

ASSENMACHER SPECIALTY TOOLS 2012 CATALOG



COLORADO

USA

ASSENMACHER SPECIALTY TOOLS



2012 TOOL CATALOG

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SPECIALTY SOCKET SETS

OIL CHANGE TOOLS

LINE DISCONNECT TOOLS

COOLING SYSTEM

ADAPTERS

STUD REMOVERS

VW/AUDI TOOLS

SPECIALTY APPLICATION TOOLS

WARRANTY INFORMATION

Warranty durations run from the date of documented purchase (the day of purchase by the end user).

All returns must be accompanied by original sales receipt. Call us first for a return goods authorization number.

AST shall not be liable for any injury, loss or damage, consequential or special, arising out of the use of, or the inability to use the product.

AST Products carry a 5-year warranty w/ the exceptions stipulated below:

Sockets marked "For Hand Use Only", will not be warranted if damaged by use w/ a Power/Impact Tool.

Hazet & Stahlwille products carry a one year warranty.

SETS & KITS

If only one item is defective, that item will be replaced, not the entire set. If only a part on a tool is defective, (i.e. gasket, rubber band, etc.) only the part will be replaced.

COOLING SYSTEM ADAPTERS
With plastic tester attachment piece may be repairable for a \$25 fee.

DEFECTIVE PRODUCTS

Should be sent freight prepaid to AST for inspection. Warranty is handled by replacing the defective item, or the defective part on the item. AST will only cover UPS/Ground return shipping, to the customer, for warranty items.

STUD REMOVERS

Produced between 2002-2012 are under warranty. The production year is stamped on the stud remover. If the external body is damaged please return the stud remover for warranty. If only the internal parts of the stud puller need replacing, simply call & specify the AST product number of the stud puller. If the production date is in the range of 2002-2012, we will send out internal replacement parts at no charge. Internal Stud Remover parts are replaceable. The table (below) indicates replacement numbers for the internal parts.



ASSENMACHER SPECIALTY TOOLS

DISTRIBUTOR INFORMATION

As an industry leader in the specialty tool market, the AST name is recognized in automotive repair shops nationwide.

Looking for a local AST distributor in your area? Please let us know.

ELECTRONIC CATALOG

For updated AST product information throughout the year, or request a catalog on CD. Our CD Catalog is the best solution for accessing our database of tools when you're in the truck, on the go, & need quick & easy access to our tools & their applications.

MADE IN U.S.A.

Many products from AST are made in U.S.A. including our cooling system adapters, engine oil funnels & engine alignment tools. Those that work in U.S. manufacturing are consumers in our local states & cities. If these people continue to manufacture goods, they will continue to make local purchases & support their local economies. As long as businesses thrive, they will require goods & services to meet their daily needs. Independence as a society requires the skill, ability & knowledge to make things ourselves.

INDIVIDUAL MANUFACTURER DRIVE LINE FILLER SETS ARE AVAILABLE, AS WELL AS THE INDIVIDUAL ADAPTERS, DRUMS & LIDS. AST RECOMMENDS OUR "ATF 1100-5, BUT YOU CAN ALWAYS CREATE A SET THAT BEST FITS YOUR SHOP NEEDS.



9-PIECE DRIVE LINE FILLER SYSTEM
*ATF 1100-5

For BMW, Ford, Honda, Mercedes, Nissan, Toyota, VW/Audi & many other universal applications. Includes pump, 5 liter container, hose, shut-off valve & *ATF 101, *ATF 102, *ATF 103, *ATF 104, *ATF 105, *ATF 16 DSG, *ATF 17 CVT, *ATF 129 & *ATFTOY118

See *ATF 1100-5 on Page 5

SHOWN HERE ON FORD EXPLORER

SHOWN HERE ON VW DSG TRANSMISSION

INTERNAL REPLACEMENT PARTS FOR STUD REMOVERS

Stud Remover Size	Contains All Internal Parts	Warranty Policy
6mm	60	AST tools are warranted against defects in WORKMANSHIP or MATERIALS for a period of five years. Excluded are: (Hazet & Stahlwille products, service reset tools, copper hammers & dial indicators).
8mm	80	
10mm	100	
12mm	120	
1/4"	250	
5/16"	312	Include name, address, telephone number & a short description of the problem. All items returned will be inspected & if found defective, will be either repaired or replaced at the option of the manufacturer. If an item has already been discontinued, it can only be replaced if stock exists.
3/8"	375	
7/16"	437	
1/2"	500	
9/16"	562	
5/8"	625	

BMW TIMING SET FOR N52/N54 ENGINES *BMW 3028

- Covers 2006 & Newer 1, 3 & 5 Series models w/ 3.0L (non-turbo) & 3.0L twin turbo engines
- Includes Carrying Case

See *BMW 3028 on Page 7



BUILT TO LAST

At Assenmacher Specialty Tools, we carefully hand inspect our products for quality & durability. We provide the technician dependable, long-lasting tools & we stand behind our products—that's our philosophy.

ORDERING

AST reserves the right to modify pricing, terms of sale & product offerings, i.e. availability, design or construction, without notice. Product improvement is ongoing & descriptions & pictures may not always correspond precisely w/ the latest technical data. We reserve the right to refuse a sale. Orders may be referred to current AST distributors.

SHIPMENT

Shipments will normally be sent via UPS Ground. Other shipping options are available upon request.

CLAIMS

All claims must be communicated to the shipper (Assenmacher Specialty Tools, Inc.) within **48 HOURS** of receipt of package.

RETURNED GOODS

Any item returned to AST will only be accepted if accompanied by a RETURN GOODS AUTHORIZATION NUMBER provided by AST.

NOTE THAT AST TOOLS ARE DESIGNED "FOR HAND USE ONLY!"**

****AST impact sockets w/ BLACK FINISH are the exception.**

THE USE OF IMPACT TOOLS WILL AUTOMATICALLY VOID WARRANTY

Warranty durations run from the date of documented purchase (the day of purchase by the end user).

All returns must be accompanied by original sales receipt.

Find the most current product information online. Easily search AST tools, check applications & much more. We also list tools on our web site that aren't in this catalog. Those tools are usually special order, so if you can't find what you're looking for in the printed catalog, maybe we'll have it there.



TEST, TEST, TEST

We take pride in applications. Whether you use our website or our 800 number to inquire about our tools, or their applications, we take pride in knowing that we've tested the applications that we list, nothing more, nothing less.



ABOUT OUR COMPANY

We manufacture & distribute a full line of Specialty Tools, Cooling System Adapters, Oil Change Products, Cam Alignment Tools & Disconnect Tools for Asian, Domestic & European vehicles. Located in Boulder, Colorado, AST was founded in 1978 by Gerhard Assenmacher & has remained at the forefront of independently owned tool companies since our beginning. Many decades of hands-on industry experience is what makes our team stand above the rest. We build relationships, we know our customers and we know our products. We take pride in the fact that our customers can simply pick up the phone & we are there to help—that's the personal service you'll find at AST.



SPECIALTY TOOLS FROM ASSENMACHER ARE DESIGNED & TESTED W/ THE AUTOMOTIVE TECHNICIAN IN MIND. WE STRIVE TO MAKE THE JOB EASIER. SERVICE APPOINTMENTS ARE SCHEDULED AT DEALERSHIPS OR INDEPENDENT SHOPS. THE TECHNICIAN PLACES THE MOTOR IN POSITION TO GIVE US AN OPPORTUNITY TO VERIFY THE FIT & ACCURACY OF THE TOOLS. OUR TOOLS INCLUDE INSTRUCTIONS & DETAILED IMAGES OF THE TOOLS IN USE. WE PROVIDE HELPFUL TIPS APPLICABLE TO THE JOB—OUR INSTRUCTIONS PROVIDE THE MOST CURRENT INFORMATION TO OUR KNOWLEDGE.

BMW TOOLS

Pages 10–17

MINI COOPER TOOLS

Page 18

BODY WORK TOOLS

Page 19

DOMESTIC TOOLS

Pages 20–25

GENERAL TOOLS

Pages 26–31

HONDA TOOLS

Pages 32–33

LAND ROVER, MAZDA, MITSUBISHI, JAGUAR

Pages 34–35

MERCEDES-BENZ TOOLS

Pages 36–41

MOTORCYCLE, ATV & MARINE TOOLS

Pages 42–47

NISSAN TOOLS

Pages 48–49

OIL CHANGE TOOLS

Pages 50–59

SPECIALTY SOCKETS

Pages 60–65

SUBARU TOOLS

Pages 66–67

TOYOTA, LEXUS & SCION TOOLS

Pages 68–70

SPRINTER & HEAVY TRUCK TOOLS

Page 71

VOLVO TOOLS

Pages 72–73

VW/AUDI TOOLS

Also Specialty Tools for Porsche Pages 74–87

APPLICATION CHARTS

Pages 88–109





#V 500

**VOLVO CAM/
CRANKSHAFT
ALIGNMENT SET**



Used to align the camshafts & crankshafts on all In-line 4, 5 & 6 cyl. twin cam motors through 2007 (exc. 3.2L). Also used to align the camshafts w/ the cam cover.
Comparable to Volvo tool numbers: 9995451, 9995452, 9995453 & 9995454.

Applicable to Engines: B6254GS, B6294T, B5234T4, B6294S2, B5244S6, B5204T2, B5234FS, B4184S2, B5254FS M 4.4, B4204T2, B5244S4, B5254T, B5234T9, B4204T3(US)(CDN), B6304S3, B5204T4, B5244S5, B5204T3, B5204FS, B5252FS, B5254FS M 4.3, B4194T, B6294S, B5244T4, B6254FS, B4184S, B5234T6, B5234T2, B6304FS2, GB5252S, B4204S2, B4204T, B5244S2, B5204T5, B5244T7, B4184S9, B4204T4, B6284T, B5234T5, B6304FS, B4204T3, B5244SG2, B6244FS, B4184SJ, B4204T2 CVT, B6304GS, B5254T4, B4184S3, B5234T3, B5244T2, B5244T3, B5244T5, B5254T2, B4204S, B5244S7, B5204FT, B5234FT, B5234T8, B5234T7, B5244S, B4184S10, B4194T2, B5254T3, B5254S DENSO, B4164S, B5254FS LH 3.2, B5244SG, B5244T, B4204T5, B5202FS, B4164S2, & D4192T2

**9-PC. DRIVE LINE
FILLER SYSTEM**

- *ATF 101:** 1/8-27 NPT Ford Adapter Plug
- *ATF 102:** Universal Applications (front/rear differentials & transfer cases)
- *ATF 103:** Short VW Adapter.
Comparable to VW *VAG 1924/1 adapter
- *ATF 104:** Long VW/Audi Adapter
- *ATF 105:** 10mm x 1.0 VW/Audi Adapter.
Comparable to VW *VAS 6262/2
- *ATF 16 DSG:** Fits DSG Transmissions. 24mm x 1.5
- *ATF 17 CVT:** Fits CVT Transmissions. 22mm x 1.5
- *ATF 129:** 12mm x 1.5 Mercedes-Benz adapter for 722.9 Automatic Transmissions. Applicable to the following chassis w/ 722.9 transmissions: 164, 171, 203, 204, 209, 211, 215, 216, 219, 220, 221, 230 & 251
- *ATFTOY118:** Threads into Toyota Automatic Transmissions. 18 x 1.5mm

For BMW, Ford, Honda, Mercedes, Nissan, Toyota, VW/Audi & many other universal applications. Includes pump, 5 liter container, hose, shut-off valve & listed adapters

#ATF 1100-5



**VW/AUDI AXLE
NUT SET**

#6500

- *6500-14**
14mm Allen for VW Passat 1996–2001, Audi A4; front & rear axle bolts (AWD)
- *6500-17**
17mm Allen for 1998 & later VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4; front & rear axle bolts (AWD)
- *6500 X-30**
30mm 12-Pt. socket for R & R of front axle nuts for mid 1999 & later VW Golf, Jetta, Cabrio & Beetle
- *6500 X-32**
32mm 12 Pt. socket w/ 3/4" drive, VW Touareg; front & rear axle nuts



**5 PC. OIL FILTER
SOCKET SET**

#F 2500

- Oil Filter Wrenches are 93mm (36 flutes), 74mm (14 flats) & 76mm (30 flutes)
- Oil Filter Sockets are 24mm & 36mm Hex (6 flats)
- Carrying Case Included
- Set Covers Most 1988–2010 Ford Models
- 5 Year Warranty
- All Tools are 3/8" Drive
- Includes: ***M 0219**, ***F 9336**, ***F 7630**, ***2136** & ***2124**

#EU 2000

**7-PIECE BRAKE
CALIPER/BLEEDER
SERVICE SET**



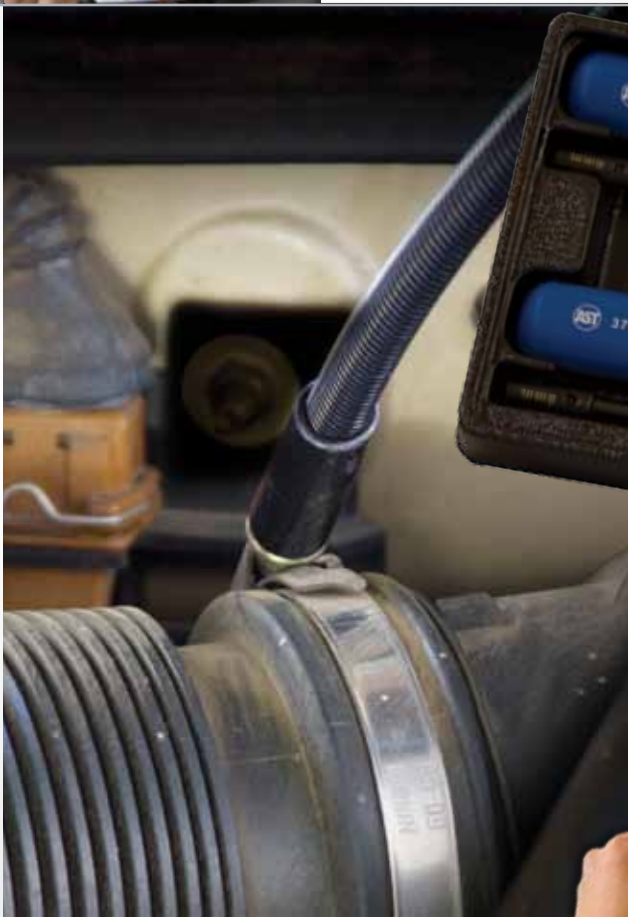
Includes 7mm, 8mm, 9mm & 11mm brake bleeder wrenches, 3 brake caliper sockets & custom powder-coated metal organizer tray. Wrenches fit bleeder screws on Mercedes, BMW, Volvo & VW/Audi models. Applicable to: Brake caliper bolts on the majority of BMW models, Mercedes S-Class (221), newer C-Class (204), M-Class (164); Volvo cars, & rear caliper bolts on 2006–newer VW Jetta & Passat.

#8110

**10 - PIECE LINE
DISCONNECT
TOOL SET**

***8010:** Fits 1995–1996 Ford Mustang; ***8012:** Applicable to Ford & GM w/ 5/16" Fuel Line; ***8013:** Fits Ford Models w/ 3/8" Fuel Line; ***8014:** Fits Ford Taurus & Ford Escort w/ AXOD & ATX transmissions; ***8016:** Fits Dodge Ram V10 or Cummins Turbo Diesel; ***8021:** Fits Ford Trucks & S.U.V.s; ***8022:** Fits 2002–2004 Chevy Tahoe & Suburban; ***8023:** Fits 2005 Ford 6.0L Turbo Diesel Trucks, 2009 Escape w/ 6F Trans & Ford Edge; ***8024:** Fits 2007 Ford Explorer & Sport Trac; ***8026:** Disconnects the Fuel Rail from the Fuel Line on 2004 & Newer Nissan & Toyota Models.

New Disconnect Tool for 2011 GM Duramax Available Separately. See tool ***8027**.



**4 PC. FLEX NUT
DRIVER SET**

#3700



Includes 5mm, 6mm, 7mm & 8mm Flexible Nut Drivers. Use the ***3700** to tighten & loosen the hard-to-reach hose clamps on various makes & models. 5-year warranty. Blue handle constructed of tough composite plastic.



#6800TDI

**VW TDI
TIMING BELT
TOOL SET**



Used for setting & adjusting the cam/crank/pump timing on 1999–2008 VW TDI engines. Includes: **#3359** TDI Lock Pin, **#3428** TDI Cam Lock Bar, **#H 2587-1** & **#H 2587-2** Timing Belt Tensioner Spanner Wrenches, **#T 10115** Tensioner Lock Pins, **#T 10050** Crankshaft Stop & **#T 10100** Oval Pulley Crankshaft Stop. Some contents are U.S. made.



#BMW 3028

**BMW
TIMING SET
FOR N52/
N54
ENGINES**

Covers 2006 & Newer 1, 3 & 5 Series models w/ 3.0L (non-turbo) & 3.0L twin turbo engines. Includes carrying case.



#MC 1400

**MINI COOPER
ENGINE
TIMING SET**

Used on 2007–2010 N14 Turbocharged engines. Set contains the following Factory tool numbers **#119551**, **#119552** & **#119590**. Includes cam & crank timing tools.



#6300

**VW/AUDI/PORSCHE
SOCKET & BIT SET**

- #6300 XL-14** For R & R of Late Model Eurovan Axle Shafts & Ball Joints
- #6300 XL-8** For R & R of Axle Shaft Bolts on Beetle, Jetta TDI & Older VW/Audi Models
- #6300 XL-10** For R & R of Axle Shaft Bolts on 1999–2005 Passat & Golf
- #6300 X-16** For R & R of Manual Transmission Drain Plug & Touareg & Porsche Cayenne Brake Caliper Bolts
- #6300 X-12** For R & R of Axle Shaft Bolts on 1999–2005 Jetta (gas) & Rear Toe Adjustment on 1999 & Later Audi A6
- #6300 X-14** For R & R of Audi TT Differential Bracket & for Bell Housing Bolts w/ Tight Clearance on Various VW Models
- #3424** Spreader for Assisting R & R of Strut Housing on VW & Audi TT



#3101

**8-PC. RADIO
REMOVAL SET**



Includes the **#2040**, **#BMW 050**, **#3344 A** (includes two pairs), **#M 2070**, **#3316**, **#BMW 025** & the **#BMW 010**. Applicable to: Ford & VW models w/ a DIN chassis, BMW models w/ anti-theft radio, Audi A4, A6, A8 & new VW Beetles, 1992 & later Mercedes 129, 140, 163, 202 & 210 models, VW Passat, Jetta & Golf, center console removal on newer BMW Z3, X5 & 5 Series [E39], Multi-Informational Display (MID) removal on BMW X5 & 5 Series [E39].

#3200

**DOOR &
HINGE
HANDLE SET**



A compact solution to accessing the special fasteners found on the door hinges & handles of VW/Audi, Mercedes-Benz, & Porsche. Set includes four door hinge bits (less than an inch long) & a slender ratcheting wrench. Also included are the extra long drivers necessary to access the door handles of Mercedes-Benz & VW.

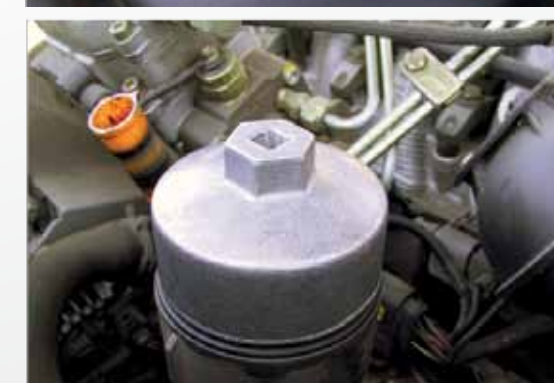
**7-PIECE OIL FILTER
WRENCH SET**



- | | | | |
|--|-------------------------------------|--|--------------------------------------|
| | AST# 2127 (27mm, 6 flats) | | AST# M 0284 (84mm, 14 flats) |
| | AST# 2132 (32mm, 6 flats) | | AST# M 0219 (74mm, 14 flats) |
| | AST# 2136 (36mm, 6 flats) | | AST# V 410 (86.5mm, 16 flats) |
| | AST# 2175 (74.5mm, 14 flats) | | |

Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, BMW, newer Mercedes 4-cyl. engines, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches covers many VW, BMW, Toyota, & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & 1999–2010 Volvo models.

#2101



**AST TECH
TIP**

MANY OF OUR TOOLS COME IN SETS TO FIT THE NEEDS OF THE REPAIR. TO MAKE YOUR JOB EASIER, PURCHASE A SET FROM AST IF AVAILABLE.

#BMW 6208

**BMW ENGINE
TIMING TOOL SET**

Used to set timing on cams of both cylinder heads. Includes hold down tool for cam fixtures. Crankshaft timing pin included. Applicable to: N62, N62TU & N73 Engines.



#FZ 1001 A

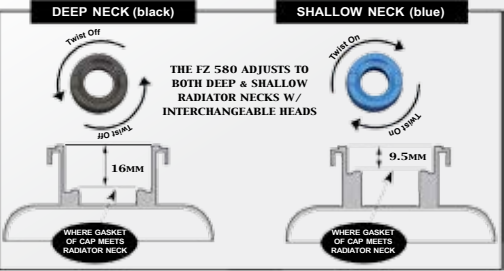
**ASIAN & DOMESTIC
COOLING SYSTEM ADAPTER SET**



Includes the following AST tools: **#FZ 34:** Fits 2000–2003 Bentley Arnage; All 1999–2001 Daewoo Models; 1995–1997 Ford Contour; 2000–2006 Focus; 1990–1994 Jaguar w/ male threads on filler neck; 1988–1994 Range Rover; 1995–1997 Mercury Mystique; 1988–1993 Pontiac Le Mans; 1994–1998 Saab 900; 2000 Saturn LS & LS 6 cyl. **#FZ 35 A:** Fits 1992–2009 GM; Freightliner; 2000–2003 Jaguar S Type, Land Rover LR3, Ford Taurus, Explorer, Excursion, Five Hundred; Saab 9³ & Saturn Models. **#FZ 37:** Fits 1998–2001 Ford Contour, 2001–2005 Escape; 2002–2003 Jaguar X Type, 1998–2001 XJ8, 1998–2001 XK8; 2001–2004 Mazda Tribute; 1998–2001 Mercury Mystique. **#FZ 128:** Fits Acura, Chevrolet, Chrysler, Ford, Honda, Hyundai, Isuzu, Mazda, Mercury, Mitsubishi, Nissan, Subaru, Suzuki & Toyota Models w/ small–deep radiator necks. **#FZ 138:** Fits Acura, Chevrolet, Chrysler, GMC, Honda, Isuzu, Lexus, Mazda, Mitsubishi, Scion, Subaru (6-cyl.) & Toyota Models w/ small–shallow radiator necks.

**COOLING SYSTEM ADAPTER
SET FOR DEEP & SHALLOW
RADIATOR NECKS**

Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Isuzu, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Suzuki & **Toyota**.



#FZ 580

**EUROPEAN COOLING SYSTEM
ADAPTER SET**



Includes the following AST tools: **#BMW 345:** Fits BMW 2004–2005 3 Series, 2002–2006 7 Series, 2005–2006 X3 & X5, Land Rover: 2002 Discovery & 1995–2004 Range Rover. **#FZ 22:** Fits Porsche 911 (water-cooled, w/ threaded necks) & Boxster; Volvo 670 & VN 430; VW/Audi A8, All 1975–1993 models w/ male threads on exp. tank & S8. **#FZ 25:** Fits all 1987–1990 Jeep models; 2002 Land Rover Freelander; Mini Cooper S; All 1985–1987 Renault Models; 1978–1994 Saab 900 & 1986–1998 9000; All 1987–1991 Sterling models; 1978–2006 Volvo models w/ threaded neck & 1978–2006 Volvo Trucks w/ 47mm x 3mm threads on secondary filler neck. **#BMW 350:** 2006–2009 BMW 3 Series (E90), 2004–2009 5 and 6 Series (E60, E63, E64) & X5 2007–2009 (E70). **#FZ 41:** Fits All Porsche Cayenne & 1999–2011 VW/Audi (**exc. Audi 8 Series**). **#M 0349:** Fits Mercedes AMG, C class, CL class, CLK class, CLS class, E class, G class, ML 164, R class, S class, SL class & SLK class.

#FZ 1002

#BMW462 TU

**M62TU V8 DOUBLE
VANOS SET**



Used in conjunction w/ the **#BMW 480** & the **#BMW 400-1** (sold separately). Includes: **#BMW 462-14** & **#BMW 462-58:** VANOS Locking Fixtures for fixing camshaft sensor wheel in position during assembly; **#BMW 4630:** Chain Tensioner Tool for tensioning the primary chain when adjusting valve timing; **#BMW 4640:** Vanos Adjusting Pin-Wrench Socket used for adjusting VANOS to left hand stop during assembly; **#BMW 4638:** Block used for screwing in the chain tensioner w/ cover removed; **#BMW 4680:** TDC Pin for locking flywheel at TDC on X5 models; **#BMW 4631:** 2 Locking Pins used for secondary chain tensioner to lock tensioner piston in position.

#6700

**VW 1.8T TENSIONER
HOLDER SET**

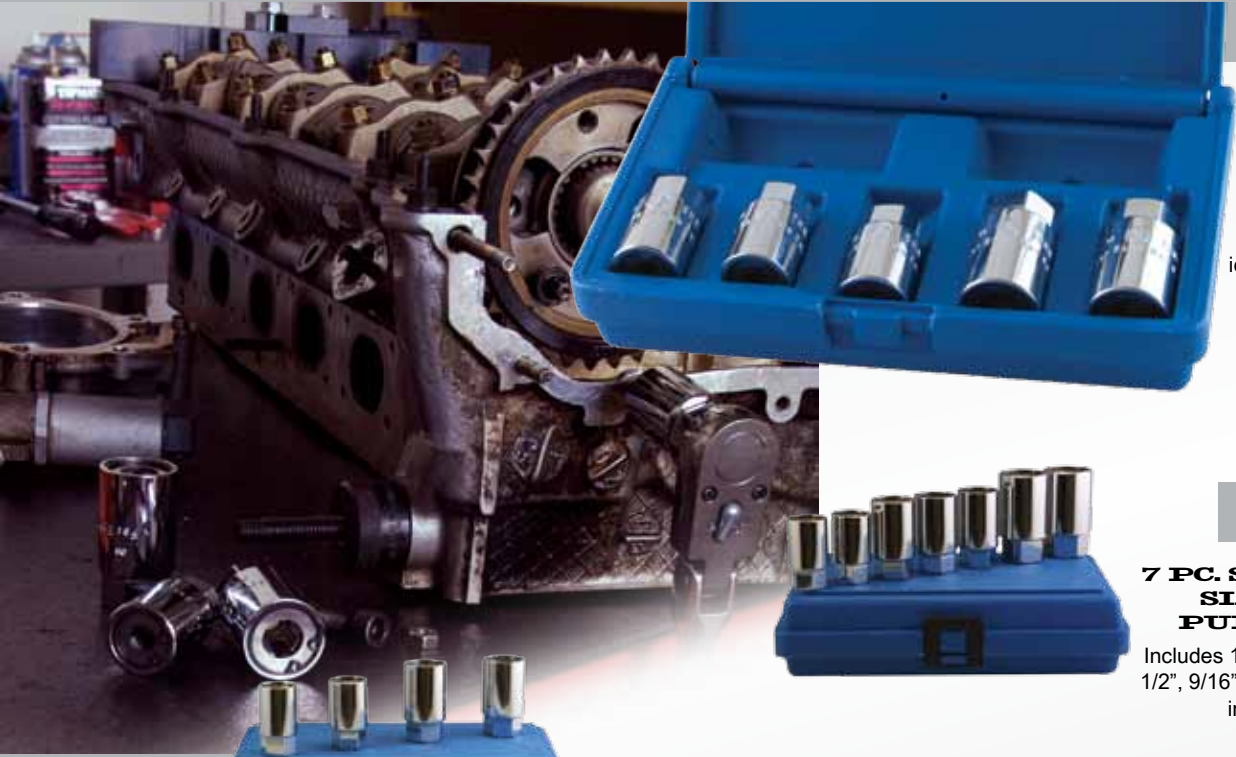
VW/Audi 1.8T Tensioner Holder Set. Contains the **#6700-1** Tensioner Bolt & Washer, the **#6700-2** Tensioner Locking Plate, the **#6700-3** Tensioner Lock Pin, & the **#6700-4** Holding Rod. Used for holding the timing belt tensioner & the accessory belt tensioner. Applicable to VW/Audi models w/ a 1.8 Turbo Motor.



#201-7

**5 PC.
METRIC
STUD
PULLER
SET**

Includes the New 7mm stud remover, ideal for BMW manifold studs. Includes 6mm, 7mm, 8mm, 10mm & 12mm stud remover / installers.



#203

**7 PC. STANDARD
SIZE STUD
PULLER SET**

Includes 1/4", 5/16", 3/8", 7/16", 1/2", 9/16" & 5/8" stud remover & installer tools.

#201

**4 PC. METRIC STUD
PULLER SET**

Includes 6mm, 8mm, 10mm & 12mm stud remover & installer tools.

#202

**5 PC. STANDARD
SIZE STUD
PULLER SET**

Includes 1/4", 5/16", 3/8", 7/16" & 1/2" stud remover & installer tools.



BMW SPECIALTY TOOLS

⇒ CAMSHAFT ALIGNMENT TOOLS

⇒ TRANSMISSION & DIFFERENTIAL FILL TOOLS

⇒ STUD REMOVER / INSTALLER TOOLS

⇒ TRANSMISSION & OIL COOLER LINE DISCONNECT TOOLS



***BMW 6208**
BMW ENGINE TIMING
TOOL SET see pg. 13



***MC 1400**
MINI COOPER ENGINE
TIMING SET see pg. 18



***BMW 3028**
BMW TIMING SET FOR
N52 & N54 ENGINES see pg. 12



***BMW 520**
VANOS ADJUSTMENT
FIXTURE see pg. 16

***BMW 462 TU**
M62TU V8 DOUBLE
VANOS SET see pg. 13



***EU2000**
7-PC. BRAKE
CALIPER/BLEEDER
SERVICE SET see pg. 13



***201-7**
5-PIECE METRIC STUD
PULLER SET see pg. 15



***BMW 522**
CHAIN TENSIONER
TOOL see pg. 16



#ATF 1002 BASIC

BASIC DRIVE LINE FILLER SYSTEM

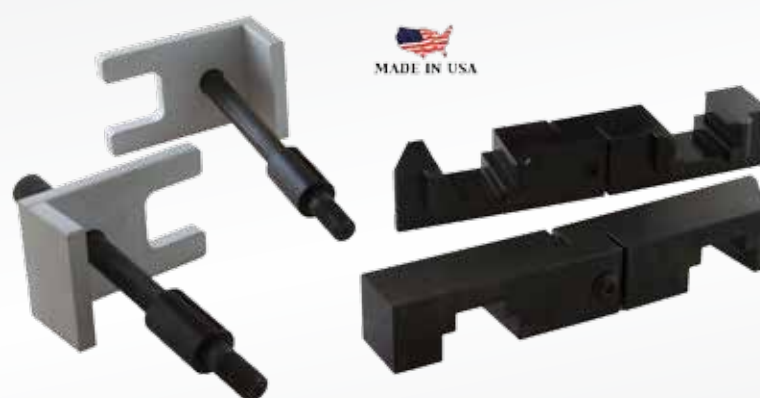
For **BMW**, Honda, Nissan, & many other universal applications. Includes pump, 3 liter container, hose, shut-off valve & #ATF 102

- 5L & 10L Containers Also Available
- Includes Quick Attachment Adapter #ATF 102
- Pump Dispenses Efficiently
- Filler Can Handle 90 Weight Oil
- On / Off Ball Valve w/ Safety Catch
- Container Made of UHDP (ULTRA HIGH DENSITY POLYETHYLENE)
- Includes U.S.A. Made Contents



#BMW 480

V8 CAMSHAFT ALIGNMENT TOOL



Includes 4 blocks (2 for each side) & 2 locking fixtures for setting camshaft timing. Crankshaft locking pin #BMW 400-1 sold separately. Applicable to: **BMW M60, M62, M62TU V8 motors 1994–2003**. Use in conjunction with #BMW 462 TU for M62TU motor. **Comparable to BMW# 112440.**



M62TU V8 DOUBLE VANOS SET



Used in conjunction w/ the #BMW 480 & the #BMW 400-1 (sold separately).

Includes: #BMW 462-14 & #BMW 462-58: VANOS Locking Fixtures for fixing camshaft sensor wheel in position during assembly; #BMW 4630: Chain Tensioner Tool for tensioning the primary chain when adjusting valve timing; #BMW 4640: Vanos Adjusting Pin-Wrench Socket used for adjusting VANOS to left hand stop during assembly; #BMW 4638: Block used for screwing in the chain tensioner w/ cover removed; #BMW 4680: TDC Pin for locking flywheel at TDC on X5 models; #BMW 4631: 2 Locking Pins used for secondary chain tensioner to lock tensioner piston in position.

#BMW 462 TU



FUEL LEVEL SENSOR LOCK RING TOOL



Used to remove the fuel level lock ring. Applicable to all **BMW & Mini Cooper Models: 1988–2011 E31, E34, E36, E38, E39, E46, E53, E60, E63, E64, E65, E83, E85, E90, R50, R52, R53, R55, R56 & R57**. **Comparable to BMW #161020.**

#BMW 4622

BMW CLUTCH CENTERING TOOL SET



3-Piece Set. For centering clutch disc on flywheel while installing self-adjusting clutch (SAC). Applicable to the following transmissions: **S5D 200G, S5D 250G, S5D 260Z, S5D 310Z, S6S 420G, S6S 560G, GS6-37BZ & GS6-37DZ (H-Transmissions)**.

#BMW 6240

#BMW 3028



BMW TIMING SET FOR N52/N54 ENGINES

Covers 2006–Newer 1, 3 & 5 Series Models w/ 3.0L Non-Turbo & 3.0L Twin Turbo Engines

BMW POWER STEERING PUMP DRIVE BELT TOOL



Used for installing the drive belt that is a stretch belt & no belt tensioner is used. Applicable To: **2004–2005 BMW N62 (V8) Motors w/ the stretch belt**. **Comparable to BMW #641040 & #83800494518.**

#BMW 0062

7-PC. BRAKE CALIPER/BLEEDER SERVICE SET

Includes 7mm, 8mm, 9mm & 11mm brake bleeder wrenches, 3 brake caliper sockets & custom powder-coated metal organizer tray. Wrenches fit bleeder screws on Mercedes, BMW, Volvo & VW/Audi models. Applicable to: Brake caliper bolts on the majority of **BMW models**, Mercedes S-Class (221), newer C-Class (204), M-Class (164); Volvo cars, & rear caliper bolts on 2006–newer VW Jetta & Passat

#EU2000



#BMW 6208

BMW ENGINE TIMING TOOL SET



Used to set timing on cams of both cylinder heads. Includes hold down tool for cam fixtures. Crankshaft timing pin included. Fits N62, N62TU & N73 Engines. Applicable to **BMW: 2004–2005 545, 2006–2007 550, 2008–2010 550i, 2004–2005 645Ci, 2006–2010 650i, 2002–2005 745i, 2003–2005 745Li, 2006–2008 750i & 750Li, 2005–2006 760i, 2003–2008 760Li, 2007–2008 Alpina B7.**

AST TECH TIP

THE HOLE LOCATION FOR THE #BMW 420-1 IS LOCATED NEAR THE DRIVER'S SIDE BOTTOM OF THE BLOCK ON BMW N52 & N54 ENGINES.

HOLE LOCATION FOR #BMW 420-1

DRIVER'S SIDE BOTTOM OF BLOCK

#100-30 A

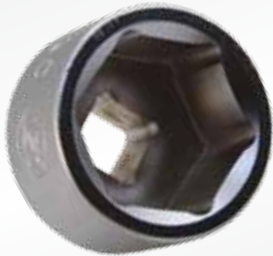
30MM DEEP SOCKET



30mm Deep thin-walled socket. Used for R & R of transmission drive shaft flange nut & pinion shaft flange nut of differential. Applicable to: **Many BMW models including E90 325 rear wheel drive 30mm axle nuts.**

#2124

24MM OIL FILTER SOCKET



- 24mm w/ 6 Flats
- **Applicable to BMW Models 2004–2011 w/ V8 (N62)**
- Steel Construction

#2101

7-PIECE OIL FILTER WRENCH SET



Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, **BMW**, newer Mercedes 4-cyl. engines, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches covers many VW, **BMW**, Toyota, & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & 1999–2010 Volvo models.

#2136

36MM OIL FILTER SOCKET



- 36mm w/ 6 Flats
- **Applicable to BMW M52, M60, M62, M70, M73 Engines & Mini Cooper**
- Steel Construction

#2175

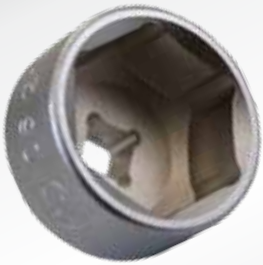
74.5MM OIL FILTER SOCKET WRENCH



- 74.5mm w/ 14 Flats
- Metal Construction
- **Applicable to BMW M44, 1.9 L**

#2132

32MM OIL FILTER SOCKET



32mm w/ 6 flats. Applicable to: 2010–2011 3.0L Turbo-Diesel. Fits new **2010 & later BMW** (M57) 6 cyl. diesel engine.

#201-7

5 PC. METRIC STUD PULLER SET



Includes the New 7mm stud remover, ideal for BMW manifold studs. Includes 6mm, 7mm, 8mm, 10mm & 12mm stud remover / installers.

#6500 X-36

36MM 12-POINT SOCKET



36mm 12-point 3/4" drive socket. Applicable to: **BMW E38, E39, E46, E53, X5 (front & rear), the 5 Series E60 & E90 All Wheel Drive 36mm front & rear.** For R & R of axle nuts. For E90 RWD, see **#100-30 A**.

#8032

32MM FAN CLUTCH WRENCH



32mm x 380mm long wrench used for the R & R of any 32mm fan clutch nuts. Applicable to: VW, Audi & **BMW models w/ 32mm fan clutch nuts.**

#FZ 1002

EUROPEAN COOLING SYSTEM ADAPTER SET



This set contains the following adapters: **#BMW 345, #FZ 22, #FZ 25, #BMW 350, #FZ 41 & #M 0349.**

#3101

8-PC. RADIO REMOVAL SET



Includes the **#2040, #BMW 050, #3344 A** (includes two pair), **#M 2070, #3316, #BMW 025** & the **#BMW 010**. Applications include: Ford & VW models w/ a DIN chassis, **BMW models w/ anti-theft radio**, Audi A4, A6, A8 & new VW Beetles, 1992 & later Mercedes 129, 140, 163, 202 & 210 models, VW new body Passat, Jetta & Golf. **Center console removal on newer BMW Z3, X5 & 5 Series (E39), Multi-Informational Display (MID) removal on BMW X5 & 5 Series (E39).**

#BMW 010

T-10 TORX DRIVER



T10 Torx Driver. For center console removal on **newer BMW Z3, X5 & 5 Series (E39)**, Multi-Informational Display (MID) removal on **BMW X5 & 5 Series (E39)**.

#BM 1276

OIL FILTER WRENCH FOR BMW MOTORCYCLES



76mm, 12 flutes, 3/8" drive, R & R of oil filter on **BMW Motorcycles 2007–2011 w/ oil filter #11 42 7 673 541.** Also R & R of older Mercedes OEM oil filters w/ 12 flutes.

#BMW 025

2.5MM HEX DRIVER



2.5mm Hex Driver. For center console removal on **newer BMW Z3, X5 & 5 Series (E39)**, Multi-Informational Display (MID) removal on **BMW X5 & 5 Series (E39)**.

#BMW 060

BMW TORX FLYWHEEL SOCKET TOOL



For removal & replacement of flywheel bolts. Applicable to: **BMW E34 & E39 V8 4.0L & 4.4L w/ standard transmission.** Comparable to BMW **#114180**.

#BMW 345

TANK ADAPTER



For pressurizing cooling system. Applicable to: **1988–2005 BMW models (exc. new 5 & 6 Series).** Also fits Land Rover Range Rover 1995–2004 & Discovery 2002.

#BMW 350

BMW TANK ADAPTER



For pressurizing cooling system. Applicable to: **2006 & newer BMW 3 Series (E90), 2004 & newer 5 & 6 Series (E60, 63, 64), 2007 & newer X5 (E70), & 2010–2011 7 Series.**

#BMW 050

SPECIALTY DRIVER



For removal & replacement of **BMW** antitheft radios. **Applicable to many BMW models.**

#V 410

86.5MM OIL FILTER WRENCH



- 86.5mm w/ 16 Flats
- Metal Construction
- **Applicable to 2006–2009 BMW Models w/ 6 Cyl. Engines, 335i, 535i, X5, X6 & All Twin-Turbo Models**

#BMW 352

CAP ADAPTER



For pressurizing cooling system pressure cap. Applicable to: **2006 & newer BMW 3 Series (E90), 2004 & newer 5 & 6 Series (E60, 63 & 64), 2007 & newer X5 (E70), & 2007–2011 7 Series.**

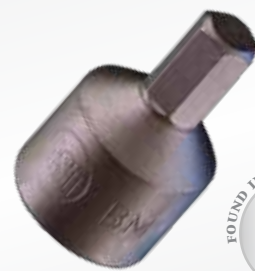
#TA 18

ADAPTER



For brake master cylinder or clutch master cylinder reservoirs. Used in conjunction w/ pressure bleeder (pressure bleeder attachment thread size of 1/4" NPT).

#BMW 377 7MM ALLEN SOCKET



7mm, 3/8" Drive allen socket. Applicable to: **BMW E36, E46, E39 & E31 models**, Mercedes S-Class (221) & C-Class (204). For R & R of rear caliper bolts.



#BMW 432

VANOS SOLENOID SOCKET



32mm socket used for removing & installing the **BMW Vanos** Solenoid valves on 1999–2005 M52TU, M54 & M62TU motors. **Comparable to #116420.**

#BMW 432 SHOWN HERE IN USE

PATENT PENDING

VW, AUDI, MERCEDES & BMW OIL FILLER



- **Fits 1996 & Later BMW 6 cyl. & 8 cyl.**
- Fits Dodge Sprinter
- Fits Mercedes 112 (V6) & 113 (V8) Engines
- Fits VW/Audi Engines: 1.8T, 1.9L TDI, 2.0T, 2.8L (30v), 3.0L (30v), 3.2L, 3.6L, & 4.2L (40v)
- No More Mess



CAMSHAFT ALIGNMENT TOOL

#BMW 400



Used in conjunction with **#BMW 520** & **#BMW 522** on BMW M52TU & M54 motors, found in 1999–2005 BMW 6 cyl. motors. Includes 2 blocks, swivel lock & crankshaft locking pin. For setting camshaft timing. Comparable to BMW **#113240** & **#112300**. Applicable to: **M42, M44, M50, M52, M52TU, M54, M56, S50US & S52US engines.**

#BMW 400-1 TDC PIN ONLY

For setting crankshaft TDC. Included in **#BMW 400** Set. Applicable to: **M21, M40, M41, M42, M43, M43TU, M44, M47, M47TU, M50, M51, M52, M52TU, M54, M56, M57, M57TU, M60, M62, M62TU, M70, M73, S50B30, S50B32, S54 & S62 engines.** **Comparable to BMW #112300.** For M62TU in X5, see **#BMW 4680.**



#BMW 520

VANOS ADJUSTMENT FIXTURE



Used during installation of cylinder head or camshafts. Applicable to: **BMW models 1999–2005 w/ M52TU, M54 & M56 engines w/ twin VANOS.** Comparable to BMW **#116150**. The **#BMW 400** required at back of camshafts. **#BMW 522 Also Recommended.**



TDC PIN



Used for setting crankshaft TDC. Applicable: **1999–2003 M62TU motors in BMW X5.**

#BMW 4680

#BMW 518

SPROCKET TURNER



For turning sprockets when removing & installing VANOS adjustment unit. Applicable to: **BMW M50, M52, S50US, & S52US engines.** **Comparable to BMW #115490.**

#BMW 522

CHAIN TENSIONER TOOL



Used during installation of cylinder head or camshafts. Applicable to: **BMW 1996–1999 M52, 1999–2002 M52TU, 2001–2005 M54 & M56 engines.** **Comparable to BMW #114220.**



E42 TORX SOCKET

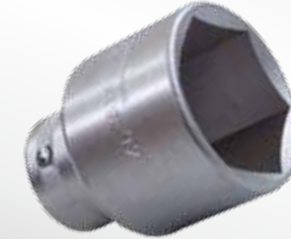


Used for outside torx headbolts on **BMW M42 & M50 engines.**

#H 2925

46MM, THIN-WALL, 3/4" DRIVE SOCKET

#S 55-46



46mm, 6-Point thin-wall socket, 3/4" drive. For R & R of front wheel bearing retainer nut on **BMW E24, E28, E32 & E34 Chassis.**

#BMW 5346

BMW LINE DISCONNECT TOOL



Made of red-anodized aluminum, used for power steering & transmission oil cooler line removal. Applicable to: **1999–2009 BMW 3 Series (E46 & E90) & X5.**



#BMW 524

SPROCKET ALIGNMENT PLATE



Applicable to: **BMW M52TU, M54 & M56 engines w/ Double Vanos.** **Comparable to BMW #116 180.**

TORX SOCKET INSERT

#H 2223 LG T-30



Used for the R & R of the airbag from the steering wheel. Applicable to: **many BMW, Mercedes-Benz, Saab & VW models.**

36MM, 6-POINT DEEP SOCKET, 3/4" DRIVE

#S 56-36



For R & R of transmission output flange nut on BMW. Applicable to: **2001 & newer BMW models E46 & E39 w/ 6 cyl. engines w/ standard transmission S5D 260Z/310Z/320Z. (exc. M3 or M5).**

#BMW 8390



Used to disconnect fuel lines on BMW models & is especially useful on the **2006–2011 BMW 3 Series** models & **2006–2009 X3 models** (E90 & E83).



#BMW 2200

HUB HOLDER



For holding the water pump hub during removal of fan clutch. Used in conjunction w/ the **#8032**. Applicable to: **All BMW engines M10, M20 & M30 w/ 32mm fan clutch nut.**

BMW E46 TAIL LIGHT HARNESS TERMINAL TOOL

#S 1578 K-2



Used for extracting terminals from a connector on the tail light wiring harness. Applicable to: **1999–2005 BMW E46 3 Series.**

SPARK PLUG SOCKET

#SP1412



#SP1412 SHOWN HERE ON BMW SPARK PLUG

14mm, 12-Point Spark Plug Socket w/ 3/8" drive. Applicable: **2007 & later BMW 135, 335, 535 & X6 w/ 3.0L twin-turbo motors.** Also works on 2007 & newer Turbocharged Mini Coopers. **Comparable to BMW tool #121 220. NOTE: Spark Plug Socket is slender in design to fit application.**

#H 2760 OIL DRAIN & FILLER PLUG WRENCH



14mm Allen, 17mm box wrench used for the R & R of the differential oil filler plug on **many BMW & Mercedes-Benz** models.

#BMW 2260

HUB HOLDER (V8)



For holding water pump hub during removal of fan clutch. Used in conjunction w/ tool **#8032**. Applicable to: **BMW M60 & M62 V8 engines.**

WIRE TERMINAL EXTRACTOR

#S 1553 N



Used to remove flat terminals w/ one release tang from the connector plug. **Applicable to many BMW models.**

WIRE TERMINAL EXTRACTOR

#S 1591 N



1.65mm wide, 2.8mm apart & 18mm long. Used to remove flat terminals w/ two release tangs from the connector plug. **Applicable to many BMW models.**

***MC 1400**

**MINI COOPER
ENGINE
TIMING SET**

Includes cam & crank
timing tools. Used
on **2007-2010 N14**

Turbocharged engines.

Set contains the following
factory tool numbers:

#119551, #119552 &
#119590.



***SP1412**

**SPARK PLUG
SOCKET**

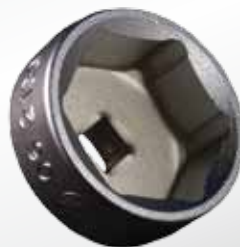


14mm, 12-Point Spark Plug Socket w/ 3/8" drive.
Applicable: **2007 & newer Turbocharged Mini Coopers.**
Comparable to BMW tool #121220. **NOTE:** Spark Plug
Socket is slender in design to fit application.

***2136**

**36MM OIL FILTER
SOCKET WRENCH**

- 36mm w/ 6 Flats
- Applicable to BMW M52, M60, M62, M70, M73 Engines & **Mini Cooper through 2006**
- Steel Construction



***FZ 25**

**TANK
ADAPTER**

- **Fits Mini Cooper w/ 47 x 3mm Threads on the Filler Neck through 2007**
- Used for Pressurizing the Cooling System



***MC 103**

**MINI COOPER
NATURALLY
ASPIRATED
SERPENTINE BELT
TOOL**

Mini Cooper Serpentine Belt
Tool used for relieving tension
on belt tensioner on **naturally
aspirated motors through 2006.**
Comparable to #118390.



***BMW 4622**

**FUEL LEVEL SENSOR
LOCK RING TOOL**

Used to remove the fuel level lock
ring. **Comparable to BMW factory
tool number #161020.** Applicable:
1988-2011 BMW & **Mini Cooper**;
E31, E34, E36, E38, E39, E46, E53,
E60, E63, E64, E65, E83, E85, E90,
R50, R52, R53, R55, R56 & R57.



***V 450**

**MINI COOPER
BRAKE PISTON ADAPTER**

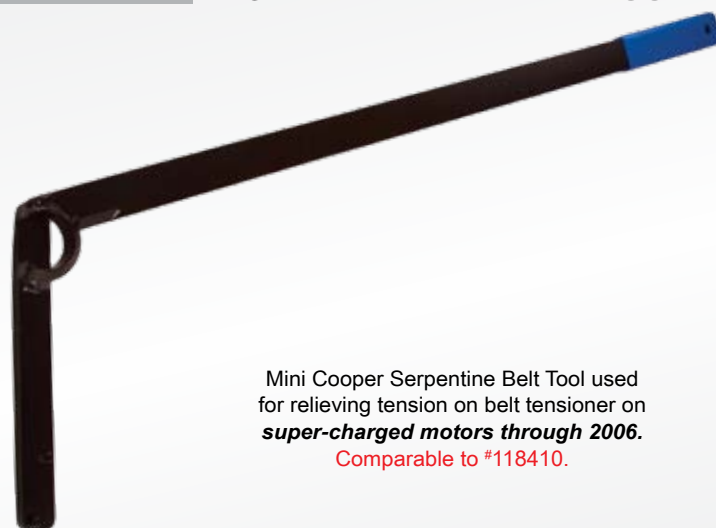
3/8" Drive. For turning in the rear brake
caliper piston. Applicable to: 2005 &
newer Volvo 40 & 50 Series, Mazda 3,
2002-2006 **Mini Cooper**, Mercury Milan,
Ford Fusion, Jaguar S-Type, Lincoln MKZ
& Saab 9-3.



***MC 100**

**MINI COOPER
SERPENTINE BELT TOOL**

Mini Cooper Serpentine Belt Tool used
for relieving tension on belt tensioner on
super-charged motors through 2006.
Comparable to #118410.



**8-PIECE RADIO
REMOVAL SET**

#3101



Includes the **#2040**, ***BMW 050**, **#3344 A**
(includes two pair), ***M 2070**, **#3316**, ***BMW
025** & the ***BMW 010**. Applications to: Ford
& VW models w/ a DIN chassis, BMW
models w/ anti-theft radio, Audi A4, A6, A8
& new VW Beetles, 1992 & later Mercedes
129, 140, 163, 202 & 210 models, VW
new body Passat, Jetta & Golf, center
console removal on newer BMW Z3,
X5 & 5 Series (E39), Multi-Informational
Display (MID) removal on BMW X5 & 5
Series (E39).

**EUROPEAN DOOR/
HINGE
HANDLE SET**

#3200



A compact solution to accessing the
special fasteners found on the door hinges
& handles of VW/Audi, Mercedes-Benz,
& Porsche. Set includes four door hinge
bits (less than an inch long), & a slender
ratcheting wrench. Also included are the
extra long drivers necessary to access the
door handles of Mercedes-Benz & VW.

RADIO REMOVAL TOOL

#3344 A



Used for radio removal on Audi A4, A6, A8 & VW
new Beetle w/ horizontally aligned key slots. Two
pair of **#3344 A**'s are required for most newer
VW/Audi models. **Comparable to VW #T 10057.**



**SPECIALTY ALLEN
DRIVER**

***BMW 050**



For removal & replacement of all BMW anti-theft radios.
Applicable to many BMW models.



RADIO REMOVAL TOOL

***M 2070**



Used for radio removal on 1992 &
later Mercedes models. Applicable to
Mercedes models 140, 129, 202 & 210.



**HARD BLACK
WEDGE SET**

***MW 35**



Constructed of strong black polycarbonate,
this set of three wedge-style dash panel
removal tools allows installers to remove oil
pans, timing covers, rocker covers & more,
without causing damage.



**RADIO
REMOVAL TOOL**

#2040



Radio removal tool for VW,
Audi, Ford, & Saab radios
w/ DIN chassis.



**RADIO
REMOVAL KEYS**

#3316



Used for removing the factory-
installed radio. Applicable to new
body style VW Passat, Jetta & Golf
w/ vertically aligned key slots.



#3810

**6-PIECE
FILE SET**

Includes six files &
a protective case.



**SOFT ORANGE
WEDGE SET**

***MW 34**



Constructed of soft orange
polyethylene, this set of three
wedge-style dash panel
removal tools allows installers
to remove dash trim bezels &
other vehicle interior moldings
including door panels, without
causing damage. Great for
electronics installation work.

**THOREX COPPER
HAMMER**

***T 314**



Approximate weight 4lbs. 1 3/4" Face Diameter (44mm).
Overall length 12".

#8027

FUEL LINE RELEASE TOOL

- Applicable to 2011 GM w/ 6.6 V8 Turbo Diesel Duramax
- Made of Orange-Anodized Aluminum
- Used for removing the fuel line from the indirect fuel injector

#8010

1/4" FUEL LINE REMOVER

- Black-Anodized Aluminum Construction
- Applicable to 1995–1996 Ford Mustang

#8013

3/8" FUEL LINE REMOVER

- Gold-Anodized Aluminum Construction
- Applicable to Ford Models w/ 3/8" Fuel Line

#8016

1/2" OIL COOLER LINE REMOVER

- Green-Anodized Aluminum Construction
- Applicable to Dodge Ram V10 or Cummins Turbo Diesel

#8022

GM FUEL FILTER DISCONNECT TOOL

- Applicable to 2002–2004 Chevy Tahoe & Suburban
- Made of Flexible Plastic for Extremely Tight Application

#8024

1/2" OIL COOLER LINE REMOVER

- Black-Anodized Aluminum Construction
- Applicable to 2007 Ford Explorer & Sport Trac

#8012

5/16" FUEL FILTER REMOVER

- Red-Anodized Aluminum Construction
- Applicable to Ford & GM w/ 5/16" Fuel Line

#8014

5/16" SPECIAL OIL COOLER LINE REMOVER

- Applicable to Ford Taurus & Ford Escort w/ AXOD & ATX transmissions
- Blue-Anodized Aluminum Construction

#8021

3/8" OIL COOLER LINE REMOVER

- Purple-Anodized Aluminum Construction
- Applicable to Ford Trucks & S.U.V.s
- Fits 2007–2008 Ford F150

#8023

1/2" OIL COOLER LINE REMOVER

- Orange-Anodized Aluminum Construction
- Applicable to 2005–2008 Ford F Series Turbo Diesel Trucks, 2009 Escape w/ 6F Trans & Ford Edge

#8026

5/16" NISSAN/TOYOTA FUEL LINE DISCONNECT TOOL

- Green-Anodized Aluminum Construction
- Disconnects the Fuel Rail from the Fuel Line on 2004 & Newer Nissan & Toyota Models

#8021 SHOWN HERE IN USE

#8023 SHOWN HERE IN USE

#8110

10 - PIECE LINE DISCONNECT TOOL SET

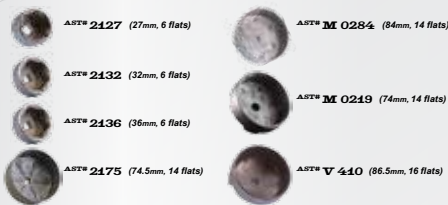
FEATURES:

- The #8110's Nissan & Toyota Flared Fuel Line Application is Not Found in Other Sets
- #8023 Fits Ford 6.0 Turbo Diesel Transmission Oil Cooler Lines & New Escape & Edge
- 3/8" Transmission Oil Cooler Line Tool for Ford & Cadillac CTS
- Tahoe & Suburban Fuel Filter Removal Tool
- 2006 & 2007 Ford Explorer Transmission Oil Cooler Line Disconnect Tools
- Original 1/4", 5/16" & 3/8" Ford & GM Disconnect Tools Also Included

#8026 SHOWN HERE IN USE

#2101

7-PIECE OIL FILTER WRENCH SET



Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, BMW, newer Mercedes 4-cyl. engines, **Saturn & GM 2.2 L Ecotec engines**. Covers **Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793**. The four cup-style wrenches covers many VW, BMW, Toyota, & Mazda 3. Also covers **Dodge Sprinter & Jeep 3.0L CRD engines** & 1999–2010 Volvo models.



#OFHON1033

DODGE / FORD OIL FUNNEL



- Fits: Honda Accord, Civic, Element, Fit, NSX & S2000. All Acura Models (exc. MDX & RDX)
- Fits Most Nissan Models
- **Fits Dodge Cummins Turbo Diesel & Neon**
- **Ford Power Stroke engines (6.9L, 7.3L, 6.0L & 6.4L)**
- Fits Some Jaguar & Jeep Models
- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Onto the Valve Cover



#F 7630

76MM OIL FILTER WRENCH



76mm, 30 Flutes. 3/8" Drive. Applicable to **1981–2009 Ford Models w/ Motorcraft filter #FL400S**; Fits **2009–2010 Ford Models w/ Motorcraft filter #FL500S**; Also Fits **2000–2004 Ford Models w/ Motorcraft filter #FL2005**

#F 9336

93MM OIL FILTER WRENCH

93mm, 36 Flutes. Applicable to: **1991–2010 Ford Models w/ Motorcraft filter #FL820S**



#H 4550-2

19MM FUEL LINE WRENCH



Applicable: 16 & 20 Foot Mercedes Diesel Trucks; Lines at Delivery Pump on **Cummins Turbo Diesel 5.2L**.

#2124

24MM OIL FILTER SOCKET

24mm, 6 Flats. Applicable to: 2004–2011 BMW 5 Series, 7 Series & X5 w/ V8 motor (N62). **2008 Saturn Astra w/ 1.8L eco-tec engine**. Used for R & R of the oil filter housing cap. Also used for R & R of fuel filter housing on **2004–2010 Ford E & F Series**.



CHRYSLER TRANSMISSION DIPSTICK

42RLE Automatic Transmission:
(KJ) Jeep Liberty (2006–2007); (KK) Jeep Liberty (2008–); (KA) Dodge Nitro (2007–)

62TE Automatic Transmission:
(JS) Dodge Avenger & Chrysler Sebring (2007–)

CVT Automatic Transmission:
(MK) Jeep Compass & Patriot (2007–); (PM) Dodge Caliber (2007–)

NAG1 Automatic Transmission:
(LC) Dodge Challenger (2008–); (LX) Chrysler 300C, Dodge Charger & Dodge Magnum (2005–); (WK) Jeep Grand Cherokee (2007–)



Used on all vehicles equipped w/ a NAG1, 42RLE, CVT Transmission & the 62TE Transaxle. **Note: This tool supersedes the original #9336 A & will work on all previous applications.**

#CRY933

SPRINTER TRANSMISSION DIPSTICK

#SPR 886



Dodge Sprinter & Chrysler Crossfire Transmission Dipstick. Use in conjunction w/ factory repair literature to get correct fluid level measurements.

#2132

32MM OIL FILTER SOCKET

- 32mm w/ 6 Flats
- Steel Construction
- **Applicable to GM, Chevy, Pontiac & Saturn Models w/ 4-cyl. Ecotec Engines**



#2136

36MM OIL FILTER SOCKET

- 36mm w/ 6 Flats
- Steel Construction
- **Applicable to 2004 & Later Ford F Series 6.0L Turbo-Diesel Oil & Fuel Filter**
- **Used for R & R of Fuel Filter housing on 2004–2010 Ford E & F Series**



#2175

74.5MM OIL FILTER WRENCH

- 74.5mm w/ 14 Flats
- Metal Construction
- **Applicable to Dodge Sprinter w/ 2.7L 5-cyl.**



#M 0219

74MM OIL FILTER WRENCH

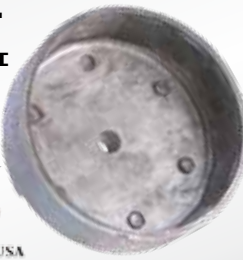
- 74mm w/ 14 Flats
- **Applicable to Ford Focus & Fusion, Chrysler Crossfire, 2007 Dodge Sprinter w/ 3.5L V6 & Ford Escape Hybrid**
- Metal Construction



#M 0284

84MM OIL FILTER WRENCH

- 84mm w/ 14 Flats, 22mm Hex
- **Applicable to: 2007–2009 Dodge Sprinter, the 2007–2009 Jeep Cherokee w/ the 3.0L V6 CRD (Common Rail Diesel) Engines**



#TOY 730

73MM TOYOTA OIL FILTER WRENCH

- 73mm, 14 Flats
- **Applicable to Mercury 4-Stroke (Marine Application) 220 & 225 Motors**
- Metal Construction



GM/FORD OIL FUNNEL

#OFGMRD08

- **Fits the New 2011 Ford 6.7L Turbo-Diesel**



- Attaches Directly to the Engine Oil Filler Neck or Valve Cover
- **Applicable to: Cadillac CTS; Chevy Cobalt, Silverado, Tahoe, Trailblazer & Vans; Ford Explorer, F150, Mustang & Taurus; GMC: Envoy & Sierra; Mercury Mountaineer; Pontiac G6 Grand Prix; Saturn SL1**
- Fits Some Jaguar Models
- Made of Durable ABS Plastic
- No More Mess

#FZ 1001 A

**COOLING SYSTEM ADAPTER
SET FOR ASIAN & DOMESTIC
VEHICLES**

Set contains a carrying case & the following adapters:
#FZ 34, #FZ 35 A, #FZ 37, #FZ 128 & the #FZ 138.



**5 PC. OIL FILTER
SOCKET SET**

#F 2500

- Oil Filter Wrenches are 93mm (36 flutes), 74mm (14 flats) & 76mm (30 flutes)
- Oil Filter Sockets are 24mm & 36mm Hex (6 flats)
- Carrying Case Included
- **Set Covers Most 1988–2010 Ford Models**
- 5 Year Warranty
- All Tools are 3/8" Drive
- Includes: #M 0219, #F 9336, #F 7630, #2136 & #2124



#FZ 29

**CAP
ADAPTER**

- **Applicable to Chevy, Chrysler, Ford, Mercury & Many Others**
- **Fits Older Ford Ranger, Windstar & Escort**



#FZ 32 A

**TANK
ADAPTER**

- Works w/ Many Domestic Vehicles
- **Applicable to Various Ford, Lincoln, Cadillac & Saturn Models**



**TANK
ADAPTER**

- **Applicable to Older Ford Contour & Focus**



#FZ 34

**TANK
ADAPTER**

#FZ 35 A

- **Applicable to Various Cadillac, Chevrolet, Ford, GM, Oldsmobile, Pontiac, Saturn & Many Other Models**



#FZ 25

TANK ADAPTER



Used for pressurizing cooling system.
Applicable to: **1987–1990 Jeep models w/ 47 x 3mm threads on the filler neck.**



#FZ 55

**TANK ADAPTER FOR
DODGE SPRINTER**

- Used for Pressurizing the Cooling System
- **Applicable to 2007–2009 Dodge Sprinter Van**



**CAP
ADAPTER**

- **Applicable to Various GM & Ford Models**



#FZ 36

**TANK
ADAPTER**

#FZ 37

- **Applicable to Ford: Escape 2001–2005, 1998–2001 Mercury Mystique & Contour**



#2040

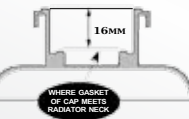
**RADIO REMOVAL
TOOL**

Radio removal tool for VW, Audi, **Ford**, & Saab radios w/ DIN chassis.



**TANK
ADAPTER**

- **Applicable to Chevy, Chrysler, Ford, Mercury & Many Others**
- **Fits Older Ford Ranger, Windstar & Escort**



#FZ 128

**TANK
ADAPTER**

#FZ 138

- **Applicable to Chevy, Chrysler, & Many Others**



#3101

**8-PIECE
RADIO
REMOVAL
SET**



Set includes the #2040, #BMW 050, #3344 A (includes two pair), #M 2070, #3316, #BMW 025 & the #BMW 010. Applications include: **Ford** & VW models w/ a DIN chassis, BMW models w/ anti-theft radio, Audi A4, A6, A8 & new VW Beetles, 1992 & later Mercedes 129, 140, 163, 202 & 210 models, VW new body Passat, Jetta & Golf, center console removal on newer BMW Z3, X5 & 5 Series (E39), Multi-Informational Display (MID) removal on BMW X5 & 5 Series (E39).

#S 3054 X-10

10MM 12-POINT SOCKET



10mm 12-Point Socket, 140mm long. Used for R & R of cylinder head bolts. Applicable to: OM 601, OM 602 & OM 603; **2003–2007 Pontiac Vibe**, 2003–2007 Toyota Matrix w/ 1.8 L I-4. Also used on VW & Audi head bolts that are 10mm, 12-point. Most VW & Audi applications 1998 & later require the #3462 Head Bolt Socket.

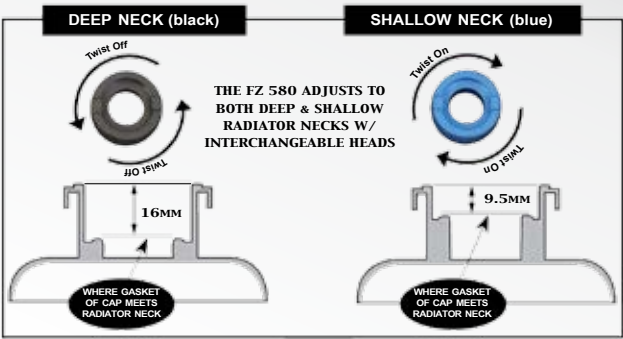
#V 450

BRAKE PISTON ADAPTER



3/8" Drive. For turning in the rear brake caliper piston. Applicable: **Ford Fusion, Mercury Milan**, 2005 & newer Volvo 40 & 50 Series, Mazda 3, Mini Cooper, Jaguar S-Type, **Lincoln MKZ** & Saab 9-3.

**COOLING SYSTEM ADAPTER
SET FOR DEEP & SHALLOW
RADIATOR NECKS**



Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, **Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac)**, Geo, Honda, Hyundai, Infiniti, Izuzu, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Suzuki & Toyota.

AST GENERAL TOOLS



#MW 34
SOFT ORANGE
WEDGE SET see pg. 29



#3004X
4-PIECE, 12-POINT
1/4" DRIVE SET see pg. 28

#8027
FUEL LINE RELEASE
TOOL see pg. 30



⇒ **SPECIAL BITS & BIT SETS**

⇒ **STUD REMOVER / INSTALLER TOOLS**

⇒ **LINE DISCONNECT TOOLS**

⇒ **ALUMINUM SOFT JAWS, HAMMERS & FILE SETS**



#3000
40-PIECE SOCKET SET
WITH 1/4" DRIVE see pg. 28



#203
7-PIECE STANDARD
STUD PULLER SET
see pg. 29

#ALSJ05
ALUMINUM SOFT JAW
VISE BLOCKS see pg. 29





#3000

40-PIECE SOCKET SET
WITH 1/4" DRIVE

Contains: T-6 through T-45 6-Point
Tamperproof® Torx; T-10 through T-50
6-Point Standard Torx; 4mm, 5mm, 6mm
& 8mm 12-Point; 2.5, 3, 4, 5, 6 & 8 Allen
Drivers; 5/32"-5/16" Straight Blade Drivers;
#1, #2 & #3 Phillips Drivers



#3000-4 K

4-PIECE ALLEN
SOCKET BIT SET



4-Piece Allen Socket Bit Set. Includes: 4mm, 5mm,
6mm & 8mm 1/4" drive sockets.



#3000-6 K

6-PIECE ALLEN
SOCKET BIT SET



6-Piece Allen Socket Bit Set. Includes: 2.5mm, 3mm, 4mm, 5mm,
6mm & 8mm 1/4" drive sockets.



#3004X

4-PC, 12-PT, 1/4"
DRIVE SET

4-Piece, 12-Point, 1/4" Drive Socket Set. Includes: 4mm, 5mm,
6mm & 8mm sockets. 1-Piece steel construction



#3900

5 LOBE
TAMPER-PROOF
BIT SET

5 Lobe Bits, 1/4" Drive Bit Holder.
Includes: T-10, T-15, T-20, T-25,
T-27, T-30, T-40, T-45 & T-50



#T 314

THOREX COPPER
HAMMER

Approximate weight 4lbs. 1 3/4" Face Diameter (44mm).
Overall length 12".



#H 2223 LG T-30

TORX SOCKET
INSERT

T-30 torx used for R & R of the airbag from the steering wheel.
Applicable to: Many BMW, Mercedes-Benz, Saab & VW/Audi models.



#1200

UNIVERSAL TIE
ROD END/BALL
JOINT PULLER

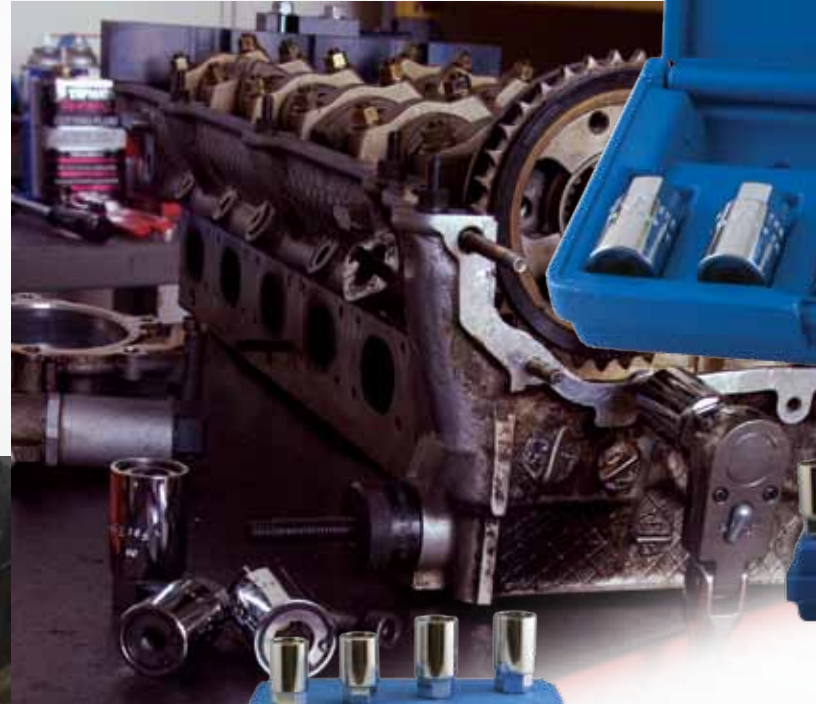
This tool's unique screw joint offers
a wide gripping range. Well-suited
for the job because of the #1200's
parallel arrangement of the top &
bottom jaw plates.



#1201

UNIVERSAL TIE
ROD END & BALL
JOINT PULLER

Universal Tie Rod End & Ball Joint Puller.
Opens from 5 to 54mm, w/ a 28.75mm inside
opening & an overall outside size of 47mm.
Comparable to VW #3287A



#201

4 PC. METRIC
STUD PULLER
SET

Includes 6mm, 8mm, 10mm
& 12mm stud remover &
installer tools.



#201-7

5 PC.
METRIC STUD
PULLER SET

Includes the New 7mm stud
remover, ideal for BMW
manifold studs. Includes
6mm, 7mm, 8mm, 10mm
& 12mm stud remover /
installers.



#203

7 PC. STANDARD
SIZE STUD
PULLER SET

Includes 1/4", 5/16", 3/8", 7/16",
1/2", 9/16" & 5/8" stud remover &
installer tools.



#202

5 PC. STANDARD
SIZE STUD
PULLER SET

Includes 1/4", 5/16", 3/8", 7/16", &
1/2" stud remover & installer tools.

INDIVIDUAL STUD REMOVERS / INSTALLERS											
	6mm	8mm	10mm	12mm	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
#200-9/16 & #200-5/8 are 27mm Hex, No Square Drive	#200-6	#200-8	#200-10	#200-12	#200-1/4	#200-5/16	#200-3/8	#200-7/16	#200-1/2	#200-9/16	#200-5/8



CAMSHAFT PULLEY
HOLDER

#7200

#7200 SHOWN
HERE IN USE

Comes w/ 3 sets of interchangeable pins. Pins
may be threaded in two different locations, based on application access.
Overall length 18". 12" Spread between pins at tip of arms, when pivot arm is
at 90°. Holding pins are Made in USA.



MADE IN USA

SOFT ORANGE
WEDGE SET

#MW 34

Constructed of soft orange
polyethylene, this set of three
wedge-style dash panel
removal tools allows installers
to remove dash trim bezels &
other vehicle interior moldings
including door panels, without
causing damage. Great for
electronics installation work.



#ALSJ05

ALUMINUM
SOFT JAW
VISE BLOCKS

Pair of 5" soft jaws machined from
aluminum. V-slots put a better grip
on round objects. Each jaw has a
small & large vertical slot. A large
horizontal slot runs the length of
each jaw. Strong magnets attach
soft jaws firmly to 4", 5" & 6" vises.



MADE IN USA

HARD
BLACK
WEDGE SET

#MW 35

Constructed of strong black
polycarbonate, this set of
three wedge-style dash panel
removal tools allows installers
to remove oil pans, timing
covers, rocker covers & more,
without causing damage.



#3810

6-PIECE FILE
SET

Includes six files &
a protective case.

#8027

FUEL LINE RELEASE TOOL

• *Applicable to 2011 GM w/ 6.6 V8 Turbo Diesel Duramax*

• Made of Orange-Anodized Aluminum

• Used for removing the fuel line from the indirect fuel injector

#8010

1/4" FUEL LINE REMOVER

• Black-Anodized Aluminum Construction

• *Applicable to 1995–1996 Ford Mustang*

#8013

3/8" FUEL LINE REMOVER

• Gold-Anodized Aluminum Construction

• *Applicable to Ford Models w/ 3/8" Fuel Line*

#8016

1/2" OIL COOLER LINE REMOVER

• Green-Anodized Aluminum Construction

• *Applicable to Dodge Ram V10 or Cummins Turbo Diesel*

#8022

GM FUEL FILTER DISCONNECT TOOL

• *Applicable to 2002–2004 Chevy Tahoe & Suburban*

• Made of Flexible Plastic for Extremely Tight Application

#8024

1/2" OIL COOLER LINE REMOVER

• Black-Anodized Aluminum Construction

• *Applicable to 2007 Ford Explorer & Sport Trac*



#8012

5/16" FUEL FILTER REMOVER

• Red-Anodized Aluminum Construction

• *Applicable to Ford & GM w/ 5/16" Fuel Line*

#8014

5/16" SPECIAL OIL COOLER LINE REMOVER

• *Applicable to Ford Taurus & Ford Escort w/ AXOD & ATX transmissions*

• Blue-Anodized Aluminum Construction

#8021

3/8" OIL COOLER LINE REMOVER

• Purple-Anodized Aluminum Construction

• *Applicable to Ford Trucks & S.U.V.s*

#8023

1/2" OIL COOLER LINE REMOVER

• Orange-Anodized Aluminum Construction

• *Applicable to 2005 Ford 6.0L Turbo Diesel Trucks, 2009 Escape w/ 6F Trans & Ford Edge*

#8026

5/16" NISSAN/TOYOTA FUEL LINE DISCONNECT TOOL

• Green-Anodized Aluminum Construction

• Disconnects the Fuel Rail from the Fuel Line on 2004 & Newer Nissan & Toyota Models



#8110

10 - PIECE LINE DISCONNECT TOOL SET

FEATURES:

- The #8110's Nissan & Toyota Flared Fuel Line Application is Not Found in Other Sets
- #8023 Fits Ford 6.0 Turbo Diesel Transmission Oil Cooler Lines, & New Ford Escape & Edge
- 3/8" Transmission Oil Cooler Line Tool for Ford & Cadillac CTS
- Tahoe & Suburban Fuel Filter Removal Tool
- 2006 & 2007 Ford Explorer Transmission Oil Cooler Line Disconnect Tools
- Original 1/4", 5/16" & 3/8" Ford & GM Disconnect Tools Also Included



#5063

**HONDA/NISSAN
OIL FILTER
WRENCH**



MADE IN USA

MORE
91
INFO

#5063 SHOWN
HERE ON FILTER

- 63mm w/ 14 Flats
- Fits Honda Models through 2011 (exc. S2000)



#HO10PT

**10-POINT
SOCKET**



10-Point Socket.
Applicable to: *Honda*
rear lower control arms.

#FZ 128

**TANK
ADAPTER**

MADE IN USA

- Applicable to 1990–1993 Honda Accord, 1988–1993 Civic, 1991–2006 Honda Motorcycles; & 1990–1993 Acura Integra
- Used for Pressurizing the Cooling System



MORE
91
INFO

#FZ 138

TANK ADAPTER

MADE IN USA

- Applicable to 2008 Honda Element & S 2000, 1994–2009 Accord, 1994–2005 Civic, 2004 Civic Hybrid, 2009 CRV & Fit, 1999–2009 Odyssey, 2003–2008 Pilot; 1994–1999 Acura Integra, 1991–1996 Legend
- Used for Pressurizing the Cooling System



MORE
91
INFO

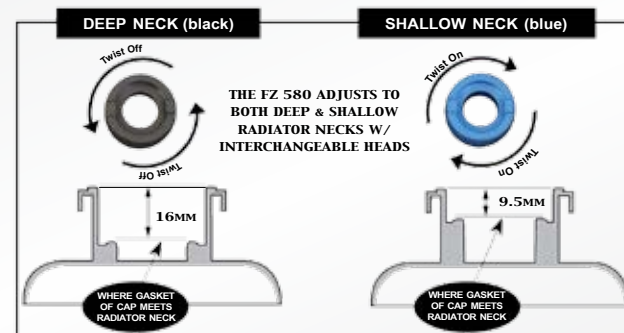
#FZ 580

**COOLING SYSTEM ADAPTER
SET FOR DEEP & SHALLOW
RADIATOR NECKS**



- The #FZ 580 Covers All 1990–2010 Honda Models

MADE IN USA



Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, *Honda*, Hyundai, Infiniti, Izuzu, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Suzuki & Toyota.

#ATF 1002 BASIC

**BASIC DRIVE LINE
FILLER SYSTEM**

Ideal for Honda Pilot differential fills. For BMW, *Honda*, Nissan & many other universal applications. Includes pump, 3 liter container, hose, shut-off valve & #ATF 102



(INSET) SHOWN HERE IN
USE ON HONDA PILOT
DIFFERENTIAL

- 5L & 10L Containers Also Available
- Includes Quick Attachment Adapter #ATF 102
- Pump Dispenses Efficiently
- Filler Can Handle 90 Weight Oil
- On / Off Ball Valve w/ Safety Catch
- Container Made of UHDP (ULTRA HIGH DENSITY POLYETHYLENE)

#OFHON1033

**ASIAN/DOMESTIC
OIL FUNNEL**



MADE IN USA

- Fits: Honda Accord, Civic, Element, Fit, NSX & S2000. All Acura Models (exc. MDX & RDX)
- Fits Most Nissan Models
- Fits Dodge Cummins Turbo Diesel & Neon
- Ford Power Stroke engines (6.9L, 7.3L, 6.0L & 6.4L)
- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Onto the Valve Cover

#8007

FAN CLUTCH HOLDER



Fan clutch holder for **Land Rover** w/ V8 engines.

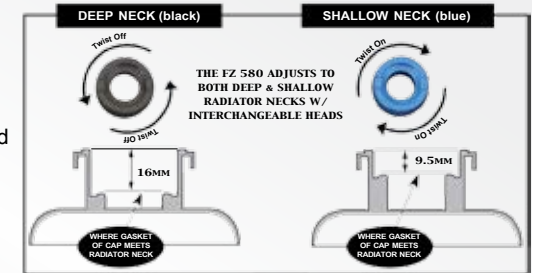
COOLING SYSTEM ADAPTER SET FOR DEEP & SHALLOW RADIATOR NECKS



Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Izuzu, Lexus, **Mazda**, **Mitsubishi**, Nissan, Subaru, Suzuki & Toyota.

MADE IN USA

#FZ 580



#BMW 345

TANK ADAPTER

- Applicable to 1988–2005 BMW (exc. new 5 & 6 Series); 1995–2004 Land Rover Range Rover & 1999–2004 Discovery Series 2
- For Pressurizing Cooling System



MADE IN USA

FOUND IN AST TOOL SET
FZ 4002

#FZ 25

TANK ADAPTER

- Applicable to: 2002–2004 Land Rover Freelander
- Applicable to: Models w/ 47 x 3mm Threads on the Filler Neck
- Used for Pressurizing the Cooling System



MADE IN USA

FOUND IN AST TOOL SET
FZ 4002

EUROPEAN COOLING SYSTEM ADAPTER SET



MADE IN USA

This set contains the following adapters: #BMW 345, #FZ 22, #FZ 25, #BMW 350, #FZ 41 & #M 0349.

#FZ 1002

ASIAN & DOMESTIC COOLING SYSTEM ADAPTER SET



Set contains a carrying case & the following AST cooling system adapters: #FZ 34, #FZ 35 A, #FZ 37, #FZ 128 & the #FZ 138.

MADE IN USA

#FZ 32 A

TANK ADAPTER

- Applicable to 2005 Land Rover Freelander, 2005–2007 LR3, & 2006 Range Rover Sport
- Used for Pressurizing the Cooling System



MADE IN USA

FOUND IN AST TOOL SET
FZ 4004 A

#FZ 34

TANK ADAPTER

- Applicable to 1989–1998 Land Rover Discovery Series 1
- Used for Pressurizing the Cooling System



MADE IN USA

FOUND IN AST TOOL SET
FZ 4004 A

#FZ 47

TANK ADAPTER

- Applicable to Land Rover LR2 & 2004–2006 Mazda 3
- Used for Pressurizing the Cooling System



MADE IN USA

#FZ 128

TANK ADAPTER

- Applicable to 1985–1999 All Mazda Models (exc. Protege, 2004 Mazda 6, 2000–2001 Protege (automatic); & 1991–1998 Mitsubishi 3000 GT, 1992–1995 Diamante, 1985–1993 Galant, 1985–1992 Mirage, 1989–1998 Montero, 2004 Outlander
- Used for Pressurizing the Cooling System
- For Cap Adapter see #FZ 29



MADE IN USA

FOUND IN AST TOOL SET
FZ 4004 A

ASIAN/DOMESTIC OIL FUNNEL



- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Onto the Valve Cover
- Fits 2002 & Older Land Rover, Discovery & Defender w/ 3.5L, 3.9L, 4.0L, 4.2L & 4.6L Engines
- Fits Jaguar 4.2L Engines

MADE IN USA

#OFHON1033

JAGUAR OIL FUNNEL



- Made of Strong Polycarbonate
- No More Mess
- 1/4-Turn & Seals Onto the Valve Cover
- Fits 2003 & Newer Jaguar & Land Rover (exc. 3.0L V6)

MADE IN USA

#M 0219

74MM OIL FILTER WRENCH

- 74mm w/ 14 Flats
- Applicable to: 2004–2006 Mazda 3 (2.3L), 2005–2007 Mazda 5 (2.3L), Mazda 6 (2.3L), 2006–2007 Mazdaspeed 3 & 2006–2007 Mazdaspeed 6
- Metal Construction



FOUND IN AST TOOL SET
2404

MADE IN USA

FOUND IN AST TOOL SET
TOY 300



#M 0129
SHOWN HERE
ON FILTER
HOUSING

#FZ 138

TANK ADAPTER

- Applicable to 1995 Mazda Protege (1.5L), 2000–2001 Protege (manual); & 1996–1998 Mitsubishi Diamante, 2002 Eclipse (Spyder), 1994–2003 Galant, 1993–1999 Mirage, 1997–1999 Montero Sport
- Used for Pressurizing the Cooling System



MADE IN USA

FOUND IN AST TOOL SET
FZ 4004 A

#JA 9015

OIL FILTER WRENCH



- Applicable to 2010–2011 5.0L V8 Jaguar Models

#JA 9015 SHOWN HERE
ON FILTER HOUSING

MADE IN USA



***3200 T-30**

**T-30 TORX
SCREWDRIVER**

Used for R & R as well as adjustments of headlamps on 1999–2004 Audi A6. Also used to access the door handle fasteners on some Mercedes-Benz models. Applicable to: **2000–2004 Mercedes S-Class w/ 220 chassis.**

***H 2771**

**17MM VALVE
ADJUSTMENT
WRENCH**



Offset 17mm Wrench is used for valve adjustment on **Mercedes-Benz M110 gas engines** (dual camshaft 6 cyl). Also used to pry off the spark plug connectors from the spark plugs on **112 & 113 engines.**

***H 2223 LG T-30**

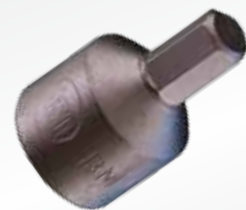
**TORX SOCKET
INSERT**



This T-30 torx is for the R & R of the airbag from the steering wheel & is applicable to many BMW, **Mercedes-Benz**, Saab & VW models.

***BMW 377**

**7MM ALLEN
SOCKET**



7mm, 3/8" Drive Allen socket. Applicable to: BMW E36, E46, E39 & E31 models, **Mercedes S-Class (221) & C-Class (204).** For R & R of rear caliper bolts.

***M 0734**

**GUIDE RAIL
PIN PULLER**

Used for removing the most stubborn pins from the cylinder head. Unlike the short slide hammer previously used to attempt this job, the ***M 0734** incorporates a thrust bearing to ease the pulling action. Overall length is 85mm, which allows access to tight problem areas. Applicable to: **Mercedes engines M 116, M 117, OM 601, OM 602, OM 603, OM 615 & OM 616.** Can be used on M 272 & M 273 but shims and/or spacers are necessary.



***H 1012 T-100**

**T-100 3/4" DRIVE
SOCKET**



Used to remove the plug, for accessing the parking pawl detent on the **722.9 Mercedes transmission.**

***H 2760**

**OIL DRAIN & FILLER
PLUG WRENCH**



14mm Allen, 17mm Box Wrench. Used for the R & R of the differential oil filler plug on many BMW & **Mercedes-Benz models.**

***H 4550**

**17MM INJECTION
LINE WRENCH**



17mm Injection Line Wrench is an offset, 3/8" drive fuel injection line wrench.

***H 992 SLG-T55**

**HEAD BOLT SOCKET FOR
MERCEDES**



T-55 Torx head bolt socket for Mercedes. Applicable to: **Mercedes-Benz models w/ motors M112, M113, M120 & M137.**

***M 3857**

**PIN WRENCH
SOCKET FOR
MERCEDES
M-CLASS**



3/4" drive Pin Wrench Socket used to secure the retaining ring during R & R of ball joints. Applicable to: **Mercedes 163 M-Class front & rear axles.**



***M 9004**

**PULLEY
HOLDER**

Crankshaft harmonic balancer holder. Used for the R & R of the front crankshaft bolt. Applicable to: **M112 (V6) & M113 (V8) engines.**



***S 3054 X-10**

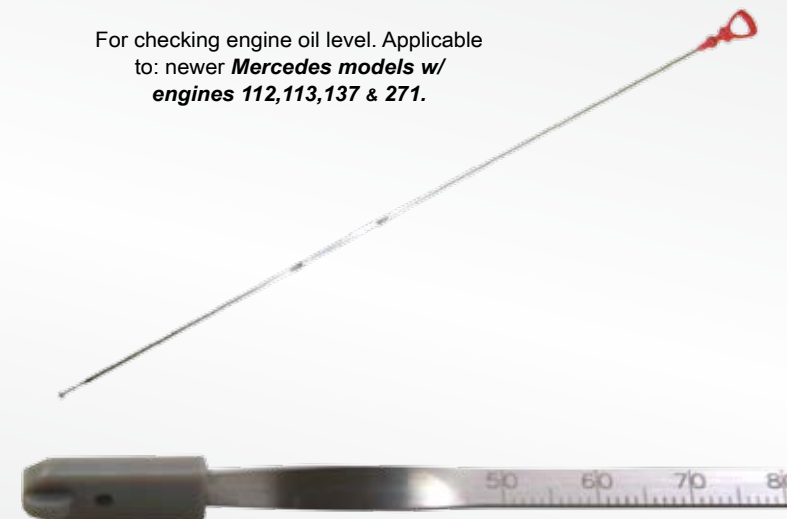
10MM 12-POINT SOCKET



140mm Long Socket. Used for R & R cylinder head bolts. Applicable to: **OM 601, OM 602 & OM 603;** 2003–2007 Pontiac Vibe, 2003–2007 Toyota Matrix w/ 1.8L I-4. Also used on VW/Audi head bolts that are 10mm, 12-point.

**ENGINE OIL
DIPSTICK**

For checking engine oil level. Applicable to: newer **Mercedes models w/ engines 112,113,137 & 271.**



***M 0721**

**722.6 TRANSMISSION
DIPSTICK**

For checking ATF level. Applicable to: **Mercedes-Benz models 1997 & newer w/ 722.6 transmission.**



***ATF 1100-5**

**9-PIECE DRIVE
LINE FILLER
SYSTEM**



For BMW, Ford, Honda, **Mercedes**, Nissan, Toyota, VW/Audi & many other universal applications. Includes pump, 5 liter container, hose, shut-off valve & ***ATF 101, *ATF 102, *ATF 103, *ATF 104, *ATF 105, *ATF 16 DSG, *ATF 17 CVT, *ATF 129 & *ATFTOY118.**

—“After using the factory & other aftermarket fillers, the ATF system from Assemacher is the cleanest & most efficient.”

- Includes Quick Attachment Adapter(s)
- Pump Dispenses Efficiently
- Filler Can Handle 90 Weight Oil
- On / Off Ball Valve w/ Safety Catch
- Container Made of UHDP (ULTRA HIGH DENSITY POLYETHYLENE)

***ATF 1004-5 MB**

**MERCEDES DRIVE LINE
FILLER SYSTEM**



For filling fluids in the 722.9 Automatic Transmissions using a 12mm x 1.5 adapter. Includes pump, container, hose, shut-off valve & ***ATF 129.**

**12MM x 1.5 DRIVE
LINE FILLER
SYSTEM ADAPTER
FOR MERCEDES-BENZ**



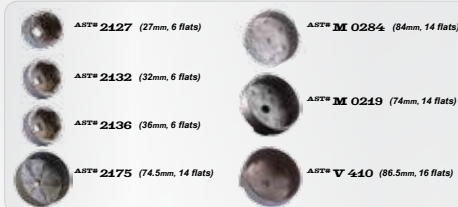
12mm x 1.5 Mercedes-Benz Adapter used in conjunction w/ the ATF Filler System. Applicable to: **722.9 automatic transmissions.** Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete ATF Mercedes Filler System Set, see ***ATF 1004-5 MB.**

***ATF 129**



#2101

7-PIECE OIL FILTER WRENCH SET



Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, BMW, newer **Mercedes 4-cyl. engines**, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches covers many VW, BMW, Toyota, & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & 1999–2010 Volvo models.



MADE IN USA
PATENT PENDING

#OFAUD1000

VW, AUDI, MERCEDES & BMW OIL FILLER

- Fits 1996 & Later BMW 6 cyl. & 8 cyl.
- Fits Dodge Sprinter
- Fits 1998 & Newer Mercedes Motors 112, 113, 271, 272 & 273 (V6 & V8)
- Fits VW/Audi Engines: 1.8 T, 1.9L TDI, 2.0 T, 2.8L (30v), 3.0L (30v), 3.2L, 3.6L & 4.2L (40v)
- No More Mess



#M 0E24

E24 FEMALE TORX SOCKET



Female torx socket. Applicable to: Front axle nut on **Mercedes 4Matic** models, new C-Class (204), New E-Class (212), new S-Class (221).

#BM 1276

76MM OIL FILTER WRENCH

- 76mm, 12 Flutes, 3/8" Drive
- Applicable to M102 & M103 Mercedes Engines w/ 12 Flute OEM Oil Filter
- Metal Construction



#2127

27MM OIL FILTER SOCKET

- 27mm w/ 6 Flats
- Applicable to Newer Mercedes Models w/ 4 Cyl. Engines
- Steel Construction



#2136

36MM OIL FILTER SOCKET

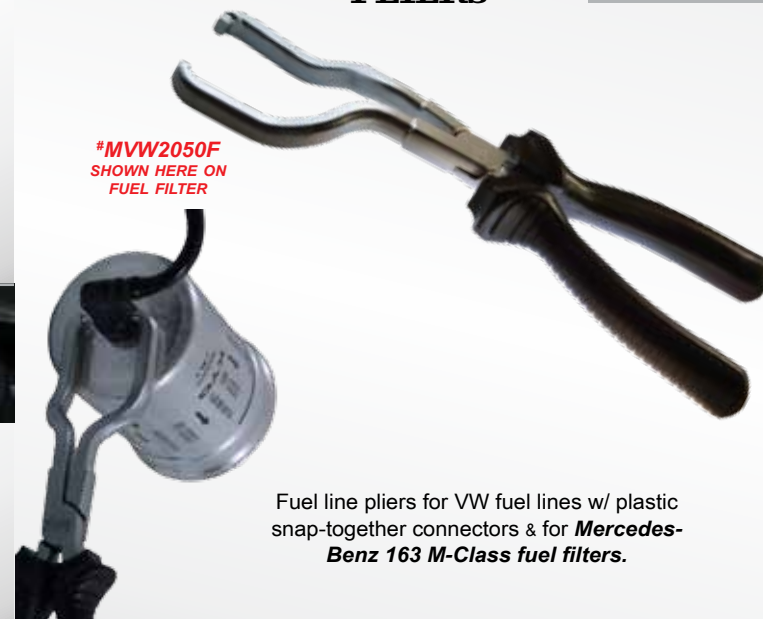
- 36mm w/ 6 Flats
- Applicable to Mercedes Diesel 604, 605 & 606 Engines
- Steel Construction



FUEL LINE PLIERS

#MVW2050F

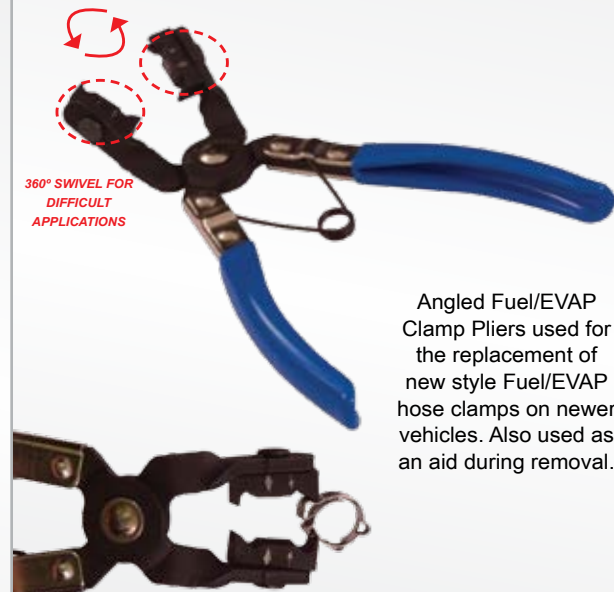
*MVW2050F SHOWN HERE ON FUEL FILTER



Fuel line pliers for VW fuel lines w/ plastic snap-together connectors & for Mercedes-Benz 163 M-Class fuel filters.

SWIVEL JAW FUEL/ EVAP CLAMP PLIERS

#M2010ACP



Angled Fuel/EVAP Clamp Pliers used for the replacement of new style Fuel/EVAP hose clamps on newer vehicles. Also used as an aid during removal.

#M 0219

74MM OIL FILTER WRENCH

- 74mm w/ 14 Flats
- Applicable to 1998–2006 Mercedes Models w/ V6 (112) & V8 (113)
- Metal Construction



#M 0284

84MM OIL FILTER WRENCH

- 84mm w/ 14 Flats, 22mm Hex
- Applicable to: 2007–2009 Dodge Sprinter, 2007–2011 Mercedes-Benz Turbo-Diesel & the 2007–2009 Jeep Cherokee w/ the 3.0L V6 CRD (Common Rail Diesel) Engines



#M 3200 A

CAM ALIGNMENT PLATES FOR MERCEDES



Used for cam alignment. Applicable to: **1998 & later Mercedes including M 112 & M 113 engines (exc. AMG models);** Chrysler Crossfire (exc. SRT6).

#M 0333

PULLER SET (PAIR OF HOOKS)

Used for the R & R of the instrument cluster on Mercedes models. Applicable to: **Mercedes W 107, 116, 123, 124, 126, 129, 140, 168, 170, 201, 202, 208, 210 & 463 models.**



#S 1553 N

WIRE TERMINAL EXTRACTOR



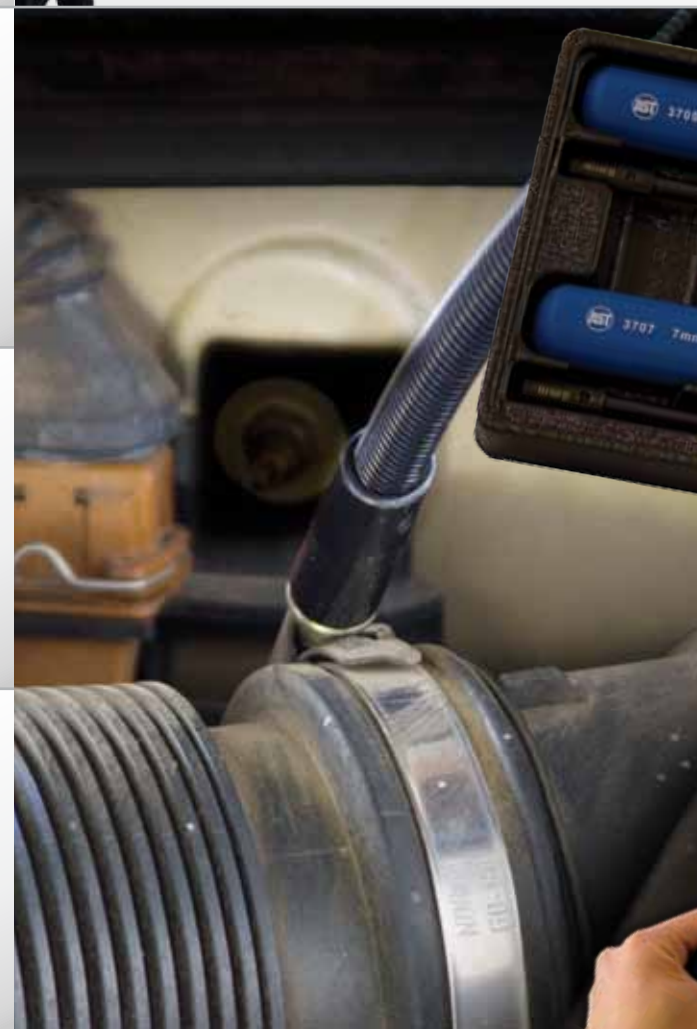
This tool is used to remove flat terminals w/ one release tang from the connector plug.

#S 1591 N

WIRE TERMINAL EXTRACTOR



This tool is used to remove flat terminals w/ two release tangs from the connector plug. 1.65mm wide, 2.8mm apart



4 PC. FLEX NUT DRIVER SET

#3700



Includes 5mm, 6mm, 7mm & 8mm Flexible Nut Drivers. Use the **#3700** to tighten & loosen the hard-to-reach hose clamps on various makes & models. 5-year warranty. Blue handle constructed of tough composite plastic.



#FZ 1002

EUROPEAN
COOLING
SYSTEM
ADAPTER SET



MADE IN USA

Includes the following AST tools: **#BMW 345:** Fits BMW 2004–2005 3 Series, 2002–2006 7 Series, 2005–2006 X3 & X5, Land Rover: 2002 Discovery & 1995–2004 Range Rover. **#FZ 22:** Fits Porsche 911 (water-cooled, w/ threaded necks) & Boxster; Volvo 670 & VN 430; VW/Audi A8, All 1975–1993 models w/ male threads on exp. tank & S8. **#FZ 25:** Fits all 1987–1990 Jeep models; 2002 Land Rover Freelander; Mini Cooper S; All 1985–1987 Renault Models; 1978–1994 Saab 900 & 1986–1998 9000; All 1987–1991 Sterling models; 1978–2006 Volvo models w/ threaded neck & 1978–2006 Volvo Trucks w/ 47mm x 3mm threads on secondary filler neck. **#BMW 350:** 2006–2009 BMW 3 Series (E90), 2004–2009 5 & 6 Series (E60, E63, E64) & X5 2007–2009 (E70). **#FZ 41:** Fits All Porsche Models; 2006 Audi A3, 1996–2009 A4, 2007 A4 Wagon, 1998–2009 A6, 2000–2002 TT, 1999–2009 VW Golf, 1999–2008 Jetta, 2005.5 Jetta (new body), 1998–2004 New Beetle, 1998–2004 Passat, Q7 (3.6L), 2004–2009 Touareg. **#M 0349:** Fits **All 1996 & newer Mercedes** w/ threaded cap [exc. 1998–2005 M-Class (163)].

#FZ 32 A

TANK ADAPTER

- **Applicable to: 1998–2005 Mercedes M Class (M163)**
- Used for Pressurizing the Cooling System



STORE 99 INFO

MADE IN USA

#FZ 36

CAP ADAPTER

- For Testing Pressure Relief in Cooling System Cap
- **Applicable to: 1998–2005 Mercedes-Benz M-Class (M 163)**



STORE 99 INFO

MADE IN USA

#M 0349

TANK ADAPTER

- **Applicable: Mercedes Models w/ a Threaded Filler Neck (exc. M-Class, 163 body)**
- Used for Pressurizing the Cooling System



STORE 99 INFO

MADE IN USA

FOUND IN AST TOOL SET
FZ 4002

#TA 18

ADAPTER

For brake master cylinder or clutch master cylinder reservoirs. Used in conjunction w/ pressure bleeder. (pressure bleeder attachment thread size of 1/4" NPT).



MADE IN USA

#M 2070

RADIO REMOVAL TOOL

Used for radio removal on **1992 & later Mercedes** models. Applicable to: **Models 140, 129, 202 & 210.**



MADE IN USA

FOUND IN AST TOOL SET
3404

#H 4550-2

19MM FUEL LINE WRENCH



Applicable: 16 & 20 Foot **Mercedes Diesel Trucks**; Lines at Delivery Pump on Cummins Turbo Diesel 5.2L.

#3101

8-PIECE
RADIO
REMOVAL
SET

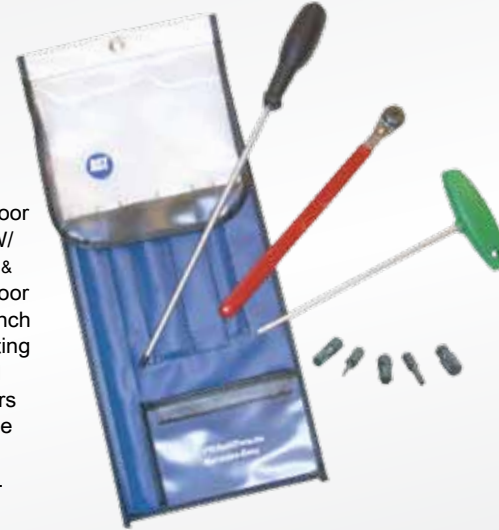


Set includes the **#2040, #BMW 050, #3344 A** (includes two pair), **#M 2070, #3316, #BMW 025** & the **#BMW 010**. Applications include: Ford & VW models w/ a DIN chassis, BMW models w/ anti-theft radio, Audi A4, A6, A8 & new VW Beetles, 1992 & later **Mercedes 129, 140, 163, 202 & 210 models**, VW new body Passat, Jetta & Golf, center console removal on newer BMW Z3, X5 & 5 Series (E39), Multi-Informational Display (MID) removal on BMW X5 & 5 Series (E39).

#3200

EUROPEAN DOOR/
HINGE HANDLE SET

Compact solution to accessing the special fasteners found on the door hinges & handles of VW/ Audi, **Mercedes-Benz** & Porsche. Includes four door hinge bits (less than an inch long), & a slender ratcheting wrench. Also included are the extra long drivers necessary to access the door handles of Mercedes-Benz & VW.



SOCKET

#H 4556



Used for the R & R of the delivery valve on **Mercedes-Benz Diesel** injection pumps. Applicable to: **Diesel engines 601, 602, 603, 605, 606, 615, 616 & 617.**



30MM DEEP SOCKET

#100-30 A



30mm Deep thin-walled socket used for R & R of transmission drive shaft flange nut & pinion shaft flange nut of differential.

BRAKE BLEEDER
WRENCH

#EU 2007

FOUND IN AST TOOL SET
EU 2000

7mm Brake Bleeder Wrench



BRAKE BLEEDER
WRENCH

#EU 2008

8mm Brake Bleeder Wrench



FOUND IN AST TOOL SET
EU 2000

BRAKE BLEEDER
WRENCH

#EU 2009

FOUND IN AST TOOL SET
EU 2000

9mm Brake Bleeder Wrench



BRAKE BLEEDER
WRENCH

#EU 2011

11mm Brake Bleeder Wrench



FOUND IN AST TOOL SET
EU 2000

#EU 2000

7-PIECE
BRAKE
CALIPER/
BLEEDER
SERVICE
SET



Includes 7mm, 8mm, 9mm & 11mm brake bleeder wrenches, 3 brake caliper sockets & custom powder-coated metal organizer tray. Wrenches fit bleeder screws on **Mercedes**, BMW, Volvo & VW/Audi models. Applicable to: Brake caliper bolts on the majority of BMW models, **Mercedes S-Class (221), newer C-Class (204), M-Class (164)**; Volvo cars, & rear caliper bolts on 2006–newer VW Jetta & Passat.

AST MOTORCYCLE TOOLS

- ⇒ **STUD REMOVERS**
- ⇒ **OIL FILTER SOCKETS & WRENCHES**
- ⇒ **CUSTOM FUNNELS**
- ⇒ **SPECIAL BITS & BIT SETS**

***201-7**
5 PC. METRIC
STUD PULLER
SET see pg. 47

***203**
7-PIECE STANDARD
STUD PULLER
SET see pg. 47

***3000**
40-PIECE SOCKET
SET see pg. 44

***OFHD35**
HARLEY OIL
FUNNEL see pg. 45

***M 0219**
OIL FILTER
WRENCH see pg. 46

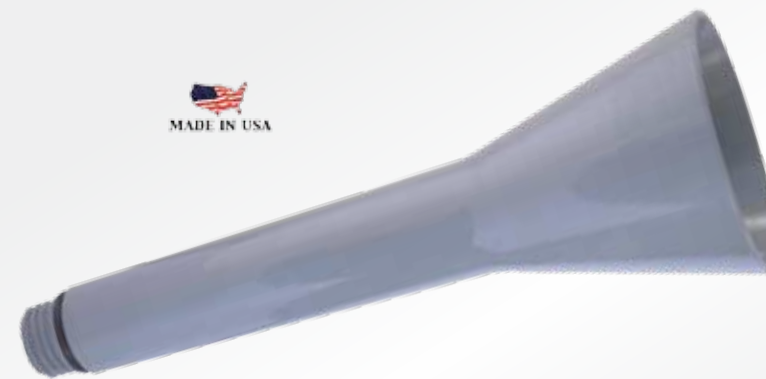




#3000

40-PIECE SOCKET SET WITH 1/4" DRIVE

Contains: T-6 through T-45 6-Point
Tamperproof® Torx; T-10 through T-50
6-Point Standard Torx; 4mm, 5mm, 6mm
& 8mm 12-Point; 2.5, 3, 4, 5, 6 & 8 Allen
Drivers; 5/32"-5/16" Straight Blade Drivers;
#1, #2 & #3 Phillips Drivers.



HARLEY-DAVIDSON OIL FUNNEL

#OFHD35

- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Just like the Factory Cap
- Fits All 2007–2011 Harley-Davidson Dyna & Touring Models
- For Threaded Caps



#3810

6-PIECE FILE SET

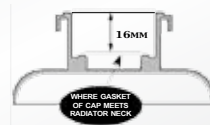
Includes six files &
a protective case.



#FZ 128

TANK ADAPTER

- Used for Pressurizing the
Cooling System
- For Deep Necks
- Fits Many Asian Motorcycles



#FZ 138

TANK ADAPTER

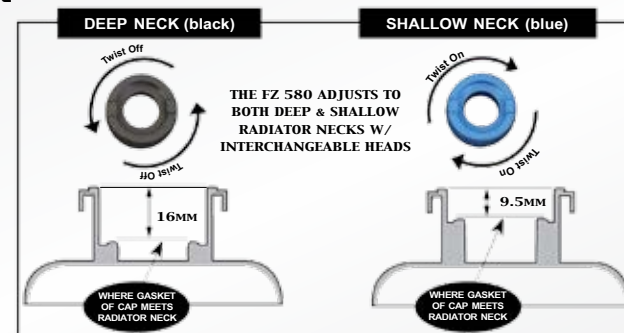
- Used for Pressurizing the
Cooling System
- For Shallow Necks
- Fits Many Asian Motorcycles



#FZ 580

COOLING SYSTEM ADAPTER SET FOR DEEP & SHALLOW RADIATOR NECKS

- Fits Most
Asian Motorcycles



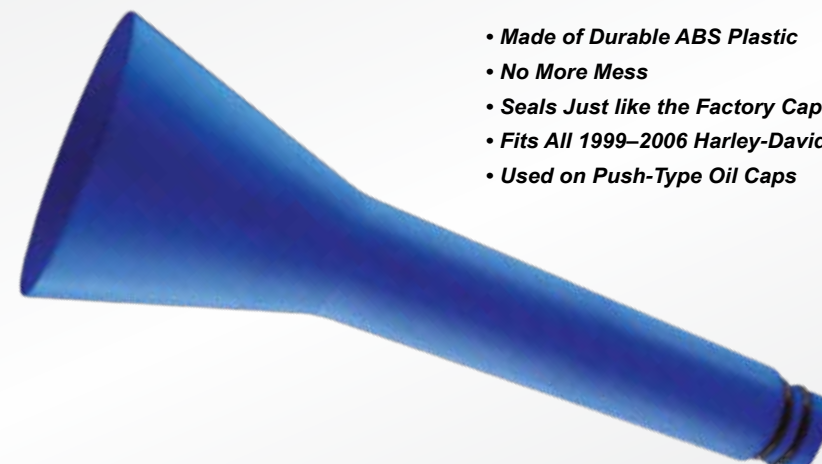
Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Izuzu, Lexus, Mazda, Mitsubishi, Nissan, Subaru, Suzuki & Toyota.

#OFHD419
SHOWN HERE IN USE

HARLEY-DAVIDSON OIL FUNNEL

#OFHD419

- Made of Durable ABS Plastic
- No More Mess
- Seals Just like the Factory Cap
- Fits All 1999–2006 Harley-Davidson Touring Models
- Used on Push-Type Oil Caps



#BM 1276

OIL FILTER WRENCH FOR
BMW MOTORCYCLES

#BM 1276
SHOWN HERE
ON FILTER



MORE
85
INFO

76mm, 12 flutes, 3/8" drive,
R & R of oil filter on **BMW
Motorcycles 2007–2011 w/
oil filter #11 42 7 673 541.**
Also R & R of older Mercedes
OEM oil filters w/ 12 flutes.



#5040

66.5MM OIL
FILTER
WRENCH

- 66.5mm w/ 14 Flats
- **Applicable to: Yamaha filter
#5GH-13440-20 & Buell
Models XB9 & XB12**



MORE
104
INFO



#5063

HONDA/NISSAN
OIL FILTER
WRENCH

- 63mm w/ 14 Flats
- **Applicable to: Yamaha ATV, Yamaha
Filter #5H-13440-00 G & Kawasaki
Filter #16097-0003**



MORE
109
INFO



#M 0219

74MM OIL
FILTER
WRENCH



MORE
89
INFO

Applicable to **Older BMW filter #1142 1460845** including:
1987–1997 K 75; 1990–1997 K 75 RT; 1986–1997 K 75
S; 1999–2004 R 850, R 850 C/R/GS/Boxer/RT; 1983–
1994 K 1, K 100, K 100LT/RS/RT; 1992–1999 K 1100LT;
All R1100; 1999–2005 R 1150GS; 1997–2007 K 1200
RS/C/LT; 1999–2004 R 1200 C/CL; & **New 2010 BMW
Filter #1142 7721779** including: 2010 K 1200 S, K 1300 S,
K 1200 R/Sport, K 1200 GT

#TOY 730

73MM TOYOTA
OIL FILTER
WRENCH

- 73mm w/ 14 Flats
- **Applicable to Yamaha Marine
Outboard Engines I-4 & V6
& Yamaha Filter #69J-13440-00**



MORE
109
INFO



#HD 1474

OIL FILTER
WRENCH

MORE
94
INFO



Applicable to: Harley Davidson
Motorcycles w/ a spin on oil filter



#HD 1474
SHOWN HERE
ON FILTER

#201-7

5 PC.
METRIC STUD
PULLER SET

Includes the New 7mm stud
remover, ideal for BMW
manifold studs. Includes
6mm, 7mm, 8mm, 10mm
& 12mm stud remover /
installers.

#203

7 PC. STANDARD
SIZE STUD
PULLER SET

Includes 1/4", 5/16", 3/8", 7/16",
1/2", 9/16" & 5/8" stud remover &
installer tools.

#202

5 PC. STANDARD
SIZE STUD
PULLER SET

Includes 1/4", 5/16", 3/8", 7/16", &
1/2" stud remover & installer tools.

201

4 PC. METRIC
STUD PULLER
SET

Includes 6mm, 8mm, 10mm
& 12mm stud remover &
installer tools.

INDIVIDUAL STUD REMOVERS / INSTALLERS												
	6mm	7mm	8mm	10mm	12mm	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
#200-9/16 & #200-5/8 are 27mm Hex, No Square Drive	#200-6	#200-7	#200-8	#200-10	#200-12	#200-1/4	#200-5/16	#200-3/8	#200-7/16	#200-1/2	#200-9/16	#200-5/8

4-PIECE ALLEN
SOCKET SET

#3000-4 K



This 4 piece allen socket set includes: 4mm, 5mm, 6mm
& 8mm 1/4" drive sockets. Rail Included.

6-PIECE ALLEN
SOCKET SET

#3000-6 K



This 6-piece allen socket set includes: 2.5mm, 3mm, 4mm, 5mm,
6mm & 8mm 1/4" drive sockets. Rail Included.

4-PIECE, 12-POINT,
DRIVE SET

#3004X



This 4-piece, 12-point, 1/4" drive socket set includes: 4mm,
5mm, 6mm & 8mm sockets. 1-Piece steel construction.

#5063

**HONDA/NISSAN
OIL FILTER WRENCH**



#5063 SHOWN
HERE IN USE

- 63mm w/ 14 Flats
- **Applicable to:** Nissan: 1997–2011 Altima, 1994–2011 Maxima, 1995–2011, 2002–2011 Murano, 1995–2007 Pathfinder, 1997–2007 Pick-up, 2007 Sentra, 2004–2011 X-Trail (Canada), 2007 Xterra; & Infiniti: 2004–2007 M35 & M45 w/ VQ35DE engine



#8026

**5/16" NISSAN/TOYOTA
FUEL LINE
DISCONNECT TOOL**

- **Applicable to 2004 & Newer Models w/ 5/16" Fuel Rail**
- Used for Disconnecting the Fuel Line from the Fuel Rail
- Green-Anodized Aluminum Construction



#FZ 29

**CAP ADAPTER
FOR NISSAN**

- **Applicable to Nissan: 1987–2004 All Models, 2004 350Z, 2006 Altima, 2004–2011 Frontier, 2000–2011 Maxima, 2004 Murano, 2004 Quest, 2000–2011 Sentra & 2004 X-Terra**
- Used for Testing Pressure Relief in the Cooling System Cap



#FZ 32 A

**NISSAN COOLING
SYSTEM
TANK ADAPTER**



- **Applicable to:** Nissan Armada & Titan through 2011
- Used for Pressurizing the Cooling System

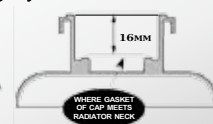


#FZ 128

**COOLING SYSTEM ADAPTER
FOR NISSAN**



- **Applicable to Nissan: 1987–2004 All Models, 2004 350Z, 2006 Altima, 2004–2011 Frontier, 2000–2011 Maxima, 2004 Murano, 2004 Quest, 2000–2011 Sentra & 2004 X-Terra**
- Used for Pressurizing the Cooling System



**5 LITER BASIC
DRIVE LINE
FILLER SYSTEM**

- 5 Liter Capacity
- Additional 3 & 10 Liter Drums also available
- Quick Attachment Adapter
- Pump Dispenses Efficiently
- On/Off Ball Valve w/ Safety Catch
- Container Made of UHDP (Ultra High Density Polyethylene)
- Hose Length 4 ft. 10 in.



#ATF 1002-5 BASIC

**BASIC DRIVE
LINE FILLER
SYSTEM**

#ATF 1002 BASIC

- 3 Liter Capacity
- Additional 5 & 10 Liter Drums also available
- Quick Attachment Adapters
- Pump Dispenses Efficiently
- On/Off Ball Valve w/ Safety Catch
- Container Made of UHDP (Ultra High Density Polyethylene)
- Hose Length 4 ft. 10 in.



For BMW, Honda, **Nissan** & many other universal applications. Includes pump, 3 liter container, hose, shut-off valve & #ATF 102.

#FZ 36

**NISSAN CAP
ADAPTER**



- **Applicable to:** Nissan Armada & Titan through 2011
- Also Fits Various GM & Ford Models
- Used for Testing Pressure Relief in the Cooling System Cap



#SU 8015

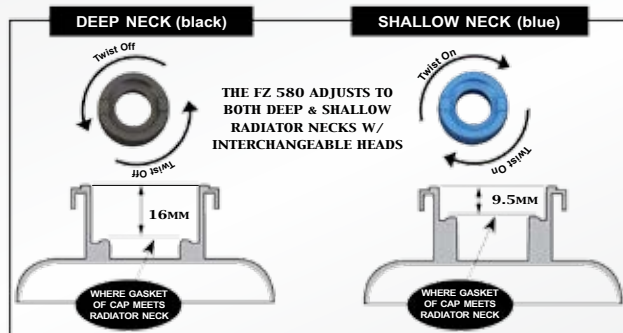
**OIL FILTER
WRENCH**



80mm, 15 Flats. Applicable to: Nissan vehicles using filter #15208H8903 & #1520855Y00 (found in older Sentra & Trucks).

#FZ 580

**COOLING SYSTEM ADAPTER
SET FOR DEEP & SHALLOW
RADIATOR NECKS**



Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Izuzu, Lexus, Mazda, Mitsubishi, **Nissan**, Subaru, Suzuki & Toyota.
Covers all Nissan through 2011 (exc. Armada & Titan)

AST OIL CHANGE TOOLS

- ⇒ CUSTOM DIPSTICKS
- ⇒ OIL FILTER SOCKETS & WRENCHES
- ⇒ CUSTOM FUNNELS
- ⇒ DRIVE LINE FILLER SYSTEMS

9 PC. DRIVE
LINE FILLER
SET
see pg. 53

*OFHON1033
ASIAN/DOMESTIC
OIL FUNNEL
see pg. 56

#2101
7-PIECE OIL FILTER
WRENCH/SOCKET
SET
see pg. 55

#OFAUD1000
EURO 1/4 TURN OIL
FILLER
see pg. 56

*OFSU1042
SUBARU OIL
FUNNEL
see pg. 56

*ATF 108 V
VOLVO
ATF ADAPTER
see pg. 52

*OFHD35
HARLEY OIL
FUNNEL
see pg. 57

*OFTOY1001
TOYOTA OIL
FUNNEL
see pg. 56



#ATF 16 DSG

VW/AUDI "DSG" DRIVE LINE FILLER ADAPTER

VW/Audi DSG Drive Line Adapter used w/ the AST ATF Filler System. The attachment has a 24mm x 1.5 thread. For the complete ATF VW Filler System Set, see **#ATF 1033-5 VW**.



#ATF 101

DRIVE LINE FILLER SYSTEM ADAPTER FOR FORD W/ 1/8-27 NPT PLUG

Ford Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete Ford Set, see **#ATF 1001 FORD**. For the complete ATF Filler System Set, see **#ATF 1100-5**.



#ATF 103

SHORT DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI

VW/Audi Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete VW/Audi Set, see **#ATF 1033-5 VW**. For the complete ATF Filler System Set, see **#ATF 1100-5**.



#ATF 105

10MM x 1.0 DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI & MINI

10mm x 1.0 VW/Audi Adapter used in conjunction w/ the ATF Filler System. Fits Mini Cooper w/ Aisin transmission. Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete VW/Audi Set, see **#ATF 1003-5 VW**. For the complete ATF Filler System Set, see **#ATF 1100-5**.



#ATF 129

12MM x 1.5 DRIVE LINE FILLER SYSTEM ADAPTER FOR MERCEDES-BENZ

12mm x 1.5 Mercedes-Benz Adapter used in conjunction w/ the ATF Filler System. Applicable to 722.9 automatic transmissions. Individual adapter included (does not include pump, container, hose, or shut-off valve).



#ATF 100102

STORAGE LID

Storage Lid for ATF Filler System



#ATF 17 CVT

VW/AUDI "CVT" DRIVE LINE FILLER ADAPTER

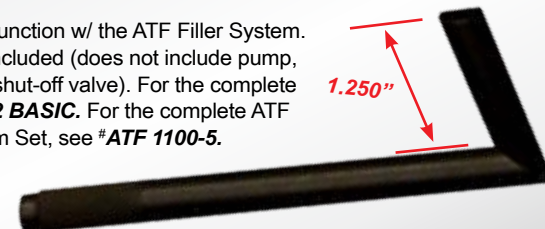
VW/Audi CVT Drive Line Adapter used w/ the AST ATF Filler System. The attachment has a 22mm x 1.5 thread. For the complete ATF VW Filler System Set, see **#ATF 1033-5 VW**.



#ATF 102

DRIVE LINE FILLER SYSTEM ADAPTER FOR BMW, HONDA & NISSAN

Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete Set, see **#ATF 1002 BASIC**. For the complete ATF Filler System Set, see **#ATF 1100-5**.



#ATF 104

LONG DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI

Long VW/Audi Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). For the complete VW/Audi Set, see **ATF 1033-5 VW**. For the complete ATF Filler System Set, see **ATF 1100-5**.



#ATF 108V

VOLVO DRIVE LINE FILLER ADAPTER

Drive Line Filler Adapter applicable to some 2007 & newer Volvo models that use a 5/16 - 24 threaded plug.



#ATFTOY118

TOYOTA & LEXUS DRIVE LINE FILLER ADAPTER

18mm x 1.5 Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). Applicable to: 2005-2010 models: 4 Runner, FJ Cruiser, Sequoia, Tacoma & Tundra.



#ATF 101003

#ATF 101005

#ATF 101010

ATF CONTAINERS

Containers Available Individually
3Liter – **#ATF 101003**
5Liter – **#ATF 101005**
10Liter – **#ATF 101010**



KEY FEATURES

–“After using the factory & other aftermarket fillers, the ATF system from Assenmacher is the cleanest & most efficient.”

- Used only to Fill, Not to Drain–So Clean Fluid Stays Clean
- 5L & 10L Containers Also Available
- Works w/ Quick Attachment Adapters
- Pump Dispenses Efficiently
- Filler Can Handle 90 Weight Oil
- On / Off Ball Valve w/ Safety Catch
- Container Made of UHDP (ULTRA HIGH DENSITY POLYETHYLENE)

#ATF 1002 BASIC Shown Here

9-PIECE DRIVE LINE FILLER SYSTEM

#ATF 1100-5

For BMW, Ford, Honda, Mercedes, Mini, Nissan, Toyota, VW/Audi & many other universal applications. Includes pump, 5 liter container, hose, shut-off valve & **#ATF 101**, **#ATF 102**, **#ATF 103**, **#ATF 104**, **#ATF 105**, **#ATF 16 DSG**, **#ATF 17 CVT**, **#ATF 129** & **#ATFTOY118**



#ATF 1033-5 VW

VW/AUDI DRIVE LINE FILLER SYSTEM

For VW/Audi & many other universal applications. Includes pump, 5 liter container, hose, shut-off valve & **#ATF 103**, **#ATF 104**, **#ATF 105**, **#ATF 16 DSG** & **#ATF 17 CVT**.



#ATF 1004-5 MB

MERCEDES DRIVE LINE FILLER SYSTEM

For filling fluids in the 722.9 Automatic Transmissions using a 12mm x 1.5 adapter. Includes pump, container, hose, shut-off valve & **#ATF 129**.



#ATF 1008-5 EURO

EURO DRIVE LINE FILLER SYSTEM

For BMW, Honda, Nissan, Mercedes & Volvo. Includes pump, 3 liter container, hose, shut-off valve & **#ATF 102**, **#ATF 103**, **#ATF 129**, **#ATF 108V**, **#ATF 16 DSG**, **#ATF 17 CVT**, **#ATF 105** & **#ATF 104**.



BASIC DRIVE LINE FILLER SYSTEM

For shops servicing European makes, ask about the **#ATF 1008-5 EURO**

#ATF 1002 BASIC

For BMW, Honda, Nissan & many other universal applications. Includes pump, 3 liter container, hose, shut-off valve & **#ATF 102**.



#TOY 300

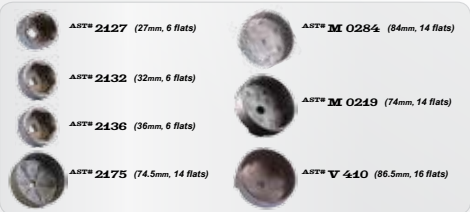
TOYOTA OIL FILTER WRENCH SET

Factory# Cross Reference	
Factory Filter#	AST Tool#
#04152-38010	#TOY 640
#04152-YZZA1	#TOY 640
#04152-YZZA2	#TOY 640
#04152-YZZA3	#TOY 640
#04152-YZZA4	#TOY 640
#04152-YZZA5	#TOY 640
#04152-YZZA6	#TOY 640
#90915-YZZD1	#TOY 730
#90915-YZZD3	#TOY 730
#90915-YZZF1	#TOY 640
#90915-YZZF2	#TOY 640
#90915-YZZG1	#M 0219



This set includes our tool numbers **#TOY 640**, **#TOY 730** & **#M 0219**. w/ the **#TOY 300** you have every gas engine **Toyota** model covered between 1983 & 2011. Aluminum Construction. Hard Plastic Carrying Case Included.

#TOY 640
SHOWN HERE ON
FILTER HOUSING



Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, BMW, newer Mercedes 4-cyl. engines, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches covers many VW, BMW, Toyota, & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & 1999–2010 Volvo models.

7-PIECE OIL FILTER WRENCH SET

#2101



OIL FILTER WRENCH

#2176



Applicable to: Mazda 2.0L engines & Filter #LF05-14-302A



#2124

24MM OIL FILTER SOCKET

- 24mm w/ 6 Flats
- Applicable to BMW Models 2004–2008 w/ V8 (N62) & Saturn 1.8L Ecotec
- Steel Construction



#2127

27MM OIL FILTER SOCKET

- 27mm w/ 6 Flats
- Steel Construction
- Fits Mercedes 271 Motor



OIL FILTER WRENCH

#HD 1474



#HD 1474
SHOWN HERE ON
FILTER



Applicable to: Harley Davidson Motorcycles w/ a spin on oil filter.

OIL FILTER WRENCH

#SU 8015



80mm, 15 Flats. Applicable to: Subaru cars w/ the H6 using factory oil filter #15208AA031, Hyundai cars w/ 4 cyl. & Nissan vehicles using filter #15208H8903 & #1520855Y00 (found in older Sentra & Trucks)



#2132

32MM OIL FILTER SOCKET

- 32mm w/ 6 Flats
- Steel Construction
- Fits GM Ecotec Engine
- Fits 2011 VW TDI



#2136

36MM OIL FILTER SOCKET

- 36mm w/ 6 Flats
- Fits BMW, Ford & VW
- Steel Construction



84MM OIL FILTER WRENCH

#M 0284



- 84mm w/ 14 Flats, 22mm Hex
- Applicable to: 2007–2009 Dodge Sprinter, 2007–2011 Mercedes-Benz Turbo-Diesel & the 2007–2009 Jeep Cherokee w/ the 3.0 L V6 CRD (Common Rail Diesel) Engines



OIL FILTER WRENCH FOR SMART

#5040



- 66.5mm w/ 14 Flats
- Fits US Model Smart



#2175

74.5MM OIL FILTER SOCKET

- 74.5mm w/ 14 Flats
- Metal Construction
- Fits VW 1.8T & 2.0L Non-turbo Engines



#BM 1276

76MM OIL FILTER WRENCH

- 76mm, 12 Flutes, 3/8" Drive
- Metal Construction
- Fits 2007–2011 BMW Motorcycles



HONDA/NISSAN OIL FILTER WRENCH

#5063



- 63mm w/ 14 Flats
- Metal Construction
- Fits All Honda Models through 2011 (exc. S2000)



HYUNDAI OIL FILTER WRENCH

#HY 8815



- 22mm Hex, 88mm w/ 15 Flats
- Fits 2006 & Newer Hyundai Models equipped w/ a V6 & w/ a paper cartridge oil filter Including Azera, Santa Fe & Sonata
- Metal Construction



#M 0219

74MM OIL FILTER WRENCH

- 74mm w/ 14 Flats
- Fits 2005–2011 VW 2.5L Engines
- Fits Mercedes, Toyota, & Mazda



#V 410

86.5MM OIL FILTER WRENCH

- 86.5mm w/ 16 Flats
- Metal Construction
- Fits Volvo & Newer BMW 6 Cyl.



TOYOTA OIL FILTER WRENCH

#TOY 640



- 64mm w/ 14 Flats
- Applicable to: 2007–2009 Toyota 3.5L V6, 2008–2010 Toyota V8 5.7L, New 3.5L V6 & 5.7L V8
- Fits 2010–2011 Toyota 4.6L V8



73MM TOYOTA OIL FILTER WRENCH

#TOY 730



- 73mm w/ 14 Flats
- Metal Construction
- Fits Toyota 4.7L V8



#OFHON1033

**ASIAN/DOMESTIC
OIL FUNNEL**



- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Onto the Valve Cover
- Fits: Honda Accord, Civic, Element, Fit, NSX & S2000. All Acura Models (exc. MDX & RDX)
- Fits Most Nissan Models
- Fits Dodge Cummins Turbo Diesel & Neon
- Ford Power Stroke engines (6.9L, 7.3L, 6.0L & 6.4L)
- Fits Some Jaguar Models

#OFAUD1000

**VW, AUDI, MERCEDES
& BMW OIL FILLER**



- Fits 1996 & Later BMW 6 cyl. & 8 cyl.
- Fits Dodge Sprinter
- Fits Mercedes 112 & 113 Engines
- Fits VW/Audi Engines: 1.8 T, 1.9L TDI, 2.0 T, 2.8L (30v), 3.0L (30v), 3.2L, 3.6L & 4.2L (40v)
- No More Mess, Attaches Directly to the Valve Cover & Seals just like the Factory Cap

#OFTOY1038

**TOYOTA/LEXUS
OIL FUNNEL
(THREADED)**



- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Onto the Valve Cover
- Toyota Oil Funnel used on all Toyota, Lexus & Scion motors w/ a threaded oil cap (exc. Prius)
- Fits Pontiac Vibe

#OFGMRD08

**GM/FORD OIL
FUNNEL**



- Fits the New 2011 Ford 6.7L Turbo-Diesel
- Made of Strong Polycarbonate
- No More Mess; Attaches Directly to the Engine Oil Filler Neck
- Fits Cadillac CTS; Saturn SL1; Mercury Mountaineer
- Fits Chevy Cobalt, Silverado, Tahoe, Trailblazer & Vans;
- Fits Ford Explorer, F150, Mustang & Taurus;
- Fits GMC Envoy & Sierra
- Fits Pontiac G6 Grand Prix
- Also Fits Some Jaguar Models

#OFSU1042

**SUBARU OIL
FUNNEL**



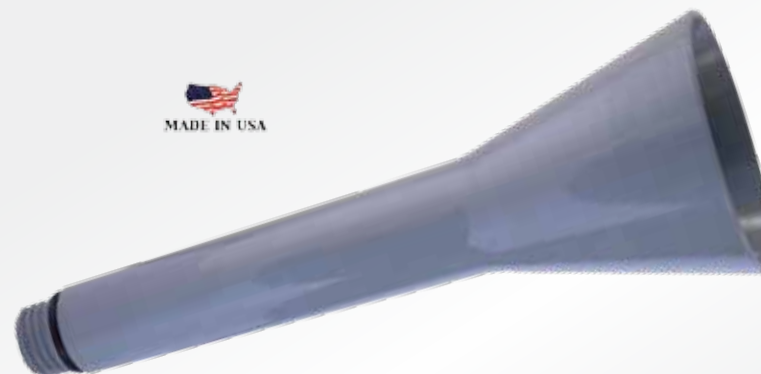
- Fits All Subaru Models w/ Threaded Oil Cap (exc. Tribeca)
- Prevents Any Unwanted Mess
- Regular Funnels Do Not Fit Properly
- Made of Durable ABS Plastic

#OFTOY1001

**TOYOTA/LEXUS
OIL FILLER**



- Fits 1999 & newer Toyota & Lexus Models w/ 3.0L & 3.3L V6 Engines w/ 1/4-Turn Style Caps
- No More Mess, Attaches Directly to the Valve Cover & Seals just like the Factory Cap



**HARLEY-DAVIDSON
OIL FUNNEL**

#OFHD35

- Made of Durable ABS Plastic
- No More Mess
- Threads & Seals Just like the Factory Cap
- Fits All 2007–2011 Harley-Davidson Dyna & Touring Models



#OFHD1419
SHOWN HERE IN USE

**HARLEY-DAVIDSON
OIL FUNNEL**

#OFHD419

- Made of Durable ABS Plastic
- No More Mess
- Seals Just like the Factory Cap
- Fits All 1999–2006 Harley-Davidson Touring Models
- Fits Push-Style Caps



#F 2500

5 PC. OIL
FILTER
SOCKET
SET

- Oil Filter Wrenches are 93mm (36 flutes), 74mm (14 flats) & 76mm (30 flutes)
- Oil Filter Sockets are 24mm & 36mm Hex (6 flats)
- Carrying Case Included
- Set Covers Most 1988–2010 Ford Models
- 5 Year Warranty
- All Tools are 3/8" Drive
- Includes: #M 0219, #F 9336, #F 7630, #2136 & #2124



ENGINE OIL DIPSTICK
FOR AUDI

#AU40178

Engine oil dipstick applicable to: 2009 & newer Audi A4, A5 & A6 with engines 2.0L TFSI, 3.2L FSI & 4.2L FSI. Also fits 2010 S4 w/ 3.0L supercharged engine. Chart to read dipstick included.



#T 40057

VW/AUDI OIL FILTER
HOUSING DRAIN

Used for draining the oil filter housing. Applicable to: 2005.5–2008 VW/Audi models w/ the 2.0L Turbo engine, (BPY, BPG & BWT) VW 2.5L in-line 5 cylinder engine 2005.5–2011



#T 40057
SHOWN HERE
IN USE

#6300 X-16

16MM 12-POINT
TAMPER-PROOF
SOCKET

16mm 12-point tamper-proof socket for R & R of manual transmission drain plug & Porsche Cayenne & Touareg brake caliper bolts.



#H 2760

OIL DRAIN & FILLER PLUG
WRENCH

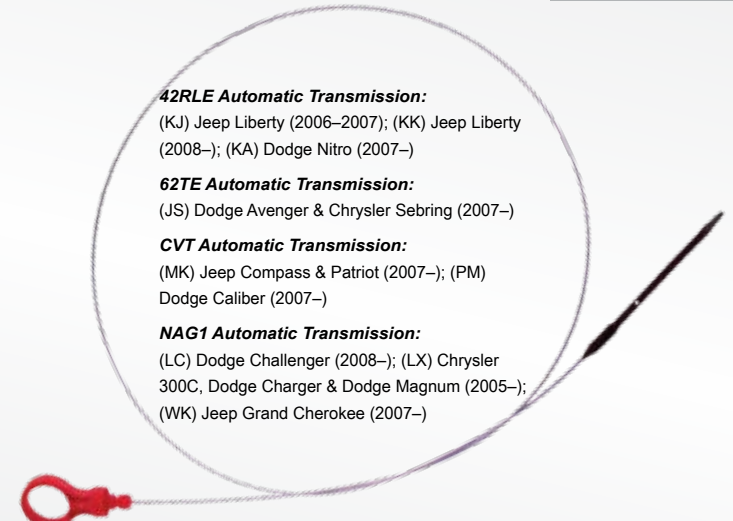
Oil Drain & Filler Plug Wrench. 14mm Allen, 17mm box wrench & is used for the R & R of the differential oil filler plug on many BMW & Mercedes-Benz models.



CHRYSLER TRANSMISSION
DIPSTICK

#CRY933

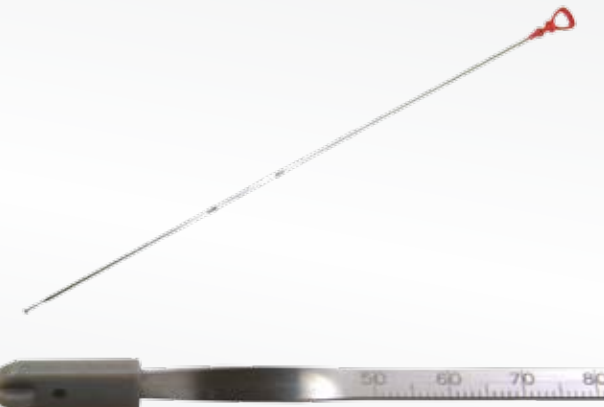
42RLE Automatic Transmission:
(KJ) Jeep Liberty (2006–2007); (KK) Jeep Liberty (2008–); (KA) Dodge Nitro (2007–)
62TE Automatic Transmission:
(JS) Dodge Avenger & Chrysler Sebring (2007–)
CVT Automatic Transmission:
(MK) Jeep Compass & Patriot (2007–); (PM) Dodge Caliber (2007–)
NAG1 Automatic Transmission:
(LC) Dodge Challenger (2008–); (LX) Chrysler 300C, Dodge Charger & Dodge Magnum (2005–); (WK) Jeep Grand Cherokee (2007–)



Used on all vehicles equipped w/ a NAG1, 42RLE, CVT Transmission & the 62TE Transaxle. **Note:** This tool supersedes the original #9336 A & will work on all previous applications.

ENGINE OIL
DIPSTICK

#M 0724



For checking engine oil level. Applicable to: newer Mercedes-Benz models w/ engines 112, 113, 137 & 271.

#JA 9015

OIL FILTER
WRENCH

#JA 9015 SHOWN
HERE ON FILTER
HOUSING

• Applicable to
2010–2011
Jaguar & Land
Rover w/ 5.0L (V8)



#SU 070

DRAIN PLUG
SOCKET

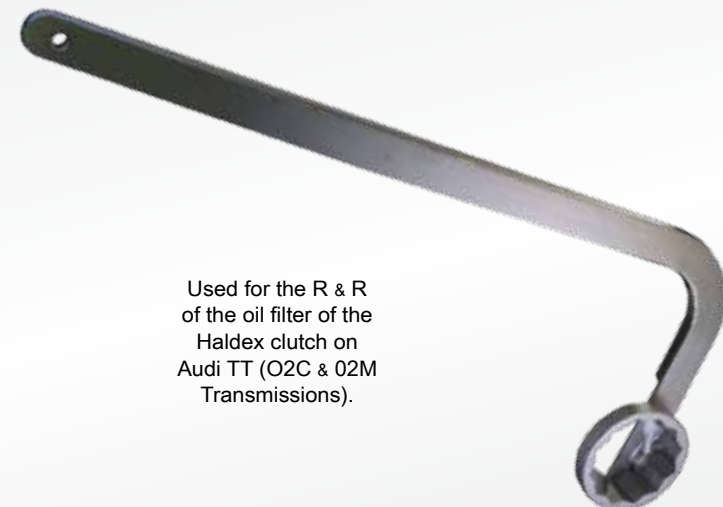
For R & R of transaxle drain plug. Applicable to: 2003 & newer Subaru Outback w/ manual transmission.



#T 10066

HALDEX FILTER
WRENCH

Used for the R & R of the oil filter of the Haldex clutch on Audi TT (O2C & O2M Transmissions).



722.6 TRANSMISSION
DIPSTICK

#M 7226

For checking ATF level. Applicable to: Mercedes-Benz models 1997 & later w/ 722.6 transmission.



SPRINTER
TRANSMISSION
DIPSTICK

#SPR 886



Dodge Sprinter & Chrysler Crossfire Transmission Dipstick. Instructions for checking oil level are included.

#100-30 A

30MM DEEP SOCKET

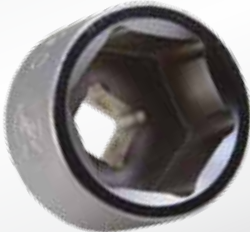


30mm Deep thin-walled socket used for R & R of transmission drive shaft flange nut & the pinion shaft flange nut of differential on older BMW & Mercedes. Fits E 90 325 Rear Wheel Drive axle nuts as well as Toyota models w/ 30mm, 12 pt. axle nuts.

#2124

24MM HEX SOCKET

- 24mm w/ 6 Flats
- Applicable to BMW Models 2004–2008 w/ V8 (N62) & Saturn 1.8L Ecotec
- Steel Construction



FOUND IN AST TOOL SET

88

INFO

#2132

32MM OIL FILTER SOCKET

- 32mm w/ 6 Flats
- Steel Construction
- Fits GM Ecotec Engine
- Fits 2011 2.0L VW T.D.I.



FOUND IN AST TOOL SET

94

INFO

FOUND IN AST TOOL SET

2404

#H 2592

MULTI-TOOTH ADAPTER



Used for the R & R of the freewheel pulley on the alternator. May be used in conjunction w/ the **#S 3054 X-10** socket. Applicable to: Bosch alternators.

Comparable to VW# 3400.

#TOY 185

WHEEL BEARING NUT SOCKET



For R & R of wheel bearing nut located on inboard side of wheel hub. Applicable to: Newer Toyota trucks & SUV's (2WD only).


MADE IN USA

#TOY 105

HEAD BOLT SOCKET



Head bolt socket for Toyota Paseo, Tercel & other Toyotas that use a #8 bi-hexagon socket.

#3900

5 LOBE TAMPER-PROOF BIT SET




5 Lobe bits & 1/4" drive. Contains: T-10, T-15, T-20, T-25, T-27, T-30, T-40, T-45 & T-50. Carrying Case Included.

#2127

27MM OIL FILTER SOCKET

- 27mm w/ 6 Flats
- Steel Construction
- Fits 2002–2007 Mercedes C230



FOUND IN AST TOOL SET

100

INFO

FOUND IN AST TOOL SET

2404

#2136

36MM OIL FILTER SOCKET

- 36mm w/ 6 Flats
- Fits BMW, Ford, VW & Newer Volvo 3.2L
- Steel Construction



FOUND IN AST TOOL SET

108

INFO

FOUND IN AST TOOL SET

88

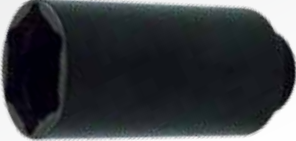
INFO

FOUND IN AST TOOL SET

2404

#BMW 432

VANOS SOLENOID SOCKET




32mm socket used for removing & installing the BMW Vanos Solenoid valves.

Comparable to BMW #116420.

#BMW 432
SHOWN HERE IN USE


MADE IN USA

#M 3857

PIN WRENCH SOCKET FOR MERCEDES M-CLASS



3/4" drive Pin Wrench Socket. Used to secure the retaining ring during replacement of ball joints. Applicable to: Mercedes 163 M-Class front & rear axles.


MADE IN USA

#SU 070

SUBARU DRAIN PLUG SOCKET



For R & R of transaxle drain plug. Applicable to: 2003 & newer Subaru vehicles w/ manual transmission.

#6500

VW/AUDI AXLE NUT SOCKET SET



#6500-14: 14mm Allen for VW Passat 1996–2001, Audi A4; Front & Rear Axle Bolts (AWD); **#6500-17:** 17mm Allen for 1998–2005 VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4; Front & Rear Axle Bolts (AWD); **#6500 X-30:** 30mm 12-Point Socket for Mid 1999–2005 VW Golf, Jetta, Cabrio & Beetle; Front Axle Nut; **#6500 X-32:** 32mm 12-Point Socket w/ a 3/4" Drive, VW Touareg; Front & Rear Axle Nuts

14MM ALLEN SOCKET

#6500-14



14mm Allen for VW Passat 1996–2001, Audi A4; Front & Rear Axle Bolts (AWD)

FOUND IN AST TOOL SET

6500

18MM 12-POINT SOCKET

#6500 X-18



18mm, 12-Point Socket w/ a 1/2" Drive. Applicable to: 2006–2009 VW Golf & Jetta w/ Independent Rear Suspension (I.R.S.). This tool is used for the R & R of the rear axle bolt.

Comparable to VW #T10162.

32MM 12-POINT SOCKET

#6500 X-32



32mm 12-Point Socket w/ a 3/4" Drive for VW Touareg; Front & Rear Axle Nuts.

FOUND IN AST TOOL SET

6500

TOYOTA AXLE NUT SOCKET

#6500 X-39



39mm 12 point 1/2" drive socket. For R & R of the axle nuts. Applicable to: 2008–2011 Toyota Landcruiser, Sequoia & Tundra. Also fits 2008–2011 Lexus LX 570.

SPARK PLUG SOCKET

#SP1412



14mm, 12-Point Spark Plug Socket w/ 3/8" drive. Applicable to 2007 & later BMW 135, 335, 535 & X6 w/ 3.0L twin-turbo motors. Also works on 2007 & newer Turbocharged Mini Coopers. Comparable to BMW #121220. **NOTE:** Spark Plug Socket is slender in design to fit application.

#SP1412
SHOWN HERE ON BMW SPARK PLUG



17MM ALLEN SOCKET

#6500-17



17mm Allen for 1998–2005 VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4; Front & Rear Axle Bolts (AWD).

FOUND IN AST TOOL SET

6500

30MM 12-POINT SOCKET

#6500 X-30



30mm 12-Point Socket for Mid 1999–2005 VW Golf, Jetta, Cabrio & Beetle Front Axle Nuts.

FOUND IN AST TOOL SET

6500

36MM 12-POINT SOCKET

#6500 X-36



36mm 12-Point 3/4" Drive. For R & R of axle nuts. Applicable to: BMW E38, E39, E46, E53, X5 (front & rear), the new 5 Series E60 & E90 All Wheel Drive 36mm Front & Rear.

36MM 6-POINT DEEP SOCKET

#S 56-36



36mm 6-Point Deep Socket, 3/4" drive. For R & R of transmission output flange nut on BMW. Applicable to: BMW models: 2001 & newer E46 & E39 w/ 6 cylinder engines using standard transmission S5D 260Z/310Z/320Z (exc. M3 or M5).

46MM, 6-POINT SOCKET

#S 55-46



46mm 6-Point thin-wall socket, 3/4" drive. For R & R of front wheel bearing retainer nut on E24, E28, E32 & E34 chassis.



#3000

**40-PIECE SOCKET SET
W/ 1/4" DRIVE**

Contains: T-6 through T-45 6-Point Tamperproof® Torx; T-10 through T-50 6-Point Standard Torx; 4mm, 5mm, 6mm & 8mm 12-Point; 2.5, 3, 4, 5, 6 & 8 Allen Drivers; 5/32"-5/16" Straight Blade Drivers; #1, #2 & #3 Phillips Drivers.



**VW/AUDI/PORSCHE
SOCKET & BIT SET**

#6300

#6300 XL-14: For R & R of Late Model Eurovan Axle Shafts & Ball Joints; **#6300 XL-8:** For R & R of Axle Shaft Bolts on VW Beetle, Jetta TDI & Older VW/Audi Models; **#6300 XL-10:** For R & R of Axle Shaft Bolts on 1999–2005 VW Passat & Golf; **#6300 X-16:** For R & R of Manual Transmission Drain Plug & VW Touareg & Porsche Cayenne Brake Caliper Bolts; **#6300 X-12:** For R & R of Axle Shaft Bolts on 1999–2005 VW Jetta (gas) & Rear Toe Adjustment on 1999 & Later Audi A6; **#6300 X-14** For R & R of Audi TT Differential Bracket & for Bell Housing Bolts w/ Tight Clearance on Various VW Models; **#3424** Spreader for Assisting R & R of Strut Housing on VW & Audi TT.



**12MM 12-POINT
SOCKET BIT**

#6300 X-12

Applicable to: R & R of axle shaft bolts on newer VW Jetta (gas) & rear toe adjustment on 1999 & later Audi A6 & for bell housing bolts w/ tight clearance on various VW models.



**14MM 12-POINT
SOCKET BIT**

#6300 X-14

Applicable to: R & R of Audi TT differential bracket & for bell housing bolts w/ tight clearance on various VW models.



3000-4 K

**4-PIECE ALLEN
SOCKET SET**



This 4 piece allen socket set includes: 4mm, 5mm, 6mm & 8mm 1/4" drive sockets. Rail Included.

*3000-6 K

**6-PIECE ALLEN
SOCKET SET**



This 6-piece allen socket set includes: 2.5mm, 3mm, 4mm, 5mm, 6mm & 8mm 1/4" drive sockets. Rail Included.

**16MM 12-POINT
TAMPER-PROOF SOCKET**

#6300 X-16

16mm 12-point tamperproof® socket for R & R of manual transmission drain plug & Porsche Cayenne & VW Touareg brake caliper bolts.
Comparable to VW #3357.



**8MM 12-POINT LONG
SOCKET**

#6300 XL-8



8mm 12-point Long Socket for R & R of axle shaft bolts on VW Beetle, Jetta TDI & older VW/Audi models.

*3004X

**4-PIECE, 12-POINT,
DRIVE SET**



This 4-piece, 12-point, 1/4" drive socket set includes: 4mm, 5mm, 6mm & 8mm sockets. 1-Piece steel construction.

*3462

***10 POLYDRIVE HEAD
BOLT SOCKET**



This #10 Polydrive Head Bolt Socket has a 1/2 inch drive, is 155mm long & is applicable to most 1998 & later VW/Audi engines.
Comparable to VW #3452 & #T 10070

**10MM 12-POINT
LONG SOCKET**

#6300 XL-10



10mm 12-point Long Socket for R & R of axle shaft bolts on VW Passat & Golf (new body style).

**14MM 12-POINT
LONG SOCKET**

#6300 XL-14



14mm 12-point Long Socket for R & R of late model Eurovan axle shafts & ball joints. Fits VW Touareg inner CV bolts.

*H 2579-9

**HEAD BOLT
SOCKET**



#9 polydrive head bolt socket, 1/2 inch drive. Applicable to: most 1998 & later VW & Audi engines using aftermarket headbolts that are smaller than the #3462 application.

*H 992 SLG-T55

**HEAD BOLT SOCKET
FOR MERCEDES**



T-55 Torx head bolt socket for Mercedes. Applicable to: Mercedes models w/ motors M112 & M113.

SPREADER

#3424



Used for the R & R of the front shock absorber tube from the wheel bearing housing. Applicable to: VW & Audi TT.



**T-100 3/4" DRIVE
SOCKET**

*H 1012 T-100

Used to remove the plug, for accessing the parking pawl detent on the 722.9 Mercedes transmission.



S 3054 X-10

**10MM 12-POINT
SOCKET**



10mm 12-point, 140mm long socket used for R & R cylinder head bolts. Applicable to: OM 601, OM 602 & OM 603; 2003–2007 Pontiac Vibe, 2003–2007 Toyota Matrix w/ 1.8 L I-4. Also used on VW & Audi head bolts that are 10mm, 12-point.

*S 3054 X-12

12MM 12-POINT SOCKET



140mm long. Applicable to: Toyota; For R & R of cylinder head bolts on 2003 Toyota 4Runner w/ V6 engine, all 2ZZ engines (4-cyl, 4-valves w/ VVT) including 2000–2001 Toyota Celica & 2001–2006 Highlanders w/ 2AZ-FE engines. VW/Audi; Older VW/Audi models w/ 12mm 12 point head bolts. Fits Mercedes OM 615, 616, 617, M 102, M 103.

**12MM ALLEN
SOCKET**

*H 985-12



12mm Allen Socket, 1/2" Drive

**19MM ALLEN
SOCKET**

*H 985-19



19mm, 1/2" Drive Allen Socket

#M 0E24

E24 FEMALE TORX SOCKET



Female torx socket. Applicable to: Front axle nut on Mercedes 4Matic models, new C-Class (204), New E-Class (212), & new S-Class (221).

#H010PT

10-POINT SOCKET



10-Point Socket. Applicable to: **Honda** rear lower control arms.



VW/AUDI AXLE NUT SOCKET SET

#6500

#6500-14: 14mm Allen for VW Passat 1996–2001, Audi A4; Front & Rear Axle Bolts (AWD); #6500-17: 17mm Allen for 1998–2005 VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4; Front & Rear Axle Bolts (AWD); #6500 X-30: 30mm 12-Point Socket for Mid 1999–2005 VW Golf, Jetta, Cabrio & Beetle; Front Axle Nut; #6500 X-32: 32mm 12-Point Socket w/ a 3/4" Drive, VW Touareg; Front & Rear Axle Nuts

#S 54 X-14

14MM 12-POINT SOCKET



14mm 12-Point Socket, 1/2" Drive. Ideal for rear brake caliper bolts on **2006 & newer Passat & Jetta.**

#T 40028

SOCKET SHOWN HERE IN USE



18MM 12-POINT SOCKET

#6500 X-18



18mm, 12-Point Socket w/ a 1/2" Drive. Applicable to: 2006–2009 VW Golf & Jetta w/ Independent Rear Suspension (I.R.S.). This tool is used for the R & R of the rear axle bolt. **Comparable to VW #T10162.**

30MM DEEP SOCKET

#100-30 A



30mm Deep thin-walled socket. Fits Toyota models w/ 30mm, 12 pt. axle nuts. Used for R & R of transmission drive shaft flange nut & pinion shaft flange nut of differential on older BMW & Mercedes. Fits E 90 325 Rear Wheel Drive axle nuts.

#BMW 060

BMW TORX FLYWHEEL SOCKET TOOL



For removal & replacement of flywheel bolts. Applicable to: E34 & E39 V8 4.0L & 4.4L w/ standard transmission. **Comparable to BMW# 114180.**

#T 40028

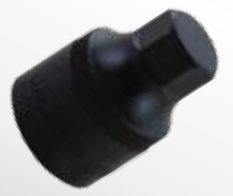
CAMSHAFT ADJUSTING SOCKET



Camshaft Adjusting Socket used to adjust variable valve timing on the exhaust side camshaft to basic position. Applicable to: Audi 3.0L V6 5V. **Used in conjunction w/ #T 40011, #T 40026 & #T 40030. For complete 3.0L V6 5v set, see #T 4306.**

14MM ALLEN SOCKET

#6500-14



14mm Allen for VW Passat 1996–2001, Audi A4; Front & Rear Axle Bolts (AWD). Overall length 37mm.

#6500 SERIES SOCKET SHOWN HERE IN USE



#BMW 377

7MM ALLEN SOCKET



7mm, 3/8" Drive allen socket. Applicable to BMW E36, E46, E39 & E31 models, Mercedes S-Class (221) & C-Class (204). For R & R of rear caliper bolts.

#H 2223 LG T-30

TORX SOCKET INSERT



This T-30 torx is for the R & R of the airbag from the steering wheel & is applicable to many BMW, Mercedes-Benz, Saab & VW models.

17MM ALLEN SOCKET

#6500-17



17mm Allen for 1998 & Later VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4; Front & Rear Axle Bolts (AWD). Overall length 38mm.

30MM 12-POINT SOCKET

#6500 X-30



30mm 12-Point Socket for Mid 1999 & Later VW Golf, Jetta, Cabrio & Beetle Front Axle Nuts.

#H 2925

E12 TORX SOCKET



Used for outside Torx headbolts on BMW M42 & M50 engines.

#H 4556

SOCKET



Used for the R & R of the delivery valve on Mercedes-Benz Diesel injection pumps. Applicable to: 601, 602, 603, 605, 606, 615, 616 & 617 diesel engines.

32MM 12-POINT SOCKET

#6500 X-32



32mm 12-Point Socket w/ a 3/4" Drive for VW Touareg; Front & Rear Axle Nuts.

36MM 12-POINT SOCKET

#6500 X-36



36mm 12-Point 3/4" Drive. For R & R of axle nuts. Applicable to: BMW E38, E39, E46, E53, X5 (front & rear), the new 5 Series E60 & E90 All Wheel Drive 36mm Front & Rear.

#VW 5220

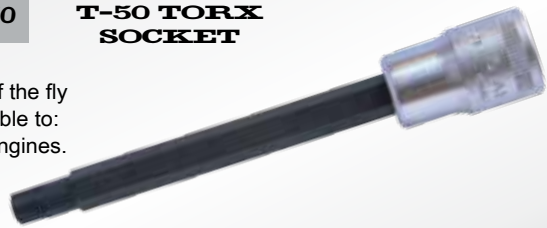
CAMSHAFT ADJUSTER SOCKET



#10 Polydrive socket for camshaft adjuster bolt on VW/Audi 2.0L Turbo (BPY) engines. **Comparable to VW #T40080**

#S 1054 TX T-50

T-50 TORX SOCKET



Used for the R & R of the fly wheel bolts. Applicable to: BMW E34 3.0L V8 engines.

TOYOTA AXLE NUT SOCKET

#6500 X-39



39mm 12 point 1/2" drive socket. For R & R of the axle nuts. Applicable to: 2008–2011 Toyota Landcruiser, Sequoia & Tundra. Also fits 2008–2011 Lexus LX 570.

WHEEL BEARING NUT SOCKET

#TOY 185



For R & R of wheel bearing nut located on inboard side of wheel hub. Applicable to: Newer Toyota trucks & SUV's (2WD only).

#FZ 128

TANK ADAPTER

MADE IN USA

- Applicable to: 1984–2011 Subaru 4-Cyl. Models
- Used for Pressurizing the Cooling System

#FZ 138

TANK ADAPTER

MADE IN USA

- Applicable to: 2001–2011 Subaru 6-Cyl. Models
- Used for Pressurizing the Cooling System



SUBARU OIL FUNNEL

#OFSU1042

MADE IN USA

- Applicable to: All Subaru Models w/ Threaded Oil Cap (exc. Tribeca)
- Prevents Any Unwanted Mess
- Regular Funnels Do Not Fit Properly

#SU 250

SUBARU 2.5L CAM ALIGN. BAR

Camshaft alignment tool for Subaru. Constructed from lightweight aluminum. Applicable to: **2.5L DOHC non-turbo engines.**

Comparable to Subaru tool #499207300.

Note: Only 1 #SU 250 is required to do the job

#SU 070

DRAIN PLUG SOCKET

For R & R of transaxle drain plug. Applicable to: **2003 & newer Subaru Outback w/ manual transmission.**

#SU 6514

SUBARU OIL FILTER WRENCH

67mm w/ 14 flats. Used on new Subaru Factory oil filters w/ the part number of #15208AA12A.

#SU 250 SHOWN HERE IN USE

#SU 8015

OIL FILTER WRENCH

80mm, 15 Flats. Applicable to: **Subaru models w/ the H6** using factory oil filter #15208AA031, Hyundai models w/ 4 cyl. & Nissan models using filter #15208H8903 & #1520855Y00 (found in older Sentra & Trucks)

SUBARU CAMSHAFT PULLEY HOLDER

#SU 200T

Used to hold the camshaft pulley on **2002–2005 Impreza WRX** w/ 2.0 Turbo.

Note: This tool will not fit the 2005 2.0 Turbos w/ Variable Cam Timing.

IMPORTANT NOTE: Some 2.5L turbo Subaru motors require both the #SU 3625 & #SU 200T. Look closely at cam gears & pulleys.

#SU 3625

SUBARU CAM SPROCKET HOLDER

MADE IN USA

Used to hold the Camshaft sprockets on **2005 & newer Subaru models** w/ the 2.5L Turbo & the 3.6L 6 cyl. engines.

Comparable to the Subaru #499977500.

IMPORTANT NOTE: Some 2.5L turbo Subaru motors require both the #SU 3625 & #SU 200T. Look closely at cam gears & pulleys.

COOLING SYSTEM ADAPTER SET FOR DEEP & SHALLOW RADIATOR NECKS

#FZ 580

MADE IN USA

- #FZ 580 Provides Coverage on All Subaru Models

Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Izuzu, Lexus, Mazda, Mitsubishi, Nissan, **Subaru**, Suzuki & Toyota.

#100-30 A

30MM DEEP SOCKET



30mm, 1/2" drive, thin-walled, 12 point socket used for R & R of transmission drive shaft flange nut & pinion shaft flange nut of differential on older BMW & Mercedes models. Also used on **Toyota** models w/ 30mm, 12 Pt. axle nuts.

#6500 X-39

TOYOTA AXLE NUT SOCKET



39mm 12 point 1/2" drive socket. For R & R of the axle nuts. Applicable to: **2008–2011 Toyota Landcruiser, Sequoia & Tundra**. Also fits 2008–2011 Lexus LX 570.

#ATF 1018 TOY

TOYOTA/LEXUS DRIVE LINE FILLER SET



#ATF 1018 TOY SHOWN HERE IN USE ON A 4RUNNER

- 5L & 10L Containers Also Available
- Includes Quick Attachment Adapter #ATFTOY118
- Pump Dispenses Efficiently
- Filler Can Handle 90 Weight Oil
- On / Off Ball Valve w/ Safety Catch
- Applicable to: 2005–2010 4Runner, FJ Cruiser, Sequoia, Tacoma & Tundra
- Container Made of UHDP (ULTRA HIGH DENSITY POLYETHYLENE)



TOYOTA/LEXUS DRIVE LINE FILLER ADAPTER

#ATFTOY118

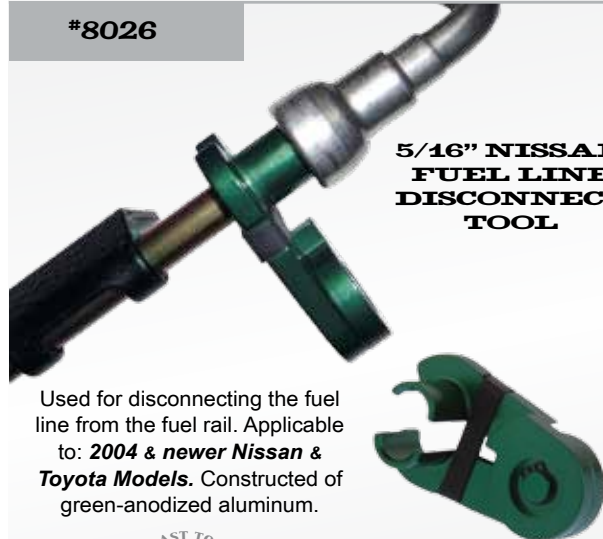
Toyota/Lexus Drive line Filler Adapter used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). Applicable to: **2005–2010 4Runner, FJ Cruiser, Sequoia, Tacoma & Tundra**.

MADE IN USA



#8026

5/16" NISSAN FUEL LINE DISCONNECT TOOL



Used for disconnecting the fuel line from the fuel rail. Applicable to: **2004 & newer Nissan & Toyota Models**. Constructed of green-anodized aluminum.



#FZ 29

CAP ADAPTER

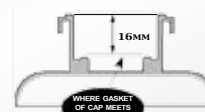
- Works w/ Many Different Asian & Domestic vehicles
- Fits Toyota w/ Small/ Deep Necks



#FZ 128

TANK ADAPTER

- Works w/ Many Different Asian & Domestic vehicles
- Fits Toyota w/ Small/ Deep Necks
- Fits Camry w/ V6



#FZ 138

TANK ADAPTER

- Works w/ Many Different Asian & Domestic vehicles
- Fits Toyota w/ Small/Shallow Necks
- Fits 4-Cyl. Camry, Fits Yaris & FJ Cruiser



#FZ 148

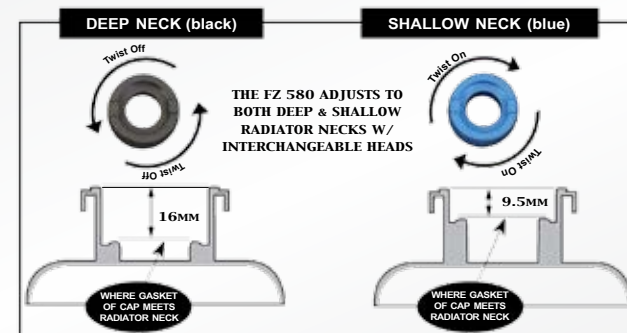
TANK ADAPTER

For pressurizing cooling system. Applicable to: **Toyota Celica GT-S 2000, MR2 Spyder 2000, Prius 2001-2010, 2006–2009 RAV 4, 2007 Lexus LS 460 & 2008 Highlander Hybrid**.



#FZ 580

COOLING SYSTEM ADAPTER SET FOR DEEP & SHALLOW RADIATOR NECKS



Using the threaded rings & one base, all small-neck tab style radiators & expansion tanks can be pressurized w/ this new product. Simply thread on the taller or shorter ring to accommodate a shallow or deep neck. The broad range of applications include: Acura, Chrysler, Dodge, Eagle, Ford models (Explorer, Festiva, Tempo, Villager, Windstar, Sport-Trac), Geo, Honda, Hyundai, Infiniti, Izuzu, **Lexus**, Mazda, Mitsubishi, Nissan, Subaru, Suzuki & **Toyota**.

#OFTOY1004

TOYOTA & LEXUS OIL FILLER

PATENT PENDING



- Fits 1999 & Newer Toyota & Lexus Models w/ 3.0L & 3.3L V6 Engines w/ 1/4-Turn Style Caps
- No More Mess, Attaches Directly to the Valve Cover & Seals just like the Factory Cap



27MM CROWFOOT SOCKET

Used for R & R of 4 Wheel Drive Switch on transfer case or transmission. Applicable to: **1996–2002 Toyota Tacoma & 4Runner**.



HEAD BOLT SOCKET

#TOY 105



Applicable to **Toyota Paseo, Tercel, Yaris, Prius & other Toyotas** that use a #8 bi-hexagon socket. 1/2" drive, 100mm long.

#OFTOY1038

TOYOTA OIL FUNNEL



Toyota Oil Funnel used on all **Toyota, Lexus & Scion motors** w/ a threaded oil cap (exc. Prius).

VALVE SPRING DEPRESSOR

#TOY 160



Valve Spring Depressor used for **Toyota** Engines w/ cylinder head off the vehicle.



WHEEL BEARING NUT SOCKET

#TOY 185



For R & R of wheel bearing nut located on inboard side of wheel hub. Applicable to: **Newer Toyota trucks & SUV's (2WD only)**.



#TOY 300

TOYOTA OIL FILTER
WRENCH SET

Factory# Cross Reference	
Factory Filter#	AST Tool#
#04152-38010	#TOY 640
#04152-YZZA1	#TOY 640
#04152-YZZA2	#TOY 640
#04152-YZZA3	#TOY 640
#04152-YZZA4	#TOY 640
#04152-YZZA5	#TOY 640
#04152-YZZA6	#TOY 640
#90915-YZZD1	#TOY 730
#90915-YZZD3	#TOY 730
#90915-YZZF1	#TOY 640
#90915-YZZF2	#TOY 640
#90915-YZZG1	#M 0219



This set includes our tool numbers **#TOY 640**, **#TOY 730** & **#M 0219**. w/ the **#TOY 300** you have every gas engine **Toyota** model covered between 1983 & 2011. Cast Aluminum Construction. Hard Plastic Carrying Case Included.

#TOY 640
SHOWN HERE ON
FILTER HOUSING



#TOY 730
SHOWN HERE ON
FILTER

INDIVIDUAL STUD REMOVERS / INSTALLERS												
	6mm	7mm	8mm	10mm	12mm	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
	#200-6	#200-7	#200-8	#200-10	#200-12	#200-1/4	#200-5/16	#200-3/8	#200-7/16	#200-1/2	#200-9/16	#200-5/8



#201-7



**7 PC. STANDARD
SIZE STUD
PULLER SET**
Includes 1/4", 5/16", 3/8", 7/16",
1/2", 9/16" & 5/8" stud remover &
installer tools.

#203



**5 PC. STANDARD
SIZE STUD
PULLER SET**
Includes 1/4", 5/16", 3/8", 7/16", &
1/2" stud remover & installer tools.

#202

#TOY 1914



TOYOTA
SERPENTINE BELT
WRENCH

Toyota serpentine belt wrench equipped w/ 14mm & 19mm, 12 point secured attachments. Applicable to: **1998–2005 Corolla**, **2004 Matrix**, **2008 Highlander V6 (Non Hybrid)**, **2002 RAV4 & 4.7L/5.7L V8 used in Tundra & Sequoia through 2008.**

#M 0219

74MM OIL FILTER
WRENCH

- 74mm w/ 14 Flats
- **Applicable: Toyota 4Runner, T100, 1998–2004 Tacoma (V6) & 1998–2007 Sienna**
- Aluminum Construction



#TOY 640

64MM TOYOTA
OIL FILTER WRENCH

- 64mm w/ 14 Flats
- **Applicable: 2007–2011 Toyota 5.7L V8 & 3.5L V6 & 2005–2007 Avalon (V6)**
- **Fits Filter Housing #15620-31050**
- **Fits 2010–2011 4.6 L V8**



SPRINTER
TRANSMISSION DIPSTICK



Dodge Sprinter & Chrysler Crossfire Transmission Dipstick. Use in conjunction w/ factory repair literature to get correct fluid level measurements.
Equivalent to the factory Chrysler #8863B.

#SPR 886

SPRINTER
TANK
ADAPTER



- **Fits: 2007–2009 Dodge Sprinter Van**
- Female 46 x 2.5mm Buttress Threads



#FZ 55

#TOY 200

A/C CLAMP REMOVER



A/C Clamp Remover for removing special air condition line clamps. Applicable to: **1998 & newer Toyota models** w/ the new style A/C clamps.
Comparable to Toyota Tool #09870-00015 & #09870-00025.



#TOY 200
SHOWN HERE ON
AC CLAMP

TANK
ADAPTER



- **Applicable to: Volvo trucks w/ 48 x 3mm threads on filler neck**
- **Also Fits 2007–2008 Kenworth**



#FZ 22

TANK
ADAPTER



- **Fits Volvo Trucks** w/ 47 x 3mm threads on the filler neck, Volvo, Mini Cooper, Jeep, Land Rover, Renault & Saab



#FZ 25

TANK
ADAPTER

- Applicable to **Freightliner & International Trucks**



#FZ 35 A



- Applicable to **Freightliner & International Trucks**



#FZ 36

CAP ADAPTER

#FZ 1002

EUROPEAN COOLING SYSTEM ADAPTER SET

This set contains the following adapters: **#BMW 345, #FZ 22, #FZ 25, #BMW 350, #FZ 41 & #M 0349.**

#EU 2090

Applicable: **2010 & Newer Volvo** front caliper slide bolts

#2136

36MM OIL FILTER SOCKET

- 36mm w/ 6 Flats
- **Applicable to: 2005 Volvo 40 & 50 Series (new body) & New 3.2L**
- Steel Construction

#FZ 47

TANK ADAPTER

- **Applicable to: 2004–2005 Volvo S40 & V50 (new body style), 2008–2011 All Models (exc. XC 90)**
- Used for Pressurizing the Cooling System

#TA 18

ADAPTER

For brake master cylinder or clutch master cylinder reservoirs. Used in conjunction w/ pressure bleeder (pressure bleeder attachment thread size of 1/4" NPT).

#V 450

VOLVO BRAKE PISTON ADAPTER

3/8" Drive. For turning in the rear brake caliper piston. Applicable to: **2005 New body Volvo 40 & 50 Series.**

#FZ 22

TANK ADAPTER

- **Applicable to: Volvo Truck Models w/ 48 x 3mm Male Threads on the Filler Neck of the Expansion Tank**
- Used for Pressurizing the Cooling System

#FZ 25

TANK ADAPTER

- **Fits Volvo Cars & Trucks w/ 47 x 3mm Threads on the Filler Neck; Volvo XC90**
- Used for Pressurizing the Cooling System

#ATF 108V

VOLVO DRIVE LINE FILLER ADAPTER

Volvo Drive Line Filler Adapter. Applicable to: **some 2007 & newer Volvo** using 5/16 x 24 threaded plug.

#H 2223 LG T-30

TORX SOCKET INSERT

T-30 torx. Used for R & R of the airbag from the steering wheel. Applicable to: many BMW, Mercedes-Benz, Saab, VW & **Volvo** models.

#V 410

86.5MM OIL FILTER WRENCH

- 86.5mm w/ 16 Flats
- **Applicable to: 1999–2006 Volvo Models (exc. newer 40 & 50 Series & 3.2L In-line 6 Cyl. see #2136)**

#V 722

VOLVO ECU RELEASE KEY

Used to remove the ECU from the body mount. Applicable to: **2001–2011 V70 XC, XC70, C70 & 2000–2011 V70, 2000–2011 V70 XC, 2000–2011 S80, XC90, V70, S60, C70 Convertible & S70.**

4-PIECE FLEX NUT DRIVER SET

#3700

Includes 5mm, 6mm, 7mm & 8mm Flexible Nut Drivers. Use the **#3700** to tighten & loosen the hard-to-reach hose clamps on various makes & models. 5-year warranty. Blue handle constructed of tough composite plastic.

7-PIECE OIL FILTER WRENCH SET

#2101

Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes covers VW/Audi, BMW, newer Mercedes 4-cyl. engines, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches covers many VW, BMW, Toyota, & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & **1999–2010 Volvo models.**

CAMSHAFT & CRANKSHAFT ALIGNMENT TOOL

#V 500

This tool is used for the alignment of the camshafts & crankshafts on **Volvo in-line 4, 5 & 6 cyl. twin cam motors through 2006.** May also be used to align the camshafts w/ the cam cover.

Engines:
B6254GS, B6294T, B5234T4, B6294S2, B5244S6, B5204T2, B5234FS, B4184S2, B5254FS M 4.4, B4204T2, B5244S4, B5254T, B5234T9, B4204T3(US)(CDN), B6304S3, B5204T4, B5244S5, B5204T3, B5204FS, B5252FS, B5254FS M 4.3, B4194T, B6294S, B5244T4, B6254FS, B4184S, B5234T6, B5234T2, B6304FS2,GB5252S, B4204S2, B4204T, B5244S2, B5204T5, B5244T7, B4184S9, B4204T4, B6284T, B5234T5, B6304FS, B4204T3, B5244SG2, B6244FS, B4184SJ, B4204T2 CVVT, B6304GS, B5254T4, B4184S3, B5234T3, B5244T2, B5244T3, B5244T5, B5254T2, B4204S, B5244S7, B5204FT, B5234FT, B5234T8, B5234T7, B5244S, B4184S10, B4194T2, B5254T3, B5254S DENSO, B4164S, B5254FS LH 3.2, B5244SG, B5244T, B4204T5, B5202FS, B4164S2 & D4192T2

AST VW/AUDI TOOLS

- ⇒ CUSTOM DIPSTICKS
- ⇒ OIL CHANGE TOOLS
- ⇒ ENGINE TOOLS
- ⇒ SPECIAL BITS & BIT SETS

***3000**
40-PIECE SOCKET SET
WITH 1/4" DRIVE
see pg. 76



***6800TDI**
VW TDI
TIMING BELT TOOL
SET
see pg. 83



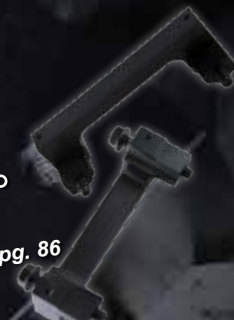
***2101**
7-PIECE OIL FILTER
WRENCH/SOCKET
SET
see pg. 79



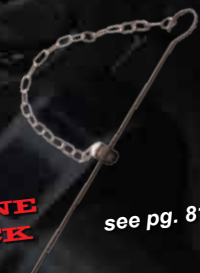
***VW 601**
AIRBAG REMOVAL
TOOL
see pg. 77



***T 40070**
CAM LOCK
CLAMP
see pg. 86



***AU40178**
AUDI ENGINE
OIL DIPSTICK
see pg. 81



***T 10252**
CAMSHAFT LOCKING
TOOL
see pg. 83



***T 4306**
AUDI 3.0L TIMING
TOOL SET
see pg. 87





#3000

**40-PIECE SOCKET SET
W/ 1/4" DRIVE**

Contains: T-6 through T-45 6-Point Tamperproof® Torx; T-10 through T-50 6-Point Standard Torx; 4mm, 5mm, 6mm & 8mm 12-Point; 2.5, 3, 4, 5, 6 & 8 Allen Drivers; 5/32"-5/16" Straight Blade Drivers; #1, #2 & #3 Phillips Drivers.

T-20 T-HANDLE DRIVER

#3200 T-20



This tool is used to access the door handle fasteners on some Mercedes-Benz models. Applicable to:
newer VW Golf, Jetta, Beetle & Passat & 2001-2004 C-Class w/ 203 chassis

**T-30 TORX
SCREWDRIVER**

#3200 T-30



This tool is used to access the door handle fasteners on some Mercedes-Benz models. Applicable to: 2000-2004 Mercedes S-Class w/ 220 chassis. Also used for R & R of adjustments of headlamps on **1999-2004 Audi A6**.

RADIO REMOVAL TOOL

#2040



Radio removal tool for **VW, Audi, Ford & Saab** radios w/ DIN chassis.

T-45 TORX BIT

#3200 T-45



Used for the R & R of door hinge fasteners.

#3000-4 K

**4-PIECE ALLEN
SOCKET SET**

This 4-piece allen socket set includes: 4mm, 5mm, 6mm & 8mm 1/4" drive sockets.

#3000-6 K

**6-PIECE ALLEN
SOCKET SET**

This 6-piece allen socket set includes: 2.5mm, 3mm, 4mm, 5mm, 6mm & 8mm 1/4" drive sockets.

T-6 TORX BIT

#3200 T-6



Used for the R & R of door handle fasteners on **VW Touareg** as well as Porsche Cayenne.

**4MM 12-POINT
SCREWDRIVER BIT**

#3200 X-4



1/4 inch hex drive bit. Used for the R & R of 4mm door handle screws. Applicable to: **VW Golf, Jetta & Passat & New Beetle**.

#3900

**5 LOBE TAMPER-
PROOF BIT SET**

5 Lobe Bits & 1/4" Drive. Contains: T-10, T-15, T-20, T-25, T-27, T-30, T-40, T-45 & T-50. Includes Case.

#3200

**EUROPEAN
DOOR/HINGE
HANDLE SET**

Compact solution to accessing the special fasteners found on the door hinges & handles of **VW/Audi**, Mercedes-Benz & Porsche. Includes: four door hinge bits (less than an inch long), & a slender ratcheting wrench. Also included are the extra long drivers necessary to access the door handles of Mercedes-Benz & **VW**.

**RADIO REMOVAL KEYS**

#3316



Used for removing the factory-installed radio. Applicable to: **1998-2005 VW Passat, 1999-2005 Jetta & Golf w/ vertically aligned key slots**.

**RADIO REMOVAL
TOOL**

#3344 A



Used for radio removal on **Audi A4, A6, A8 & VW new Beetle through 2005 w/ horizontally aligned key slots**. Two pair of **#3344 A**'s are required for most newer VW/Audi models.
Comparable to VW# T 10057.

#3101

**8-PIECE
RADIO
REMOVAL
SET**

Set includes the **#2040, #BMW 050, #3344 A** (includes two pair), **#M 2070, #3316, #BMW 025** & the **#BMW 010**. Applications include: Ford & VW models w/ a DIN chassis, BMW models w/ anti-theft radio, **Audi A4, A6, A8 & VW new Beetle**, 1992 & later Mercedes 129, 140, 163, 202 & 210 models, **VW New body Passat, Jetta & Golf**, center console removal on newer BMW Z3, X5 & 5 Series (E39), Multi-Informational Display (MID) removal on BMW X5 & 5 Series (E39).

#7200

**CAMSHAFT PULLEY
HOLDER**

Comes w/ 3 sets of interchangeable pins. Pins may be threaded in two different locations, based on application access. Overall length 18". 12" Spread between pins at tip of arms, when pivot arm is at 90°. Holding pins are Made in USA.

TORX SOCKET INSERT

#H 2223 LG T-30



T-30 torx. Used for R & R of the airbag from the steering wheel. Applicable to: many **VW/Audi**, Mercedes-Benz, Saab & BMW models.

**10MM 12-POINT
SOCKET**

#H 8808-10



10mm, 12-Point Allen Socket, 3/8" Drive. Used during R & R of the door hinges on **VW & Audi models**. The socket's overall height is 43mm. Applicable to: **new VW Beetle, new body VW Jetta & late model VW Golf w/ 10mm, 12-point door hinge bolts**.

**6-PIECE
FILE SET**

#3810



Set includes six files & a protective case. Files are 7 3/8" in length.

**AIRBAG REMOVAL
TOOL**

#VW 601



Used to remove the driver's side airbag from the steering wheel on **1999-2004 VW Passat, Jetta, Golf & Beetle** where torx head screws are no longer used.

#FZ 1002

EUROPEAN
COOLING-
SYSTEM
ADAPTER SET



This set contains the following adapters: **#BMW 345**, **#FZ 22**, **#FZ 25**, **#BMW 350**, **#FZ 41** & **#M 0349**.

#3101

8-PIECE
RADIO
REMOVAL
SET



Set includes the **#2040**, **#BMW 050**, **#3344 A** (includes two pair), **#M 2070**, **#3316**, **#BMW 025** & the **#BMW 010**. Applications include: Ford & VW models w/ a DIN chassis, BMW models w/ anti-theft radio, **Audi A4, A6, A8 & new VW Beetles**, 1992 & later Mercedes 129, 140, 163, 202 & 210 models, **VW new body Passat, Jetta & Golf**, center console removal on newer BMW Z3, X5 & 5 Series (E39), Multi-Informational Display (MID) removal on BMW X5 & 5 Series (E39).

7-PIECE OIL FILTER
WRENCH SET



	AST# 2127 (27mm, 6 flats)		AST# M 0284 (84mm, 14 flats)
	AST# 2132 (32mm, 6 flats)		AST# M 0219 (74mm, 14 flats)
	AST# 2136 (36mm, 6 flats)		AST# V 410 (86.5mm, 16 flats)
	AST# 2175 (74.5mm, 14 flats)		

INCLUDED IN THE #2104

Contains oil filter wrench sockets for many domestic & foreign applications. Covers all Mercedes-Benz applications. The 27mm, 32mm & 36mm hex sizes cover VW/Audi, BMW, newer Mercedes 4-cyl. engines, Saturn & GM 2.2 L Ecotec engines. Covers Ford Escape Hybrid & Ford OEM #FL 910 & #FL 793. The four cup-style wrenches cover many VW, BMW, Toyota & Mazda 3. Also covers Dodge Sprinter & Jeep 3.0L CRD engines & 1999–2010 Volvo models.



#FZ 22

TANK ADAPTER

• Applicable to: **1978–1993 VW/Audi** w/ Male Threads on Filler Neck of Expansion Tank & Audi A8/S8



#FZ 41

TANK ADAPTER

- Fits All **1999–2011 Audi Models** (exc. A8 & S8—see #FZ 22)
- Fits All **1999–2011 VW Models**
- Also Fits w/ Porsche Cayenne



#2040

RADIO REMOVAL
TOOL



Radio removal tool for **VW, Audi**, Ford & Saab radios w/ DIN chassis.



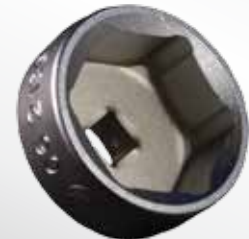
#3316

RADIO REMOVAL KEYS



Used for removing the factory-installed radio. Applicable to: **1998–2005 VW Passat**, **1999–2005 Jetta & Golf** w/ vertically aligned key slots.

36MM OIL
FILTER SOCKET



- 36mm w/ 6 Flats, 3/8" Drive
- Applicable to: **VW/Audi VR-6 Engines & 2006–2008 Golf, Jetta, Passat & EOS w/ 2.0L Turbo**
- Steel Construction



#2136

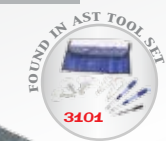
74.5MM OIL FILTER
WRENCH



- 74.5mm w/ 14 Flats
- Applicable to: **1.8L 5v Turbo**
- Aluminum Construction

#3344 A

RADIO REMOVAL
TOOL



Used for radio removal on **Audi A4, A6, A8 & VW New Beetle through 2005** w/ horizontally aligned key slots. Two pair of **#3344 A**'s are required for most newer VW/Audi models. Comparable to VW# **T 10057**.

#S 1553 N

WIRE TERMINAL
EXTRACTOR



This tool is used to remove flat terminals w/ one release tang from the connector plug.

TENSIONER
RELEASE TOOL



Serpentine Belt Release Tool. Applicable to: **2002–2005 Audi A4 w/ 3.0L V6 engines & 2002–2004 Audi A6 w/ 3.0L V6 engines**.

#3299 A

FUEL PUMP
WRENCH

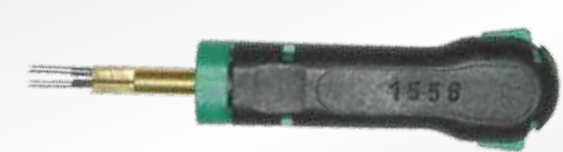


Wrench for removal & installation of the fuel pump on **1998–2005 VW Passat**, **2002–2004 Audi A4 (AWD)** **1999–2004 Audi A6**.

#3307

#S 1556 N

WIRE TERMINAL
EXTRACTOR



This tool is used to remove flat terminals w/ two release tangs from the connector plug. (1mm wide, 2.5mm apart)

#S 1591 N

WIRE TERMINAL
EXTRACTOR



This tool is used to remove flat terminals w/ two release tangs from the connector plug. (1.65mm wide, 2.8mm apart)

Used for camshaft alignment. Applicable to: **VW VR-6 engines** w/ 2v per cylinder.



#3268

VR-6
CAMSHAFT
RULER



LOCKING
PIN

This tool is used to lock the crankshaft in T.D.C. position on **VW & Audi 2.7L & 2.8L V6 engines**, & **4.2L V8 w/ timing belt**.

#3366
BRACKET FOR
CHAIN ADJUSTER



Used when removing & installing the timing chain adjuster. Applicable to: **VW/Audi 4, 6 & 8 cyl. engines** w/ 5v per cylinder.

#3359
TDI
LOCK PIN



This injector pump locking pin is used for **1999–2006 VW TDI** engines.
Used in conjunction w/ **#3428, #T 10100** or **#T 10050** depending on model year of TDI.

#3369
SUPPORT GUIDES



Guides for holding front lock carrier in service position. Applicable to: **Audi A4 & A6; VW Passat 1998 until end of 9/2000.**

#6632
VW/AUDI COIL
PACK PULLER



Used for removing & installing coils w/ power stage. Applicable to: **2008 Audi Q7 3.6L, 2007 Audi TT 3.2L V6, VW 2.8L VR6 (4v) engines & VW Touareg w/ 3.2L V6.**
Comparable to VW #T10095A.

#6700
VW/AUDI 1.8T
TENSIONER
HOLDER SET



Set contains the **#6700-1** Tensioner Bolt & Washer, the **#6700-2** Tensioner Locking Plate, the **#6700-3** Tensioner Lock Pin & the **#6700-4** Holding Rod. Used for holding the timing belt tensioner & the accessory belt tensioner. Applicable to: **VW & Audi models w/ a 1.8 Turbo Motor.**

#3243
CAMSHAFT ALIGNMENT
TOOL



Used to hold camshafts at T.D.C. position. Applicable to: **VW/Audi 2.8L V6 engines** w/ two valves per cylinder.

#3391
CAMSHAFT
ALIGNMENT
TOOL



This tool is used to hold both camshafts in T.D.C. position. Applicable to: **VW/Audi V6, 2.8 & 2.7L engines** w/ 5v per cylinder.
For the 3.0 V6 used in Audi models see **#T 40030** or **#T 4306.**

#3428
TDI CAM
LOCK BAR



Used for locking the camshaft on 1999–2003 VW TDI without removing the valve cover. Replaces the old style **#3418**. Used in conjunction w/ the **#3359**.
Comparable to VW #T 10098 A.

#6639
VW/AUDI COIL
PACK PULLER



Used for removing ignition coils w/ final output stage. Applicable to: **2.0T, 1.8T, 3.0, 3.2 & 4.2L engines.** Compact size, only 2" in length.
Comparable to VW# **T 40039**.

#8032
32MM FAN CLUTCH
WRENCH



32mm x 380mm long wrench used for the R & R of any 32mm fan clutch nuts. Applicable to: **VW, Audi & BMW** models w/ 32mm fan clutch nuts.

#H 1849-6
SPARK PLUG
CONNECTOR REMOVER



This tool is used for spark plug boot removal. Applicable to: **VW VR6 engine & older 2.0L motors.** Comparable to VW# **T10029**.

#AU 40178
AUDI
ENGINE OIL
DIPSTICK



Applicable to: **2009–2010 Audi A4, A5 & A6 w/ Engines 2.0L TFSI, 3.2L FSI & 4.2L FSI. Fits 2010 S4 3.0L Supercharged.** Chart to read dipstick included.

SPANNER
WRENCH
#H 2587



Used for adjusting the tension of the timing belt. Applicable to: **4 cyl. VW Golf & Jetta through 1998, 4 cyl. VW Passat, Corrado, 1.9L TDI VW models through 1997.** Comparable to VW #V 159

TIMING BELT
SPANNER
WRENCH
#H 2587-1



Used for the adjustment of the timing belt. Applicable to: **2004–2005 VW Golf, Jetta Pumpe Duse & 2002–2005 Audi 3.0 V6.**
Comparable to VW #3387.

TIMING BELT
SPANNER
WRENCH
#H 2587-2



Used for adjusting the timing belt tension. Applicable to: **1999 & later VW Golf, Jetta, Passat & 1999–2003 VW Beetle w/ 2.0L gas engine, 1.9L T.D.I. diesel engine & 2006–2008 VW/Audi 2.0T (BPY).**
Comparable to VW #T 10020

SOCKET
#H 2579-9



#9 polydrive head bolt socket, 1/2 inch drive. Applicable to: most **1998 & later VW & Audi engines** using aftermarket headbolts that are smaller than the **#3462** application.

MULTITOOTH
ADAPTER
#H 2592



Used for the R & R of the freewheel pulley on the alternator. This tool may be used in conjunction w/ **#S 3054 X-10** Socket.
Comparable to VW #3400.
NOTE: For torx head fasteners, see **#S 1054 TX T-50.**

74MM OIL
FILTER
WRENCH
#M 0219



74mm Oil Filter Wrench w/ 14 Flats
Applicable:
2005–2011VW 2.5L Motors, 2009–2011 VW/Audi All Models w/ 2.0L Turbo; 1999–2008 Beetle (1.9L TDI), Golf (1.9L TDI) & Jetta (1.9L TDI).
See **#2132** for 2011 2.0L T.D.I.

12MM 12-POINT
SOCKET
#S 54 X-12



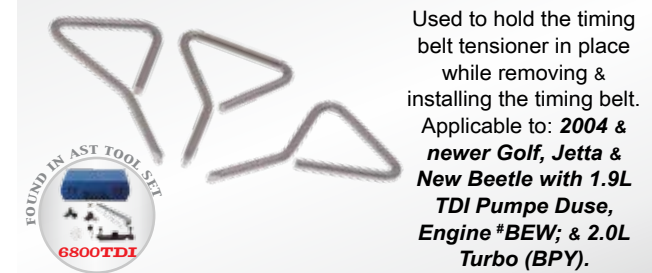
12mm 12-Point Socket, 1/2" Drive, 65mm Length. Fits Porsche 911, 914, 928, 944 & **VW type 2 flywheel bolts.**

#MVW2050F FUEL LINE PLIERS



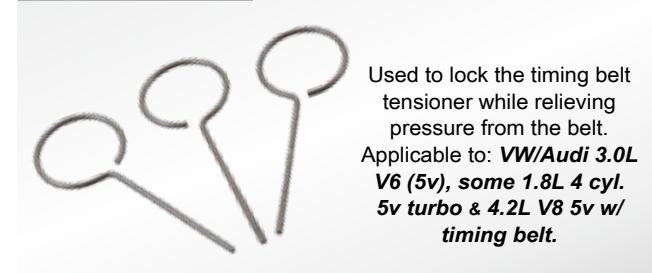
Fuel line pliers for VW fuel lines w/ plastic snap-together connectors. Applicable to: **1999 & later VW w/ plastic release-style lines.**

#T 10115 TENSIONER LOCKING PINS



Used to hold the timing belt tensioner in place while removing & installing the timing belt. Applicable to: **2004 & newer Golf, Jetta & New Beetle with 1.9L TDI Pumpe Duse, Engine #BEW; & 2.0L Turbo (BPY).**

#T 40011 3-PIECE LOCKING PIN SET



Used to lock the timing belt tensioner while relieving pressure from the belt. Applicable to: **VW/Audi 3.0L V6 (5v), some 1.8L 4 cyl. 5v turbo & 4.2L V8 5v w/ timing belt.**

#T 40026 CRANK LOCK PIN



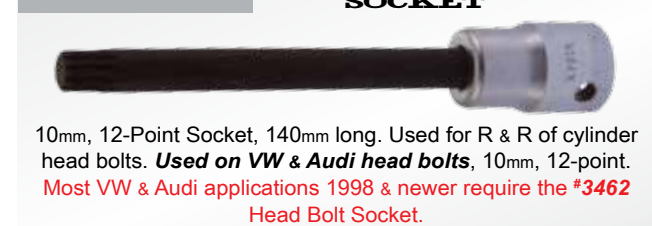
Crank lock pin used to lock the crankshaft at TDC position when replacing the timing belt. Applicable to: **Audi 3.0L V6 5V.**
Used in conjunction w/ #T 40011, #T 40028 & #T 40030.

#T 40028 CAMSHAFT ADJUSTING SOCKET



Camshaft Adjusting Socket used to adjust variable valve timing on the exhaust side camshaft to basic position. Applicable to: **Audi 3.0L V6 5v.**
Used in conjunction w/ #T 40011, #T 40026 & #T 40030.

#S 3054 X-10 10MM 12-POINT SOCKET



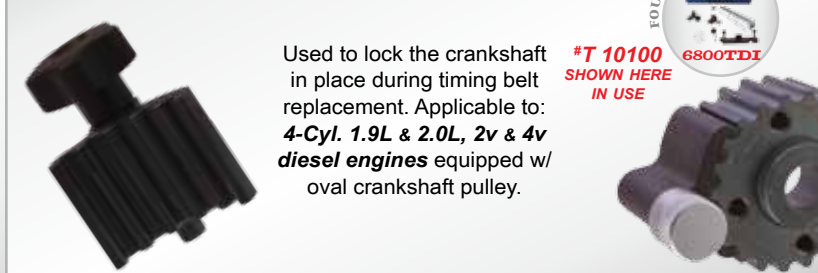
10mm, 12-Point Socket, 140mm long. Used for R & R of cylinder head bolts. **Used on VW & Audi head bolts,** 10mm, 12-point. **Most VW & Audi applications 1998 & newer require the #3462 Head Bolt Socket.**

#T 10050 CRANKSHAFT STOP



Used to lock the crankshaft in place during timing belt replacement on **2004–2005 VW TDI Pumpe Duse.** Used in conjunction w/ **#3359, #H 2587-1 & #T 10115.**

#T 10100 CRANKSHAFT STOP (OVAL PULLEY DIESEL)



Used to lock the crankshaft in place during timing belt replacement. Applicable to: **4-Cyl. 1.9L & 2.0L, 2v & 4v diesel engines** equipped w/ oval crankshaft pulley.

#T 40001 PULLER



Puller used to remove cam sprockets. Applicable to: **VW 4 cyl. TDI, VW/Audi V6 (5v) & Audi V8 (40v).**
NOTE: Inquire about separate arms for 2.0L turbo.

#T 40005 CAMSHAFT ALIGNMENT TOOL FOR AUDI 40V V8



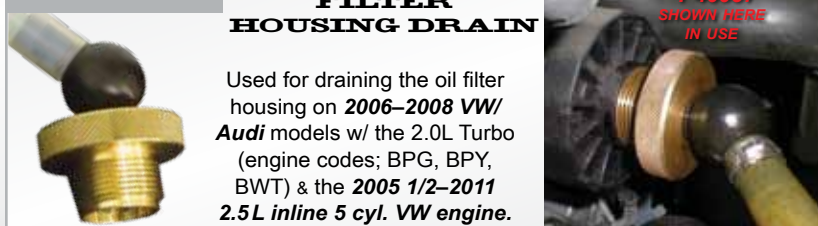
Used to hold both camshafts in TDC position while replacing the timing belt. Applicable to: **VW/Audi w/ 40v V8 (5v per cyl) w/ timing belt.**
Used in conjunction w/ #3242.

#T 40030 CAMSHAFT ALIGNMENT FIXTURE



Camshaft alignment fixture used to hold & align the camshafts. Applicable to: **Audi 3.0L V6 5v, 2002–2005 Audi A4 & 2002–2004 Audi A6.**
Used in conjunction w/ #T 40011, #T 40026 & #T 40028. For complete set, see #T 4306.

#T 40057 VW/AUDI OIL FILTER HOUSING DRAIN



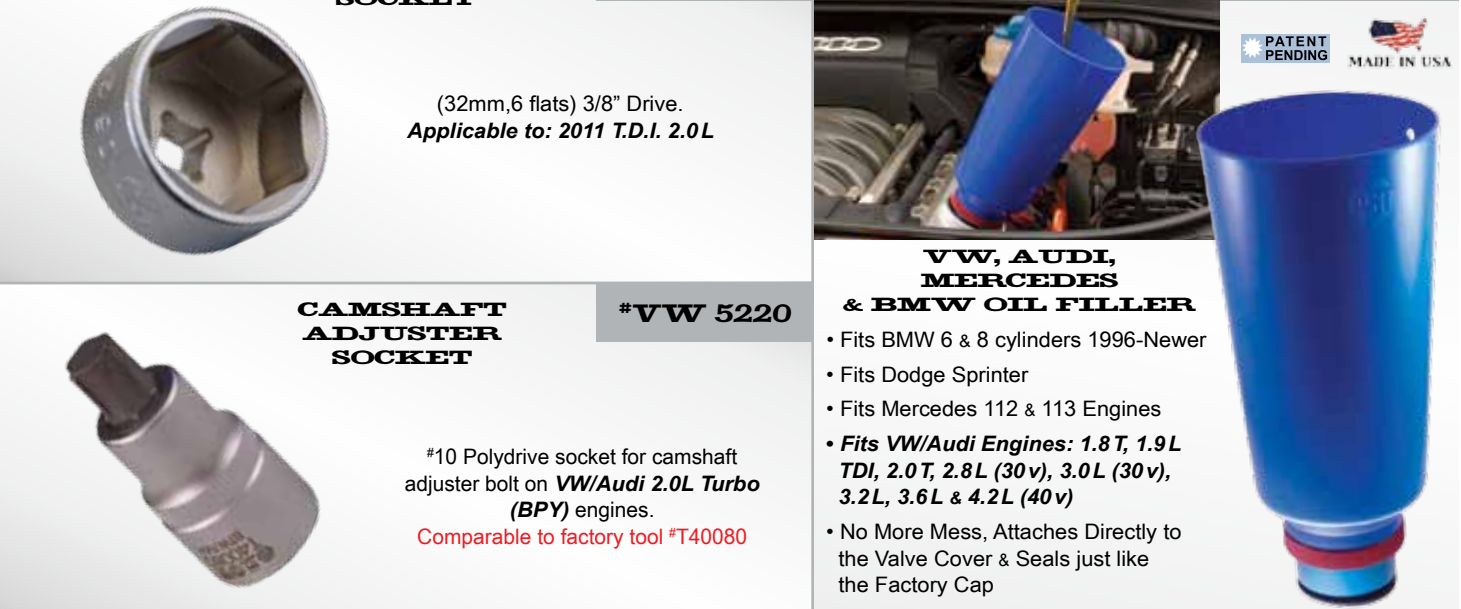
Used for draining the oil filter housing on **2006–2008 VW/Audi** models w/ the 2.0L Turbo (engine codes; BPG, BPY, BWT) & the **2005 1/2–2011 2.5L inline 5 cyl. VW engine.**

#6800TDI VW TDI TIMING BELT TOOL SET



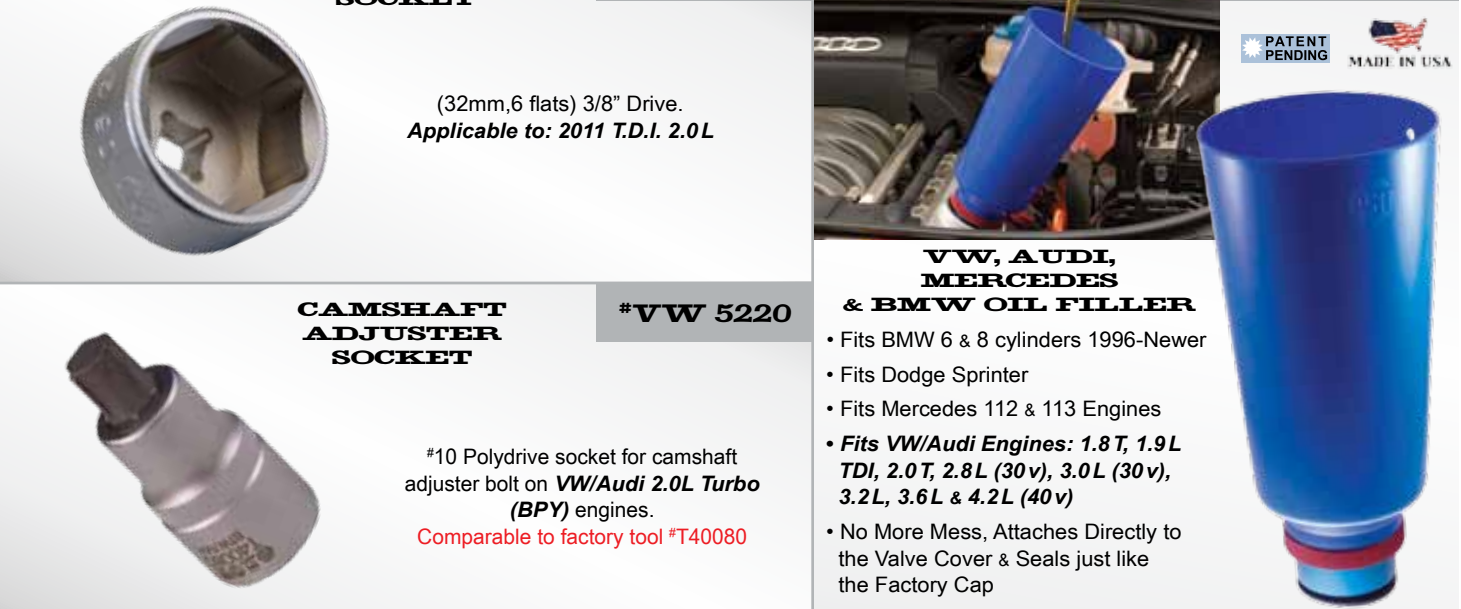
Used for setting & adjusting the cam/crank/pump timing on 1999–2008 VW TDI engines. Includes: **#3359** TDI Lock Pin, **#3428** TDI Cam Lock Bar, **#H 2587-1 & #H 2587-2** Timing Belt Tensioner Spanner Wrenches, **#T 10115** Tensioner Lock Pins, **#T 10050** Crankshaft Stop & **#T 10100** Oval Pulley Crankshaft Stop.

#2132 32MM OIL FILTER SOCKET



(32mm, 6 flats) 3/8" Drive.
Applicable to: 2011 T.D.I. 2.0L

#OFAUD1000 VW, AUDI, MERCEDES & BMW OIL FILLER



• Fits BMW 6 & 8 cylinders 1996-Newer
• Fits Dodge Sprinter
• Fits Mercedes 112 & 113 Engines
• **Fits VW/Audi Engines: 1.8 T, 1.9L TDI, 2.0 T, 2.8L (30v), 3.0L (30v), 3.2L, 3.6L & 4.2L (40v)**
• No More Mess, Attaches Directly to the Valve Cover & Seals just like the Factory Cap

#T 10252 CAMSHAFT LOCKING TOOL



Camshaft Alignment Tool for **2006–2008 VW/Audi 2.0L Turbo Engines (BPY).** Used in conjunction with: **#VW 5220, #T 10115 & #H 2587-2.**



#6300

VW/AUDI/PORSCHE SOCKET & BIT SET

- #6300 **XL-14** For R & R of Late Model Eurovan Axle Shafts & Ball Joints
- #6300 **XL-8** For R & R of Axle Shaft Bolts on Beetle, Jetta TDI & Older VW/Audi Models
- #6300 **XL-10** For R & R of Axle Shaft Bolts on 1999–2005 Passat & Golf
- #6300 **X-16** For R & R of Manual Transmission Drain Plug & Touareg & Porsche Cayenne Brake Caliper Bolts
- #6300 **X-12** For R & R of Axle Shaft Bolts on 1999–2005 Jetta (gas) & Rear Toe Adjustment on 1999 & Later Audi A6
- #6300 **X-14** For R & R of Audi TT Differential Bracket & for Bell Housing Bolts w/ Tight Clearance on Various VW Models
- #3424 Spreader for Assisting R & R of Strut Housing on VW & Audi TT



#S 55-46

46MM HEX SOCKET

46mm, 6-Point Thin-Wall Socket, 3/4" Drive. For R & R of front wheel bearing retainer nut on E24, E28, E32 & E34 chassis. Also applicable to **VW type 2 rear axle shaft nuts**.



#S 3054 X-12

12MM 12-POINT SOCKET

12mm, 12-Point Socket, 140mm Long. Applicable to: Older **VW/Audi models** w/ 12mm 12-point head bolts; Used for R & R of cylinder head bolts on 2003 Toyota 4Runner w/ V6 engine, all 2ZZ engines (4-cyl., 4v w/ VVT) including 2000–2001 Toyota Celica & 2001–2006 Highlander w/ 2AZ-FE engines.



#3104

ALIGNMENT PLATE

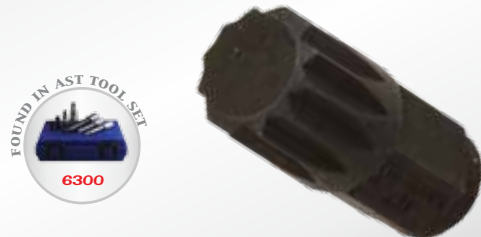


Used when adjusting the transmission shift linkage. Applicable to: **1985 & newer VW Golf & Jetta w/ 5 speed manual gearbox**.

#6300 X-12

12MM 12-POINT SOCKET BIT

12mm, 12-Point Socket Bit. Applicable to: the R & R of axle shaft bolts on **newer VW Jetta** (gas) & rear toe adjustment on **1999 & later Audi A6**.



#6300 X-14

14MM 12-POINT SOCKET BIT

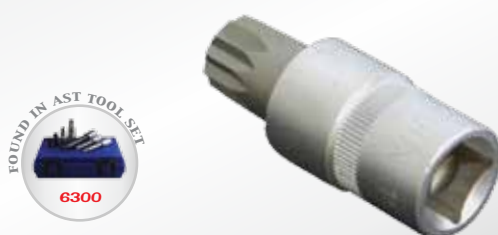
14mm 12-Point Socket Bit. Used for R & R of Audi TT differential bracket & for bell housing bolts w/ tight clearance on various **VW models**.



#6300 X-16

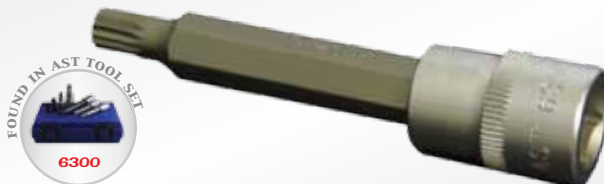
16MM 12-POINT TAMPER-PROOF SOCKET

16mm 12-point tamper-proof socket for R & R of manual transmission drain plug & Porsche Cayenne & **VW Touareg** brake caliper bolts.



#6300 XL-8

8MM 12-POINT LONG SOCKET



8mm 12-point, 3/8" drive, 90mm long socket for R & R of axle shaft bolts on **VW Beetle, Jetta TDI & older VW/Audi models**.

#6300 XL-10

10MM 12-POINT LONG SOCKET



10mm 12-point, 3/8" drive, 90mm long socket for R & R of axle shaft bolts on **VW Passat & Golf** (new body style).

#6300 XL-14

14MM 12-POINT LONG SOCKET



14mm 12-point, 1/2" drive 140mm long socket for R & R of late model **Eurovan** axle shafts & ball joints, **Touareg** inner CV bolts.

#T 10066

HALDEX FILTER WRENCH



Used for the R & R of the oil filter of the Haldex clutch on **Audi TT (02C & 02M Transmissions)**

VW/AUDI DRIVE LINE FILLER SYSTEM

#ATF 1033-5 VW

For VW/Audi applications. Includes pump, 5 liter container, hose, shut-off valve, 2 Angled Attachments, a 10 x 1.0 Attachment, 22 x 1.5 Attachment & 24 x 1.5 Attachment

- **Used only to Fill, Not to Drain—So Clean Fluid Stays Clean**
- **5 Liter Capacity**
- **Additional 3 & 10 Liter Drums also available**
- **Includes DSG & CVT Adapters**
- **Pump Dispenses Efficiently**
- **On/Off Ball Valve w/ Safety Catch**
- **Container Made of UHDP (Ultra High Density Polyethylene)**
- **Hose Length 4 ft. 10 in.**



VW/AUDI "DSG" DRIVE LINE FILLER ADAPTER

#ATF 16 DSG



Used w/ the AST ATF Filler System. The attachment has a 24mm x 1.5 thread. (does not include pump, container, hose, or shut-off valve). **For the complete VW/Audi System Set, see #ATF 1033-5 VW.**

VW/AUDI "CVT" DRIVE LINE FILLER ADAPTER

#ATF 17 CVT

Used w/ the AST ATF Filler System. The attachment has a 22mm x 1.5 thread. (does not include pump, container, hose, or shut-off valve). **For the complete VW/Audi System Set, see #ATF 1033-5 VW.**



SHORT DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI

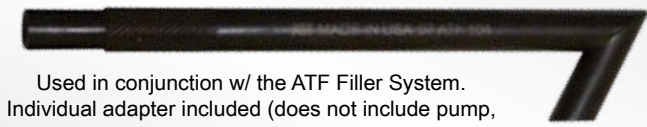
#ATF 103



Used w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). **For the complete VW/Audi Set, see #ATF 1033-5 VW.**

LONG DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI

#ATF 104



Used in conjunction w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). **For the complete VW/Audi Set, see #ATF 1033-5 VW.**

10MM x 1.0 DRIVE LINE FILLER SYSTEM ADAPTER FOR VW/AUDI

#ATF 105



Used w/ the ATF Filler System. Individual adapter included (does not include pump, container, hose, or shut-off valve). **For the complete VW/Audi Set, see #ATF 1033-5 VW.**

#3424

SPREADER

Used for the R & R of the front shock absorber tube from the wheel bearing housing. Applicable to: **VW & Audi TT.**

#6500-17

17MM ALLEN SOCKET

17mm Allen Socket. Applicable to: **1998–2005 VW Passat, 1999–2004 Audi A6, 2002–2005 Audi A4;** front & rear axle bolts (AWD).

#6500 X-30

30MM 12-POINT SOCKET

1/2" Drive. Applicable to: **mid 1999–2005 VW Golf, Jetta, Cabrio & Beetle;** front axle nuts.

#T 40069

VW/AUDI CRANKSHAFT LOCKING PIN

Locking pin to lock crankshaft at T.D.C. Applicable to **VW/Audi** engines: 2.5L I-5 cyl. (BGP, BGQ, BPR, BPS, CBTA & CBUA) 3.2L V6 4v (BKH & CALA)

#S 54 X-14

14mm 12-Point Socket, 1/2" Drive. Ideal for rear brake caliper bolts on **2006 & newer Passat & Jetta.**

#TA 18

ADAPTER

For brake master cyl. or clutch master cyl. reservoirs. Used in conjunction w/ pressure bleeder (pressure bleeder attachment thread size of 1/4" NPT).

#6500-14

14MM ALLEN SOCKET

14mm Allen Socket. Applicable to: **VW Passat 1996–2001, Audi A4;** front & rear axle bolts (AWD).

#6500 X-18

18MM 12-POINT SOCKET, 1/2" DRIVE

18mm, 12-Point Socket w/ a 1/2" Drive. Applicable to: 2006–2009 VW Golf & Jetta w/ Independent Rear Suspension (I.R.S.). This tool is used for the R & R of the rear axle bolt.
Comparable to VW Tool #T10162.

#6500 X-32

32MM 12-POINT SOCKET

32mm 12-Point Socket, 3/4" Drive. Applicable to: **VW Touareg;** Front & Rear Axle Nuts.

#T 40070

CAM LOCK CLAMP

Includes 2 Cam Lock Clamps. Camshaft locking clamp used for setting timing. **May be used in conjunction w/ #T 40069.**

Applicable to: **Audi: 3.2L V6 4v (BKH), 4.2L V8 4v (BAR, BNS, BVJ, BYH & CAUA) & 5.2L V10 4v (BXA & BSM)**
VW: 2.5L I5 (BGP, BGQ, BPR, BPS, CBTA & CBUA)



#T 4306

AUDI 3.0L TIMING TOOL SET

Includes the following tools:

#T 40011

3-Pc. locking pin set used to lock the timing belt tensioner while relieving pressure from the belt

#T 40026

Used to lock the crankshaft at TDC position when replacing the timing belt

#T 40028

Used to adjust variable valve timing on the exhaust side camshaft to basic position

#T 40030

Used to hold & align the camshafts

Applicable to: **Audi 3.0L (V6) 5v, used in 2002–2005 Audi A4 & 2002–2004 Audi A6**

#6500

VW/AUDI AXLE NUT SOCKET SET

#6500-14

14mm Allen for 1996–2001 VW Passat Audi A4; Front & Rear Axle Bolts (AWD)

#6500-17

17mm Allen for 1998–2005 VW Passat, 1999–2004 Audi A6 2002–2005 Audi A4; Front & Rear Axle Bolts (AWD)

#6500 X-30

30mm 12-Point Socket for Mid 1999–2005 VW Golf, Jetta, Cabrio & Beetle; Front Axle Nut

#6500 X-32

32mm 12-Point Socket w/ a 3/4" Drive, VW Touareg; Front & Rear Axle Nuts

NOTE: For 2006–2009 VW Jetta & Golf Rear Axle Bolt, order **#6500 X-18** separately (see pg. 86)

ACURA				
Cooling System Tank Adapters & Cooling System Cap Adapters for Acura Models				
Model	Year	Tank Adapter	Cap Adapter	
Integra	1990–1993	 #FZ 128	 #FZ 29	
Integra Legend TL	1994–1999 1991–1996 2007	 #FZ 138		
Oil Filter Wrenches for Acura				
Model / Engine	Year	Oil Filter Wrench	Specs	
All models		 #5063	63mm oil filter wrench, w/ 14 flats	
AUDI				
PLEASE SEE VW / AUDI				
BENTLEY				
Cooling System Tank Adapters & Cooling System Cap Adapters for Bentley Models				
Model	Year	Tank Adapter	Cap Adapter	
Arnage	2000–2003	 #FZ 34		
BMW				
Cooling System Tank Adapters & Cooling System Cap Adapters for BMW Models				
Model	Year	Tank Adapter	Cap Adapter	
All models 3 Series 7 Series X3 X5	1989–2005 2004–2005 2002–2006 2005–2006 2005–2006	 #BMW 345		
3 Series 5 & 6 Series X5 X6 7 Series	2006–2011 2004–2011 2007–2011 2009–2011 2010–2011	 #BMW 350	 #BMW 352	
Oil Filter Wrenches for BMW Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
5 & 7 Series (V8) X5 (V8)	2004–2011 2004–2011	 #2124	24mm oil filter socket w/ 6 flats	
M52 engine M60 engine M62 engine M70 engine M73 engine	1992–2005	 #2136	36mm oil filter socket w/ 6 flats	

M44 engine (1.9L)		 #2175	74.5mm oil filter wrench w/ 14 flats	
BMW Motorcycles w/ oil filter #11 42 7 673 541	2007–2011	 #BM 1276	76mm oil filter wrench w/ 12 Flutes	
BMW Motorcycles w/ oil filter #1142 1460845 & #1142 7721779	2004	 #M 0219	74mm oil filter wrench, w/ 14 flats	 
3-Series 335i (twin turbo) 535i (turbo) X6 (turbo)	2006 2007–2010 2007–2010	 #V 410	86.5mm oil filter wrench w/ 16 flats	
Line Disconnect Tools for BMW Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
3 Series (E46 & E90) X5	1999–2009 1999–2005	 #BMW 5346	Power steering & transmission line disconnect tool for BMW	
Headbolt Sockets for BMW Models				
Model / Engine	Year	Headbolt Socket	Specs	
BMW N54 (3.0T) motors	2006–2010	#118580 (special order)	1/2" drive, long T60	
M 42 engine M 50 engine		#H 2925	1/2" drive, E12 Torx socket	
BUICK				
Cooling System Tank Adapters & Cooling System Cap Adapters for Buick Models				
Model	Year	Tank Adapter	Cap Adapter	
Roadmaster Skylark	1994–1996 1992–1998	 #FZ 35 A	 #FZ 36	
CADILLAC				
Cooling System Tank Adapters & Cooling System Cap Adapters for Cadillac				
Model	Year	Tank Adapter	Cap Adapter	
CTS Escalade Fleetwood Seville	2003 1999 1994–1996 1998–2003	 #FZ 35 A	 #FZ 36	
Catera	1997–2001	 #FZ 32 A		

Line Disconnect Tools for Cadillac				
Model / Engine	Year	Line Disconnect Tool	Specs	
CTS	2003–2004	 #8021	Used for R & R of oil cooler lines	

CHEVROLET					
Cooling System Tank Adapters & Cooling System Cap Adapters for Chevrolet Models					
Model	Year	Tank Adapter	Cap Adapter		
Metro	1989–1994	 #FZ 128	 #FZ 29		
Nova	1985–1988				
Prizm	1989–1992				
Spectrum	1985–1988				
Sprint	1985–1988				
Tracker	1989–1993				
Metro	1998	 #FZ 138			
Prizm	1998				
Tracker	1998				
Aveo	2009	 #FZ 35 A	 #FZ 36		
Beretta	1992–1996				
Camaro	1999				
Caprice	1995–1996				
Cavalier	1995–1999				
Cobalt	2005–2007				
Corsica	1992–1996				
Corvette	1999–2011				
Cruze	2011				
Equinox	2010				
Express	2010–2011				
Impala SS	1994–1996				
Malibu	1997–1999				
Malibu Hybrid	2009				
Metro	1999				
Prizm	1999				
Silverado 1500	1999–2011				
Silverado 2500	1999–2011				
Suburban	2000–2011				
Tahoe	1999–2011				
Tracker	1999				
Trailblazer	2001–2011				
Van (Duramax 6.6L diesel)	2007–2011				

Line Disconnect Tools for Chevrolet				
Model / Engine	Year	Line Disconnect Tool	Specs	
Tahoe	2002–2004	 #8022	Used for R & R of fuel filters	
Suburban	2002–2004			

CHRYSLER				
Cooling System Tank Adapters & Cooling System Cap Adapters for Chrysler				
Model	Year	Tank Adapter	Cap Adapter	
Colt	1984–1992	 #FZ 128	 #FZ 29	
Laser	1991–1998			
Stealth	1991–1996			
Talon	1991–1998			
Colt	1993	 #FZ 138		
Summit	1993–1995			
Oil Filter Wrenches for Chrysler				
Model / Engine	Year	Oil Filter Wrench	Specs	
Crossfire 3.2L (V6)	2004	 #M 0219	74mm oil filter wrench, w/ 14 flats	 
DAEWOO				
Cooling System Tank Adapters & Cooling System Cap Adapters for Daewoo Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	1999–2001	 #FZ 34		
DODGE				
Cooling System Tank Adapters & Cooling System Cap Adapters for Dodge Models				
Model	Year	Tank Adapter	Cap Adapter	
Sprinter Van	2007–2009	 #FZ 55		
Oil Filter Wrenches for Dodge Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Sprinter (2.7L 5-cyl.)		 #2175	74.5mm oil filter wrench w/ 14 flats	
Sprinter (3.5L 5-cyl.)	2007	 #M 0219	74mm oil filter wrench w/ 14 flats	 
Sprinter 3.0L V6 CRD	2007–2010	 #M 0284	84mm oil filter wrench w/ 14 flats, 22mm hex	

Line Disconnect Tools for Dodge Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
Ram Pickup w/ V10 or Cummins Turbo Diesel	1995–2007	 #8016	Used for R & R of Oil & Transmission Cooler Lines	
FORD				
Cooling System Tank Adapters & Cooling System Cap Adapters for Ford Models				
Model	Year	Tank Adapter	Cap Adapter	
Escort	1991–1999	 #FZ 128	 #FZ 29	
Explorer	1995–1999			
Explorer (Sport Trac)	2004			
Festiva	1988–1993			
Ranger	2003			
Thunderbird	1989–1992			
Thunderbird (V6)	1993–1997			
Tempo	1992–1994			
Topaz	1992–1994			
Villager	1993–1999			
Windstar	1995–1999			
Focus	2012	 #FZ 47		
E-Series Van	1995–2003	 #FZ 32 A	 #FZ 36	
Edge	2009–2011			
Excursion	2000–2003			
Expedition	2003–2007			
Explorer	2002–2005			
Five Hundred	2005			
Focus	2006			
Freestyle	2005			
F-Series	1995–2011			
Sterling	2005			
Taurus	1996–2011			
Thunderbird	2003			
Thunderbird (V8)	1993–1997			
Windstar	2002–2003			
Contour	1995–1997	 #FZ 34		
Focus	2000–2006			
Contour	1998–2001	 #FZ 37		
Escape	2001–2005			

Oil Filter Wrenches for Ford Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Escape Hybrid	2006–2008	 #M 0219	74mm oil filter wrench w/ 14 flats	 2104
Focus (2.3L)	2004–2007			
Fusion (2.3L)	2006–2008			
F-Series	All models	 #2124	24mm w/ 6 flats Used for R & R of fuel filter housing	 F 2500
F250 Turbo Diesel	2004	 #2136	36mm oil filter wrench w/ 6 flats	 2104
F350 Turbo Diesel			Also used for R & R of fuel filter	
Models w/ Motorcraft filter #FL400S	1981–2009	 #F 7630	76mm oil filter wrench, w/ 30 Flutes	 F 2500
Models w/ Motorcraft filter #FL500S	2009–2010			
Models w/ Motorcraft filter #FL2005	2000–2004			
Models w/ Motorcraft filter #FL820S	1991–2010	 #F 9336	93mm oil filter wrench, w/ 36 Flutes	 F 2500
Line Disconnect Tools for Ford Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
Mustang	1995–1996	 #8010	Used for the removal of 1/4" return lines on the fuel pump	 8440
Aerostar	1990–1997	 #8012	For R & R of fuel filter & fuel lines	 8440
Bronco	1990–1997			
E-Series Van	1991–2006			
Explorer	1990–2006			
F-Series	1991–2000			
Ranger	1992–2006			
Aerostar	1990–1997	 #8013	For R & R of fuel lines	 8440
Bronco	1990–1997			
E-Series Van	1991–2006			
Explorer	1990–2006			
F-Series	1991–2006			
Ranger	1992–2006			
Taurus	Models w/ AXOD & ATX transmissions	 #8014	Used for R & R of oil cooler lines	 8440
Escort				
Explorer (V8)	2003–2004	 #8021	Used for R & R of oil cooler lines	 8440
F-150	2004–2008			
Expedition	2005			

Edge Escape (6F Trans.) Excursion w/ 6.0L Turbo Diesel Explorer (V8) F-350 F-350 w/ 6.0L Turbo Diesel F-250 w/ 6.0L Turbo Diesel	2009–2010 2008 2008 2005	 #8023	Used for R & R of transmission oil cooler lines	
Explorer (Sport Trac) Ranger	2007 2006	 #8024	Used for R & R of transmission oil cooler lines	

FREIGHTLINER

Cooling System Tank Adapters & Cooling System Cap Adapters for Freightliner				
Model	Year	Tank Adapter	Cap Adapter	
Diesel Truck	2004	 #FZ 35 A	 #FZ 36	

GM

Oil Filter Wrenches for GM Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Models w/ 4 cyl. Ecotec		 #2132	32mm oil filter wrench, w/ 6 flats	

Line Disconnect Tools for GM Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
All models w/ 5/16" fuel line & fuel rail		 #8012	For R & R of fuel filter & fuel lines	
GM w/ 6.6 V8 Turbo Diesel Duramax	2011	 #8027	For R & R of the fuel line from the indirect fuel injector	

GMC

Cooling System Tank Adapters & Cooling System Cap Adapters for GMC Models				
Model	Year	Tank Adapter	Cap Adapter	
Envoy Sierra 1500 Sierra 2500 Yukon	2002 1999–2011 1999–2011 1999	 #FZ 35 A	 #FZ 36	

HARLEY-DAVIDSON

Oil Filter Wrenches for GM Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
All models w/ a spin on oil filter		 #HD 1474	74mm oil filter wrench, w/ 14 flats	

HONDA

Cooling System Tank Adapters & Cooling System Cap Adapters for Honda Models				
Model	Year	Tank Adapter	Cap Adapter	
Accord Civic Motorcycle	1990–1993 1988–1993 1991–2006	 #FZ 128	 #FZ 29	
Accord Civic Civic Hybrid CRV Element Fit Odyssey Pilot S2000	1994–2009 1994–2005 2004 2009 2008 2009 1999–2009 2003–2008 2008	 #FZ 138		

Oil Filter Wrenches for Honda				
Model / Engine	Year	Oil Filter Wrench	Specs	
All Honda models (exc. S2000)	through 2011	 #5063	63mm oil filter wrench, w/ 14 flats	

HYUNDAI

Cooling System Tank Adapters & Cooling System Cap Adapters for Hyundai Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	1987–1999	 #FZ 128	 #FZ 29	

Oil Filter Wrenches for Hyundai Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Azerra Santa Fe Sonata	2006–2009	 #HY 8815	88mm oil filter wrench w/ 15 flats, 22mm hex	
4 cyl. models		 #SU 8015	80mm oil filter wrench w/ 15 flats	

INFINITI

Cooling System Tank Adapters & Cooling System Cap Adapters for Infiniti Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	1992–1999	 #FZ 128	 #FZ 29	

Oil Filter Wrenches for Infiniti Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Models w/ VQ30DE engines	1995–2007		64mm oil filter wrench w/ 14 flats	
	2004–2007			
		#5063		
INTERNATIONAL				
Cooling System Tank Adapters & Cooling System Cap Adapters for International Models				
Model	Year	Tank Adapter	Cap Adapter	
Models w/ 466 engine	1994–2002			
	2007			
		#FZ 32 A	#FZ 36	
ISUZU				
Cooling System Tank Adapters & Cooling System Cap Adapters for Isuzu Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	1992–1997			
Rodeo (V6)	2001			
		#FZ 128	#FZ 29	
All models	1998–1999			
		#FZ 138		
JAGUAR				
Cooling System Tank Adapters & Cooling System Cap Adapters for Jaguar Models				
Model	Year	Tank Adapter	Cap Adapter	
S Type	2000–2003			
		#FZ 35 A	#FZ 36	
All models w/ male threads on filler neck	1990–1994			
		#FZ 34		
XJ8	1998–2001			
XK8	1998–2001			
X Type	2002–2003			
		#FZ 37		
Oil Filter Wrenches for Jaguar Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Jaguar w/ V8 5.0L	2010–2011		90mm oil filter wrench w/ 15 flats	
		#JA 9015		

JEEP				
Cooling System Tank Adapters & Cooling System Cap Adapters for Jeep Models				
Model	Year	Tank Adapter	Cap Adapter	
All Models	1987–1990			
		# FZ 25		
Oil Filter Wrenches for Jeep Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Cherokee 3.0L V6 CRD	2007–2009		84mm oil filter wrench w/ 14 flats	
		# M 0284		
LAMBORGHINI				
Cooling System Tank Adapters & Cooling System Cap Adapters for Lamborghini Models				
Mercealogo	2007			
		# FZ 22		
LAND ROVER				
Cooling System Tank Adapters & Cooling System Cap Adapters for Land Rover Models				
Model	Year	Tank Adapter	Cap Adapter	
Freelander LR3 Range Rover Sport	2005 2005–2007 2006			
		# FZ 32 A		
Discovery Series 2 Range Rover	2002 1995–2004			
		# BMW 345		
Freelander If vehicle has replacement tank, order #FZ 32 A	2002			
		# FZ 25		
Discovery Series 1 Range Rover	1998 1988–1994			
		# FZ 34		
LR2	2007–2008			
		#FZ 47		
Oil Filter Wrenches for Land Rover Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Land Rover models w/ V8 5.0L	2010–2011		90mm oil filter wrench w/ 15 flats	
		#JA 9015		

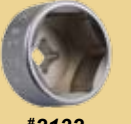
LEXUS				
Cooling System Tank Adapters & Cooling System Cap Adapters for Lexus Models				
Model	Year	Tank Adapter	Cap Adapter	
LS 400 LX 450 LX 470 ES 300	1990–1999 1996–1999 1996–1999 1994–1999	 #FZ 128	 #FZ 29	
ES 300 GS 300 GS 400 RX 300	1992–1993 1993–1999 1998–1999 2000	 #FZ 138		
Oil Filter Wrenches for Lexus Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
ES 350 (V6) GS 300 (V6) GS 350 (V6) GS 450h (Hybrid) IS 250 (V6) IS 350 (V6) LS 460 (V8) LS 600h L (V8) RX 350 (V6)	2007 & Newer 2006 2007 & Newer 2007 & Newer 2006 & Newer 2006 & Newer 2007 & Newer 2008 2007 & Newer	 #TOY 640	64mm oil filter wrench w/ 14 flats	
ES 250 (V6) ES 300 (V6) ES 330 (V6) GS 300 (I6) GS 400 (V8) GS 430 (V8) GX 470 (V8) IS 300 (I6) LS 400 (V8) LS 430 (V8) LX 450 (I6) LX 470 (V8) RX 300 (V6) RX 330 (V6) RX 400h (V6) SC 300 (I6) SC 400 (V8) SC 430 (V8)	1990–1991 1992–2003 2004–2006 1998–2005 1998–2000 2001–2004 2004 & Newer 2001–2005 1990–2000 2001–2006 1996–1997 1998–2007 1999–2003 2004–2006 2006 & Newer 1992–2000 1992–2000 2002 & Newer	 #TOY 730	73mm oil filter wrench w/ 14 flats	
LINCOLN				
Cooling System Tank Adapters & Cooling System Cap Adapters for Lincoln Models				
Model	Year	Tank Adapter	Cap Adapter	
Mark VIII Navigator Towncar	1993–1998 1998–1998 1993–1999	 #FZ 32 A	 #FZ 36	

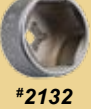
MAZDA				
Cooling System Tank Adapters & Cooling System Cap Adapters for Mazda Models				
Model	Year	Tank Adapter	Cap Adapter	
All Models Protege (automatic) 6	1985–1999 2000–2001 2004	 #FZ 128	 #FZ 29	
Protege (1.5L engine) Protege (manual) 5	1995 2000–2001 2007	 #FZ 138		
3	2004–2006	 #FZ 47		
Tribute	2001–2004	 #FZ 37		
Oil Filter Wrenches for Mazda Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
3 (2.3L) 5 (2.3L) 6 (2.3L) CX-7 (2.3L turbo) Mazdaspeed 3 Mazdaspeed 6	2004–2006 2005–2007 All Models 2007 2006–2007 2006–2007	 #M 0219	74mm oil filter wrench w/ 14 flats	 2404  TOY 300
Mazda 2.0L engines & filter #LF05-14-302A	All Models	 #2176		
MERCEDES–BENZ				
Cooling System Tank Adapters & Cooling System Cap Adapters for Mercedes-Benz Models				
Model	Year	Tank Adapter	Cap Adapter	
AMG C-Class CL-Class CLK-Class CLS-Class E-Class G-Class ML 164 R-Class S-Class SL-Class SLK-Class	1996–2011 All models shown equipped w/ BLACK, threaded cap For 1998–2005 M-Class see #FZ 32 A	 #M 0349		
ML 320 ML 430	1998–2005 1998–2005	 #FZ 32 A	 #FZ 36	

Oil Filter Wrenches for Mercedes-Benz Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
All models w/ V6 & V8 For diesel see #M 0284 & #2136	1998–2011	 #M 0219	74mm oil filter wrench w/ 14 flats	 
E 320 3.0L V6 CRD GL 320 CDI ML 320 CDI	2007–2012 2007–2012 2007–2012	 #M 0284	84mm oil filter wrench w/ 14 flats	
C 230 (4 cyl.) Kompressor	2002–2007	 #2127	27mm oil filter wrench w/ 6 flats	
OM 604 engine OM 605 engine OM 606 engine		 #2136	36mm oil filter wrench w/ 6 flats	
M 102 & M 103 engines w/ 12 flute OEM oil filter		 #BM 1276	76mm, 12 flutes, 3/8” drive	
Head Bolt Sockets for Mercedes-Benz Models				
Model / Engine	Year	Headbolt Socket	Specs	
M601 engine M602 engine M603 engine		#S 3054 X-10	10mm, 12-point socket	
M112 engine M113 engine M 137 engine		#H 992 SLG-T55	T-55 Torx	
MERCURY				
Cooling System Tank Adapters & Cooling System Cap Adapters for Mercury Models				
Model	Year	Tank Adapter	Cap Adapter	
Cougar Cougar (V6) Tracer	1989–1992 1993–1997 1991–1999	 #FZ 128	 #FZ 29	
Cougar (V8) Crown Victoria Grand Marquis Sable	1993–1997 1993–2003 1993–2003 1996–2003	 #FZ 32 A	 #FZ 36	
Mystique	1998–2001	 #FZ 37		

Mystique	1995–1997	 #FZ 34		
Oil Filter Wrenches for Mercury Marine Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
4 Stroke (marine applications) 200 motor 4 Stroke (marine applications) 225 motor		 #TOY 730	73mm oil filter wrench w/ 14 flats	
MINI COOPER				
Cooling System Tank Adapters & Cooling System Cap Adapters for Mini Cooper Models				
Model	Year	Tank Adapter	Cap Adapter	
Cooper S	through 2007	 #FZ 25		
Oil Filter Wrenches for Mini Cooper Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Cooper S		 #2136	36mm oil filter socket w/ 6 flats	
MITSUBISHI				
Cooling System Tank Adapters & Cooling System Cap Adapters for Mitsubishi Models				
Model	Year	Tank Adapter	Cap Adapter	
3000 GT Diamante Galant Mirage Montero Outlander	1991–1998 1992–1995 1985–1993 1985–1992 1989–1998 2004	 #FZ 128	 #FZ 29	
Diamante Eclipse (Spyder) Galant Mirage Montero Sport	1996–1998 2002 1994–2003 1993–1999 1997–1999	 #FZ 138		
NISSAN				
Cooling System Tank Adapters & Cooling System Cap Adapters for Nissan Models				
Model	Year	Tank Adapter	Cap Adapter	
All models 350Z Altima Frontier Maxima Murano Quest Sentra X-Terra	1987–2004 2004 2006–2009 2004–2011 2000–2011 2004 2004 2000–2011 2004	 #FZ 128	 #FZ 29	

Armada Titan	2005–2011			
	2004	*FZ 32 A	*FZ 36	
Oil Filter Wrenches for Nissan Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Altima Maxima Murano Pathfinder Pick-up Sentra Xterra X-Trail (Canada)	1997– 2011 1994–2011 2002– 2007 1995– 2011 1997– 2011 2007 2002– 2011 2004– 2011		63mm oil filter wrench w/ 14 flats	
Older Sentra models & trucks using filter #15208H8903 & #1520855Y00			80mm oil filter wrench w/ 15 flats	
Line Disconnect Tools for Nissan Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Models w/ a 5/16” Fuel Rail	2004 & Newer		Used for disconnecting the fuel line from the fuel rail	
OLDSMOBILE				
Cooling System Tank Adapters & Cooling System Cap Adapters for Oldsmobile Models				
Model	Year	Tank Adapter	Cap Adapter	
Achieva Alero Aurora Cutlass Intrigue	1992– 1998 1999 1995– 1999 1997–1998 1999– 2000			
PONTIAC				
Cooling System Tank Adapters & Cooling System Cap Adapters for Pontiac Models				
Model	Year	Tank Adapter	Cap Adapter	
Grand Am G6 Sunfire	1992– 1999 2005–2008 1995–1999			
Le Mans	1988–1993			
Head Bolt Sockets for Pontiac Models				
Model / Engine	Year	Headbolt Socket	Specs	
Vibe	2003–2007	*S 3054 X-10	10mm, 12-point	

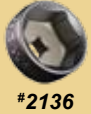
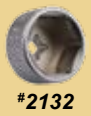
PORSCH				
Cooling System Tank Adapters & Cooling System Cap Adapters for Porsche Models				
Model	Year	Tank Adapter	Cap Adapter	
Boxster 911 (water-cooled models w/ threaded necks)				
Oil Filter Wrenches for Porsche Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
924 944			74.5mm oil filter wrench w/ 14 flats	
911 Boxster Cayenne Cayman	1999–2008 1997–2008 2005–2008 2005–2008		74mm oil filter wrench w/ 14 flats	 
SAAB				
Cooling System Tank Adapters & Cooling System Cap Adapters for Saab Models				
Model	Year	Tank Adapter	Cap Adapter	
9³	2003–2004			
900 9000	1978–1994 1986–1998			
900	1994–1998			
Oil Filter Wrenches for Saab Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
9³	2003		32mm oil filter wrench w/ 6 flats	
Line Disconnect Tools for Saab Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
900	Models w/ 5/16” fuel line & fuel rail		For R & R of fuel filter & fuel lines	
900			For R & R of fuel lines	

SATURN				
Cooling System Tank Adapters & Cooling System Cap Adapters for Saturn Models				
Model	Year	Tank Adapter	Cap Adapter	
All Models Ion Vue	1990–1999 2005 2003	 #FZ 35 A	 #FZ 36	
LS	2000	 #FZ 34		
Oil Filter Wrenches for Saturn Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
Astra (1.8L)	2008	 #2124	24mm oil filter socket w/ 6 flats	
Ion (4 cyl. Ecotec)		 #2132	32mm oil filter wrench w/ 6 flats	
SCION				
Cooling System Tank Adapters & Cooling System Cap Adapters for Scion Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	2008	 #FZ 138		
xB	2009	 #FZ 148		
Oil Filter Wrenches for Scion Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
tC xA xB xD	2005–2011 2004–2011 2004–2011 2008–2011	 #TOY 640	64mm oil filter wrench w/ 14 flats	
SMART				
Cooling System Tank Adapters & Cooling System Cap Adapters for Smart Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
All U.S. models	2008	 #5040	66.5mm oil filter wrench w/ 14 flats	
STERLING				
Cooling System Tank Adapters & Cooling System Cap Adapters for Sterling Models				
Model	Year	Tank Adapter	Cap Adapter	
All models	1987–1991	 #FZ 25		

Heavy Truck (Freightliner)	2004	 #FZ 35 A	 #FZ 36	
SUBARU				
Cooling System Tank Adapters & Cooling System Cap Adapters for Subaru Models				
Model	Year	Tank Adapter	Cap Adapter	
All models (4-cyl.)	1984–2011	 #FZ 128	 #FZ 29	
All models (6-cyl.)	2006–2011	 #FZ 138		
Oil Filter Wrenches for Subaru				
Model / Engine	Year	Oil Filter Wrench	Specs	
H6 engines w/ filter #15208AA031		 #SU 8015	80mm oil filter wrench w/ 15 flats	
Subaru Factory oil filters w/ the part number of #15208AA12A.		 #SU 6514	67mm oil filter wrench w/ 14 flats	
SUZUKI				
Cooling System Tank Adapters & Cooling System Cap Adapters for Suzuki Models				
Model	Year	Tank Adapter	Cap Adapter	
All models w/ 16mm filler neck	1983–1995	 #FZ 128		
TOYOTA				
Cooling System Tank Adapters & Cooling System Cap Adapters for Toyota Models				
Model	Year	Tank Adapter	Cap Adapter	
4 Runner Avalon Camry Celica Corolla Cressida Land Cruiser MR2 (Spyder) Pickup Previa Sienna Solara Starlet Supra (non-turbo) T100 Tacoma Tercel	1986–1995 1995–2003 1983–1989 1983–2005 1983–1992 1985–1992 1987–2002 1985–1995 1983–1999 1989–1997 1998–2003 1999–2002 1983–1984 1986–1992 1995–1998 2000–2002 1983–1990	 #FZ 128	 #FZ 29	

4 Runner	2003–2005	 #FZ 138		
Avalon	2011			
Camry (V6, A/T)	1990–2007			
Celica	1990–1998			
Corolla	1993–2011			
Echo	2000–2003			
FJ	2007–2011			
Highlander	2001–2011			
Matrix	2003			
Paseo	1992–1999			
RAV4	1996–2003			
Sequoia	2001–2003			
Sienna	2010			
Supra (turbo)	1990–1992			
Tacoma	2006–2011			
Tercel	1991–1999			
Tundra	2000–2002			
Venza	2011			
Yaris	2011			
Celica (GTS-S)	2000	 #FZ 148		
Highlander (Hybrid)	2008			
MR2 (Spyder)	2000			
Prius	2001–2010			
RAV 4	2006–2011			
Oil Filter Wrenches for Toyota Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
4 Runner (I4 & V6)	1985–2002	 #M 0219	74mm oil filter wrench w/ 14 flats	 
Avalon (3.0L V6)	1995–2004			
Camry (4 cyl. & V6)	1984–2006			
Celica (4 cyl.)	1983–1985			
Corolla (I4 diesel)	1984			
Cressida (6 cyl.)	1981–1992			
Highlander (V6)	2001–2008			
Previa (4 cyl.)	1991–1997			
Sienna (V6)	1998–2007			
Solara (4 & 6 cyl.)	1999–2008			
Supra (In-line 6)	1979–1998			
T100 (I4 & V6)	1993–1998			
Tacoma (I4 & V6)	1995–2010			
Truck / 4Runner (I4)	1977–1984			
Tundra (3.4L)	2000–2004			
Van 4WD & ATM (I4)	1987–1989			

Avalon (3.5L V6)	2005–2008	 #TOY 640	64mm oil filter wrench w/ 14 flats	
Camry (2.0L I4)	1983–2009			
Celica (I4)	1986–2005			
Corolla (I4)	1983–2010			
Echo (1.5L I4)	2000–2005			
Highlander (3.5L V6)	2008–2010			
Land Cruiser (5.7L V8)	2008–2010			
Matrix (I4)	2003–2010			
MR2 & Spyder (I4)	1985–2005			
Paseo (I4)	1992–1997			
Prius (I4)	2001–2008			
RAV4 (I4 & 3.5L V6)	1996–2010			
Sequoia (5.7L & 4.6L)	2009–2011			
Sienna (3.5L V6)	2007–2010			
Solara (I4)	1999–2001			
Tercel (I4)	1980–1998			
Tundra (5.7L & 4.6L)	2007–2011			
Yaris (I4)	2006–2010			
4 Runner (V6 & 4.7 V8)	2003–2010	 #TOY 730	73mm oil filter wrench w/ 14 flats	
FJ Cruiser (4.0L V6)	2007–2010			
Land Cruiser (I6 & V8)	1975–2008			
Sequoia (4.7L V8)	2001–2009			
Tacoma (V6)	2005–2010			
Tundra (6 & 4.7L 8 cyl.)	2000–2010			
Line Disconnect Tools for Toyota Models				
Model / Engine	Year	Line Disconnect Tool	Specs	
Newer Toyota models w/ a 5/16" fuel rail		 #8026		
Head Bolt Sockets for Toyota Models				
Model / Engine	Year	Headbolt Socket	Specs	
Matrix	2003–2007	#S 3054 X-10	10mm, 12-point	
4Runner (V6)	2003	#S 3054 X-12	12mm, 12-point	
Celica (2AZ-FE engines)	2000–2001			
Highlander (2AZ-FE engines)	2001–2006			
All 2ZZ engines (4-cyl., 4-valves w/ VVT)				
Paseo	early 1990's	#TOY 105	#8 Bi-Hex	
Tercel	early 1990's			
Prius	through 2011			
Yaris	through 2011			

VOLVO				
Cooling System Tank Adapters & Cooling System Cap Adapters				
Model	Year	Tank Adapter	Cap Adapter	
Volvo Trucks VN 430 670		 #FZ 22		 FZ 4002
XC 90 Passenger vehicles (exc. newer 40 & 50 Series)	1978–2007	 #FZ 25		 FZ 4002
Volvo Trucks (w/ 47mm x 3mm threads on secondary filler neck)	1978–2007			
All models (exc. XC 90)	2008–2011	 #FZ 47		
Oil Filter Wrenches for Volvo Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
All Models (exc. 2005 40 & 50 series)	1999–2006	 #V 410	86.5mm oil filter wrench w/ 16 flats	 2104
40 & 50 Series XC 70 (3.2L) XC 90 (3.2L)	2005–2011 2008–2011 2008–2011	 #2136	36mm oil filter wrench w/ 6 flats	 2104
VW / AUDI				
Cooling System Tank Adapters & Cooling System Cap Adapters for VW & Audi Models				
Model	Year	Tank Adapter	Cap Adapter	
All VW/Audi models (exc. Audi 8 Series) See #FZ 22 for A8 & S8	1999–2011	 #FZ 41		 FZ 4002
Models w/ male threads on exp. tank S8 A8	1975–1993	 #FZ 22		 FZ 4002
Oil Filter Wrenches for VW & Audi Models				
Model / Engine	Year	Oil Filter Wrench	Specs	
S6 (5.2L) Q7 (4.2L) VW T.D.I. (2.0L)	2007 2011	 #2132	32mm oil filter wrench w/ 6 flats	 2104
Corrado (VR-6) EOS (2.0L turbo) Eurovan (VR-6) Golf (2.0L turbo) Golf R32 (3.2L VR-6, 4v) Jetta (2.0L turbo) Jetta (2.8L VR6) Passat (2.0L turbo) Passat (2.8L VR6) Touareg (3.6L) Q7 (3.6L)	2006–2008	 #2136	36mm oil filter wrench w/ 6 flats	 2104

Golf (1.8L Turbo, 2.0L) Jetta (1.8L Turbo, 2.0L) Passat (1.8L Turbo, 2.0L)	2006–2008	 #2175	74.5mm oil filter wrench w/ 14 flats	 2104
All VW/Audi w/ 2.0L Turbo Beetle (1.9L TDI) All 2.5L 5 cyl. Engines Golf (1.9L TDI) Jetta (1.9L TDI)	2009–2011 1999–2008 2005.5–2011 1999–2008 1999–2008	 #M 0219	74mm oil filter wrench w/ 14 flats	 2104  TOY 300
Headbolt Sockets for VW & Audi Models				
Model / Engine	Year	Headbolt Socket	Specs	
All models w/ #10 polydrive headbolts	1998–2010	#3462	6-Point, #10 polydrive	
All models w/ 10mm 12-point headbolts	1984–2005	#S 3054 X-10	10mm, 12-point	
All models w/ #9 polydrive aftermarket headbolts	1998–2010	#H 2579-9	6-point, #9 polydrive	
YAMAHA				
Cooling System Tank Adapters & Cooling System Cap Adapters for Yamaha				
Model	Year	Tank Adapter	Cap Adapter	
All Yamaha watercooled motorcycle / ATV w/ deep neck		 #FZ 128	 #FZ 29	
All Yamaha watercooled motorcycle & ATV w/ shallow neck		 #FZ 138		
Oil Filter Wrenches for Yamaha				
Yamaha motorcycle, ATV, snowmobile & marine 4-stroke engines using filter #5GH-13440-00		 #5063	63mm oil filter wrench w/ 14 flats	
Yamaha outboard marine 4-stroke engines, I-4 & V6, 150-250 HP		 #TOY 730	73mm oil filter wrench w/ 14 flats	 TOY 300

30 T-10	28
30 T-15	28
30 T-20	28
30 T-25	28
30 T-27	28
30 T-30	28
30 T-40	28
30 T-45	28
30 T-50	28
100-30 A	14, 41, 60, 68
200-6	29
200-8	29
200-10	29
200-12	29
200-1/4	29
200-5/16	29
200-3/8	29
200-7/16	29
200-1/2	29
200-9/16	29
200-5/8	29
201	29, 47
201-7	15, 28, 47, 71
202	29, 47, 71
203	29, 47, 71
1200	28
1201	28
2040	19, 24, 76, 77, 78
2101	15, 22, 38, 55, 73, 79
2124	14, 22, 54, 60
2127	22, 38, 54, 60, 76
2132	15, 22, 54, 60, 76, 83
2136	14, 18, 22, 38, 54, 60, 72, 79
2175	14, 22, 54, 79
2176	55
3000	28, 44, 62, 76
3000-4 K	28, 47, 62, 76
3000-6 K	28, 47, 62, 76
3004X	28, 47, 62
3101	15, 19, 24, 40, 76, 78
3104	84
3200	19, 40, 76
3200 T-6	77
3200 T-20	77
3200 T-30	36, 77
3200 T-45	77

3200 X-4	77
3242	79
3243	80
3268	79
3299 A	79
3307	79
3316	19, 77, 78
3344 A	19, 77, 78
3359	80
3366	80
3369	80
3391	80
3424	63, 86
3428	80
3462	62
3700	39, 73
3810	19, 29, 44, 77
3900	28, 60, 76
5040	46, 55
5063	32, 46, 48, 55
6300	63, 84
6300 X-12	63, 84
6300 X-14	63, 84
6300 X-16	58, 63, 84
6300 XL-8	63, 84
6300 XL-10	63, 84
6300 XL-14	63, 84
6500	61, 87
6500-14	61, 65, 86
6500-17	61, 65, 86
6500 X-18	61, 65, 86
6500 X-30	61, 65, 86
6500 X-32	61, 65, 86
6500 X-36	14, 61, 65
6500 X-39	61, 65, 68
6632	80
6639	80
6700	80
6800TDI	83
7200	29
8007	34
8010	20, 30
8012	20, 30
8013	20, 30
8014	20, 30
8016	20, 30

8021	20, 30
8022	20, 30
8023	20, 30
8024	20, 30
8026	20, 30, 48, 68
8027	20, 30
8032	14, 80
8110	21, 31
ALSJ05	29
ATF 16 DSG	52, 85
ATF 17 CVT	52, 85
ATF 101	52
ATF 102	52
ATF 103	52, 85
ATF 104	52, 85
ATF 105	52, 85
ATF 108V	52, 72
ATF 129	37, 52
ATF 1002 BASIC	12, 33, 49, 53
ATF 1002-5 BASIC	49
ATF 1004-5 MB	37, 53
ATF 1008-5 EURO	53
ATF 1018 TOY	69
ATF 1033-5 VW	53
ATF 1100-5	37, 53
ATFTOY118	52, 69
ATF 100102	52
ATF 101003	52
ATF 101005	52
ATF 101010	52
AU40178	59, 81
BM 1276	14, 46, 54
BMW 0062	13
BMW 010	14
BMW 025	14
BMW 050	14, 19
BMW 060	14, 64
BMW 345	15, 34
BMW 350	15
BMW 352	15
BMW 377	16, 36, 64
BMW 400-1	16, 17
BMW 432	16, 60
BMW 462TU	13
BMW 480	12
BMW 518	16

BMW 520	16
BMW 522	16
BMW 524	16
BMW 2200	16
BMW 2260	16
BMW 3028	12
BMW 4622	13, 18
BMW 4680	17
BMW 5346	16
BMW 6208	13
BMW 6240	13
BMW 8390	16
CRY933	23, 59
EU 2000	13, 41
EU 2007	41
EU 2008	41
EU 2009	41
EU 2011	41
EU 2090	72
F 2500	25, 58
F 7630	22
F 9336	22
FZ 22	71, 72, 78
FZ 25	18, 24, 34, 71, 72
FZ 29	24, 48, 68
FZ 32 A	24, 34, 40, 48
FZ 34	25, 34
FZ 35 A	25, 71
FZ 36	25, 40, 48, 71
FZ 37	25
FZ 41	78
FZ 47	34, 72
FZ 55	24, 71
FZ 128	25, 32, 34, 44, 48, 66, 68
FZ 138	25, 32, 34, 44, 66, 68
FZ 148	68
FZ 580	25, 32, 35, 44, 67, 68
FZ 1001 A	24, 35
FZ 1002	15, 35, 40, 72, 78
H 985-12	63
H 985-19	63
H 992 S LG-T55	36, 62
H 1012 T-100	36, 63
H 1849-6	80
H 2223 LG T-30	17, 28, 36, 64, 72, 77
H 2579-9	62, 81

H 2587	81
H 2587-1	81
H 2587-2	81
H 2592	60, 81
H 2760	16, 36, 58
H 2771	36
H 2925	17, 64
H 4550	36
H 4550-2	22, 71
H 4556	41, 64
H 8808-10	77
HD 1474	46, 55
HO10PT	32, 64
HON1419	32
HY 8815	55
JA 9015	34, 58
M 0219	22, 34, 38, 46, 54, 70, 81
M 0284	22, 38, 55
M 0333	38
M 0349	40
M 0721	59
M 0734	36
M 0E24	38, 64
M 2070	19, 40
M 3200 A	38
M 3857	36, 60
M 7226	37, 59
M 9004	36
M 2010ACP	39
MC 100	18
MC 103	18
MC 1400	18
MVW2050F	39, 82
MW 34	19, 29
MW 35	19, 29
OFAUD1000	17, 39, 56, 83
OFHD35	45, 56
OFHD419	45, 56
OFHON1033	23, 33, 35, 48, 49, 56
OFGMRD08	23, 35, 56
OFTOY1001	56, 69
OFTOY1038	56, 69
OFSU1042	56, 67
S 54 X-12	81
S 54 X-14	64, 86
S 55-46	17, 61, 85

S 56-36	17, 61
S 440-27	69
S 1054TX T-50	64
S 1553 N	17, 38, 78
S 1556 N	78
S 1578 K-2	17
S 1591 N	17, 38, 78
S 3054 X-10	24, 36, 62, 82
S 3054 X-12	62, 83
SP1412	17, 18, 61
SPR886	23, 59, 71
SU 070	58, 60, 66
SU 200T	67
SU 250	66
SU 3625	66
SU 6514	66
SU 8015	48, 55, 66
T 314	19, 28
T 4306	87
T 10050	82
T 10066	58, 84
T 10100	82
T 10115	82
T 10252	83
T 40001	82
T 40005	82
T 40011	82
T 40026	82
T 40028	64, 82
T 40030	82
T 40057	58, 82
T 40069	86
T 40070	86
TA 18	15, 40, 72, 86
TOY 105	60, 69
TOY 160	60, 65, 69
TOY 185	69
TOY 200	70
TOY 300	54, 70
TOY 640	55, 70
TOY 730	22, 46, 55, 70
TOY 1914	70
V 410	14, 54, 72
V 450	18, 24, 72
V 500	73
V 722	72
VW 601	77
VW 5220	64, 83

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