.

#### Case

**No. 528865\*** – For Case 148 & 207 series & 251 to 504 series.

\*NOTE: Must be used with No. 205061 univ. adpt. plate assembly. Each engine mounting plate includes all the necessary hardware and an engine application chart.



205061 – Universal Adapter Plate Assembly



205058 Detroit



52871 Detroit



218504 Detroit



208160 Allison



61373 Allison



205059 Cummins



61405 Cummins



218098 Cummins



218099 Cummins



205060 Caterpillar



217687 Caterpillar



205101 Mack



206629 Mack



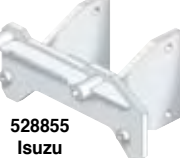
528853 Volvo



206386 International Harvester, Ford



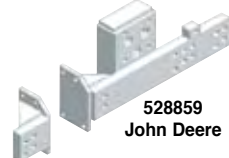
61681 Ford 303-DO61 (Same as D87T-6000-A)



528857 IH



528854 Mack



528859 John Deere



528861 John Deere



528856 IH



528862 John Deere



528867 International



528863 John Deere



528860 John Deere



528868 IH

# SHOP EQUIPMENT

## Car Dollies, Floor Cranes



1572

### Car Dolly (pair)

- Innovative patent-pending design — clamps directly to pinch welds to prevent slippage during use.
- Independent units eliminate the need to adjust dolly width for different vehicle designs.
- Each unit has an independently adjustable threaded lift saddle with rubber pads to protect the vehicle frame.
- Universal design for use on all vehicle types without additional adapters.
- Provides easy movement of FWD vehicle after removal of drive train.
- The material on the 5" casters is polypropene.
- Each unit has 1,800 lbs. capacity (3,600 lbs., pair) with low height of 9" and high of 14".
- May be used with or without tires on vehicle.

**No. 1572** – Car dolly (pair). Wt., 85 lbs.



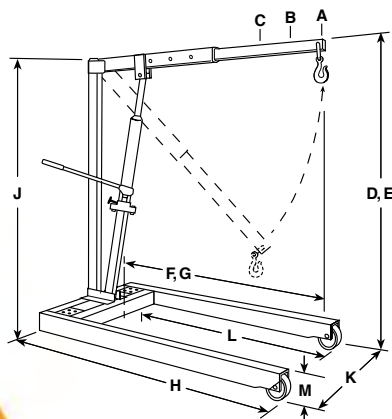
1807

ANSI  
PALD

### 1,000 lb. Capacity Mobile Floor Crane

- Innovative “auto-lock” positioning system allows you to raise boom by hand into any position without using the hydraulic pump. Covered by OTC Lifetime Marathon Warranty®.
- Hydraulic jacking power provides fast engine removal and replacement; tele-scopic boom extension reaches even the engines in vehicles with protruding energy-absorbing bumpers.

**No. 1807** – 1,000 lb. capacity fixed-leg crane with hydraulic lifting jack, grab hook and safety eye hook for lifting chain (chain not included). Wt., 194 lbs.



	Specifications	1807
A	Maximum capacity, boom extended	600 lbs.
B	Max. capacity, boom in center	750 lbs.
C	Maximum capacity, boom retracted	1,000 lbs.
D	Maximum boom height, boom extended	112"
E	Minimum boom height, boom extended	23"
F	Effective boom reach (extended)	51-1/2"
G	Effective boom reach (retracted)	40-1/2"
H	Overall length	65-1/2"
J	Overall height, boom horizontal	64-1/2"
K	Outside leg width (fixed)	32"
L	Inside leg length (fixed)	54-3/4"
M	Leg height	5-3/4"

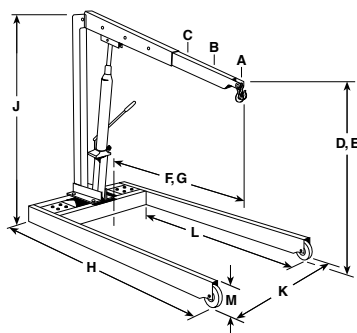
### 2,200 lb. Capacity Mobile Floor Crane

- The “auto-lock” positioning feature allows you to lift the boom into position without using the hydraulic pump. Telescoping boom provides extra reach (65-1/2") and height (127").

Specifications	1815
<b>A</b> Maximum capacity, boom extended	1,300 lbs.
<b>B</b> Maximum capacity, boom in center	1,700 lbs.
<b>C</b> Maximum capacity, boom retracted	2,200 lbs.
<b>D</b> Maximum boom height, boom extended	127"
<b>E</b> Minimum boom height, boom retracted	21"
<b>F</b> Effective boom reach, boom extended	65-1/2"
<b>G</b> Effective boom reach, boom retracted	42-1/2"
<b>H</b> Overall length	83-1/2"
<b>J</b> Overall height, boom horizontal	69"
<b>K</b> Outside leg width	40"
<b>L</b> Inside leg length	67"
<b>M</b> Leg height	6"

- A full “metric ton” of lifting power at a very attractive price.

**No. 1815** – 2,200 lb. capacity fixed-leg crane with hydraulic lifting jack. Lifting chain not included. Wt., 429 lbs.



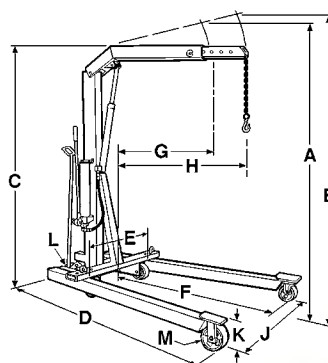
### 2,200 and 4,400 lb. Capacity Heavy-Duty Floor Cranes

- To conserve valuable floor space, crane folds into a compact package for storage.
- For “close-in” work, leg spread adjusts to clear vehicle’s wheels, telescoping boom extension gives additional reach. Roller bearing mounted wheels and steering dolly provide ease of mobility.
- A two-speed hydraulic hand pump provides fast boom travel; descent of boom is under precise control of operator.

**No. 1819** – 2,200 lb. capacity crane. Has hydraulic hand pump and 16-7/8" lifting chain. Wt., 454 lbs.

**No. 1820** – 4,400 lb. capacity crane. Has hydraulic hand pump and 18-3/8" lifting chain. Wt., 618 lbs.

Specifications	1819	1820
Cap., boom retracted	2,200	4,400
Cap., boom extended	1,650	3,300
<b>A</b> Max. boom height, boom retracted	107"	111"
<b>B</b> Max. boom height, boom extended	117"	122"
<b>C</b> Overall height, boom horizontal	80"	82"
<b>D</b> Overall length	83"	89"
<b>E</b> Minimum throat width	24"	25"
<b>F</b> Inside leg length	54"	57-1/2"
<b>G</b> Effective boom reach (retracted)	33"	35-1/2"
<b>H</b> Effective boom reach (extended)	48"	50-1/2"
<b>J</b> Inside leg width (3-position)	24" 36" 48"	26" 40" 52-1/2"
<b>K</b> Leg height	8"	9-1/2"
<b>L</b> Dolly wheel diameter	5"	5"
<b>M</b> Wheel diameter	6"	8"
Height, folded	79"	86"
1819 Floor space folded	27" x 38"	
1820 Floor space folded	31" x 42"	





# SHOP EQUIPMENT

## Floor Cranes



### 6,000 lb. Capacity Heavy-Duty Mobile Floor Cranes

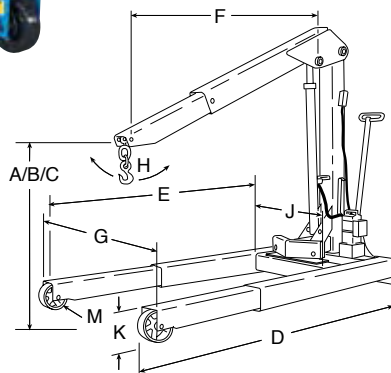
- Three boom positions give capacities of 4,000, 5,000, and 6,000 lbs. to handle the biggest engines, and often the transmission right along with the engine! Usable reach is almost 92".
- Boom swivels for vertical and lateral positioning; legs extend to straddle the biggest tires.

**No. 1814** – 6,000 lb. capacity crane with electric/ hydraulic pump (115V) with remote motor control. Wt., 1,250 lbs.

**No. 1813** – 6,000 lb. capacity crane with two-speed hydraulic hand pump. Wt., 1,215 lbs.

Boom Capacity (lbs.) Description	Extended 4,000	Centered 5,000	Retracted 6,000
<b>A</b> Maximum boom height	161-7/8"	150-11/16"	139-1/2"
<b>B</b> Minimum boom height	6"	17-3/8"	28-3/4"
<b>C</b> Overall height (boom horizontal)	87"	87"	87"
<b>D</b> Overall length*	129-1/8"	113-7/8"	98-1/4"
<b>E</b> Inside leg length	91-11/16"	76-1/8"	43-1/4"
<b>F</b> Effective boom horizontal reach	94-1/4"	78-3/4"	63-1/4"
<b>G</b> Outside leg width**	59-3/4"	57-3/4"	55-3/4"
<b>H</b> Boom swing	36"	31"	26"
<b>J</b> Inside leg width		35-3/4"	
<b>K</b> Leg height		9-1/16"	
<b>M</b> Wheel diameter		8"	
Dolly wheel diameter		5"	

\* Legs in storage position: 80-7/8"\*\*\* Legs in storage position: 53-1/2"



### Load-Rotor® Positioning Slings

- Use with a floor crane. Engine, transmission, or other component is tilted or leveled by turning sling's 5/8" hex drive end with a common speed handle and socket.
- Makes engine removal and installation a snap, even in close quarters.
- For use with floor cranes only; not to be used with overhead hoists or lifts.

**No. 1805** – 2,000 lb. capacity Load-Rotor®. Has 56-1/2" long chain (1/4") and hook assembly with forged swiveling hook on each end. Pair of special lifting brackets included. Wt., 11 lbs., 13 oz.

**No. 1806** – 4,000 lb. capacity Load-Rotor®. Has 65-3/4" long chain (5/16") and hook assembly with forged hook on each end. Pair of special lifting brackets included. Wt., 27 lbs.



### Lifting Brackets

- Attach directly to component for easy lifting; will take 1/2" diameter bolts.

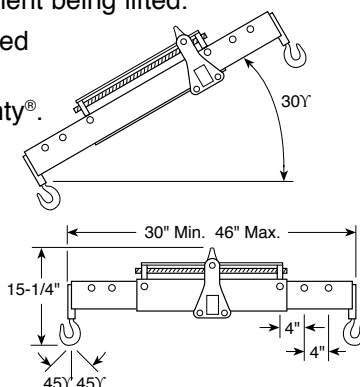
**No. 7100** – Pair of lifting brackets, 4,000 lb. capacity. Wt., 3 lbs., 3 oz.



### Load-Rotor® Positioning Sling

- Carriage on main support beam moved by turning lead screw manually or with air-powered tools. This permits fine adjustment of the tilt angle of component being lifted.
- Spreader bar adjustment secured with locking bolts.
- OTC Lifetime Marathon Warranty®.

**No. 1812** – 6,000 lb. capacity Load-Rotor® positioning sling. Distance between hooks is 30" to 46". Chain grade is 80. Wt., 69 lbs.



**No. 1822** – 10,000 lb. capacity Load-Rotor® positioning sling. Distance between hooks is 36" to 56". Chain grade is 80. Wt., 117 lbs.



### Lifting Chains for Floor Cranes

- For use with floor cranes only; not recommended for overhead hoists or lifts.

**No. 38839** – 1/4" steel chain, 56-1/2" long, 2,000 lb. capacity. Has safety hook on both ends. Use with No. 205049. Wt., 4 lbs., 10 oz.

**No. 38840** – 5/16" steel chain, 65-3/4" long, 4,000 lb. capacity. Has safety hook on both ends. Use with No. 205050. Wt., 5 lbs.

**No. 31609** – 1/4" steel chain, 56-1/2" long, 2,000 lb. capacity. With swiveling safety hooks on both ends. Use with No. 1805. Wt., 3 lbs.

**No. 31800** – 5/16" steel chain, 65-3/4" long, 4,000 lb. capacity. With swiveling safety hooks on both ends. Use with No. 1806. Wt., 5 lbs.

### Alloy Chains for Overhead Lifts and Hoists

**No. 302249** – 3/8" alloy chain, 28-3/8" long, 6,000 lb. capacity. With safety hook on one end. Wt., 7 lbs.

**No. 302941** – 5/16" alloy chain, 26-13/16" long, 4,000 lb. capacity. With safety hook on one end. Use on No. 1812. Wt., 6 lbs.

**No. 533473** – 9/32" grade 80 alloy chain, 60" long, 3,000 lb. capacity. With safety hook on both ends. Wt., 8 lbs., 10 oz.

**No. 533474** – 5/16" grade 80 alloy chain, 71" long, 5,000 lb. capacity. With safety hook on both ends. Wt., 14 lbs.



### Heavy-Duty Adjustable Slings

- For lifting and positioning engines, transmissions, etc. Each chain can be adjusted independently for length; plate design enables chain to be "short-hooked" for correct tilt.

**No. 205049** – 2,000 lb. capacity sling with 1/4" chain, 56" long. Wt., 7 lbs., 3 oz.

**No. 205050** – 4,000 lb. capacity sling with 5/16" chain, 65" long. Wt., 10 lbs., 10 oz.

**No. 38841** – Plate only, use with any 1/4" or 5/16" alloy steel chain. Wt., 2 lbs., 2 oz.



# SHOP EQUIPMENT

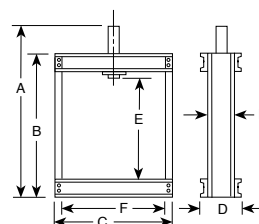
## Bench & Floor Presses



1884

### 10-Ton Capacity Bench Press

- Ideal for hundreds of small pressing jobs, including the repair of electric motors and armatures, and the removal and installation of gears, bearings, and other press-fit parts.
- Provides a 15-3/8" x 22" working area. Hydraulic power is supplied by a No. 4004 two-speed OTC hydraulic hand pump, complete with hose and fittings.
- OTC 10-ton single-acting hydraulic ram has a 10-1/8" stroke.
- Press bench space is 7-1/4" x 25-1/4"; overall height is 33-3/4".



**No. 1884** – Bench press.  
Wt., 91 lbs.

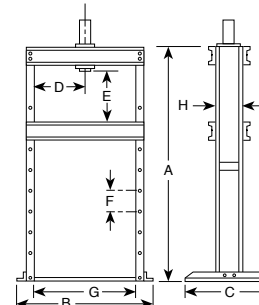
A	B	C	D	E	F	H	Bench Space
33-3/4"	24-3/4"	25-1/4"	7-1/4"	15-3/8"	22"	4"	7-1/4" x 25-1/4"



1887

### 10-Ton Capacity Press

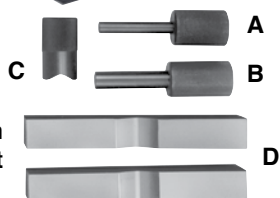
- Adjustable press bed height of 6" to 36" with a width between the uprights of 22" to handle bulky pressing jobs.
- No. 4004 two-speed hydraulic hand pump, complete with hose and fittings.
- OTC 10-ton hydraulic ram has a 10-1/8" stroke.
- Press floor space is 28" x 25-1/4".



**No. 1887** – Floor press.  
Wt., 171 lbs.

A	B	C	D	E	F	G	H	Floor Space
68-1/2"	28"	18"	11"	6"-36"	6"	22"	4"	28" x 25-1/4"

1899 10-Ton  
Press Accessory Set



### 10-Ton Capacity Press Accessory Set

- Adapters and accessories are attached to the ram's forcing screw or used on the press bed to support the work.
- Set includes:
  - (A) No. 201923 ram pushing adapter with a 1/2" dia. shank.
  - (B) No. 201454 ram pushing adapter with a 3/4" dia. shank.
  - (C) No. 34806 V-pushing adapter.
  - (D) No. 1890 V-blocks (pair).

**No. 1899** – Press accessory set. Wt., 15 lbs., 12 oz.



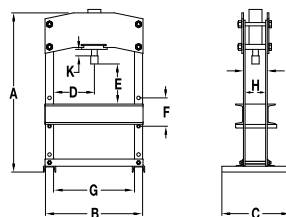
### 16-1/2 Ton Capacity Bench Press

This innovative press integrates all the hydraulic elements within the chassis. The compact and functional design saves workshop space and ensures protection during transport.

- Workbench adjustable for height.
- Automatic spring return piston.
- Pressure gauge with damper to extend its working life—positioned at eye level for easy reading.
- Includes set of two V-blocks and legs with bolt-holes for fixing to bench.

**No. 5230** – 16-1/2 ton capacity bench press.

Wt., 170 lbs.



5230

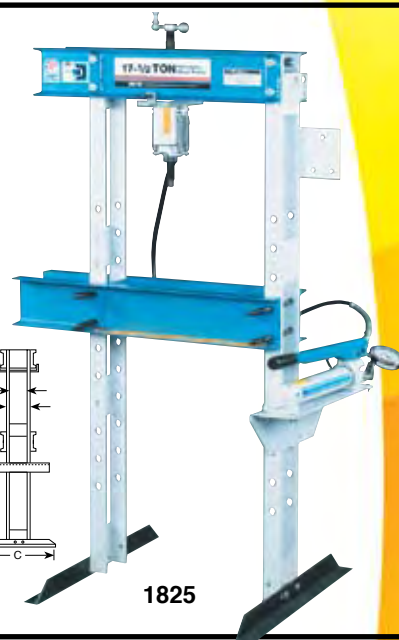
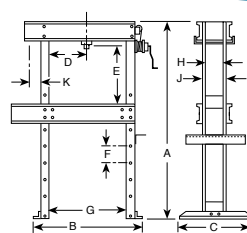
A	B	C	D	E	F	G	H	J	K
37"	16-1/2"	23-7/8"	9-1/2"	5-7/8" – 17-5/8"	6"	19-5/8"	4-3/4"	5-1/2"	3"

### 17-1/2 Ton Capacity Heavy-Duty "Open Throat" Press

- Ram head moves side to side for off-center pressing; ram-to-work distance is adjusted by a forcing screw that is extended or retracted by a speed crank.
- "Open-throat" frame extensions make handling of bulky jobs possible outside of the press frame.
- This press does not have a lifting mechanism. If a lifting mechanism is needed, order No. 211407.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1825** – 17-1/2 ton press. Has No. 201832 hydraulic ram with 2" stroke, No. 4002 hydraulic hand pump, No. 9650 gauge, No. 9767 hose, adjusting screw, speed crank, ram cap, and pump mounting bracket. Wt., 284 lbs.

**No. 211407** – Lifting mechanism.

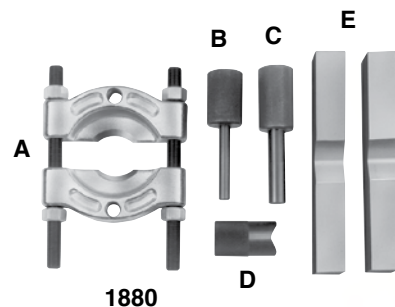


1825

A	B	C	D	E	F	G	H	J	K	Bench Space
64"	28"	28"	17-7/8"	34-7/8"	3-7/8"	20"	4-1/4"	5"	4-7/8"	28" x 28"

### 17-1/2 Ton Press Accessory Set

- Adapters and accessories attach to ram's forcing screw or are used on press bed to support work.
- Set includes
  - (A) No. 1123 bearing pulling attachment.
  - (B) No. 201923 ram pushing adapter with a 1/2" dia. shank.
  - (C) No. 201454 ram pushing adapter with a 3/4" dia. shank.
  - (D) No. 34806 V-pushing adapter.
  - (E) No. 1890 V-blocks (pair).



1880

**No. 1880** – Press accessory set. Wt., 21 lbs., 10 oz.

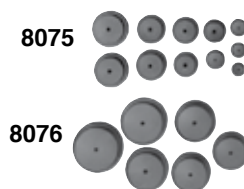
### 17-1/2 Ton Press Accessory Sets

**No. 8075** – Step plate adapter set. Wt., 5 lbs., 5 oz.

**No. 8076** – Step plate adapter set. Wt., 10 lbs., 6 oz.

**No. 1888** – V-throat press plate. Dimensions are 9-1/4" x 10" and 3/4" thick. Wt., 17 lbs.

See page 212 for sizes of step plate adapters in sets.



8075

8076



1888

# SHOP EQUIPMENT

## Shop Presses

### Hydraulic Bottle Jack Presses

- All bottle jacks have an overload valve built into them.

**No. 1823** – 12-ton capacity press with a Stinger bottle jack. Wt., 221 lbs.

**No. 1823A** – 12-ton capacity press with a OTC bottle jack. Wt., 221 lbs.

**No. 1824** – 20-ton capacity press with a Stinger bottle jack. Wt., 357 lbs.

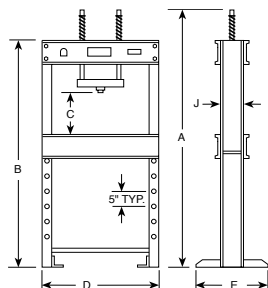
**No. 1824A** – 20-ton capacity press with a OTC bottle jack. Wt., 357 lbs.

#### Press Specifications

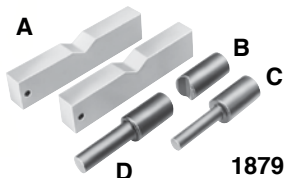
OTC No.	A	B	C	D	E	J
1823 – 1823A	84-1/2"	72"	2" – 42"	28-3/4"	28"	4-3/8"
1824 – 1824A	85-7/8"	72"	2" – 37"	37-1/2"	28"	7-3/8"

#### Bottle Jack Specifications

OTC No.	Stroke	No. of Pump Strokes to Extend Piston 1 inch	Height with Screw Ext.
1823	5-7/8"	17	18-7/8"
1823A	6-1/4"	19	19"
1824	6-5/8"	33	20-3/16"
1824A	7-1/2"	30	20-1/2"



1823A, 1824A



1879

### Accessory Set for Bottle Jack Presses

**No. 1879** – Accessory set for 12-ton and 20-ton bottle jack presses. Includes (A) No. 1890 9" long V-block set; (B) No. 215703 1-1/2" dia. V-pushing adapter; (C) No. 309119 3/4" dia. pushing adapter; (D) No. 309120 1" dia. pushing adapter. Wt., 33 lbs., 8 oz.

### 25-Ton Capacity Shop Presses

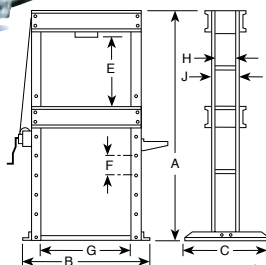
- Tough, economical press is ideal for pressing rear axle bearings, piston pins, and much more.
- Large 30" x 46" work area under ram makes positioning of even bulky work easy. Press bed is easily raised and lowered by a dependable lifting mechanism. Choice of model with hand- or air-driven hydraulic pump.

**No. 1833** – 25-ton press, complete with No. 4002 hydraulic hand pump; No. 9652 gauge; No. 24815 tee; No. 9767 hose (1/4" ID x 6'); hydraulic ram No. 51426 with 6-1/4" stroke; and 42733-WH2 pump mounting bracket. Wt., 464 lbs.

**No. 1834** – 25-ton press, complete with air-driven No. 4020 hydraulic pump; No. 9652 gauge; No. 24815 tee; No. 9768 hose (1/4" ID x 8') and hydraulic ram with 6-1/4" stroke. Wt., 440 lbs.



1833 (shown)



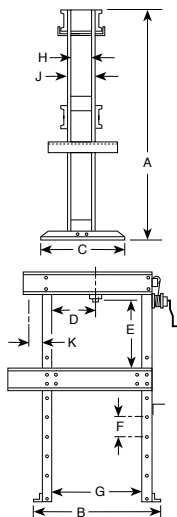
OTC No.	A	B	C	E	F	G	H	J	Floor Space
1833	69-1/2"	40-1/2"	28"	5-3/4" – 46"	4"	30"	5-1/2"	6-1/2"	41-1/2 x 28"
1834	69-1/2"	40-1/2"	28"	5-3/4" – 46"	4"	30"	5-1/2"	6-1/2"	41-1/2 x 28"

### 25-Ton Capacity Heavy-Duty "Open Throat" Press

- "Open throat" feature enables ram to be positioned outside of press frame for fast axle bearing removal and installation, as well as other tasks. Rugged press is covered by OTC Lifetime Marathon Warranty®.
- Press bed is raised or lowered with a hand crank, and a spring-return hydraulic ram is laterally adjustable for off-center work at full capacity.

**No. 1826** – 25-ton press. Includes No. 4016 hydraulic hand pump; No. 52025 hydraulic ram with 14" stroke; No. 9652 gauge; No. 303563 hose (3/8" ID x 8'); and pump mounting bracket. Wt., 646 lbs.

**No. 1826A** – 25-ton press. Includes No. 4020 air/hydraulic hand pump; equipped the same as 1826.



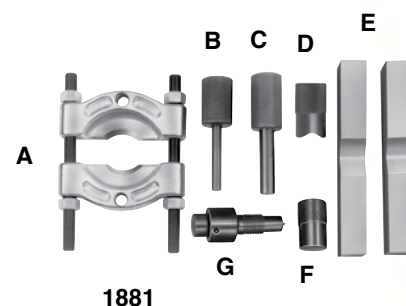
1826

A	B	C	D*	E	F	G	H	J	K	Floor Space
68"	43"	28"	3"-29"	6-7/8"-4-3/8"	4-1/2"	32"	5-1/2"	6-1/2"	7"	28" x 25-1/4"

\*Lateral head movement. Frame shipped assembled.

### Accessory Set for 25-Ton Capacity Presses

- Accessories attach to ram's forcing screw or support work on the press bed.
- Set includes
  - (A) No. 1124 bearing pulling attachment;
  - (B) No. 34510 ram pushing adapter with 3/4" dia. shank;
  - (C) No. 34511 ram pushing adapter with 1" dia. shank;
  - (D) No. 34807 V-pushing adapter;
  - (E) No. 1891 11-1/2" long V-blocks (pr.);
  - (F) No. 28229 ram forcing cap;
  - (G) No. 38953 threaded adapter.



1881

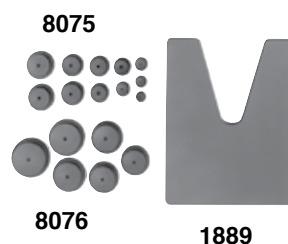
**No. 1881** – Press accessory set. Wt., 43 lbs.

### Accessories for 25-Ton Capacity Presses

**No. 8075** – Step plate adapter set. Set includes No. 8057, No. 8058, No. 8059, No. 8060, No. 8061, No. 8062, No. 8063, No. 8064, No. 8065, No. 8066, and No. 8067. Wt., 5 lbs., 5 oz.

**No. 8076** – Step plate adapter set. Set includes No. 8068, No. 8069, No. 8070, No. 8071, No. 8072, and No. 8073. Wt., 10 lbs., 6 oz.,

**No. 1889** – V-throat press plate. Dimensions are 11-5/8" x 14-1/2" and 3/4" thick. Wt., 50 lbs.



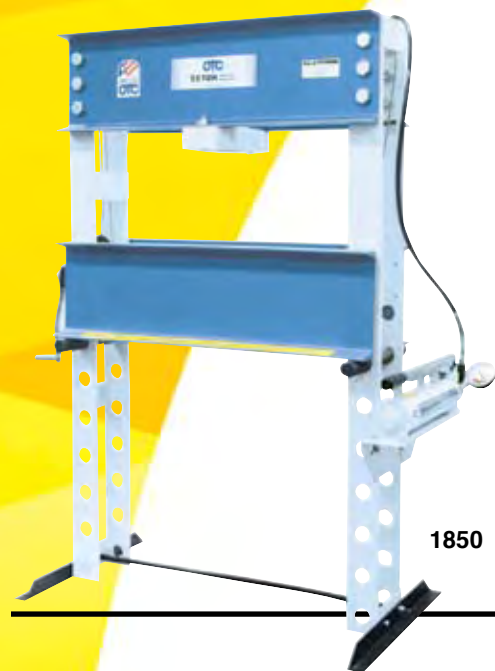
8075

8076

1889

See page 212 for sizes of step plate adapters in sets.





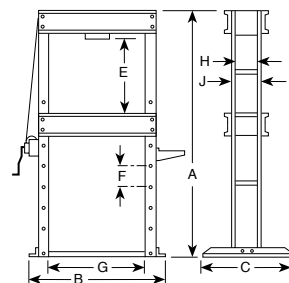
1850

### 55-Ton Capacity Economy Shop Presses

- Durable steel frame resists buckling and bending. Covered by OTC Lifetime Marathon Warranty®.
- Hand-operated winch and cable mechanism adjusts lower press bolster.

**No. 1850** – 55-ton press. Includes No. 52457 hydraulic ram with 6-1/4" stroke; No. 4016 hydraulic hand pump; No. 9651 gauge; No. 9767 hose (1/4" ID x 6'); and pump mounting bracket. Wt., 725 lbs.

**No. 1851** – Same as No. 1850 except with No. 4020 air/ hydraulic pump. Wt., 698 lbs.



A	B	C	E	F	G	H	J	Floor Space
70-3/4"	47-1/2"	28"	6-1/8"-41-1/8"	5"	35"	7-1/16"	10"	55-1/2" x 28"



1845



1846A

### 55-Ton Capacity Heavy-Duty Presses

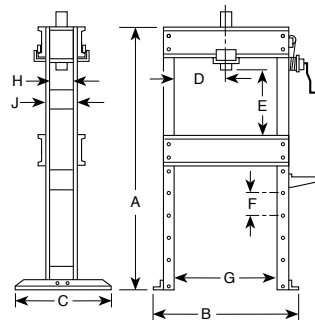
- Side-to-side positioning of ram allows full capacity pressing along entire bolster length without buckling or bending. Covered by OTC Lifetime Marathon Warranty®.
- Hydraulic ram features 13" of stroke. Choice of hydraulic power units.

**No. 1845** – 55-ton press. Includes single-acting ram No. 52380 with 13" stroke; No. 4044 electric/hydraulic pump; No. 9651 gauge; No. 303563 hose (3/8" ID x 8'); and pump mounting bracket. Wt., 990 lbs.

**No. 1846A** – Same as No. 1845 except has No. 4016 hydraulic hand pump and single-acting ram No. 65458 with 10-1/8" stroke. Wt., 911 lbs.

**No. 1847** – Same as No. 1845 except has a No. 4022 air/ hydraulic pump and a No. 9781 hose (3/8" ID x 10'). Wt., 893 lbs.

**No. 1872** – 55-ton press. Includes double-acting ram No. 51682 with 13" stroke; No. 4046 electric/hydraulic pump; No. 9651 gauge; No. 36887 hoses; and pump mounting bracket. Wt., 961 lbs.



A	B	C	D*	E	F	G	H	J	Floor Space
72"	48-1/2"	36"	3-1/4"-32-3/4"	6"-42"	6"	36"	6-3/4"	8"	56-1/2" x 36"

\*Lateral head movement.

### Accessories for 55-Ton Capacity Presses

**No. 8075** – Step plate adapter set. Set includes No. 8057, No. 8058, No. 8059, No. 8060, No. 8061, No. 8062, No. 8063, No. 8064, No. 8065, No. 8066, and No. 8067. Wt., 5 lbs., 5 oz.

**No. 8076** – Step plate adapter set. Set includes No. 8068, No. 8069, No. 8070, No. 8071, No. 8072, and No. 8073. Wt., 10 lbs., 6 oz.,



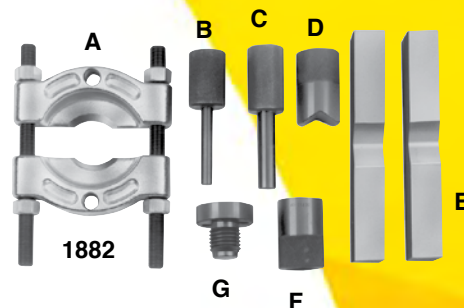
8076

8075

See page 212 for sizes of step plate adapters in sets.

### Accessory Set for 55-Ton Capacity Presses

- Accessories attach to ram's forcing screw or support work on press bed.
- Set Includes
  - (A) No. 1126 bearing pulling attachment;
  - (B) No. 34755 ram pushing adapter with 1" dia. shank;
  - (C) No. 34756 ram pushing adapter with 1-1/4" dia. shank;
  - (D) No. 34808 V-pushing adapter;
  - (E) No. 1892 14" long V-blocks (pr.);
  - (F) No. 28230 ram forcing cap;
  - (G) No. 37368 threaded adapter – for single acting only.
  - (H) No. 38954 For 1872 double acting press.

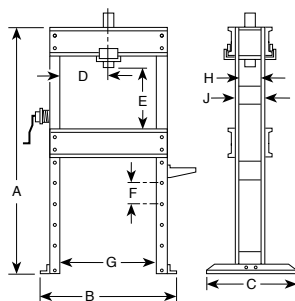


**No. 1882** – Press accessory set. Wt., 94 lbs.

### 100-Ton Capacity Economy Shop Press

- Large 35" opening between press uprights allows easy handling of large gears, shafts, sprockets, and other components serviced in truck, construction, and agricultural equipment shops. Covered by OTC Lifetime Marathon Warranty®.
- Hand-operated winch and cable mechanism gives operator precise control in adjustment of lower press bolster to any height.

**No. 1854** – 100-ton press. Includes hydraulic ram No. 52434 with 10" stroke; No. 4044 electric/hydraulic pump; No. 9651 gauge; No. 9768 hose (1/4" ID x 8'); and pump mounting bracket. Wt., 1,528 lbs.



A	B	C	D	E	F	G	H	J	Floor Space
86-5/8"	47-1/2"	28"	17-1/2"	9-5/8"-49-5/8"	8"	35"	6-3/8"	10"	55-1/2" x 28"

### Accessories for 100-Ton Capacity Presses

**No. 50392** – Straightening fixtures (pr.). Wt., 192 lbs.

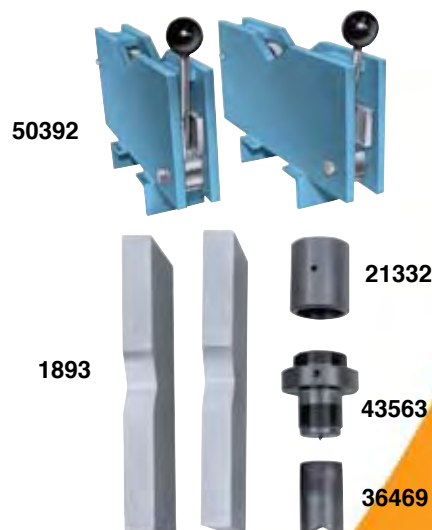
**No. 1893** – V-blocks, 14" long (pr.). Wt., 58 lbs.

**No. 21332** – Pushing adapter (must be used with reducing adapter). Wt., 4 lbs., 7 oz.

**No. 36469** – V-pushing adapter (must be used with reducing adapter). Wt., 5 lbs., 9 oz.

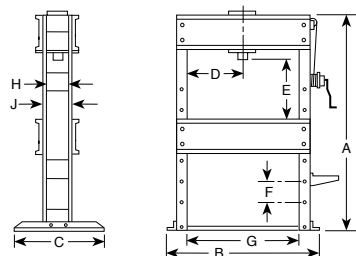
**No. 43563** – Reducing adapter (for double-acting ram). Wt., 8 lbs., 8 oz.

**No. 43562** – Reducing adapter (for single-acting ram, not pictured). Wt., 3 lbs.





1857 (shown)



### 100- and 150-Ton Capacity Heavy-Duty Shop Presses

- Wide open uprights allow easy positioning of bars and shafts for straightening or bending.
- Upper bolster can be lowered for convenient positioning during repetitive jobs.
- Ram head glides smoothly on rollers for easy horizontal adjustments; rugged press frame will withstand a full capacity load with the ram head in any position across the upper bolster.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1857** – 100-ton press. Includes single-acting No. 52434 ram with 10" stroke; No. 4008 hydraulic hand pump; No. 9651 gauge; No. 9781 hose (3/8" ID x 10'); and pump mounting bracket. Wt., 1,740 lbs.

**No. 1858** – Same as No. 1857, except has double-acting No. 51683 ram with 13" stroke; No. 61217 3-phase, 220V, 3450 rpm electric/hydraulic pump; and two No. 9769 hoses. Wt., 1,822 lbs.

**No. 1858-1P** – Same as No. 1858, except it has a No. 4064 2-stage, 1-phase hydraulic pump.

A	B	C	D*	E	F	G	H	J	Floor Space
77-1/4"	64"	36"	7"-43"	2"-42"	8"	50"	8"	10"	36" x 78-1/4"

\*Lateral head movement. Frame shipped assembled.

**No. 1868** – 150-ton press. Includes double-acting ram with 13" stroke; No. 61217 3-phase, 220V, 3450 rpm electric/hydraulic pump; No. 9651 gauge; No. 9769 hoses; and pump mounting bracket. Wt., 2,960 lbs.

A	B	C	D*	E	F	G	H	J	Floor Space
90"	71"	44"	11"-39"	9"-43-1/4"	11"	50"	12-1/2"	15"	44" x 71"

\*Lateral head movement. Frame shipped assembled.



207395



44458

### Accessories for 150-Ton Capacity Shop Presses

**No. 207395** – V-blocks, 14" long, (pr.). Wt., 134 lbs.

**No. 44458** – Pushing adapter with 2-1/4" dia. shank. Wt., 23 lbs., 3 oz.

### Protective Blankets

Think of them as "security blankets." They wrap around pulling, pressing, and other high-force jobs to protect you and your employees from work-related injuries as much as possible. They're made of high tensile, tear resistant ballistic nylon – similar to military flak jackets – that, when tested, withstood the shattering of a neck-down grade 8 bolt without any visible damage.

**NOTE:** Always reduce the force from the workpiece prior to removing the blanket. Protective blankets may afford protection from injuries to users and others should part breakage occur. Because of the variety of situations that require guarding, it is the user's responsibility to determine the best method of protection.

**No. 1230PB** – Protective blanket. 12" x 30". Wt., 2 lbs., 3 oz.

**No. 2036PB** – Protective blanket. 20" x 36". Wt., 3 lbs.

**No. 2860PB** – Protective blanket. 28" x 60". Wt., 7 lbs.



No. 1230PB

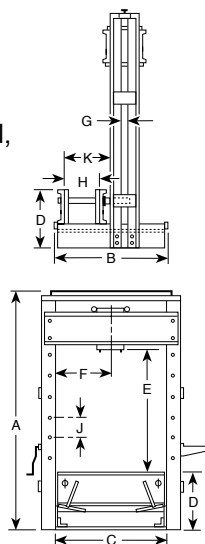


### 100- and 150-Ton Capacity Roll-Bed® Shop Presses

- Lower press bed rolls out smoothly for easy loading and unloading of heavy work using an overhead lifting device.
- Movable ram head and remote pump control, combined with large, open work area, allow operator to easily view work from any side during the pressing operation.
- Heavy-duty, cold-rolled steel construction ensures durability to withstand loads of full-rated capacity.
- Covered by OTC Lifetime Marathon Warranty®.

**No. 1865** – 100-ton press. Includes double-acting ram with 13" stroke; No. 61217 three-phase, 220V, 3450 rpm electric/hydraulic pump; No. 9651 gauge; No. 9669 hoses; and pump mounting bracket. Wt., 2,910 lbs.

**No. 1865P** – Same as No. 1865 except with No. 4064 Vanguard 2-stage hydraulic pump with 3-position/4-way valve and 6 ft. remote motor control (115V). Wt., 2,910 lbs.



A	B	C	D	E	F*	G	H	J	K	Floor Space
112-5/8"	64-1/4"	50-1/2"	27"	12"-60"	14-1/2-36"	3"	4-27-1/2"	8"	36-1/2"	36" x 78-1/4"

\*Lateral head movement. Frame shipped assembled.

**No. 1866** – 150-ton press. Includes double-acting ram with 13" stroke; No. 61217 3-phase, 220V, 3450 rpm electric/hydraulic pump; No. 9651 gauge; No. 9770 hoses; and pump mounting bracket. Wt., 4,338 lbs.

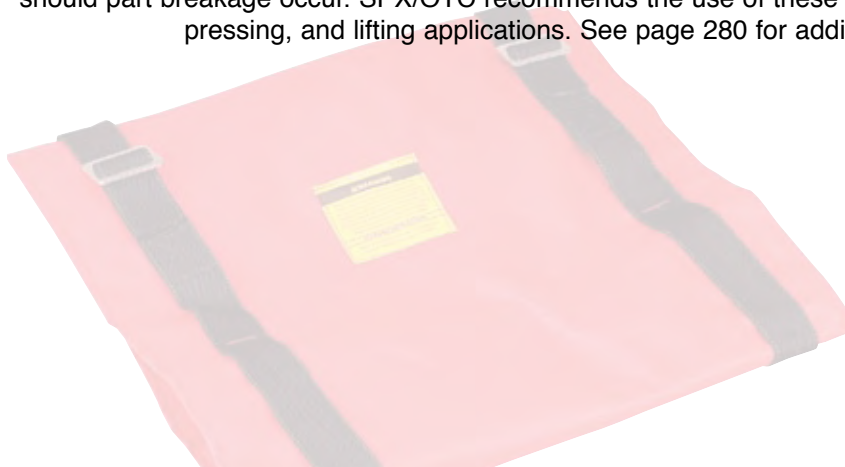
A	B	C	D	E	F*	G	H	J	K	Floor Space
123-1/4"	68-1/4"	51-1/4"	30"	9"-64"	3-7/8-37-3/8"	3"	4-27-1/2"	11"	37-1/4"	36" x 78-1/4"

\*Lateral head movement. Frame shipped assembled.

### IMPORTANT SAFETY INFORMATION

**Certain press applications may require guarding. Because of the multitude of possible press uses, it is impossible to design a guard that will meet every customer need. The end user must provide their own guarding where the situations dictate.**

SPX/OTC has protective blankets available which may afford protection from injury to users and others should part breakage occur. SPX/OTC recommends the use of these blankets for all pushing, pulling, pressing, and lifting applications. See page 280 for additional information.



# SHOP EQUIPMENT

## Bottle Jacks



**ANSI  
PALD**

### Bottle Jacks....All-American Weight Lifters

- OTC's industrial grade bottle jacks carry OTC Lifetime Marathon Warranty®.
- Pressure cylinder, oil reservoir, pump housing, and base are welded as one unit to resist oil leakage. Jacks can be used in vertical or horizontal positions.
- Unique valve seat design provides unequaled reliability.
- Chrome-plated piston rod resists wear and corrosion. Extension screw provides added lifting height. Jacks meet and exceed ANSI PALD standard for overload protection.

Cap. (tons)	Stroke	OTC No.	Retracted Height Min.	Length of Screw Extension	Height with Screw Extended	Pump Strokes to Extend Piston One Inch	Saddle Dia.	Base Size	Carry Handle	Weight
12	3-1/2"	5112*	6-3/4"	2-1/4"	12-1/2"	19	1-3/4"	5-1/2" x 6"	Yes	18 lbs.
12	6-1/4"	5212	9-1/2"	3-1/4"	19"	19	1-3/4"	5-1/2" x 6"	Yes	22 lbs.
20	5"	5120*	8-1/4"	2-1/4"	15-1/2"	30	2-1/4"	6" x 6-3/8"	Yes	26 lbs.
20	7-1/2"	5220	10-3/4"	2-1/4"	20-1/2"	30	2-1/4"	6" x 6-3/8"	Yes	31 lbs.

\*Low profile models



**ANSI  
PALD**

### High Performance Bottle Jacks

- Base, pressure cylinder, and oil reservoir form one internal part, and provide more strength and safety to these jacks.
- Piston never contacts cylinder, so pressure will be absorbed and not damage jack if vehicle tilts.
- The No. 5213T jack is telescopic, allowing for very low initial height with high lifting.

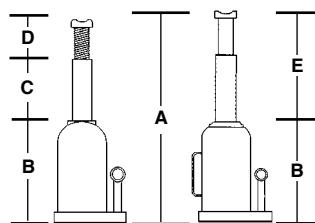
**No. 5213** – 12-ton bottle jack. Wt., 17.6 lbs.

**No. 5221** – 20-ton bottle jack. Wt., 26.6 lbs.

**No. 5213T** – 12-ton telescopic bottle jack. Wt., 37.4 lbs.

### Bottle Jack Dimensions

Jack	A	B	C	D	E
5213	17-3/4"	8-7/8"	5-7/8"	2-15/16"	
5221	18-1/16"	9-1/4"	5-7/8"	2-15/16"	
5213T	22-1/2"	9-5/8"			12-13/16"



### 10-Ton Collision Repair Set

- Exert hydraulic force just where it's needed to lift, spread, bend, or straighten. Handles the high-force jobs you face daily in trailer maintenance or other applications.
- Includes reliable components including 10-ton, 10-1/8" stroke hydraulic ram; air/hydraulic pumping unit; hydraulic hose; four snap-together extension tubes; extension tube coupling; serrated saddle; flat base; 90° wedge head; flex head; storage case.
- All set components are covered by OTC Lifetime Marathon Warranty®.

**No. 5086** – 10-ton collision repair set. Wt., 65 lbs.



5086

### OTC Series 4- and 10-Ton Collision Repair Sets

- We've matched our OTC hydraulics with versatile tooling.
- Components snap together, permitting you to apply pushing, spreading, or pulling force.
- Components include: hydraulic pump, hose, and ram; ram flat base; 1/2-ton hydraulic spreader; extension tubes (4); tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

**No. 1517A** – 4-ton collision repair set. Has single-speed hydraulic hand pump and ram with 5" stroke. Wt., 40 lbs.

**No. 1519A** – 10-ton collision repair set. Has two-speed hydraulic hand pump and ram with 6-1/8" stroke. Wt., 75 lbs.

**No. 504888** – Replacement quick coupler. Wt., 3 oz.

**No. 504889** – Replacement quick coupler. Wt., 3 oz.



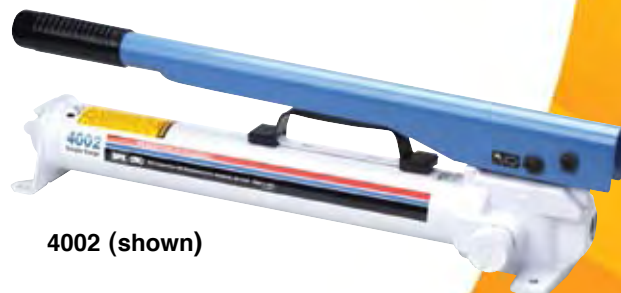
1517A

### Single-Speed Hydraulic Hand Pump

This single-speed pump is ideal for single-acting rams. Developing up to 10,000 psi operating pressure, the pump operates horizontally or vertically in the "head down" position. Fingertip control provides instant release or pumping action. Has a built-in safety overload valve. Ideal for use with OTC single-acting rams, or similar competitors' rams.

**No. 4000** – Hand pump only. Wt., 6 lbs., 13 oz.

**No. 4002** – Hand pump only. Wt., 17 lbs., 3 oz.



4002 (shown)

Specifications:	4000	4002
Max. operating pressure	10,000 psi	10,000 psi
Volume per stroke	.069 cu. in.	160 cu. in.
Reservoir capacity	12.5 cu. in.	45 cu. in.
Oil port	1/4" NPT	3/8" NPT





## Focused and Flameless Heat Make Parts Removal Easy and Fast!

### **BOLTS**

The bolt inductor produces concentrated heat in a small area for a multitude of applications. It produces temperatures in excess of 1400° F in just seconds. This concentrated heat is ideal for the heating and easy removal of seized fasteners and can also be used to remove caulk and seam sealer.



### **GLASS**

The glass inductor produces heat in a 1" x 4" area, which is ideal for heating channels behind glass components. This inductor achieves a channel temperature of 350° F in about 30 seconds and easily accesses areas normal glass removal tools can't. Great for encapsulated window adhesive, bonded body panels, spray-in bedliners, the glass inductor can also be used to fully cure high-build primers in just seconds, allowing them to be block-sanded quickly and efficiently, saving both labor time and abrasive costs.



### **BODY PANELS**

The body inductor produces mild heat in flat or contoured body panels for the removal of moldings, pin stripes and vinyl graphics. The flexible, heat-resistant fiberglass blanket conforms to most body contours and includes a hand-strap for easy manipulation.



### **OTC 6650 Magnetic Induction Heater**

Every technician knows the hardest and most time consuming job in the repair process is parts removal — especially on vehicles with stubborn rust-caked bolts, fasteners and bonded components. With today's razor-thin margins, inefficient parts removal can seriously erode your profitability. The sooner vehicles can be disassembled and repairs begun, the sooner you start making money.

With the OTC 6650 Magnetic Induction Heater, technicians can quickly and easily perform damage-free parts removal of all metal parts that can't easily be accomplished with flame or other radiant heat sources. With an available power rating of 1500 watts, the OTC 6650 is ideal for mechanical repair, auto body repair and recycling facilities. It produces heat in seconds within metal objects such as body panels, nuts, bolts and pinch weld areas behind glass—without heating or damaging non-metallic objects such as glass, paint or plastic.

- Fast, effortless removal of glass, emblems, bonded body components, rusty bolts and much more.
- Flameless heat reduces the need for torches, solvents and abrasives.
- Less flame and solvents reduce potential safety hazards and insurance rates.
- Only heats metal objects, enabling it to be used in or near heat-sensitive areas.
- Wide range of heating inductors for increased versatility.
- Easy-to-read heat output meter to quickly verify induction heat.
- Output isolation transformer provides the safest possible operation.
- CE and CSA approval with UL compliance offers proof of OTC 6650 quality construction and safety design.

This versatile inductor also removes core support labels and VIN tags without damage.

- The bolt and glass inductors are molded using an impact-resistant, flame-retardant polymer, and molded-in, waterproof cord grip prevents HF cable from being pulled from the heating attachment.
- The body inductor edges are surged and interior is silicone coated to improve water resistance and eliminate fraying.
- Power supply has a remote start/stop input receptacle for connecting foot switch or other alternative devices.
- The OTC 6650 has a durable 8-foot long foot switch constructed from impact-resistant thermal plastic and includes a circular quick disconnect for easy, convenient servicing and storage.



For increased versatility, these other inductors can be purchased and used with the OTC 6650 Magnetic Induction Heater:

- Interior molding removal tools No. 4489
- Hail dent inductor No. 543036
- Bearing heater inductor – Available late in 2007
- Brake inductor – Coming soon!
- Exhaust inductor – Coming soon!

**CONTACT YOUR OTC SUPPLIER TODAY!**



543036 – Hail Dent Inductor

### Specifications

Cabinet Size	9.00" W x 14" L x 8.5" H
Input Voltage	110 Vac: 60 Hz 1 Phase
Input Current	15 Amps
Output	(maximum values to induction coil)
Power	1500 Watts
Voltage	400 Vrms 45-60KHz 1 Phase
Current	50 Amps .14 P.F. Minimum
Cooling	Forced air cooling via internal cooling fans
Operating Temperature	125° F/52° C Max

### Magnetic Induction Heating System

The OTC 6650 package comes with bolt inductor (542936), glass inductor (542937), body inductor (542938), foot switch (543055) and instructional CD. All inductors, with exception of the body inductor, are encapsulated in a flame-retardant polymer which provides protection against impact, abrasion, heat or other accidental damage. All inductors have an electrical interlock and/or molded strain reliefs.

**No. 6650** – Magnetic Induction Heating System. Wt., 25 lbs.





### Hydraulic Rams for Collision Repair Sets

These premium quality rams are designed for long, trouble-free service. Backed by a life-time warranty, they are ideal replacements for worn-out, leaky rams. They feature a special piston rod that permits their use with the snap-together components of OTC's collision repair sets, or with most similar competitive products.

**No. 4082B** – 4-ton ram with 5" stroke and special piston rod end designed to fit most collision repair set components. Wt., 8 lbs., 13 oz.

**No. 4083B** – 10-ton ram with 6-1/8" stroke and special piston rod end designed to fit most collision repair set components. Wt., 9 lbs., 6 oz.

OTC No.	Cap. in Tons	Stroke	Collapsed Height	Extended Height	Spring Return	Rod End Dia.	Max. Oper. Pressure (PSI)	Oil Cap. (cu. in.)	Oil Port
4082B	4	5"	10-7/8"	15-7/8"	Yes	.874"	8,950	4.97	1/4" NPT
4083B	10	6-1/8"	14-5/8"	20-3/4"	Yes	1.310"	8,950	13.69	3/8" NPT

### Hydraulic Rams

These rams feature the same quality design and construction as the Nos. 4082B and 4083B hydraulic rams listed above, but have threaded ram collars and internal base threads to simplify mounting, as well as threaded piston rod ends. Ideal replacements for worn-out, leaky rams on body and frame equipment.

**No. 4088A** – 10-ton ram with 6-1/8" stroke. Has threaded ram collar, internal base threads, and threaded piston rod end. Wt., 11 lbs., 10 oz.

**No. 4089A** – 10-ton ram with 10-1/8" stroke. Has threaded ram collar, internal base threads, and threaded piston rod end. Wt., 14 lbs., 13 oz.

OTC No.	Cap. in Tons	Stroke "A"	Oil Cap. (cu. in.)	Effective Ram Area (sq. in.)	Tons at 8,950 PSI	Spring Return	Height		Piston Protrusion at Collapsed Height	Diameter		Piston Thread (NPT) "F"	Collar Thread (Straight) "G"	Internal Base Thread (NPSM) "H"
							Collapsed "B"	Extended "C"		"D"	"E"			
4088A	10	6-1/8"	13.9	2.236	10	Yes	11-1/2"	17-5/8"	1-1/16"	2-1/4"	1-5/8"	1-1/4"	2-1/4"-14	1-1/4"-11-1/2
4089A	10	10-1/8"	22.9	2.236	10	Yes	15-1/2"	25-5/8"	1-1/16"	2-1/4"	1-5/8"	1-1/4"	2-1/4"-14	1-1/4"-11-1/2



4042



### Hydraulic Ram, Pump, and Hose Set

This versatile set is usable in a wide variety of hydraulic power applications. Combines our No. 4026 air/hydraulic power unit, hose, and hose half coupler with the No. 4089A 10-ton hydraulic ram with 10-1/8" stroke. Ram has threaded collar, internal base threads, and threaded piston rod end for mounting adaptability.

**No. 4042** – Hydraulic ram, pump, and hose set. Wt., 25 lbs., 2 oz.



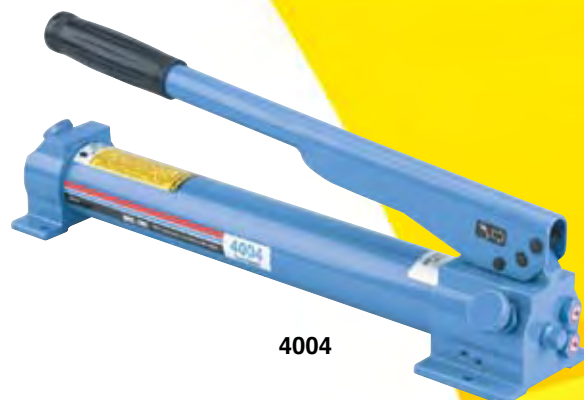
### 2-Speed Hydraulic Hand Pump

Use with single-acting hydraulic rams. Rugged all-metal construction. Maximum handle effort is 90 lbs. Two-speed action provides rapid approach of ram piston to the work. An appropriate and economical power source for applications in which 20 cu. in. of usable oil is adequate.

**No. 4004** – 2-speed hydraulic hand pump. Wt., 6 lbs., 9 oz.

#### Specifications:

Maximum operating pressure	10,000 PSI
Volume per stroke (first stage)	.305 cu. in.
Volume per stroke (second stage)	.091 cu. in.
Reservoir capacity	24.4 cu. in.
Oil port	3/8" NPT



4004

### Air/Hydraulic Power Unit

Features a heavy-duty, one-piece, aluminum body for durability and light weight. A perfect replacement pump for body and frame straightening equipment. Performs in either vertical or horizontal positions. Has a time-tested motor design. All internal moving parts are constructed of metal, not plastic! Unique external relief valve ensures damage-free operation should oil reservoir be overfilled. Internal vent eliminates external oil leakage. Rotary-style pressure release provides superior operator control. Carries OTC's unsurpassed Lifetime Marathon Warranty®.

**No. 4026** – Air/hydraulic power unit. Wt., 13 lbs., 8 oz.

#### Specifications:

Oil delivery	10 cu. in. of oil @ 9,500 PSI
Reservoir capacity	39 cu. in. (34 cu. in. usable)
Internal relief setting	10,000 PSI
Air operating pressure	40-120 PSI
Dimensions	16-15/16" long x 6-3/8" high x 5-5/8" wide



4026

### Hydraulic Spreaders

Included as standard equipment with our collision sets, these versatile hydraulic spreader tools are also available individually. Ideal for removing dents and creases, performing straightening jobs, or for use as a clamp. Makes working in tight spots easy.

- Maximum spread is 3-1/4".

**No. 9101A** – 1/2-ton spreader with 1/4" NPT ram half coupler. Wt., 3 lbs., 11 oz.

**No. 9102** – 1/2-ton spreader with 3/8" NPT ram half coupler. Wt., 3 lbs., 11 oz.





### Automotive-Style Quick Couplers

Precision designed and built for high pressures. Permits disconnecting hose without loss of oil.

- Ideal for use in body shop equipment applications.
- Works with OTC No. 1515 and 1513 collision repair sets.

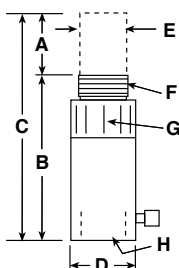
**No. 9195** – Complete quick coupler, 1/4" NPT. Wt., 5 oz.

**No. 9196** – Complete quick coupler, 3/8" NPT. Wt., 10 oz.



### Single-Acting, Spring-Return Rams

Available in capacities of 5 to 100 tons and for maximum working pressures up to 10,000 PSI; 2 to 1 safety factor on material yield; designed and tested to meet ANSI B30.1. Standard stroke lengths of 5/8" to 14-1/4", these compact rams require a minimum of mounting space. Several of the rams feature threaded ram collars and internal base threads to simplify mounting. Also, some of the models have threaded piston rod ends. OTC's design ensures positive, leak-resistant sealing throughout all pressure ranges, yet full piston return characteristics are maintained. Additional bearing surface



has been designed into these units, to effectively resist the punishing stress exerted by off-center loads. Depending on capacity, these rams can handle a variety of bending and straightening jobs, construction maintenance applications, pressing operations, body and frame straightening, and rear housing and axle correction.

	Capacity		Oil	Effective Ram	Tons at		Height		Piston Protrusion at			Piston Thread	Collar Thread	Internal Base Thread	
OTC No.	in Tons	Stroke "A"	Cap. (cu. in.)	Area (sq. in.)	10,000 PSI	Spring Return	Collapsed "B"	Extended "C"	Collapsed Height	Diameter "D"	"E"	(N.P.T.) "F"	(Straight) "G"	(N.P.S.M.) "H"	Wt. (lbs./oz.)
SINGLE-ACTING, SPRING-RETURN RAMS															
4100	5	3"	3.0	.994	4.97	No	5-11/16"	† 8-11/16"	1/4"	1-1/2"	7/8"	None	None	None	3 / 5
4101	5	5-1/4"	5.2	.994	4.97	Yes	10-1/2"	15-3/4"	1-1/8"	1-1/2"	1-1/16"	3/4"	1-1/2"-16	3/4"-14	5
4108	5	5/8"	.62	.994	4.97	Yes	1-5/8"	2-1/4"	1/8"	2-9/16"x1-5/8"	5/8"	None	None	None	2 / 5
4103	10	2-1/8"	4.8	2.236	11.2	Yes	5-9/16"	7-11/16"	1-1/16"	2-1/4"	1-5/8"	1-1/4"	2-1/4"-14	None	5 / 14
4104	10	6-1/8"	13.9	2.236	11.2	Yes	11-1/2"	17-5/8"	1-1/16"	2-1/4"	1-5/8"	1-1/4"	2-1/4"-14	1-1/4"-11-1/2	11 / 10
4105	10	10-1/8"	22.9	2.236	11.2	Yes	15-1/2"	25-7/8"	1-1/16"	2-1/4"	1-5/8"	1-1/4"	2-1/4"-14	1-1/4"-11-1/2	14 / 13
4106	25	6-1/4"	32.2	5.157	25.8	Yes	13-3/8"	19-5/8"	1-7/8"	3-3/8"	2-3/8"	2"	3-5/16"-12	2"-11-1/2	26
4107	25	14-1/4"	73.5	5.157	25.8	Yes	21-3/8"	35-5/8"	1-7/8"	3-3/8"	2-3/8"	2"	3-5/16"-12	2"-11-1/2	42 / 10
4110	55	6-1/4"	69.0	11.04	55.2	Yes	11-1/8"	17-3/8"	1/8"	5"	3-1/8"	None	None	None	60
4115	100	6-5/8"	137.0	20.62	103.1	Yes	13-1/4"	19-7/8"	1/8"	6-1/4"	4-1/8"	None	None	None	105
ALUMINUM RAMS (See listing on page 290)															
4111	55	6-1/8"	67.6	11.04	55.2	Yes	10-3/4"	16-7/8"	1/4"	5-1/4"	3-1/8"	None	None	None	25 / 10
4116	100	6-1/4"	129.0	20.62	103.1	Yes	11-3/4"	18"	1/8"	7-3/8"	4-1/8"	None	None	None	64

† No. 4100 has a piston "screw-extension" (1-1/2"), which will extend the maximum height to 10".

See ram accessories listed on the next page. These accessories thread onto the ram's piston rod end, collar, or into the ram base. All rams include No. 9796 3/8" NPTF half coupler; oil port threads are 3/8" NPTF.

### Single-Acting Ram Accessories

These versatile attachments let you “harness” OTC hydraulic force and put it to work exactly where it’s needed to handle various maintenance tasks. Accessories thread onto the ram’s piston rod end or into the ram base.

Use with 5-ton hydraulic ram, No. 4101

Item	No.	Description
G	38908	Extension tube

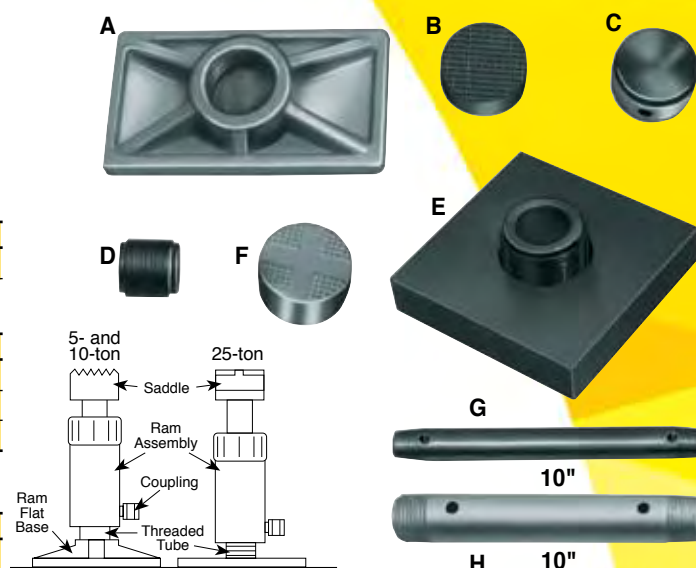
Use with 10-ton hydraulic rams, Nos. 4103, 4104, and 4105

Item	No.	Description	Item	No.	Description
A	32325*	Ram flat base	C	24016	Smooth saddle
B	31772	Serrated saddle	D	25664*	Threaded tube coupling
H	38909	Extension tube			

\* NOTE: 32325 and 25664 cannot be used on No. 4103 hydraulic ram.

Use with 25-ton hydraulic rams, Nos. 4106 and 4107

Item	No.	Description	Item	No.	Description
E	25653	Ram flat base	F	31776	Serrated saddle with coupling



### Spring-Return Hollow Center Hydraulic Rams

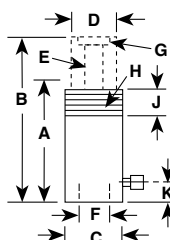
Ideal for push/pull applications found in off-highway, construction, mining, and other industries where heavy equipment is maintained. Center hole permits extending screws, cables, etc., straight through the ram for versatility of application. Rams withstand full “dead-end” loads. Chrome-plated piston rods resist wear, and superior packings and seals provide high cycle life without leakage. Piston head inserts are interchangeable for versatility, and tapped base mounting holes provide easy installation in fixed applications.

Head Inserts



For Use With	Threaded Insert No.	Inside Dia. of Plain Insert * (in.)
4131	28632 3/4"-16 **	49/64"
4132	28612 1"-8 **	1-3/64"
4139	38904 1-1/4"-7 **	1-19/64"
4140	34251 1-5/8"-5-1/2 **	2-1/8"

\* Plain insert comes standard with rams.  
\*\* Internal thread size.



			A	B	C	D	E	F	G	H	J				K			
Cylinder Cap. (tons)	Stroke (in.)	Order No.	Re-tracted Height (in.)	Ex- tended Height (in.)	Outside Dia. (in.)	Piston Rod Dia. (in.)	Center Hole Dia. (in.)	Inches Between Base Holes	Insert Thread Size (in.)	Collar Thread (in.)	Thread Length (in.)	Oil Cap. (cu. in.)	Int. Press. at Cap. (PSI)	Tons at 10,000 PSI	Base to Inlet Port (in.)	Mounting Holes (in.)	Base Cyl. Eff. Area (sq. in.)	Prod. Wt. (lbs.)
10	2-1/2-	4131	5-5/16	7-13/16	3	2-1/16	49/64	2-3/8	1-3/4-12	None	None	5.52	9,054	11	1	1/4-20	2.21	9
20	3	4132	6-1/8	8-1/8	3-7/8	2-1/8	1-5/64	3-1/4	1-9/16-16	None	None	9.45	8,466	23.6	1	3/8-16	4.72	20.0
30	2-1/2	4139	6-1/4	8-3/4	4-3/4	3-1/4	1-19/64	3-5/8	2-3/4-12	4-3/4-12	1-1/2	15.85	9,457	31.7	1-5/32	7/16-20	6.34	25.6
60	6	4140	12-1/4	18-1/4	6-1/4	3-19/32	2-1/8	5-1/8	3-12	6-1/4-12	2-1/2	73.86	9,750	61.6	1	1/2-13	12.31	78

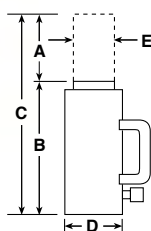


# SHOP EQUIPMENT

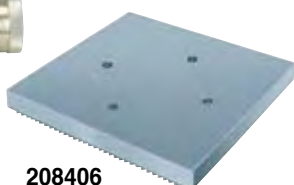
## Hydraulic Rams



4111



NOTE: See chart on page 288 for specifications.



208406

### 55- and 100-Ton Aluminum Rams

Get the strength of a steel ram but about half the weight. Easily carry these single-acting, spring-return rams around the garage, shop, or into the field for on-the-vehicle repairs. They are ideal for truck axle correction, trailer frame straightening, general vehicle maintenance, and heavy-duty lifting.

**No. 4111** – 55-ton aluminum ram. 6-1/8" stroke. Wt., 25 lbs., 10 oz.

**No. 4116** – 100-ton aluminum ram. 6-1/4" stroke. Wt., 64 lbs.

### Ram Base

**No. 208406** – Ram base. Attaches directly to bottom of ram by means of two 3/8"-16 screws, included. Serrated base provides extra support and stability. 7" square. For use on 55-ton ram only. Wt., 4 lbs., 6 oz.



No. 4121



**Quick change inserts.**  
See accessory chart below.

### Center-Hole, Power Twin® Rams

In capacities of 17-1/2, 30, 50, and 100 tons and for operating pressures up to 10,000 PSI; use these rams on Grip-O-Matic® pullers, Push-Pullers, and shop presses.

OTC's center-hole rams are ideal for jobs that require a great deal of force and a relatively short stroke. Compared to the force it develops, each center-hole Power Twin ram is lightweight, compact, and easy to handle, permitting its use in confined quarters. Center-hole feature permits extending jacking screws, cables, puller screws, etc., straight through the ram.

### Quick change inserts

For added job versatility, Power Twin rams also feature a basic head which allows the operator to change from a tapped hole to a plain hole by merely changing the head insert (held in place by a socket-head set screw). In certain applications, the use of a plain insert is desired, since it permits using a speed nut for necessary readjustment after the ram has been extended, rather than turning the screw with a speed crank.

**No. 4120** – 17-1/2-ton Power Twin single-acting hydraulic ram. Complete with No. 21669 threaded ram head insert, ram attaching screws, and No. 9796 ram half coupler. Wt., 15 lbs., 3 oz.

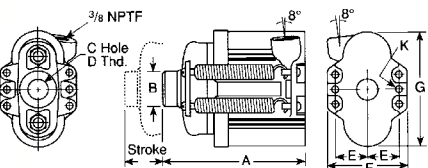
**No. 4121** – 30-ton Power Twin single-acting hydraulic ram. Complete with No. 21873 threaded ram head insert, ram attaching screws, and No. 9796 ram half coupler. Wt., 29 lbs., 3 oz.

**No. 4122** – 50-ton Power Twin single-acting hydraulic ram. Complete with No. 22274 threaded ram head insert, ram attaching screws, and No. 9796 ram half coupler. Wt., 57 lbs.

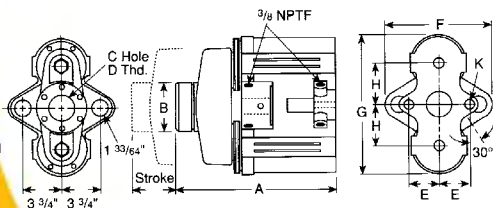
**No. 4130** – 100-ton Power Twin double-acting hydraulic ram. Complete with No. 24197 threaded ram head insert and two No. 9796 ram half couplers. Wt., 181 lbs.

### Single-Acting, Spring-Return Rams

DIMENSIONS FOR REFERENCE ONLY



### Double-Acting Ram



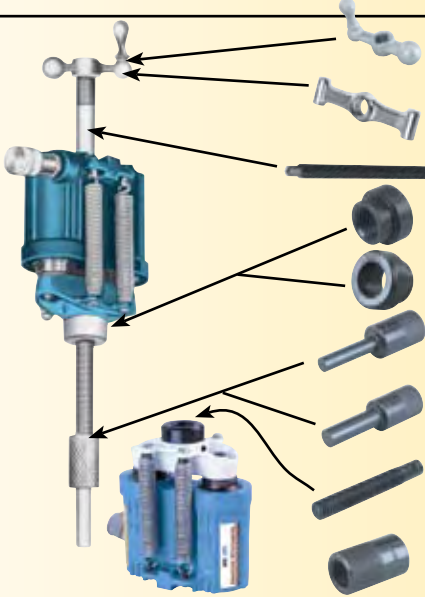
### Specifications

OTC No.	Capacity (tons)	Push	Pull	Stroke	Oil Capacity (cu. in.)	Eff. Area (sq. in.)	Internal PSI at Capacity	A	B	C	D	E	F	G	H	J	K
4120	17-1/2	–	–	2"	7.06	3.53	10,000	6-7/8"	1-3/4"	1-1/16"	1"-8	1-1/2"	3-3/4"	5-3/4"	–	–	11/32"
4121	30	–	–	2-1/2"	15.7	6.28	10,000	8-7/16"	2-1/4"	1-19/64"	1-1/4"-7	1-13/16"	4-1/2"	7-1/2"	–	–	15/32"
4122	50	–	–	3"	29.4	9.81	10,000	10-9/16"	2-7/8"	1-43/64"	1-5/8"-5-1/2	2-3/8"	5-7/8"	9-3/8"	–	–	21/32"
4130	100	5	5	4-7/8"	93.8	19.24*	10,000	15-1/8"	4-3/4"	2-9/16"	2-1/2"-8	2-7/8"	10-1/8"	13-1/4"	4"	3/4"-16	25/32"

\* Push side only.

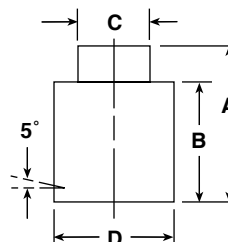
Passes ANSI B30.1 Static and Dynamic Tests.

### Power Twin® Ram Accessories

	Description	17-1/2 Ton	30-Ton	50-Ton	100-Ton
	Speed crank	24814	27198	29595	303785
	Speed nut	302482 1"-8 thread	302483 1-1/4"-7 thread	33439 1-5/8"-5-1/2 thread	34136 2-1/2"-8 thread
	Adjusting screw	32118 1"-8 thread, 20" long	34758 1-1/4"-7 thread, 24" long	32698 1-5/8"-5-1/2 thread, 30" long	32699 2-1/2"-8 thread, 36" long
	Threaded insert	21669 1"-8 thread	21873 1-1/4"-7 thread	22274 1-5/8"-5-1/2 thread	24197 2-1/2"-8 thread
	Plain-hole insert	21714 1-1/16" dia. hole	21872 1-5/16" dia. hole	22275 1-11/16" dia. hole	24196 2-9/16" dia. hole
	Pushing adapter	201923 1"-8 thread, 1/2" dia. shank	34510 1-1/4"-7 thread, 3/4" dia. shank	34755 1-5/8"-5-1/2 thread, 1" dia. shank	—
	Pushing adapter	201454 1"-8 thread, 3/4" dia. shank	34511 1-1/4"-7 thread, 1" dia. shank	34756 1-5/8"-5-1/2 thread, 1-1/4" dia. shank	—
	Jack screw	24813 1"-8 thread, 7" long	25931 1-1/4"-7 thread, 9" long	—	—
	Ram cap	28228 1"-8 thread, 1-1/2" dia.	28229 1-1/4"-7 thread, 1-3/4" dia.	28230 1-5/8"-5-1/2 thread, 2-1/4" dia.	—

### "Shorty" Rams, Single-Acting, Spring-Return

Forcing a gravity return ram to retract wastes both time and money. This OTC series of single-acting, spring-return rams eliminates that waiting. With their low collapsed height and the stroke you really need, these rams are ideal for a variety of applications. You can choose from capacities of 10 to 100 tons and strokes from 1-1/2" to 2-7/16", with the largest ram being only 7-3/8" high! Bronze-plated piston rods resist scoring, and each ram can be "dead-ended" at full capacity for maximum safety. Each "Shorty" ram has an angled coupler port (5°) for easy hook-up. So, if you're tired of waiting for your rams to retract, these OTC "Shorty" rams are just the answer to your problems!



### Specifications

OTC No.	Capacity (tons)	Stroke (in.)	(A) Extended Height (in.)	(B) Retracted Height (in.)	(C) Piston Rod Dia. (in.)	(D) Outside Dia. (in.)	Cyl. Eff. Area (sq. in.)	Oil Capacity (cu. in.)	Int. Pressure at Capacity (PSI)	Tons at 10,000 PSI	Oil Port NPTF	Type Piston Return	Wt. (lbs./oz.)
4141	10	1-1/2	5	3-1/2	1-1/2	2-3/4	2.24	3.4	8,943	11.2	3/8"-18	Spring	6
4142	20	1-3/4	5-1/2	3-3/4	2-5/32	3-9/16	4.43	7.7	9,029	22.1	3/8"-18	Spring	9 / 9
4143	30	2-7/16	7-1/16	4-5/8	2-1/2	4	6.49	15.8	9,243	32.5	3/8"-18	Spring	14 / 7
4144	50	2-3/8	7-3/8	5	3-1/8	4-7/8	9.62	22.8	10,393	48.1	3/8"-18	Spring	23 / 2
4145	100	2-1/4	7-3/8	5-1/2	4-3/8	6-5/8	19.63	44.2	10,186	98.2	3/8"-18	Spring	47 / 3

### “Shorty” Ram and Pump Set

Shorty rams provide lifting or pushing force in limited working space. Visual centering of load is simplified by a concentric ring pattern on piston top.

- Single-acting, spring-return.
- Two-speed hand pump gives fast piston approach. (See chart below for specifications.)

**No. 4175** – Set includes 4143 30-ton, 2-7/16" stroke single-acting spring-return hydraulic ram; 4016 pump; 9767 hose; and 9798 hose half coupler. Wt., 52 lbs.



4175

### Air/Hydraulic Ram and Pump Sets

Ideal for applications where an air supply of 40–120 PSI is available. Internal relief valve protects hydraulic system components regardless of air pressure, and two-stage release mechanism allows fast or metered ram return.

- The perfect replacement pump for hand pumps on body and frame straightening equipment.

**No. 4185** – Set includes 4104 10-ton, 6-1/8" stroke single-acting hydraulic ram; 4020 air/hydraulic pump; 9767 hose; and 9798 hose half coupler. Wt., 31 lbs.

**No. 4186** – Set includes 4105 10-ton, 10-1/8" stroke single-acting hydraulic ram; 4020 air/hydraulic pump; 9767 hose; and 9798 hose half coupler. Wt., 33 lbs.

#### Specifications

OTC Set No.	Capacity (tons)	Ram Stroke	Ram Collapsed Height	Handle Strokes to Obtain Full Ram Stroke	Pump Speed
4175	30	2-7/16"	4-5/8"	55*	Two
4185	10	6-1/8"	11-1/2"	–	Multiple
4186	10	10-1/8"	15-1/4"	–	Multiple

\* Based on 50% of the stroke being made in low-pressure stage, 50% in high-pressure stage.



4186

### Power Twin® Ram and Pump Set

Center-hole feature permits extending adjusting screws, cables, puller screws, etc., straight through the ram.

- This spring return unit is compact and lightweight.
- Ideal for jobs having restricted working space.

**No. 4180** – Set includes 4120 17-1/2 ton, 2" stroke single-acting hydraulic ram; 4002 pump; 9650 gauge; 24815 tee; 9767 hose; and 9798 hose half coupler. Wt., 39 lbs.

#### Specifications

OTC Set No.	Capacity (tons)	Ram Stroke	Ram Collapsed Height	Handle Strokes to Obtain Full Ram Stroke	Pump Speed
4180	17-1/2	2"	6-7/8"	48	Single



4180



### Hydraulic Push-Type Ram and Pump Sets

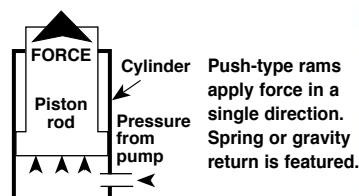
Compact and lightweight, these ram and pump sets are ideal for use in a wide variety of lifting and pushing applications. They feature a single-acting ram with a single-speed hydraulic hand pump. Requiring a minimum of mounting space, their remote operation is facilitated by a 6-foot, high-pressure hose.

**No. 4169** – Set includes 4103 single-acting hydraulic ram, 4002 pump, 9767 hose, and 9798 hose half coupler. Wt., 28 lbs., 3 oz.

**No. 4170** – Set includes 4104 single-acting hydraulic ram, 4002 pump, 9767 hose, and 9798 hose half coupler. Wt., 34 lbs., 6 oz.

OTC Set No.	Capacity (tons)	Cylinder Stroke	Cylinder Collapsed Height	Handle Strokes to Obtain Full Cylinder Stroke	Pump Speed
4169	10	2-1/8"	5-9/16"	32	Single
4170	10	6-1/8"	11-1/2"	93	Single

See page 288 for ram specs., and this page for hand pump specs.



4170

### Single-Stage Hand Operated Pump

Ideal for operating single-acting rams. Use to power gear and bearing pullers, shop forcing presses, and in other hydraulic applications. A single-piston, single-stage type, this pump develops pressures up to 10,000 PSI. Operates horizontally or vertically with the pump head in the "down" position. Fingertip control valve provides instant release or pumping action. Features built-in overload valve. Ideal for use with Power Twin and single-acting rams. Maximum handle effort: 140 lbs.

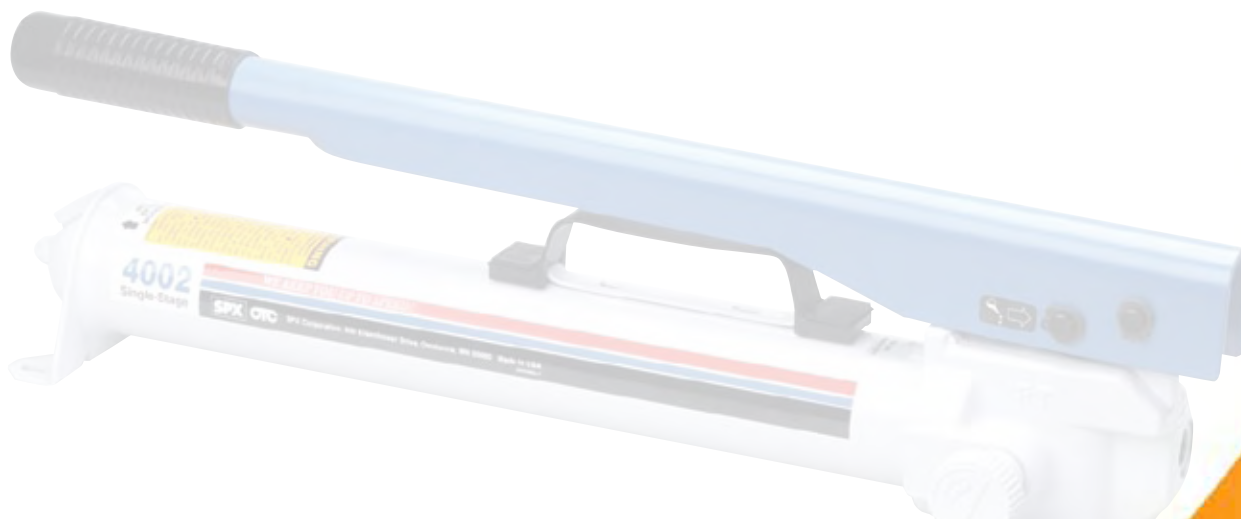
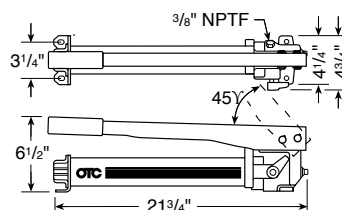
**No. 4002** – Hand pump only. Has 55 cu. in. reservoir. Wt., 17 lbs., 3 oz.

**NOTE:** See pages 299 and 300 for optional hose and hose half couplers.

Pump No.	Maximum Pressure	Volume Per Stroke	Piston Dia.	Piston Stroke	Reservoir Capacity	Oil Port
4002	10,000 PSI	.160 cu. in.	1/2"	13/16"	55 cu. in. (45 cu. in. usable)	3/8" NPTF

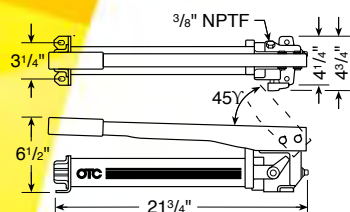


4002



# SHOP EQUIPMENT

## Hand Hydraulic Pumps



**4012**

### Two-Speed Hand Pump

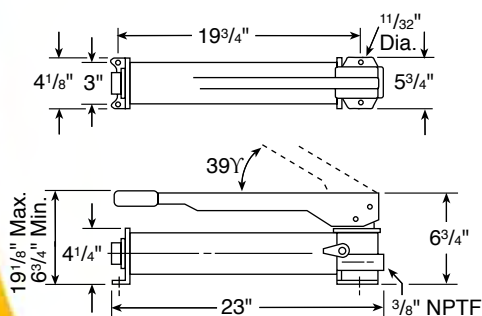
The 4012 two-speed hand pump's all-metal construction almost eliminates the chance of leaking, or damage to the pump from regular use or accidents. It's the perfect pump for use with single-acting rams or combinations where 45 cu. in. of usable oil capacity will do the job. Has 2-way valve; welded steel carrying handle; automatic switching from low to high pressure mode; handle effort under 140 lbs. at 10,000 PSI; unique fill cap to prevent over-filling and over-pressurization; non-vented reservoir; fingertip control valve with 180° throw for on/off control. In other words, this pump has it all!

**No. 4012** – Hand pump only. Has 55 cu. in. reservoir. Wt., 18 lbs., 6 oz.

Pump No.	Maximum Pressure	Volume Per Stroke	Piston Dia.	Piston Stroke	Reservoir Capacity	Oil Port
4012	1st-325 PSI	.662 cu. in.	3/8"	13/16"	55 cu. in. (45 cu. in. usable)	3/8" NPTF
	2nd-10,000 PSI	.160 cu. in.				



**4016**



### Dualmaster Jr.® Two-Stage Hand Pumps

Here's two-stage flexibility at a popular price! These pumps have extra-large reservoirs (125 cu. in. usable oil) and permit use with large hydraulic rams or in multiple small ram applications. Compact and lightweight, Dualmaster Jr. provides maximum flexibility with minimum effort in a portable pump. The 4016 and 4017 deliver... providing high oil volume (2.6 cu. in. per stroke) for rapid ram approach and return. Then they automatically switch at 300 PSI to the high pressure, low volume stage (.16 cu. in. per stroke) for high force applications. Both have a large, non-vented reservoir with safety relief valve to prevent over-pressurization of the reservoir. Piston stroke is 3/4", maximum handle effort is 130 lbs. at 10,000 PSI. The 4016 is equipped with a 2-way valve for use with single-acting rams. The 4017 has a 4-way valve for use with double-acting rams. Two versatile hydraulic pumps...dependable power for automotive, heavy-duty truck, agricultural, and construction maintenance needs.

**No. 4016** – Pump with a 2-way valve for use with single-acting rams. Delivers 2.6 cu. in. of oil per stroke in low pressure stage. Wt., 29 lbs., 13 oz.

**No. 4017** – Pump with a 4-way valve for use with double-acting rams. Delivers 2.6 cu. in. of oil per stroke in low pressure stage. Wt., 29 lbs.

Pump No.	Maximum Pressure	Volume Per Stroke	Piston Dia.	Piston Stroke	Reservoir Capacity	Oil Port
* 4016	1st stage 300 PSI	2.6 cu. in.	2"	3/4"	125 cu. in. usable	3/8" NPTF
	2nd stage 10,000 PSI	.16 cu. in.		1/2"		

\* Has built-in 2-way control valve.

Pump No.	Maximum Pressure	Volume Per Stroke	Piston Dia.	Piston Stroke	Reservoir Capacity	Oil Port
† 4017	1st stage 300 PSI	2.6 cu. in.	2"	3/4"	125 cu. in. usable	3/8" NPTF
	2nd stage 10,000 PSI	.16 cu. in.		1/2"		

† Has built-in 4-way control valve.

### Dualmaster® Two-Stage Hand Pumps

Our finest hand-operated power units! These fast-acting, two-stage pumps not only handle high force, high pressure requirements up to 10,000 PSI, but deliver extremely high volume at low pressure (7.35 cu. in. per stroke from 0 to 200 PSI) to quickly move the ram piston to and from the work! Pumps have a built-in relief valve, pre-set at the factory for 10,000 PSI. Maximum handle effort is 90 lbs. Two basic Dualmaster models are offered: No. 4008 for use with single-acting rams, and No. 4009 for use with double-acting rams. For information on pressure gauges, hoses, and other accessories for your Dualmaster, see pages 299 and 300.

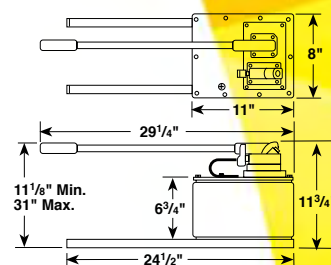
**No. 4008** – Hydraulic hand pump with No. 9584 2-position, 3-way control valve (for operating single-acting rams), and No. 4006 BL2 2-gallon reservoir with legs. Wt., 50 lbs.

**No. 4009** – Hydraulic hand pump with No. 9500 3-position, 4-way control valve (for operating double-acting rams), and No. 4006 BL2 2-gallon reservoir with legs. Wt., 64 lbs., 3 oz.

Pump No.	Maximum Pressure	Piston Dia.	Piston Stroke	Reservoir Capacity	Oil Port
4008 and 4009	1st stage 200 PSI 2nd stage 10,000 PSI	2-1/2" 1/2"	1-1/2"	460 cu. in. usable	3/8" NPTF



Pump and valving mount on common cover plate; permits use on other than standard OTC reservoirs.



#### Performance Example

Job: To fully extend an OTC 4105 ram (has 10 5/8" stroke)	4008/4009 Pump	4016 Pump	4002 Pump
5" of ram travel is under no load, 5" is under load	37 strokes	74 strokes	141 strokes

### Air/Hydraulic Pump

With shop air as the energy source, these pumps have the power and oil capacity (80 cu. in. usable oil) to drive even the large 55-ton rams. They are ideal all-around power sources for dozens of body, frame, and alignment applications. They can be used with a variety of rams, presses, and hydraulic pullers operating at up to 10,000 PSI. An internal relief valve protects the hydraulic components regardless of hydraulic pressure. In addition, a two-stage release mechanism gives fast or metered ram return while reducing hydraulic shock.

In addition to all the features and performance characteristics of the 4020/4025, the 4021 is equipped with a 15 ft. remote control cord. The 4022 is equipped with a 2-gal. reservoir. These pumps require 9 cfm at 100 PSI air pressure at the pump.

**No. 4020** – Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8" NPTF oil port. 98 cu. in. usable oil capacity in plastic reservoir. Wt., 15 lbs., 3 oz.

**No. 4021** – Air/hydraulic pump with a remote control actuator, 15 ft. cord. Develops 10,000 PSI at 100 PSI air pressure. 3/8" NPTF oil port. 105 cu. in. capacity plastic reservoir. Wt., 19 lbs., 3 oz.

**No. 4022** – Air/hydraulic pump with a 2-gallon (442 cu. in.) plastic reservoir. Wt., 26 lbs., 3 oz.

**No. 4025** – Air/hydraulic pump. Develops 10,000 PSI at 100 PSI air pressure. 3/8" NPTF oil port. 98 cu. in. usable oil capacity in metal reservoir. Wt., 14 lbs., 13 oz.

**No. 213896** – Metal reservoir. 98 cu. in. usable oil capacity. Includes gasket and fasteners. Wt., 6 lbs., 2 oz.

**No. 61243** – Replacement plastic reservoir for 4020 pump, 98 cu. in. usable oil capacity. Wt., 1 lb., 1 oz.

**No. 33853** – Replacement gasket for 4020 pump reservoir. Wt., 1 oz.



4020



4021

#### Performance @ 100 PSI

Hydraulic Pressure*	Oil Delivery
0 PSI	59 cu. in./min.
5,000 PSI	30 cu. in./min.
10,000 PSI	4 cu. in./min.

\* Oil delivery based on 20 cfm air supply at the pump.



# SHOP EQUIPMENT

## Hydraulic Pumps



### Two-Gallon Reservoir

Increase the oil capacity of your 4020, 4021, or 4025 air/hydraulic pumps with this kit. It gives you a two-gallon reservoir and everything else needed to make those pumps ideal for large, single-acting rams or for multiple ram applications.

**No. 207436** – 2-gallon reservoir kit for 4020, 4021, or 4025 air/hydraulic pumps. Includes reservoir, gasket, top mounting plate, bolts, and fittings. Gives 442 cu. in. usable oil capacity. 11-1/2" x 9-1/2" x 6-1/2". Wt., 6 lbs., 13 oz.

**No. 40063-BL2** – 2-gallon (462 cu. in. usable) "standard" reservoir only for Vanguard® pumps. Size: 12-1/2" x 10-1/2" x 6-1/2" high. Wt., 9 lbs., 3 oz.



Universal Motor Version

U.S. Patent No. 3,053,186



### Vanguard® Two-Stage, High-Pressure Power Units

Thousands of users have put Vanguard to work in a variety of hydraulic power applications. And the reputation for trouble-free performance this pumping unit has earned is a proven, documented fact, not just a sales claim! Vanguard is a fast-acting, precision-built, two-stage pumping unit consisting of a gear pump for the low-pressure stage and an axial-piston pump for the high-pressure stage, the latter being "supercharged" by the gear pump. Vanguard delivers low volume at high pressure, yet provides high volume at low pressure for fast cylinder piston approach and return. Units feature a 10,000 PSI universal motor, which starts under full load. They are suitable for operation up to 10,000 PSI. Motor is 1-1/8 h.p., 12,000 RPM, (27 amp draw). Rated for intermittent duty.

**No. 4062** – Vanguard 2-stage hydraulic pump with 2-position/ 3-way valve and 6 ft. remote motor control (115V). 2 gal. of oil supplied. Wt., 71 lbs., 10 oz.

**No. 4064** – Vanguard 2-stage hydraulic pump with 3-position/ 4-way valve and 6 ft. remote motor control (115V). 2 gal. of oil supplied. Wt., 74 lbs., 7 oz.

#### Specifications

A	B	C	D	E	F
18-1/4"	12-1/2"	10-1/2"	7"	10"	8"

#### Performance Oil Delivery

100 PSI	1,000 PSI	5,000 PSI	10,000 PSI
650 cu. in./min.	80 cu. in./min.	70 cu. in./min.	55 cu. in./min.

Pump No.	For use with:	Control Valve	Reservoir	Motor Control	Voltage
4062	Sgl.-acting rams	2-pos., 3-way	2 gal.	Remote 6 ft. cord	1-1/8 H.P., 115V*
4064	Dble.-acting rams	3-pos., 4-way	2 gal.	Remote 6 ft. cord	50/60Hz, Sgl. Phase

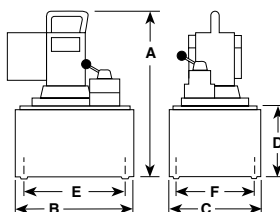
\* For 230 volt, please specify.

#### Speed Comparison Chart

The job — Fully extend a 10-ton ram with a 10-1/8" stroke:

Pump No.	5" travel No load	5" travel Under load	Total Time
4062 Power	1.5 sec.	12 sec.	13.5 sec.
4002 Hand Pump	141 strokes of pump handle		4 to 5 min.*

\* Handle effort at max. pressure is 140 lbs.



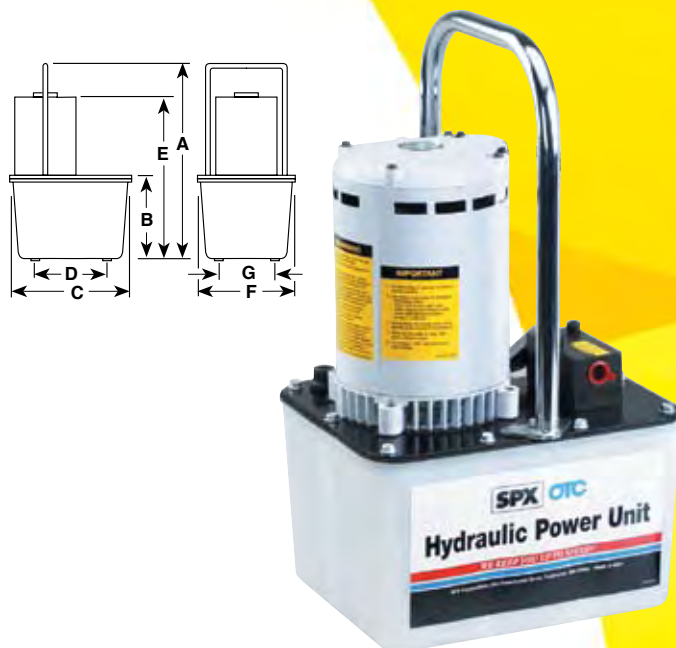
### Two-Stage Electric/Hydraulic Pumps

They're called "RamRunners" and that's just what they do...run large single- or double-acting rams for fast frame straightening, wheel alignment, etc. They deliver up to 45 cu. in./min. at max. operating pressure of 10,000 PSI. The 4044 has a 2-position/2-way valve with "advance" and "return" positions and is for use with single-acting rams. The 4046 and 4057 have a 3-position/4-way valve with "advance," "hold," and "return" positions; for use with double-acting or multiple single-acting rams. Nos. 4044 and 4046 are equipped with a 1/2 h.p. single-phase, 60 Hz, 115 volt thermal protected electric motor and are designed to start under load. No. 4057 has a 1-1/2 h.p. electric motor. The RamRunners also feature a 6 ft. remote control cord for "on/off" control. One gallon and two quarts of oil are supplied.

**No. 4044** – RamRunner two-stage hyd. pump with 2-position/2-way manual valve and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil. Wt., 58 lbs.

**No. 4046** – RamRunner two-stage hydraulic pump with 3-position/4-way manual valve for double-acting rams, and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil. Wt., 54 lbs.

**No. 4057** – RamRunner two-stage hydraulic pump with 3-position/4-way valve for double-acting rams, and a 6 ft. remote control cord. Supplied with one gallon and two quarts of oil. Wt., 54 lbs.



### Speed Comparison Chart

The job — Fully extend a 10-ton ram with a 10" stroke:

Pump No.	5" travel No load	5" travel Under load	Total Time
4044	3 sec.	39 sec.	42 sec.
4046			
4057	1.2 sec.	14 sec.	15.2 sec.

Pump No.	Max. Press. Output	RPM	Oil Del.* (cu. in./min. @)			Voltage	Reservoir		Dimensions						
			0 PSI	100 PSI	10,000 PSI		Cap.	Usable	A	B	C	D	E	F	G
4044	10,000 PSI	3,450	290	240	17	1/2 h.p., 115 volt** 60 Hz, Sgl. Phase	1.9 gal.	295 cu. in.	18-1/2"	7"	11-3/8"	7-1/8"	14-7/8"	9-1/4"	5-1/8"
4046															
4057	10,000 PSI	3,450	525	490	45	1-1/2 h.p., 115 volt** 60 Hz, Sgl. Phase	1.9 gal.	315 cu. in.	20"	7"	11-3/8"	7-1/8"	14-7/8"	9-1/4"	5-1/8"

\* Typical delivery, actual flow will vary with field conditions.

\*\* For 230 volt, please specify.

### Control Valves

**No. 9582** – This is a 2-position/3-way, lever operated, detent positioned valve for use with single-acting rams. It has "advance" and "hold" positions. Wt., 2 lbs., 5 oz.

**No. 9500** – A 3-position/4-way, lever operated, detent positioned valve for use with double-acting rams. Has "advance," "neutral," and "return" positions. Cylinder ports are blocked in "neutral" and pump flow is directed back to the reservoir. Wt., 4 lbs., 8 oz.



9582

9500

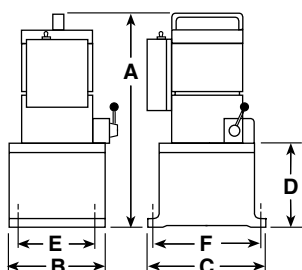
# SHOP EQUIPMENT

## Hydraulic Pumps



### Universal Motor Version

U.S. Patent No.  
3,053,186



**Specifications** Note: Dimensions shown apply to pumps with 104 cu. in. reservoir.

A	B	C	D	E	F
16"	6"	8"	4-3/4"	5-1/8"	7-1/8"

### Performance

The low-pressure, high-volume stage provides fast ram approach. When high force is needed, the high-pressure, low-volume stage takes over. The figures below indicate oil delivery of the electric power unit at various pressure levels.

170 cu. in./min. at 100 PSI    32 cu. in./min. at 1,000 PSI  
25 cu. in./min. at 5,000 PSI    18 cu. in./min. at 10,000 PSI

## Vanguard Jr.® Two-Stage, High-Pressure Power Units

Combines compact size and light weight with 2-stage high performance. Choose from several models with electric motors and many options. Designed for operating pressures up to 10,000 PSI.

Vanguard Jr. gives you just what you need: 2-stage flexibility with high performance, and a selection of units and options that lets you tailor the pump to your needs. Refer to the performance and speed tables below, and you'll see how these pumps cut down the time needed for almost any job. The 2-stage operation automatically matches pump performance to the job requirements. The low-pressure, high-volume stage provides fast ram approach and return. Then at approximately 200 PSI, the high-pressure, low-volume stage takes over to handle high force requirements. These pumps are ideal for hundreds of hydraulic applications such as clamping, bending, straightening, pressing, forming, testing, pushing, and pulling. Each is equipped with a relief valve factory-set at 10,000 PSI (the maximum operating pressure of the pump). Choose from models with electric (115 or 230 volt) motors and options that include remote hand- and foot-operated motor controls, adjustable pressure regulator, and pressure switch. Vanguard Jr. starts easily under load and has been thoroughly field-tested for high cycle reliability.

### Speed Comparison Chart

The job — Fully extend a 10-ton ram with a 10-1/8" stroke:

Pump No.	5" travel No load	5" travel Under load	Total Time
4031	4 sec.	34 sec.	38 sec.
4002 Hand Pump	141 strokes of pump handle		4 to 5 min.*

\* Handle effort at max. pressure is 140 lbs.

**No. 4031** — Vanguard Jr. two-stage hydraulic pump with 2-position/3-way valve and 6 ft. remote motor control (specify 115V or 230V). 1 gal. of oil supplied. Wt., 35 lbs., 7 oz.

**No. 4033** — Vanguard Jr. two-stage hydraulic pump with 3-position/4-way valve and 6 ft. remote motor control (specify 115V or 230V). 1 gal. of oil supplied. Wt., 36 lbs.

**No. 4036** — Vanguard Jr. two-stage hydraulic pump with 3-position/4-way valve and run/off/jog motor control (specify 115V or 230V). 2 gal. of oil supplied. Wt., 61 lbs., 7 oz.

Pump No.	For use with:	Control Valve	Reservoir	Motor Control
4031	Single-acting rams	2-position 3-way	.45 gallon 104 cu. in.	Remote 6 ft. cord
4033	Double-acting rams	3-position 4-way	.45 gallon 104 cu. in.	Remote 6 ft. cord
4036	Double-acting rams	3-position 4-way	2 gallon 462 cu. in.	Run/off/jog

### Universal Motor Version and Large Reservoir Models

These all have a 10,000 PSI pump and universal motor: 1/2 h.p., 12,000 RPM, 115 or 230 volt (specify), 60/50 cycle A.C. single phase. No. 4036 has an extra-large 2-gallon (462 cu. in.) reservoir to permit full stroke of large displacement rams. Also suited for applications where several rams are used.





### High Capacity Reservoir Conversion Kit

Increase the oil capacity of your No. 4031 or No. 4033 pump with this kit. It gives you a plastic reservoir and everything else needed to give you 462 cu. in. of oil.









**No. 27874** — 2-gallon reservoir conversion kit. 6-1/2" x 9-1/2" x 11-1/2". Wt., 12 lbs., 13 oz.





### Pressure Regulator/Check Valves and Accessories










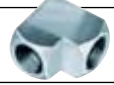



	OTC No.	Description
	9623	Pressure regulator valve. For remote location in a hydraulic system. Adjusts from 1,000 to 10,000 PSI. Wt. 2 lbs., 2 oz.
	9575	Needle valve for fine metering. Use several for controlling multiple single-acting rams simultaneously, yet independently. 3/8" NPTF ports. Wt., 1 lb., 3 oz.
	9596	Load lowering valve. 3/8" NPTF ports, 10,000 PSI max. operating pressure. Wt., 2 lbs., 3 oz.
	7312	O-ring/oil seal pick. An extremely handy little tool! Makes removal and installation of oil seals and o-rings a snap. Pick has a metal shaft. Wt., 2 oz.
	10461	Remote control foot switch, 10 ft. cord. Press for "on," release for "off." Wt., 2 lbs., 13 oz.
	25017	Remote control hand switch, 10 ft. cord. Press for "on," release for "off." Wt., 1 lb. (Replacement rocker switch only, No.16772)
	9625	Pressure switch. 1/4" NPTF external thread. Wt., 1 lb., 5 oz.

#### Gauges - All gauges have 1/4" NPTF threads

	9650	Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-17-1/2-ton, 0-30 ton, and 0-50 ton. 3-1/2" dia. face (Dry). Wt., 8 oz.
	9651	Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-55 ton, 0-75 ton, and 0-100 ton. 3-1/2" dia. face (Dry). Wt., 8 oz.
	9652	Pressure and tonnage gauge. Four scales: 0-10,000 PSI, 0-5 ton, 0-10 ton, and 0-25 ton. 3-1/2" dia. face (Dry). Wt., 8 oz.
	9653	Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 3-1/2" dia. face. Use with any OTC pump or ram (Dry). Wt., 8 oz.
	9654	Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 2-1/2" dia. face. Use with any OTC pump (Dry). Wt., 5 oz.
	9655	Pressure gauge. One scale: 0-6,000 PSI. 3-1/2" dia. face (Dry). Wt., 8 oz.
	9658	Pressure gauge. Two scales: 0-10,000 PSI, and 0-689 BAR. 2-1/2" dia. face. Gauge is filled with glycerin or silicone to dampen vibration and fluid pulsation. Use with any OTC pump or ram. Wt., 8 oz.
	9659	Pressure gauge. Same as 9658 except is liquid filled and has 3-1/2" diameter face. Wt., 14 oz.







#### Adapters and Fittings

	24815	Tee adapter. For installing gauge between pump and hose coupling. Has 1/4" and 3/8" NPTF internal and 3/8" NPTF external.
	25919	Double tee adapter. Permits use of more than one ram in series with one pump. Three 3/8" NPTF ports.

	OTC No.	Description
	9617	Manifold block. For use when a multiple-ram system is required. Has six 3/8" NPTF ports.
	22641	"Y" manifold. Useful when connecting two rams to a single line. Three 3/8" NPTF ports.
	10645	45° fitting. Used when mounting gauge at an angle on connection such as 24815. External and internal 1/4" NPTF ends.
	10469	Swivel connector. 3/8" NPTF external, 3/8" NPSM internal.
	10682	Coupling. Both ends 3/8" NPTF internal.
	10474	Street elbow. Internal and external 3/8" NPTF ends.
	10673	Short nipple. 1-1/2" long, 3/8" NPTF external ends.
	13828	Long nipple. 2" long, 3/8" NPTF external ends.
	10675	Long nipple. 2" long, 1/4" NPTF external ends.
	10647	90° elbow. 3/8" NPTF internal ends.
	10909	Pipe plug. Heat-treated, 3/8" NPTF.
	10479	Pipe plug. Heat-treated, 1/4" NPTF.
	13888	Coupling. Ends - 3/8" NPTF internal and 1/2" NPTF external.

#### Quick Couplers

Precision built and designed for high pressure. Permits disconnecting hose without loss of oil. 3/8" NPTF

	9795	Complete quick coupler
	9796	Ram half coupler and dust cap
	9797	Ram half coupler dust cap only
	9798	Hose half coupler only
	9799	Hose half coupler dust cap only
	9866	Hose or ram half cap

# SHOP EQUIPMENT

## Hydraulic and Bushing Tools

9636



9637

### Hydraulic Oil

Ensure dependable performance of rams and pumps by using this high-grade, specially prepared oil. Contains foam suppressant additives; high viscosity index.

OTC No.	Size	Viscosity	Recommended for use with
9636	1 quart	215 SSU @ 100°F	4000, 4002, 4016, 4017, 4020, 4021, Vanguard, RamRunner and Stinger pumps
9637	1 gallon		

### Hydraulic Hose

Lightweight, rugged hose in lengths to 20 ft. Choose from 1/4" I.D. or 3/8" I.D. high flow hose. All have 3/8" NPTF ends. Operating pressure is 10,000 PSI. Hoses comply with MHI Std. IJ100.

OTC No.	Hose Length	Hose Inside Diameter	Hose Type
9767	6 ft.		Braid (2-ply Rating)
9768	8 ft.	1/4"	
9769	10 ft.		
9770	12 ft.		
9780	6 ft.	3/8"	Nylon Core Synthetic Fiber Reinforced *
9781	10 ft.	High	
9782	20 ft.	Flow	

\* Note: This hose is not recommended for use where heat or weld spatter conditions exist.

### 80-Ton Capacity Truck Center and End Bushing Service Equipment

For fast, easy bushing replacement on 340, 380, 440, and 450 series Hendrickson suspensions. Recommended by Hendrickson as the only correct method for bushing replacement—eliminates "torching"!

Knock off about six to eight hours when replacing center and end bushings. Center bushings, which often require more frequent service, can be replaced in under two hours, and the beam and wheels stay in place! The No. 1741 and 1742 sets include a hydraulic pump and ram to deliver up to 80 tons of force!

If center bushings are allowed to wear from lack of maintenance, the end bushings may soon fail, which can also lead to excessive tire wear. Correct bushing maintenance with one of OTC's heavy-duty service sets can save needless parts costs and downtime.

#### Center Bushing Service

Two hours. That's about what it takes to replace center bushings with this equipment. Best of all, the beam and wheels are not removed.

#### End Bushing Removal & Installation

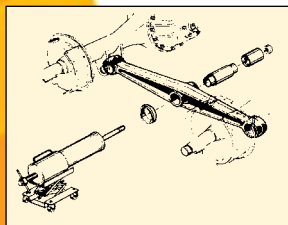
This is almost as easy as center bushing replacement. Of course, the wheels have to be removed first, then the hanger tubes or end beam adapter plugs. (See page 302 for 1743 hanger tube service set and 1745 end bushing adapter service set.) After that, the procedure is much like center bushing replacement. Typically save six to eight hours because the beams are not removed from the truck.

**NOTE:** Hendrickson Mfg. Co. has changed the numerical designations on the following suspension models. These numerical changes **DO NOT** affect service procedures or tooling required to service their suspensions.

Original Model Number	New Model Number
380	400
440	460
450	480
500	650



Order information for center and end beam bushing service sets is below and on the following pages.



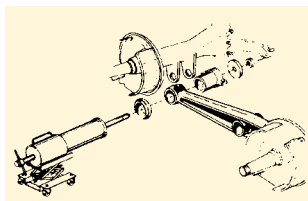
OTC No. 1740 tooling set up for center bushing replacement.

### For 340 thru 450 Series Hendrickson Suspensions

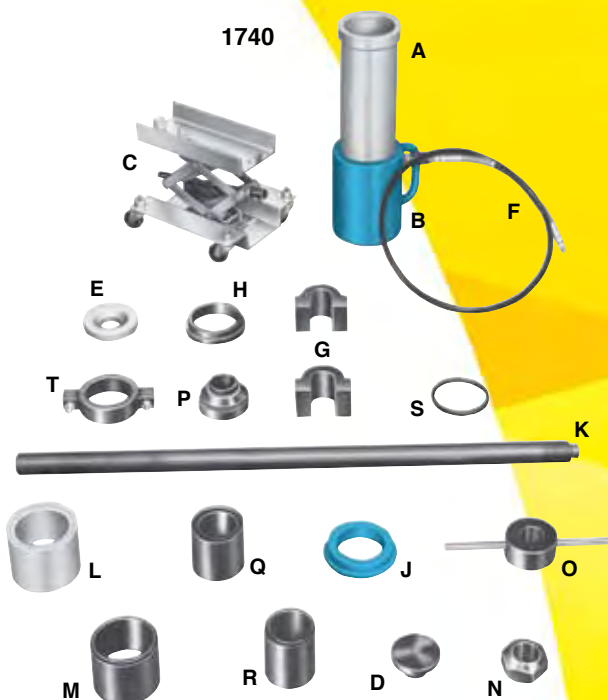
Item	No.	Description
A	44119	Receiving tube
B	51678	80-ton cylinder
C	51695	Jack cart
D	206457	Press adapter
E	206459	Clamp plate
F	303839	Hydraulic hose
G	302018	Spacer (2)
H	302019	Receiving adapter
J	302021	Receiving adapter
K	302023	Pulling screw
L	302026	Installing adapter
M	302027	Removing adapter
N	302028	Hex nut
O	302029	Speed nut
P	302030	Removing adapter
Q	302031	Installing adapter
R	302032	Removing adapter
S	302401	Spacer ring (3)
T	42052	Inst. adapter clamp

### Basic Tooling Set

**No. 1740** – This is the basic tooling set for servicing center and end beam bushings. It does not include the hydraulic pump or gauge. If you are already equipped with hydraulics, you can be replacing bushings right away! (Does not include tooling for hanger tube or end plug adapter removal.)  
Wt., 250 lbs.



**No. 1740 tooling setup for end bushing installation.**



### Hendrickson Service Sets with Hydraulics

The preferred method for servicing center and end beam bushings. You get the complete No. 1740 basic set, plus OTC's No. 4031 two-stage electric/hydraulic pump with remote hand switch, a No. 9654 pressure gauge, hose half coupler, and 80-ton single-acting ram. (Tooling for hanger tube or end plug adapter removal not included.)

**No. 1742** – Hendrickson service set includes Basic Tooling Set No. 1740 plus hydraulics.  
Wt., 285 lbs.

The method Hendrickson recommends for suspension service. You get the No. 1740 basic set, plus OTC's No. 4062 two-stage electric/hydraulic pump with remote hand switch, a No. 9653 pressure gauge, hose half coupler, and 80-ton single-acting ram. (Tooling for hanger tube or end plug adapter removal not included.)

**No. 1741** – Hendrickson service set with hydraulics.  
Wt., 285 lbs.



**For 340 – 450 series  
Hendrickson suspensions;  
includes No. 4031 pump**

**For 340 – 450 series  
Hendrickson suspensions;  
includes No. 4062 pump**



### R400 Center Bushing Adapter Set

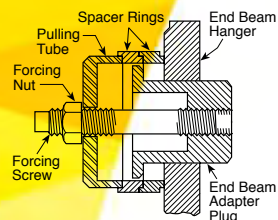
Used with OTC's No. 1740 suspension tool set, these adapters let you remove and install the new style R400 center bushings on Hendrickson suspensions. Set includes one No. 310248 removing adapter and one No. 310249 installing adapter.

**No. 1746** – Removing/installing bushing adapter set.  
For R400 series Hendrickson suspensions having center bushing No. 49400 or field service center bushing No. 49600. Wt., 27 lbs., 7 oz.



**1746**





1745

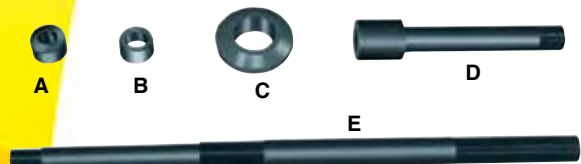
### End Bushing Adapter Puller Set

**No. 1745** – Set contains everything needed to remove end bushing adapter plugs in 380 thru 440 series suspensions. The plugs have to be removed prior to end bushing replacement.

The set is complete in a handy plastic case.

For use with 1740 series tooling sets (order separately). Wt., 9 lbs., 13 oz.

Item	No.	Description
A	207025	Spacers (3)
B	302592	Screw (7/8"-14)
C	302593	Screw (15/16"-12)
D	207027	Screw
E	207026	Plug gauge
F	207030	Hand tap (7/8"-14)
G	207031	Hand tap (15/16"-12)
H	207039	Nut assembly
I	302595	Receiving cup



1743

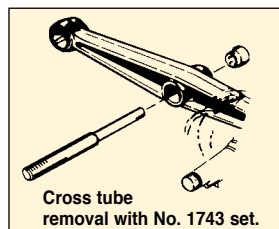
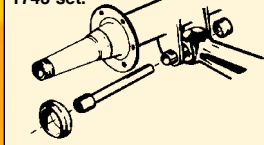
### End Bushing Hanger Tube/ RU Series Center Bushing Service Set

**No. 1743** – Required for servicing RU340 series center bushings. The long puller screw is used to remove the beam cross tube.

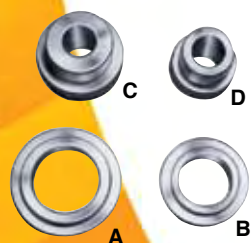
The 1743 also removes end bushing hanger tube assemblies. For use with 1740 tooling (order separately). Wt., 44 lbs.

Item	No.	Description
A	25417	Nut
B	206455	Removing adapter
C	302015	Receiving adapter
D	302119	Special screw
E	302020	Pulling screw

Hanger tube removal with No. 1743 set.



Cross tube removal with No. 1743 set.



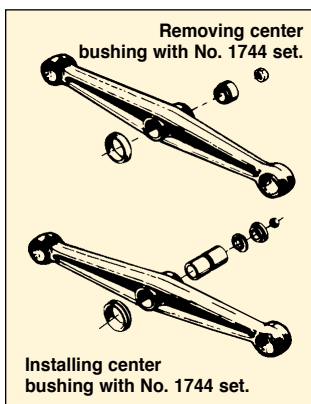
1744

### Bronze Center Bushing Service Set

**No. 1744** – Designed for replacing bronze center bushings on 340, 380, 440, and 460 Hendrickson suspensions. Also installs bronze center bushing grease seals. For use with 1740 series tooling set (order separately). Wt., 15 lbs., 10 oz.

**For 340, 380, 440, & 460 series suspensions.**

Item	No.	Description
A	28536	Installing adapter
B	28538	Installing adapter
C	302024	Removing/installing adapter
D	302025	Removing/installing adapter



Installing center bushing with No. 1744 set.

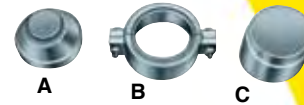
### Center and End Bushing Service Set

**No. 1763** – This set is required for bushing service on 500 and 700 series heavy-duty suspensions. It is intended for use with a 100-ton capacity shop press. It allows replacement of center and end bushings.

Wt., 39 lbs., 11 oz.

**For 500 & 700 series suspensions. Use with a shop press.**

Item	No.	Description
A	208350	Adapter
B	208349	Adapter clamp
C	28541	Adapter



1763

### Bronze Center Bushing Service Set

**No. 1762** – Saves hours replacing bronze center bushings on Hendrickson 500 and 700 suspensions. Use with a 100-ton capacity shop press.

Wt., 17 lbs., 7 oz.

**For 500 & 700 series suspensions. Use with a shop press.**

Item	No.	Description
A	204266	Installing adapter
B	38095	Removing adapter

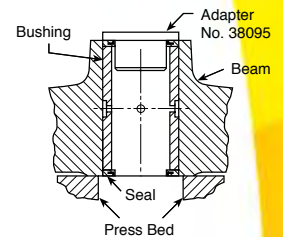
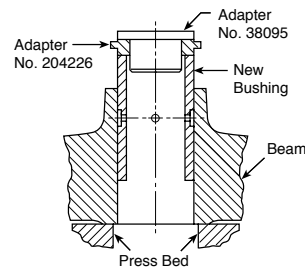


A

1762



B



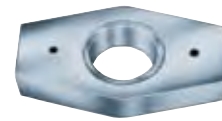
### Center and End Bushing Tool Set

**No. 1764** – This set is the answer for replacing center and end bushings on Hendrickson 340 and 380/440 series suspensions. The 1764 is for use with a 100-ton or larger hydraulic press. The press plate sits on the press bolster to provide a level, cradle-like surface for the beam to rest on during pressing.

Wt., 109 lbs.

**For 340 and 380/440 series suspensions. Use with a shop press.**

Item	No.	Description
A	51100	Press plate
B	302032	Removing adapter
C	302031	Installing adapter
D	302030	Removing adapter
E	42052	Inst. adapter clamp
F	206459	Clamp plate
G	206457	Press adapter
H	302027	Removing adapter
I	302026	Installing adapter



A



B



C



D



E



F



G



H



I

1764



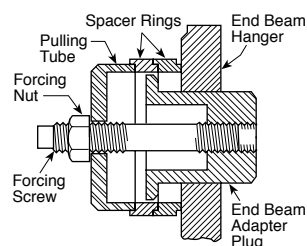


### End Bushing Adapter Puller Set for Hendrickson Truck Suspensions

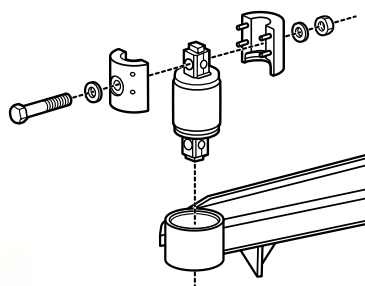
**No. 1748** – This set contains everything needed to remove end bushing adapter plugs used on 400 series and the larger 460–520 series suspensions. The plugs have to be removed prior to end bushing replacement. The set is complete in a handy plastic case. For use with 1740 series tooling sets (order separately).  
Wt., 12 lbs.

**For servicing the 400 and larger 460–520 series suspensions.**

Item	No.	Description
A	207025	Spacers (3)
B	302592	Screw (7/8"–14)
C	302593	Screw (15/16"–12)
D	207027	Screw
E	207026	Plug gauge
F	207030	Hand tap (7/8"–14)
G	207031	Hand tap (15/16"–12)
H	207039	Nut assembly
I	302595	Receiving cup
J	*221378	Hand tap (M30 x 2)
K	*313342	Screw (M30 x 2)



\* For use on 460–520 series adapter plugs (can be purchased separately and used with set No. 1745).



### Hendrickson Bar Pin Adapter Set

Servicing bar pin end bushings used on Hendrickson equalizing beam tandem truck suspensions requires the use of special tooling. OTC's No. 1757 adapter set is used with the beam removed from the truck, and in conjunction with OTC No. 51100 press plate and a 100-ton hydraulic shop press.

The 1757 set, which replaces the No. 1747 set, includes an adapter for installing bushings in older forged beams as well as the fabricated beams introduced in 1999.

To remove bushings, use OTC's previously introduced No. 302030 removing adapter and No. 206457 press adapter, both of which may be ordered separately. Reinstall bushings following procedures recommended by the suspension manufacturer.

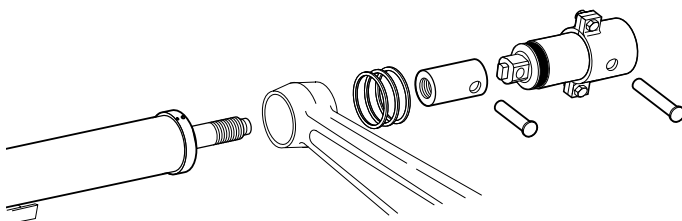
**No. 1757** – Hendrickson bar pin adapter set.  
Wt., 18 lbs.



### Hendrickson Suspension Bar Pin End Bushing Adapter Set

Extend your No. 1741 and No. 1742 bushing service equipment sets. You can now remove and install worn end bushings on the Hendrickson new style bar pin end bushings without removing the equalizing beam from the vehicle. The No. 1749 works in conjunction with OTC's No. 1741 and No. 1742 80-ton portable service equipment to do the job quickly, using procedures recommended by the manufacturer.

**No. 1749** – Hendrickson suspension bar pin end bushing adapter set. Wt., 53 lbs.



Item	No.	Description
A	314557	Receiving tube
B	49050	Installer
C	314556	Receiving adapter
D	314558	Pin
E	314559	Pin

### Hendrickson Primaax Quick Alignment Socket

- Hendrickson – Approved tool.
- Used to adjust axle alignment on the Primaax air suspension.
- Works on Primaax models 230, 460, and 690 rear suspensions.

**No. 1767** – Hendrickson Primaax quick alignment socket. Wt., 3 lbs., 8 oz.



### Hydraulic Flow Testers

50 and 75 GPM hydraulic oil flow testers accurately measure oil flow, temperature, and pressures against manufacturers' specifications.

Troubleshoot hydraulic circuits and isolate faulty components on mobile equipment, machine tools, fork lifts, agricultural and industrial tractors, and equipment (open or closed) hydraulic systems with capabilities up to 75 GPM at pressures to 5,000 PSI. Models include features such as an automatic pressure compensating load valve that lets you increase flow without affecting the pressure settings. Temperature flow and RPM readings are displayed in metric or English, and accurate to within plus or minus 2% of full scale. Each tester is protected by a safety disc, which ruptures automatically if pressures exceed the upper limits.

**No. 4221** – 75 GPM hydraulic circuit tester. Comes with two pressure gauges and three 9-volt batteries. Wt., 21 lbs., 3 oz.

**No. 4235** – 50 GPM hydraulic circuit tester with single liquid-filled pressure gauge. Includes two adapter unions for 3/4" NPTF fittings. Wt., 33 lbs.



Fittings, hoses, and tachometer accessories are available separately.



**OTC Stinger**

1521A

**ANSI  
PALD**

### 1,000 lb. Capacity Low-Lift Transmission Jack

- Universal mounting head, with adjustable brackets, tilts front to back and side to side for easy transmission alignment.
- With a height range of 6-1/2" to 29-1/2", it is ideal for today's ground-hugging cars.
- Safety chains hold the load securely, even while moving about the shop.
- Wide, stable wheel base with four swivel casters, and two handle grips make it easy to position under the vehicle.
- Safety overload prevents jack from being used beyond its rated capacity.
- Pump handle rotates a full 360° for use in any position.
- Flash-chromed ram inhibits rust from entering the hydraulic system.

**No. 1521A** – Low-lift transmission jack. Wt., 141 lbs.

Model	Cap. (tons)	Overall Length	Overall Width	Max. Height	Min. Height	Tilt			Weight
						Side	Front	Back	
1521A	1/2	34-1/2"	19-3/8"	29-3/4"	7-1/2"	30°	60°	17°	128 lbs.

**OTC Stinger**



1522A

**ANSI  
PALD**

### Heavy-Duty 2,000 lb. Capacity Low-Lift Transmission Jack...for Class 7 and 8 Trucks

- Rugged, stable unit is ideal for handling heavy transmissions. Includes adapter plate for Eaton® Fuller® RoadRanger® transmissions.
- Low profile design gets under the lowest clearance trucks, making it ideal for clutch repair work. There's even a built-in tool tray on each side rail.
- Pump handle rotates 360° for operator convenience; ball bearing 3.5" diameter swivel casters provide easy positioning of jack.
- Safety overload system prevents use of jack beyond its rated capacity, and a safety bypass protects the hydraulic cylinder from damage. Cylinder features a chrome-plated piston for long life.

**No. 1522A** – Low-lift transmission jack. Includes No. 220492 adapter for Eaton® Fuller® RoadRanger® transmissions. Wt., 328 lbs.

Model	Cap. (tons)	Overall Length	Overall Width	Max. Height	Min. Height	Tilt			Weight
						Side	Front	Back	
1522A	1	43-1/2"	26"	35-1/4"	6-7/8"	11°	24°	18°	287 lbs.

### Air-Assisted 1,000 lb. Capacity High-Lift Transmission Jack

- Air-assist primary stage for rapidly raising the mounting head, activated by depressing foot pedal.
- Hydraulic secondary stage for precise operator control, activated by a hand pump to raise the load, and a release knob to lower the load.
- Big, easy-to-grip knobs that make mounting head adjustments simple, and a safety chain for securing the load.
- Wide leg base with 4" polyurethane swivel wheels that provide stability and easy maneuvering. (Brakes on two of the wheels.)
- Safety overload system to prevent jack from being used beyond its rated capacity.

**No. 1794A** – 1,000 lb. air/hydraulic transmission jack.  
Wt., 166 lbs., 4 oz.

Model	Max. Load Capacity	Overall Height (low posit.)	Max. Height	Max. Forward Tilt	Max. Backward Tilt	Max. Side Tilt (either side)	Leg Width
1794A	1,000 lbs.	37-5/8"	76-1/2"	42°	46°	±12°	37-1/8"



### 1,000 lb. Capacity High-Lift Transmission Jack

- Universal saddle tilts front to back and side to side; features adjustable corner brackets and safety chain for optimum positioning of the load.
- Flash-chromed rams inhibit rust from entering the hydraulic system.
- Foot-operated pump and lowering pedal for ease of control when positioning or removing a transmission.
- Wide leg base with 4" polyurethane swivel wheels that provide stability and easy maneuvering. (Brakes on two of the wheels.)
- Safety overload system to prevent jack from being used beyond its rated capacity.

**No. 1793A** – High-lift transmission jack with foot pump.  
Wt., 162 lbs.

Model	Max. Load Capacity	Overall Height (low posit.)	Max. Height	Max. Forward Tilt	Max. Backward Tilt	Max. Side Tilt (either side)	Leg Width
1793A	1,000 lbs.	35"	71-5/8"	24°	19°	±20°	37-1/8"







215009

1788A



### 22-Ton Capacity Under-Axle Jack

- Self-retracting, spring return feature.
- Long 50" T-handle lets you easily position jack under vehicles with long overhangs.
- One pull of the handle activates the self-retracting 22-ton capacity ram without having to crawl underneath the vehicle. Jack has large rubber-tired wheels.
- Lifting range:
  - Screw Extd. – 8" min./17" max. height with adapter
  - Screw Retd. – 8" min./12-1/2" max. height
- Cylinder stroke, 4-3/4"; extended screw length, 5"; PSI range, 90–145.

**No. 1788A** – Under-axle hydraulic jack with 22-ton capacity self-retracting ram. Wt., 102 lbs.

**No. 215009\*** – In-line oil lubricator. Add to air line to meter precise flow of lubricant to air motor. Has 1/4" NPT fitting. Wt., 8 oz.

\*Not included, order separately. Prevents harmful contamination caused by moisture in the air line!



1769A



### Truck Dual Wheel Dolly

- This 1,500 capacity dolly will remove, transport, and replace dual wheel and tire assemblies without strain or struggle. Swivel casters, 3-1/2" front and 3" rear, provide easy maneuverability.
- Floor space is 43" by 42".
- No. 1769 hydraulic jack provides over 6-1/2" of lift and tilts wheel assembly 7° to prevent damage to wheel seal.
- Includes a 6' support chain to hold load in place.

**No. 1769A** – Dual wheel dolly. Wt., 187 lbs.

### 5-Ton and 10-Ton Service Jacks

- A built-in safety overload prevents using the jack beyond its rated capacity.
- Convenient foot pedal speeds the lifting operation. Handle lock and release control are located on top of the handle. Handle can be locked into any position from vertical to horizontal.
- Both models have a spring-loaded 40" handle.

**No. 1505B** – 5-ton service jack. Wt., 232 lbs.

**No. 1510B** – 10-ton service jack. Wt., 412 lbs.

### 20-Ton Capacity Service Jack

- Low-profile stance and extended height add to versatility.
- Wheels and swivel casters feature internal bearings.
- Either the foot pedal or jack handle may be used for pumping action. Counter-balanced, spring-assisted handle has a three-position lock.

**No. 1512** – 20-ton service jack. Wt., 505 lbs.

Specifications:	No. 1505B	No. 1510B	No. 1512
Capacity	5-ton	10-ton	20-ton
Lifting range	6" to 22"	6-1/4" to 22"	7-1/2" to 24"
Saddle dia.	5-1/8"	6"	7-1/2"
Overall reach	47"	51"	97"
Frame height	7-3/4"	9-3/4"	10-1/4"
Handle Length	43"	43-1/4"	42"
Floor space	14-3/4" to 56"	18" to 60"	18-1/8" to 61-3/8"



### 5-Ton and 10-Ton Air/Hydraulic Service Jacks

- Bring the versatility of air-assist operation to your shop's lifting tasks. The 10-ton model can also be operated manually, when shop air is not available.
- Huge front wheels mounted in bearings provide trouble-free service life. Rugged steel frame members.
- Rear swivel casters make spotting the jack easy. Spring-loaded handle may be locked in three positions, from horizontal to vertical.

**No. 1507A** – 5-ton air/hydraulic service jack. Wt., 232 lbs.

**No. 1511A** – 10-ton air/hydraulic service jack. Wt., 330 lbs.

Specifications:	No. 1507A	No. 1511A
Capacity	5 ton	10 ton
Air pressure	80–120 PSI	80–120 PSI
Lifting range	5-7/8" to 22"	6-3/8" to 22"
Saddle dia.	6-5/8"	7-3/8"
Overall reach	87"	90"
Frame height	8"	12-3/4"
Handle length	40"	42"





1503A



1504A



### 2-1/2 Ton and 3-Ton Service Jacks

- The Stinger series 2-1/2 and 3-ton hydraulic service jacks are designed for the budget-minded shop owner, who still wants the quality of an OTC product.
- Built from select steel, these jacks can stand up to the abuse that jacks are subjected to daily. Yet, their light, compact design makes them easy and convenient to use.
- Each jack has a built-in safety overload system that prevents use beyond its rated capacity.
- With rear swivel casters, maneuvering and positioning of these jacks is an easy task.

**No. 1503A** – 2-1/2 ton service jack with lifting range of 5" to 20". Wt., 80 lbs., 5 oz.

**No. 1504A** – 3-ton service jack with lifting range of 6" to 23-1/2". Wt., 91 lbs., 5 oz.

Specifications:	No. 1503A	No. 1504A
Capacity	2-1/2 ton	3 ton
Lifting range	5" to 20"	5-3/8" to 20-1/4"
Saddle dia.	5"	5"
Overall reach	21"	21"
Frame height	6-1/4"	6-1/4"
Handle Length	37-1/2"	37-1/2"
Floor space	14" x 26"	14" x 26"



1500A



### 3-Ton Stinger Jack Pack

- Pack includes both a No. 1504A 3-ton hydraulic service jack and a pair of No. 1772C 3-ton ratcheting jack stands.
- The stands have a steel base for strength, self-locking ratchet handle, durable baked enamel finish, and conform to ANSI PALD-4 load rating standard. Base: 8-1/4" x 7-1/2". Height range: 11-5/8" to 17-1/8".
- Jack has a light, compact design with a 37-1/2" handle length, and a lifting range of 5" to 20-1/4".

**No. 1500A** – 3-ton capacity jack pack. Wt., 106 lbs., 5 oz.



### Two-Speed 3-1/2 Ton Service Jack

The ideal floor jack for both a large automotive service center or a one person shop.

- Gets to the load quickly.
- One pump to load; three pumps to full height unloaded.
- Extra wide lift range – from 4" to 21".
- A long 48" spring-loaded handle provides rapid return after each pump.
- Heavy-duty construction – rolled edges add strength and resist twisting.
- With a wheel base of 23", the front wheels are 3-1/2" diameter and rear casters are 2-1/8".
- Pinned 4-3/4" saddle will not lift off during use.
- 2-year limited warranty.

**No. 1526** – 3-1/2 ton quick lift service jack.  
Wt., 96 lbs.



OTC **Stinger**

1526

ANSI  
PALD

### SUV Jack Pack

Pack includes No. 1526, 3-1/2 ton service jack, combined with No. 1773C, 6-ton jack stands.

- One pump to load; three pumps to full height unloaded.
- Extra wide lift range – from 4" to 21".
- 48" long, spring-loaded handle provides rapid return after each pump.
- Heavy-duty construction – rolled edges add strength and resist twisting.
- Gets to the load quickly.
- Pinned 4-3/4" rubber saddle will not lift off during use and minimizes scuffing of lifting surface.
- Stands have a steel base for strength, self-locking ratchet handle, and a durable baked enamel finish.
- 2-year limited warranty.

**No. 1536** – SUV jack pack. Wt., 130 lbs.



OTC **Stinger**

1536

ANSI  
PALD

### 1-1/2 Ton Racing Jack

- Dual pump pistons – just four pumps get you to maximum height of 18 inches.
- Low profile – 3-1/2 inches – makes it perfect for ground hugging, high-performance cars.
- Weighs just 42 pounds and includes side-mounted handles for quick and easy carrying.
- Aircraft-grade billet aluminum provides strength with maximum weight savings.
- Two-piece, 44-1/2" long handle quickly snaps together.
- Removable, rubber saddle pad protects vehicle and prevents slipping.
- 2-year limited warranty.

**No. 1537** – 1-1/2 ton racing jack. Wt., 42 lbs.



1537

ANSI  
PALD

OTC **Stinger**

# SHOP EQUIPMENT

## Lifts and Easy Roller



### Motorcycle / ATV Lift

- 1,500 lb. capacity.
- Large, 17" long skids will lift the largest, widest cruisers.
- Lowest clearance available, 3-1/2" at lowest level, with a lift range of 3-1/2" to 16-3/4".
- Removable handle makes for easy movement around load.
- Features also include foot pedal release, locking rear casters, automatic safety lock, and two ratcheting tie down straps for safety.
- Two-year warranty.

**No. 1545** – 1,500 lb. capacity motorcycle/ATV lift.  
Wt., 74 lbs.



### Easy Roller™ Vehicle Positioning System

The Stinger No. 1580 Easy Roller provides a technician with a simple and efficient method of moving a disabled vehicle around a shop environment. Just position an Easy Roller at each wheel of a vehicle weighing up to 6,000 lbs., and use the foot pedals to activate the hydraulic lift mechanisms. Within minutes, one individual can easily move the car throughout the garage. The Easy Roller fits tread widths up to 12", and the four heavy-duty casters can support up to 1,500 lbs. per unit, while, at the same time, protecting the shop floor from damage.

- Four heavy-duty phenolic casters.
- 1,500 lb. capacity per unit.
- Hydraulic lift mechanism with locking pin.
- Fits tread widths up to 12".

**No. 1580** – 1,500 lb. Easy Roller™ (sold individually).  
Wt., 44 lbs.



### 4-Ton Capacity Fork Lift Jack

- 8,000 lb. capacity with a low starting height of 2-5/8".
- Two-position lift pad permits handling of all lift truck configurations with flat or edged surfaces.
- Minimum low lift: 2-1/4".  
Maximum high lift: 16-1/4".
- Features include high-quality seals and high-strength steel construction.
- Handle stop makes for easy maneuverability.
- 30" long handle.

**No. 1540** – 4-ton capacity fork lift jack. Wt., 73 lbs.

### Brake Drum Dolly

- Removes, installs, and transports truck brake drums without physically having to lift them.
- Works on all 15" and 16-1/2" drums found on most class 7 and 8 tractor and trailer brake systems.
- 6" height adjustment aids installation.
- Heavy-gauge steel construction, 8" tires, and 36" handle.

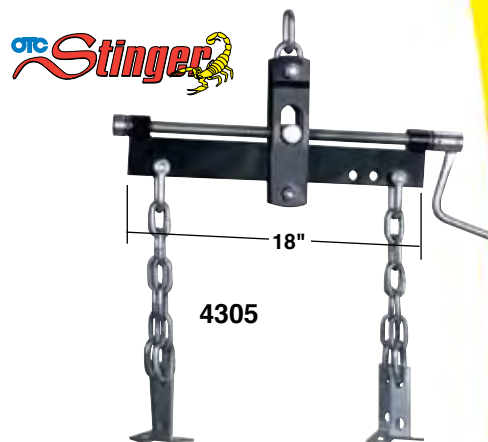
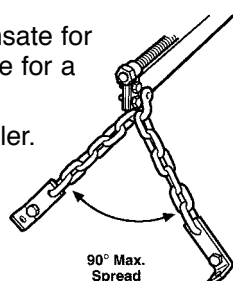
**No. 1543** – Brake drum dolly. Wt., 62 lbs.



### Engine Load Leveler

- Designed to hook to a crane or hoist to handle and position large, bulky components.
- The horizontal tilt can be adjusted to compensate for off-center loads, or adjusted to a certain angle for a component being positioned.

**No. 4305** – 1,500 lb. capacity engine load leveler. Wt., 15 lbs.



### Engine Support Bar

- 1,100 pound capacity.
- Rubber padded support legs ensure stability during use.
- Tubular steel construction for long life.
- Adjustable width: 57" x 27".
- Features two hook assemblies for ease of use.
- Includes two 36" chain assemblies.

**No. 4324** – Engine support bar. Wt., 50 lbs.





# SHOP EQUIPMENT

## Cranes and Engine Support



2002, 2004



### 2,000 and 4,000 lb. Capacity Folding Floor Cranes

- Both of these cranes fold up for compact storage.
- Front wheels are 3-1/2"; rear casters 5-7/8".

**No. 2002** – 2000 lb. capacity crane with a reach of 24" to 36". Wt., 185 lbs.

**No. 2004** – 4000 lb. capacity crane with a reach of 25" to 46". Wt., 225 lbs.

Specifications	2002	2004
Maximum capacity, boom extended	500 lbs.	1,000 lbs.
Maximum capacity, boom retracted	2,000 lbs.	4,000 lbs.
Maximum height, boom extended	94"	104"
Maximum height, boom retracted	87"	81"
Effective boom reach, boom extended	36"	48"
Effective boom reach, boom retracted	24"	26"
Leg width @ front wheels	32-1/2"	25"
Leg height	6-1/2"	7-3/4"
Floor space folded	57" x 38"	16" x 17-1/2"
Floor space unfolded	70" x 32"	33" x 33-1/2"



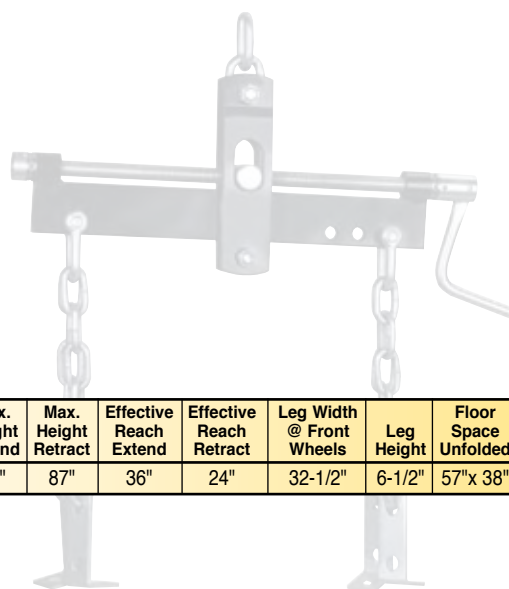
2003

### Engine Lift Package

**Combines a No. 4305 Load Leveler with a No. 2002 Stinger Crane.**

- 1,500 lb. capacity.
- 2,000 lb. capacity crane folds up for compact storage, out of your way.
- Load leveler provides the flexibility you need for pulling engines.

**No. 2003** – Engine lift package. Wt., 210 lbs.



Model	Max. Cap. Boom Extend	Max. Cap. Boom Retract	Max. Height Extend	Max. Height Retract	Effective Reach Extend	Effective Reach Retract	Leg Width @ Front Wheels	Leg Height	Floor Space Unfolded	Floor Space Folded
2003	500 lbs.	1,500 lbs.	94"	87"	36"	24"	32-1/2"	6-1/2"	57" x 38"	16" x 17-1/2"

### 1,000 lb. and 1,250 lb. Capacity Engine Stands

- Heavy-duty mounting plate and adapter arms for servicing light truck and car engines.
- Fixed polyurethane back wheels; poly swivel castors on front for smooth travel.
- 24" handle makes easy work of rotating the engine 360°; hitch pin locks engine in place.
- Model 2012A has a built-in tool tray.

**No. 2010A** – 1,000 lb. capacity engine stand.  
Wt., 51 lbs., 11 oz.

**No. 2012A** – 1,250 lb. capacity engine stand.  
Wt., 73 lbs., 12 oz.

Model	Capacity	Height To Center Line	Length	Width	Wheel Diameter	Front Wheels	Back Wheels	Handle Length
2010A	1,000 lbs.	24"	31-1/4"	26"	3-1/2"	Swivel Caster	Fixed	24"
2012A	1,250 lbs.	24"	33"	33-3/4"	3-1/2"	Swivel Caster	Fixed	24"



### Ratchet-Style Jack Stands

- Formed and welded steel base for strength; self-locking ratchet handle cannot be released under load. Durable baked enamel finish resists corrosion.
- Stands conform to ANSI PALD-4 load rating standard; factory tested before shipment.

**No. 1772C** – Pair of 3-ton jack stands.  
Base: 8-1/4" x 7-1/2". Height range: 11" to 17".  
Wt., 15 lbs.

**No. 1773C** – Pair of 6-ton jack stands.  
Base: 11-7/16" x 10". Height range: 15-3/8" to 24-1/4".  
Wt., 25 lbs.

**No. 1784C** – Pair of 12-ton jack stands.  
Base: 12-5/8" x 11-3/8". Height range: 19-1/2" to 30-3/4".  
Wt., 80 lbs.





2015A  
ANSI  
PALD



2016A  
ANSI  
PALD



2018A  
ANSI  
PALD

### Tripod and Underhoist Stands

#### 4,000 lb. Capacity Underhoist Tripod Stand

- Lifting height of 58-7/8" to 91-5/8"; saddle measures 3-1/4" x 3-1/4".
- 24" x 24" x 24" tripod base.

**No. 2018A** – Underhoist stand.  
Wt., 40 lbs.

#### 1,500 lb. Capacity Underhoist Stand

- Lifting height of 54-1/4" to 80-3/4"; saddle measures 5-1/4" x 1-1/4". 11-7/8" dia. base.

**No. 2015A** – Underhoist stand.  
Wt., 30 lbs.

#### 1,500 lb. Capacity Underhoist Stand with Foot Pedal

- Foot pedal actuated lifting mechanism.
- Lifting height of 54-1/4" to 80-3/4"; saddle measures 5-1/4" x 1-1/4".

**No. 2016A** – Underhoist stand.  
Wt., 35 lbs.



9220B  
ANSI  
PALD



4313A  
ANSI  
PALD

### Air/Hydraulic Bottle Jacks

- Compact, yet heavy-duty units designed for the truck and construction industries; in the shop, roadside, or at the job site.
- Can be operated either manually or pneumatically. Air hose can swivel in any direction of connection from air source. Minimum air pressure required is 100 psi. Safety valve prevents overloading.
- Extension screw gives added height when needed.

**No. 9212B** – 12-ton air-assist hydraulic bottle jack.  
Wt., 31 lbs.

**No. 9220B** – 20-ton air-assist hydraulic bottle jack.  
Wt., 42 lbs.

**No. 4313A** – 12-ton air-assist hydraulic bottle jack.  
Wt., 29 lbs.

**No. 4321B** – 20-ton air-assist hydraulic bottle jack.  
Wt., 45 lbs.

Order No.	Cap.	Min. Height	Stroke	Max. Height	Screw/Adp.	Air Pressure	Base Area
9212B	12	9-1/2"	5-7/8"	18-1/2"	3-1/8"	100–200 psi	4-3/4" x 8"
9220B	20	9-1/2"	5-3/8"	18-1/4"	3-3/8"	100–200 psi	5-3/4" x 8-1/2"
4313A	12	9-1/2"	6-1/8"	18-3/8"	2-3/4"	100–200 psi	6-3/8" x 7-5/8"
4321B	20	9-7/16"	5-7/8"	17-11/16"	2-5/16"	100–200 psi	8-1/32" x 7-1/16"



### Hydraulic Bottle Jacks

- OTC breaks the price barrier! A very competitively priced line of bottle jacks that offers the quality and reliability that the market has come to expect from OTC.
- Jacks can be used in vertical or horizontal positions.
- Fewer working parts, extremely smooth bearing surfaces, and close tolerances ensure long life.
- Oil bypass system prevents the lifting ram from being over-extended.



Cap. (tons)	Stroke	OTC No.	Retracted Height Min.	Length of Screw Extension	Height with Screw Extended	Pump Strokes to Extend Piston One Inch	Saddle Dia.	Base Size	Carry Handle	Weight
5	4-3/4"	9005B	7-7/8"	2-3/4"	15-3/8"	12	1-3/8"	5-3/16" x 3-31/32"	No	8 lbs.
8	4-3/4"	9008B	7-7/8"	2-3/4"	15-3/8"	18	1-1/2"	6" x 3-1/2"	Yes	13 lbs.
12	3-3/4"	9012B*	6-3/4"	3"	13-1/2"	26	1-7/8"	6-1/2" x 4-3/16"	Yes	15 lbs.
12	5-7/8"	9112B	9-1/2"	3-1/8"	18-1/2"	26	1-7/8"	6-1/2" x 4-3/16"	Yes	20 lbs.
20	3-3/8"	9020B*	7-1/8"	1-9/16"	12"	22	2"	7-3/16" x 5-1/16"	Yes	22 lbs.
20	6-1/4"	9120B	10-5/8"	3-1/8"	16-7/8"	22	2"	7-3/16" x 5-1/16"	Yes	30 lbs.
30	6-1/4"	9030B	11"	-	17-1/4"	35	2-3/8"	7-9/16" x 5-9/16"	Yes	45 lbs.
50	6-3/4"	9050B	12"	-	18-3/4"	35	3"	9-5/16" x 7-3/8"	Yes	97 lbs.
2	4-9/16"	4302A	7-3/16"	1-7/8"	13-5/8"	10	13/16"	3-3/4" x 3-3/8"	No	5.8 lbs.
4	4-9/16"	4304A	7-11/16"	2-9/16"	14-13/16"	11	1-1/4"	3-7/8" x 3-9/16"	No	7.4 lbs.
6	6-3/4"	4306A	8-5/8"	2-5/8"	17-1/4"	14	1-3/8"	3-3/4" x 4-3/8"	Yes	10 lbs.
8	5-7/8"	4308A	9-1/16"	3-1/4"	18-3/16"	14	1-3/8"	4-3/4" x 4-1/16"	Yes	13.2 lbs.
12	6-1/8"	4312A	9-1/4"	3-5/16"	18-11/16"	18	1-11/16"	5-1/4" x 4-9/16"	Yes	16.4 lbs.
12 (shorty)	2-13/16"	4314A	6-3/16"	1-5/8"	10-5/8"	23	1-9/16"	5-1/4" x 5-3/8"	Yes	13 lbs.
20	5-9/16"	4320A	9-5/8"	2-1/4"	17-1/2"	26	1-13/16"	5-5/8" x 6-1/4"	Yes	24 lbs.
20 (shorty)	6-3/4"	4322A	6-3/8"	1-5/16"	11-1/4"	26	1-13/16"	6" x 6-1/2"	Yes	18.5 lbs.
32	6-9/16"	4332A	9-15/16"	-	16-1/2"	22	2-1/8"	6-5/8" x 5-1/8"	Yes	34.4 lbs.
50	5"	4350	9-1/2"	-	14-1/2"	40	3-1/4"	7" x 8-1/2"	Yes	64.8 lbs.

\*Low profile models



2510A



### Air/Hydraulic Pump

- 10,000 PSI air/hydraulic pump.
- Internal relief valve.
- Two-stage release mechanism.
- Pump, hold, or release load with pedal control.
- 98 cu. in. useable capacity.
- 3/8 NPT oil port.

**No. 2510A** – Air/hydraulic pump.  
Wt., 21 lbs.



9110A



9104A



### Hydraulic Rams for Collision Repair Sets

These premium quality rams are designed for long, trouble-free service. Backed by a two-year warranty, they feature a special piston rod that permits their use with the snap-together components of OTC Stinger's new collision repair sets, or with most similar competitive products.

**No. 9104A** – 4-ton ram with 4" stroke and special piston rod end designed to fit most collision repair set components. Wt., 4 lbs.

**No. 9110A** – 10-ton ram with 6" stroke and special piston rod end designed to fit most collision repair set components. Wt., 12 lbs.

OTC No.	Cap. in Tons	Stroke	Collapsed Height	Extended Height	Spring Return	Rod End Dia.	Max. Oper. Pressure (PSI)	Oil Cap. (cu. in.)	Oil Port
9104A	4	4"	10-3/8"	14-3/8"	Yes	.874"	8,950	4.97	1/4" NPT
9110A	10	6"	15"	21"	Yes	1.310"	8,950	13.69	1/4" NPT

### Single-Speed Hydraulic Hand Pumps

These single-speed pumps are ideal for single-acting rams. Developing up to 10,000 psi operating pressure, the pumps operate horizontally or vertically in the "head down" position. Finger tip control provides instant release or pumping action. Has a built-in safety overload valve. Ideal for use with OTC Stinger single-acting rams, or similar competitive rams.

**No. 9106A** – Hand pump only.  
Wt., 5 lbs., 10 oz.

**No. 9107A** – Hand pump only.  
Wt., 13 lbs.



9106A



9107A

Specifications:	9106A	9107A
Maximum operating pressure	10,000 psi	10,000 psi
Volume per stroke	0.17 cu. in.	0.17 cu. in.
Reservoir capacity	18 cu. in.	30 cu. in.
Oil port	1/4" NPT	1/4" NPT

### Stinger Series 4- and 10-Ton Collision Repair Sets

- Very competitively priced, yet high quality sets include single-speed hydraulic hand pump, hose, and ram.
- Components snap together for quick setups to apply pushing, spreading, or pulling force.
- Components include: hydraulic pump, hose, and ram; ram flat base; extension tubes (4); 1/2-ton spreader; tube coupling; ram toe; wedge head; serrated saddle; flex head; plunger toe; 90° wedge head; storage case. The case for the 10-ton set has wheels for mobility.

**No. 1513A** – 4-ton collision repair set. Has single-speed hydraulic hand pump and ram with 4" stroke. Wt., 40 lbs.

**No. 1515A** – 10-ton collision repair set. Has single-speed hydraulic hand pump and ram with 6" stroke. Wt., 75 lbs.



1513A (shown)

### Passenger and Light Truck Wheel Step

- Provides quick, easy access to your vehicle's roof for loading/unloading cargo.
- Fits passenger and light trucks.
- Installs in seconds.
- Adjusts to fit 14" to 20" wheel sizes.
- 300 pound capacity.
- Non-skid platform surface.
- Two-year warranty.

**No. 1534A** – Light truck wheel step. Wt., 12.5 lbs.



1534A



Shown Folded

### Low Profile Fluid Receiver

- Designed for receiving waste fluid during a wide range of repair jobs.
- Fluid capacity: 7.5 gallons.
- Constructed of polyethylene plastic for heavy-duty use—yet, only weighs 13 pounds.
- Low profile, only 5" high, it easily slides under passenger cars.
- Designed with four casters to provide efficient maneuverability.
- Suitable for cooling system repair jobs—can be used for antifreeze.
- Includes splash screen to prevent spillage and splashing.
- Two-year warranty.



1577

**No. 1577** – Low profile fluid receiver. Wt., 12 lbs., 8 oz.





### Summary of ANSI/ASME PALD, Safety Standard for Portable Automotive Lifting Devices

This standard is intended as a guide to manufacturers, suppliers, purchasers, and operators of equipment, as well as governmental authorities. The following are typical test requirements:

- A: Load Sustaining Test – The lift device shall hold a rated load at maximum height without dropping more than 1/8" in a minute, or more than 3/16" in 10 minutes.
- B: Mobility Test – The lift device must move over a 1/2" high, 15 degree slope rise in the floor and a 1/2" drop back to the floor while traveling at 1-1/2 to 2 ft./sec. and supporting a rated load at the minimum height position. The device must not lose the load or tip over.
- C: Stability Test – The lift device must be moved against a 2" high vertical rise at 90 degrees to the direction of travel, while supporting a rated load at the minimum height and moving at 1-1/2 to 2 ft./sec. The device must not lose the load or tip over when tested at the point of greatest instability.
- D: Proof Load Test – The lift device shall function throughout its lift range with a proof load centrally located on the lift platform. Proof load shall be 125% of rated capacity for devices equipped with an internal relief valve, or 150% of rated load for devices with no internal relief.

	Bottle Jacks	Transmission Jacks Low & High Lift	Engine Stands	Support Stands	Upright Mobile Lifts	Service Jacks	Wheel Dollies	Shop Cranes	High Reach Supplementary Auxiliary Stands	Vehicle Ramps	Forklift Jacks
A Load Sustaining Test	X	X	X	X	X	X	X	X	X	X	X
B Mobility Test		X	X				X	X			
C Stability Test		X	X				X	X			
D Proof Load Test	X	X	X	X	X	X	X	X	X	X	X

# ANSI

# PALD

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**1-800-822-5561**

**Robinair  
Technical  
Services**



# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
2K



342000



Design  
certified  
by UL to  
meet SAE  
J-2210.

## Automatic Operation

- Automatic Refrigerant Refill
- Automatic Refrigerant Identification
- Automatic Air Purge
- Automatic Oil Drain
- Automatic Clearing after every job

## R-134a Recovery, Recycling, Evacuation, and Recharging

The Industry's Most Advanced Model is also

### The Easiest To Use!

The 342000 automates A/C service from start to finish. Using temperature probes and service hoses, it gives you a snapshot of the system's operation — which can be printed — then verifies the refrigerant type, recovers, recycles, evacuates, and recharges. It even drains system oil once the job is finished.

### Exceptional Accuracy

**Electronic Scale** — Scale is mounted internally and includes built-in dampening of shock loads that occur when the unit is moved over gravel or an uneven floor.

**Microprocessor** — Controls functions; typical evacuation time and recharge amounts are pre-programmed as defaults, but can be easily changed as needed; also signals when it's time to drain the oil container, change the filter-drier or source tank.

**Refrigerant Identifier** — Can save you thousands of dollars by warning you of contaminated or mixed refrigerants. Verifies 98% purity automatically at the beginning of each job.

### Unmatched Speed

**6 CFM Vacuum Pump** — Our CoolTech pump has the power to quickly evacuate the system prior to recharging.

**Heavy-Duty Compressor** — Pulls from both the high- and low-sides for fastest recovery; initial pass through the filter-drier provides single pass recycling.

**Oil Injection** — Lets you replace system oil in seconds through the service hoses, while the system is in a vacuum, with no other connections needed — just press a button.

### All controls are at your fingertips...

**Refrigerant Identifier** — If contaminated refrigerant is detected, recovery is stopped to protect the unit and your shop's refrigerant supply.

**Built-in Printer** — Increases customer confidence, simplifies diagnosis and provides a record of service; just press "Print" to get a hard copy of pressures/temperature, ambient conditions, and other data.

**Plain Language Prompts** — Clearly tells the technician what needs to be done, right down to opening service couplers, or what function the unit is currently performing. Select **English**, **French**, or **Spanish**; also select **pounds** or **kilograms**.

**No. 342000** — CoolTech-2K R-134a recovery, recycling, evacuation, and recharging unit.

### Replacement Parts

**No. 34724** — Spin-On Recycling Filter-Drier

**No. 16913** — Refrigerant Identification Filter

**No. 34215** — Thermal Paper for Printer

**No. J-45268** — Flushing Kit Adapter

Protect your investment with a heavy-duty vinyl dust cover; see page 335.



### CoolTech...takes the guesswork out of A/C service!



### Takes the guesswork out of A/C service!

**Snapshot Mode** — Shows date/time, minimum low-side and maximum high-side pressures, ambient conditions, refrigerant type, duct temperature, and amount of refrigerant recovered. Results can be printed and shown to the customer.

**Recharging** — Transfers charge in minutes and is accurate, to  $\pm$  one ounce.

**Air Purge** — Tests refrigerant before recovery and continuously monitors refrigerant in the internal vessel; automatically purges air as needed.

**Temperature Probes** — Two probes are included, so there's no need for separate thermometers; you can check both front and back vents for adequate cooling.

**Built-In Diagnostics** — If any operating parameters are incorrect, unit alerts you so corrections can be made.

**Constant Refrigerant Refill** — Maintains 12 to 15 lbs. (5.44 to 6.8 kg) of refrigerant in the internal storage vessel so you'll never have to stop in the middle of a job to refill the tank; all it takes to change the source tank is one fast connection.

### Here's how the 342000 simplifies A/C service...

**Identification** — Active flow control protects the identifier from damaging liquid refrigerant, oil, and other contaminants.

**Recovery** — Automatically restarts if the unit senses a rise in pressure.

**Simple Maintenance** — Filter-drier life is monitored by the microprocessor; when prompted, the unit automatically pumps down and evacuates the filter-drier before and after charging.

**Power Charge** — If the transfer of refrigerant stalls for 30 seconds, the unit goes into an automatic power charge mode, building pressure to force the charge.

### Specifications

Voltage.....	115V 60 Hz
Source Tank.....	30 or 50 lbs. (23 kg) not included
Operating Range.....	50° to 120° F (11° to 49° C)
Recycling Filter-Drier.....	43 cu. in. (710 cc) spin-on
Scale Resolution.....	1/100 lb. (.02 kg)
Dimensions.....	52" H x 33" W x 20" D (132 cm x 83.8 cm x 50.8 cm)
Weight.....	202 lbs. (91.63 kg) without source tank

# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
**34700Z**



**34700Z**

## R-134a Recovery, Recycling, Evacuation, and Recharging

### Combines simple operation with superior accuracy

The CoolTech 34700Z recovers, recycles, evacuates, leak tests, and recharges R-134a quickly and accurately.

**Automatic Function** — With this new option, you can program the unit to recover, vacuum, leak test, charge, and then walk away without having to operate panel valves.

**Vacuum Leak Test** — Will monitor the vacuum level after an evacuation, and inform the technician of a possible leak in the vehicle's A/C system.

**Automatic Refrigerant Refill** — With this latest advance, you never have to stop in the middle of a job to change refrigerant tanks. The unit maintains 12 to 15 pounds of refrigerant in an internal vessel, and signals when it's time to change the supply tank, so no monitoring is required.

**Automatic Air Purge** — Eliminates damaging air without any monitoring of gauges or opening of valves.

**Automatic Oil Drain** — The unit automatically drains system oil captured during recovery, and the display reminds you to empty the bottle.

**Refrigerant Charging** — Has never been this easy. Select a charge mode from either the high-side, low-side, or both.

### Accuracy features eliminate guesswork!

**Electronic Scale** — The scale weighs recovered refrigerant and charges by weight for greatest accuracy.

**Internal Storage Vessel** — Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

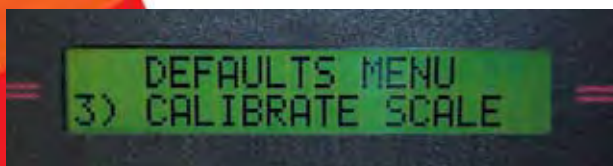
**Internal Manifold** — A Robinair exclusive, this block manifold contains all the solenoids that control refrigerant flow in and out of the unit, reducing the possibility of leaking connections and eliminating the need to operate panel valves.

**No. 34700Z** — CoolTech recovery/recycling unit.

### Replacement Part

**No. 34724** — Spin-on recycling filter-drier.

**Alpha-numeric menu displays in English, French, Spanish, or Japanese**



**Alpha-Numeric Display** — The scrolling display shows messages, so it's clear what your choices are or what needs to be done. You can select English, French, Spanish, or Japanese, as well as pounds or kilograms.

# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

The next generation 34700Z platform is based on the same features, reliability, and robust design as the 34700-2K plus....

**Automatic Operation** allows the technician to program the unit to recover, recycle, evacuate, leak test, recharge, and then walk away without having to operate panel valves.

**Vacuum Leak Test** will monitor the vacuum level after an evacuation and inform the technician of a possible leak in the vehicle's A/C system.

**Large 4" diameter gauges.**

**Tool tray.**

**LEDs indicate charge mode.**

**On-board oil injection.**

**Easy access service door.**

**Improved User Interface** prompts the technician all the way through a service. It is as simple as following the instructions that scroll across the display.

**Programmable operation** English, French, Spanish, and Japanese languages built-in.

**Hose and power cord storage.**

**Docking ports for couplers.**

**Automatic oil drain** with graduated bottle.

**Automatic tank refill**  
Supply tank not included.

**Large pneumatic tires & casters** make unit easy to position near vehicle.

Design certified by UL to meet SAE J-2210.

## Specifications

Voltage	115V 60 Hz
Refrigerant Container	On-board 30 lb. (14 kg) vessel (source tank not included)
Operating Range	50° to 120°F (11° to 49°C)
Recycling Filter-Drier	43 cu. in. spin-on type
Pump Free Air Displacement	3.0 cfm (85 l/min)
Dimensions	50" H x 34" W x 23" D (127 cm x 86.4 cm x 58.4 cm)
Shipping Weight	235 lbs. (106.6 kg)

Protect your investment with a heavy-duty vinyl dust cover; see page 335.



34715

Identifier bracket easily attaches to the 34700Z unit to mount 16900 series refrigerant identifiers.



# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
**34788**



**34788**

Compliant to SAE-J2788,  
effective 12/06

## R-134a Recovery, Recycling, Evacuation, and Recharging

### The New Efficiency Standard

The 34788 recovers 95% of the refrigerant and has a charge accuracy of +/- 1/2 oz. The oil inject feature has less than 1% cross contamination.

**Automatic Function** — With this new option, you can program the unit to recover, vacuum, leak test, charge, and then walk away without having to operate panel valves.

**Vacuum Leak Test** — Will monitor the vacuum level after an evacuation, and inform the technician of a possible leak in the vehicle's A/C system.

**Automatic Refrigerant Refill** — With this latest advance, you never have to stop in the middle of a job to change refrigerant tanks. The unit maintains a user selectable amount (4 to 20 lbs.) of refrigerant in an internal vessel, and signals when it's time to change the supply tank, so no monitoring is required.

**Automatic Air Purge** — Eliminates damaging air without any monitoring of gauges or opening of valves.

**Automatic Oil Drain** — The unit automatically drains system oil captured during recovery. Graduations on the container clearly show how much oil needs to be replaced.

**Refrigerant Charging** — Has never been this easy. Select a charge mode from either the high-side, low-side, or both.

### Accuracy features eliminate guesswork!

**Electronic Scale** — The scale weighs recovered refrigerant and charges by weight for greatest accuracy.

**Internal Storage Vessel** — Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

**Internal Manifold** — New, larger solenoids and flow paths make this model more robust than ever. The block manifold design minimizes leak points and eliminates the need to operate panel valves.

**Refrigerant Management System** — New and improved system displays refrigerant use and monitors remaining filter life. Prompts appear when 1/3 of filter life remains.

**No. 34788** — CoolTech recovery/recycling unit.

### Replacement Part

**No. 34724** — Spin-on recycling filter-drier.

## Alpha-numeric menu displays in English, French, Spanish, or Japanese



**Alpha-Numeric Display** — The scrolling display shows messages, so it's clear what your choices are or what needs to be done. You can select English, French, Spanish, or Japanese, as well as pounds or kilograms.

# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

The next generation 34788 platform is based on the same features, reliability, and robust design as the 34700Z plus....

Control panel offers flat storage feature when not in use

Large, 4" diameter gauges

Two large tool storage areas

Change between traditional & hybrid vehicle systems without fear of cross contamination with improved oil injection

Database expansion slot \* Optional Databases Available Soon

Vehicle Service Prompts

RECOVER?  
SELECT YES OR NO

LEAK TEST?  
SELECT YES OR NO

CHARGE?  
SELECT YES OR NO

CHARGE 1.50 LBS  
MODE: HIGH SIDE  
CHARGE CHANGES MODE  
ARROWS CHANGE UNIT

RECOVER ON  
LEAK TEST ON  
CHARGE 1.50 LBS  
CONTINUE?

RECOVERED 450 LBS  
FILTERED 72 LBS  
CHARGED 617 LBS  
REPLENISHED 105 LBS

VACUUM IN PROGRESS  
TIME REMAINING 14:55

STOP TO PAUSE

Design certified by UL  
to meet SAE J-2788



New 2X larger display  
makes the 34788 easier  
than ever to use

- Built-in storage for extra filter
- On-board storage for compressor oils

\* Extra filter & bottles not included

## Specifications

Voltage	115V 60 Hz
Refrigerant Container	30 lb. (14 kg)
	vessel (source tank not included)
Operating Range	50° to 120°F (11° to 49°C)
Recycling Filter-Drier	43 cu. in. spin-on type
Pump Free Air Displacement	3 cfm (85 l/min)
Dimensions	44" H x 34" W x 23" D
	(127 cm x 86.4 cm x 58.4 cm)
Shipping Weight	235 lbs. (106.6 kg)

Protect your investment  
with a heavy-duty vinyl  
dust cover; see page 335.

# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
134



**34134Z**



Design certified by UL to  
meet SAE J-2210.

1-800-822-5561

**Robinair  
Technical  
Services**

## R-134a Recovery, Recycling, Evacuation, and Recharging

The CoolTech 34134Z recovers, recycles, evacuates, and recharges R-134a refrigerant quickly and accurately.

- Automatic recovery/recharge by weight.
- Programmable vacuum time intervals.

**Manual Air Purge** — Removes air from the internal storage vessel. The gauges on the control panel show when to purge the air.

**Oil Drain** — The display reminds you to drain the system oil captured during recovery. Graduations on the container clearly show how much oil needs to be replaced.

**Oil Inject** — System prompts user to inject oil before charge. O-ring on oil reservoir provides visual reference on graduated container.

**Electronic Scale** — The scale is mounted internally for protection, and has a dampening mechanism that protects against impact shocks, such as movement over rough surfaces. The scale weighs recovered refrigerant, and the unit charges by weight for greatest accuracy.

**Internal Storage Vessel** — Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

**Internal Manifold** — Block manifold contains solenoids that control refrigerant flow, reducing the possibility of leaking connections.

### Maintenance Prompts

- System prompts user to change vacuum pump oil when needed.
- System prompts user to change filter-drier when needed.

### Easy to Use!

**Ergonomic Design** — The cabinet is easy to maneuver between service bays and position near the vehicle.

**Gauges** — The high- and low-side gauges are mounted at an angle that's easy to see.

**Unit of Measure** — Select pounds or kilograms through the menu.

**No. 34134Z** — CoolTech recovery, recycling, recharging unit.

Protect your investment with a heavy-duty vinyl dust cover; see page 335.

### Specifications

Voltage	115V 60 Hz
Total Amp Draw	8.0 amps
Refrigerant Container	On-board 30 lb. (14 kg) vessel (source tank not included)
Operating Range	50° to 120° F (11° to 49° C)
Recycling Filter-drier	43 cu. in. in-line (710 cc)
Pump Free Air Displacement	3 cfm (71 l/min.)
Dimensions	50" H x 34" W x 23" D (127 cm x 86.4 cm x 58.4 cm)
Shipping Weight	225 lbs. (102 kg)



### International Models for R-134a, R12 Recovery, Recycling, Evacuation, and Recharging

Combines simple operation with superior accuracy the CoolTech 700 recovers, recycles, evacuates, and recharges R-134a quickly and accurately. Built in the new "sidewinder" cabinet, it combines proven technology with the latest in time-saving features.

#### Automatic operation means less attention is needed!

**Automatic Refrigerant Refill** — With this latest advance, you never have to stop in the middle of a job to change refrigerant tanks. The unit maintains 12 to 15 pounds (5.44 to 6.80 kg) of refrigerant in an internal vessel, and signals when it's time to change the supply tank so no monitoring is required.

**Automatic Air Purge** — Eliminates damaging air without any monitoring of gauges or opening of valves.

**Automatic Oil Drain** — The unit automatically drains system oil captured during recovery, and the display reminds you to empty the bottle. Calibrations on the container clearly show you how much oil needs to be replaced. Accuracy features eliminate guesswork!

**Electronic Scale** — The scale is mounted internally for protection and has a dampening mechanism that protects against impact shocks, such as movement over rough surfaces. The scale weighs recovered refrigerant and charges by weight for greatest accuracy.

**Internal Storage Vessel** — Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

**Internal Manifold** — A Robinair exclusive, this block manifold contains all the solenoids that control refrigerant flow, reducing the possibility of leaking connections.

**Ergonomic Design** — The cabinet is easy to maneuver between service bays and position near the vehicle.

**Large Gauges** — The high- and low-side gauges are mounted at an angle that's easy to see, and they're a full 4" (10.2 cm) in diameter.

#### Features that speed service

- 6 CFM vacuum pump for fast, thorough pull-down.
- Heavy-duty compressor pulls from both sides during recovery.
- Single-pass recycling meets SAE specs.
- Oil injector lets you add system oil in seconds.

**No. 34711-2K** — R-134A Recovery, Recycle, and Recharge.

**No. 34724** — Spin-on filter.

Protect your investment with a heavy-duty vinyl dust cover; see page 335.

#### Specifications

Voltage	220V – 240V 50/60 Hz
Refrigerant Container	On-board 30 lb. (14 kg) vessel (source tank not included)
Operating Range	50° to 120° F (11° to 49° C)
Recycling Filter-Drier	43 cu. in. spin-on type
Pump Free Air Displacement	3.0 cfm (85 l/m)
Dimensions	52" H x 33" W x 20" D (132 cm x 83.8 cm x 50.8 cm)
Weight	180 lbs. (81.65 kg)

### COOLTECH 700

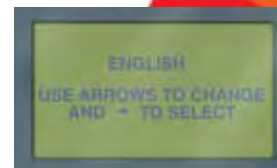
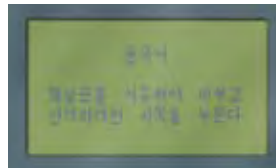
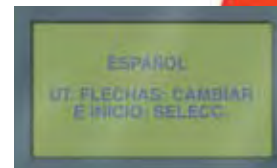


34711-2K



**Alpha-numeric menu displays in English, French, Arabic, Spanish, Chinese, or Korean.**

The scrolling display shows messages so it's clear what your choices are or what needs to be done.



# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
**AC375C**



Operational symbols in the following languages:

Arabic, Chinese (simplified), Chinese (traditional), English, French, Hebrew, Korean, Portuguese, and Spanish.

CE

AC375A

## Specifications

Voltage	220 — 230V 50/60 Hz
Refrigerant Container	On-board 30 lbs. (14 kg) vessel (Source tank not included)
Operating Range	50° to 120°F (11° to 49°C)
Recycling Filter-Drier	16 cu. in. in-line (262 cc)
Pump Free Air Displacement	3.0 cfm (85 L/m)
Dimensions	52" H x 33" W x 20" D (132 cm x 83.8 cm x 50.8 cm)
Weight	232 lbs. (105 kg)

## International Models for R-134a, R12 Recovery, Recycling, Evacuation, and Recharging

Combines Simple Operation with Superior Accuracy.

- **Automatic recovery/recharge by weight**
- **Automatic vacuum by time**

**Automatic Air Purge** – Eliminates damaging air without any monitoring of gauges or opening of valves.

**Oil Drain** – The display reminds you to drain the system oil captured during recovery. Calibrations on the container clearly show you how much oil needs to be replaced.

**Oil Inject** – System prompts user to inject oil before charge. Reservoir provides visual reference on calibrated container.

**Electronic Scale** – The scale is mounted internally for protection, and has a dampening mechanism that protects against impact shocks such as movement over rough surfaces. The scale weighs recovered refrigerant and charges by weight for greatest accuracy.

**Internal Storage Vessel** – Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

**Internal Manifold** – Block manifold contains solenoids that control refrigerant flow for easy operation, also reducing the possibility of leaking connections.

### Maintenance Prompts

- System prompts user to change vacuum pump oil when needed.
- System prompts user to change filter-drier when needed.

**Ergonomic Design** – The cabinet is easy to maneuver between service bays and position near the vehicle.

**Gauges** – The high and low side gauges are mounted at an angle that's easy to see.

**Unit of Measure** – Select pounds or kilograms through the menu.

### Features that Speed Service

- 142 l/m vacuum pump for fast, thorough pull-down.
- Heavy-duty compressor pulls from both sides during recovery.
- Single pass recycling.
- Oil injector lets you add system oil in seconds.

**No. AC375A** – R-134A recovery, recycle, evacuates, and recharge.

### For Multiple Refrigerants...

The 17800B recovers, recycles, evacuates and recharges — all in one fast, continuous operation through one hook-up. It's ideal for refrigerated trailers, buses, RVs, and other vehicles that use more than one refrigerant. The CoolTech Multi is also great for fleet maintenance, covering a variety of makes and models since it has both R-12 and R-134a capabilities. In-plant maintenance departments will find it can handle the different types of refrigerants used in various systems.

### Proven technology simplifies service!

**Microprocessor** — Controls functions; prompts lead you through programming and also signal when it's time to change the filter-drier, vacuum pump oil, and compressor oil.

**Float Chamber** — Automatically adjusts from liquid to vapor for most efficient recovery.

**Electronic Scale** — Makes it simple to recharge to factory specifications; also weighs recovered refrigerant and provides tank overfill protection.

**CoolTech Vacuum Pump** — 6 CFM has the capacity to thoroughly evacuate the system, readying it for recharging.

### Versatility for many types of systems!

**Lockout Panel** — Prevents mixing of refrigerants; rotates to one side for 1/4" fittings and to the other for 1/2" Acme fittings.

**Single-Pass Recycling** — Makes an initial pass through the filter-drier; additional recycling can be programmed in case of compressor burn-out, or other conditions.

**Heavy-Duty Filter-Drier** — Removes moisture and acid from the refrigerant; can handle up to 200 pounds between change-overs. Comes with two 50 pound tanks, one with 1/4" fittings and the other with 1/2" Acme fittings. Also three sets of charging hoses are included — one for R-12, one for automotive R-134a (with field service couplers), and one for other refrigerants using 1/4" SAE fittings.

**No. 17800B** — Multiple refrigerant recovery, recycling, and recharging machine.

#### International Models

**No. 17801B** — 220–240V 50 Hz, readout in kilograms.

#### Replacement Parts

**No. 19776** — Recycling filter-drier.

**No. 17506** — 50 lb. (23 kg) refillable tank, 1/4" fittings.

**No. 34750** — 50 lb. (23 kg) refillable tank, 1/2" ACME fittings.



One piece of equipment is all you need for A/C and refrigeration service.

**COOLTECH**  
MULTI



Design certified by UL  
to meet SAE J-1770.

**17800B**

**Recovers, Recycles, Evacuates,  
and Recharges R-12, R-134a,  
R-22, R-502, MP and HP Blends  
— and many more!**

### Also great for in-plant maintenance!

#### Specifications

Voltage.....	115V 60 Hz
Tanks.....	Two 50 lb. (23 kg) refillable
Operating Range.....	50° to 105° F (11° to 41° C)
Recovery Rate .....	Vapor — 1/2 lb/min. (.2 kg/min.)
.....	Liquid — 1 lb/min. (.4 kg/min.)
Recycling Rate.....	4 lbs/min. (1.8 kg/min.) flow rate
Recycling Filter-Drier .....	1150 g XH-9
Pump Free Air Displacement .....	6 cfm (142 l/m) at 50 Hz
Dimensions .....	47" H x 26" W x 30" D
.....	(119 cm x 66 cm x 77 cm)
Weight.....	256 lbs. (116 kg) without tank



# ROBINAIR FLUID PRODUCTS

Recovery / Recycling



17700Z

Design certified by UL  
to meet SAE J-1990.

Recovery,  
Recycling,  
Evacuation,  
and Recharging  
for R-12

## Specifications

Voltage	115V/60Hz
Refrigerant Container	On-board 30 lb. (14 kg) vessel (source tank not included)
Operating Range	50° to 120° F (11° to 49° C)
Recycling Filter-Drier	43 cu. in. spin-on type
Pump Free Air Displacement	6 cfm (142 l/m)
Dimensions	50" H x 34" W x 23" D (127 cm x 86.4 cm x 58.4 cm)
Weight	234 lbs. (106.6 kg)

1-800-822-5561

**Robinair  
Technical  
Services**

## R-12 Recovery, Recycling, Recharging

Fully automatic function lets you recover, vacuum, leak test, charge, and then walk away. Combines simple operation with superior accuracy. The CoolTech 17700Z recovers, recycles, evacuates, leak tests, and recharges R-12 quickly and accurately.

### Automatic operation means less attention is needed!

**Automatic Function** — With this new option, you can program the unit to recover, vacuum, leak test, charge, and then walk away without having to operate panel valves.

**Vacuum Leak Test** — Will monitor the vacuum level after an evacuation, and inform the technician of a possible leak in the vehicle's A/C system.

**Automatic Refrigerant Refill** — With this latest advance, you never have to stop in the middle of a job to change refrigerant tanks. The unit maintains 12 to 15 pounds of refrigerant in an internal vessel, and signals when it's time to change the supply tank, so no monitoring is required.

**Automatic Air Purge** — Eliminates damaging air without any monitoring of gauges or opening of valves.

**Automatic Oil Drain** — The unit automatically drains system oil captured during recovery, and the display reminds you to empty the bottle. Graduations on the container clearly show you how much oil needs to be replaced.

**Refrigerant Charging** — Has never been this easy. Select a charge mode from either the high side, low side, or both.

### Accuracy features eliminate guesswork!

**Electronic Scale** — The scale is mounted internally for protection and has a dampening mechanism that protects against impact shocks, such as movement over rough surfaces. The scale weighs recovered refrigerant and charges by weight for greatest accuracy.

**Internal Storage Vessel** — Refrigerant is recovered into and charged out of this vessel, which is permanently mounted to the electronic scale for continuing reliability.

**Internal Manifold** — A Robinair exclusive, this block manifold contains all the solenoids that control refrigerant flow in and out of the unit, reducing the possibility of leaking connections and eliminating the need to operate panel valves.

### Best of all, it's easy to use!

**Ergonomic Design** — The cabinet is easy to maneuver between service bays and position near the vehicle.

**Large Gauges** — The high- and low-side gauges are mounted at an angle that's easy to see, and they're a full 4" in diameter.

Features that speed service:

- 6 CFM vacuum pump for fast, thorough pull-down.
- Heavy-duty compressor pulls from both high- and low-side.
- Single-pass recycling meets SAE specs. Oil injector lets you add system oil in seconds.

**No. 17700Z** — R-12 recovery, recycling, & recharging unit.

**No. 17492** — Dust cover.

### Universal Recovery Station For Contaminated Or Mixed Refrigerant...

With the CoolTech 680, you don't have to turn away an A/C job because the refrigerant is contaminated. This is a recovery-only unit designed for quickly capturing contaminated or unknown refrigerants, mixtures, and blends. It protects your recovery/recycling equipment and your shop's refrigerant supply.

- Recover into one 50-lb. tank for collection and off-site disposal. (Mixtures and blends cannot be recycled.)
- Simple to hook up and operate with instructions printed on the control panel for quick reference.
- Other features include an air regulator for compressor air supply; air line lubricator, which prolongs motor life by supplying continuous lubrication; and tank pressure gauge.
- Two hoses are included, one with a 1/4" MFL fitting and one with a 1/2" Acme field service coupler.

#### Here's how the CoolTech 680 works:

- Connect service hose (included) to A/C system's low-side access port.
- Turn switch to "Start." Recovery begins immediately.
- Watch the inlet pressure gauge — it shows when the system has been pulled into a vacuum — recovery is complete.

#### Includes User Safety Features

- The unit runs on standard (compressed) shop air and the vehicle's battery, reducing risk when recovering flammable hydrocarbons. (Some substitute refrigerants contain propane or butane.)
- Tank float switch prevents overfilling of the 50 lb. tank.

**No. 17680-2K** — Contaminated refrigerant recovery station.

#### Replacement Part

**No. 17686** – 50 lb. (23 kg) tank with float switch.

#### Specifications

Power Source .....	12V DC and compressed air (200 psi max., 120 psi/min.)
Refrigerant Tank .....	50 lb. (23 kg) with float switch (included)
Dimensions .....	45" H x 22" W x 28" D (114 cm x 56 cm x 71 cm)
Weight.....	66 lbs. (30 kg) without tank

## COOLTECH 680



**17680-2K**

#### IMPORTANT:

Refrigerant collected should not be used in any A/C system. When the tank is full, send it to a disposal facility.

1-800-822-5561  
**Robinair  
Technical  
Services**

# ROBINAIR FLUID PRODUCTS

Recovery / Recycling

**COOLTECH**  
17580



17580

## Specifications

Dimensions ..... 52" H x 33" W x 20" D  
Weight ..... 110 lbs. (50 kg)  
Supply Pressure ..... 80–150 psi.

## Make flushing part of your regular A/C service

You know that not all A/C jobs are simple recharges — there are times when you need to flush a vehicle's air conditioning system to ensure that it operates satisfactorily. These circumstances fall into three categories:

**Routine Maintenance** — As an air conditioning system ages, oil, sludge, and particulates build up, plug screens, expansion valves, and capillary tubes. Periodically, you should flush the system components to remove these contaminants.

**Repairs** — To be sure the system will operate properly, you should flush it whenever you repair or replace components. Failed components may contain metal shavings, sludge, and other debris that damage the system or affect the operation.

**R-134a Retrofits** — In some cases, conversion procedures call for complete removal of existing oil in an A/C system before changing fittings and recharging with R-134a. Flushing is the most thorough means of removing the oil, and it will also pick up any refrigerant residue in the system. Flushing, combined with pulling a deep vacuum, is your assurance the system is ready for the new refrigerant.

## A/C Component Flusher

The 17580 makes flushing of lines, evaporators, and condensers fast and easy.

**Closed Loop** — Circulates solvent continuously through components (adapters are needed).

**Pulsing Action** — Loosens dirt, corrosion, and other debris; by switching the hoses, you can also back flush.

**Air Agitation Needle Valve** — Bubbles air into liquid stream to enhance cleaning action.

**Hose Adapters** — Contains adapters to mate with 1/4" flare and 3/8" quick disconnect fitting kits.

**Sight Glass** — To observe flow rates and cleaning process.

One gallon of solvent is needed for the flush procedure. The unit purges solvent from the component, collecting the used material in the collection tank. An activated charcoal filter limits emissions and odors during flushing and purging.

**No. 17580** — A/C flushing unit. Wt., 110 lbs. (50 kg).

## Adapter Kit

**No. 17607** — Universal A/C flushing adapter kit.



11411

## Fluid Capacities Book and CD

- Has complete coverage of fluid capacities with lube type for domestic and import vehicles.
- Used for A/C, coolant and transmission, brake, power steering and engine oil.
- Covers vehicle model years 1994–2005.

**No. 11411** — Fluid capacities book and CD.



### Maintenance Kits

Keep recovery and recycling units operating at peak efficiency with a convenient maintenance kit. Contains one Quick Change filter-drier to be used on both R-12 and R-134a stations, and one 16-ounce bottle of our Premium High Vacuum Pump Oil.

**No. 13172** – Maintenance kit for models using No. 34724 filter-drier (17700A, 17700-2K, 34700, 34700-2K, 34700Z, 342000, 34711-2K, 34800, 34800-2K, 34900 series).

**No. 13169** – Maintenance kit for early models using No. 34134Z, 34134-2K, AC374, AC375A, 34430 filter-drier (17700A, 34700, 34300-2K, 34134Z, 34134-2K, AC374, AC375A, AC375C).

See your instruction manual if you have questions about which filter-drier to use.



### A/C System Sealant Remover

- Removes sealant, dye, lubricant, and other contaminants from refrigerant prior to entering the recovery unit.
- Use with recover, recycle, and recharge units that have external or internal manifold pressure gauges.
- Easy hookup between vehicle and the A/C recovery unit.
- Works with refrigerant in either a gas or a liquid state.

**No. 17622** – A/C system sealant remover.

**No. 17623** – Internal replacement filter.

**No. 17641** – Sealant remover adapter hose kit for connecting one No. 17622, R-134A, or R-12.



### Vinyl Dust Covers

Protect your investment with a heavy-duty vinyl cover. Features corded seams for durability; medium gray color with CoolTech logo.

**No. 17495** – Fits all 34300-2K, 34134-2K series.

**No. 17812** – Fits all 17800A, 17800-2K, 34800 series.

**No. 17490** – Fits all 34900, 34800-2K, 17800B series.

**No. 17492** – Fits all 342000, 17700-2K, 34700-2K, 34134Z, 34700Z, 34711-2K, AC375, AC375A, 17700Z, 34702Z.



# ROBINAIR FLUID PRODUCTS

## Recovery / Recycling



18065

34065

### Oil Injectors

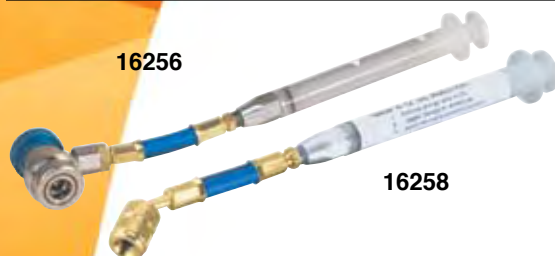
It takes just seconds to transfer an oil charge while the system is in a vacuum. The injectors are great add-ons to recovery/recycling and charging.

- Installs in-line on the low side of the manifold.
- Made of durable polypropylene with oil levels marked in ounces and milliliters.
- Solid brass fitting with a Lexan® handwheel.

**No. 18065** – Oil injector with 1/4" SAE fitting.

**No. 34065** – R-134a oil injector with 1/2" Acme fitting.

\*Not recommended for UV dye injection.



16256

16258

### Syringe-Type Injectors

Use these syringe-type injectors to add oil to a fully pressurized A/C system. Just fill the barrel with the amount of oil needed, connect the injector, and press the plunger.

**No. 16256** – R-134a oil injector, 1/2" Acme quick coupler.

**No. 16258** – Oil injector, 1/4" SAE fitting.

\*Not recommended for UV dye injection.



17121

17506

17605



17572

17576



34750

34102

### Refrigerant Tanks

**No. 17121** – 30 lb. tank, 1/4" fittings (25150, 25175, 25200B, 34234, 34300-2K, 34800 series).

**No. 17506** – 50 lb. tank, 1/4" fittings (17800A, 17800-2K, 17700A, 25150, 25175, 25200B series).

**No. 17605** – 30 lb. tank with float switch (17650A series).

**No. 17572** – 50 lb. tank with float switch.

**No. 17576** – 30 lb. tank, float switch, 3/16" fitting. (17625A series).

**No. 17686** – 50 lb. tank with 3/8" fitting, float assembly for 17680A series.

**No. 34102** – 30 lb. tank for R-134a (34234, 34300-2K, 34800, 34134A, 34134-2K series).

**No. 34579** – 30 lb. tank (34650 series).

**No. 34750** – 50 lb. tank for R-134a (34700 series).

### Recycling Filter-Driers

Specially blended for maximum acid and moisture removal.

**No. 17630** – Inlet filter for 17625A, 34650.

**No. 17663** – Inlet filter for 17650A.

**No. 17677** – XH-9 filter drier for 17800A, 17800-2K series.

**No. 19776** – Quick change filter for 17800B.

**No. 34430** – Quick change filter for older 17700A, 34450, 34700 (1997), AC375, AC375A, AC375C, 34134Z.

**No. 34724** – Spin-on filter for 17700-2K, 34134A, 34134-2K, 342000, 34234, 34300-2K, 34700, 34700-2K, 34700Z, 34788, 34800, 34800-2K, 34900 series.



### Orifice Tube Remover

Use this handy tool to remove the orifice tube before flushing. Speeds service by removing the build-up of particulates on the orifice screen and restrictions that slow flushing. The basic tool works on GM and Ford vehicles and comes with: an extender body for 1985 and newer Ford models; an adapter for 1989–91 GM “J”, “L”, and “N” cars; and an adapter for 1991 and newer GM “C” and “K” trucks with #3096068 orifices.

**No. 10986** – Orifice tube remover.

10986



### Flush Gun Kit

An economical means of flushing contaminants and scale from A/C system components, the flush gun uses dry shop air to pressurize the solvent. The process thoroughly cleans the part, removing oil, any refrigerant contaminants, and residue. The attached nozzle directs the flow of solvent without spray-back.

**No. 17595** — Flush gun kit.

17595



### Power Flush Solvent

Gives you the cleaning power to flush particulates and system lubricant from A/C and refrigeration lines, evaporators, and condensers. An ideal substitute for CFC-113, it has excellent cleaning properties and good evaporation rate. Compatible with all CFC, HCFC, and HFC refrigerants. Meets ANSI/ASHRAE 97-1933.

**No. 17565** – Gallon, six per carton.

**No. 17609** – Quart, six per carton.

17609



17565

### A/C Flushing Adapter Kit

These adapters are designed to isolate A/C system components for closed loop flushing.

**No. 17607** – Universal flushing adapter kit.

17607





# ROBINAIR FLUID PRODUCTS

## Refrigerant Identifiers



**Fast and Accurate** — Displays test results in less than a minute and passes the refrigerant only if it's 98% pure. To ensure consistent, rapid results, the units are not pressure/temperature dependent.

**Reliable Technology** — The instruments use dependable infrared technology developed by Neutronics, Inc., to determine if the refrigerant is an acceptable type and is pure enough to be used.

**Unique Case Design** — Puts all the components up front where you can see them at a glance, including the filter. Contoured case can be held in either hand, and rubber feet protect the vehicle's finish.

### Refrigerant Identifiers...

#### Critical For Today's Automotive A/C Service

It's been estimated that one in 10 vehicles on the road has an A/C system with contaminated refrigerant. The only way to know for sure if you can safely recover these charges is with a refrigerant identifier. You may also save hundreds of dollars by checking bulk tanks for purity before use.

Robinair's CoolTech line shows you in just seconds if it's safe to recover or recharge the refrigerant. There's no guesswork, because a red light indicates "fail", while a green light is your signal to continue with service. For R-12 and R-134a vehicles.

16910



Gauge on panel shows system pressure

#### Specifications

Power Source	100- 220V
Dimensions	11" H x 9" W x 4-1/2" D (27.94 cm x 22.86 cm x 11.43 cm)
Weight	1.75 lbs. (740 g)

### CoolTech ID Plus

#### Identifies refrigerant type and purges damaging air

In addition to dependable refrigerant identification, the ID Plus measures non-condensable gases (air) in the refrigerant and purges them directly from the tank or system.

- Displays the actual percentage of R-12, R-134a, R-22, and air in the system or tank.
- Gives you the option of purging air if significant concentration is found.
- Hydrocarbon alarm sounds if flammable substances are sensed.
- On-board printer port allows you to connect a printer for a hard copy of testing results.

**No. 16910** — CoolTech ID Plus.

**No. 16913** — Replacement filter.

**No. 19713** — R-12 replacement hose.

**No. 19714** — R-134a low-side coupler, 1/2" Acme internal adapter.

**No. 19716** — R-134a replacement hose.

16900



#### Specifications

Power Source	12V DC or 115V 60 Hz AC (adapter included)
Dimensions	11" H x 9" W x 4" D (27.94 cm x 22.86 cm x 11.43 cm)
Weight	1.75 lbs. (740 g)

### CoolTech ID

#### Signals "Go" only if refrigerant is 98% pure

"Go" and "No Go" indicators on display clearly show if refrigerant is pure enough to be recovered or charged.

- Dual power source gives you flexibility, comes with battery clips for 12V power and 115V AC adapter.
- Displays percent of air in the A/C system or tank.

**No. 16900** — CoolTech ID Plus.

**No. 16913** — Replacement filter.

**No. 19712** — Air detection sensor.

**No. 19713** — R-12 replacement hose.

**No. 19714** — R-134a low-side coupler, 1/2" Acme internal adapter.

**No. 19716** — R-134a replacement hose.

**No. 19718** — 12V battery adapter.

**No. 19719** — 120V wall adapter.

### TIFZX-1 Leak Detector

#### Features

- Patent pending Heated Pentode™ sensor technology.
- Refrigerant specific detection.
- Detects ALL halogenated refrigerants at levels below 0.1 oz./yr., as low as 0.05 oz./yr. for R-12.
- Tri-color visual leak size indication.
- Tactile keypad controls with one touch reset and adjustable sensitivity.
- True mechanical pump provides instant response and clearing.
- Sensor failure indication.
- Carrying case and re-charger included.
- Ni-MH rechargeable batteries.
- Revolutionary design.
- Certified to SAE J1627.
- Flexible stainless probe (16").
- CE approved.
- 25-year warranty.



TIFZX-1

#### Replacement Parts

- TIFZX-2** – Heated Pentode™ sensor.
- TIFZX-3** – 110V-60 Hz battery charger (North and South America).
- TIFZX-3E** – 230V-50Hz battery charger (Europe, Asia, Australia).
- TIFZX-3J** – 100V-50/60 Hz battery charger (Japan only).
- TIFZX-5** – Ballistic nylon carrying case.
- TIFZX-6** – Remote battery charging base, 110V-60Hz (optional).
- TIFZX-7** – Nickel-Metal Hydride (Ni-MH) battery pack (optional).
- TIFZX-8** – Filter elements (10 pack).
- TIFZX-9** – Probe tip.
- TIFZX-10** – Flexible probe (includes probe tip).
- TIFZX-11** – 12V DC cigarette lighter charger.
- TIFZX-14** – Maintenance kit: probe tip, filter, and o-ring.
- TIFZX-15** – Filter elements (5 pack).

800-327-5060

**TIF**  
**Technical**  
**Services**

#### Specifications

##### Sensitivity

Per SAE J1627 criteria: 0.5 oz./yr. (14 g/yr.) for R-134a, R-22, and R-12.

##### Ultimate Sensitivity

Less than 0.1 oz./yr. (3 g/yr.) R-134a, in high sensitivity; as low as 0.05 oz./yr. R-12 in low sensitivity.

##### Warm-up Period

20 seconds.

##### Operating Temperature

32° to 122° F (0° to 50° C).

##### Power Supply

Ni-Cad standard, Ni-MH optional.

##### Battery Recharge Time

2 hours, integral charge status indicator.

##### Failed Sensor Indication

All LEDs flash red, pump off.

##### Sensor Life

100 to 150 hours.

##### Battery Life

Standard Ni-Cad battery pack - 4 to 5 hours.

Optional Ni-MH battery pack - 5 to 6 hours.

##### Unit Dimensions

10.25" L x 2.5" Dia. (26 cm L x 6.5 cm Dia.)

##### Weight

Approximately 16 oz. (452 grams).

# ROBINAIR FLUID PRODUCTS

## Refrigerant Leak Detectors



### Back View

The gooseneck probe clips into a holder on the back of the unit for protection during storage and transit.



### Electronic Leak Detector

For all CFC, HCFC, and HFC Refrigerants

Robinair's electronic leak detector is ergonomically designed to fit in your hand. Holding it is natural and comfortable, and it fits into tight spots, so you can thoroughly check for leaks. No. 16600 is packed with features that help you pinpoint leaks quickly.

**One-Hand Operation** — The 16" gooseneck probe holds its position so you can operate the detector with one hand.

**Audible and Visual Leak Indicators** — An alarm increases in frequency as the tip gets close to a high concentration of refrigerant. LEDs are especially helpful when you're working in a noisy environment.

**Threshold Balancing Control** — Gives you infinite control for eliminating background contamination, so you can zero in on the leak site.

**Volume Control** — Adjust the audible leak signal to the volume that's right for the background noise in the shop or at the job site.

### Reliable Technology = Dependable Leak Detecting

No. 16600 uses proven corona discharge technology to sense leaks. It works by creating a high voltage corona in the sensing tip. When this field is interrupted by refrigerant, the alarm is triggered. All corona discharge leak detectors are not the same, however — the quality of key components is critical in providing an effective instrument.

### Transformer

To create the high voltage corona, the unit must "pump up" from the battery output to 2000 volts. It takes a specialized transformer to consistently provide this voltage, and ours is the result of years of testing and field use to ensure operation you can rely on.

**No. 16600** — Electronic leak detector.

### Specifications

Power Source .....	Four AA Alkaline batteries (included)
Battery Life .....	Approximately 25 hours
Dimensions .....	8-1/2" L x 3-1/4" W x 2" D (21.59 cm x 8.26 cm x 5 cm)
Probe Length .....	16 in. (40.6 cm)
Weight .....	1.14 lbs. (.52 kg) with batteries

### Sensing Tip

The materials, shape, and finish of the sensor and surrounding shell are critical to the effectiveness and life of the tip. Specially engineered tip is built with a mirror finish for superior sensitivity and durability.

**No. 16503** — Sensing tip.



### TIFXL-1A, TIFRX-1A, TIFXP-1A Leak Detectors

The revolutionary new "Generation X" line of TIF refrigerant leak detectors brings you tomorrow's technology today. We not only changed the way our leak detectors look, but the way to look at leak detectors. Innovative MPC circuitry and Advanced Digital Signal Processing monitor the sensing tip up to 2000 times per second. Automatic reset, true mechanical pump, and visual indicators (TIF XP-1 and TIF RX-1) speed and simplify leak searches.

A completely re-designed sensing tip increases sensitivity, improves reliability, and lasts twice as long as its predecessor. This results in fewer comebacks, less hassle, and lower maintenance costs. We are so confident in the design and quality of these detectors that they are backed by a warranty of up to 3-years!

#### All Models Feature

- Microprocessor controlled circuit with Advanced Digital Signal Processing.
- Detects ALL halogenated refrigerants.
- Certified to SAE J1627.
- Variable frequency audible alarm.
- CE approval.
- UL classified.
- Constant power indication.
- Cordless and portable; operates on two C-cell batteries.
- 14" (35.5 cm) flexible stainless steel probe with Teflon liner.
- Carrying case included, optional holster.
- Optional reference leak source.

#### Additional Features

##### TIFXL-1A

- Single switch control. • Two-year warranty.

##### TIFRX-1A

- Six-segment visual leak size indicator.
- True mechanical pump provides positive airflow through sensing tip.
- High and low sensitivity levels.
- One touch reset.
- Tactile keypad controls. • Two-year warranty.

##### TIFXP-1A

- Tri-color, six-segment visual leak size indicator displays 18 alarm levels.
- Seven levels of sensitivity adjustment provide an increase of up to 64x.
- Battery test function with true voltage indication.
- Mute feature silences audible alarm.
- True mechanical pump provides positive airflow through sensing tip.
- One touch reset.
- Tactile keypad controls.
- Three-year warranty.

#### Replacement Parts (all models)

**TIFXP-2** – Maintenance kit (3 tips, 3 protectors).

**TIFXP-4** – Deluxe carrying case.

**TIFXP-5A** – Battery cover.



Design Certified by MET Laboratories, Inc., to meet SAE J1627 for R-134a, R-12, and R-22.



U.S. Patent Nos.  
Re: 32,552; 4,282,521; 5,400,015

CLASSIFIED BY UNDERWRITERS  
LABORATORIES INC® ONLY TO INTRINSIC SAFETY IN CLASS 1  
GROUPS C & D HAZARDOUS  
LOCATIONS.

#### Specifications

Power Source	3V DC; 2 "C" cell alkaline batteries
Ultimate Sensitivity	TIFXL-1A - Less than 0.4 oz./yr. (11g/yr.) TIFRX-1A - Less than 0.25 oz./yr. (7g/yr.) TIFXP-1A - Less than 0.1 oz./yr. (3 g/yr.)
Sensing Tip Life	Approx. 20 hours
Operating Range	30° to 125° F (0° to 52° C)
Battery Life	TIFRX-1A and TIFXP-1A – Approx. 30 hrs. TIFXL-1A – Approx. 40 hrs.
Duty Cycle	Continuous
Response Time	Instantaneous
Reset Time	One second
Warm-up Time	Approx. 2 seconds
Unit Weight	1.2 lbs. (560 grams)
Unit Dimensions	9" x 2.25" x 2.25" (22.9 cm x 5.7 cm x 5.7 cm)
Fixed Probe Length	14" (35.5 cm)

# ROBINAIR FLUID PRODUCTS

## Refrigerant Leak Detectors



TIF5750A



Design Certified by MET Laboratories, Inc. to meet SAE J1627 for R-134a, R-12, and R-22.

U.S. Patent Nos. Re: 32,552; 4,282,521; 5,400,015

### Specifications

Operating Temp	30° to 125° F (0° to 52° C)
Power Source	(2) 1.5V "C" batteries
Battery Life	30 hrs. (alkaline)
Response Time	Instantaneous
Warm-up Time	5 to 6 seconds
Reset Time	One second
Probe/Cord Length	Probe = 14" (35 cm) Cord = 36" (91.4 cm)
Dimensions	8" x 3" x 1.8" (20 cm x 7.6 cm x 5 cm)
Weight	20 oz. (560 grams)
Maximum Sensitivity	0.5 oz./yr. for R-12, R-22 & R-134a per SAE J1627 criteria
Ultimate Sensitivity	Less than 0.25 oz./yr.

### TIF5750A Super Scanner™ Refrigerant Leak Detector

Full featured but easy to use, this is the original TIF detector. The TIF5750A offers the detachable, flexible probe with micro-pump, leak intensity indicators, and all the features you have come to know and trust. Includes the patented SCAN mode that revolutionized leak detection.

#### Features

- LED leak size indicators.
- Two sensitivity positions, including our unique ScanMode.
- Reset button for instant re-calibration.
- Detachable probe.
- High efficiency pump.
- Detects ALL halogenated refrigerants.
- SAE classified for intrinsic safety.
- Constant power indication.
- Cordless and portable; operates on two C-cell batteries.
- 14" (35.5 cm) flexible, stainless probe.
- Carrying case and spare sensing tip included.
- One-year warranty.

TIF5750A – Refrigerant leak detector.

TIF548 – Custom molded carrying case.

TIF555 – Maintenance kit (3 tips, 3 protectors).

TIF560 – Sensing tip bulk pack (25 pieces).

TIF5201A – Leak source.



TIFH10A



Design Certified by MET Laboratories, Inc. to meet SAE J1627 for R-134a, R-12, and R-22.

### A/C Pump Style Refrigerant Leak Detector

This AC powered Leak Detector is ideal for continuous use and/or bench testing. It has a sensitivity adjust knob for "Fine Tuning." A unique probe with pump and a built-in neon light. Audible alarm and visual indication on all CFC, HCFC, and HFC leaks.

#### Features

- High efficiency pump
- Dual sensitivity positions
- Visual indicator in probe
- Built-in carrying case
- Powered by 115 volts AC (220V available)

TIFH10A – A/C pump style refrigerant leak detector.

TIF555 – Maintenance kit (3 tips, 3 protectors).

TIF5201A – Leak source.

#### Specifications

Operating Temp	30° to 125° F (0° to 52° C)
Power Supply	115V AC/60 Hz (230V 50 Hz)
Response Time	Instantaneous
Warm-up Time	30 seconds
Probe/Cord Length	36" (91.4 cm)
Dimensions	8.5" x 5" x 3.75" (21.6 cm x 13 cm x 8 cm)
Weight	3.1 lbs. (1.4 kg)
Maximum Sensitivity	0.5 oz./yr. for R-12, R-22, & R-134a per SAE J1627 criteria
Ultimate Sensitivity	Less than 0.25 oz./yr.

### TIF8900 Combustible Gas Detector

The TIF8900 is a super-sensitive, cordless, combustible gas detector that detects a broad range of natural gases including propane, methanol, butane, and gasoline.

- Solid-state sensor technology, long life, and precision.
- Adjustable sensitivity levels; as low as 5ppm.
- Audible "Geiger counter" signal.
- Rechargeable battery and charger included.

#### Specifications

Power Source	Two 2.4V Ni-Cad batteries (included)
Battery Life	Approx. 4 hours per charge
Dimensions	8-1/2" L x 2-1/2" W x 2" D (21.59 cm x 6.35 cm x 5.08 cm)
Operating Range	32° F to 105° F
Probe Length	16 inches
Weight	12.3 oz.

TIF8900 – Combustible gas detector.

#### Replacement Parts

TIF8801 – Sensing tip.

TIF8803A – 115V battery charger.

TIF8805 – Cigarette lighter adapter.

TIF8806A – Rechargeable Ni-Cad batteries.

TIF8806B – 220V battery charger.



TIF8900

### TIF8800, TIF8800A, TIF8850 Combustible Gas Detectors

These detectors are MSHA approved and UL classified. The unique flexible 15" stainless steel probe allows you to access hard-to-reach places. All feature automatic warm-up, are ideal for a tremendous range of uses, and are invaluable for safety in many applications. Each unit includes its own rechargeable Ni-Cad batteries for years of use.

#### All Models Feature

- Automatic warm-up.
- Broad band detection.
- Low battery indicator.
- Recharger and ABS carrying case.
- Sensitivity adjust control.
- Audible "Geiger counter" signal.

#### Additional Features of TIF8800A

- LED leak intensity lights.

#### Additional Features of TIF8850

- LED leak intensity lights.
- Audio mute button to silence the alarm.



TIF8800A



#### Specifications

Operating Temp	32° to 125° F (0° to 52° C)
Power Supply	(2) 2.4V Ni-Cad Batteries
Battery Life	4 hours/charge
Response Time	Instantaneous
Warm-up Time	30 seconds
Probe/Cord Length	15" (38 cm)
Dimensions	8" x 3" x 1.8" (20 cm x 7.6 cm x 5 cm)
Weight	15.5 oz. (434 grams)
Ultimate Sensitivity	5-50 ppm



800-327-5060

**TIF**  
Technical  
Services





# ROBINAIR FLUID PRODUCTS

## Combustible Gas Leak Detectors



TIF8800



TIF8850



### TIF8800, TIF8800A, TIF8850 Combustible Gas Detectors (continued)

#### Applications

The TIF8800 series detectors are general purpose combustible gas detectors that may be used in almost any situation where a combustible gas, vapor, or residue needs to be found. Among the many applications are:

- Gas lines and pipes.
- Fuel in marine bilges.
- Exhaust and fuel leaks.
- Heat exchanger leaks.
- Propane filling stations.
- Check manholes for safety.
- Detect arson residue.
- IAQ tests.
- Liquid or gas fired heating systems.

#### Replacement Parts

**TIF548** – Custom carrying case.

**TIF8801** – Sensing tip.

**TIF8803A** – 115V battery charger.

**TIF8805** – Cigarette lighter adapter.

**TIF8806A** – Rechargeable Ni-Cad batteries.

**TIF8806B** – 220V battery charger.

#### Partial List of Detectable Compounds

Compound	Min. Detectable Concentration
Acetylene	50 ppm
Iso-Butane (R600a)	500 ppm
Methane	500 ppm
Ethane (R170)	500 ppm
Propane (R290)	500 ppm
Ethylene	500 ppm
Hydrogen	500 ppm
Methyl Ether	500 ppm
Vinyl Chloride	5 ppm
Methyl Chloride	5 ppm
Hydrogen Sulfide	5 ppm
Acetone	50 ppm
Methanol	50 ppm
Ammonia (R717)	20 ppm
Gasoline	1 ppm
Chlorine	1 ppm

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**TIF**  
Technical  
Services

### TruTrack Ultrasonic Leak Detector

TruTrack is an ultra-sensitive leak detector, which uses ultrasound technology to “hear” the sound of a leak. It makes finding leaks fast and accurate, because it eliminates annoying false triggering and interference. Also, there's no need to recalibrate for background noise.

TruTrack is the perfect complement to other forms of leak detection. It's effective on systems that are pressurized or under vacuum, because it senses the frequency of refrigerant escaping. Larger leaks may require the use of UV or electronic leak detection systems.

#### Use TruTrack to identify...

- Refrigerant leaks.
- Pressurized gas leaks.
- Vacuum leaks.
- Dry nitrogen gas leaks.
- Steam leaks.
- Failing solenoids, valves, bearings.

#### So Sensitive It Hears the Blink of an Eye!

**Easy to Use** — Just put on the headset, adjust the sensitivity level, and place the sensor near the suspected problem area; you can use the sensor alone or with one of the probes.

**Positive Identification** — You hear the sound of the leak in the headset with no beeps or squeals; the sound is loudest when you are near the leak.

**Accurate** — Wind, stray gases, or other contaminants will not trigger a false alarm; the unit suppresses most background noises.

**Dependable** — There are no clogged tips to clean, or sensors to replace, to get accurate readings.

**Versatile** — Ideal for a wide range of service and preventive maintenance applications. Taking regular readings of bearing or solenoid function, for instance, can show increased noise, which may be a sign the component is starting to fail.

**Saves Time and Money** — Pinpoints leaks quickly and accurately; can be used to prevent downtime by identifying potential component failure; hears tell-tale sounds without tearing down the equipment.

**No. 16455** — TruTrack ultrasonic leak detector.

#### Replacement Parts

**No. 16452** — Flextube.

**No. 16956** — Contact probe.

**No. 16958** — Replacement headset.

**TruTrack**  
ULTRASONIC  
LEAK DETECTOR



16455

Comes complete with padded carrying case, headset, solid contact probe, and flextube.



A solid contact probe is included for identifying potential failures in bearings, valves, and other operational components.

### TruTrack Ultrasonic Sound Generator

An ideal accessory for Robinair's Model 16455 Ultrasonic Leak Detector, the sound generator detects seal failure in refrigerators, microwaves, vehicle passenger compartments, trunks, and any other location where there should be a good seal. Battery-operated unit emits special frequency from inside the test area; where the sound can be heard, a leak exists.

**No. 16451** — TruTrack ultrasonic sound generator.



16451

#### Specifications

Power Source	One 9V battery (included)
Dimensions	4-1/2" L x 3-3/8" W x 3/4" D (11.43 cm x 8.57 cm x 1.9 cm)
Weight	5 oz. (140 g)

# ROBINAIR FLUID PRODUCTS

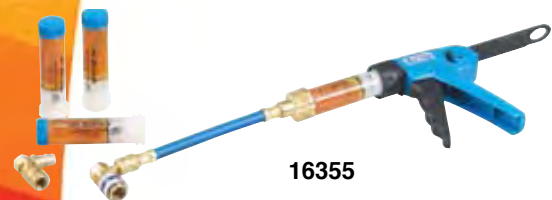
## UV Leak Detection



16350



16380



16355



16356



16357

### UV Leak Detection

Robinair's ultraviolet leak detection kits help you find leaks fast, because you can actually see the leak. You don't have false triggering or background contamination to contend with, as you do with other types of detectors. The dye combines with the refrigerant lubricant and migrates out at the leak, where it is illuminated in the beam of the UV light.

UV leak detection can be used for both automotive and HVAC-R systems, and dyes won't harm the system.

- High intensity beam makes even small leaks visible and is bright enough to be used in daylight.
- Rugged case and a shock-absorbing mounting mechanism protect the lamp during use and storage.
- UV bulb is rated for 3000 hours and is economical to replace.
- Comes with a 15' (4.57 m) long cord with battery clips for automotive use or with a transformer for 115V operation, doing away with heavy batteries and the need to recharge.
- Designed with super luminescence, so leaks are easy to spot, even small ones.
- Won't affect the viscosity of refrigerant lubricants and is safe for the entire A/C system.
- Speeds service, since there's no need to recover the charge, add dye, and recharge, as with some other brands.

**No. 16350** – UV leak detection kit includes: Powerful 50-watt/12-volt UV lamp with 15' cord and battery clips. Injection gun with R-134a hose and R-12 adapter. Four universal A/C dye twist-on cartridges (No. 16356). Enough dye for 20 applications (OEM-approved and SAE-certified dye). UV enhancing glasses with dye cleaner.

**No. 16380** – UV leak detection kit includes: Cordless/rechargeable true UV LED light. Six 1/4 oz. dye cartridges (No. 16357). UV enhancing glasses, dye cleaner. Injection gun with R-134a hose & R-12 adapter.

**No. 16355** – UV injection kit include: Injection gun with R-134a hose and R-12 adapter, four universal A/C dye twist-on cartridges (No. 16356, 1 oz./30 ml each), and service stickers.

**No. 16356** – Universal A/C dyes includes: Four 1 oz./30 m twist-on cartridges. Enough dye for 20 applications (OEM-approved and SAE-certified dye). For kit Nos. 16350, 16380, and 16355.

**No. 16357** – Six 1/4 oz./7.5 ml twist-on cartridges. Enough dye for six applications (OEM-approved and SAE-certified dye). For kit Nos. 16350, 16380, and 16355.

### CoolTools UV Lamps

A high intensity lamp which makes even the smallest leak easy to spot. The durable design stands up to everyday use and the pistol-grip design is comfortable to hold. The bulb is rated for 3000-hour life and can be replaced when necessary.

**No. 16296** – 12V UV lamp, UV shield/enhancer glasses, power cord with battery clips, CE approved.

**No. 16254** – Replacement 60 watt bulb.

**No. 16208** – On/Off switch.

**No. 16249** – Replacement lens for UV lamp.

**No. 16345** – Cordless/rechargeable true UV LED light, battery charger, and UV enhancing glasses.

**No. 16347** – 12V battery charger.

**No. 16348** – 120V battery charger.

**No. 16349** – 220V battery charger.



16345



### Inspection Enclosure

Change your environment to enhance your senses!

**Indoors:** No need to shut off overhead lights or close garage doors.

- Provides darkened area for inspecting engine compartments without inconveniencing other technicians.

#### Countless Applications:

- UV dyes inspection: Coolant, A/C, transmission, engine oil.
- Evaporative emission testing.
- Electronic refrigerant leak detectors.
- Enhanced viewing of backlit diagnostic tools.
- Spark plugs: Ignition and crossfire traces.
- Timing light.
- Cylinder head inspection.

#### Outdoors: Blocks sun and wind.

- Speeds testing and inspection by blocking light, wind, and rain.
- Enhances intensity of any UV light.
- Provides personal protection during inclement weather.
- Stows in integral stuff-sack.
- Soft Seal—encapsulated magnets for No Scratch Seal on open hood of vehicle.

**No. 16390** – Portable inspection enclosure.

**No. 16395** – Portable inspection enclosure with wall mounting frame, 73" wide x 48" deep.

**No. 16393** – Wall mounting frame only, 73" wide x 48" deep.



**16395**  
Work bench not included.

**16390**



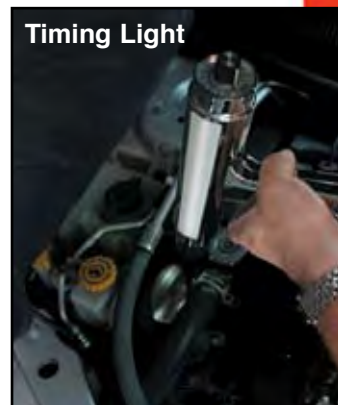
**UV Dye Inspection**



**Spark Tester**



Technician is able to perform several inspections in a darkened environment.



**Timing Light**

# ROBINAIR FLUID PRODUCTS

## Thermometers



TIF7000

### Specifications

Range	-40° to 1999° F (-40° to 1100° C)
Resolution	1° F (1° C)
Accuracy	± 1%, ± 1 digit (32° to 212° F)
Operating Temp	32° to 125° F (0° to 52° C)
Power Supply	(1) 9V battery
Battery Life	100 hours
Response Time	1-10 seconds
Warm-up Time	Instantaneous
Probe/Cord Length	36" (91.4 cm)
Dimensions	5" x 2.5" x 1" (12.7 cm x 6 cm x 2.5 cm)
Weight	5 oz. (140 grams)

### Digital Thermometer/Pyrometer

TIF manufactures a wide range of K-type digital thermometers. Packaged with a variety of probes, these fast responding, accurate thermometers are designed for rugged use.

The TIF7000, the original TIF thermometer, comes with three different probes. The first is the air probe, which can be used for instant readings of air temperatures from -40°F to over 1000°F. The second probe, the surface probe, is used for quick surface readings from -40°F to 1999°F. The immersion probe tests liquid temperature from -40°F to 500°F.

#### Features

- Field calibrateable, interchangeable probes.
- Wide sensing range.
- Universal connector.
- 9V battery powered.
- Custom fitted ABS carrying case.
- Superfast response.
- °F or °C selectable.
- One-year warranty.
- Auto zero each reading with display updates three times per second.

**No. TIF7000** – Digital thermometer/pyrometer.

**No. TIF7500A** – Includes the penetration probe (TIF7010 Only).

**No. TIF7000TP** – (TIF7002, TIF7003, TIF7008)

**No. TIF7005** – Coil cord.

**No. TIF7006** – Carrying case.

#### Accessory Probes

**No. TIF7002** – Surface.

**No. TIF7003** – Air.

**No. TIF7004** – Immersion.

**No. TIF7007** – Superheat.

**No. TIF7008** – Tire.

**No. TIF7009** – General purpose.

**No. TIF7010** – Penetration.



TIF7050

### Specifications

Range	-40° to 450° F (-40° to 232° C)
Resolution	1° F (1° C)
Accuracy	± 1%, ± 1 digit (32° to 212° F)
Operating Temp	32° to 125° F (0° to 52° C)
Power Supply	(1) 9V battery
Battery Life	100 hours
Response Time	2 seconds
Warm-up Time	Instantaneous
Probe/Cord Length	36" (91.4 cm)
Dimensions	5" x 2.5" x 1" (12.7 cm x 6 cm x 2.5 cm)
Weight	5 oz. (140 grams)

### Digital Thermometer/Pyrometer "Racing Kit"

Whether racing is your hobby or your profession, you need to have the TIF7050. This is the first digital pyrometer to combine laboratory technology with speed. The tire probe (included) allows quick temperature readings across the entire tread width. Instant temperature readings provide information on your tire's contact patch for camber, stagger, and/or shock adjustments.

#### Features

- Probe, display, connector cord, and a high impact carrying case.
- Super fast settling time.
- Switch selector for °F/°C.
- Display updates three times per second.
- ± 1% accuracy.

**No. TIF7050** – Digital thermometer/pyrometer "Racing Kit."

**No. TIF7005** – Coil cord.

### TIF7620, TIF7612, TIF7610 IR Thermometer PRO

- Complete IR design is incorporated inside of a single chip, reducing space and creating a compact and light weight product.
- Innovative optical lens – accurate measurements; wide temperature range.
- Laser pointer – Easy to define the target area to be measured.
- Extend temperature – TIF7612 and TIF7620 have a thermocouple interface that can extend the temperature up to 1999°F.
- Simple and easy to operate – Simply point at desired target and press the trigger button for a temperature reading.
- Set alarm temperatures (Low and High Temperatures) to receive alert information when the you are measured out of the range (TIF7612 and TIF7620 only).
- (MAX), (MIN), Difference between MAX and MIN (DIF), and average (AVG) modes are available in TIF7612 and TIF7620.
- The new TIF IR thermometers incorporate visual low battery indication and simple operation of two “AAA” batteries.



TIF7620

TIF7612

TIF7610

Specification	TIF7610	TIF7612	TIF7620
Measurement Range	-76 to +932°F (-60 to +500°C)	-76 to +932°F (-60 to +500°C)	-76 to +1400°F (-60 to +760°C)
Thermocouple Measurement Range	N/A	83.2 to +1999°F (-64 to +1400°C)	
Accuracy: Tobj=59°-95°F (15-35°C) Tamb=77°F (25°C)	±1.8°F (1.0°C)		
Accuracy: Tobj= -27-932°F (-33-500°C) Tamb= 73°F ±5°F (23 ± 3°C)	±2% of reading or 4°F (2°C) whichever is greater		
Thermocouple Accuracy	N/A	±1% of reading or 1.8°F (1°C) whichever is greater (Test under Tamb=73±11°F[23+6°C])	
Emissivity	0.95 fixed	Adjustable	
Resolution: 14.2° F~199.9° F (-9.9~199.9°C)	0.1°F/0.1°C (1° below 9.9 and above 199.9)		
Spectral Response	5 ~ 14μm	8 ~ 14μm	
Response Time (90%)	.5 sec		
Distance:Spot	10:1	12:1	20:1
Battery Life	Typ.18 hours		
Dimensions	175.2 x 39.0 x 71.9mm		
Weight	179 grams including batteries (AAA*2pcs)		

### TIF7201 Pocket IR Thermometer

- System-on-a-Chip SoC technology: compact and lightweight
- Backlit LCD display w/ dual readings
- °C / °F Switch and MAX function
- Auto power off after 15 sec.
- Battery level indication
- Distance to spot (D/S): 1:1

#### Applications:

- Automotive • Electrical
- General home use • HVAC/R



TIF7201



TIF7201D

Available in 4pk. display: TIF7201D  
(Includes 4 of the TIF7201)



# ROBINAIR FLUID PRODUCTS

## Thermometers



### Digital Thermometer

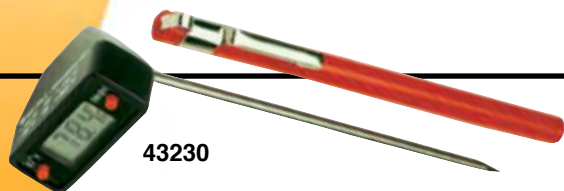
This digital thermometer gives you full-feature capabilities in a case that is small enough to fit in your shirt pocket. A wide temperature range and highly accurate readings make it useful for a variety of applications.

- Accurate readings from -40° F to 390° F ( $\pm 2^\circ$ ) and from -40° C to 200° C ( $\pm 1^\circ$ ).
- Switch selects Celsius or Fahrenheit.
- Sampling time is just one second; HOLD button freezes display for accuracy.
- Easy-to-read display can be read even in direct sunlight.
- Durable case includes a cover to protect the probe.
- Uses one 1.5V battery; includes battery-saver mode.
- Min/Max display for reading temperature ranges.

**No. 43240** – Digital thermometer.

### Specifications

**Range** ..... -40° to 390° F (-40° to 200° C)  
**Accuracy** .....  $\pm 2^\circ$  F between -14° and 212° F  
.....  $\pm 1^\circ$  C between -10° and 100° C  
..... Otherwise:  $\pm 3^\circ$  F ( $\pm 1^\circ$  C)  
**Display Resolution** ..... 0.1° F (0.1° C) throughout range  
**Battery** ..... One 1.5V x 1, Size LR44



### Swivel Head Digital Thermometer

The head on this digital thermometer swivels making it easy to see readings, at any angle. The compact size is convenient to carry and store.

- 180° swivel head makes display easier to read in tight places.
- Reliable readings over the entire temperature range.
- Readings can be toggled between Celsius and Fahrenheit.
- Sampling time is just one second.
- Durable case includes a pocket clip.
- For surface, liquid, and air temperatures.

**No. 43230** – Swivel head digital thermometer.

### Specifications

**Range** ..... -58° to 302° F (-50° to 150° C)  
**Accuracy** .....  $\pm 2^\circ$  F between -4° and 248° F  
.....  $\pm 1^\circ$  C between -20° and 120° C  
..... Otherwise:  $\pm 4^\circ$  F ( $\pm 2^\circ$  C)  
**Display Resolution** ..... 0.1° between -19.9 to 199.9  
..... otherwise 1°  
**Battery** ..... One 1.5V x 1, Size LR44  
**Automatic Power OFF** ..... After 10 minutes  
..... if ON/OFF is not pressed



### Digital Thermometer

- Large 1-1/4" diameter face with push button controls.
- Range from -58° to 302°F (-50° to 150°C).
- 5" (12.7 cm) stainless stem.
- Protector sheath with pocket clip.

**No. TIF750** – Digital thermometer.



### Dial Thermometers

All pocket thermometers come with a pocket-clip carrying case for protection and easy access. Easy-to-read faces are available in a variety of sizes and ranges.

Part No.	Temperature Range	Size
10596	-40° to + 160°F	1" dial face
10597	0° to + 220°F	1" dial face
10945	0° to + 220°F	1-3/4" dial face
40859	-40° to + 70°C	1" dial face

### R-134a Side-Wheel Manifolds for Automotive Service

**Solid Forged Brass Bar** — Long-lasting and durable with proven face seal valves.

**New Universal Gauges** — Easy-to-read dial faces show R-134a temperatures in degrees Fahrenheit, plus pressures in psi and kPa.

**Flexible Holster** — Protects your manifold during use and storage.

**Pressure Temperature Chart** — Stores in a slot on the back of the manifold; gives you multiple refrigerant capability.

**Includes** — R-134a low-permeation hoses with field service couplers on the high- and low-side hoses; yellow hose is 1/4" FFL x 1/2" Acme with Quick Seal™ fitting.

#### Models

**No. 40134A** — R-134a manifold gauge set with three 72" color-coded hoses and automotive field service couplers.

**No. 42134A** — R-134a manifold gauge set with three 72" color-coded hoses and automotive field service couplers; has Celsius temperature scale on gauges.

**No. 13138** — Hanging hook.

#### Replacement Hoses for 40134A and 40135:

**No. 13187** — Blue, **No. 13188** — Red, **No. 13190** — Yellow.

**No. 41698** — Set of one red and one blue with 1/4" drive (barrel style).



### Service Couplers for Automotive R-134a

Field service couplers connect to our special Enviro-Guard hoses to allow access to service ports on automotive R-134a A/C systems. The quick-connect design has an integral safety sleeve, which protects against injury and refrigerant loss if the coupler is disconnected under pressure. The compact design easily fits into tight quarters, which is especially handy for retrofits. Six-ball couplers provide a more stable grip on the fitting than do couplers with four balls.

**No. 19150** — O-ring kit for field service couplers.

**No. 18190A** — Low-side manual coupler, blue actuator.

**No. 18191A** — High-side manual coupler, red actuator.

**No. 18192** — Set of manual service couplers.

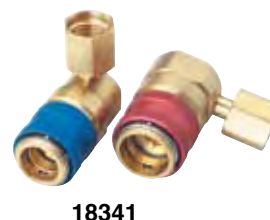
**No. 18341** — High- and low-side automatic couplers.

**No. 18074** — Low-side coupler, straight, blue actuator.

**No. 18075** — High-side coupler, straight, red actuator.

**No. 18174** — Low-side coupler, 90°, blue actuator.

**No. 18175** — High-side coupler, 90°, red actuator.



# ROBINAIR FLUID PRODUCTS

## A/C Manifold & Hoses



40152

### Side-Wheel Manifolds with 1/4" Fittings

Our popular side-wheel manifold is easy to use and designed for accuracy.

**Bar** — Solid forged brass for long life; handwheels are durable, color-coded Lexan™.

**Universal Gauges** — Clearly marked so they're easy to read and protected with Lexan™ lenses.

**Field-Proven Face Seal Valve** — Prevents leakage past the stem.

#### Models

**40152** — Standard side-wheel manifold, color-coded gauges, Fahrenheit scale, brass bar, handwheels, and hanging hook—no hoses.

**40151** — Standard side-wheel manifold, color-coded gauges, Celsius scale, brass bar, handwheels, and hanging hook—no hoses.

**40153** — Standard side-wheel manifold set, includes three 36" standard hoses with 1/4" fittings.

**40159** — Standard side wheel manifold, color-coded gauges, Fahrenheit scale, brass bar, handwheels, 80 mm lens gauges, and hanging hook—no hoses.

**40169** — Standard side wheel manifold set, includes three 60" standard hoses with 1/4" fittings.



41600

### Side-Wheel Manifolds-in Protective Holster

Use the 41600 for almost every job, instead of carrying several manifolds with 1/4" fittings. Gauges show R-22 and R-134a temperature scales.

**Flexible Holster** — Provides protection against the bumps and knocks of everyday use.

**Pressure Temperature Chart** — Stores in a slot on the back, giving multiple refrigerant capability.

**Face Seal Valves** — Provide a tight seal, less wear, and improved flow.

Comes with manifold bar, protective holster, 2-1/2" gauges, color-coded hand wheels, and hanging hook.

**41600** — Side-wheel manifold in protective holster—no hoses.

**41620** — Side-wheel manifold set with protective holster, three 72" standard hoses, and standard fittings.

**41630** — Side-wheel manifold set with protective holster, three 72" standard hoses with Quick Seal™ fittings.

**41640** — Side-wheel manifold set with protective holster, three 72" Enviro-Guard™ hoses with Quick Seal™ fittings.

**41612** — Side-wheel manifold, temperature readings in degrees Celsius—no hoses.



### Brass Manifold

No. 49300 – R-134a manifold only.

No. 13202 – R-134a manifold with hose set (49072) and service couplers.

### Aluminum Block Manifold with Sight Glass

No. 13199 – 1/4" MFL manifold only.

No. 48430 – 1/4" MFL manifold with hose set (68472).

No. 13208 – R-134a manifold only.

13199



49300



48430



### R-134a Manifold Kit

Deluxe combination side can tap features: 1/4" MFL and 1/2" Acme ports, hinged inserts for cans of R-12, R-134a, and their respective oils. 72" hoses for R-134a with automatic couplers, aluminum manifold, 1" dial thermometer, temperature/pressure chart, and blow-molded case.

No. 13136 – R-134a manifold kit.

13136



### Dual Manifold Gauge Kit

Includes aluminum block manifold, high- and low- R-134a snap couplers, 1" dial thermometer, 72" R-134a hose set, 72" R-12 hose set, and blow-molded storage case.

No. 48450 – Dual manifold gauge set.

48450

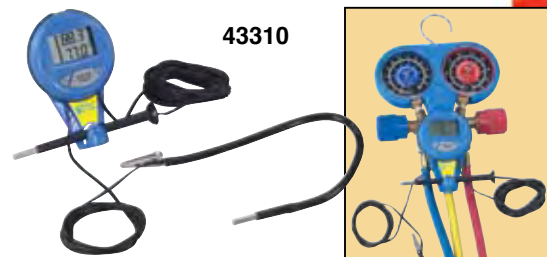


### A/C System Performance Calculator

- Instant performance test under any ambient temperature condition.
- Suspends from hood latch or attaches to your manifold gauge set.
- Includes ambient and vent temperature probes.
- Fahrenheit and Celsius scales. • Auto shut off.
- Diagnostic flow chart and tech tips to guide you through the test.

No. 43310 – A/C system performance calculator.

43310



### Replacement Gauges

Universal compound replacement gauge, psi/kPa pressure readings, R-22 and R-134a temperature readings in degrees Fahrenheit.

No. 11794 – Replacement gauge (replaces 11692).

Universal compound replacement gauge, psi/kPa pressure readings, R-22 and R-134a temperature readings in degrees Celsius.

No. 11797 – Replacement gauge.

Universal pressure replacement gauge, psi/kPa pressure readings, R-22 and R-134a temperature. Temperature readings in degrees Fahrenheit.

No. 11795 – Replaces 11693.

Universal pressure replacement gauge, psi/kPa pressure readings, R-22 and R-134a temperature. Temperature readings in degrees Celsius.

No. 11798 – Replacement gauge.

Replacement gauge lens, quarter turn on-off.

No. 11796 – Replacement gauge lens.

11794



11795



# ROBINAIR FLUID PRODUCTS

## A/C Manifold & Hoses



TIF9675  
(shown)

### TIF9675 & TIF9685 Digital Replacement Gauges

TIF has designed these gauges with the latest state-of-the-art technology. The digital display means you can have quick, easy-to-read, and accurate readings. These gauges allow you to read both pressure and vacuum.

Gauges are compatible with all refrigerants and are individually powered by one 9V battery.

**No. TIF9675** – Low-side gauge reads in increments of .10 from -30 in Hg to 99.9 psi.

**No. TIF9685** – High-side gauge reads in increments of 1 psi from 0 psi to 500 psi.

#### Specifications

Range.....	Low: -29.9 in Hg to 99.9 psi High: 0–500 psi
Resolution.....	Low: 0.1 in Hg and 0.1 psi High: 1 psi
Accuracy.....	±2% of reading
Operating Temp.....	32°–125° F (0°–52° C)
Power Supply.....	(1) 9V battery
Battery Life.....	>100 hours (alkaline)
Dimensions.....	3.5" x 2.8" x 1.9" D (8.9 cm x 7.1 cm x 4.8 cm)
Weight.....	6 oz. (170g)



### Stem Replacement Assembly Kit

Kits include all necessary parts to service one manifold valve. To replace stems on both valves, order two kits.

**No. 40232** – Stem assembly kit for manifolds with conical seal design.

**No. 13148** – Face seal kit for side-wheel manifolds, includes stem with o-rings, spring, and screw. Will not fit sight glass manifold.

**No. 19695** – Face seal kit for sight glass manifolds.

**No. 13067** – High vacuum grease.

#### Replacement Handwheels

**No. 40449** – Set of one red and one blue with 1/4" drive.

**No. 41698** – Set of one red and one blue with 1/4" drive (barrel style).

#### Replacement Parts for Hoses and Adapters

Replacement parts help you keep your charging hoses and adapters in top working condition.

**No. 18180** – O-rings for Quick Seal™ 1/4" fittings and adapters, pkg/6.

**No. 40531** – O-rings for 10293 adapters, pkg/6.

**No. 40082** – 1/4" valve core depressors, pkg/6.

**No. 40083** – 1/4" gaskets, pkg/6.

**No. 40084** – 3/8" gaskets, pkg/6.

**No. 40677** – 3/16" gaskets, pkg/6.

**No. 40653B** – 3/16" valve core depressors.

### Replacement Parts Kit for R-12 Manifold Gauges and Hoses

- 6 hose gaskets.
- 6 gasket adapters.
- 2 stem repair kits.
- 12 Quick Seal™ caps.
- 12 valve core depressors, 1/4".
- 4 Lexan® handwheels and screws.
- O-rings to service Quick Seal™ fittings.
- Valve core remover/installer with valve cores.

**No. 18019** – Replacement parts kit for R-12 manifold gauges and hoses.

### Replacement Parts Kit for R-134a Manifold Gauges and Hoses

- 4 manifold stems.
- 6 o-rings, 14 mm.
- 12 valve core depressors.
- 12 hose gaskets, 1/4".
- 12 manifold stem o-rings.
- 6 Quick Seal™ o-rings for R-134a.
- 2 caps with straps, 1/2" Acme.
- O-ring lubricant (high vacuum grease).
- Valve core remover/installer with 6 valve cores.
- 4 color-coded Lexan® handwheels and screws.
- Set of R-134a coupler o-rings, high- and low-side.

**No. 18576** – Automotive replacement parts kit for R-134a manifold gauges and hoses.



18576

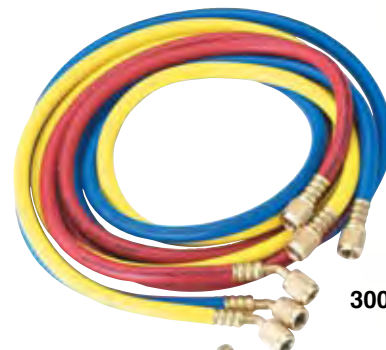
### Hoses

**No. 30072** – Standard hose (500/2500 psi) – 72", 1/4" SAE internal fitting x 1/4" SAE internal.

**No. 34107** – Standard hose (500/2500 psi) – 72" 1/4" SAE internal fitting x 1/4" SAE internal with auto shut-off.

**No. 68472** – Enviro-Guard hose (740/3700 psi) – 72" 1/4" SAE internal fitting x 1/4" SAE internal with auto shut-off

**No. 49072** – R-134a Enviro-Guard hose (740/3700 psi) – 72" red/blue, 1/2" ACME internal x 14 mm external fittings; yellow, 1/2" ACME internal x 1/2" ACME internal.



30072

### Special Hoses for Special Jobs

#### Enviro-Guard™ Hoses with Ball Valves

In-line ball valves control refrigerant flow, open and close in a quarter turn.

**No. 65060** – Set of three 60" hoses with ball valves.

**No. 65160** – 60" Enviro-Guard™ hose with ball valve, yellow.

**No. 65260** – 60" Enviro-Guard™ hose with ball valve, blue.

**No. 65360** – 60" Enviro-Guard™ hose with ball valve, red.



65060

### Hose Extension Coupler

Connect any number of hoses to get the extra length you need — there's no need to order special hose lengths.

**No. 40333** – 1/4" MFL x 1/4" MFL, no valve core.

**No. 10328** – 1/2" Acme external x 14 mm internal (for automotive R-134a).



40333

### 20' Charging Hoses

**No. 68020** – Set of 20' Enviro-Guard™ red and blue, 1/4" fittings.

**No. 68420** – Set of 20' Enviro-Guard™ red and blue, Quick Seal™ fittings.



# ROBINAIR FLUID PRODUCTS

## A/C Manifold & Hoses



### Charging Hoses

Robinair premium refrigerant charging hoses are built for long life and dependability. A strong, six-sided crimp provides a reliable connection between the hose and barb, even at maximum pressure. The coupler nuts are deeply knurled for quick finger-tightening. Enviro-Guard™ hoses are ideal for high pressure applications, including R-410a systems.

### Hose Selection Charts

Length (inches)	Yellow	Blue	Red	Pkg. Set (Blue, Red, Yellow)
36	31036	32036	33036	30036
60	31060	32060	33060	30060
72	31078	32072	31079	30072
96	31096	32096	33096	N/A

#### 1/4" Standard Hoses with Standard Fittings

Neoprene-coated for flexibility and wear resistance, with a valve core depressor and a 45° bend on one end for convenient access to the system.

500 psi working pressure; 2500 psi burst pressure.

Length (inches)	Yellow	Blue	Red	Pkg. Set (Blue, Red, Yellow)
72	38172A	38272A	38372A	39072A

#### 1/4" Standard Hoses with Quick Seal™ Fittings

500 psi working pressure; 2500 psi burst pressure.

Length (inches)	Yellow	Blue	Red	Pkg. Set (Blue, Red, Yellow)
72	67172	67272	67372	67072

#### 1/4" Enviro-Guard™ Hoses with Standard Fittings

740 psi working pressure; 3700 psi burst pressure.

Length (inches)	Yellow	Blue	Red	Pkg. Set (Blue, Red, Yellow)
36	68136A	68236A	68336A	69036A
60	68160A	68260A	68360A	69060A
72	68172A	68272A	68372A	69072A
96	68196A	68296A	68396A	69096A

#### 1/4" Enviro-Guard™ Hoses with Quick Seal™ Fittings

Special barrier material prevents virtually any permeation of refrigerant, yet remains flexible. With 45° Quick Seal™ fittings.

740 psi working pressure; 3700 psi burst pressure.

Length (inches)	Yellow 1/2" ACME x 1/2" ACME	Blue 14 mm x 1/2" ACME	Red 14 mm x 1/2" ACME	Pkg. Set (Blue, Red, Yellow)
36	61036	62036	63036	60036
60	61060	62060	62243	60060
72	61072	62072	62244	60072
96	61096	62121	63096	60096
240	NA	NA	NA	64240 (excl. yellow)
240	NA	NA	62246	NA
240	NA	62242	NA	NA

#### Enviro-Guard™ Hoses for Automotive R-134a

Meets all specifications for low permeation construction. Clearly marked for R-134a. See page 351 for service couplers.

740 psi working pressure; 3700 psi burst pressure.

### Premium High Vacuum Pump Oil

The performance of your pump depends largely on the quality and purity of the vacuum pump oil. Robinair's oil is engineered to maintain maximum viscosity at high running temperatures and to improve cold weather starts.

To keep the pump operating at peak efficiency, change the oil frequently. Moisture and other contaminants can quickly deteriorate the purity of the oil, thinning the oil, and reducing the pump's ability to reach deep vacuum conditions.

### Thermally Stable

Laboratory tests prove that Robinair oil is more thermally stable in comparison to other leading brands, which means it resists breaking down due to heat for a longer period of time.

### Lower Moisture Content

Robinair oil has a lower moisture content than other oils, thanks to our special packaging and handling procedures. Moisture degrades the oil's purity, thinning it, and reducing the pump's ability to reach a deep vacuum.



**No. 13119** – Pint bottle, 12 per case.

**No. 13203** – Quart bottle, 12 per case.

**No. 13204** – Gallon bottle, 4 per case.

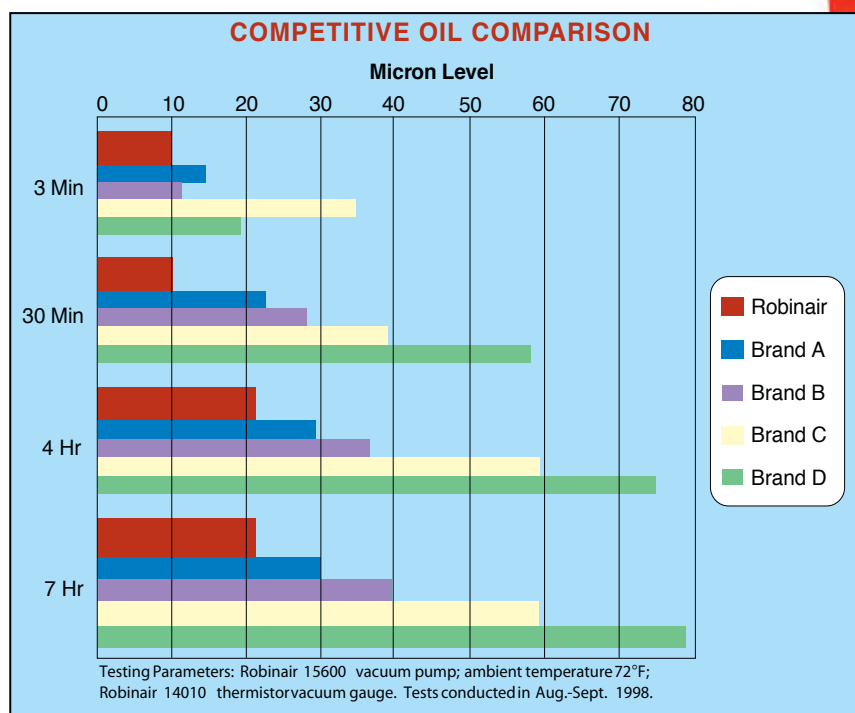
### Also Available

**No. 17191** – Oil spout for quart bottle, 10" long, handy for adding oil to a pump mounted on a station.

### Change Your Vacuum Pump Oil Frequently

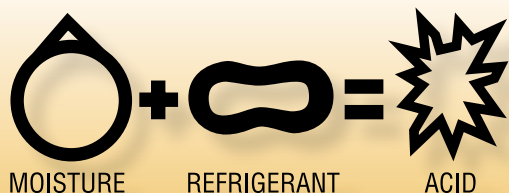
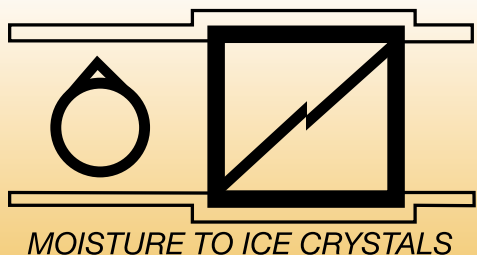
Clean oil is important for peak vacuum pump performance. When the oil is contaminated, it reduces your pump's ability to remove moisture from a system. You should change the pump oil frequently, and especially in the following situations:

- You have just evacuated a system that you suspect was overly moisture-laden.
- You have just evacuated a system with a compressor burnout.
- The pump oil looks cloudy or milky.
- The pump will not pull to factory specifications when blanked off to an electronic thermistor vacuum gauge.
- Every 10 hours of operation.



# ROBINAIR FLUID PRODUCTS

## A/C Vacuum



### The Importance of Deep Vacuum

The purpose of a vacuum pump is to remove moisture and air from an A/C-R system.

Modern systems are built tighter and charges are more critical. That means these systems have a greater sensitivity to moisture and other contaminants, making thorough evacuation more important than ever before.

Moisture in a refrigeration system, directly or indirectly, is the cause of most problems and complaints. First, moisture can cause freeze-up in a system. Moisture is picked up by the refrigerant and transported through the refrigerant line in a fine mist, with ice crystals forming at the point of expansion.

“Freeze-up” is not the only problem caused by moisture. It can also result in corrosion, the effects of which are not apparent until the real damage has occurred. Moisture alone is bad enough, but combined with refrigerants containing chlorine, hydrochloric acids can form. These greatly increase the corrosion of metals.

Also, refrigerant oil rapidly absorbs moisture. Water-formed acids combine with the refrigerant, forming a closely bonded mixture of fine globules. The effect is called sludging and it greatly reduces the lubricating ability of the oil.

A vacuum pump removes troublesome moisture by lowering the pressure within the system and vaporizing (or boiling off) the moisture, then exhausting it along with air.

### CoolTech™ – The Inside Story

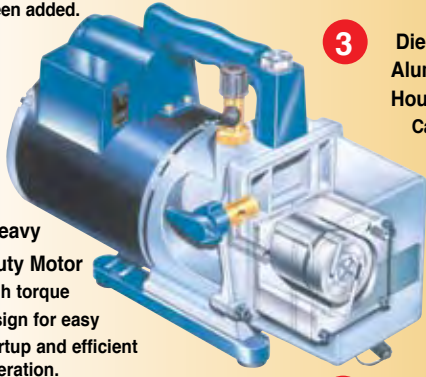
A vacuum pump that’s fast and thorough saves you not only time, but also the expense of callbacks and dissatisfied customers. Robinair pumps perform better than other pumps in the industry, ensuring you complete dehydration before recharging.

Robinair pumps are engineered specifically to meet the needs of the kind of A/C work you’re doing today, and to give you trouble-free operation. We’ve put our years of experience and know-how into developing pumps that help you do the job faster and better.

All Robinair pumps are backed by our exclusive “No Hassle” over-the-counter replacement warranty. You can return a pump to your Robinair distributor for an immediate exchange — with no hassle! (In U.S. and Canada only; in other locations, see your Robinair distributor.)

Robinair CoolTech vacuum pumps are designed for use on A/C-R systems using CFCs, HCFCs, and HFCs in conjunction with mineral oil, ester oil, alkylbenzene oil, and PAG oil as lubricants. Do not use them with ammonia or lithium bromide systems; not for use with flammable refrigerants.

U.S. Patent Numbers: 4,523,897; 4,631,006; 5,209,653.

- 
- 1 Oil Fill Port**  
Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.
  - 2 Two-stage Design**  
Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper ultimate vacuum.
  - 3 Die-Cast Aluminum Housing**  
Cast aluminum housings make the pumps lightweight but durable.
  - 4 Heavy Duty Motor**  
High torque design for easy startup and efficient operation.
  - 5 Molded Base**  
Durable polycarbonate base improves pump balance and minimizes vibration during operation.
  - 6 Iso-Valve™**  
Isolates the pump from the system with just a quarter-turn.
  - 7 Offset Rotary Vanes**  
Our proven design builds a powerful compression within the pumping chamber to reduce system pressure and vaporize moisture, so it can be exhausted along with air.
  - 8 Oil Drain Valve**  
Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.



### Selecting the Right Size Pump

The more air a pump moves, the faster it can reach an acceptable vacuum. A smaller pump takes more time to evacuate a system than one that's the correct size for the job.



### Use this Chart as a Guide to Selecting the Right Size Pump

System	Recommended Pump Size	
	CoolTech™	VacuMaster™
Up to 10 tons (35kW); Domestic Refrigeration, Passenger Cars	1.2 CFM (28 l/m)	1.5 CFM (35 l/m)
Up to 30 tons (105kW); Residential A/C, Panel Trucks & RV's	4 CFM (93 l/m)	3 CFM (71 l/m)
Up to 50 tons (176kW); Rooftop A/C systems, Tractor/Trailers, Buses	6 CFM (142 l/m)	5 CFM (118 l/m)
Up to 70 tons (246kW)	10 CFM (236 l/m)	8 CFM

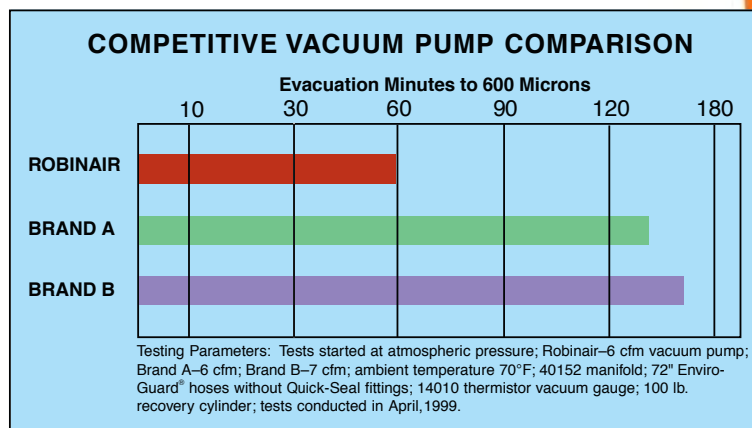
Tests done under the same laboratory conditions confirm that Robinair vacuum pumps consistently out perform other major brands. Our Model 15600 reaches a vacuum of 600 microns in just 60 minutes, while the competition's pumps took more than two hours to reach the same micron level.

### Robinair pumps weigh less!

You'll appreciate the difference a few pounds make when you're carrying the pump up a ladder or through an access hatch.

### Robinair pumps use less oil!

Smaller oil capacity means that your maintenance costs will be lower over the life of the pump.



<b>Robinair (6 CFM)</b>	<b>27 lbs</b>
Brand A (6 CFM)	34.5 lbs
Brand B (7 CFM)	27.5 lbs

<b>Robinair</b>	<b>15 oz.</b>
Brand A	24 oz.
Brand B	30 oz.

# ROBINAIR FLUID PRODUCTS

## A/C Vacuum



**15120A**  
10 CFM



**15600** – 6 CFM  
**15400** – 4 CFM  
**15434** – 4 CFM



**15234**  
1.2 CFM

## CoolTech® Vacuum Pumps

- Power and capacity for a wide range of service applications.
- High CFM rating for fast, thorough evacuation.
- Two-stage rotary vane design.

### Features:

**Iso-Valve™** – Isolates the pump from the system with just a quarter-turn.

**Gas Ballast** – Moisture laden air passing through the pump mixes with relatively dry air to such a degree that compression does not cause condensation.

**Two-stage Design** – Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper, ultimate vacuum.

**Oil Drain Valve** – Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.

**Oil Fill Port** – Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.

**Heavy-Duty Motor** – High torque design for easy startup and efficient operation.

**Offset Rotary Vanes** – Our proven design builds a powerful compression within the pumping chamber to reduce system pressure and vaporize moisture so it can be exhausted along with air.

**Molded Base** – Durable polycarbonate base improves pump balance and minimizes vibration during operation.

**Die-Cast Aluminum Housing** – Cast aluminum housings make the pumps lightweight but durable.

Model	Free Air Displacement	Factory Micron Rating	No. of Stages	Intake Fitting	Oil Capacity	Motor Size	Voltage	Approvals	Weight	Dimensions
<b>Domestic Models</b>										
<b>15234</b>	1.2 CFM	50 microns	2	1/4" MFL and 1/2" Acme	5 oz. (148 ml)	1/8 hp	115V 50/60 Hz	UL	10 lbs. (4.5 kg)	8.5" H x 4.3" W x 9.5" L 215 mm x 108 mm x 240 mm
<b>15400</b>	4 CFM	20 microns	2	1/4" MFL and 1/2" MFL	15 oz. (445 ml)	1/3 hp	115V 60 Hz	UL	29 lbs. (12.2 kg)	9.75" H x 5.625" W x 15" L 247 mm x 142 mm x 381 mm
<b>15434</b>	4 CFM	20 microns	2	1/4" MFL and 1/2" Acme	13 oz. (384 ml)	1/3 hp	115V 60 Hz	UL	29 lbs. (12.2 kg)	9.75" H x 5.5" W x 15" L 247 mm x 142 mm x 381 mm
<b>15600</b>	6 CFM	20 microns	2	1/4" MFL and 1/2" MFL	15 oz. (445 ml)	1/2 hp	115V 60 Hz	UL	30 lbs. (12.2 kg)	9.75" H x 5.625" W x 15" L 247 mm x 142 mm x 381 mm
<b>15120A</b>	10 CFM	20 microns	2	1/4" MFL and 1/2" MFL	16.5 oz. (448 ml)	1/2 hp	115V 60 Hz	UL	30 lbs. (12.2 kg)	10.75" H x 5.625" W x 16" L 247 mm x 142 mm x 381 mm
<b>International Models</b>										
<b>15226</b>	28 liters/minute	50 microns	2	1/4" MFL and 1/2" Acme	5 oz. (148 ml)	1/8 hp	220V 50/60 Hz	CE	10 lbs. (4.5 kg)	8.5" H x 4.5" W x 9.5" L 215 mm x 108 mm x 240 mm
<b>15401</b>	93 liters/minute	20 microns	2	1/4" MFL and 1/2" MFL	15 oz. (444 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	32 lbs. (14.5 kg)	9.5" H x 5.5" W x 15" L 247 mm x 142 mm x 381 mm
<b>15424</b>	93 liters/minute	20 microns	2	1/4" MFL and 1/2" Acme	15 oz. (445 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	29 lbs. (14.5 kg)	9.5" H x 5.5" W x 15" L 247 mm x 142 mm x 381 mm
<b>15601</b>	142 liters/minute	20 microns	2	1/4" MFL and 1/2" MFL	15 oz. (445 ml)	1/3 hp	115V/220-250V 50/60 Hz	CE	33 lbs. (15 kg)	9.5" H x 5.5" W x 15" L 247 mm x 142 mm x 381 mm
<b>15121A</b>	236 liters/minute	20 microns	2	1/4" MFL and 1/2" MFL	17 oz. (503 ml)	1/2 hp	115V/220V 50/60 Hz	CE	38 lbs. (17.2 kg)	10" H x 5.5" W x 16" L 272 mm x 142 mm x 419 mm

### VacuMaster™ Economy Vacuum Pumps

- Performance tested to meet Robinair's high standards
- Power and capacity for a wide range of service applications.
- High CFM rating for fast, thorough evacuation.
- Two-stage rotary vane design.

#### Features:

**Two-stage Design** – Cleans the system more thoroughly than a single-stage pump; the second stage starts pumping at a lower pressure so you can pull a deeper, ultimate vacuum.

**Oil Drain Valve** – Positioned at the bottom of the oil reservoir and angled for faster, more complete draining.

**Oil Fill Port** – Makes adding oil simple since the port is accessible from the front or either side. The sight glass on the front of the pump shows you when enough oil has been added.

**Heavy-Duty Motor** – High torque design for easy startup and efficient operation.

**Die-Cast Aluminum Housing** – Cast aluminum housings make the pumps lightweight but durable.



**15150**  
1.5 CFM



**15500**  
5 CFM

Model	Free Air Displacement	Factory Micron Rating	No. of Stages	Intake Fitting	Oil Capacity	Motor Size	Voltage	Weight	Dimensions
<b>Domestic Models</b>									
<b>15150</b>	1.5 CFM	50 microns	2	1/4" MFL and 3/8" Acme 3/8" FFL x 1/2" Acme adaptr.	7.4 oz. (219 ml)	1/4 hp	115V 60Hz	22 lbs. (10 kg)	9.5" H x 4.75" W x 12.5" L 240 mm x 120 mm x 315 mm
<b>15300</b>	3 CFM	40 microns	2	1/4" MFL and 3/8" MFL 3/8" FFL x 1/2" Acme adaptr.	7.5 oz. (220 ml)	1/3 hp	115V 60Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
<b>15500</b>	5 CFM	40 microns	2	1/4" MFL and 3/8" Acme 3/8" FFL x 1/2" Acme adaptr.	7.5 oz. (220 ml)	1/3 hp	115V 60Hz	28 lbs. (12.2 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
<b>15800</b>	8 CFM	40 microns	2	1/4" MFL and 3/8" MFL 3/8" FFL x 1/2" Acme adaptr.	18.6 oz. (550ml)	1 hp	115V 60Hz	37lbs. (16.78 kg)	16" H x 6" W x 10" L 406" mm x 152mm x 254mm
<b>International Models</b>									
<b>15151</b> 1.5 CFM	35 liters/minute	50 microns	2	1/4" MFL and 1/2" Acme 3/8" FFL x 1/2" Acme adaptr.	7.5 oz. (220 ml)	1/4 hp	220V 50Hz	21 lbs. (9.6 kg)	9.5" H x 4.5" W x 12.5" L 240 mm x 120 mm x 315 mm
<b>15301</b> 3 CFM	71 liters/minute	40 microns	2	1/4" MFL and 1/2" MFL 3/8" FFL x 1/2" Acme adaptr.	7.5 oz. (220 ml)	1/3 hp	220V 50Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm
<b>15501</b> 5 CFM	118 liters/minute	40 microns	2	1/4" MFL and 1/2" Acme 3/8" FFL x 1/2" Acme adaptr.	7.5 oz. (220 ml)	1/3 hp	220V 50Hz	28 lbs. (12.5 kg)	10" H x 5" W x 13" L 255 mm x 123 mm x 336 mm

	Oil Fill Port	Heavy Duty Motor	Two-Stage Design	Molded Base	Die-Cast	Oil Drain Valve	Offset Rotary Vanes	Iso-Valve	Gas Ballast
<b>CoolTech™ Pumps</b>	•	•	•	•	•	•	•	•	•
<b>VacuMaster® Pumps</b>	•	•	•	•	•	•			

All Robinair pumps are backed by our exclusive "No Hassle" over-the-counter replacement warranty. You can return a pump to your Robinair distributor for an immediate exchange — with no hassle! (In U.S. and Canada only; in other locations, see your Robinair distributor.)



# ROBINAIR FLUID PRODUCTS

## A/C Vacuum



34970

### Air-Vac™ for R-12 and R-134a

**Economical Air-Vac** uses shop air to pull the system into vacuum and includes inlet fittings with 1/4" and 1/2" Acme sizes.

**Easy to use** — Unique venturi design runs on shop air.

**Rugged Lexan® Case** — Both oil- and scratch-resistant and comes with a convenient handle.

**Low Maintenance** — There's no oil or moving parts to replace.

**No. 34970** — Air-Vac™ for R-12 and R-134a.

**No. 34977** — Replacement inlet tee, 1/4" MFL and 1/2" acme.

### Specifications

Drive .....	Compressed air
Free Air Displacement .....	1 CFM
Input Pressure .....	75 psi
Vacuum Rating .....	29 in./Hg
Intake Fitting .....	1/4" MFL and 1/2" ACME
Dimensions .....	4-1/2" H x 4" W x 7-1/2" L
Weight.....	2 lbs./1 kg



15195



15495



10459

### Pump Intake Fittings

#### R-12/R-134a Dual Inlet Fittings

Convert your pump to R-12 and R-134a. Solid brass tees replace inlet fittings on pump; includes a branch with a 1/4" MFL fitting for R-12 (and other refrigerants) and a branch with 1/2" Acme fittings for automotive R-134a.

#### Also Available:

**No. 15555** — Screw-on inlet adapter converts any pump, 1/4" FFL coupler x 1/4" MFL x 1/2" Acme.

**No. 15195** — 1/4" MFL/1/2" Acme combination inlet fitting for 15200 series vacuum pumps.

**No. 15495** — 1/4" MFL/1/2" Acme combination inlet fitting for 15400/15600 series vacuum pump.

#### Pump Intake Fitting Adapters:

**No. 10459** — Adapter, 1/2" FFL to 1/4" MFL.

**No. 13110** — Adapter, 3/8" FFL to 1/4" MFL.

**No. 13066** — Adapter, 1/2" FFL to 3/8" MFL.

### The Importance of Measuring Vacuum

Moisture in an A/C system is a serious problem for the technician – it causes freeze-ups and corrosion, seriously damaging the A/C system. The most effective way to eliminate moisture is to create a vacuum deep enough to boil it away. For that, you need a high vacuum pump, and a tool to tell you when the vacuum is deep enough to adequately dehydrate the system.

Without a means of measurement, evacuation time is based on guesswork. The length of time required for thorough dehydration will vary from system to system because of several factors – so using a clock isn't foolproof. You risk not removing all the moisture – or wasting time by running the pump long after evacuation is complete.

Many service technicians rely on the compound gauge of the manifold to read vacuum. While the manifold is good for gross measurements, it's simply not accurate enough to determine exact vacuum levels. It's designed to read low pressures in inches of mercury, but there's no way to read exact levels when you're pulling the last, most critical inch of vacuum.

If you look at the compound gauge face, you can see that it's not possible to clearly differentiate between 29" Hg and 29.9" Hg, for example. But in microns – the precise measurements for the last inch of vacuum – that's the difference between roughly 23,000 and 250 microns.

A closed-end, U-tube, mercury manometer is capable of reading to 500 microns. However, it's a delicate instrument, more suited to a laboratory or controlled environment.

The most economical, effective, and easy-to-use option is an electronic thermistor vacuum gauge. It eliminates the guesswork by measuring the vacuum to precise micron levels, ensuring the system is leak-free, moisture-free, and ready to be recharged. Although originally developed as a laboratory instrument, today's thermistor vacuum gauges are rugged enough – and reliable enough – for field service work.

### Thermistor Vacuum Gauge

Solid-state instrument constantly monitors and visually indicates the vacuum level in 10 segments from atmosphere to 50 microns.

- LCD screen can be read even in direct sunlight and minimizes battery consumption.
- There are no adjustments to make, no calibrations for atmospheric pressure or altitude.
- Durable carrying case protects the instrument and has a built-in compartment for storing the 24" charging hose (included).

**No. 14830A** – Thermistor vacuum gauge.



**14830A**

### Specifications

**Range** . . . . . 25,000 to 50 microns in 10 segments  
**Power Supply** . . . . . Four "D" cell batteries (not included) . . . . . or optional A/C adapter  
**Display** . . . . . Custom LCD, 10 segments  
**Weight** . . . . . 2.38 lbs. (1.08 kg) without batteries  
**Dimensions** . . . . . 10" H x 7.5" W x 3.375" D  
 . . . . . (25.4 cm x 19 cm x 8.6 cm)

# ROBINAIR FLUID PRODUCTS

## A/C Vacuum



### Compact Electronic Vacuum Gauge

Robinair's 14777 electronic vacuum gauge is just 2-1/2" x 3" in size, but accurate enough to clearly indicate when the system is free from moisture and ready for recharging.

Specifically designed for use with a high vacuum pump, the 14777 measures to 10 microns.

**Clearly Shows Vacuum Level** – The display is an easy-to-read LCD type with readout showing the current vacuum level.

**6' Lead for Service Flexibility** – Hang the gauge in a location that's convenient for you to monitor vacuum level.

**Mounting Magnet** – Position the 14777 where it's easy to read the LCD.

### Hassle-Free Operation

**No. 14777** – Compact electronic vacuum gauge.

**No. 14778** – Replacement thermistor tube.



**PRO  
TIPS**

When reading vacuum, remember that the location of the vacuum gauge tube will affect the reading. The closer the gauge is to the vacuum pump, the lower the reading will be. Conversely, if you take the reading at a line far away from the pump, the reading will be on

the high side.

The way to get the most reliable reading is to isolate the vacuum pump using a vacuum valve assembly. Allow the pressure to equalize throughout the system, then take a final reading.

A reading that's too high is a good indication of moisture in the system; continuing to evacuate will likely pull the system into a deeper vacuum. If the pressure will not equalize, you probably have a leak, which should be repaired.

### Specifications

Power Supply.....	One 9V battery (included)
Vacuum Fitting.....	1/4" MFL
Length of Lead.....	6 feet (8.3 m)
Vacuum Rating.....	.29 in./Hg
Dimensions.....	3" H x 2.5" W x 1" D
	(7.62 cm x 6.35 cm x 2.54 cm)



### Slimline Refrigerant Scale

A revised and updated version of the classic TIF Slimline scale, the TIF9010A brings greater performance, reliability, and usability to the trade. With the greatest resolution in the industry, and no compromise on capacity, this unit offers features and specs that you won't want to do without.

#### FEATURES

- Touch key controls.
- Three display modes - lbs./oz.; decimal lbs.; kilograms.
- Very high resolution - 0.1 oz./0.005 lbs./2 grams.
- Extreme accuracy.
- 110 pound/50 kg capacity.
- Auto zero.
- Compact design, 2.5" (6.35 cm) thick.
- Charging and recovery capabilities.
- Can be used with all refrigerants.
- Completely portable, battery powered.
- Removable control box with prop stand/hanging hook.
- Built into carrying case.
- Two-year warranty.

**No. TIF9010A** – Slimline refrigerant scale.



**TIF9010A**

#### Specifications

Range.....	0 lbs. 0.0 oz. to 110 lbs. 0.0 oz., or .....0.000 lbs. to 110.000 lbs., or .....0.000 kg to 50.000 kg
Resolution .....	0.1 oz./0.005 lbs./2 grams
Accuracy .....	±0.5% of reading
Operating Temp .....	32° to 120°F (0° to 49°C)
Power Supply .....	9V DC
Battery Life .....	20 hours
Coil Cord Length .....	.6 ft. (1.8 m)
Dimensions .....	15.25" x 10.5" x 2.5" (38.7 cm x 26.7 cm x 6.35 cm)
Weight .....	4.5 lbs. (2 kg)

### Economy Digital Refrigerant Scale

- New molded design, easy to carry and store.
- Capacity up to 220 lbs. (100 kg). Display shows lbs./oz. and kg.
- High accuracy (±0.5 oz.) and resolution (0.1oz).
- 9-volt battery power.
- Platform to adapt to most existing tanks (9" x 9").
- Three control keys: On/Off, automatic zeroing, and measurement units.
- Charging and recovery capabilities
- CE approved.
- One-year warranty.

**No. TIF9030** – Economy digital refrigerant scale.

**No. TIF9031** – Economy digital refrigerant scale carrying case.



**TIF9030**



**TIF9031**

# ROBINAIR FLUID PRODUCTS

## A/C Scales



TIF9055

### Specifications

Range	0 lbs. 0.0 oz. to 219.99 lbs. 0.0 oz., OR 0.000 lbs. to 219.990 lbs., OR 0.000 kg to 100.000 kg
Resolution	0.2 oz./0.010 lbs./4 grams
Accuracy	± 0.5% of reading
Power Supply	Four AA batteries and one 9V battery
Battery Life	30 hours
Max. Solenoid operating pressure	500 psi
Operating Temp.	32°F to 120°F (0°C to 49°C)
Inlet/Outlet Ports	1/4" MFL fittings with 1/2" ACME adapters
Weight	Approx. 7 lbs.

### Certified Refrigerant Scale

- 200 pound OR 100 kg capacity.
- Allows automatic charging or recovery operations.
- Color-coded keypad controls.
- Three display modes – lbs./oz.; decimal lbs.; kilograms.
- Very high resolution – 0.2 oz./0.010 lbs./4 grams.
- Can be used with all refrigerants.
- Advanced charge and recovery modes – uses tare weight and maximum capacity of cylinder to calculate maximum charge/recovery available.
- User programmable memory for up to 99 different stored values.
- “Repeat” charge feature.
- Removable platform and control box with prop stand/hanging hook.
- Compact design – completely portable, battery powered.
- Low battery indicators.
- Five-year warranty.

**No. TIF9055** – Certified refrigerant scale.



34990

### Specifications

Weight Limit	110 lb. (50 kg) bulk tank maximum
Display	16 digit alphanumeric LCD
Weight Resolution	0.02 lbs. (.01 kg)
Operating Temp	50° to 120°F (10° to 49°C)
Power Supply	110V 50 Hz
Dimensions	13.5" x 11" x 4" (34 cm x 28 cm x 10 cm)
Platform Dimensions	8.5" x 8.5" (22 cm x 22 cm)
Weight	Approx. 8 lbs. (4 kg)

### Automatic Charging Scale

Just program the charge amount and this scale accurately charges refrigerant from a bulk tank, and shuts off automatically for hands-off operation.

**Charging is simple** – just press and hold the “Charge” key until the display shows the desired weight, then release the key!

**Accurate Charging** – Meter is accurate to ±1 oz.; can handle up to 110 lbs.

**Dual Fittings for Versatility** – Includes both 1/4" MFL and 1/2" ACME fittings.

**Corner Balancing** – Weight measurement is accurate even if the tank is placed off-center on the platform.

**Tare Function** – Zeroes the display so you can easily read changes in the weight.

**No. 34990** – Automatic charging scale.

### International Model

**No. 34991** – 220–240V 50/60 Hz, 1/4" MFL and 1/2" ACME fittings.



### Cordless Rechargeable 30-LED Light

- Work anywhere without worrying about tangled cords
- Eliminate the possibility of electrical shock from worn and frayed power cords!
- One-hour recharge time provides up to 8 hours of continuous operation.
- 30 super-bright, long-life LEDs provide forward directed pure white light.
- Strong enough to withstand being driven over by a vehicle!
- Slim design allows access into tight areas.
- Swivel hook allows the light to be positioned in any direction.

**No. 16440** – Cordless rechargeable 30-LED light.



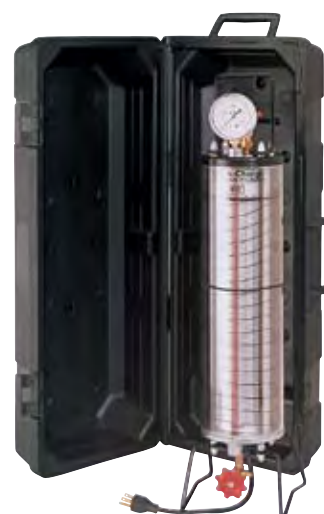
**16440**

### Dial-A-Charge® Charging Cylinders

Calibrated shrouds make accurate charging simple, and the charge is measured by weight for greatest accuracy. Using the calibrations in conjunction with the pressure gauge, you can easily compensate for volume fluctuations that occur as the ambient temperature changes, just by “re-dialing” the shroud.

Heated cylinders help speed the transfer of refrigerant by overcoming the equalization of pressure between the system and the charging cylinder. This reduces the time required for a complete charge.

- Charges by volume; calibrations on the shroud make it easy to charge the exact amount required.
- Comes in durable polyethylene case for protection during storage and transit. Cylinder snaps in and out of the case and can be stored either vertically or horizontally.
- For safety, all cylinders come with pressure relief valves; they automatically reset when a safe working pressure is restored.



For automotive applications, order the Dial-A-Charge with Acme fittings.

#### R-12, R-22, R-502 MODELS – 1/4" SAE FITTINGS

Capacity	110V	220V	Graduations
2-1/2 lb.	43299B	NA	1 oz.
5 lb.	43678B	—	1 oz.
2200 grams	43681B	20349B	25 g

#### R-134a MODELS

Capacity	110V	Graduations
2-1/2 lb. 1100 grams 1/4" SAE fittings	43134B	1 oz. 25 g
5 lb. 2200 grams 1/4" SAE fittings	43534B	1 oz. 25 g
5 lb. 2200 grams ACME fittings	34205A	1 oz. 25 g
Capacity	220V	Graduations
5 lb. 2200 grams ACME fittings	43220	1 oz. 25 g



# ROBINAIR FLUID PRODUCTS

## A/C Tools & Accessories



### Heater Blanket

Robinair's heater blanket speeds charging by maintaining a constant temperature, thus creating a positive pressure between the refrigerant tank and the A/C system.

- Fits 30 and 50 pound refrigerant tanks.
- Thermostat is set at 125°F (55°C).
- Thermal cut-off switch protects against overheating.
- 300 watts, 2.6 amps.

**No. 10994** – Heater blanket.

### International Models

**No. 13183** – Heater blanket, 220V–240V 50 Hz, no plug.

**No. 13184** – Heater blanket, 220V–240V 50 Hz, with internal IEC receptacle.



### Mini Tubing Cutter

With a short swing radius, this cutter makes quick work of cutting tubing in tight spots. The 42022 is especially versatile with its larger range: 1/8" to 1-1/8" O.D. tubing capacity.

**No. 42022** – Mini tubing cutter.



### Mini Tubing Cutter

With the smallest cutting radius in the industry, the 42024 is ideal for extremely tight places. A finer thread screw provides easier tightening. For 1/8" to 5/8" O.D. tubing.

**No. 42024** – Mini tubing cutter.



### Mini Tubing Cutter

- Works on tubing sizes 1/8" to 5/8" O.D. (3 mm to 16 mm).
- Easily cuts copper, brass, aluminum, and steel brake lines in hard-to-reach places.
- Ream folds onto cutter body for storage.
- Extra cutting wheel stored under ream.

**No. 6514** – Mini tubing cutter.



### Heavy-Duty Tubing Cutter

- Works on tubing sizes 1/8" to 1-1/8" O.D. (3 mm to 29 mm).
- Easily cuts copper, brass, aluminum, and steel brake lines.
- Ream folds onto cutter body for storage.
- Extra cutting wheel stored under ream.

**No. 6512** – Heavy-duty tubing cutter.



### Tubing Cutter

Our roller-type cutter makes clean cuts in copper, aluminum, steel, and stainless steel tubing. Features easy action, wide capacity range, and a pencil reamer. For 1/4" to 1-1/2" O.D. tubing.

**No. 42028** – Tubing cutter.

### Slip-Adjust Tubing Cutter

- All metal construction.
- Spring-loaded cutting tool for faster cutting.
- Two locations for spare cutting wheels (1 included).
- For 1/4" to 2" tubing.
- Includes attached reaming tool.

**No. 42035** – Slip-adjust tubing cutter.



42035

### Ratcheting Tubing Cutters

- Designed for confined spaces.
- Unique ratcheting action operates like a socket ratchet, but cuts copper, aluminum, stainless steel, and PVC.
- Spring-loaded adjusting screw applies continuous pressure while cutting.

**No. 42071** – Ratcheting tubing cutter for 1/8" to 1/2" tubing.

**No. 42080** – Ratcheting tubing cutter for 1/4" to 7/8" tubing.

**No. 42090** – Ratcheting tubing cutter for 1/4" to 1-1/8" tubing.



42090

42080

42071

### Ratcheting Tubing Cutter Display

- Includes twelve No. 42071 ratcheting tubing cutters designed for use in confined spaces.
- Unique ratcheting action operates like a socket ratchet, but cuts copper, aluminum, stainless steel, and PVC.
- Spring-loaded adjusting screw applies continuous pressure while cutting.

**No. 42012** – Display box of 12 No. 42071 ratcheting tubing cutters for 1/8" to 1/2" tubing.



42012

### Replacement Cutter Wheels

These top quality replacement cutter wheels are thinner for cleaner cuts with less effort. Made of high quality, shock-resistant, tool steel, the cutters are also heat treated to resist breakage and last longer. Cutter wheels are available to fit Robinair cutters, and can be used as replacements in nearly all other brands.

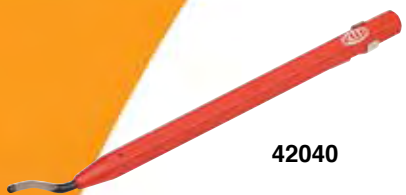


#### Replacement Wheel Chart

Model No.	Fits Cutter No.
13167	42024
13168	42022, 42035
42062	42028
42073	42071
42083	42080, 42090

# ROBINAIR FLUID PRODUCTS

## A/C Tools & Accessories



### Single Blade Deburring Tool

This handy tool removes internal burrs in copper tubing. It features a high-speed steel, blade, aluminum handle, and pocket clip. Tubing size is unlimited.

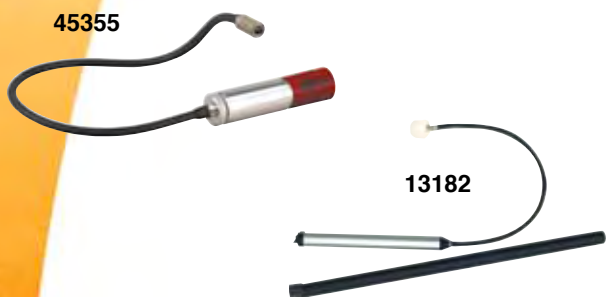
**No. 42040** – Single blade deburring tool.



### Deburring Tool

Quickly deburrs aluminum, copper, and steel tubing, and can work on any size tubing. It's made with a high-speed, steel blade and a durable aluminum handle. Three spare blades store in the handle.

**No. 13162** – Deburring tool.



### Fiber Optics Inspection Light

The applications for this handy tool are practically endless...check burners on heat exchangers for cracks, check coils for dirt and damage, look at serial numbers, fan motor tags, etc., on furnaces and condensing units. Fiber optics provide a bright light, but the shaft is just 7.6 mm in diameter. A durable cover fits over the 15" flexible shaft for protection. Powered by three AA batteries.

**No. 13182** – Fiber optics inspection light.

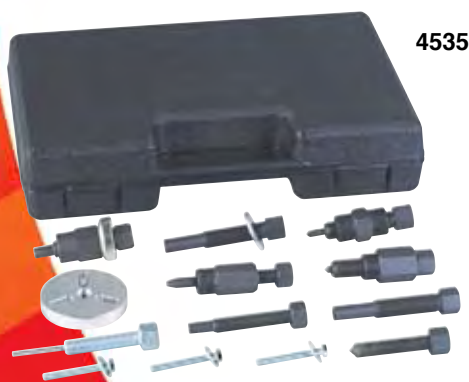
**No. 45355** – Inspection light with magnetic tip and base.



### A/C Clutch Pulley Puller Set

- For removal of stubborn air conditioning clutch pulleys. Also used on many alternator, generator, power steering, and crankshaft pulleys, harmonic balancers, and fiber timing gears.
- Set includes drop-forged components: one 3/4"-16 x 5" live-center forcing screw, 5-1/2" crossbar with three spread settings, two pairs of jaws, and a clamp bolt.
- Spread: 3" to 5"; Reach: 1" to 5".
- Includes blow-molded plastic case.

**No. 4536** – A/C clutch pulley puller set.



### A/C Clutch Hub Remover/Installer Set

- For damage-free removal and installation of the clutch hubs on these air conditioning compressors: GM-Harrison DA-6, HR-5, V-5, A-6, and early R4; Nippondenso Ford/Chrysler A590, C171, FS-6, 6P148A (new style); Sanden & Sankyo; York/Tecumseh HR980; Zexel/Mitsubishi CH series.
- Set includes a removing flange, plus forcing screws and adapter assemblies to remove and install virtually all clutch hubs.
- Includes blow-molded plastic case.

**No. 4535** – A/C clutch hub remover/ installer set (13 pc.).



### Clutch Plate Remover

Designed to overcome resistance when removing the clutch plate.

**No. 11009** – Clutch plate remover.



### Spring Lock Coupler Disconnect Set

Set includes four sizes for use on 3/8", 1/2", 5/8", and 3/4" tubes. Allows quick, safe disconnect of spring lock couplers on late model Ford systems and Tecumseh HR980 compressors.

**No. 7238** – Spring lock coupler disconnect set.

7238



### Fuel Line Disconnect Tool

Special low-profile design works in close quarters on GM, Ford, and Chrysler vehicles where there is limited clearance between the fuel line fittings and fuel filters, fuel rails, or sending units. This tool is designed to access the center port on the GM fuel tank sending unit.

For 3/8" and 1/2" applications; will also service 2001 thru current 3/4- and 1-ton trucks with the Duramax Diesel engine.

**No. 6511** – Fuel line disconnect tool.

6511



### Clutch Plate Remover/Installer

These compact tools are used both to remove the clutch for access to the shaft seal and to re-install it by simply inverting the nut and main bearing.

**No. 10861** – A6, R4. **No. 41067** – V5, DA6, HR6.

10861



### Compressor Turning Tool

Works on wide variety of compressor models. Fits clutch hubs that do not have holes that a spanner wrench can grip, or a hex end that a box wrench can grip. Spreads lubrication to prevent compressor damage at start-up. Recommended by OE compressor manufacturers.

- Threads into most hex-less clutch hubs.
- Uses a standard 19mm (3/4") wrench.
- Allows technician to check for internal damage.
- Breaks compressor lock-up due to sticky protective coatings.
- Turns compressor in the direction of normal rotation.

**No. 41057** – Compressor turning tool.

41057



Patent Pending

### A/C Clutch Holding Tool

This three-stud spanner wrench keeps the A/C clutch from turning when loosening or tightening the retaining nut. Adjusts quickly with brass thumbscrews to fit various styles of A/C compressors used on GM, Ford, and Chrysler vehicles. Also fits a variety of other pulleys.

**No. 4537** – A/C clutch holding tool.

4537

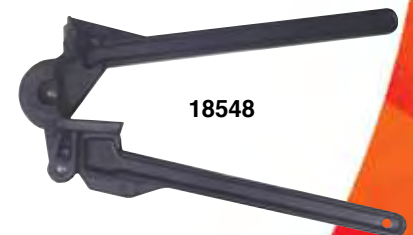


### Four-In-One Tube Bender

Effortlessly bends four different sizes of soft or annealed tubing without crimping, flattening, or scratching. Calibration allows duplication of any angle. Handles are 8-1/2" long, so extensions are not needed, and glass/plastic construction combines strength with lightweight durability.

**No. 18548** – Tube bender for 3/16", 1/4", 5/16", and 3/8" tubing.

18548

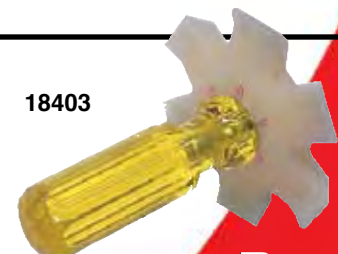


### Fin Straightener

Use our handy six-in-one straightener to clean and straighten condenser and evaporator coil fins. Straightener sections are clearly marked for fin size. The tool is compact enough to use even in confined spaces: the straightener head is 3-1/8" in diameter; the handle is 3-1/2" long.

**No. 18403** – Fin straightener – 8, 9, 10, 12, 14, & 15 fins per inch.

18403



# ROBINAIR FLUID PRODUCTS

## A/C Tools & Accessories



18560

### Valve Core Remover / Installer

Remove and install the valve core from a 1/4" male flare access fitting without the loss of refrigerant. Durable, solid brass tool has a ball valve that can be opened and closed in just a quarter-turn, rather than a stem-type valve. Designed with a stainless steel ball and brazed side fitting for durability and long life.

**No. 18560** – Valve core remover / installer.



18561

### Valve Core Remover / Installer

Replace leaking valve cores quickly and easily, or remove the valve core and hold it out of place for evacuation or charging. The 18561 features a solid brass body with convenient handle that opens and closes in a quarter-turn to speed service. The compact design easily fits most installations.

**No. 18561** – Valve core remover / installer.



14773

### Thread Chaser

For use with No. 18560 or 18561, value core remover/ installer. This item actually repairs damaged threads on valve cores in the service line, without releasing refrigerant into the atmosphere.

**No. 14773** – Thread chaser.



14774

### Pick Extractor

For use with No. 18560 or 18561, value core remover/ installer, this extractor lets you remove damaged cores in the service line while the system is fully charged. There's no release of refrigerant into the atmosphere.

**No. 14774** – Pick extractor.



11014

### Access Valve Core Removers Save Service Time

These handy tools remove valve cores without losing the system charge. They're designed specifically for use during evacuation or recharging on any system with valve core-type access ports. Removing the core restriction results in maximum flow, greatly reducing the time required for evacuation and charging.



10588

### R-12 Valve Core Remover

Services late model GM cars with deeper valve cores.

**No. 11014** – R-12 valve core remover.



13145

### R-134a Valve Core Remover

Our popular valve core remover/installer has been engineered for use when servicing deeper core R-134a A/C systems.

**No. 10588** – R-134a valve core remover.

### 1/4" Valve Core Remover

Robinair's standard valve core remover includes six replacement valve cores which store in the tool's body.

**No. 13145** – Replacement valve cores, pkg/6.



18132

### Valve Core Remover/Installer

Replace leaking valve cores quickly and easily, or remove the valve core and hold it out of place for evacuation or charging. Designed for automotive access fittings with deeper valve cores.

**No. 18132** – Valve core remover/installer.

### Valve Core Remover Kit

- Standard valve core extractor.
- 8 mm valve core extractor.
- 10 mm valve core extractor.
- GM high flow valve core extractor.
- JRA valve core extractor.
- R-134a low- and high-side body assemblies with side ports.
- R-134a low- and high-side port adapters.
- Plastic carrying case.
- Usage chart.

**No. 18340** – Valve core remover kit.

#### Order Separately:

**No. 20371** – (Red) High-side valve core remover tool – GM.

**No. 18336** – (Blue) Low-side valve core remover tool – GM.



### Access Adapters

Robinair offers a complete selection of access adapters for hooking up A/C systems for evacuation and recharging. These adapters fit most systems, and sizes are available to fit most passenger cars. "A" models have longer valve core depressors to work on both standard and the deeper-set valve cores in some vehicles. Check manufacturer's specifications for specific applications.

#### 90° Style Adapters

Solid brass fitting is ideal for tight spots or locations where making connections is difficult.

**No. 10469A** – 1/4" MFL x 3/16" FFL.

**No. 40563A** – 1/4" MFL x 1/4" FFL.



**40563A**

#### Straight Style Adapters

Straight adapter is versatile and easy to use. Made of solid brass.

**No. 10468A** – 1/4" MFL x 3/16" FFL.

**No. 40560A** – 1/4" MFL x 1/4" FFL.



**10468A**

#### Flexible Adapters

Flexible adapters feature brass fittings and a durable neoprene-coated hose, 6" long.

**No. 10293** – 1/4" MFL x 1/8" FFL, blue.

**No. 10470A** – 1/4" MFL x 3/16" FFL, red.

**No. 10778** – 1/4" MFL x 1/4" FFL, yellow.

**No. 40531** – Replacement o-rings for 10293, pkg/6.

**No. 40677** – 3/16" gasket.

**No. 40653B** – 3/16" valve core depressors.

**No. 40082** – 1/4" valve core depressors.

**No. 40083** – 1/4" hose gaskets.





# ROBINAIR FLUID PRODUCTS

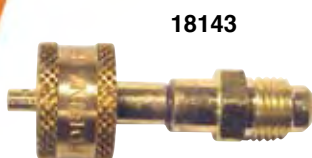
## A/C Tools & Accessories



### Fits-All Adapter Kit

Our access adapters have been combined into a kit that's ideal for accessing R-12 vehicle A/C systems, as well as other types of systems. Five different adapters are included with 1/4" fittings: three flexible adapters (part numbers 10293, 10470A, 10778) and two 90° brass adapters (part numbers 10469A and 40563A). See descriptions above for specifications.

**No. 10237A** – Fits-all adapter kit.



### Straight Adapter

This straight adapter is designed specifically for General Motors vehicles with R-12 air conditioning systems featuring "Positive Seal" high-side charge valves. The adapter is made of brass with an easy-to-grip coupler nut, 1/4" MFL x 3/16" FFL.

**No. 18143** – Straight adapter.



### Quick Seal™ Adapters

Quick Seal fittings automatically shut off the charging hose when you disconnect it from the system, so any refrigerant left in the hose is not released. This also prevents "finger burn" and adds an extra measure of safety. Made of solid brass.

**No. 10292** – 1/4" MFL to 1/4" FFL.

**No. 10296** – 1/4" MFL to 3/16" FFL.

**No. 10250** – 1/4" MFL to 1/4" FFL, 90°.



### Quick Seal Repair Kits

**No. 40300** – 1/4" FFL Quick Seal™ kit – for hoses and adapters.

**No. 40302** – 1/2" Acme Quick Seal™ kit.

**No. 18451** – 45° 1/4" Quick Seal™ kit.

**No. 18180** – 1/4" Quick Seal™ o-rings.

### Brass Caps

**No. 40572** – 1/4" solid brass caps have knurled ridges for easy gripping. Package of six.



### Heat Gun

A lightweight source of directed heat offering 500°F and 750°F settings, and also has a "cold" setting. This handy heat gun is ideal for many applications, including:

- Fast heating/drying of materials.
- Quick curing/drying of epoxies.
- Applying shrink tubing.
- Softening tubing for bending.
- Speed-drying of touch-up paint to eliminate "haze."
- Drying out condensation in motors, clutches, controls, etc. Shock-proof and cool-running with a tough Lexan® housing, the unit weighs just 2-1/2 lbs.
- 115V 50/60 Hz.

**No. 14450** – Heat gun.

### Replacement parts

**No. 44993** – Heater element assembly for 14450.

**No. 44996** – Carbon brush.

**No. 44997** – Switch assembly.

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