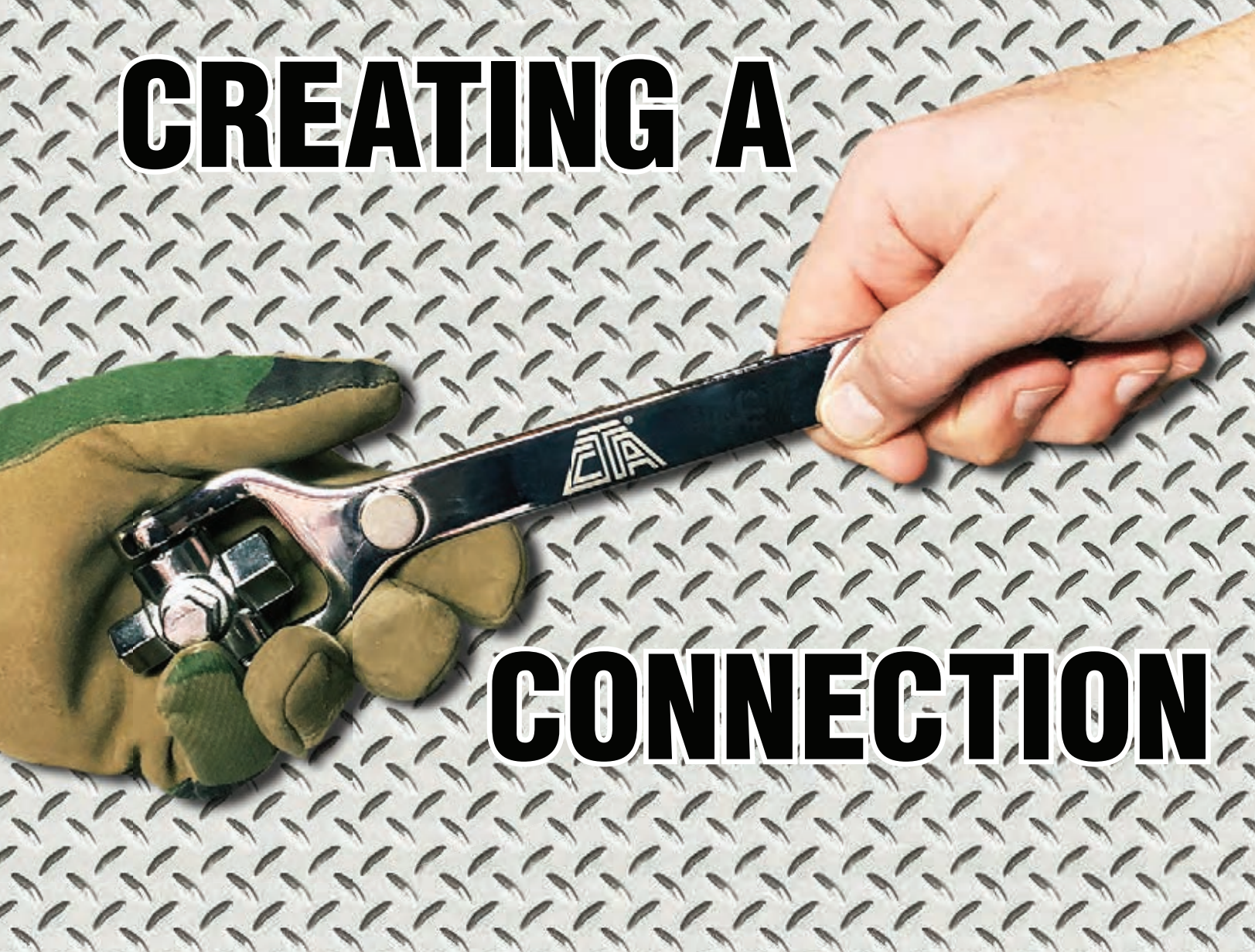




**AUTOMOTIVE
TOOLS**



CREATING A



CONNECTION

2019 Catalog
CTA Manufacturing Corp.

Fluid Service 1-8

*Oil Filter, Fuel Filter, Drain Plug, Fluid,
Grease, Seals, Hose Clamps, Fluid Line,
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*Belt & Holding, Timing, Fan Clutch,
Alternator, Water Pump, Engine Service,
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Diesel Service 38

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HEAVY-DUTY CAP-TYPE

Extra thick wall construction w/ combo 3/8" square & 7/8" hex drive.

No.	Size	Applications
2481	76mm x 14	Ford, Mazda, Mercedes, VW, Audi
2485	64mm x 14	Toyota, Lexus, Honda, Nissan
2487	88mm x 15	Hyundai, Kia
2488	88.5mm x 16	Volvo
2489	86mm x 16	Volvo



ALUMINIUM DIE-CAST CAP-TYPE

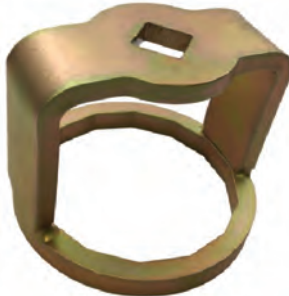
All with combo 3/8" square & 1" hex drive, except #2464 with combo 1/2" square & 1" hex drive.

No.	Size	Applications
2460	64mm x 14	Toyota, Nissan, Honda
2462	84mm x 14	Jeep V6 Diesel, Sprinter, Mercedes
2464	74mm x 14	VW, Audi, Ford, Sprinter, Toyota, BMW Motorcycle
NEW 9180	74.5mm x 14	BMW, Mercedes, VW, Audi



1726 TOYOTA/LEXUS/SCION - 4, 6 & 8 CYL.

Services all housing caps on 4, 6 & 8 cyl. Toyota/Lexus/Scion engines. 64mm x 14 with 1/2" drive. Slim design reaches all caps. Long design eliminates need for extension. Heavy-welded steel. Fits many Honda, Infiniti & Nissan OE spin-on filters.



2477 TOYOTA/SCION - 4 CYL. ALUMINUM FORGED

Low profile design for clearance. Notched design to engage tabs. 64mm x 14. 3/8" square and 27mm hex drive.



2465 TOYOTA/LEXUS/SCION - 6 & 8 CYL. ALUMINUM DIE-CAST

Notches to engage tabs. Fits all 4 types of plastic & aluminum caps on 6 & 8 cylinder Toyotas. 64mm x 14. 3/8" square and 1" hex drive.



2475 TOYOTA/LEXUS/SCION - 6 & 8 CYL. STEEL FORGED

Heavy-Duty forged and machined 6140 steel. With notches to engage tabs. Fits all 4 types of plastic & aluminum caps on 6 & 8 cylinder Toyotas. Bright chrome finish. 64mm x 14. 3/8" square and 1-1/8" hex drive.



2470 3 PC. TOYOTA/LEXUS/SCION OIL CHANGE KIT

Includes 2475, 2477, and 2088 Oil Drain Hose. Set covers all 4, 6 & 8 cyl. oil filter housing caps on Toyota, Lexus & Scion.



LOW-PROFILE METRIC CAP SOCKETS

Removes housings with cartridge-type oil & fuel filters. Chrome vanadium steel. 3/8" square drive.

No.	Size	Applications
2570	27mm	Mercedes, Smart, Hyundai, Kia
2571	29mm	Cummins
2572	32mm	Saturn, GM, Mercedes
NEW 4331	32mm	Extra-Low Profile - Ecotech
2573	24mm	Saturn, Cadillac, BMW
2574	36mm	BMW, VW, Audi, Mercedes, Mini, Ford, Toyota, Nissan,



CAP-TYPE

Precision-stamped with 3/8" square drive.

No.	Size	No.	Size
A250	74/76mm x 15	A264	76mm x 15
A251	76mm x 14	A265	64mm x 14
A252	93mm x 15	A266	88mm x 15
A253	93mm x 36	A267	74.5mm x 14
A254	73mm x 14	A268	84mm x 14
A255	65/67mm x 14	A270	65mm x 14
A256	68mm x 14		
A257	80mm x 15		
A258	74mm x 15		
A259	90mm x 15		
A260	82mm x 15		
A261	86mm x 16		
A262	100mm x 15		
A263	76mm x 8		



Visit www.ctatools.com for application details

026400 10 PC. OIL FILTER WRENCH KIT

- CARTRIDGE-TYPE FILTERS
Includes six cap wrenches: A261, A258, A261, A266, A267, 2485, plus four cap sockets: 2570, 4334, 2573 and 2574.



096950 11 PC. CAP-TYPE OIL FILTER WRENCH KIT FOR SPIN-ON FILTERS

Includes: A250, A251, A252, A253, A254, A255, A256, A257, A258, A263, A264.

8940 OIL FILTER HOUSING CAP INSTALLER

Internal torque limiting device installs oil filter housing caps w/ 25Nm torque specs, preventing over-tightening. 3/8" drive. OAL: 11-1/2" (290mm).



2506 LOW PROFILE SPIDER TYPE

Three short legs for low-profile applications are driven by a gear-mechanism. 3/8" drive. 61-95mm range.



2507 BI-DIRECTIONAL SPIDER TYPE

Internal gear to remove & install oil filters. 3/8" square drive & 1/2" square drive adapter w/ hex. 50-95mm range.



2505 H.D. SPIDER TYPE

Three clamping legs are driven by a gear-mechanism for maximum range and superior gripping. 3/8" drive. 61-121mm range.



2508 H.D. BI-DIRECTIONAL SPIDER TYPE

Internal gear to remove & install oil filters. 3/8" square drive & 1/2" square drive adapter w/ hex. 60-120mm range.



OIL & LUBRICATION

H.D. SWIVEL TYPE

Extra-thick yoke w/ expanding link mechanism, adjusting screw to tighten or loosen swivel & thick cushion grip.

No.	Range	Applications
2538	57-73mm	Sub-compact & Fuel Filters
2540	65-83mm	Small Filters
2545	75-95mm	Standard Filters
2548	92-111mm	Large Filters
2551	120-146mm	Caterpillar/John Deere
2552	100-120mm	Cummins/Detroit Diesel



OIL FILTER WRENCH SET WITH STAND

Four piece oil filter wrench set with stable, secure, rubber-coated flanged stand.

NEW!

No.	Description	Includes
4325	Standard	2538, 2540, 2545, 2548
4325T	Large/Truck	2545, 2548, 2551, 2552



A296 SLOTTED/SWIVEL TYPE

3-step slotted link and thick cushion grip. 70-114mm range.



2535 H.D. SLOTTED/SWIVEL TYPE

3-step slotted link and heavy duty design. 73-111mm range.



NARROW BAND SWIVEL TYPE

16mm wide band for hard to reach filters. Swivel design, locking nut, heavy-duty yoke, comfort grip and link mechanism.

No.	Range	Application
2587	65-83mm	Compact filters
2588	75-95mm	Standard filters



BAND TYPE

Comfort grip handle with dimpled band.

No.	Range	Application
2515	64-83mm	Compact filters
2516	83-95mm	Standard filters



A280 SLOTTED BAND TYPE

Adjusts for wide application range. 76-102mm range.



2594 CHAIN BAND TYPE

Chain allows for adjustment and better gripping. 9" (228mm) chain. 70-115mm range.



SQUARE DRIVE - AUTO

Narrow band for tight clearance. 3/8" square drive.

No.	Range	Application
2520	71-79mm	Compact filters
2525	87-95mm	Standard filters



SQUARE DRIVE - TRUCK

Heavy-duty for high torque requirements. 1/2" square drive.

No.	Range	Application
2565	104-118mm	Cummins/Detroit Diesel
2567	118-131mm	John Deere
2569	131-144mm	Caterpillar



PLIERS TYPE

Adjustable jaws w/ long, comfort grip handles.

No.	Range	Application
2532	48-89mm	Compact filters
2534	54-108mm	Standard filters
2536	92-152mm	Truck filters



2537 OFFSET PLIERS TYPE

Angled head for greater access in tight areas. Adjustable jaws w/ long handles. 64-117mm range.



2530 RATCHETING PLIERS TYPE

Self-adjusting ratchet for multiple settings. Extra-long handles. 50-125mm range.



CAM-ACTION

Two thick jaws slide using cam mechanism. 3/8" square & 7/8" hex drive.

No.	Range	Application
2550	48-89mm	Compact filters
2555	54-108mm	Standard filters



2595 STRAP TYPE

2" wide band on 5-1/2" handle with 1/2" square drive. Up to 152mm range.



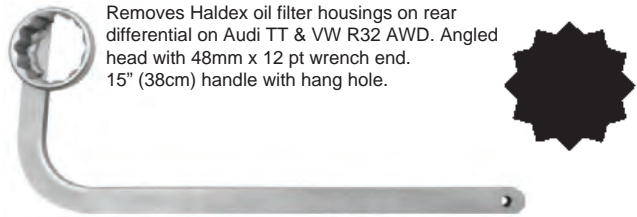
2596 H.D. STRAP TYPE

2" wide band assembled on forged handle. 3/8" and 1/2" drive ends. Up to 229mm range.



8766 VW/AUDI HALDEX OIL FILTER WRENCH

Removes Haldex oil filter housings on rear differential on Audi TT & VW R32 AWD. Angled head with 48mm x 12 pt wrench end. 15" (38cm) handle with hang hole.



8-1 OIL & LUBE MULTI-WRENCHES

Fits most oil drain, transfer case, and differential plugs. Features offset head w/ yoke support for high torque applications, indexing feature to lock socket into position, nickle plating and magnet built into handle. OAL: 10-1/2" (27cm). Hang-tab packaging. Order 2495K or 2497K for box packaging.

No.	Description	Size
2495	6-point Metric	12, 13, 14, 15, 16, 17, 18 & 19mm
2497	Male Square & Hex	Square: 8mm, 10mm, 3/8" & 1/2" Hex: 10, 12, 14 & 17mm



OIL DRAIN HOSES

Prevents spillage for filter change on vehicles with one-way valve housing caps. Tool screws into cap to drain oil. 20" (51cm) hose with plastic end cap. Compare #2087 to VW Factory Tool #T40057.

No.	Description
2087	VW, Audi
2088	Toyota, Lexus



4334 CUMMINS OIL FILTER PLUG

Plugs into oil filter to prevent oil from spilling when removing the oil filter on 2013-2018 Dodge RAM 6.7L Cummins Diesel Heavy-Duty 2500/3500 trucks. Also enables the Pre-lube of oil filter before installation. U-handle makes for easy grip. Ridged side allows for easy removal of tool from oil filter with locking pliers.

NEW!



2500 7 PC. 6-PT LUBE WRENCH SET

For male hex drain plugs. Offset head with anti-slip rubber grip. Chrome vanadium steel.

No.	Size
2576	13mm
2584	14mm
2585	15mm
2586	16mm
2589	17mm
2578	19mm
2579	22mm



8762 EURO OIL DRAIN PLUG WRENCH - 14MM X 17MM

Serves BMW, Benz (107), Audi & VW, including crankcases & transmissions. Double 14mm male hex & 17mm female hex offset ends. Chrome-moly forged steel. OAL: 9-1/2" (24cm).



8764 VW/AUDI OIL DRAIN PLUG WRENCH

16mm x 12 point (XZN) & 19mm hex offset ends, services plugs on VW, Audi, Porsche. Chrome-moly forged steel. OAL: 9-1/4" (23cm).



1037 VW/AUDI OIL DRAIN PLUG TOOL

Remove new, plastic oil drain plugs without damage. Mates perfectly with oil drain plug. Widened thumb-grip allows proper torque. Comparable to Audi Factory Tool #T10549. All plastic patented tool: Patent No. D804,264.



METRIC HEX DRAIN PLUG SOCKETS

High-torque 2 pc. bit socket design w/ 1/2" drive.

No.	Size
2052	12mm
2054	14mm
2056	17mm
2058	19mm



2577 SQUARE HEAD DRAIN PLUG WRENCH

8 x 10mm "S"-type wrench for transfer cases, engine oil pans, manual trans and differential drain and fill plugs on Ford, Jeep, Volvo, Peugeot & more.



2049 2 PC. SQUARE HEAD DRAIN PLUG SOCKET SET

Serves transfer cases, engine oil pans, manual trans & differential drain/fill plugs on Ford, Jeep, Volvo, Peugeot & more. 3/8" drive.

No.	Size
2036	8mm
2037	10mm



2048 10MM FEMALE SQUARE HEAD SOCKET

Serves male square plugs on BMW, Ford, Toyota, Renault. 3/8" drive.



2039 VW/AUDI DRAIN PLUG SOCKET -

16MM XZN TAMPERPROOF 12 point, for oil & transmission drain plugs & fasteners on VW, Audi & Porsche. Fits Detroit Diesel flywheel bolts, front crank pulleys & head bolts. 1/2" drive. Compare to Factory Tool #3357.



9250 CADILLAC DRAIN PLUG & OIL FILTER SOCKET - T45 TORX®

Low profile for oil filter housings and drain plugs on Cadillac CTS 2003-2004. 3/8" drive w/ 5/8" hex adapter.



9573 SUBARU/GM DRAIN PLUG SOCKET - T70 TORX®

Fits 5MT 2004+ WRX, 2003+ Legacy, Forester, 2007 STI clutch side trans bolt & brake rotor retaining bolts on 2003+ GM C4500.



1136 JEEP TRANSMISSION DRAIN PLUG SOCKET - 14MM HEX

Stubby for tight clearance on 2012+ Jeep Wrangler 6MT. OAL: 30mm



DIFFERENTIAL PLUG EXTRACTORS

For removal of female style plugs with damaged holes.

No.	Applications
9035	5/16" plugs w/ 1/4" square hole
9037	1/2" plugs w/ 3/8" square hole
9038	3/4" plugs w/ 1/2" square hole



7790 HIGH PRESSURE SPRING-LOADED QUICK DISCONNECT GREASE COUPLER

Easily disengages from grease fittings under pressure & keeps coupler straight. 8000 PSI, 3-jaw design, & updated narrow end.



2900 H.D. GREASE FITTING & JOINT UNCLOGGER

Unclogs grease fittings & joints w/ hydraulic impact on neglected steering suspension, driveline joints & more.



FLUID SERVICE

7900 19 PC. MASTER OIL FUNNEL KIT

Allows for fast oil filling without spillage or waste. Includes three new sizes: 1045, 3404, and 7491 for expanded vehicle application coverage. All parts available separately, as listed below:

NEW
NEW
NEW

No.	Description
1045	Ford Escape
3404	Volvo
7471	2 Liter Funnel
7472	Metal Angled Extension
7473	Euro
7474	Subaru
7475	Toyota
7476	Ford, Mazda, Jaguar, Land Rover
7477	Dodge, Honda, Acura, Nissan, Jaguar, Ford, Mazda, Jeep, Land Rover
7478	Toyota, Lexus
7479	Ford, Mazda
7482	Toyota, Lexus, Scion, Pontiac
7483	GM, Ford, Jaguar, Hyundai, Land Rover, Mazda, Saab
7485	VW, Audi, Seat, Skoda
7486	Dodge Cummins
7487	Dodge
7488	Mazda
7489	Elbow
7491	Chrysler



UPDATED!

Visit www.ctatools.com for application details

VEHICLE SPECIFIC OIL FUNNEL KITS

No.	Description	Contents
7480D	Jeep, Dodge, Chrysler	7471, 7477, 7486, 7487
7480E	European	7471, 7473, 7485
7480F	Ford/GM	7471, 7476, 7477, 7479, 1045, 7489
7480H	Honda	7471, 7472, 7477

No.	Description	Contents
7480M	Mazda	7471, 7476, 7477, 7479, 7488
7480S	Subaru	7471, 7474
7480T	Toyota, Lexus	7471, 7472, 7478, 7482

EXTRACTION & FILLING SYRINGES

Handle all types of automotive fluid, including brake fluid. Cylinder body calibrated and clear for viewing volume. Disassembles for easy cleaning, enabling use w/ many fluids. Small pump includes spring loaded, detachable tube w/ cap. Large pump includes control valve, gripping band & aluminum tip.

No.	Description
7075	200cc/0.22qt
7073	200cc/0.22qt - w/ extra 1/4" x 7" (18cm) hose
7077	1500cc/1.6qt
7078	ATF Filling Adapter
7079	3 Pc. Hose Adapter Kit
7074	Master Kit - 7075, 7077, 7078, 7079



7450 OIL & FLUID EVACUATOR/EXTRACTOR

Extracts/Transfers motor oil, ATF, gear lube, gasoline, coolant or water. For cars, boats, trucks, farm equipment and household plumbing. Low profile, 6 liter (6.35 quart) capacity, spout, & 7' long hose for dipstick tubes. Transfers 4 liters per minute.



7072 DIESEL FUEL SYRINGE

For priming/bleeding diesel fuel systems & fuel removal. 1500cc (1.6 Qt) capacity w/ dual calibration, double Viton seals, gripping band, locking cap, control valve, 15" (38cm) hose & connectors: 5/16" & 3/8" each female & male.

No.	Description
7072K	Master Kit w/ two 12mm Ford Adapters



7220U DIESEL EXHAUST FLUID FUNNEL MASTER KIT

For fast & clean filling of DEF. Special threaded adapter fits all standard DEF systems. Special Bue Adapter fits GMC DEF tanks. Elbow Adapter creates angle when needed. Shut-off valve, air-bleed line, built-in screen and handle.

No.	Description
7220	DEF Kit (without 7222 GMC Adapter)
7222	GMC Adapter Only



7905 5 QUART PLASTIC MEASURE

Handles most automotive fluids. Translucent high density polyethylene w/ flexible spout & screw-on cap, lid & spout.



PISTOL-TYPE OILERS

Body & pump all steel construction w/ flexible spout.

No.	Capacity
A792	6 Ounce
A794	14 Ounce
A797	24 Ounce



3150 FLUID TRANSFER TOOL

Resistant to automotive fluids. Services batteries, master cylinders, etc. 6" long & rigid plastic nozzle.



2245 SEAL PULLER

Removes oil & grease seals on cars & trucks.
OAL: 12" (30cm)



2950 BEARING RACE & SEAL DRIVER

Driver tool & 9 aluminum drivers sizes: 1.565, 1.565, 1.750, 1.965, 2.325, 2.470, 2.555, 2.830, 2.995 & 3.180"



VOLVO CAM SEAL INSTALLERS

See website for applications. Volvo Factory Tool # in parentheses.

No. Description

- 9171 Rear Camshaft Oil Seal Installer (#999 5450-5)**
- 9173 Front Camshaft Oil Seal Installer (#999 5718-5)**
- 9174 Rear Camshaft Oil Seal Installer (#999 5719-3)**



7643 BMW CRANKSHAFT FRONT & REAR REMOVAL & INSTALLER KIT

Removes & installs front & rear crankshaft seal on N40, N42, N45, N45T, N46, N46T, N52, N52K, N53, N54 & N55. Comparable to BMW Factory Tool #119 220, 119 230, 119 235 & 110 370. Individual components available:



No. Size

- 7643X05 N54 Front Engine Seal Remover**
- 7643X10 N55 Seal Installer**



2241 BMW SEAL KIT - N20/N26

Removes & installs front & rear crankshaft seal on BMW N20 & N26 engines. Comparable to BMW factory tools: 110 371, 110 372, 2 212 822/119, & 231/119 233. Packed in blow mold case. Individual components available:



No. Size

- 2241X05 Seal Installer**

3490 2 PC. STEEL LINE STOPPER SET

Seal steel lines on fuel, brake, AC, power-steering, transmission, and banjo lines. Prevents leaks & contamination. Fits 3/8", 1/2", 5/16" & banjo lines.



8800 HOSE PINCH-OFF PLIERS

Clamp hoses & vacuum lines w/ special swivel jaws that maintain parallel clamp. Built-in ratchet mechanism that locks handle position. OAL: 10" (25cm).



8810 HOSE REMOVER PLIERS

Remove fuel, vacuum or heater hoses from 1/4" to 3/4" (6mm to 9mm) diameter. Push pliers between hose end & squeeze handles. Spring-loaded. OAL: 9" (23cm).



4027 WAFFLE GRID HOSE CLAMP PLIERS

32x19mm head w/ multi-directional slotted pattern. Spring-loaded w/ locking mechanism. Opens to 65mm. OAL: 11-3/4" (28cm).



4029 CLIC/CLIC-R HOSE CLAMP PLIERS

Locks/unlocks reusable 'Clic' & 'Clic-R' hose clamps on Benz, Fiat, Chrysler, Dodge, BMW, Audi, & more. OAL: 7" (17.5cm).



1050 MULTI-DIRECTIONAL HOSE CLAMP PLIERS

65mm extra-wide head w/ bi-directional slotting. Services VW/Audi lines & more. OAL: 8" (20.5cm).



8832 FLAT-BAND HOSE CLAMP PLIERS

Remove & Install flat-band style hose clamps on Ford, GM & more. Spring-loaded ratchet lock. OAL: 9" (23cm).



8834 ANGLED HOSE CLAMP PLIERS

Remove & Install flat-band style hose clamps on hard-to-reach areas. 45° jaws with ribbed design, Spring-loaded ratchet lock. OAL: 10" (25cm).



1048 LONG REACH CIRCLE HEAD HOSE CLAMP PLIERS

30mm diamond pattern. Spring loaded up to 55mm. 30° bend for easier access. OAL: 13.5" (34.5cm).



8960 5 PC. E-TORX® FLEX DRIVER SET

Flexible shaft for hard-to-reach areas. Services BMW, Mercedes, Porsche, Volvo, Saab, VW & Audi Brakes, Transmissions, air intake fasteners, etc. Special no-slip grip. Includes sizes: E4, E5, E6, E7 & E8



1051 4 PC. FLEX NUT DRIVER SET

Long flex cable shaft. OAL: 10" (25cm)
1055 - 5mm 1057 - 7mm
1056 - 6mm 1058 - 8mm



1100 2 PC. FLIP SOCKET FLEX NUT DRIVER SET

Long flex cable shaft. OAL: 10.75" (27cm)
Replacement flip sockets:
1101X01 - 1/4" x 5/16" (8mm)
1102X01 - 6mm x 7mm



FLUID LINE

3475 8 PC. OFFSET DISCONNECT SET

Separate fittings on heater, AC, fuel & cooler lines. Includes sizes:

5/16" 3/4"
3/8" 7/8"
1/2" 3/8" w/ notches
5/8" 3/8" w/ extension



3450 6 PC. FUEL LINE DISCONNECT SET

Disconnect fuel, transmission, oil cooler & AC lines. Flexible injection-mold plastic.

Sizes: 5/16", 3/8", 1/2", 5/8", 3/4" & 7/8"

No.	Description
3460	2 Pc Set (5/16" & 3/8")



A396 OFFSET DISCONNECT TOOL - 3/8" & 5/16"

Removes fuel line from center port of fuel sending unit.



A378 FUEL LINE DISCONNECT TOOL

5/16" & 3/8" sizes services connectors on Ford, Mazda & Chrysler.



A379 A/C & FUEL LINE DISCONNECT TOOL

3/4", 5/8", 1/2" & 3/8" sizes services connectors on Ford & Chrysler.



1810 FORD FUEL LINE DISCONNECT TOOL

Required due to limited clearance between fuel line connector end & fuel rail on Transit 2.0L, 3.5 GTDI & 6.2L Boss engines.



4332 FORD HEATER HOSE DISCONNECT TOOL

Disconnects hard-to-turn heater hose fittings located close to firewall, behind the engine. Services Focus, Escape and other 2.0L EcoBoost models.



3454 4 PC. A/C DISCONNECT TOOL SET

Separates spring-lock refrigerant pressure lines on Ford, Chrysler & Jeep. Spring-loaded, sizes: 3/8", 1/2", 5/8" & 3/4"



A370 FORD QUICK DISCONNECT COUPLER TOOL

For push-lock connectors on Ford transmission cooler lines & fuel injection systems.



A371 FORD CLUTCH DISCONNECT TOOL

Disconnects hydraulic clutch line from clutch slave cylinder.



A372 FORD OIL COOLER LINE DISCONNECT TOOL

Disconnects oil cooler line without damaging connector.



3478 FORD 6.0L OIL LINE DISCONNECT TOOL

Offset head for disconnection of oil rail supply line for fuel injector removal on '03+ F-series & Excursion w/ diesel engines. OAL: 6.5" (16.5cm).



3479 FORD TRANSMISSION OIL COOLER LINE DISCONNECT TOOL

Flexible nylon plastic in two sizes: 3/8" for 2003+ Ford V8 Explorer, 2004+ F150 & Cadillac CTS. 1/2" for Ford Super Duty Trucks: F250, F350, F450



A374 FORD/CHRYSLER HEATER HOSE DISCONNECT TOOL SET

Disconnects heater hose from heater core tube.



A375 FORD FUEL LINE COUPLING TOOL

Separates fuel lines by depressing retaining collar with fingers of tools.



1809 5 PC. FUEL LINE FLEX SOCKET SET

Flex at 45° to grip direct fuel line.

Great for BMW N54/N55/N63 & other Euro apps. Includes five sizes, also available individually assembled:

No.	Size
1821	11mm
1823	13mm
1824	14mm
1825	15mm
1827	17mm

NEW!



Individually assembled unit

1800 TOYOTA/NISSAN FUEL LINE DISCONNECT TOOL

Disconnects 5/16" main fuel line from fuel rail on Toyota Corolla, Celica, Camry, Echo, Solara, Sequoia, Rav4, Prius, MR2, Matrix, Highlander & Tundra, Scion xA, xB & TC & '04+ Nissan.



3456 TOYOTA A/C DISCONNECT TOOL SET

Removes A/C spring lock coupling on 2000+ Toyota. High and low side tools.



3467 GM/CHRYSLER FUEL LINE RETAINING CLIP TOOL SET

Releases nylon clip on newer GM & Chrysler w/ in-tank electric fuel pumps. 3/8" & 5/16".



3477 GM 6.6L FUEL LINE DISCONNECT TOOL

3/16" size for hydrocarbon injection quick connect on 2010+ diesel GMT900 C/K Silverado/Sierra & GMT610 G-van Express/Savana.



A376 CHRYSLER FUEL LINE DISCONNECT TOOL

Releases fuel rail or quick connect fitting and helps install fuel lines.



A373 GM HEATER LINE DISCONNECT TOOL

Releases fitting connecting heater hose to engine block & thermostat housing.



A377 GM CLUTCH LINE DISCONNECT TOOL

Disconnects clutch line from slave cylinder on GM trucks & cars.



A381 GM OIL COOLER LINE DISCONNECT TOOL

Releases fitting on transmission/radiator oil cooler line



2763 BENZ A/C LOW SIDE COUPLER WRENCH

Removes A/C low side coupler on S-class, E-class, C-class and CLS models ranging from 2002-2014, codes: W221, W211, W204 & W219.

NEW!



BMW DISCONNECT TOOLS

Anodized aluminum. Use tapered side of tool against locking clip.

No.	Applications
3466	Power Steering & Transmission lines 1999-2011 3 series, X5
3468	Fuel Lines 2006-2011 3 series 2006-2009 X3 series



1137 MINI COOPER FUEL LINE DISCONNECT TOOL

Removes low pressure fuel line w/o damage on Mini Cooper Turbo 2007-2013. Die-cast and hinged design. Compare to MINI Factory Tool #130250.



3476 SUBARU FUEL LINE DISCONNECT TOOL

Disconnects fuel lines without damage on 2004+ Subaru with 2.0 & 2.5L engines.



7050 4 PC. RADIATOR PRESSURE TESTER KIT

Tests pressurized cooling systems up to 30 PSI. Kit includes pump with gauge, 12" hose & cap adapter to check 3/4" deep filler necks, 1/4" spacer washer for testing 1" deep filler necks & 3 radiator adapters (#7090, #7091 & #7092).

No.	Description
7060	Radiator Pressure Tester (Pump & Gauge only)



SYSTEM ADAPTERS

No.	Size
7090	52mm x 2.5mm Buttress
7091	2-Tab
7092	2-Tab
7093	48mm x 3mm
7094	47mm x 3mm
7095	54mm x 3mm
7096	52mm x 3mm
7097	51mm x 4mm Buttress
7098	63mm x 3mm Buttress
7099	53mm x 3mm
7100	52mm x 2.5mm Buttress
7101	62mm x 4mm
7102	53mm x 3mm Buttress
7103	34mm x 3mm
7117	46mm x 2.5mm Buttress
7118	49mm x 2.5mm Buttress
7119	52mm x 3mm Buttress
7121	64mm x 3mm



CAP ADAPTERS

No.	Size
7105	48mm x 4mm
7106	44mm x 3mm
7107	42mm x 3mm
7108	58mm x 3mm
7109	52mm x 3mm
7111	65mm x 3mm
7112	32mm
7113	32mm
7114	58mm x 4mm
7115	48mm x 3mm
7116	35mm x 3mm

7055 6 PC. RADIATOR PRESSURE TESTER KIT - EURO

Includes 6 most used European specific pressure tester adapters. Includes #7093, 7094, 7097, 7098, 7101 & 7119 and ID chart.



7057 10 PC. RADIATOR PRESSURE TESTER KIT - USA/ASIAN

Includes 10 most used USA/Asian specific pressure tester adapters. Includes #7090, 7091, 7092, 7096, 7100, 7102, 7103, 7109, 7117 & 7118 and ID chart.



1079 4 PC. RADIATOR PRESSURE TEST KIT

Tester connector & 3 expanding adapters covering diameter range of 17mm to 40mm. Use with #7060 pump.



7120 3 PC. RADIATOR PRESSURE TEST KIT - TRUCK

For older model GM 2.5L "X" body & 1.8L "J" body trucks w/ 2-11/16" OD filler necks. Includes 5/16" plug for testing system & radiator caps.



7045 RADIATOR CAP PLIERS

Quickly & safely removes all standard radiator caps.



7088 COOLANT SYSTEM FILLING KIT W/ UNIVERSAL ADAPTER

Refill & top off cooling systems quickly & easily during bleeding process. Filler cone features metal flow valve, air bleeder line & built in handles. Includes 4 adapters to fit most American & Asian cars and elbow adapter for tight clearances. Black adapter also converts your pressure tester adapters to filling adapters.



A195 ANTI-FREEZE & COOLANT TESTER

Tests all ethylene glycol solutions w/ radiator hot or cold. Easy-to-read dual scale for testing freezing point or boiling point of coolant, large rubber bulb & rubber extension hose.



ATF SYSTEM | FUEL TANK

7400 ATF FILLING SYSTEM

9 liter (10 qt) tank unit dispenses fluid under pressure for fast, safe & clean refilling of ATF reservoirs. Built-in locking manual pump adds air above fluid level to prevent aeration. 1.5m (5') clear dispensing & removable hose featuring spring protection. Levered ball valve controls flow & includes hang hook. 0-35 PSI gauge, fill hole, air-valve release double handle & hanger. Complete range of adapters available as a set or individually.



No. Description
7404 ATF Master Filler Kit
 Includes #7400 & 7402

7402 15 PC. ATF FILLER ADAPTER KIT

Use with #7400 ATF Filling System. Includes all adapters listed below:

No.	Applications
7409	VW Passat/Tiguan
7410	Ford 1/8 NPT
7411	BMW, Honda, Nissan
7412	VW, Audi
7413	VW, Audi, Porsche
7414	VW, Audi, Mini 10 x 1.0
7415	Mercedes 722.9
7416	VW, Audi DSG 24 x 1.5
7417	VW, Audi CVT 22 x 1.5
7418	Volvo 5/16 x 24
7419	Toyota, Lexus 18 x 1.5
7425	Infinite 7 speed
7426	Universal
7427	Mini Cooper
7428	Nissan Juke



7420 FORD ATF FILLER ADAPTER

For 5R55W & 5R55S Auto Trans on Ford, Lincoln, Mercury & Jaguar. Use w/ #7400 or 7073, 7075 & 7077 w/ 7078 adapter. Comparable to Ford Factory Tool #307-437.



7429 GM ATF FILLER ADAPTER

For Cadillac, GMC, Hummer & Pontiac. Size 12 x 1.75mm. Use w/ #7400 ATF Filler.



3403 VW/AUDI DSG FUNNEL

For DSG (6 speed) & 02J (5 Speed) transmission bottom filling. 1 liter capacity funnel w/ built-in mesh screen to prevent contamination. Screw in DSG adapter to drain port & attach hose, Gravity will do the rest. Compare to Factory Tool #VAS6262, but w/ a funnel instead of bottle.



NEW!

7670 VW/AUDI DSG WRENCH

- 24MM X 12 PT
 Offset wrench services VW/Audi oil filter transmission housing caps located halfway underneath the battery tray without removing the battery, saving time. Short design for easy access.



3402 BENZ TRANSMISSION FILL & DRAIN KIT

For Automatic Transmission Fluid (ATF) on 2015+ 725 transmission (9G-Tronic). Use with CTA's ATF Filling Adapter #7415 for a full service transmission fluid flush. Compare to Factory Tools: #725 589 02 90 00 #725 589 00 90 00

NEW!



7650 TRANSMISSION OIL DRAIN & FLUSH KIT

Fully drains transmission oil cleanly by air pressure instead of an expensive flush machine or gravity method, which leaves up to 2.6L of oil left in the system. Services Benz 722.6 & 722.9, BMW 6HP & 8HP Transmission. Patent No. M 537183. Visit website for video.



1017 CHRYSLER TRANSMISSION DIPSTICK

Checks fluid level on 6F24 Auto Transmission on late model Dodge Dart, Fiat 500, Jeep Cherokee, Compass & Patriot. OAL: 6.5" (16.5cm). Compare to #10323A.



1650 NISSAN TRANSMISSION SOCKET - 3 PT

3 Point Nissan Transmission Pump Socket 1/2" Drive. Size: 8TS. OAL: 1.5" (3.8cm)



1808 SPRINTER FUEL TANK RING TOOL

2008+ Sprinter. 12 slot design. 6-1/2" diameter. 3" height. 1/2" sq & 7/8" hex drive.



2214 FORD TRANSIT DIESEL FILTER WRENCH

6 slot design. Slim for clearance. 3/8" square drive.



NEW!

1041 VW/AUDI FUEL TANK WRENCH

Removes & installs fuel tank sealing ring on VW, Aud & Porsche. 3 locking points. ID: 120mm, 1/2" drive.



1089 VW/AUDI FUEL PUMP WRENCH

Extra-long w/ offset angle for access. VW: Passat (1998-2005). Audi: A4 (2002-2004 AWD), A6 (1999-2004). OAL: 15.5" (39cm) and 1/2" drive.



2821 BENZ FUEL TANK WRENCH

Removes & Installs plastic fuel tank lid on Benz vehicles from 1976-2000. E-class (W124) 1984-1996, C-class (W202) 1994-2000 & 300D (W123) 1976-1985 models.



NEW!

1042 BENZ FUEL TANK LID WRENCH

Removes & installs fuel tank lid on W164, W251 chassis models. 22 slot design. OD: 190mm, ID: 145mm. 1/2" drive.



1043 BENZ/BMW/VW FUEL TANK LID WRENCH

Services Benz W211, W203, ML230, ML320, ML350, ML430, ML55 AMG, ML550, BMW E36, E46, E39 & VW. 4 slot design. OD: 145mm, ID: 116mm. 1/2" drive.



1044 TOYOTA/LEXUS FUEL TANK LID WRENCH

Services 2004+ Toyota & Lexus. 9-slot design. OD: 173mm, ID: 143mm. 3/8" drive.



2491 BMW/MINI/PORSCHE FUEL TANK WRENCH

Removes the fuel level lock ring on Mini Cooper, BMW: E31, E34, E36, E38, E39, E46, E53, E60, E63, E64, E65, E70, E83, E85, E90, R50, R52, R53, R55, R56 & R57. Porsche '911 Carrera, 911 GT2, 911 GT3, 911 Turbo, Boxster & Cayman. OD: 137mm, ID: 114mm. 3/8" drive. Comparable to BMW Factory Tool #161020.



2492 FUEL TANK LID WRENCH

Removes locking ring on top of tank & prevents damage to plastic lock ring. Services 2010+ Volvo T4 & 5, BMW F01, 02, 10 & 12, Benz W204, W207 & W212, Ford, Chevrolet, & Chrysler.



2493 VOLVO FUEL TANK WRENCH

Removes fuel pump retaining nuts on late model S60, S80, V70, V70 XC, XC70, XC90 & XC90 left tank unit retaining nut. 1/2" drive. Comparable to Volvo Factory Tool #9995720



2494 VOLVO FUEL TANK WRENCH

Removes the locking ring on top of the tank. Prevents damage to plastic lock ring. Services XC60, SC70, S40, S80 & V50.



3700 SAAB FUEL PUMP WRENCH

For removal of fuel pumps on most 1989-2002 Saab models. Fits into spaces on fuel pump screw cover and attaches to a 1/2" drive tool to turn.



2740 SERPENTINE BELT TOOL

Spring-loaded clamping jaw positions & routes serpentine belts in tight areas w/o belt slipping out of tool. OAL: 26.5" (67cm).



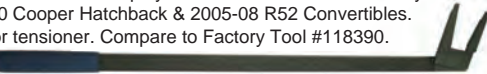
A875 SERPENTINE BELT TOOL KIT

For serpentine belts w/ spring-loaded idler pulleys. 23" long provides proper reach & prevents damage. Includes 13mm, 15mm, 16mm & 18mm sockets, 9" extension. Applications: GM, Ford, Chrysler & Saturn.



2742 MINI COOPER SERPENTINE BELT TOOL

Relieves tension on belt tensioner for poly-ribbed belt service on naturally aspirated 2002-06 R50 Cooper Hatchback & 2005-08 R52 Convertibles. Includes locking pin for tensioner. Compare to Factory Tool #118390. OAL: 24" (61cm).



2744 MINI COOPER S SERPENTINE BELT TOOL

Special jaws relieve tension on belt tensioner for poly-ribbed belt service on: R53 Mini Supercharged Hatchback 2002-06, R52 Mini Supercharged Convertibles 2007-08. Compare to Factory Tool #118410. OAL: 26" (66cm).



1016 MINI COOPER SERPENTINE BELT TOOL SET

Two 22" wrenches to services N12, N14, N16, & N18 engines. Small & large 12 point openings. Comparable to Factory Tool #116210.



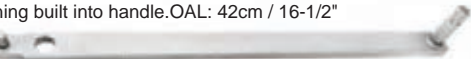
1071 VOLVO SERPENTINE BELT TOOL

Fits into idler pulley & turns it to release tension for replacement of serpentine belt. 3/4" head. Services: 850 (1993-1997) S70 (1998), C70 (1998) & V70 (1998).



8760 VOLVO BELT REMOVAL WRENCH

Services belts on Volvo C70, S40, S60, S70, S80, V40, V70, XC70 & XC90. Heavy-duty long bar w/ T60 Torx Bit on one end & T50 Torx Bit on other. 16mm x 12-point opening built into handle. OAL: 42cm / 16-1/2"



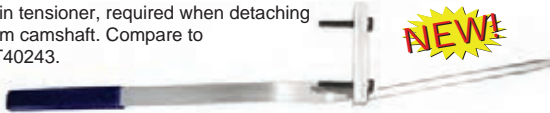
7852 FORD BELT INSTALLATION TOOL

- 1.5L & 1.6L Services 2011+ Ford Fiesta. Required for proper installation to avoid damaging the belt.



8064 VW/AUDI CHAIN TENSIONER - 1.8L & 2.0L TFSI

Slackening chain tensioner, required when detaching timing chain from camshaft. Compare to Factory Tool #T40243.



STRETCH BELT INSTALLATION TOOLS

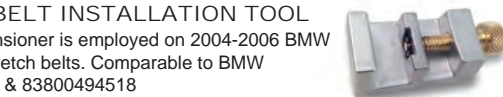
Installs stretch belts found w/ ease. Required to avoid damage.

No.	Type
2745	Small (Blue)
2747	Large (Red)



3458 BMW A/C BELT INSTALLATION TOOL

Used when no belt tensioner is employed on 2004-2006 BMW V8 N62 engines w/ stretch belts. Comparable to BMW Factory Tool #641040 & 83800494518



2855 CAMSHAFT & CRANKSHAFT PULLEY HOLDER

Holds cam or diesel pump sprockets & gears for removal & tightening of retaining bolts.

7 sets of interchangeable pins - 3.5, 4, 4.5, 5, 6, 7 & 10mm. Wrench ranges from 1-1/4" to 5" (32 - 127mm).



2029 CAMSHAFT BEARING TOOL

Removes & installs cam bearings. Includes: driver bar w/ extension, nylon cone, 5 collet sets, 2 sets of rubber sleeves, expander assembly & washer.



4333 ADJUSTABLE CAM PULLEY HOLDER

Spring loaded with grooved pins to hold camshaft pulley stationary while loosening & tightening center shaft bolt. Great for transverse mounted V6 Nissan Maxima & Toyota Camry. Adjustable range: 21mm-100mm. Thick metal design for durability and high torque load.



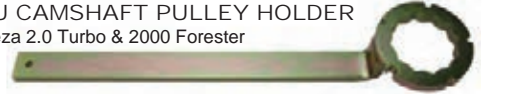
2715 TENSION PULLEY SPANNER - MITSUBISHI/HYUNDAI/CHRYSLER

Adjusts timing belts on idler pulleys w/ pin holes. Pins in offset head of tool engage pulley to rotate around the retaining bolt.



2243 SUBARU CAMSHAFT PULLEY HOLDER

For 2002-05 Impreza 2.0 Turbo & 2000 Forester L F4-2.5L SOHC. Compare to Factory Tool #499207400 & #499207400-A



7600 SUBARU CRANKSHAFT PULLEY HOLDER

4-point design for easy removal & installation of crankshaft pulley on 2011+ Subaru Forester, 2014+ WRX, 2013+ Impreza, 2012+ Impreza XV 2.0, & 2008-12 3.6 Tribeca.



7605 SUBARU CAMSHAFT PULLEY HOLDER

4-point design for 2005-11 Forester 2.0, 2005-08 Impreza 1.6/2.0, 2005+ Legacy & 2010-2013 Legacy CVT.



7610 SUBARU CAMSHAFT PULLEY HOLDER - 2200 CC

For SOHC Engines 1993-2012 Impreza, 1999-2012 Forester, 1989-2012 Legacy, 2004-06 Baja & SVX, & 2005-06 Saab 9-2X. Compare to Factory Tool #499207100.



7615 SUBARU CAMSHAFT HOLDER

Holds camshaft sprockets on 2005+ 2.5L Turbo & 3.6L 6-cyl. engines. Comparable to Subaru Factory Tool #499977500.



7620 SUBARU CRANKSHAFT PULLEY HOLDER - 12 PT

Remove/install central bolt w/o damaging pulley. Compare to Factory Tool #499207400.



7625 SUBARU CAMSHAFT PULLEY HOLDER - 2500 CC

3-Point for AVICS intake cam pulley on 2004+ Impreza WRX, 2004-2011 Forester XT, 2005-10 Legacy GT & Outback XT, 2004-06 Baja Turbo & 2006 Saab 9-2X Aero. Compare to Factory Tool #499977500.



7630 SUBARU CRANK SOCKET

Socket slips over crank snout, enables engine builder to rotate complete engine w/ 1/2" ratchet or breaker bar. Easily locate TDC. Compare to Factory Tool #499987500.



5305 SUBARU CRANK SOCKET

FB Engine Socket slips over crank snout, enables engine builder to rotate complete engine w/ 1/2" ratchet or breaker bar. Easily locate TDC. Compare to Factory Tool #18252AA000.



1484 SUBARU A/C COMPRESSOR

STRETCH BELT INSTALLER

Services 2.5L 2008-13 Impreza, Forester & Outback.



2670 TOYOTA TIMING BELT TENSIONER COMPRESSOR

For 1995+ T100, Tacoma & 4 Runner trucks. Internal nut to expand tool to compress tensioner plunger. Locking pin holds tensioner plunger while changing belt. Locking pin for hydraulic piston push rod.



2717 TOYOTA TENSIONER ADJ SOCKET

6 internal slots for 1.8L 2000-05 Celica, 1998-2008 Corolla, 2003-08 Matrix, 2000-05 MR2 & more. 1/2" square & 7/8" hex drive.



2857L MASTER CAM KIT

Includes 4 Pc. Cam Clamp Set & Metal Cam Locking Tool. Holds camshafts in position during timing belt replacement.



VW/AUDI/PORSCHE TIMING

1085 AUDI CAMSHAFT HOLDING TOOL

Assembles & disassembles pulleys on camshaft, vibration damper & oil pump. 2 sets of pins w/ a total of 4 diameters. Holding arm pin range: 2-13cm. OAL: 17" (43cm). Compare to Audi Factory Tool #T10172.



1086 VW/AUDI CAMSHAFT SETTING BAR

Use during removal & installation of timing belt & diesel injection pump. VW Engines 1V, 1Z, AAB, ACV, AHU, ALH, CS, CY, DE, MD, ME, MF, AAZ & diesel Audi.



1087 VAG CAM HOLDING PLATE

Sets camshaft timing w/o removing cam cover on VW/Audi 1.9SDi/Tdi Diesel Engines Codes: 1.9D Sdi: AGP, AQM, ASY & 1.9D Tdi: AGR, AHF, ASV. Compare to Audi Factory Tool #T10098.



2871 VW/AUDI CAM LOCKING CLAMP SET

Aligns & secures camshafts when setting timing on mid 2000s Audi A4 (A4 Quattro), A6 (A6 Quattro), A8 Quattro, Q7, R8, RS4, S5, S6, S8 & VW Beetle, Jetta, Rabbit & Touareg. Compare to Audi Factory Tool #T40133.



2873 VW/AUDI CAM LOCKING CLAMP SET

Locks camshafts when setting valve timing on 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). Compare to Audi Tool #T40070.



2875 VW/AUDI CAM ALIGNMENT FIXTURES

Locks camshafts in place on 2001+ VW, Audi & Porsche. Precision cut 4mm thick steel plate. Compare to Audi Tool #T10068A.



2878 VW/AUDI CAM LOCKING CLAMP

Services 2006-2009 VW/Audi 2.0L Turbo engines. Compare to Audi Factory Tool #T10252.



2879 AUDI CAM LOCKING CLAMP SET

Keeps TDC timing alignment on Audi S4, A6, A8 & all-road Quattro. Compare to Audi Factory Tool #T40046.



VW/AUDI CAMSHAFT HOLDERS

Locks camshafts relative to each other during timing belt and tensioner service or crank bolt removal. Use w/ #2872 TDC Lock Pin Tool.



No.	Description
2865	VW/Audi V6 2-valve/cyl
2867	VW/Audi V6 5-valve/cyl
2869	VW/Audi V8 (T40005)

2872 VW/AUDI TDC LOCK PIN TOOL

For use w/ #2865, 2867 & 2869 to lock crankshaft at TDC. Comparable to Audi Factory Tool #T40026 & #T40069.



2870 AUDI 3.0L CAMSHAFT HOLDER KIT

Locks and holds camshafts when adjusting left & right camshafts on A4, A6 & A8 (2001 - 2008) w/AVK engine. Includes holders, Lock Pin Tool, Socket & set of pins. Compare to Factory Tool #T40030.



2889 VW/AUDI 2.0L TURBO TIMING KIT

For 2009+ turbo. Compare to Audi Tool #T10355, T10368, T40196, T40271, 10352 & 6700-3.



8091 VW TDI TIMING KIT

Sets & adjusts timing on 1999-2008 VW TDI engines. Includes: Lock Pins, Cam Lock Bar, Spanner Wrench & Crankshaft Holders.



1036 VW/AUDI CAMSHAFT ADJUSTER SOCKET - 9MM

Polybit drive services camshaft adjuster bolts, where clearance is critical on 2.0L Turbo BPG & BPY. Not for impact use. Compare to Factory Tool #T40080.



1722 VW/AUDI SETTING GAUGE

Sets camshaft position sensor rotor ring during timing chain install on 4.2L V8 5v (BAS, BBD, BHF, BNK). Compare to Factory Tool #T40047.



1412 VW/AUDI CRANKSHAFT TURNING SOCKET

Working end: 22mm sq drive & 12mm pivot pin. Drive: Dual 1/2" sq & 24mm hex. Applications 2.4L, 3.2L & 4.2L FSI engines. Compare to Factory Tool T40058.



1414 VW/AUDI TIMING TOOL KIT

KIT - 4.2L
Includes CTA #2872, #2879, #1722 (set of 2) & #1412. Services V8 Audi S4, S6, A6, A8 & S8.



2775 VW TDI TIMING BELT TOOL KIT

Services 1999+1.9L TDI engines w/ ALH code on Golf, Jetta & Beetle. Includes:

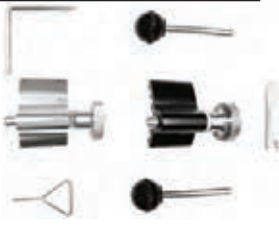
No.	Description
2766	Spanner Wrench
2770	Locking Pin
2882	Cam Locking Plate (V159)



2777 VW/AUDI TIMING TOOL KIT

For VAG 2.0L TDI PD DOHC on Audi A4, A6, VW Golf, Jetta & Touareg. Compare to Factory Tools #3387, T10020, T10098A, T10050 / 310085, T10010, 3359 / T20102, T10060/A, T10115 & T40011.

No.	Description
2770	Injection Pump Locking Pin
2858	Crankshaft Holder (Black)
2859	Crankshaft Holder (Silver)



2765 VW/AUDI TIMING BELT WRENCH SET

For TDI engines. Compare to VW Tools #V159, T10020, 3387 & T40011. Includes:

No.	Description
2766	Short Wrench
2767	Long Wrench /Short Offset
2768	Long Wrench /Long Offset
2769	3 Pc. Pin Set



2760 VW/AUDI ADJUSTABLE TIMING BELT TENSIONER

Adjustable handle position to apply tension directly to idler roller. Pins engage offset center hub of timing belt tensioner pulley on VW/Audi 4 cyl. 1.5, 1.6, 1.7, 1.8, 1.9 & 2.0L engines. OAL: 7-1/2" (19cm).



1032 3 PC. VAG CAMSHAFT ADJUSTING SOCKET SET

For removal & installation of 4/3 way central valve for camshaft adjustment on 1.8 & 2.0 Gen III TFSI engines. 3/8" drive. Compare to VW Tool #T10352/1.



1033 VW/AUDI CAMSHAFT ADAPTER SOCKET

Rotates & holds intake camshaft during timing chain service on VW/Audi 1.8L & 2.0L engines. 3/8" drive. Comparable to VW Factory Tool #T40266.



1035 AUDI CAMSHAFT ADJUSTER KEY

Adjusts timing chain through camshaft adjuster on Audi 2005+ A6, A8, A8L, Q7, RS4, S5, S6, S8.



2874 VW/AUDI CAM CHAIN TENSIONER RETAINER

Holds chain & tensioner in position during assembly and disassembly. Comparable to Audi Factory Tool #3366.



2876 VW/AUDI V-BELT TENSIONING BOLT TOOL

Special 50mm long bolt with washer for loosening V-Belt tightening device on 2.0L Turbo FSI engines.



2762 VW/AUDI CAMSHAFT DRIVE BELT PULLEY PULLER KIT

Services 5 & 6 spoke gears on 4 & 6 cyl. TDI, V6 & V8 engines. Low profile. Compare to VW Tools #T40001, T40001-6 & T40001-7.



2885 BMW 4 & 6 CYL. CAM ALIGNMENT SET

Includes jig to align camshaft & TDC pin to align flywheel. Services M42, M44, M50, M52, M52TU, M54, M56, S50US & S52US. Compare to Factory Tools #113240 & #112300.

No. Description
2890 TDC PIN



2886U BMW TIMING KIT - N51-N55
Sets cam, valve & VANOS timing on BMW N51, N52, N53 & N54 & N55 (2006+ 1, 3, 5, 6 series, X1, X3, X5, X6 & Z4).

No. Description
2898 CAMSHAFT BRIDGE - N55
Comparable to BMW #3028 & #114285



2887 BMW TIMING KIT - M60, M62 & M62TU

Includes 4 blocks & 2 locking fixtures for setting camshaft timing on 530i, 540i, 740i, 740iL, 840Ci, X5 & Ranger Rover. Compare to Factory Tool #112440 & Land Rover #LRT-12-223 & 303-1012.



2888 BMW TIMING KIT - N62, N62TU & N72

Properly aligns & locks camshaft in TDC position when adjusting or checking timing or replacing camshaft or timing chain on N62, N62TU & N73 engines. Includes complete set of tools, including hold-down tool and crankshaft timing pin.



2893 BMW TIMING KIT - N63

Serves all N63 V8's including 2009+ 750i, 2011+ Alpina B7, 2010+ 550i & 2012+ 650i. Packed in blow mold case.

No. Description
2893X05 Crankshaft Holding Tool
Services N63 & S63



2894 BMW TIMING KIT - M60 & M62

1990s - 2000s BMW 530i, 540i, 740i, 740Li, 840Ci, X5, Z8 & Range Rover. Compare to BMW Factory Tool #116462. Packed in blow mold case.



2895 BMW TIMING KIT - M52, M54 & M56

Applications include Early to Mid 2000s 3, 5, X3, X5, Z3 & Z4 series. Compare to BMW Factory Tools #116150, 116180, 114220, 113292 & 113450. Packed in blow mold case.



2896 BMW TIMING KIT - S65

Aligns camshaft at TDC. Also holds crankshaft at TDC when adjusting camshaft timing on BMW M3 2008-2013. Packed in blow mold case.



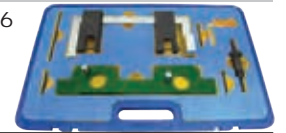
2897 BMW TIMING KIT - S85

Serves S85 V-10 engines. Includes: Cam alignment fixtures & jigs, flywheel alignment pin, additional fixtures for valve timing & VANOS setting & VANOS timing socket. Packed in blow mold case.



7675 BMW TIMING KIT - N20/N26

Aligns camshaft timing at TDC position on N20/N26 engines. Compare to Factory Tools #83302212831, 83302212830, 83302219548 & 1197340.



7676 BMW OIL SEAL REPAIR KIT - N20

Repair balancer shaft, holding chain sprocket & remove/install oil pump, chain & sprocket. Includes 2 screws - PH3 M6 x 1.0, Hex drive size 10 (length: 26mm). Compare to Factory Tools #83 30 2 318 117, #83 30 2 212 825.



2801 BMW FLYWHEEL HOLDER - N20/N26

Secures crankshaft w/ trans installed. Holds flywheel & helps to release/tighten central bolts on vibration damper. Compare to Factory Tool #8330222742.



2805 BMW TIMING KIT - B38/B48

Locks crankshaft & camshafts to set timing position while servicing 1.5L & 2.0L B38/48. Compare to Factory Tools #2358122 & #2288380.



2806 BMW CRANK ALIGNMENT TOOL - B38/B48

Set crankshaft at TDC on Longitudinally installed Auto Trans. Compare to Factory tool #2 365 488



2807 BMW ACTUATOR TOOL - B38/B48

Removes & installs magnetic actuator. Compare to Factory Tool #2 0360 895



5190 BENZ TIMING TOOL KIT

M133/M270/M274
Positions camshafts in TDC position slackens & tightens bolts attached to camshaft gears. Compare to Factory Tool #270 589 01 6100.



1073 BENZ/JEEP DIESEL TIMING KIT

For 2007+ Benz OM651 including: A, B, C, CLA, CLS, E, GLK, M, S, SLK Class, Sprinter and Jeep Compass & Dodge Caliber.



1097 2 PC. BENZ TIMING SET (M642)

Attaches to camshafts to hold in position when replacing timing chain on M642 CDI. OAL: 17.5cm (6-7/8"). Compare to Factory Tool #642 589 00 31.



1098 BENZ CHAIN GUIDE (M642)

Use in conjunction with #1097 to guide chain during chain installation.



3998 BENZ CRANKSHAFT PULLEY HOLDER

To remove & replace of crankshaft bolt on Benz M271. Services Benz factory part #: A 271 030 00 03.



1106 BENZ/JEEP CRANK HOLDER

Locks crank in place on M651 when servicing crankshaft front pulley.



1105 BENZ/JEEP BALANCE SHAFT HOLDER (M651)

Holds balance shaft in timed positions when chain breaks or when rebuilding engine.



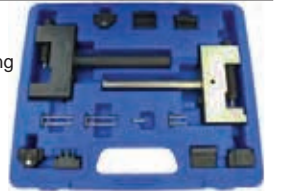
7645 BENZ/BMW GUIDE RAIL PIN PULLER

Removes stubborn pins from cylinder head. 85mm OAL for access in tight areas where slide hammers won't fit. Services Benz M102, M110, M115, M116, M117, M130, OM601, OM602, OM603, OM615, OM616 & OM617.



1095 BENZ TIMING CHAIN RIVETING TOOL SET

Splits & reconnects single & double row timing chains on Benz gas & diesel engines. Also services some Saab & BMW vehicles.



No. Description
1095X17 Mounting Guide Link
1095X19 Mounting Link 3 for Duplex Timing Chains

VOLVO/USA/ASIAN TIMING

2863 VOLVO CAM/CRANK ALIGNMENT KIT

For alignment of cam & crankshafts & allows correct installation of camshafts w/ cam cover. Comparable to Volvo Factory Tools #9995451, 9995452, 9995453, 9995453 & 9995454.



2864 VOLVO CAM LOCKING TOOL

For alignment of cam & crankshafts on S40, S60, S70, S80, S90, V40, V50, V70, V90, XC70, XC90, 850, 960 & C30. Also enables correct installation of camshaft with cam cover.



2242 VOLVO CRANKSHAFT HOLDING TOOL

Keeps crankshaft pulley from turning when changing timing belt and/or crankshaft seal. Designed to withstand torque specs for crank bolt on 1985-1993 Volvo 240.



7635 VOLVO CRANKSHAFT COUNTER HOLDER

Used to release & tighten center bolt. Services Volvo C30, C70, S40, S60, S70, S80, V40, V50, V60, V70, XC60, XC70 & XC90 & Ford Focus. Comparable to Volvo Factory Tool #999 5433.



2883 VOLVO CAM LOCKING TOOL

For 1998 & earlier 5 cyl. Volvos w/o CVVT. Holds camshaft in place during timing belt replacement. Made from 3/8" anodized aluminum plate w/ 3/16" dowel pins.



1046 GM TIMING KIT - 1.4L ECOTEC

For 2011 & up GM 1.4L Ecotec engine. Compare to GM Factory Tool #: EN-49977-100, EN-49977-200, EN-49978, KM-952, KM-953-A, & KM-955.



NEW!

1802 2 PC. GM CAM HOLDER KIT

Services the left & right side head for 3.6L & 2.8L V6 GM engines through 2006. Prevents rotation during timing chain service.



7677 3 PC. GM CAM HOLDER KIT

Services the left & right side head for 2006+ 3.6L & 2.8L V6 GM engines. Prevents rotation during timing chain service.



4161 CHEVROLET CAM LOCKING KIT - 1.6L & 1.8L

Locks the camshafts in position on GM 1.6L & 1.8L engines. Also services 1.6L & 1.8L 16V Alfa Romeo and Fiat 2003-2012. Packed in blow mold case.



NEW!

1018 CHRYSLER TIMING BELT TENSION TOOL

Tensions timing belts on early Chryslers w/ 2.2L & 2.5L engines. Special 7-point working end.



2221 FORD/MAZDA MASTER TIMING KIT - 1.4, 1.5, 1.6, 2.0, 2.3, 2.5, 3.0L

Comprehensive tool kit services Ford, Mazda & Lincoln from mid-90's through today. Includes #1025, #1026, #1090, #1804, #1806, #2223, #2880, & #2884.



NEW!

1090 FORD 1.6L VCT ALIGNMENT TOOL

Services 2011-2014 Fiesta, 2013-2014 Escape, Fusion & Transit. Can be used with CTA #2880. Comparable to Ford Tool #303-1097



2880 FORD/MAZDA CAM TIMING SET - 1.4L, 1.5L, 1.6L & 2.0L

To lock & position camshaft, crankshaft & injection pump sprocket. Services HWDA, HWDB, & HXDA engines.



2822 FORD/MAZDA CAM LOCKING PLATE - 1.6L

For rear camshafts on Ecoboost when VCT phasers have been removed. Services Focus, Fiesta, Fusion, Escape, C-Max & Transit Connect 2010-2017. Compare to Factory Tool #303-1552.



NEW!

2884 FORD/MAZDA CAM ALIGNMENT TOOL

Services Ford/Mazda 2.0L & 2.3L twin cam turbo engines, 1.8L Duratec-HE (MI4), 1.8L Duratec-SCI (MI4) & 2.0L Duratec-HE (MI4). Compare to Ford Factory Tool #303-1061.



1026L FORD CAMSHAFT ALIGNMENT TOOL

For 2010+ Ford 2.0L engines. Special milled thickness & includes crank timing pin. Comparable to Ford Factory Tool #303-1565.



1804 FORD CRANKSHAFT POSITIONING TOOL

Services alignment of Crank Sensor on 2010+ 2.0L & 2.3L Ford EcoBoost 4 cylinder engines. Compare to Ford Factory Tool #303-1521.



NEW!

1806 FORD CRANKSHAFT VIBRATION DAMPENER ALIGNMENT TOOL

Services Ford EcoBoost B-Max 1.6L engines. Comparable to Ford Factory Tool #303-1550. Use in conjunction with #1026.



2223 3 PC FORD/MAZDA TIMING WEDGE SET

Use while performing timing service on Sigma platform engines, 1.4L & 1.6L Duratec 16V engines 2000+. Applications include Ford Fiesta, Focus, Puma, C-MAX, Fusion (Mondeo), Mazda 2 & more. Compare to Ford Factory Tool #303-1556.



7641 FORD/MAZDA CAMSHAFT TIMING TOOL KIT

Services Ford Edge, Explorer, F150, Flex, Fusion, Mustang, Police Interceptor & Taurus, Lincoln MKS, MKT, MKZ & Navigator & Mazda CX9. Compare to Ford Factory Tools #303-1248 & 303-1530.



7640 FORD CAMSHAFT LOCKING TOOL KIT

One tool locks camshaft & other locks timing chain on Ford 4.6L, 5.4L & 6.8L 3V engines. Comparable to Ford Factory Tools #567614 & 567617.

No. Description
7640U Master Kit (Includes #7639 Valve Spring Compressor)



FAN CLUTCH WRENCHES

Use to remove & install fan clutch assemblies when replacing water pumps or doing other engine services. Use two wrenches together, one for holding & the other for turning. 1/2" drive built into most wrenches.

No.	Size	Applications
A868	40mm	Ford F-Series, E-Series
A870	36 & 58mm (2 Pc.)	2.8, 2.9, 3.0, 4.0 & 4.9 Ford
A872L	36 x 48mm	Ford, Dodge, GM, Jeep
NEW A872M	2 Pc. USA Set	Includes #A872L & #7647
7647	Holding Tool	Ford, Dodge, GM, Jeep
A878	32mm	BMW, Audi, VW
A879	41mm	GM, Daewoo, 1.6L
A880	3 Pc. Benz Set	Includes #A881, #A883 & #A884
A881	40mm Holding Tool	Mercedes
A883	36mm	Mercedes
NEW 1059	2 Pc. Benz Set	Includes #A881 & #A883
A884	65mm	Mercedes
A886L	32mm & Holding Tool	BMW 323i, 325i, 328i, 330i, Audi A6 & VW



A889 FAN CLUTCH/FAN BELT WRENCH SET

Serves BMW, Mercedes & Ford fan clutches, plus Mercedes, Nissan & Mercury fan belts. Also services A/C idler pulley tension lock nuts. Includes #A886L, A881, A883 & A884.



8088 BOSCH ALTERNATOR WRENCH

2-part splined wrench required for removal & replacement of free-wheel drive pulleys on Bosch Alternators on VW, Audi, BMW, Benz, Porsche, Renault & Ford. 10mm x 12 point end locks alternator & 33-spline cylinder shaft inserts in pulley locking bolt. 1/2" drive.



1072 BENZ ALTERNATOR WRENCH

Serves 1998+ Benz, including 606 (210), 648 (211, 164), 642 (211, 164) & E300 (1996-1999). Splined sleeve O.D. 19.4mm. 1/2" drive.



1075 ALTERNATOR WRENCH - T50 TORX®

Service many US & Asian vehicles. Special 33-spline sleeve acts as holding tool while Torx bit is turned. OAL: 4" (10cm). 1/2" drive.



8089 ALTERNATOR PULLEY SOCKET

For free-wheel pulleys w/ Bosch Alternators. 2-part design w/ 33 spline end & hex. Use w/ long 12-point XZN or Torx wrenches. Comparable to Factory Tools #9995760 & #602-589-00-10-00.



8080 ALTERNATOR PULLEY & POWER STEERING PUMP PULLER

Removes pressed-on 1 or 2 groove pulleys w/o damage. Fits large & small pulleys on older domestic & import passenger cars. Drop-forged jaws, solid block body & fine thread screw.



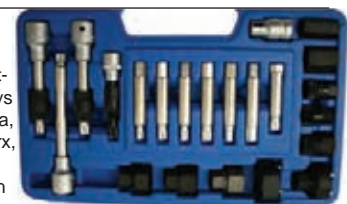
8084 ALTERNATOR PULLEY & POWER STEERING PUMP REMOVER & INSTALLER KIT

For press-on type belt driven accessory pulleys on pumps w/ 3/8"-16 threaded shafts. Interchangeable components for most domestic makes, including GM Quad 4, GM 3.1L & Ford 4.6L engines. Impact quality.



8083 22 PC. ALTERNATOR SERVICE KIT

To remove & install press-on-type belt-drive Bosch & Denso Alternator Pulleys on VW/Audi, Benz, BMW, Ford, Honda, Toyota Porsche & more. Includes: Torx, Triple-Square & Hex socket bits in std & short lengths, splined & hex reaction nuts & adapters & 1/2" drive bit adapter.



8069 FORD WATER PUMP PULLEY TOOL - 3.0L

Removes & installs water pump pulley on 3.0L DOHC engines, including Escape, Fusion, MKZ, Mariner, Milan & Sable. Includes: Forcing screw, pulley removal plate, 2 hex head cap screws, & forcing screw. Compare to Ford Factory Tools #303-S455, 303-009 & 303-457



NEW!

2750 WATER PUMP SOCKET - GM

Removes & replaces water pumps on 1993+ Cadillac 4.6L V8 Northstar & 1995-1999 Oldsmobile 4.0L V8. Use with 1/2" drive tools or breaker bar.



2757 WATER PUMP SPROCKET HOLDER - GM ECOTEC

Holds timing chain & gear when removing or installing waterpump, preventing loss of timing or engine damage. Anodized aluminum body.



2755 VW/AUDI WATER PUMP WRENCH

"Lollipop" wrench locks pulley on waterpump, easily loosens stubborn bolts found on: VW Polo, Golf, Passat and Audi 80/A4. Includes 1/2" drive on handle to allow extension. OAL: 10" (25cm).



1020 DURAMAX WATER SENSOR WRENCH - 12 POINT

For replacing the fuel filter or servicing water sensor w/o damaging parts on 2001-2011 6.6L Duramax diesel engines.



1021 DURAMAX WATER SENSOR WRENCH - 6 POINT

For replacing the fuel filter or servicing water sensor w/o damaging parts on 2012+ 6.6L Duramax diesel engines.



1022 DURAMAX WATER SENSOR WRENCH - 6 POINT NOTCH

For replacing the fuel filter or servicing aftermarket water sensor w/o damaging parts on 2001-2011 6.6L Duramax diesel engines.



ENGINE SERVICE

2060 VACUUM SWITCH/OXYGEN SENSOR SOCKET

Wide slotted socket services 7/8" (22mm) hex vacuum switches & oxygen sensors. 3/8" square & 7/8" hex drive.



2062 OXYGEN SENSOR SOCKET - NARROW SLOT

7/8" (22mm) socket w/ narrow slot for extra strength. 3/8" square & 1" hex drive.



2064 OXYGEN SENSOR SOCKET - THIN-WALL

Slotted socket services 7/8" (22mm) hex vacuum switches & oxygen sensors. 3/8" square & 7/8" hex drive.



2066 OXYGEN SENSOR SOCKET - THICK WALL

Allows extra torque to remove stubborn sensors. 7/8" (22mm) hex opening. 1/2" square & 1" hex drive.



2065 OFFSET OXYGEN SENSOR WRENCH - EXTENDED

Extended crow's foot design allows access to oxygen sensors in exhaust manifolds. Full slot accommodates connectors on heated oxygen sensors. 7/8" (22mm) hex w/ 3/8" square drive. 82mm long x 30mm high.



2069 OFFSET OXYGEN SENSOR WRENCH - STUBBY

Crow's foot design w/ deeper socket. 7/8" (22mm) hex w/ double 1/2" drive. 60mm long x 48mm high.



2067 17MM LAND ROVER OXYGEN SENSOR WRENCH

Fits all GEMS engine Land Rovers, including Classic, Discover, Defender & Defender 110. 3/8" drive.



2073 3 PC. OXYGEN SENSOR SET

Includes 3 most popular 22mm sockets: #2062, 2065 & 2069.



2068 OXYGEN SENSOR THREAD CHASER

Removes corrosion & straightens damaged threads in oxygen sensor holes. M18 x 1.5 size can be used on same size spark plug threads. Combo 3/4" hex & 3/8" sq drive.



7854 VW/AUDI ACTUATOR SOCKET - 2.0L DIESEL

Removes and installs actuator on VW/Audi 4 cylinder 2.0L common rail diesel engines. Compare to VW Factory Tool #T10422A.

NEW!



7850 FORD FLOW SENSOR SOCKET - 19MM

Required thin-wall design to clear sensor connection bracket. 3/8" Drive. OAL: 3". Application: 2010-2017 Ford Transit Connect.

NEW!



2042 OIL PRESSURE SENDING UNIT SOCKET - 1" & 1-1/16"

3" long socket removes & installs oil pressure switches up to 2-5/8" long found on older GM & Chrysler. 3/8" square & 1" hex drive.



2043 OIL PRESSURE SENDING UNIT SOCKET - 1-1/16"

2-1/2" (63mm) long socket removes & installs sending units. 3/8" square drive.



1024 HIGH PRESSURE OIL RAIL BALL TUBE INSTALLATION TOOL

Installs Oil Rail Ball Tubes in Oil Manifolds on 2004.5-2007 Powerstroke 6.0L engines. Also works as alignment tool. 22.75mm hex w/ 20mm I.D. hole. Use with 7/8" hex socket.



1069 3 PC. CRANK BOLT SOCKET SET

Counter-weighted design for high torque. OAL: 89mm. 1/2" drive.

No. Size Application

1064	17mm	Honda, Kia
1065	19mm	Honda, Acura, Saturn, Toyota
1066	21mm	Chevy, Chrysler, Dodge, Ford, GM, Jeep and Mazda



1067 CRANK BOLT SOCKET - 22MM

Counter-weighted design for high torque applications. Use with 1/2" square drive tools. Services crank bolts on BMW, Dodge, Ford, Toyota, Isuzu, Kia, Nissan, Jeep & Subaru.



1068 CRANK BOLT SOCKET - 27MM

Counter-weighted design for high torque applications. Use with 1/2" square drive tools. Services crank bolts on Benz, Dodge & Nissan.



A812 CRANK BOLT PULLEY TOOL - HONDA/ACURA

Offset 50mm wrench removes & installs crank bolt on most 1990+ Honda & Acura engines. Tool holds harmonic damper pulley from rotating when removing pulley bolt. Use with a 1/2" breaker bar or ratchet.



2237 CRANK BOLT PULLEY TOOL - TOYOTA/LEXUS

Holds crankshaft while tightening crank bolt on Toyota 1999+ 3.0, 3.3, 4.0 V6, 4.7 V8, 1983-1995 4 cyl. 22RE, 1995-2004 4 cyl. 2.4 2RZ, 2.7 3RZ, Lexus 1990+ 3.0 L6, 3.0, 3.3 V6, 4.0, 4.3 & 4.7 V8.



1025 FORD HARMONIC BALANCER HOLDER

Holds Harmonic Balancer in place when removing or installing center bolt or Ford Taurus Pulley Extension. For 2.5 & 3.0L V6 Duratec engines from mid 1990's to 2007, including Ford Contour & Taurus, Jaguar S-Type, Lincoln LS, Mercury Sable, Cougar & Mystique & Mazda Tribute. Won't warp balancer & no need to lock flywheel!



A815 HARMONIC BALANCER PULLER

Includes: Yoke, 6-1/2" (16.5cm) center screw, pointed adapter & 4 sets of bolts: 3/8" - 16 x 4", 3/8" - 24 x 2", 5/16" - 18 x 2", M8 x 1.25 x 80mm.



2236 H.D. HARMONIC BALANCER PULLER

Includes: Yoke, 7 1/2" (19cm) center screw, Flat & Pointed adapter tips & 4 sets of bolts: M8 x 1.25 x 80mm, 3/8" - 16 x 4", 3/8" - 24 x 2" & 5/16" - 18 x 2".



A810 GM/CHRYSLER/MITSUBISHI HARMONIC BALANCER PULLER

Removes pulleys in tight engine compartments w/o removing radiator. Features 3-jaw puller, forcing bolts & center bolt w/ 3/8" square drive 3/4" hex head. For GM 2000 Generation III 4.8, 5.3, 5.7, 6.0 & 8.1L V8s, 1988+ Cadillac 4.5, 4.6 & 4.9L V8s, 1990+ Chrysler 2.0, 2.3 L-4s & 2.5, 2.7, 3.3, 3.5 & 3.8L V6 & Mitsubishi.



2248 HARMONIC BALANCER INSTALLER

Installs harmonic balancer & drive pulleys pressed on camshaft. Includes 12 adapters: M16-2.0, M16-1.5, M14-2.0, M14- 1.5, M12-1.75, M12-1.5 M10-1.5, 3/4-16, 5/8-18, 9/16-18, 1/2-20 & 7/16-20.



2249 HARMONIC BALANCER PULLEY INSTALLER- LONG REACH

For V8s & V6s on 2004+ Ford, 2008+ GM, 2006+ Chrysler/Dodge. Reduces risk of stripping threads inside the crank or breaking crank bolts M12 x 1.5 - 6", M16 x 2.0 - 8-1/4", M14 x 1.5 - 9", M12 x 1.75 - 8-1/4".



A814 GM CRANKSHAFT BALANCER PULLER ADAPTER SET

Shoulder bolts prevent incorrect installation & protect crank sensor & interrupter rings from damage on 1990+ 3300 & 3800 V6 engines. For use with all flanged-type pullers. Includes spacer adapter to give forcing screw something to push against.



2112 VALVE SPRING COMPRESSOR KIT

Replaces valve springs & valve stem oil seals w/o the need to remove the cylinder head. Applications include: BMW, VW, Audi, Hyundai, Toyota & Ford. Includes: lever bar, adapters, notched pulling tool, hook pulling tool, 2 connectors & extension.



2235 VALVE SPRING COMPRESSOR KIT

Use w/ cylinder head still on or removed. Tool bolts to head while lever pivots from base to compress spring. Removal & installation of spring retaining keepers made through openings on both sides of compression tube.



7637 CHRYSLER ROCKER ARM REMOVER & INSTALLER

Serves 1999-2013 Jeep, Dodge & Chrysler w/ 3.7L & 4.7L engines including DR, DS, HB, HG, KA, KJ, KK, ND, WK & XK systems. 3/8" drive.



7638 CHRYSLER VALVE SPRING COMPRESSOR

Valve spring compressor for Jeep, Dodge & Chrysler w/ 3.7L & 4.7L engines.

Applications include Dodge Durango, Dakota, Aspen and Jeep Grand Cherokee & Commander. Serves DR, HB, KA, KJ, KK & ND systems. 3/8" drive.



1092 FORD VALVE SPRING COMPRESSOR

Compresses valve springs w/o having to remove head. Forged construction w/ 3/8" square drive & built-in jaws. Serves 1991+ Ford 4.6L, 2-valve, V8 engines. Comparable to Factory Tool #303-567.



2823 FORD VALVE SPRING COMPRESSOR - 4.0L & 4.6L

Serves Ford 4.0L SOHC V6 engines and some 4.6L V8's including Explorer, Mountaineer, Crown Victoria, Grand Marquis & Marauder. Detachable end enables access in tight areas. Extra wedge required for some applications. Compare to Ford Factory Tool #T95T-6565-A.

NEW!



7639 FORD VALVE SPRING COMPRESSOR - 4.6L, 5.4L & 6.8L

Allows quicker, easier service for camshaft, valve seal, valve spring or retainer on Ford vehicles w/ 4.6L, 5.4L & 6.8L 3V engines. Included in #7640U Kit (page 12).



2228 VALVE SPRING COMPRESSOR

Direct action compressor lever for better access. Includes 2 valve spring adapters, fitting retainers up to 1" (25mm) & 1-3/16" (30mm). Jaw range: 1-3/8" to 5-5/8" (35mm - 142mm), throat clearance: 5-7/8" (150mm)



2234 SMALL ENGINE VALVE SPRING COMPRESSOR

Fits most OHV & L-Head engines. Works on valve diameters from 7/8" to 3-1/2" (22-89mm). 7" (18cm) opening & 5" (13cm) depth. Includes offset & straight adjustable jaws.



2231 OVERHEAD VALVE SPRING COMPRESSOR

Removes valve spring keepers & springs w/o removing cylinder head. Adjusts to fit springs on most cars. Sliding "T" handle for close clearances.



2239 THIN-PROFILE OVERHEAD VALVE SPRING COMPRESSOR

Offset jaws grip valve spring in parallel compression. No need to remove head. Extra long jaws for high performance engines. Hex head center screw & sliding "T" handle.



6500 AUTOMATIC TRANSMISSION CLUTCH SPRING COMPRESSOR

Remove & install snap-ring on long reverse piston & return spring w/o removing center shaft & clutch assembly from transmission housing. Serves GM, Ford, Toyota & more.



7646 VOLVO DIFFERENTIAL SEALING NUT WRENCH

Serves Volvo 850, 940, 940SE, 960, S60, S70, S80, V70, V70XC, XC70 & XC90. Comparable to Volvo Factory Tool #9995371.



2205 VALVE STEM SEAL PLIERS

Hardened steel tips for easy seal removal. OAL: 10" (25cm).



1060 VALVE STEM PLIERS W/ LONG REACH JAW

Removes valve stem seals from overhead camshaft engines. Long reach jaws (3-1/4" / 8cm) access recessed valves on 4 valve per cyl. motors. Inside of jaws serrated for improved gripping. Heavy-duty steel construction. OAL: 11" (21cm).



A198 LEVER-TYPE VALVE SPRING COMPRESSOR

Removes springs & valve guide seals w/o removing cylinder head. Removes rocker & fastening tool to stud w/ nut, then use an air-hold fitting & compressed air to hold valves up.



2211 OVERHEAD VALVE KEEPER TOOL

Removes & replaces valve keepers on gas & diesel overhead valve engines, including motorcycle, marine & aircraft engines. Spring-loaded w/ built-in magnet to hold keepers.



2207 VALVE TOOL SET

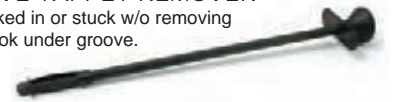
Removes and installs valve keepers on Overhead Valve Engines w/ valve stems from 4.5 to 7.5mm and 5/16" to 3/8". Magnet in tool holds keepers. Updated smaller size for Toyotas & Chrysler late model World Engines.

NEW!



2210 HYDRAULIC VALVE TAPPET REMOVER

Removes lifters that are not baked in or stuck w/o removing manifold. Heat-treated teeth hook under groove. OAL: 13" (33.5cm).



2218 SMALL ENGINE VALVE TAPPET ADJUSTING TOOL KIT

Serves most motorcycles, ATVs, & ATCs. Includes (3) 12-point offset wrenches: 8, 9 & 10mm; and (3) knurled knob tools: 3mm & 4mm square and slotted. Applications: Honda, Suzuki and all ATVs & motorcycles w/ 4 cyl. engines & screw type adjusters, including Yamaha SR185/250, XT/TT250, XS400 & ST185.



VALVE LAPPING TOOLS

Features vacuum cup & hardwood handles. Two working ends on each tool for maximum coverage.

No.	Description
9780	2 Pc. Set
9781	Large - 1-1/8" x 1-3/8" Cups
9782	Small - 5/8" x 13/16" Cups



2110 AIR HOLD FITTING SET

For fast overhead valve repairs w/o removing cylinder head. Fits 14 & 18mm spark plug holes. Accepts 1/4" air hose coupling.



OIL PUMP PRIMERS

Primes the lubricating system of new & rebuilt engines, sending oil to internal moving parts before first start. Use with 3/8" or 1/2" reversible drill.

No.	Application
2101	GM
2102	Ford - 5/16" Hex Drive
2103	Ford - 1/4" Hex Drive



ENGINE SERVICE

VW/AUDI HEAD BOLT WRENCHES - 6 PT RIBE

Long for deep-reach applications. Ribe wrenches service many other vehicle fasteners, including Trim, Cam Cover & Headlights. 1/2" drive.

No.	Size
9260	9mm
9262	10mm
9264	12mm
9266	14mm



9255 3 PC. VW/AUDI HEAD BOLT WRENCH SET

150mm long wrenches service VW & Audi headbolts. Include 10mm & 12mm Triple-Square "XZN" 12-Point & #9 Ribe/Poli-drive. 1/2" drive.



9259 BMW HEAD BOLT WRENCH - E12 TORX®

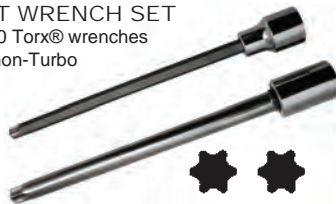
Fits cylinder head bolts on BMW M42 & M50. 1/2" drive & 6" (15cm) shaft.



9245 2 PC. BMW HEAD BOLT WRENCH SET

200mm & 230mm extra-long T50 & T60 Torx® wrenches reach BMW headbolts, including N52 non-Turbo & N54/N55 Turbo engines. Both sizes required. 1/2" drive. Comparable to BMW Factory Tool #114420.

No.	Size
9243	T50
9244	T60



9257 BENZ HEAD BOLT WRENCH - T55 TORX®

Serves Mercedes, including 1998-2005 M112/M113 & 2007 2.4L Dodge Caliber w/ New World Engine. OAL: 5-7/8" (150mm). 1/2" drive.



9240 SAAB HEADBOLT SOCKET - E16 TORX®

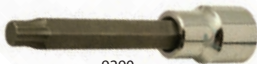
E16 Torx socket w/ 1/2" drive for extra torque requirements on Saab headbolts. OAL: 1-1/2" (37mm).



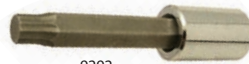
TOYOTA HEAD BOLT WRENCHES - DOUBLE HEX

12-point wrenches fit Toyota engine head bolts. 8mm applications include Toyota, Lexus & Scion up to 2006. Use 10mm for 2007+ applications.

No.	Size
9290	8mm x 1/2" Drive - OAL: 4.5"
9292	10mm x 1/2" Drive - OAL: 4.5"
9295	2 Pc. Set (9290 & 9292)
9288	8mm x 3/8" Drive - OAL: 4"



9288



9292

9258 FORD 6.0L HEAD BOLT REMOVER

3/4" drive to transmit high torque needed to loosen & tighten head bolts. Allows access to rear head bolts w/o removing cab from chassis, prevents damage to rear heat shield w/o removing evaporator housing.



2450 2 PC. PLASTIGAGE® SET

Measures clearances of engine rod & main bearings w/o expensive micrometers. Helps choose proper size replacement bearing inserts. Sets of two sizes: (.001" - .003" & .002" - .006"/.025 - .08mm & .05 - .15mm) covers all auto engines.

No.	Size	Pack Qty
2450X01	.001 - .003"	100 bulk
2450X02	.002 - .006"	100 bulk



2028 PISTON RING INSTALLER

Installs & removes piston rings w/o breakage. Spring loaded. 2-1/2 to 6-1/4" (64 - 159mm) range.



2020 PISTON RING COMPRESSOR SET

Installs 2-7/8 to 4-3/8" (73-111mm) piston rings. Includes ratcheting pliers & 6 sizes of 1-1/2" wide compressor bands. Works parallel or perpendicular to cylinder block.



PISTON RING COMPRESSORS

Features ratchet mechanism w/ square drive tool to adjust diameter, enlarged crimped edge prevents compressor from entering cylinder. Spring steel construction w/ double band design.

No.	Depth	Range
2025	3-1/2" (89mm)	2-1/8" to 5"
2027	3-1/2" (89mm)	3-1/2" to 7"
2026	6-1/2" (165mm)	3-1/2" to 7"



2035 PISTON GROOVE CLEANER

Removes carbon from ring grooves 2 - 5" (51 - 127mm). 2 cutter wheels: SAE - 1/16, 5/64, 3/32, 1/8, 5/32, 3/16 & 1/4". Metric - 2, 2.5, 3, 4 & 4.5mm.



ENGINE CYLINDER HONES

Resurface cylinder walls. Adjustable diameter & tension settings. Flex shaft fits variable speed drill. All with medium grit (220) stones.

No.	Range	Stone Length
2300	1.25-3.5" (32-89mm)	2" (51mm)
2325	2-5" (51-127mm)	3" (76mm)
2310	2-7" (51-178mm)	4" (102mm)



ENGINE HONE REPLACEMENT STONES

Set of three stones with cotter pins.

No.	Hone No.	Length	Grit
2305	2300/1130	2" (51mm)	Medium - 220
2315	2310	4" (102mm)	Medium - 220
2316	2310	4" (102mm)	Fine - 400
2317	2310	4" (102mm)	Coarse - 100
2318	2300/2325	3" (76mm)	Medium - 220
2319	2300/2325	3" (76mm)	Fine - 400
2320	2300/2325	3" (76mm)	Coarse - 100



FLEX HONES

Removes cut, torn, & folded metal to produce long wearing surface.

For engine & brake cylinders, hydraulics, valve guides, lifter bores, diesel cylinders, cam bearings, and more! All stones are 180 grit silicon carbide.

No.	Diameter	No.	Diameter	No.	Diameter	No.	Diameter
2271	.55"/14mm	1141	0.94"/24mm	1148	1.61"/41mm	1154	2.52"/64mm
2268	.62"/16mm	1142	1.00"/25.4mm	1149	1.77"/45mm	1155	2.64"/67mm
2269	.71"/18mm	1144	1.14"/29mm	1150	2.01"/51mm	1156	2.76"/70mm
2270	.75"/19mm	1145	1.25"/31mm	1151	2.13"/54mm	1157	2.87"/73mm
1139	.79"/20mm	1146	1.40"/35mm	1152	2.24"/57mm	1158	2.99"/76mm
1140	.87"/22mm	1147	1.50"/38mm	1153	2.36"/60mm		



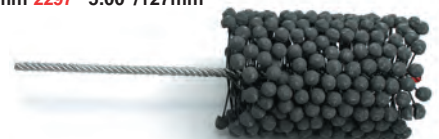
ENGINE CYLINDER FLEX HONES

No.	Diameter	No.	Diameter
2274	3.27"/83mm	2280	4.13"/105mm
2276	3.5"/89mm	2282	4.64"/118mm
2278	3.74"/95mm		



H.D. ENGINE CYLINDER FLEX HONES

No.	Diameter	No.	Diameter	No.	Diameter	No.	Diameter
2284	2.99"/76mm	2292	3.98"/101mm	2298	5.51"/140mm	2402	7.0"/178mm
2286	3.27"/83mm	2294	4.25"/108mm	2400	5.98"/152mm	2403	7.5"/190mm
2288	3.5"/89mm	2296	4.49"/114mm	2401	6.50"/165mm	2404	8.0"/203mm
2290	3.74"/95mm	2297	5.00"/127mm				



2012 MASTER COMPRESSION TESTER KIT

Test compression from lawn mowers to trucks. Includes 8" (20cm) flex hose w/ 14 & 18mm threaded end, 10, 12 & 14mm long adapters, straight extension, offset & straight adapters w/ tapered cones & gauge head w/ pressure release valve & threaded end. Gauge head w/ dual calibration (0-300 PSI / 0-21kg/cm²).

No.	Description
2012X10	10mm Adapter
2012X12	12mm Adapter



2004 COMPRESSION TESTER - FLEX HOSE

15" flex hose. Side release valve for multiple readings w/o removing tester. Includes 14 & 18mm spark plug fittings. 2.5" (64mm) gauge w/ dual calibration (0-300 PSI / 0-21kg/cm²).



2006 COMPRESSION TESTER FLEX HOSE W/ QUICK DISCONNECT

15" flex hose allows access to all cylinders. Side release valve permits multiple readings without removing tester. Includes brass quick disconnect coupler and 14 & 18mm spark plug fittings. Gauge is 2-1/2" (64mm) diameter w/ dual calibration (0-300 PSI / 0-21kg/cm²).



2002 OFFSET COMPRESSION TESTER

Allows for quick & easy seating in all spark plug holes. 2-1/2" (64mm) diameter gauge w/ dual calibration (0-300 PSI / 0-21kg/cm²).



2011 FORD TRITON COMPRESSION TESTER ADAPTER

12mm & 16mm threaded male ends fit spark plug ports on Ford Triton engines. 8.5" flex hose. Works with #2004, 2006 & 2012 testers.



2001 AUTOMATIC TRANSMISSION & ENGINE OIL PRESSURE TESTER

Serves most cars & trucks. Includes 2-1/2" (65mm) diameter w/ dual calibration (0-300 PSI / 0-21kg/cm²). 6' hose plus SAE & Metric adapters.



2013 FUEL PUMP & VACUUM PRESSURE TESTER

Checks for leaky, sticky, or burnt valves, incorrect timing, accurate fuel pump vacuum, pressure & gas line leakage. Gauge calibrated 0-30 Hg for engine vacuum readings & 0-15 PSI (0.1 - 1.0kg/cm²) for fuel pump pressure readings. Includes rubber hose & tapered fitting.



2010 CYLINDER LEAKAGE TESTER

Measures ability of engine cylinder to hold compressed air using shop air. Supplements a compression tester. Detects bad valves, rings, cylinder walls & blown head gaskets. Includes precision regulator w/ M14 & M18 adapter, 26" hose assembly & dual gauges to monitor input air-line pressure.



2800 DIESEL COMPRESSION TEST KIT

2.5" gauge w/ dual-calibration (0-1,000 PSI & 0-70kg/cm²). Side-release valve for multiple readings. 13" flex hose w/ swivel end quick coupler. Includes adapters for GM 4.3L 6-cyl, 4.3L & 5.7L 8-cyl, Ford/Navistar 6.9L & 7.3L, Int Harvester 6.9L 10mm x 10 Glow Plugs, VW, Volvo, Audi, Dodge, Benz & Cummins 5.9L (24mm x 20) & GM 6.2L V8 10mm x 10 Glow Plugs.



visit www.ctatools.com for full range of adapters

3300 FUEL INJECTION PRESSURE TESTER

Checks PFI and TBI systems. Includes 3.5" gauge w/ dual calibrations (5-145 PSI & 25-1,000 kPa), 2.5" gauge w/ dual calibrations (0-15 PSI & 0-1.00 kg/cm²) plus complete range of adapters and hose assemblies.



3355 FUEL INJECTION TESTER UPDATE KIT

Upgrades CTA #3300 w/ adapters: Hyundai, Kia, Mitsubishi Style 11mm Fuel Rail Adapter, 15mm Fuel Rail Adapter, 16mm Fuel Rail Adapter, Hair Pin Adapters 1/4" (6mm) Honda/Ford, 5/19" (8mm) Toyota/Prius 90° & Schrader Type.



3350 FUEL INJECTION PRESSURE TESTER

Serves most USA (except GM TBI) & Japanese systems. Contains large & small Schrader type test fittings, inline & end of line hose fittings, 24" hose extension & 3.5" (90mm) gauge head w/ dual calibration (5-145 PSI / 25 - 1,000 kPa).



3420 BOSCH K-JETRONIC C.I.S. FUEL INJECTION PRESSURE TESTER

Detect bad fuel pumps, pressure regulators, injectors & fuel filters. 3.5" (90mm) gauge w/ dual calibration (5-145 PSI & 25-1,000 kPa), hose assembly & brass adapters. Early CIS Fuel Injection systems & later model BMW.



3422 4 PC. CIS ADAPTER SET

Expands #3420 applications for wider range of BMW, Mercedes, Audi, VW & others w/ more current Bosch CIS systems. Includes: 12mm x 1.5 Swivel M/F Adapter, 14mm x 1.5 Swivel M/F Adapter, 16mm x 1.5 Swivel M/F Adapter, & 1/4 BSPT Swivel M/F Adapter.



3425 FUEL INJECTION PRESSURE TESTER - NON BOSCH & GM TBI

Test Chrysler, Ford, GM (non-TBI), Japanese makes, Bosch AFC, MPC, Digijet/Digifant (non-CIS), plus others using Bendix-type fuel injector or Schrader-type valve, including small Schrader valve found on Fords. 3.5" gauge w/ dual calibration (5-145 PSI & 25-1,000 kPa), hose assembly, & brass adapters.



3445 FORD/BMW/VOLVO FUEL PRESSURE TESTER

For Schrader-type test ports. 3.5" gauge dual calibrated (5-145 PSI & 25-1,000 kPa) w/ quick couplers attached to gauge & hose assembly.



3440 FORD FUEL INJECTION TESTER

Multi-port/TBI - 3.5" gauge dual calibrated (5-145 PSI & 25-1,000 kPa). 3 hose assemblies.



3430 GM FUEL INJECTION TESTER

Multi-port. 3.5" gauge w/ dual calibration (5-145 PSI / 25-1,000 kPa). Hose w/ quick disconnect.



3448 VOLVO FUEL RAIL TEST KIT

For Schrader-type fittings. 3.5" gauge (5-145 PSI & 25-1000 kPa), 10" hose w/ quick-coupler end. 90° small Schrader adapter & Volvo 8mm Schrader adapter.



3360 FUEL INJECTION CLEANING CANISTER

Use w/ CTA Fuel Injection sets & adapters. Fill canister w/ cleaning fluid & attached to gauge head & adapters to enter fuel system & injectors. Use with shop air. Includes 3.5" gauge w/ dual calibration (5-145 PSI / 25-1,000 kPa) and 5' hose assembly w/ 1/8" NPT hose end to adapt to different fittings.



3370 FUEL INJECTION CLEANING SET

Use w/ either cleaning hose or canister w/ hose assemblies & fittings for cleaning of injectors on most gasoline engines. Includes disconnect tools, hose clamps, tube nuts & application chart.



5171 AIR SUSPENSION PRESSURE TESTER

Displays air suspension pressure during service. Detects leaks and irregularities. Dual PSI & 100kPa Gauge. Hose length: 20" (51cm). 8mm x M1.0 working end services many makes and models, including Benz W220 S-Class & W211 E-Class.



INJECTORS | SPARK PLUGS

1027 HIGH PRESSURE RAIL ADAPTER SOCKET

Removes & installs Fuel Injector Adapter from High Pressure Rail to service O-rings on International Trucks, including DT466, DT570 & HT 570. 1" outer hex w/ 20mm diameter hole. 1/2" drive.



2047 IPR SOCKET

Serves Injector Pressure Regulator (IPR) on 6.0L Ford Diesels. 3/8" drive.



2746 CUMMINS HIGH PRESSURE CONNECTOR REMOVER

Removes injectors on 2006-2014 Dodge pickups & vans with 5.9L 24-valve & 6.7L Cummins turbo diesel engines.



2220 3 PC. INJECTION WRENCH SET

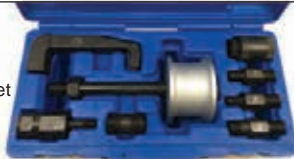
Removes injector lines on diesel engines. 12 Pt Crows Foot sizes: 14mm, 17mm & 19mm. Services automotive, truck & equipment applications. Chrome vanadium steel. Packed in blow mold case. Includes:

No.	Size
2220X14	14mm
2220X17	17mm
2220X19	19mm



1094 BENZ CDI COMMON RAIL INJECTOR PULLER

Removes injectors w/o disassembling cyl head. Includes slide hammer, puller jaw & set of threaded adapters & swivel adapter. Services Mercedes Engines: 611, 612, 613, 646, 647 & 648.



1096 BENZ INJECTOR NOZZLE PULLER SET

Removes damaged diesel inj on Sprinter & E-Class engines. Includes: puller tool, 29mm slotted inj wrench, support rings & 10mm hex tamper bit for removing center piece of injector.



1074 BENZ CDI ENGINE GLOW PLUG TOOL

Unscrew & disassemble 10mm glow plug w/o removing cyl head on Benz engine codes: 611, 612, 613 & more. 3/8" drive.



3472 BENZ INJECTOR REMOVER

T-bar/Slide hammer removes injector nozzle on M133, 152, M157, M270, M274, M276, M278. Compare to Benz Factory Tool #271 589 02 33 00



2213 BENZ INJECTOR NOZZLE INSTALLER - M278

Installs seals on fuel injectors in Benz M133, M152, M157, M270, M274, M276, M278 engines. Stainless steel. Compare to Benz Factory Tool #272 589 00 43 00.



2250 BMW FUEL INJECTOR OIL SEAL KIT

Removes & installs injector seals on BMW N13, N14, N18, N20, N26, N43, N53, N54, N55, N63, N73, S55, S63, B38 & B48. Packed in blow mold case. Compare to BMW Factory Tools #83300495756 & #130190.



7644 BMW FUEL INJECTOR REMOVER & INSTALLER KIT

Serves BMW N20, N47, N54, N55, N57 & N63 engines. Compare to BMW Factory Tools #130 180, 130 270 (CTA#7658), 130 320 & 2249 115.

No.	Size
7658	N20/N55

#7658

#7644



8877 VW/AUDI FUEL INJECTOR REMOVER/INSTALLER KIT

R&I on high pressure injectors & installs combustion chamber seal in late model VW/Audi w/ direct inj FSI systems. Includes slide-hammer, install tool, 2 puller attachments & 3 knurled collars. Compare to VW Factory Tool #T10133



2375 SPARK PLUG SOCKET

- 5/8" X 6 PT - 6" LONG
Dual 3/8" square & 3/4" hex drive.



1730 SPARK PLUG SOCKET - CHRYSLER

- 5/8" X 12 PT - 6" LONG

Thin wall magnetic socket services 2000s Jeep Grand Cherokee & Commander, Dodge Dakota, Durango & Ram 1500, Chrysler Aspen & Mitsubishi Raider.



2380 SPARK PLUG SOCKET

- 5/8" X 6 PT - 10" LONG

Deep-reach w/ recessed magnet. Services Dodge Ram 1500 4.7L, Honda & Toyota. 3/8" drive.



2395 SPARK PLUG SOCKET - BMW

- 5/8" X 6 PT - 14" LONG

Extra-long for hard-to-reach plugs found on 2006-2015 BMW N52, N53, M54 In-line 6 engines (except turbocharged). Internal magnet, chrome plated, knurled end & 3/8" drive.



2369 SPARK PLUG SOCKET - FORD

- 9/16" X 6 PT

For Ford Triton V8 & V10 Engines. 2.5" long & 3/8" drive.



2385 SPARK PLUG SOCKET SWIVEL - FORD

- 9/16" X 6 PT - 6" LONG

For Ford Triton V8 & V10 Engines. 3/8" drive w/ plastic holding insert.



2390 SPARK PLUG SOCKET - FORD

- 9/16" X 6 PT - 10" LONG

For Ford Triton V8 & V10 Engines. Deep reach & 3/8" drive.



2394 SPARK PLUG SOCKET - TOYOTA

- 14MM x 6 PT - 10" LONG

Deep-reach. Internal magnet holds spark plug firmly. For Toyota/Lexus/Scion 1.8L, plus Nissan, Land Rover, Jaguar & more. 3/8" drive.



2376 SPARK PLUG SOCKET - 14MM X 12 PT

Thin-wall socket for many late model BMW, Mini, Benz & more. 2.5" long & 3/8" drive. Comparable to BMW Factory Tool#121220.



SPARK PLUG SOCKETS - THIN WALL SWIVEL

Required for BMW N54, N55 & N63, Benz, and other Euro applications. Rubber insert to hold spark plug. 3/8" square drive. 3.6" OAL.

No.	Size
1061	14mm
4329	16mm



SPARK PLUG SOCKETS - LONG SWIVEL EXTENSION

12 Point spark plug sockets w/ 15-20° degree swivel extension. OAL: 8.7" (22cm).

No.	Size
7654	14mm
7656	16mm



3055 VW/AUDI SPARK PLUG CABLE TOOL

For vehicles w/ steel spark plug boots. Engages ears of boot shield, saves wires from damage & saves time (no need to remove intake manifold). Extra-long shaft & T-handle for pulling power OAL: 14" (35cm). Comparable to VW Factory Tool #T-10029.



3052 SPARK PLUG WIRE BOOT PLIERS

Removes spark plug wires safely. Insulated handles & jaws. Small indentations in jaws allow gripping a bare terminal w/ engine running.



3575 FORD IGNITION MODULE WRENCH

Ratcheting dual-end wrench w/ 25° offset & thin-wall 7/32" (5.5mm) hex socket & T20 Torx bit services Ford Ignition Modules.



9578 GM IGNITION SWITCH SOCKET

- E4 TORX®

2" Extra long for some GM ignition switches. 1/4" drive.



5303 BENZ IGNITION LOCK REMOVER

Removal & replacement of main ignition switch retaining ring on W129, W140, W164, W169, W171, W199, W202, W203, W209, W210, W211, W215, W219, W220, W221, W230, W240, W245, W251 & W414. Compare to Benz Factory Tool #129 589 00 007 00.



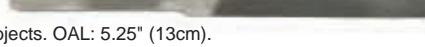
1088 5 PC. VW/AUDI TRIANGLE BOLT SOCKET SET

Fits triangular tamperproof fixings on VW Audi TDi, Bosch injector & pump seals, or adjust VW TDi injection pump timing on 1996-2003 TDi injection pumps. Accesses fuel temperature sensor by removing screws on top pump cover. Includes sizes: M5 (8mm), M6 (10mm), M8 (12mm), M10 (15mm) & M12 (16.5mm). 1/2" drive on metal rail. Chrome vanadium.



3280 IGNITION FILE

Long, thin blade for precision filing of points & other small objects. OAL: 5.25" (13cm).



3018 SPARK PLUG WIRE TESTER

Tests presence of spark w/o risk of shock or damage to wires. Identifies badly fouled spark plugs. Includes 48" (122cm) lead, hooded alligator clip & inductive tester w/ LED.



3020 UNIVERSAL IGNITION SPARK TESTER

Quickly & safely troubleshoots no-starts. See & hear if spark is present, test intensity or test spark timing w/ conventional ignition.



3012 REMOTE CONTROL STARTER SWITCH

Controls any engine w/ solenoid starter switch when making adjustments & repairs. 3' (91cm) leads, w/ hooded clamps.



3023 H.D. LOW VOLT CIRCUIT TESTER

For 6 & 12 volt systems. Heavy duty ground clip & insulator, 60" (152m) rubber wire w/ spring supported strain relief & extra thick Lexan body.



3024 LOW VOLT CIRCUIT TESTER

Tests for shorts, grounds, open circuits, broken wires & bad connections in 6 & 12 volt systems. Features 42" (107cm) long wire, impact resistant body & sharp probe.



3022 HIGH & LOW VOLTAGE CIRCUIT TESTER

Tests high voltage in spark plugs, plug wires & distributor caps. Test 6 & 12 volt systems for shorts, grounds & open circuits w/ power on. 42" (107cm) wire, impact resistant body & sharp probe.



3026 CONTINUITY TESTER

Tests all circuits with POWER OFF. Ideal for testing fuses, grounds, shorts, contacts, diodes, & all circuit components. Uses one AA battery (not included). Features 42" (107cm) wire, impact resistant body & sharp probe.



3031 COMPUTER SAFE AUTO LOGIC PROBE

High impedance tester protects computer circuitry, drawing less than 7 milliamps. Dual color LED. Services 6, 12 & 24 volt systems. Insulated probe, 72" H.D. wire, 18 gauge dual leads w/ battery clips, high-impact plastic body & spring-strain relief.



3025 COMPUTER-SAFE CIRCUIT TESTER

Tests primary auto circuits & onboard computer controlled electrical systems (3-15 volts) w/o damaging micro-processor. Bulb indicates polarity & 42" ground wire.



3032 12V & 42V CIRCUIT TESTER

Checks high volt diesel injector circuits on Ford 6.0L, 6.4L & more. Safe for low current circuits as tester only. Draws 3 milliamps at 12V. Features 2 bright LEDs, crystal clear handle for 360° visibility, 10' heavy-duty cable w/ hooded alligator clip and high-impact body with spring-strain relief.



2830 AUDIBLE CIRCUIT TESTER

Digital display for accurate voltage value and audible tone when current is detected. LED illuminates when grounded. Stainless steel test probe.



3002 COMPUTER MEMORY SAVER

Saves memory of on-board vehicle computer when battery is disconnected. Plugs into cigarette lighter. Use w/ 9V alkaline battery (not included).



3028 TEST LEADS

Two 36" (91cm) jumper leads of 16 gauge stranded wire in heavy insulation for all-purpose applications.



7662 92 PC. MASTER LINE KIT

Comprehensive testing kit for cars, trucks, tractors, ATVs, Motorcycles, boats & more. Effortlessly analyze voltage, continuity, impedance and current. Stainless steel probe tips & polypropylene coating. 1000V & 30 Amps plus CE certified w/ best heat insulation on market. Includes (2) 5KΩ variable resistor potentiometers (2), alligator clips (2), acicular probes (4), LED stroboscope (2), SRS Connector (2), 1 to 2 connector (2), 1 to 1 ext cable (4), probe (2), terminals w/ banana sockets (72).



9812 26 PC. TERMINAL TOOL SET

Most extensive terminal tool set on market. High quality steel won't damage terminals. For both import and domestic vehicles and trucks, plus special tools for coolant sensors, wiring harnesses and terminal blocks on most vehicles. Visit website for application information.



2246 7 PC. DEUTSCH

TERMINAL TOOL SET Includes most current Deutsch terminal tool removers. Packaged in pouch for organized storage. Full circle sizes: 4.6mm, 4.0mm, 2.9mm & 1.8mm. Semi-circle sizes: 5.6mm, 4.1mm & 2.9mm.



RELAY PLIERS

For safe installation & removal of relays. Nylon handles are spring loaded.

No.	Description
3064	Straight Jaws
3066	60° Jaws



3060 FUSE & BULB PLIERS

For hard to reach bulbs & fuses, including small instrument cluster bulbs, xenon, halogen, & filament bulbs. Better than screwdrivers or fingers. Plastic body w/ cushioned inserts to protect bulbs.



1012 MINI BULB PLIERS

Securely & safely grips all types of bulbs. Angled to fit in tight areas. Rubber coated gripping area for secure & safe use. Tongs withstand heat up to 212° F (100° C).



1034 VW/AUDI CONNECTOR REMOVAL TOOL

Removes VW/Audi push & pull connectors, on MAF/MAP Sensors, coil packs, headlights/foglights & level sensors. T-handle design w/ built-in hang-hole.



A365 HARNESS CONNECTOR

RELEASE SET Opens plastic multiple-wire connectors by accessing connector latches from either direction.



1070 VOLVO ECU REMOVAL TOOL

Removes ECU from body mount on. Made from spring steel w/ special grooves. Comparable to Volvo Factory Tool # 9995722.



SPARK PLUG SERVICE | FEELER GAUGES

SPARK PLUG HOLE THREAD CHASERS

Hardened steel tool removes carbon & corrosion to straighten damaged threads.

No.	Size	Drive
2360	10mm x 14mm	5/8" Hex
2361	14mm x 18mm	13/16" Hex



2340 14MM SPARK PLUG CYLINDER HEAD RETHREADER KIT

Saves cost of a new head by repairing damaged threads on aluminum heads. 5/8" hex drive slim-design tap & one each of four sizes solid steel inserts to replace damaged threads.

No.	Description
2341	14mm Tap & Reamer
2342	14mm Inserts - 3/8" Long (Set of 2)
2343	14mm Inserts - 7/16" Long (Set of 2)
2344	14mm Inserts - 1/2" Long (Set of 2)
2345	14mm Inserts - 3/8" Long (Set of 2)



98141 PRO-THREAD 14MM SPARK PLUG REPAIR KIT - TAPERED SEAT

Repairs 14mm tapered seat & gasketed spark plug ports in aluminum & cast iron heads w/o drilling. Includes tap, expanding tool & 3 sizes of inserts.

No.	Description
98142	1/4" Insert - 5 Each
98143	3/8" Insert - 5 Each
98144	5/8" Insert - 5 Each
98147	1/4", 3/8", 5/8" - 2 Each



PRO-THREAD SPARK PLUG REPAIR KIT - NON-TAPERED SEAT

Each kit includes tap, installation tool & inserts.

Kit No.	Size	Contents	Inserts	Tap Only
38109	M10-1	10 Pc. 1/2"	28109	38110
38129	M12-1.25	5 Pc. 1/2"	28129	38130
38149	M14-1.25	2 Pc. 3/8"	28159	38150
		2 Pc. 1/2"		
		2 Pc. 3/4"		



*See Page 35 For Standard Thread Repair Kits

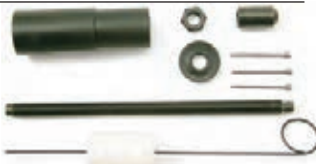
2365 3-VALVE FORD TRITON SPARK PLUG EXTRACTOR KIT

Extracts broken-off spark plug sleeves in 2004-2008 Ford 4.6, 5.4 & 6.8 engines. Includes: 8" (20cm) high-speed steel tap, extractor, guide, washer, jam nut & rubber caps to prevent thread chips from entering cylinder bore. May be used with #2364.



2364 3-VALVE FORD TRITON SPARK PLUG EXTRACTOR KIT

Extracts broken porcelain from spark plug sleeves that broke during a regular service. Services: 2004-2008 Ford 4.6, 5.4 & 6.8 engines. May be used with #2365 kit.



2367 2-VALVE FORD TRITON SPARK PLUG THREAD REPAIR KIT

Installs over-sized, alloy steel inserts to provide new threads on blown spark plugs from aluminum head. Repairs other brand inserts that fail. Applications: 1996-2003 Ford 4.6, 5.4 & 6.8 & some later applications up to 2008. Includes: 8 inserts (OD: 0.75" or 18.9mm & ID: 0.50" or 12.75mm), drill, tap, guide & air gun accessory, written instructions & DVD.

No.	Description
2366	Replacement Insert - 14mm



3235 SPARK PLUG GAPPER

Ramp gauge from .02 to 0.1" (.5 - 2.5mm).

No.	Description
099500	25 Pc. Set on Stand
3235B	Bulk Pack 25/Bag



WIRE-TYPE SPARK PLUG GAUGES

No.	Wires	Sizes:
A326	6	.025, .03, .034, .035, .040, .045"
A328	6	.04, .044, .045, .05, .06, .08"
3238	9	.025, .03, .035, .04, .044, .045, .05, .055, .060"



A315 9-BLADE STANDARD FEELER GAUGE

3" straight blades: .002, .003, .004, .006, .008, .012, .013, .020, .025", plus steel ruler w/ metric markings.



A316 15-BLADE STANDARD FEELER GAUGE

3" straight blades: .002, .003, .004, .005, .006, .008, .011, .012, .013, .014, .016, .018, .020, .022, .025", plus steel marking ruler w/ metric markings.

A317 26-BLADE STANDARD FEELER GAUGE

3" straight blades: .0015, .002, .0025, .003 through .025" by thousandths w/ metric markings.

A318 32-BLADE STANDARD FEELER GAUGE

4" straight blades: .0015, .002, .0025, .003 through .026" & .028, .030, .032, .035 and .10" brass blade w/ metric markings.

A312 15-BLADE METRIC FEELER GAUGE

3" straight blades: .06, .07, .08, .10, .15, .20, .25, .30, .35, .40, .45, .50, .55, .60, .70mm.

A314 25-BLADE METRIC FEELER GAUGE

3" straight blades: .04, .05, .06, .07, .08, .09, .10, .15, .20, .25, .30, .35, .40, .45, .50, .55, .60, .70, .75, .80, .85, .90, .95 & 1.00mm.

A310 12-BLADE OFFSET FEELER GAUGE

For valve tappets & difficult access applications. Sizes: .008, .010, .012, .013, .014, .015, .016, .018, .019, .020, .025, .026" w/ metric markings.



A309 16-BLADE OFFSET FEELER GAUGE

For valve tappets & difficult access applications. Sizes: .005 through .020" by thousandths w/ metric markings.

A311 25-BLADE EXTRA-LONG FEELER GAUGE

For long reach applications, especially diesel. 12" blades: .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .021, .025, .027, .030 & .040".



A322 17-BLADE MINI FEELER GAUGE

1.5" blades: .010, .012, .013, .015, .016, .017, .018, .019, .020, .022, .024, .025, .026, .028, .030, .032, .035" w/ metric markings.



A319 COMBINATION TUNE-UP FEELER GAUGE

6 brass blades: .006, .008, .010, .012, .014, .016". 12 steel blades: .010, .012, .015, .016, .017, .017, .018, .019, .020, .022, .024, .025, .026". 6 wire blades: .025, .030, .034, .035, .040, .45".



A308 OFFSET VALVE TAPPET GAUGE SET

Speeds valve lash adjustment. Installs proper blades for intake & exhaust settings. Offset blades for easy insertion. W/ metric markings. 11 sizes from .004" to .014".



A307 22-BLADE GO-NO-GO FEELER GAUGE

3.5" step-ground blades allow for precise measurements on clearances from .004 to .027" (.10 to .69mm).

In./In.	In./In.	In./In.	In./In.
.004/.006	.010/.012	.016/.018	.021/.023
.005/.007	.011/.013	.017/.019	.022/.024
.006/.008	.012/.014	.018/.020	.023/.025
.007/.009	.013/.015	.019/.021	.024/.026
.008/.010	.014/.016	.020/.022	.025/.027
.009/.011	.015/.017		



3145 GM SIDE TERMINAL BATTERY WRENCH - 5/16"

5/16" reversible ratchet box wrench w/ insulated handle to prevent shock. OAL: 5" (127mm).



3147 EXTRA-LONG BATTERY WRENCH - 5/16"

9-1/2" (24cm) long provides extra reach for hard-to-access applications.



3149 SIDE TERMINAL BATTERY WRENCH - 10MM

6-point 10mm reversible ratchet box wrench w/ insulated handle to prevent shock. OAL: 5-1/2" (140mm).



3125 BATTERY TERMINAL SPREADER & CLEANER

Sharp milled teeth for effective cleaning. Die-cast construction with comfort grips.



3135 BATTERY NUT PLIERS

Offset head & sharp milled teeth for any stubborn battery nut. OAL: 8" (203mm).



3110 BATTERY CARRIER

Jaws lock onto battery to grab, lift & carry. Works on both side-terminal & top-post batteries.



A339 BATTERY CARRIER STRAP

12" (30cm) strap fits all 6 & 12V top terminal batteries.



A340 2 PC. H.D. BATTERY CLAMP SET

Allows for easy repair of jumper cables. Copper plated steel clamps.



3120 3-WAY BATTERY TERMINAL CLEANER

Removes corrosion from battery clamps and posts.



3115 BATTERY BRUSH

Cleans battery terminals & posts. Rugged plastic molded body.



A337 BATTERY BRUSH

Cleans battery terminals & posts. Durable metal body.



A338 SIDE TERMINAL BATTERY BRUSH

One side designed to clean recessed terminals, other side cleans cable bolts and connectors.



7000 BRAKE BLEEDER & VACUUM TEST KIT

Bleeds brakes, tests Vacuum Gauges, transfers fluid & more. Large (2") 360° rotating diaphragm style gauge head displays inches Hg & kPa. Ergonomic & comfortable handle. Large & powerful inline piston design produces vacuum quickly. One finger lever-action vacuum release. Pivoting lever action designed to maximize output w/ minimal operator effort. Complete range of adapters & hoses included.



1250 ONE MAN BRAKE BLEEDER

Serves calipers, wheel cylinders, & master cylinders. Includes fluid collection bottle w/ magnet. Set of hoses and special tapered fittings.



1238 ONE MAN BRAKE BLEEDER HOSE

Check valve keeps air from flowing back into caliper of wheel cylinder when brake pedal is released. Eliminates need for a helper. 2' (61cm) long w/ spring clamp.



7786 2 PC BRAKE BLEEDER SET

Allows user to complete brake service quickly, easily and without mess or damage. Nipple top opening for placement of tubing, also vents bottle, eliminating need to loosen cap & risk spilling fluid. Built-in Heavy-Duty magnets for secure placement. Wire & hook adds additional security when anchored to a nearby suspension component.



NEW!

1945 8 PC. BRAKE BLEEDER WRENCH KIT

Complete brake bleeding without removing wheels or raising vehicle. Wrenches seal to bleeder valve to tighten/loosen valves w/o breaking seal. Check valve on hose eliminates drip & air/old fluid from entering system. Includes 6-point hex wrench sizes:

No.	Size	No.	Size
1946	3/8"	1950	10mm
1947	7mm	1951	11mm
1948	8mm	1952	12mm
1949	9mm	1955	4' Silicon Hose



NEW!

7010 VACUUM BRAKE BLEEDER

Removes fluid through bleeder nipple w/ shop air. 1 liter capacity, 1 meter (39") long tube w/ universal adapter. Gun w/ locking trigger & quick-connect.



7015 PRESSURE BRAKE BLEEDER

Creates pressure to push brake fluid through the system. 3 liter capacity tank w/ pressure release valve. Filling hole w/ screw cap. 0-70 PSI gauge. Updated longer, 10 foot hose w/ Nitto quick-disconnect coupler for reach.



MASTER CYLINDER ADAPTERS & KITS

7300 11 PC. ADAPTER KIT

No.	Applications
7022	Japanese
7023	GM/Chrysler
7024	GM/Chrysler
7025	Nissan
7027	GM/Chrysler
7029	European
7030	Honda
7031	Nissan, Mitsubishi, Subaru



7032	Honda
7039	Nissan Altima
7043	Quick-coupler Adapter

7300M 13 PC. MASTER ADAPTER KIT

Includes contents of #7300, plus two additional adapters:

7040	Ford Escape
7041	Toyota/Lexus

UPDATED

7021 10 PC. ADAPTER KIT

No.	Applications
7032	Honda
7033	Honda
7034	European
7035	Ford
7036	Daihatsu
7037	Mitsubishi
7038	Nissan
7039	Nissan Altima
7040	Ford Escape
7043	Quick-coupler Adapter



7310 PRESSURE BRAKE BLEEDER MASTER KIT

Includes #7015 Bleeder Tank & #7300 11 Pc. Master Cylinder Adapter Kit.

Additional Adapters not included in kits:

No.	Applications
7042	3.5" Round
7044	Ford Mustang



BRAKE | WHEEL

BRAKE BLEEDER SCREW REPAIR KITS

Repairs frozen or broken bleeder screws, no need to replace caliper or wheel cylinder. Use w/ drill & tap.

No.	Sizes
1230	1/4, 5/16", 7 & 8mm
1235	3/8, 7/16" & 10mm



1465 DISC BRAKE PAD SPREADER

Helps install pads by compressing inner pad and resetting caliper position.



1455 DISC BRAKE PISTON CUBE

Relines rear disc brakes by rotating pistons back into brake calipers when replacing pads. 5 drive pin configurations. Use with 3/8" drive tools.



1462 REAR DISC BRAKE PISTON WIND BACK TOOL KIT

Relines rear disc brake calipers w/ screw-type parking brake mechanisms. 15 adapters fit most cars w/ 4-wheel discs. Includes right & left-hand helix bolts.



1457 2-PIN BRAKE PISTON WIND BACK ADAPTER

Rotates pistons back into caliper when replacing pads. 3/8" square drive. Comparable to Mini Factory Tool #346309 & 346301.



1458 3-PIN BRAKE PISTON WIND BACK ADAPTER

For late model VW, Audi & BMW Electro-mechanical Parking Brakes (EPB). Comparable to BMW Factory Tool #83302320299.



1437 VW/AUDI BRAKE RELEASE TOOL

Special bends allows separation of brake servo push rod from the brake pedal. Fits most 2008+ VW/Audi.



BRAKE CALIPER BOLT HEX SOCKETS

2-piece socket design with 3/8" drive.

No.	Size
1476	3/8"
1477	7mm
1478	8mm
1489	9mm
1479	10mm



1485 9 PC. BRAKE CALIPER SOCKET SET

Includes: 1/4", 3/8", 7mm, 8mm, 10mm hex & T40, T45, T50, T60 Torx. All 3/8" drive except T60 hex (1/2" drive).



1440 BRAKE ROTOR & DRUM REMOVAL TOOLS

Serves European & Japanese cars w/ 10mm threaded holes in rotors & drums. Turn by hand w/ knob or by wrench w/ hex shaft. Avoids damages to rotors w/ magnetic ABS sensors & sealed wheel bearings.



1488 HONDA/ACURA BRAKE DRUM & ROTOR TOOL

No. 3 Phillips bit w/ 5/16" hex shank assembled to 3/8" square drive bit holder for high-torque applications such as Honda Brake Rotors.



1435 DISC BRAKE GAUGE

For accurate measurement of disc brake thickness. 0-60mm range. Allows one to hold reading when removing gauge over lip of rotor. Same function as expensive micrometers. Doubles as a tire tread depth gauge.



1430 MANUAL BRAKE GAUGE SET

For accurate measurement of remaining brake lining between the pad & rotor. 8 color-coded sizes: Red/Danger: 2 & 3mm, Yellow/Warning: 4, 5 & 6mm, Green/Good: 8, 10 & 12mm. All steel construction.



1410 BRAKE SPRING COMPRESSOR

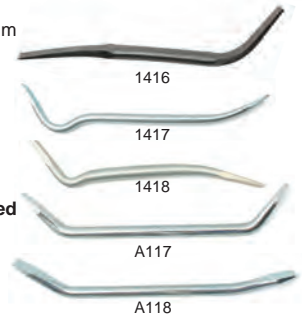
Removes & replaces brake shoes hold-down springs. OAL: 6" (15cm).



BRAKE ADJUSTERS

Adjusts clearance between brake drum & brake shoe. Fits through slot in backing plate & turns star wheel. Tools vary by angle and width.

No.	Slot Sizes
1416	5/8" Flat x 5/8" Flat
1417	5/8" Flat x 5/8" Beveled
1418	1/2" Flat x 1/2" Flat
A117	7/16" Flat x 7/16" Beveled
A118	3/8" Flat x 3/8" Beveled



A115 BRAKE SPRING PLIER

Removes & installs shoe return springs on most drum brakes.



1459 DRUM BRAKE SPRING PLIERS

Offset head w/ special curved ends grips washer for removal & re-installation of small return springs. Spring loaded adjusts to wide range of diameters. Open design allows clear view of washer.



BRAKE CYLINDER HONES

Removes deposits and corrosion in brake cylinders. Use w/ electric drill.

No.	Type	Length	Range	Grit
1110	Standard	22mm	19-64mm	Medium
1120	Small	22mm	13-57mm	Medium
1130	Disc Brake	19mm	19-64mm	Medium



REPLACEMENT STONES FOR HONES

Includes cotter pins. Fits most brands.

No.	Qty	Length	Grit
1115	3	22mm	Medium
1116	3	22mm	Coarse
1117	3	19mm	Fine
1125	2	22mm	Medium
1135	3	19mm	Fine



FLEX HONES® FOR ROTORS

Reduces brake noise caused by spiral grooves on the braking surface. Ideal for new or re-turned rotors and flywheels. Use at low speed only (500 - 600 RPM).

No.	Grit
1170	Coarse
1172	Medium
1174	Fine



4815 2 PC. WHEEL STUD CLEANING BRUSH SET

For quickly cleaning debris and rust from wheel studs when changing tires. Two sizes for different diameter studs. Removable cap for using male brush end.

No.	Diameter	Color
4800	7/16"	Red
4810	9/16"	Blue



2 PC. WHEEL HANGER SETS

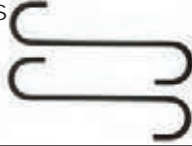
Threads into wheel hub for vehicles w/ lug bolts instead of wheel studs. Allows easier alignment & installation of wheel onto hub. Install or remove using a screwdriver or any bar. Metal Construction. OAL: 6" (15cm).

No.	Size
8872	M12 x P1.5
8874	M14 x P1.5
8876	M14 x P1.25



1138 2 PC. BRAKE CALIPER HANGERS

Holds brake calipers out of the way while working on brakes. Also hangs other automotive parts & tools. Sturdier than zip ties or wires. Reduces damage to calipers & other parts. 1/4" thick steel for strength and durability. OAL: 7-3/4" (20cm).



THIN-WALL IMPACT FLIP SOCKETS

For servicing recessed wheel nuts. 1/2" drive in center allows socket to "flip" from one size to another OAL: 3" (76mm). Half metric sizes required for damaged chrome capped lug nuts, distorted from poor service, overtorquing, or improper leverage.

No.	Description
A162	3/4" x 13/16"
A164	19mm x 21mm
A166**	3/4" x 13/16"
A168**	19mm x 21mm
4217	22mm x 24mm
4221	18.5mm x 19.5mm
4222	22mm x 22.5mm
1799	21mm x 21.5mm



** Extra Thin-Wall

1463 5 PC. FLIP SOCKET SET

5 piece set of "Flip" Sockets includes (4) flip sockets: #4221, #4222, #A168, #1799, & 1/2" drive extension.



4218 MERCEDES THIN-WALL IMPACT SOCKET

17mm x 6-point "Flower Design" for 2009+ Benz lug bolts. 85mm long w/ protective plastic sleeve to prevent scratching of wheels. 1/2" drive. Comparable to Benz Factory Tool #0009905407



THIN-WALL IMPACT SOCKETS

Chrome Moly color-coded socket w/ anodized finish. Protective plastic sleeve prevents scratching of wheels & lug nuts. Removable internal magnetic insert. 1/2" drive.

No.	Description	No.	Description
A173	13/16"	A177	17mm
A174	7/8"	A178	19mm
A175	1"	A179	21mm
A176	1-1/16"	A180	22mm



1014 4 PC. THIN WALL METRIC IMPACT SOCKET SET

Includes #A177, A178, A179 & A180.



A159 7 PC. THIN WALL IMPACT SOCKET SET

Includes #A173, A174, A175, A176, A177, A178 & A179.



7800 9 PC. THIN WALL IMPACT SOCKET SET

Includes #A173, A174, A175, A176, A177, A178, A179, A180 & 4218.



LUG NUT REMOVER SOCKETS

Internal reverse tapered thread to remove stripped lug nuts or lug nuts w/ missing keys. Use w/ 1/2" drive impact wrench. Heavy duty threads make these sockets reusable!

No.	Description
A146	3/4"
A147	13/16"
A148	1"
A149	1-1/8"
4002	15/16"
A155	2 Pc. Set - A147 & A148
A157	3 Pc. Set - A147, A148 & A149
A154	4 Pc. Set - A146, A147, A148 & A149
4001	5 Pc. Set - A146, A147, A148, A149 & 4001



1775 LUG DRILLER

Removes the most difficult locking nuts quickly, safely and without damage to wheels or rim. Great for import vehicles with lost locking lug nut keys. Includes (4) nylon internal centering guides, (3) metal external centering guides, (1) metal centering guide for free turning lugs, (2) special ultra hard drills, (4) extractors, (1) impact extractor holder, and (1) impact extractor remover. Visit website for detailed instructions and operational video.



4710 10-POINT TUNER LUG NUT SOCKET

Services tuner lug nuts & some import OE lug nuts. Bit-in-socket design for extra torquing power. 5" (25mm) long. 1/2" drive.



4900 4 PC. INNER BUDD NUT & WHEEL STUD REMOVER SET

Patented internal tapered reverse threads lock onto damaged stud or nut & easily pulls off using impact wrench. Wheel stud removers for 5/8" & 3/4" sizes are 3/4" hex drive. Budd nut removers for left & right hand. Threads are 1-1/8" hex drive.



AXLE NUT SOCKETS

For removing & installing front hub/axle nuts. All w/ 1/2" drive*.

No.	Size	Point
A417	27mm	6
A418	33mm	6
A419	38mm	6
A420	30mm	6
A421	30mm	12
A422	32mm	6
A423	32mm	12
A424	34mm	6
A425	36mm	6
A426	39mm	12
A427	24mm	6
A428	29mm	6
A429	35mm	6
A431	34mm	12
A432	36mm	12
A433	46mm	6
4145	43mm	6
4146	46mm	12 *(3/4" drive)
4229	9 Pc. Set (A428, A420, A422, A418, A424, A429, A425, A419 & A421)	



4219 BENZ FRONT AXLE NUT SOCKET - E24 TORX®

Fits special conical style lug bolts. Impact grade w/ 1/2" square drive. Services 4MATIC models including new C-Class (204, E-Class (212) & S-Class (221)).



WHEEL

LOCK NUT SOCKETS

For removing & installing rounded or hex nuts. All w/ 1/2" drive.

No.	Size	Applications
4180	2-1/2" Round	1995-2001 Ford F Series & full size Broncos w/ automatic locking hubs
4182	2-3/4" Round	3/4 & 1 Ton Ford F250, F350 & F550 Trucks w/ automatic locking hubs
4184	2-3/8" Hex	1984-1992 Ford Rangers, Bronco II's w/ automatic locking hubs
4186	2-9/16" Round	1990-1993 Dodge Trucks w/ Dana 60 manual hubs
4188	2-3/8" Round	1990+ Ford Rangers, Bronco II's & Explorers w/ automatic locking hubs
4190	55mm Hex	Toyota FJ, LN & RN models w/ front adjusting nuts
4192	2-1/2" Hex	Rear Axle & Front Axle applications on light duty trucks



visit www.ctatools.com for application details

1720 BMW FRONT WHEEL HUB BEARING TOOL

For BMWs w/ stub axle. Guides wheel hub & bearing assembly on & presses bearing into place on E28, E36, E46, E53, E60, E61, E67, E83, E85, E86, E90, E91, E92. M30X1.5 Threads. Compare to Factory Tool #83300491905.



4026 DODGE WHEEL HUB REMOVAL TOOL

Removes stuck front hubs on 2500 (3/4 ton) and 3500 (1 ton) Dodge P/U's (Late 1990+). Place against hub bolt & turn power steering against tool. Faster and safer than sledge hammer. Solid steel cylinder w/ 3/4" hex opening. OAL: 4-3/4" (12cm).



1200 INNER BEARING RACE PULLER

For precision removal of inner bearing races from wheel hub. Ideal for Transmission Shops & Truck Repair. Includes: Puller, Collet Chuck (48-52mm) for Ford Transit, T330, Collet Chuck (52-56mm) for VW/Audi, Spindle, Reaction Handle, Clamp Nut, Wrench & Pressure Pieces. In blowmold case.



4244 ADJ WHEEL BEARING LOCKNUT WRENCH KIT

Adjustable locking jaws fit 6 & 8-point truck wheel bearing lock nuts. Ridged design for grip. One tool covers dozens of wrench sizes. 6-point range: 1-3/4" to 5-3/4" 8-point range: 1-3/4" to 5-5/8" (49mm to 143mm). Includes 3 sets of pins to fit nuts w/ pin holes.



WHEEL BEARING LOCKNUT SOCKETS

Varying lug designs fit the locknuts on many vehicles. Use w/ 1/2" drive tools.*

No.	OAL	Depth	I.D.	O.D.	Applications
4135	3-1/16"	2-1/2"	2-1/4"	2-5/8"	1981-1997 Ford F150 & Bronco w/ Dana 44 outer lock nut
4140	1-9/16"	1"	2-3/32"	3-5/32"	1995+ 4WD Tacomas, 1996+ 4WD T100 & 4Runners, all w/ lockout hubs
4150	3-3/16"	2-5/8"	2-1/16"	2-5/8"	1993+ Ford Ranger, Bronco II & Explorer w/ manual hubs, 1995+ Ford F-series 1/2, 3/4 & 1 ton trucks & full size Broncos w/ manual hubs, 1959-1985 Ford F-series 1/2 & 3/4 ton truck & full size Bronco, 1960-1990 GM 1/2 ton truck & full size Blazer & Jimmy, 1969-1972 International 1/2 ton trucks, 1969-1989 Dodge 1/2 ton trucks w/ manual hubs
4155	3-1/16"	2-1/2"	2-1/4"	2-5/8"	1978-1984 Ford F-series Heavy-Duty 3/4 & 1 ton 4WD trucks 1973-1981 GM 3/4 & 1 ton 4WD trucks
4160	3-11/32"	2-3/4"	2-1/16"	2-3/8"	1984-1992 Ford Ranger & Bronco II w/ manual hubs, 1986-1995 Ford F-series 1/2 ton truck and full-size Bronco w/ Dana 44 front axle, 1990-1993 Dodge trucks w/ Dana automatic hubs
4165	3-5/32"	2-3/4"	2-5/16"	3"	1985-1995 Ford F-series Heavy-Duty 3/4 & 1 ton Dana 50 IFS or Dana 60 front axle, 1985-1995 Ford F-series 1/2 ton truck & full size Bronco w/ Dana 28 front axle, 1982-1990 GM Heavy-Duty 3/4 & 1 ton trucks
4166	3-17/32"	2-3/4"	1"	2-3/4"	2003-2014 Ford F250, F350 & F450 Super Duty trucks w/ 10-1/2" rear axle
4168	3-5/32"	2-5/8"	2-5/8"	2-3/4"	Retaining nut on 2 & 4-wheel drive Avalanche, Cheyenne, Escalade, Sierra & Silverado trucks w/ 10-1/2 - 11-1/2" ring gears
4170	3-1/4"	2-5/8"	1-15/16"	2-1/4"	1988+ Isuzu Trooper, Rodeo, Amigo & pick-ups, 1989+ Honda Passport & Jeep J20 pick-ups w/ Dana 60
4175	3-17/32"	2-3/4"	2-1/4"	2-3/4"	1985+ Ford F250 & F350 w/ Dana 80 rear axle, 1987+ Ford E350 w/ Dana 80 rear axle, 1988+ Ford F super duty w/ Dana rear axle & 10-1/4" ring gear
4177	2-7/8"	2-3/32"	1-1/8"	2-5/8"	1946+ Chevy & GMC 5,200 & 7,200 lb axles (*3/4" Drive)
1724	1-3/4"	1"	2-1/16"	3-1/16"	2007-2014 Toyota Sequoia, Tundra & 4Runner (*3/4" Drive)
NEW 1083	3-27/32"	2-3/4"	1-1/2"	2-3/4"	Ford Transit 2014+



8650 WHEEL BEARING & HUB R & R KIT

Services rear wheel hub & bearing on German vehicles & front wheel hub & bearing on USA, Asian & German vehicles.



8672 45MM BMW ADAPTER

45MM OD adapter services BMWs w/ smaller hub diameters.



8675 4 PC. LARGE BEARING KIT

Use with kit #8650 to service bearings from 89mm to 99mm OD found on Benz, BMW & Honda.



8650M WHEEL BEARING & HUB R & R MASTER KIT

Comprehensive kit includes #8650 Wheel Bearing & Hub Kit, #8675 Large Bearing Kit, & #8672 BMW 45mm Adapter washer.



NEW!

4028 TOYOTA WHEEL BEARING LOCK RING PLIERS

Special angles & tips engage ears for easy removal & replacement of pressed-in locking rings.



4300 FRONT WHEEL HUB PULLER

Separates FWD hub/steering knuckle from drive axle on vehicles w/ independent front suspension. 3/4" hex drive center screw w/ jam nut. Use w/ slide hammer. 5/8" - 18 thread.



4305 LARGE HUB PULLER

Widened hole footprint to accommodate larger 5 x 120mm lug patterns. Internally machined yoke to fit over larger flanges. 75mm recessed opening & 90mm (7-1/2") long bolt for more applications, including most BMW's. 5/8" - 18 thread.



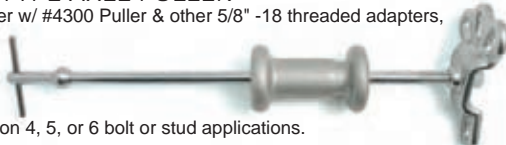
4320 UNIVERSAL HUB PULLER

Removes wheel hubs mounted on tapered axles & press-fit rear drum brakes. Adjustable legs extend up to 8" (20cm) diameter bolt circle. Hub clearance 5" high & legs 6" long.



4310 FLANGE TYPE AXLE PULLER

Use as a wheel puller w/ #4300 Puller & other 5/8" - 18 threaded adapters, including #4245 & #1040 CV Joint Pullers. 5lb. (2.3kg) hammer & 4-slot forged yoke for use on 4, 5, or 6 bolt or stud applications.



A488 REAR AXLE BEARING SERVICE SET

For removing semi-floating rear axle bearings. 3 sizes service most vehicles. Use with 5/8"-18 UNF thread slide hammers. Fits minimum bearing tube I.D. from 1" to 1-3/8" (25-35mm) & maximum axle tube I.D. from 1-7/8" to 2-7/8" (48-73mm).



4245 CV JOINT PULLER ADAPTER

Pulls CV joints w/ hidden retaining rings w/o damaging roller bearing inside the joint. Use w/ #4310 Axle Puller. 5/8" - 18 threaded hole, 1-7/8" (48mm) wide opening.



1040 CV JOINT PULLER ADAPTER - WIDE

63mm (2-1/2") wide opening allows proper fitment on larger applications, including Ford F150 4WD & others. 5/8" - 18 threaded hole works w/ #4310 Puller plus other standard pulling tools.



4204 CV JOINT ASSEMBLY REMOVAL TOOL

Separates CV Joint from axle w/o removing drive shaft. Prevents damage to CV Joint & saves time. Multiple hole pattern allows adjustment to different depths. OAL: 9-7/8" (25cm) & inside opening: 3-7/8" (10cm).



4240 CV JOINT BOOT CLAMP SET

Set of free-end clamps for banding CV Joint Boots. Use with #4230 Banding Tool. Includes two 10" (25cm) & two 19" (48cm) clamps for any CV Joint application.



4230 CV JOINT BOOT CLAMPING TOOL

Installs free-end clamps like the #4240 - CV Joint Boot Clamp Set - or pre-formed clamps on CV Joint Boots. Operate w/ 1/2" hex drive or T-handle.



4210 CV JOINT BOOT CLAMP PLIERS

Install Oetiker-type clamps used on GM CV joint boots. Built-in 1/2" square drives in each arm for use w/ torque wrench & breaker bar. OAL: 11-1/2" (29cm).



4215 CV JOINT BOOT CLAMP PLIERS - EARLESS

Installs earless clamps, including on GM inboard CV joints. OAL: 71/2" (19cm).



4040 GM TORSION BAR

Holds torsion bar while making adjustments. Services: 1988 - 2010 GMC, Chevrolet 1/2 ton, 3/4 ton & 1 ton pickups, S-10 Blazer, S-15 Jimmy, 4WD pickups w/ 4.3L V6 engine & 1991-2001 Oldsmobile Bravada.



4045 GM TORSION BAR - LARGE

Holds torsion bar while making adjustments. Services 2011 & up HD C/K trucks.



4017 2 PC. AXLE POPPER KIT

Separates half-shafts from transaxle. Shim tool fills gaps on some applications. Both 14" (36cm) w/ 2" (5.1cm) opening. Machine forged.



SUSPENSION

4003 SAAB BALL JOINT TOOL SET

Act as spacers to allow easy ball joint replacement & suspension repairs on 1979-1993 Saab Classic 99/900.



A446 VOLVO STRUT NUT SOCKET SET

Removes & installs top shock retaining nut on S40, S60, S70, S80 & S90. Includes holding socket & double-D axle center socket. Double-D: 8mm "flat-to-flat".



A445 GM10 STRUT TOOL

Replace strut cartridge w/o jacking car or compressing spring on 1988+ Grand Prix, Buick Regal, Cutlass Supreme & 1990+ Chevrolet Lumina. Use with 1/2" drive tools.



A444 VW/AUDI STRUT NUT SOCKET

For FWD VW & Audi w/ top shock-retaining nut recessed inside strut tower. Center bore holds strut shaft to keep from turning. Use w/ 7/8" (22mm) socket.



4005 VW/AUDI STRUT NUT SOCKET

Oval shaped bit for suspension strut housing nuts on newer VW/Audi. After removing pinchbolt this tool will spread wheel bearing carrier clamp. Turn 90° & leave in place while replacing strut. Also fits BMW, Seat, Renault, Peugeot & more. Also great for turning struts. 5.5mm x 8.2mm oval. 3/8" square drive. Note: Late model pinch bolts need a 14 mm triple square driver to remove - use #2059. Comparable to VW Factory Tool #VW-342OE-MIG.



1080 BENZ STRUT NUT SOCKET

Removes & installs top shock retaining nut on W203. 2-pin design w/ 22mm hex body.



A430 GM SHOCK ABSORBER SOCKET

"Double-D" socket holds shock piston stem while deep socket is used to remove nut. ID: .33" x .25" x .3" deep. 3/8" drive OAL: 31.75mm. OD: 13.8mm at "Double-D" end.



4400 STRUT ALIGNMENT LEVEL

Restores vehicle camber setting after strut repair or installation. Allows vehicle use before making a more precise alignment. Works on all vehicles w/ MacPherson Struts. Also use for CV Joint, ball joint, or tie rod end service. Powerful magnet for mounting. Includes camber settings from 6° to +6°.



4038 REBOUND SPRING STRUT SERVICE KIT

Allows piston to be held in extended position while replacing internal rebound spring shock absorber. Includes Telescopic Puller, Puller Base Plate, Puller Handle, Piston Shaft Clamp w/ Nylon Jaws, 34mm & 59mm Piston Clamp Bolt Sets, 6mm Hex Key. Applications: BMW, Ford, Fiat, Mercedes, Nissan, Toyota.



4037 H.D. MACPHERSON STRUT SPRING COMPRESSOR

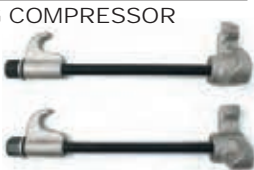
Compresses coil spring to replace shock absorber unit or spring. Works on bent struts, strut tubes, & damaged pieces. Forged construction, Acme threaded rod, & built-in detent pins to help lock coil in place. Clamshell packaging.



No.	Description
4037K	Packed in Box

4035 MACPHERSON STRUT SPRING COMPRESSOR

Compresses coil spring to replace shock absorber or spring sets or to repair damaged spindles. Includes safety hooks. Clamshell packaging.



No.	Description
4035K	Packed in Box

4030 COIL SPRING COMPRESSOR

Removes, installs & compresses coil springs reached through center of coil. Acme threaded rod & forged, heat-treated alloy hooks.



4036 COIL SPRING COMPRESSOR - EXTERNAL

Removes & installs coil springs where removal through center of spring is impossible. Services Straight & Curved Coil Springs. Includes S-bolts & wing nuts.



4080 BMW CONTROL ARM SLEEVE TOOL KIT

Eliminates need to remove swing arm when removing or replacing bushings. Aluminum adapter prevents damage to sleeve. For 2005+ 330xi, E90, E91, E92 3 & all X Series.



8920 BMW REAR CONTROL ARM BUSHING KIT

Press tool removes & installs control arm bushings without removing control arm from car on E38, E39, E52, E53, E60, E61, E63, E64, E65 & E66. Packed in blow mold case.



7642 BMW TRAILING ARM BUSHING REMOVAL & INSTALLATION TOOL

For E36 & E46 (3 Series only). This tool will not service some E36 with newer bushing style.



3755 LOWER REAR CONTROL ARM SOCKET - HONDA/ACURA

10 Point x 19mm socket services Honda & Acura rear trailing arms. 1/2" drive. Applications: 2001+ Acura RSX & Honda Civic.



3039 14 PC. SHOCK & STRUT TOOL KIT

For removing and installing shocks & struts. Ratchet & socket are thin enough to clear camber plate & deep to reach nut. Use w/ 1/2" drive sliding T-bar for better torque. Includes (1) 21mm ratchet, (7) 82mm long sockets sizes: 16, 17, 18, 19, 21, 22 & 24mm, (3) hex sockets sizes: 6, 7 & 8mm and (2) Double-D sockets sizes: 5mm x 8mm & 6mm x 8mm.



NEW!

8692 BMW BUSHING REMOVER & INSTALLER

Remove & install rear axle carrier ball joint w/ carrier in place on BMW E38, E39, E52, E53, E60, E61, E63, E64, E65, E66. Packed in blow mold case.



8690 BENZ BUSHING REMOVER & INSTALLER

Remove & replace metallic bushings on Most 1984+ Benz rear axles. Pressure piece provides correct position of bushing & cut-out in cap allows sighting of bushing position. Packed in blow mold case.



2059 VW/AUDI SUSPENSION SYSTEM SOCKET

14mm x 12-point XZN socket w/ tamper-proof head services many VW, Audi & Porsche axle bolts, differential bolts & transmission drain plugs. 1/2" drive.



8881 SUBARU BALL JOINT PULLER

Removes front suspension ball joints. on Subaru Impreza 1993-2014, Forester 1998-2015, Legacy & Outback 1994- 2014, Baja 2003-2006 & Saab 9-2X 2005-2006



NEW!

1082 BENZ BALL JOINT SOCKET - 4 LUG

M-Class (W163/W164) 3/4" drive. OD: 63mm & ID: 50mm.



1084 BENZ BALL JOINT SOCKET - 6 LUG

Sprinters. 3/4" drive. OD: 68mm & ID: 50mm.



1732 BENZ/BMW BALL JOINT SOCKET

41mm x 12 Point for lower ball joint on Benz and BMW.



1031 AUDI BALL JOINT SOCKET

2009+ A4, 2008+ A5, 2012+ A6, 2010+ A7 & 2009+ Q5. Turns ball joint after releasing pinch bolt. 27mm hex w/ 18mm diameter hole. 1/2" drive.



CHRYSLER BALL JOINT SOCKETS

Remove & install screw-in type ball joints. 3/4" drive.

No.	Size	Application
4006	1-5/9/64"	Mid-size & rear-wheel
4007	2-9/64"	Light trucks & vans



4020 PITMAN ARM PULLER

Pointed tip center screw & 3/4" hex head. Opening: 1-5/16" (33mm). Depth: 2-1/2" (64mm).



4025 PITMAN ARM PULLER - SMALL

Pointed tip center screw & 3/4" hex head. Opening: 1-1/8" (29mm). Depth: 2-1/4" (57mm).



4013 BALL JOINT SEPARATOR

Separates ball joint from spindle support arms found on many front wheel drive vehicles. Adjusts up to 2" for different size ball joints. Compare to VW Factory Tool #3287.



4019 VOLVO BALL JOINT INSTALLER & REMOVER KIT

For lower control arm ball joint. Includes 4 slide hammer puller adapters: M12 x 1.75, M14 x 1.5, M14 x 2.0 & 5/8" x 18. Services: 2001-2009 S60, 1999-2006 S80, 2001-2007 V70, 2003-2007 XC70 & 2003-2014 XC90.



4004 BALL JOINT SERVICE KIT

Contains press, 3 receiver tubes, installation, removal adapters, plus 4WD adapters to service 1967+ 1/2 & 3/4 ton vehicles w/ Dana 44 front axles. Also services U-joints & heavy-duty truck brake anchor pins.



4018 5 PC. PICKLE FORK SET

For separating ball joints, tie rods & pitman arms. Includes 3 Forks w/ 1-1/8", 15/16" & 11/16" openings plus 2 handles for manual & air operation.



A415 BALL JOINT SEPARATOR

Separates ball joints from steering knuckle. 1" (25cm) opening. OAL: 12" (30cm).



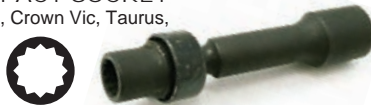
A410 TIE ROD SEPARATOR

Separates tie rod ends from steering knuckles, idler arm & Pitman arms, preventing damage. OAL: 16" (40cm).



4340 FORD DRIVE-LINE IMPACT SOCKET

Services U-Joints on 1980+ Mustang, Crown Vic, Taurus, Explorer, Ranger, F150 & Mercury. Chrome Vanadium, 1/2" drive w/ 12-point x 12mm swivel head.



A412 TIE ROD END REMOVER

Swivel tipped forcing screw aligns to tie rod stud to prevent damage. Heavy-duty forged body. Services imports & many FWD vehicles, including SUV's w/ rack & pinion steering.



4011 TIE ROD REMOVER & BALL JOINT SEPARATOR

Pulls tie rod ends w/o hammering or prying. 2-1/2" (64mm) spread & 2-1/4" (57mm) reach. Services tie rods, gears, pulleys, and ball joints.



4012 INNER TIE ROD TOOL KIT

R&I on inner tie rods w/o removing rack. 20" (51cm) socket w/ 7 crows-foot inserts. 1/2" drive. Insert sizes: 1-3/16", 1-1/4", 1-5/16", 1-7/16", 14mm, 17mm & 33.6mm.



4014 INNER TIE ROD TOOL

Removes inner tie rods w/o removing outer tie rods. Will service tie rods w/ flats & smooth tie rods. Slide tool over end & tighten collar to allow access w/ a 3/8" drive extension.



A150 STEERING PIVOT PIN TOOL

Removes Pivot Pins found on tilt & telescopic steering columns. Works on GM, Ford & Chryslers w/ Saginaw steering columns.



1504 STEERING WHEEL LOCK PLATE REMOVER/INSTALLER TOOL

Adapter flips to fit both 9/16" - 18 & 14mm threads to service tilt-wheel and telescoping columns. 5" (127mm) deep narrow yoke.



4008 STEERING KNUCKLE SPREADER

For removal & fitting of shock absorbers w/o damaging aluminum or cast iron knuckle. Tool adjusts for centered or non-centered slot. Services: Audi, BMW, Volkswagen, Ford, Seat, Renault, Peugeot and many Japanese vehicles.



1063 TOYOTA STEERING RACK TOOL

Removes & installs cylinder end stopper on 2004-2009 Lexus RX330 & RX350, plus 2004-2007 Toyota Highlander. Allows steering rack to remain in vehicle w/o using screwdriver or hammer, preventing damage. 3/8" drive.



1500 STEERING WHEEL & LOCK PLATE SERVICE KIT

Services most steering wheels, including telescopic tilt columns. Includes: 4 sets of cap screws, 2 yokes, Metric & SAE lock plate adapters & washers. A must for removing/installing steering wheel lock plate for directional signal switch replacement or other steering column repairs.



1515 H.D. STEERING WHEEL PULLER KIT

Removes steering wheel for replacement or repair directional signal switch, horn contacts, etc. Will not damage steering wheel or column. Includes: 5 sets of side bolts: 5/16"-18, 5/16"-24, 3/8"-16, 1/4"-28 & 8mm-1.25. Yoke & center screw w/ removable pointed adapter.



1512 STEERING WHEEL PULLER KIT

3 sets of side bolts: 5/16"-18, 5/16"-24 & 3/8"-16 plus yoke & center bolt w/ flat adapter.



1520 STEERING WHEEL PULLER LEGS

Use w/ any steering wheel puller, when steering wheels do not have tapped holes. OAL: 5" (127mm). Applications include: Cadillac, Chevy/GMC, Buick, Oldsmobile, Pontiac, Jeep Cherokee & Ford Pick ups & Explorer.



7539 GM A/C CLUTCH PLATE TOOL

Services GM A6 & R4 compressors w/ SAE threads only. Installer tool ID 3/8" - 24.



7500 A/C CLUTCH PLATE TOOL

Removes & installs clutches on GM, DA6 & V5 compressor clutches w/ 8mm & 9mm threads, w/o removing retaining ring.



1076 VOLVO HEATER BLOWER MOTOR TOOL

Removes & installs climate control blower motor on Volvo 2011-2016 S60, 2007-2016 S60L, 2007-2016 S80, 2008-2016 S80L, 2015-2016 V60, 2008-2016 V60 Cross Country, 2008-2010 V70, 2008-2016 XC60 & 2008-2016 XC70. Also services Land Rover 2008-2015 LR2 & 2011-2016 Range Rover Evoque.



BODY | INTERIOR

5300 2 PC. HOG RING PLIER SET

Used for upholstery work on most vehicles. Two types will services all "hog ring" fasteners. Spring loaded with cushion grips.

No.	Description
5302	Offset 45°
5304	Straight



5310 CLIP REMOVAL PLIERS

Tapered forks slide under most types of auto body clips for easy removal. Spring loaded & w/ comfort grip.



5205 BODY CLIP PLIERS

Steel levers embedded in glass-filled nylon tips for removal of clips found on trim, bumpers, etc. on.



5210 PUSH PIN PLIERS

Removes plastic push pins found under hood & trunk w/o damage to pins or anchors. Sharpened/hardened jaws & spring-loaded. OAL: 9-1/2" (24cm)



A575 DOOR PANEL FASTENER REMOVER

Removes common plastic fasteners found on door panels. Features offset head for easy access & improved leverage.



5160 EXTRA-LONG TRIM TOOL & PRY BAR

For use on instrument panels, door thresholds, interior trim, trunk panels, etc. Nylon plastic body won't mar or scratch surfaces. 15-3/4" (400mm) for extra reach.



5150 5 PC. AUTO BODY REMOVER KIT

Remove all types of automotive plastic fasteners, molding and parts. Lightweight but strong, the all-plastic body will not mar or damage interior parts. OAL: 8" (20.5cm).



5170 7 PC. PLASTIC PRY BAR SET

For prying, scraping, fastener removing & more! Plastic design prevents scratching or marring of sensitive surfaces. Each is 7" (18cm) long. Built-in hang hole.



1010 ERASER WHEEL W/ ARBOR ADAPTER

3.5" diameter wheel quickly & cleanly removes pinstripes, decals, adhesive & double-faced tape from vehicle surfaces. Molded rubber body with 5/16"-24 thread arbor. Maximum 4000 RPM.



1093 VW/AUDI PULLER HOOK

Extra-thin shaft w/ short hook removes interior lighting shades, interior lining, & more for many VW/Audi vehicles. Hard plastic handle w/ hang hole. OAL: 8-1/2" (22cm).



8061 VW ROOF GRAB TOOL

Offset forked working end removes roof grab handle on VW Tiguan 2016+, Golf 2013+, & Golf Estate 2014+. Compare to VW Factory Tool T10518A. OAL: 10" (25.4cm).

NEW!



8880 PLUGWELD PLIERS

Spring-loaded clamping action allows easy plugging of small holes when using a MIG welder. Copper alloy backing plate prevents burn through. Weld won't stick to copper alloy. Heavy duty w/ spring-loaded locking handle. OAL: 9" (23cm).



No.	Description
8880X05	Replacement Head

1077 BMW HOOD EXTENDERS

Raises hood higher for proper & safe service access. Heavy-duty plastic sleeves assembled to ball socket end clips onto ball stud. OAL: 5-1/2" (14cm). Applications: E70 & 2007-13 X5.



5360 LIFT SUPPORT CLAMP

Clamps onto lift support to safely keep hood or trunk open while working. Anodized aluminum body w/ plastic handle.



5250 WINDSHIELD WIPER ARM PULLER

Works in tight spaces & won't damage wiper arm or paintwork. Turning knob for fast work & forged body. Better than using prybars or screwdrivers.



A579 WINDSHIELD REMOVAL TOOL

Removes windshield by cutting butyl adhesive caulking compound. Services GM & Chrysler. Features special handle for extra leverage & tempered steel blade.



5200 WINDSHIELD LOCKING STRIP TOOL

For inserting locking strip around windshields & other windows on most cars. Will work on two strip sizes. OAL: 8" (20cm).



1019 WINDOW BELT MOLDING REMOVER

Removes window belt moldings without damaging glass, connection points or molding. Slim design for tight spaces & angled for easy access.



NEW!

A581 FORD REARVIEW MIRROR REMOVER

Releases retaining clips of inside mirror when inserting between mounting button & mirror on 1991+ Explorers.



A585 FORD MIRROR REMOVAL TOOL

Removes mirrors w/o damage or removing mirror assembly on 1996+ outside door mirrors & 1999+ interior rearview mirrors w/ screwless mount.



5240 DOOR HINGE PIN REMOVER

Special bend to clear door panels. Removes hinge pins on GM vehicles w/ removable hinge pins. Includes pin puller to remove loose pins. Remove threaded end cap, slide punch upwards through hinge & screw back end cap. Use a mallet to gently tap punch to draw out pin.



5320 DOOR ALIGNMENT BAR

Use w/ breaker bar to easily align doors. Thick steel construction for durability. Compact size for easy storage.



5220 GM DOOR SPRING COMPRESSOR

Remove & install door hinge springs.



A580 FORD RADIO REMOVAL TOOL KIT

Removes radios by inserting into holes on radio faceplate found on many older Fords.



5400 18 PC. RADIO REMOVAL KIT

Removes radios on Euro & Domestic vehicles, as well as Blaupunkt, Becker & Grundig systems.



3751 2 PC. HONDA SEAT TRACK SOCKET SET - 10 PT.

8mm & 10mm sizes for 2009+ Odyssey & Pilot seat tracks. Both sizes required for driver & passenger side tracks. 1/4" square drive.



5115 BODY DENT PULLER

Removes dents in doors or fenders w/ sliding 2.5 lbs (.9kg) hammer. Includes self-threading screw & hook attachments. OAL: 16" (41cm).



GEAR PULLERS

Forged from alloy, heat-treated steel, with fine-threaded center screws for extra pulling power. Jaws are adjustable and/or reversible to broaden applications.

2-JAW ADJUSTABLE/REVERSIBLE

No.	Spread	Reach	Screw Length	Capacity
8000*	4"	3-1/2"	5"	2 Tons
8010*	7"	5-1/2"	7"	5 Tons

2-JAW REVERSIBLE

No.	Spread	Reach	Screw Length	Capacity
8005*	6"	3-1/2"	7"	5 Tons
8015*	9"	5-1/2"	9"	7 Tons

2-JAW ADJUSTABLE

No.	Spread	Reach	Screw Length	Capacity
8020	10"	9"	9"	7 Tons
8025	12"	11"	13"	13 Tons
8030	15"	15"	13"	13 Tons

3-JAW ADJUSTABLE/REVERSIBLE

No.	Spread	Reach	Screw Length	Capacity
8035*	4"	3-1/2"	5"	2 Tons
8045*	8"	5-1/2"	7"	5 Tons

3-JAW REVERSIBLE

No.	Spread	Reach	Screw Length	Capacity
8040*	7"	3-1/2"	7"	5 Tons
8050*	10"	5-1/2"	9"	7 Tons

3-JAW ADJUSTABLE/REVERSIBLE

No.	Spread	Reach	Screw Length	Capacity
8055	11"	9"	9"	7 Tons
8057	14"	11"	13"	13 Tons
8059	17"	15"	13"	13 Tons

* Packed in clamshell. Add "B" for Bulk Pack. All others packed in box.



8000-8010

8005-8015

8020-8025-8030

8035-8045

8040-8050

8055-8057-8059

8097 LARGE GEAR & PULLEY PULLER

Remove parts w/ tapped holes with 8-1/4" (21cm) yoke and 11-5/8" (30cm) long forcing screw. Puller spreads from 2" to 7 3/4" (5 to 20cm).



8095 TIMING GEAR PULLER

Pull parts w/ two tapped holes, including gears, fan pulleys, balancers & cam gears. Cross-arm is 1" square and 5" long, with 3/8" - 16 side bolts.



8494 THIN-JAW BEARING REMOVER

For use in tight spaces. 3.5" (9cm) long hardened jaws. Adjusting width from 1.2" - 3.5" (3cm - 9cm).



8490 THIN-JAW PULLER SET

For use in tight spaces. Includes 3 pairs of different length arms: 4" (100mm), 8" (200mm) & 10" (250mm) w/ hardened thin-jaw attachments.



8099 PUSH PULLER

For use w/ bearing splitters when removing & installing gears, bearings, shafts, pulleys & other press-fit parts. Capacity: 10 Tons. Spread: 2-1/8 to 7-1/4" Screw Size: 3/4 - 16 x 12 Reach: 8-1/4"



BEARING SEPARATORS

Remove generator gears, bearings, bearing cones & similar parts where ordinary puller jaws will not reach. Knife-like edges minimize damage.

No.	Range
8060	Up to 2-1/4" (57mm)
8065	Up to 4-1/4" (108mm)
8150	Up to 6" (150mm)
8155	Up to 8" (200mm)



8492 INTERNAL BEARING REMOVER SET

Removes captured bearings, pilot bearings, bushings, etc. Includes Puller, 11" (29cm) slide hammer, 5 expanding adapters & 3 attachments: M6 x 1.0P, M8 x 1.25P, M10 x 1.5P. Working range is 8-34mm diameter.



8070 PILOT BEARING PULLER - SCREW TYPE

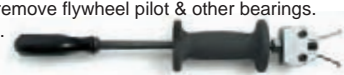
Removes fly wheel pilot bearings & bushings up to 7-1/2" (19cm long). Better control for precision pulling in tight areas. Replacement Jaws:

No.	Description
8070X06	1/2 to 1-1/2" (13-38mm I.D.)
8070X07	3/8 to 1-3/8" (9.5-35mm I.D.)



8075 PILOT BEARING PULLER - W/ SLIDE HAMMER

For inside pulling jobs, jaws will remove flywheel pilot & other bearings. Range: 1/2" to 1-1/2" (13-38mm). OAL: 17.75" (45cm).



8077 PILOT BEARING PULLER - W/ SLIDE HAMMER

For inside pulling jobs, jaws will remove flywheel pilot & other bearings. Range: 1/2" to 1-1/2" (13-38mm). OAL: 20.5" (52.1cm).



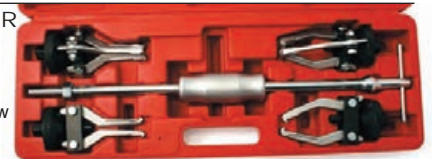
8092 SLIDE HAMMER PULLER

Remove bearings, gears, bushings & more. 5 lb. hammer & 3-Jaw assembly.



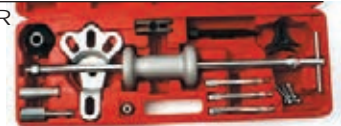
8090 SLIDE HAMMER PULLER KIT

Remove bearings, gears, bushings, seals, grease retainers, etc. Includes 4 jaw assemblies for internal & external & 2/3 jaw pulling. 3 jaw range: 1-1/2 to 4-1/2" (38-114mm) outside, 1-5/16 to 4-3/4" (33-121mm) inside. 2 jaw range: 1 to 4-1/2" (25-114mm) outside, 1-1/4 to 3-3/8" (32-86mm) inside.



A490 8-WAY SLIDE HAMMER PULLER SET

Service rear axle, bearings, oil seals & press-fit parts. Includes reversible jaws for internal/external work, 3 jaws, 5 lb. slide hammer, rear axle pulling plate, screw, hook, dent puller adapter, cone & other adapters. 5/8" - 18 thread.



1550 FLANGE-TYPE PULLER SET

Two yoke sizes & 4 sets of side screws for all types of pulling jobs. Use for gears, harmonic balancers, pulleys, steering wheels & more! Also includes 2 center screws & 2 swivel tips.



CLUTCH | AIR | TIRE

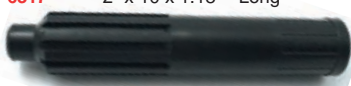
CLUTCH ALIGNMENT TOOLS - CARS & LIGHT TRUCKS
Precision tool for accurate alignment of clutch disc & pilot bearing. Special grade injection molded plastic tool is an exact replica of transmission input shafts.

No.	Dia. x Spline	No.	Dia. x Spline	No.	Dia. x Spline
6200	1" x 24	6242	1" x 23	6274	3/4" x 18
6202	13/16" x 18	6244	1-1/16" x 10	6279	1" x 23
6204	1" x 23	6246	7/8" x 20	6281	1-1/32" x 24
6206	1" x 14	6248	1-1/16" x 10	6282	1-3/8" x 10
6208	15/16" x 22	6250	1-1/8" x 10	6284	1-1/16" x 20
6210	13/16" x 24	6252	1" x 14	6285	1-1/8" x 21
6212	1-1/8" x 21	6254	1-1/8" x 26	6286	15/16" x 21
6214	15/16" x 21	6256	1-1/4" x 10	6287	15/16" x 24
6216	13/16" x 19	6258	1-3/8" x 10	6288	1" x 24
6218	7/8" x 20	6262	13/16" x 21	6289	1" x 14
6220	13/16" x 18	6264	1" x 24	6290	1" x 23
6222	1" x 24	6268	1" x 23	6291	1-1/4" x 10
6224	13/16" x 19	6269	13/16" x 24	6292	1-3/16" x 14
6228	7/8" x 21	6270	7/8" x 10	6293	3/4" x 19
6230	3/4" x 23	6271	15/16" x 10	6294	1-1/8" x 10
6232	7/8" x 21	6272	1" x 21	6298	1-3/8" x 10
6234	7/8" x 20				
6236	7/8" x 20				
6238	1" x 24				
6240	13/16" x 18				



CLUTCH ALIGNMENT TOOLS - TRUCKS

No.	Dia. x Spline x Pilot Dia.	No.	Dia. x Spline x Pilot Dia.
6300	1-1/2" x 10 x .980"	6314	1-3/4" x 10 x 1.18" - Long
6302	1-1/2" x 10 x .750"	6315	2" x 10 x 1.18"
6304	1-1/2" x 10 x .980" - Short	6317	2" x 10 x 1.18" - Long
6305	1-3/4" x 10 x 1.18"		
6310	1-3/4" x 10 x .980"		
6312	1-3/4" x 10 x .980" - AEX		



CLUTCH ALIGNMENT TOOLS - AGRICULTURAL

No.	Dia. x Spline / Dia. x Spline	No.	Dia. x Spline / Dia. x Spline
6400	15/16" x 10 / 1-3/8" x 19	6418	1-1/8" x 10 / 1-5/8" x 25
6402	1-1/8" x 10 / 1-5/8" x 10	6424	1-3/4" x 10
6404	1" x 10 / 1-7/8" x 29	6428	1" x 15 / 1-7/8" x 29
6406	1-1/16" x 16 / 1-11/16" x 26	6430	1" x 15
6408	1-1/4" x 19 / 1-7/8" x 29	6432	1-9/16" x 14
6410	1-1/8" x 10 / 1-3/4" x 16		
6412	1-1/4" x 10 / 1-3/4" x 27		
6414	1-1/8" x 10 / 1-3/4" x 15		
6416	1-1/8" x 21 / 1-5/8" x 25		



3750 SAAB CLUTCH PRESSURE PLATE SPACER

Required for 1984-1993 Saab 900. 2 people can place ring into pressure plate teeth while clutch pedal is depressed, simplifying removal of the disc/pressure plate/slave.



8809 BMW FLYWHEEL LOCKING TOOL

Locks flywheel while transmission is removed for service on BMW M47TU, M54, M57T2, M57TU, N40, N42, N43, N54, N45T, N46, N46T, N51, N52, N53, N54, N62, N73, S85 & W17 engines. Compare to BMW Factory Tool #119260.



9592 NISSAN DRIVE PLATE/FLYWHEEL BOLT SOCKET - E20 TORX®

Low-profile for bolts on Nissan QR25's w/ automatic transmissions. 1/2" drive.



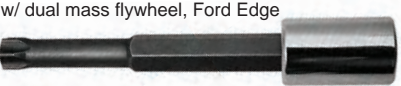
3757 MITSUBISHI/DODGE FLYWHEEL BOLT SOCKET - 10-POINT

12mm for clutch pressure plate bolts on Mitsubishi Eclipse 3000 & Dodge Stratus clutch assemblies. 3/8" drive.



3759 BMW FLYWHEEL MOUNT BOLT WRENCH - T60 TORX®

140mm long for clearance on dual mass flywheel mount bolts, off-center to access point, especially from wear. Services E34 or E39 V8 4.0 & 4.4L w/ standard transmission & manual transmission, including: 1993-1995 530i w/ dual mass flywheel & 1993-2003 540i w/ dual mass flywheel, Ford Edge & Mazda CX-9 Rear Bearing Assembly mounting bolts. 1/2" drive.



1925 4-WAY TIRE VALVE REPAIR TOOL

Repairs & conditions inside & outside valve threads. Also removes & installs valve cores.



1939 EXTRA-LONG 14" DUAL FOOT AIR CHUCK

For hard-to-reach valves, straight-on chuck w/ 30 degree reverse angle. 1/4" female NPT and 5/8" hex. Maximum Pressure 150 lbs.



1937 AUTOMOTIVE TIRE GAUGE

Four-sided nylon indicator bar, dual calibrated 10-50 PSI (75-325 kPa). Anodized steel body w/ pocket clip. OAL: 6" (15cm).



1933 DUAL FOOT TIRE GAUGE

For use on dual wheels & other hard-to-reach valves. Four-sided nylon indicator bar, dual calibrated 20-120 PSI (150-800 kPa). OAL: 6" (15cm).



1935 H.D. DUAL FOOT TIRE GAUGE

Extra-long gauge reaches inside & outside wheels. Two-sided nylon indicator bar, dual calibrated 10-150 PSI & 100 -1,000. w/ hang up ring. OAL: 11" (28cm).



1929 DUAL FOOT AIR CHUCK EXTENSION

Direct air line chuck for hard-to-reach valves on trucks, buses & tractors. 1/4" female NPT. OAL: 6" (15cm).



1930 STRAIGHT LOCK-ON AIR CHUCK

Locks onto valve while inflating tire. Open-flow design. 1/4" female NPT & 3/4" hex. Not Threaded. 150 PSI Rating.



1931 BALL FOOT AIR CHUCK

Direct air line chuck. 1/4" female NPT & 3/4" hex.



4380 SPARE TIRE TOOL KIT

Removes & installs spare tires mounted under vehicle quickly & safely, w/o damage to pulley systems. Set of 8 color-coded tools, each w/ unique working end to engage the pulley of many makes and models. Also includes special offset hand-crank plus color-coded wall rack for storage.

No.	Type/Color	Application
4351	Pin Head/Yellow	Japanese Pick-ups
4352	Hex Head/Red	1998 - 2001 Dodge Full size Pick-ups
4353	Flat Head/Purple	GM S-10, Blazer, Jimmy
4354	12mm Square/Orange	Expedition, Explorer
4355	Slotted Square/Green	Dodge Durango
4356	Standard Square/Violet	Ford
4359	3/8" Square/White	Ford F & E Series
4360	Hook/Light Green	Chevy
4357	Hand Crank	
4358	Tool Rack	



4370 TOYOTA/LEXUS SPARE TIRE SOCKET

5 Point Hex socket fits most 2005+ up Lexus & 2006+ Toyota SUVs & Mini-vans. Combo 3/8" Square & 13/16" Hex Drive. Compare to Factory Tool #51942-28010



9170 MULTI-GROOVE TUBE BENDER

Bends 3/16, 1/4, 5/16 & 3/8" (4.8, 6.4, 7.9 & 9.5mm) O.D. tubing w/o kinking or collapsing. OAL: 8" (20cm).



9172 PLIERS-TYPE TUBE BENDER

Bends 3/16, 1/4, 5/16 & 3/8" (4.8, 6.4, 7.9 & 9.5mm) O.D. tubing w/o kinking or collapsing. Includes 2 roller adapters. OAL: 10" / 25cm.



A978 TUBE BENDER - SMALL

Bends copper, brass, brake lines, Bundy welding tube, etc. up to 1/4" (6.4mm) O.D., 360°. OAL: 5" (12.5cm).



9179 TUBE BENDER - LARGE

Bends tubing from 1/8 to 1/2" (3-13mm) O.D. up to 360°. OAL: 9" (23cm)



MINI TUBE CUTTERS

Cuts aluminum, brass, or copper tubing 1/8 to 5/8" (3-16mm) O.D. Cutting wheel on bottom jaw for precision cutting.

No.	Range
A975	Standard
9175	Heavy-Duty



2631 TAILPIPE CUTTER

Cuts pipes from 3/4" to 3" (19-76mm) O.D. Carbide cutting wheels w/ spacers for superior tracking.



TAILPIPE EXPANDERS

For flaring & expanding tailpipes.

No.	Range
2622	1-1/2 to 2-1/2" (38-64mm) ID
2624	2-1/8 to 3-1/2" (54-89mm) ID



9210 BUBBLE/ISO IN-LINE FLARING TOOL

For use on 4.75, 6, and 8mm tubing including thin walled steel and copper tubing. Low profile design allows use on vehicle.



IN-LINE FLARING TOOLS

Aligns adapters, cone & tube to make double flares. Low-profile allows use on vehicle. Less risk of breaking adapters. Same results as hydraulic or vise-type tools at a fraction of the cost.

No.	Description
9212	SAE - 3/16", 1/4" & 5/16"
9214	Metric - 4.75mm, 5mm, 6mm



9200 DOUBLE FLARING TOOL SET - SAE

Double flares soft steel tubing up to .040" (1mm) wall thickness. Single flares soft copper, aluminum & brass tubing. Sizes: 3/16, 1/4, 5/16, 3/8 & 1/2".



A850 3 PC. FLARE NUT WRENCH SET

Service fuel, vacuum, hydraulic & refrigeration lines. Offset hex-head will not round soft flare nuts. Includes sizes: 3/8 x 7/16", 1/2 x 9/16" & 5/8 x 11/16".



A842 INTERNAL/EXTERNAL SNAP RING PLIER SET

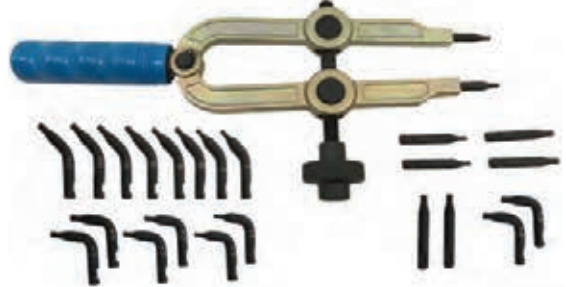
Plier & 4 tip assemblies: 45°, 90° & 2 straight. Range: 3/8 to 2" (10-50mm).



4031M H.D. LOCK RING TOOL - MASTER KIT

Safest, strongest tool for lock ring service. Hold single handle then adjust screw mechanism to control forged jaws to remove & install lock rings securely & quickly. Services CV shaft, wheel hub, axle shaft, cam shaft, etc. Includes 12 pairs of tips sizes: 2.5mm, 3mm, 3.5mm, 3.8mm (straight, 45° & 90° angles). OAL: 12" (30cm).

No.	Description
4031	Lock Ring Tool w/ 3 Pair Tip Set (#4031X10)
4031X10	3 Pair Replacement Kit: 2.5mm, 3mm, 3.5mm
4031X50	9 Pair Expansion Pack: 2.5mm (45° & 90°), 3mm (45° & 90°), 3.5mm (45° & 90°), 3.8mm (Straight, 45°, 90°)



8850 CONVERTIBLE SNAP-RING PLIERS

Push-button mechanism converts pliers from internal to external. Interchangeable tips, Straight: .036" (.9mm), .047" (1.2mm), .070" (1.8mm), 90°: .036" (.9mm), .047" (1.20mm). Range, Internal: 3/8 to 2" (10-48mm); External: 1/4 to 2" (7-48mm). OAL: 7-1/2" (19cm).



8860 10 PC. FIXED-POINT SNAP-RING PLIER SET

Service internal & external rings w/ 8 sizes of convertible pliers. Straight Tip: .038, .047, .070 & .090". 72° Tip: .038, .047, .070 & .090". Also includes 2 picks.



8870 2 PC. H.D. SNAP-RING PLIERS SET

Extra-large 16" (40cm) Internal & External Pliers. Includes 6 pairs of tips. Range, Internal: 3-1/16 to 6-1/4" (78-159mm). OAL: 16". External: 3-1/2 to 6-1/2" (89-165mm), OAL: 16".



7878 SWAY BAR LINK PARROT NOSE PLIERS

Holds and removes sway bar link. Clamps and grips rusted or stripped nuts, pipes, screws and more. Adjustable to clamp on different sizes. Chromium-molybdenum steel. OAL: 8.5" (21.6cm).



8840 LOCK RING PLIERS

Spread snap rings found on transmissions, brakes, clutch shafts, etc. Spring loaded w/ single piece forged jaws. OAL: 9" (23cm).



A848 H.D. LOCK RING PLIERS

For external lock rings used in truck & tractor transmissions. Spring-loaded handles & 2 sets of tips. Range: 3" (75mm), OAL: 13" (33cm).



TORX® SOCKETS

9630 12 PC. TORX® BIT SOCKET SET

Sizes T10-T60. 2-piece design for high-torque applications.

No.	Size	Drive	No.	Size	Drive
9561	T10	1/4"	9569	T47	3/8"
9562	T15	1/4"	9570	T50	3/8"
9563	T20	1/4"	9571	T55	3/8"
9564	T25	1/4"	9572	T60	1/2"
9565	T27	1/4"			
9566	T30	1/4"	*9573	T70	1/2"
9567	T40	3/8"	(Not in set, see page 3 for details)		
9568	T45	3/8"			



9574 T90 TORX® BIT

For special applications found on commercial vehicles & agricultural machinery. 3/4" hex drive.



9480 11 PC. TAMPER-PROOF TORX® BIT SOCKET SET

2-piece design for high-torque applications & tamper-hole for security fasteners.

No.	Size	Drive	No.	Size	Drive
9481	T10	1/4"	9487	T40	3/8"
9482	T15	1/4"	9488	T45	3/8"
9483	T20	1/4"	9489	T50	3/8"
9484	T25	1/4"	9490	T55	3/8"
9485	T27	1/4"	9491	T60	1/2"
9486	T30	1/4"			



9640 11 PC. E-SERIES TORX® SOCKET SET

For servicing inverted E-series fasteners. Sand-blast finish.

No.	Size	Drive	No.	Size	Drive
9579	E4	1/4"	9586	E12	3/8"
9580	E5	1/4"	9587	E14	3/8"
9581	E6	1/4"	9588	E16	3/8"
9582	E7	1/4"	9589	E18	1/2"
9583	E8	1/4"	9591	E20	1/2"
9585	E10	3/8"			



A989 8 PC. E-SERIES TORX® SOCKET SET

Nickel plated & packed on socket rail. Sizes E6, E7, E8, E10, E12, E14, E16 & E18.



9220 13 PC. E-SERIES TORX® SOCKET W/ U-JOINT SET

Great for many European makes, e.g. BMW Brakes, Transmissions, etc.

U-joint design allows access in difficult areas.

No.	Size	Drive	No.	Size	Drive
9221	E4	1/4"	9228	E14	3/8"
9222	E5	1/4"	9229	E16	3/8"
9223	E6	1/4"	9230	E18	1/2"
9224	E7	1/4"	9231	E20	1/2"
9225	E8	1/4"	9232	E22	1/2"
9226	E10	3/8"	9233	E24	1/2"
9227	E12	3/8"			



9605 11 PC. TORX® PLUS SOCKET SET

For elliptical-shaped Torx Plus® fasteners. Will not fit standard Torx® fasteners & Standard Torx® tools will strip if used in Torx Plus® applications.

No.	Size	Drive	No.	Size	Drive
9610	TP10	1/4"	9616	TP40	3/8"
9611	TP15	1/4"	9617	TP45	3/8"
9612	TP20	1/4"	9618	TP50	3/8"
9613	TP25	1/4"	9619	TP55	3/8"
9614	TP27	1/4"	9620	TP60	1/2"
9615	TP30	1/4"			



9650L 8 PC. EP-SERIES TORX® PLUS SOCKET SET

Sizes EP6 to EP18. New design services elliptical-shaped fasteners now found on many vehicles. Standard Torx® or Ribe designs will not fit these fasteners. Replaces set #9650.

No.	Size	Drive	No.	Size	Drive
9651	EP6	1/4"	9655	EP12	3/8"
9652	EP7	1/4"	9656	EP14	3/8"
9653	EP8	1/4"	9657	EP16	3/8"
9654	EP10	3/8"	9658	EP18	1/2"



9666 3 PC. EP-SERIES TORX® PLUS SOCKET SET

Larger sizes EP20, EP22 & EP24 service fasteners found on Ford Super-Duty, Honda Civics, Nissan Altima & Rogue and many more.

No.	Size	Drive
9659	EP20	1/2"
9662	EP22	1/2"
9664	EP24	1/2"



9680 11 PC. TAMPERPROOF TORX® PLUS SOCKET SET

2-piece design for high-torque applications. 5-point head for tamperproof-hole for security fasteners.

No.	Size	Drive	No.	Size	Drive
9681	TS8	1/4"	9686	TS27	1/4"
9682	TS10	1/4"	9687	TS30	1/4"
9683	TS15	1/4"	9688	TS40	3/8"
9684	TS20	1/4"	9689	TS45	3/8"
9685	TS25	1/4"	9690	TS50	3/8"
			9691	TS55	3/8"




9670U 31 PC. TORX® PLUS SOCKET SET

Includes 3 styles of sockets: 11 TP Series - TP10 through TP60, 11 TS Series - TS8 through TS55, EP Series - EP6 through EP20. Replaces set #9670.



8560 7 PC. 12-PT "XZN" DUAL-DRIVE BIT SET
19mm long sockets w/ combo 1/4" square & 1/2" hex drive to work in tight spaces. Special titanium-nitrate skin to reduce surface fractures.

No.	Size	No.	Size
8561	4mm	8566	12mm
8562	5mm	8567	14mm
8563	6mm		
8564	8mm		
8565	10mm		



8510 5 PC. 12-PT "XZN" SOCKET SET
6 & 8mm 2" long x 3/8" drive. 10, 12 & 16mm are 2-1/4" long x 1/2" drive.

No.	Size
8511	6mm
8512	8mm
8513	10mm
8514	12mm
8515	16mm



3038 10 PC. 12-PT "XZN" SOCKET SET **NEW!**
2-piece design for high torque. Sizes:


Size	Drive	Size	Drive
4mm	1/4"	10mm	3/8"
5mm	1/4"	12mm	3/8"
6mm	1/4"	*14mm	1/2"
8mm	3/8"	*16mm	1/2"
9mm	3/8"	*18mm	1/2"

*Tamperproof



9350 5 PC. 12-PT "XZN" SOCKET SET - LONG
2-piece construction w/ extra-long shaft. 8mm 3/8" drive, 10-16mm 1/2" drive.

No.	Size	OAL
9351	8mm	3-1/2" (89mm)
9352	10mm	4-1/8" (105mm)
9353	12mm	4-5/8" (117mm)
9354	14mm	4-7/8" (124mm)
9355	16mm	4-7/8" (124mm)



9280 4 PC. 12-PT "XZN" BIT SET
3" bit wrench w/ hex shaft.
Size: 6mm, 8mm, 10mm & 12mm.



2095 3 PC. 12-PT "XZN" TAMPER-PROOF SOCKET SET - STUBBY

14mm x 12-point XZN socket w/ tamper-proof head for various VW, Audi & Porsche axle & differential bolts & transmission drain plugs. 1/2" drive.

No.	Size	No.	Size
2059	14mm	2089	18mm
2039	16mm		



9270 3 PC. 12-PT "XZN" TAMPER-PROOF SOCKET SET - LONG

Service fasteners on VW, Audi, Porsche & some Detroit Diesel. Extra long for deep reach. 1/2" drive. OAL: 5".

No.	Size	No.	Size
9274	14mm	9278	18mm
9276	16mm		



2752 5 PC. PENTAGON SOCKET SET

Services Brakes, Fuel Pumps (Nissan), Rear Trailing arms (Honda), GM, Ford, Smart (Benz), and industrial, diesel, & small engines. Sizes: 10mm male and 10, 12, 14 & 19mm female.

NEW!



2050 6 PC. METRIC HEX BIT SOCKET SET

2-piece design for high torque. Sizes: 5, 6, 8, 10, 12 & 14mm. All 1/2" drive packed on socket rail.



METRIC HEX BIT SOCKETS - STUBBY

2-piece design for high torque. 2-1/2" long w/ 1/2" drive.

No.	Size	No.	Size
2052	12mm	2056	17mm
2054	14mm	2058	19mm



METRIC HEX BIT SOCKETS - LONG
4" long for deep-reach & 2-piece design for high torque. 5-7mm 3/8" drive. 8-14mm 1/2" drive.

No.	Size	No.	Size
8545	5mm	8548	8mm
8546	6mm	8550	10mm
8547	7mm	8552	12mm

8554 14mm



8541 VW LONG HEX BIT SOCKET - 6MM X 14"

Special length to access 2.5L intake manifold bolts & 6 speed manual gear box (0A5 & 02N) & right stub axle. 1/2" drive.

1099 11 PC. DEEP METRIC

HEX SOCKET SET

120mm long sockets provide access to recessed areas w/ extra long bolts including glow plugs, Benz rear bumper covers, BMW valve cover bolts & gaskets. 3/8" drive w/ 1/4" drive adapter.

No.	Size	Other Sets	Sizes
1708	8mm		10 & 12mm
1709	9mm		8, 10, 11, 12, & 14mm
1710	10mm		
1711	11mm		
1712	12mm	1030	
1713	13mm	1700	
1714	14mm		
1715	15mm		
1716	16mm		
1717	17mm		
1718	18mm		

Low-profile 1/4" Adapter



8140 5 PC. MORTORQ® SUPER SOCKET SET

Services MorTorq® fasteners found on GM, Chrysler, BMW, Nissan, Honda, Fiat & more. Applications: bell housings, door frames & hinges, body, brake rotors, seat tracks, & much more! All 3/8" drive packed on rail.

No.	Size
8141	M0
8142	M1
8145	M2
8143	M3
8144	M4



9770 7 PC. STUBBY PHILLIPS BIT SET

Low profile design allows access into tight areas. Set includes (2) #1 Phillips, (3) #2 Phillips & (2) #3 Phillips. All w/ titanium-nitrate skin for extra durability. Packed on plastic rail. OAL: 19.35 mm (0.76").



6-PT. RIBE BIT SOCKET WRENCHES

Service head bolts on VW/Audi. 1/2" drive & 4-1/4" (10.7cm) long. Also fits other fasteners, including trim, cam cover & headlights.

No.	Size
9260	9mm
9262	10mm
9264	12mm
9266	14mm



8755 4 PC. CLUTCH-HEAD BIT SOCKET SET

Services "Figure 8" screws on old Chevy cars & trucks, including headlight buckets, horn rings, hood braces, steering columns, gas door, filler neck & more. Sizes: 5/32, 3/16, 1/4 & 5/16", with 3/8" drive.



8752 4 PC. CLUTCH-HEAD SCREWDRIVER SET

Sizes: 5/32, 3/16, 1/4 & 5/16" screwdriver. Heavy duty handle. 5/32, 3/16 & 1/4" w/ 4" shaft. 5/16" w/ 6" shaft.



SOCKETS | TORQUE WRENCHES | FASTENER SERVICE

10100 69 PC. EURO/METRIC SOCKET SET

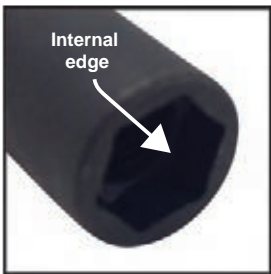
High quality tool set w/ complete range of metric & Torx® sockets for servicing European vehicles. Includes: 14 Pcs. 6-Pt. Deep Metric 8-21mm, 19 Pcs. 6-Pt. Short Metric 6-24mm, 7 Pcs. Metric Hex Bit 3-10mm, 12 Pcs. E-Torx® E4-E20, 12 Pcs. T-Torx® T10-T60. Also includes 3/8" Drive Ratchet, 6" & 10" extensions, U - Joint, & 1/2" to 3/8" Drive Adapter w/ Breaker Bar Hole.



1000 VIBROSHOCK IMPACT TOOL KIT

Removes frozen/rusted screws, nuts, bolts or plugs w/o damage. Great for Brakes, Exhaust, Glow Plugs, Clamp-on Injectors, Lug Nuts & more! Sockets 3/8" square drive w/ "Internal Edge." Bolts rest on internal edge, directing all vibration on head of bolt, preventing damage & breakage. Kit Includes: Flex wrench w/ Vibrobar & Clip and 7 sockets size 8, 9, 10, 11, 12, 13 & 14mm.

No.	Description
1001A	Flex Wrench w/ VibroBar & Clip



9311 IMPACT WRENCH KIT

Loosens rusted screws, nuts & bolts. Use w/ hammer to provide maximum torque action. Includes 3/8" square drive tool, hex bit adapter & four 5/16" impact hex bits: 9/32" & 5/16" slotted, #2 & #3 Phillips.



IMPACT BITS

5/16" hex shank bits for use w/ #9311.

No.	Size	No.	Size
9320	4 Pc Set (#9325, 9326, 9332, 9333)	9331	1# Phillips
9325	3/32" Slotted	9332	2# Phillips
9326	5/16" Slotted	9333	3# Phillips
9327	3/8" Slotted	9334	4# Phillips



9011 STUD REMOVER & INSTALLER

Fits hard-to-reach areas. Range: 1/4" to 3/4" (6-19mm). Use w/ 1/2" drive tools.



9015 NUT SPLITTER

Splits rusted or seized nuts up to 3/4" (19mm) across flats. Offset, forged body w/ swivel head. 3/4" hex drive.



9040 5 PC. SPIRAL SCREW EXTRACTOR SET

Removes broken studs, set screws & fittings. Chrome-moly steel w/ reverse tapered threads. #9045 pipe size 1/8" - 1/4".

No.	Size
9041	#1
9042	#2
9043	#3
9044	#4
9045	#5

Additional sizes not included in set:

9046	#6
9047	#7



9030 5 PC. FLUTED SCREW EXTRACTOR SET

Removes broken studs, set screws, & fittings. Hardened extractors tapered w/ special 4-point ends to bite into fastener.

No.	Bolt, Stud or Screw Size	Drill Size	Pipe Size
9031	1/4" - 5/16"	1/8"	----
9032	3/8"	3/16"	----
9033	7/16"	15/64"	1/8"
9034	1/2" - 9/16"	5/16"	1/4"
9035	5/8"	3/8"	3/8"



8950M 3/8" DRIVE TORQUE WRENCH

Micrometer, click-type, reversible wrench. 10-100 Ft/Lb (13-136 Nm) Range. Chrome plated tube. Silk-screened scale for easy reading.



MICROMETER TORQUE WRENCHES

Reversible ratchet type w/ chrome-plated tube, knurled handle & knurled locking nut holding torque setting.

No.	Drive	Range	OAL
8900	3/8"	5-80 Ft/Lb	14" (36cm)
8905	1/2"	10-150 Ft/Lb	18" (46cm)
8910	1/2"	25-250 Ft/Lb	25" (64cm)



A899 BEAM-TYPE TORQUE WRENCH

For fast torque settings. Range: 0 - 140 Ft/Lb (0-20 MKg). OAL: 19" (48cm).



8975 TORQUE ANGLE METER

Accurately tightens head & manifold bolts when torque angle is required by manufacturer's specification. Also called "torque to yield." Battery-type clamp frees up hand. Use with 1/2" drive tools.



8980 TORQUE ANGLE METER

Accurately tightens head & manifold bolts when torque angle is required by manufacturer's specification. Also called "torque to yield." Use with 1/2" drive tools.



PRO-THREAD THREAD REPAIR KITS & INSERTS

Pro-Thread Kits offer a cost effective method of repairing & strengthening threads in various materials such as cast iron, steel, aluminum & other metals & plastics. Effective for automotive repair, spark plug ports, outdoor power equipment, motorcycle repairs, farm equipment, and more! Easy to install, just **DRILL, TAP, INSERT, SNAP!** Inserts provide a permanent wear resistant internal thread. Stainless steel inserts resist the effects of temperature & corrosion. Wire inserts help compensate for thread & pitch angle errors. Repaired threads are generally stronger than original parent material thread.

Thread Size	Kit No.*	Insert Pack No.**	Tap No.
10-24"	33609	23609	33610
1/4-20"	33049	23049	33050
5/16-18"	33059	23059	33060
3/8-16"	33069	23069	33070
7/16-14"	33079	23079	33080
1/2-13"	33089	23089	33090
UNF			
10-32"	34609	24609	34610
1/4-28"	34049	24049	34050
5/16-24"	34059	24059	34060
3/8-24"	34069	24069	34070
7/16-20"	34079	24079	34080
1/2-20"	34089	24089	34090
Metric			
M5-0.8	35059	25059	35060
M6-1	35069	25069	35070
M8-1.25	35089	25089	35090
M9-1.25	35099	25099	35100
M10-1.25	37109	27109	37110
M10-1.5	35109	25109	35110
M12-1.75	35129	25129	35130
M14-1.5	37149	27149	37150



Typical Kit



Typical Insert Pack

* Each kit includes tap, installation tool & 3 inserts, except #35099 has 5 inserts & #37149 has 10 inserts.

** All insert packs include 10 inserts except #27149 has 5 inserts.

SPARK PLUG THREAD REPAIR KITS - see Page 20

1420 CYLINDER HEAD BOLT REPAIR KIT - 11.5MM x 1.5

Specifically designed for Honda (B16 engine), Toyota and more. Longer thread inserts for maximum thread engagement on specific applications. Includes 1pc. HSS drill bit, 1pc STI tap and 5pc 1.5D solid inserts. Packed in plastic tray case.

No.	Description
1421	11mm x 1.5 Solid Insert (5 Pack)
1422	M11 - 1.5 HSS STI Tap
1423	11.5mm HSS Drill



NEW!

THREAD RE-CONDITIONING TAPS

ISO type alloy steel tap to clean oil pan & other threads, transfer case & transmission drain plugs. Use w/ CTA #9660 & 9665 Tap Holders.

No.	Size	Application
18111	12mm x 1.25	Infiniti, Lexus, Nissan, Toyota
18112	12mm x 1.75	Ford, GM, GMC, Saturn
18113	1/2" - 20	Dodge, Ford, GM, GMC, Jeep, Mitsubishi
18114	14mm x 1.50	Ford, Honda, Hyundai, Kia, Mazda
18115	12mm x 1.50	BMW, Mercedes Benz
18116	14mm x 1.25	Jeep, Ford Truck
18117	16mm x 1.50	Dodge, Jaguar
18118	18mm x 1.50	Dodge Truck, Toyota, Volvo
18119	22mm x 1.50	Dodge Truck, BMW



TAP HOLDERS

For use w/ thread reconditioning taps. Holds tap for proper alignment in any direction and frees hand. 3/8" drive.

No.	Description
9660	Small - Use w/ #18111, 18112, 18113 & 18115
9665	Large - Use w/ #18114 & 18116



18200 11 PC. THREAD CLEANING ASSORTMENT

Includes one each of the following taps: 12mm x 1.25, 12mm x 1.75, 1/2"-20, 14mm x 1.50, 12mm x 1.50, 14mm x 1.25, 16mm x 1.50, 18mm x 1.50, 22mm x 1.50, plus one each #9660 & 9665 tap holders. All packed in plastic tray organizer w/ protective compartments.



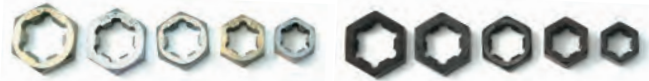
8245 8 PC. SPINDLE RETHREADER DIE SET

Includes 6 Metric Dies: 20 - 1.25, 20 - 1.50, 22 - 1.00, 22 - 1.50, 24 - 1.50, 24 - 2.00mm & 2 Fractional Dies: 3/4" - 20 & 13/16" - 20.



RETHREADER DIE SETS

No.	Type	Size
8250	NC (Coarse)	3/4" - 7, 1" - 8, 1-1/8" - 7, 1-1/4" - 7
8255	NF (Fine)	3/4" - 7, 1" - 14, 1-1/8" - 12, 1-1/4" - 12



THREAD RESTORING FILES

Restores damaged threads on bolts & shafts. Files cross-cut & depth proportional to thread pitch. Won't skip or jump out of fine pitches. 7/16" square x 8-3/8" long.

No.	Type	Pitch Sizes
8231	Metric	0.80, 1.00, 1.25, 1.50, 1.75, 2.00, 2.50, 3.00mm
8233	SAE	11, 12, 13, 14, 16, 18, 20, 24 TPI (Threads per inch)
8235	SAE	9, 10, 12, 16, 20, 27, 28, 32 TPI (Threads per inch)



8237 UNIVERSAL 60° THREAD RESTORING FILE

Single blade file renews all 60° threads, including metric. OAL: 9" (23cm).



8230 4 PC. THREAD RESTORING FILE SET

Includes 3 Thread Files (#8231, #8233 & #8235) & #8237 Universal Thread File Packed in square plastic sliding case.



8240 53 PC. UNIVERSAL RETHREADING SET

Includes thread files #8231 & #8233 plus the following color coded taps & dies:

Tap & Die Sets:	
Metric:	6 x 1.00, 8 x 1.50, 10 x 1.00, 10 x 1.25, 10 x 1.50, 11 x 1.50, 12 x 1.25, 12 x 1.50, 12 x 1.75, 14 x 1.50mm
NC-USS:	1/4" - 20, 5/16" - 18, 3/8" - 16, 7/16" - 14, 1/2" - 13, 9/16" - 12
NF-SAE:	1/4" - 28, 5/16" - 24, 3/8" - 24, 7/16" - 20, 1/2" - 20, 9/16" - 18
Dies (only)	
Metric:	6 x 1.25, 7 x 1.00, 8 x 1.00mm
NC-USS:	5/8" - 11
NF-SAE:	5/8" - 18



GENERAL SERVICE

WIRE POWER BRUSHES

For heavy-duty applications in removing corrosion, carbon, paint or rust. High carbon steel wire & 1/4" shank.

No.	Description	Diameter	Max RPM
9805	Knotted End Brush	1" (25cm)	20,000
9807	Cup Brush	2-1/2" (64cm)	5,000



9805



9807

9990 FLOW-THRU PARTS WASH BRUSH W/ TUBE

For parts washing sinks w/ circulating solvent systems. Features Trialoy® double-duty filaments, heavy-duty grooved handle & 28" (71cm) long rubber tube.

No.	Description
9990H	Handle Only
9990T	Tube Only

NEW!



9992 PARTS WASH BRUSH

For hand use in parts washing sink or solvent container. Features Trialoy® double-duty filaments & heavy-duty grooved handle. OAL: 9-1/2" (25cm).



9454 14" TELESCOPIC INSPECTION MIRROR

Inspect hidden areas. Double ball joint links 2-1/4" diameter mirror to handle for 360° viewing.



MAGNETIC PICK-UP TOOLS

For picking up tools, parts, nuts, bolts & more!

No.	Strength	Max Length/Type
A935	1/2 lb	25" Telescopic
9425	1-1/2 lb	25" Telescopic
9439	1-1/2 lb	21" Flex Shaft



A935



9425



9439

9435 FLEX MECHANICAL FINGERS - 24" LONG

Retrieves tools, parts, papers & more w/ 4 powerful spring jaws.



Close-up



9437 48" FLEX MECHANICAL FINGERS

Retrieves tools, parts, papers & more w/ 4 powerful spring jaws. Thick cable design allows for extra-long size.



Close-up



*Custom sizes available upon request

9905 DOUBLE POINTED SCRIBBER

2 working ends w/ knurled handle in center. OAL: 9" (23cm).



9900 5 PC. HOOK & PICK SET

For separating wires, removing small fuses, "O" rings, retrieving washers & parts, scribing on metal parts. High carbon steel points screw into aluminum handle w/ magnetic end. OAL: 6-3/4" (17cm).



9910 4 PC. UTILITY HOOK & PICK SET

High carbon steel ends w/ hex shaft. Styles: straight, complex, 90° & hook. OAL: 7" (18cm).

No.	Description
09790	24 Pc. Assortment 4 each displayed in stand-up tube



09790

9920 4 PC. DENTAL PICK SET

Sharp dental style picks w/ various angles. OAL: 6-1/2" (16.5cm).



2554 2 PC. O-RING & LIP SEAL PULLER SET

High quality steel blades w/ 4 different patterns for removal & installation of O-Rings, Oil Seals & more. Tips angled for hard-to-reach areas found around Brakes, A/C & Transmissions. Tips feature pointed & blunt ends to prevent damage to O-Rings.



2080 GASKET SCRAPER

Removes shellacked gaskets, paint, grease & carbon. 1" wide forged alloy steel blade w/ chisel edge. OAL: 9-3/4" (25cm).



9964 SWIVEL-HANDLED RAZOR SCRAPER

Blade holder swivels out from inside handle & locks in 3 positions. Includes 1 blade.



9968 EXTENDED RAZOR SCRAPER

11" (28cm) long. Handle stores razors. Includes 2 metal & 1 plastic blade.



9969 UTILITY RAZOR SCRAPER

Offset head w/ comfort grip. Razor reversed in handle for safety. OAL: 4-1/2".

No.	Pack Type
093610	24/Fishbowl



STEEL RAZOR BLADES

For use w/ standard scrapers.

No.	Pack Type
9963	100/Clamshell
9963K	100/Plain Box



1015 NON-SPARKING BUNG WRENCH

Services 2" & 3/4" drum plugs. Die-cast aluminum construction. OAL: 10-3/4" (27cm) w/ offset head.



10600 SAFETY HAMMER

The ultimate escape tool designed to get you out of your seat belt & out of your car safely in the event of a roadside emergency. Lightweight but durable plastic. Recessed razor on one end to easily cut seatbelts. Double-headed hammer on other end to break windows. Mounting bracket included.



SOCKET HOLDERS W/ SIZE I.D.

Nylon rails pre-printed w/ socket sizes. Rails include mounting holes.

No.	Description	Socket Size	OAL	No. Holders
9720	1/4" Drive - SAE	1/8 - 5/8"	12"	13
9725	1/4" Drive - Metric	4-15mm	12"	13
9730	3/8" Drive - SAE	1/4 - 1"	12"	13
9735	3/8" Drive - Metric	8-20mm	12"	13
9750	1/2" Drive - SAE	3/8 - 1-1/4"	18"	15
9755	1/2" Drive - Metric	8-24mm	18"	17



SOCKET HOLDERS

Steel racks w/ 16 slide-on clips hold sockets tightly. Includes mounting holes. OAL: 17" (43cm).

No.	Size
9593	1/4" Drive
9595	3/8" Drive
9597	1/2" Drive



8982 CHAIN BREAKER & RIVETING TOOL KIT

Will break chains from #35 to #530, including cam chains & drive chains. Includes 3 anvils, 3 pins, riveter, spring, press plate, lever, handle & chain press. For light to medium duty use.

Pin No.	Size
8982X02	2.2mm
8982X03	2.9mm
8982X04	3.8mm



8480 CHAIN BREAKER

For use on 420, 428, 520 & 530 chains. First bolt locks chain in place while second bolt turns to drive pin completely through link. Folding handle for storage.



2015 MECHANIC'S STETHOSCOPE

Accurately and quickly locates trouble in engines and other moving parts or for checking flow of water, gas, steam, oil, etc. Sensitive probe picks up vibrations.



A990 BRASS PUNCH - TAPERED

For non-sparking & soft metal applications. 3/8" x 16".



A995 BRASS PUNCH - BAR

For non-sparking & soft metal applications. 3/8" x 16".



8600 ADJUSTABLE GLAND NUT WRENCH - SMALL

Fits hydraulic cylinders on vehicles with gland nuts from 1" to 3-3/4" (25-95mm). Reverses to work on 1/4" or 7/32" pinholes. Use w/ 1/2" square drive tools.

No.	Description
8600X01	Replacement Pin



8605 ADJUSTABLE GLAND NUT WRENCH - LARGE

Fits hydraulic cylinders on vehicles with gland nuts from 2" to 6" (51-152mm). Reverses to work on 17/64" or 21/64" pinholes. Use w/ 3/4" breaker bar or ratchet.

No.	Description
8605X01	Replacement Pin



8062 EXHAUST HANGER TOOL

Easily remove exhaust hanger brackets from rubber supports. Services tailpipe, muffler and exhaust piper on import and domestic car and truck exhaust systems w/ rubber hanger supports. Squeeze plier handles to force bracket out of rubber support. Offset handle for easy access in restricted areas.



8120 PIN SPANNER SET

Loosens & tightens bolts & nuts in tight spaces. Includes 4 pairs of interchangeable 2-sided pins providing 8 different sizes: 2.5mm / 4mm, 3mm / 5mm, 6mm / 8mm & 7mm / 9mm. Thumb-screw design expands range from 25/32" to 3-15/16" (20-100mm). OAL: 9-3/4" (25cm).



A885 24" CHAIN WRENCH

Powerful wrench grabs & turns objects of almost any shape & up to 7" (18cm) diameter. Knurled grip handle and 24" (61cm) heavy-duty chain.



8990 ENGINE CHAIN HOIST

28" (71cm) long chain assembly helps lift engines & other heavy parts up to 1,000 lbs (455 kg). Heat-treated alloy steel.



DIESEL SERVICE TOOLS

7808 INJECTOR PULLER KIT

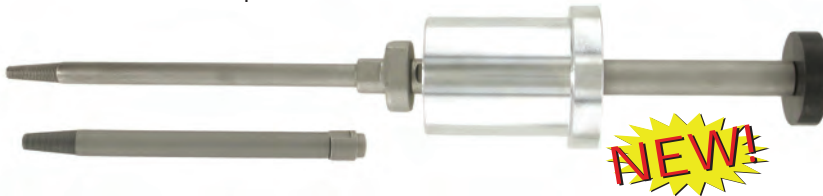
Removes frozen or caked injectors without removing the electrical part. Services older and late model vehicles, including Denso, Siemens, Bosch and Delphi common rail or piezo injectors from 1999 to current. Avoiding the removal of the electrical part of the injector significantly reduces repair cost. Kit also includes two connectors (M12 and M14) in the event that the original coupling cannot be removed. Remove the injector by either rotating with the handle or rotating with axial extraction. Kit includes (1) slide hammer shaft and 1.5 kg (3.3 lbs) slide hammer, (1) articulator with foam handle, (1) M12 connector, (1) M14 connector, (2) spacers & (1) threaded extractor. Visit website for complete instructions and video.

NEW!

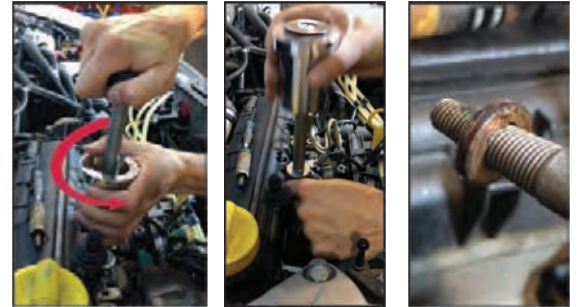


7806 INJECTOR SEAL EXTRACTOR KIT

Removes clogged or stuck diesel injector seals. 1 Kg (2.2 lbs) slide hammer removes the most difficult seals. Slide hammer designed with integrated hexagonal socket to screw extractor into the seal. Kit includes (2) conical removers with double thread entry that services both passenger and light-duty utility vans & trucks. Simplicity of the tool makes the removal quick and easy without any adjustments or the risk of dropping parts into the cylinder. Visit website for complete instructions and video.



NEW!



7810 INJECTOR SEAT & HOLE CLEANING SET

Cleans injector seat and hole prior to installing new injector. Cleaning seat & hole is a crucial step in the installation process. Kit includes (2) metal brushes (\varnothing 20mm & 25mm) for injector hole cleaning, (2) front brushes for injector seat cleaning, (1) front brush extension, (2) seal plugs to close injector hole while cleaning, (1) seal plug holder to place & remove plug & (1) sanding kit with paper and paper support. Visit website for complete instructions and video.



NEW!



7804 GLOW PLUG PULLER KIT

Removes glow plugs, even when compartment is not easily accessible, including narrow engine bays and engines with glow plugs on the firewall side. Enables removal of broken glow plugs in the top of the cylinder head without damage. Includes (1) electrode puller, (1) electrode reinforced drill with (2) guides, (2) specially centered mills with one mill support preventing damage to the head, (1) tap and (1) slide hammer extractor to pull out broken glow plugs, (3) refreshing taps sizes: M8, M10x100 & M10x125 with hex drive. Visit website for complete instructions and video.

NEW!



7802 GLOW PLUG TIP PULLER KIT

Removes broken glow plug tips stuck in the cylinder head. The tap, drill bit and extractor holders are fitted to the body of the original plug and slide in for perfect centering. Self-centering industrial taps with "stop-block" reduce the risk of damage to the cylinder head. Size of drill bits and the shoulder of their holder prevents risk of drilling or tapping too far into the cylinder head without prior measurement, saving time and reducing damage. Kit services limited clearances, enabling its use for firewall sided glow plugs. Includes (4) easily identifiable guides & punch for flared tips, (1) punch, (1) foam grip slide hammer, (2) drill supports, (2) tap supports, (2) puller supports & (1) magnetic flex puller. Visit website for complete instructions and video.

NEW!



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7091	7	7500	27	8140	33	8990	37	9353	33	9670U	32	33089	35	A259	1	A812	14
7092	7	7539	27	8141	33	9011	34	9354	33	9680	32	33090	35	A260	1	A814	14
7093	7	7600	9	8142	33	9015	34	9355	33	9681	32	33609	35	A261	1	A815	14
7094	7	7605	9	8143	33	9030	34	9425	36	9682	32	33610	35	A262	1	A842	31
7095	7	7610	9	8144	33	9031	34	9435	36	9683	32	34049	35	A263	1	A848	31
7096	7	7615	9	8150	29	9032	34	9437	36	9684	32	34050	35	A264	1	A850	31
7097	7	7620	9	8155	29	9033	34	9439	36	9685	32	34059	35	A265	1	A868	13
7098	7	7625	9	8230	35	9034	34	9454	36	9686	32	34060	35	A266	1	A870	13
7099	7	7630	9	8231	35	9035	3, 34	9480	32	9687	32	34069	35	A267	1	A872L	13
7100	7	7635	12	8233	35	9037	3	9481	32	9688	32	34070	35	A268	1	A872M	13
7101	7	7637	15	8235	35	9038	3	9482	32	9689	32	34079	35	A270	1	A875	9
7102	7	7638	15	8237	35	9040	34	9483	32	9690	32	34080	35	A280	2	A878	13
7103	7	7639	15	8240	35	9041	34	9484	32	9691	32	34089	35	A296	2	A879	13
7105	7	7640	12	8245	35	9042	34	9485	32	9720	37	34090	35	A307	20	A880	13
7106	7	7641	12	8250	35	9043	34	9486	32	9725	37	34609	35	A308	20	A881	13
7107	7	7642	26	8255	35	9044	34	9487	32	9730	37	34610	35	A309	20	A883	13
7108	7	7643	5	8480	37	9045	34	9488	32	9735	37	35059	35	A310	20	A884	13
7109	7	7644	18	8490	29	9046	34	9489	32	9750	37	35060	35	A311	20	A885	37
7111	7	7645	11	8492	29	9047	34	9490	32	9755	37	35069	35	A312	20	A886L	13
7112	7	7646	15	8494	29	9170	31	9491	32	9770	33	35070	35	A314	20	A889	13
7113	7	7647	13	8510	33	9171	5	9561	32	9780	15	35089	35	A315	20	A899	34
7114	7	7650	8	8511	33	9172	31	9562	32	9781	15	35090	35	A316	20	A935	36
7115	7	7654	18	8512	33	9173	5	9563	32	9782	15	35099	35	A317	20	A975	31
7116	7	7656	18	8513	33	9174	5	9564	32	9805	36	35100	35	A318	20	A978	31
7117	7	7658	18	8514	33	9175	31	9565	32	9807	36	35109	35	A319	20	A989	32
7118	7	7662	19	8515	33	9179	31	9566	32	9812	19	35110	35	A322	20	A990	37
7119	7	7670	8	8541	33	9180	1	9567	32	9905	36	35129	35	A326	20	A995	37
7120	7	7675	11	8545	33	9200	31	9568	32	9910	36	35130	35	A328	20		
7121	7	7676	11	8546	33	9210	31	9569	32	9920	36	37109	35	A337	21		
7220	4	7677	12	8547	33	9212	31	9570	32	9963	36	37110	35	A338	21		
7220U	4	7786	21	8548	33	9214	31	9571	32	9963K	36	37149	35	A339	21		