



**QUALITY  
INNOVATION  
PERFORMANCE**

***Snap-on***<sup>®</sup>

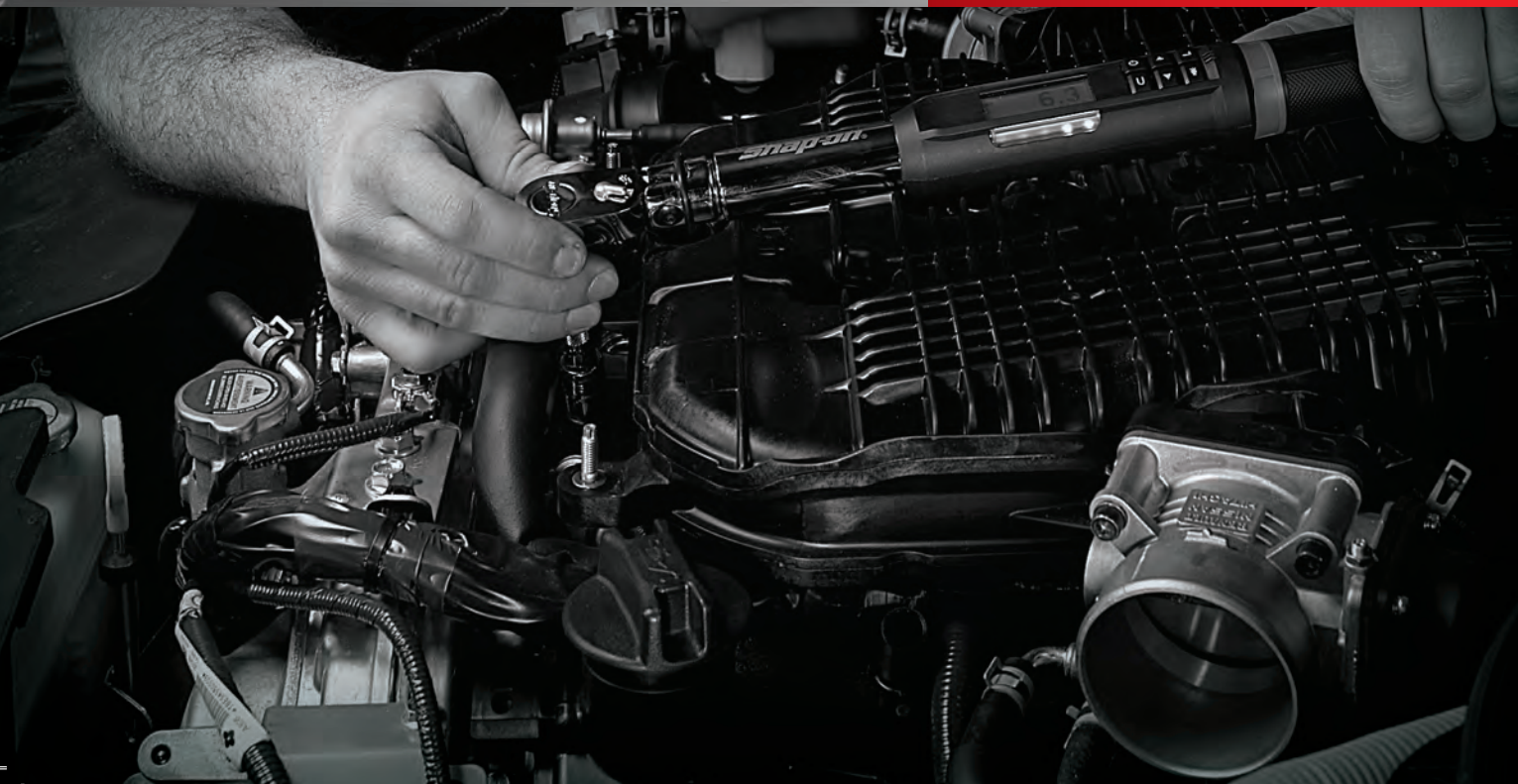




# BELIEVE IN THE BEST

**As a professional, you need to believe in your tools and in yourself.**

Snap-on gives you confidence in both. We believe your desire to be the best will continue to drive our relentless determination to deliver the best.



## Tool Storage

Workstations, Roll Cabs, Roll Carts, Service Trays, Road Chests, Metal Boxes, Tool Storage Accessories

NPC2–NPC9

## Hand Tools

### 1/4" Drive

Ratchets, Ratchet and Socket Accessories, Sockets, Extensions, Bit Sockets

NPC10–NPC13

### 3/8" Drive

Ratchets, Ratchet and Socket Accessories, Sockets, Extensions, Swivel Ball Extensions, Bit Sockets

NPC14–NPC18

### 1/2" Drive

Ratchets, Ratchet and Socket Accessories, Sockets, Extensions, Bit Sockets

NPC18–NPC21

### 3/4" Drive and Spline

Sockets, Bit Sockets, Spline Sockets

NPC22

### Wrenches

Combination Ratcheting Box/Open End, Combination, Folding Set, Adjustable, High Performance

NPC23–NPC26

### Screwdrivers

Flat Tip, Phillips®, Cabinet, Extra Long, TORX®, Special Application, Ratcheting, Bit Sets, Awls, Hooks, Picks, Prybars

NPC27–NPC31

### Pliers

Cutters, Needle Nose, Wire Tools, Pliers and Cutters

NPC32–NPC33

### Cutting, Spark Plug, Diesel, Heavy Duty Truck Service, Aviation

NPC34–NPC37

### Torque

TECHANGLE®, Adjustable Click-Type, CONTROLTECH™, Torque Screwdrivers, Interchangeable Heads, Torque Adaptors

NPC38–NPC40

## Power Tools

### Cordless

18V, 14.4V, 14.4V and 7.2V Micro Lithium Tools, Flashlights

NPC41–NPC45

### Electric

Polisher, Impact Wrench

NPC45

### Air

Impact Wrenches, Ratchets, Die Grinders, Cutting Tools

NPC46–NPC51

### Accessories

Bits, Saw Blades, Drift Punches, Hoses, Couplers

NPC52

## Diagnostics

ETHOS®+, VANTAGE® Ultra, MODIST™ Ultra, VERUS® PRO, Diagnostics Accessories, MICROSCAN®, Heavy Duty Pocket iQ™, Heavy Duty Pro-Link iQ™

NPC53–NPC63

## Shop and Technician Tools

### Testing and Electronics

Videoscopes, Circuit Testers, Leak Detectors, Infrared Thermometers

NPC64–NPC69

### Fuel and Engine Systems

Compression Gauge Sets, Fuel Pressure, Specialty Service Tools, Fuel Line Disconnect Tools

NPC70–NPC71

### Battery Service

Testers, Service Tools

NPC72–NPC73

### Air Conditioning

Manifold Gauges, Recycling/Recharging Systems, UV Lights

NPC73–NPC74

### Cooling

System Testers, Hose Clamp Pliers

NPC75

### Under Car Service

Wheel Balancing, Tire Changers, Tire and Wheel, Wheel Alignment, Drive Line

NPC76–NPC80

### Welding

MIG Welder Accessories, Helmets

NPC81

### Parts Washers

NPC82

### Brake/Body/Bushing/Seal

Brake Spring Tools, Snips, Bearing Race and Seal Driver

NPC83

### Lighting

NPC84–NPC86

### Shop Equipment

Lubrication, Mirrors, Engine Service, Creepers, Covers, Vacuums

NPC87–NPC92

### Shop Supplies and Safety

Gloves, Eye Protection

NPC93–NPC95

## Industry Specialty Tools

### Aviation Tool Storage

NPC96–NPC97

### Railroad Tools

NPC97

### Oil and Gas Tools

NPC98

### Automotive Specialty Tools

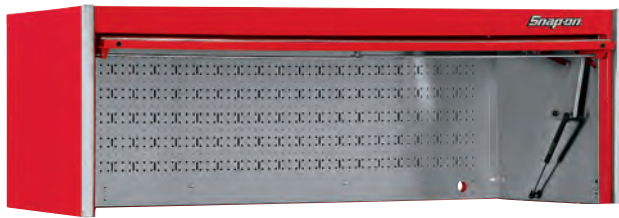
NPC98

### Pneumatic Torque

NPC99

# TOOL STORAGE

## Masters Series



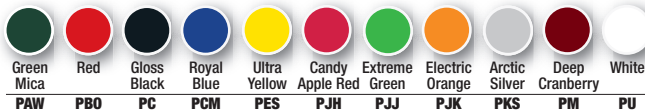
KRL1072PBO

### Workstation Risers

- Door opens virtually effortlessly with gas springs and cam-assist design
- Convenient access to tools, convenient security – able to lock up work-in-progress
- Slots 'n dots™ Plus back panel for use with our tool organizing accessories
- Structural continuity design with corner gussets and the standing seam for increased strength and durability
- Stainless-steel inside walls allows magnetic items to be attached to the walls
- Shiny stainless-steel walls reflect the light, magnifying available light
- Extra key plug to key-alike to roll cab
- Mounting template for drilling – including a drill bit for easier installation

Specifications	KRL1072 Series	KRL1054 Series
<b>Cubic Inches (cm<sup>3</sup>)</b>	26,522 (434,617)	19,409 (318,056)
<b>Square Inches (cm<sup>2</sup>)</b>	4,005 (25,838)	3,136 (20,232)
<b>Width, Inches (mm)</b>	72 7/8 (1,851)	54 1/8 (1,351)
<b>Height, Inches (mm)</b>	23 9/16 (598.5)	23 9/16 (598.5)
<b>Depth, Inches (mm)</b>	27 1/2 (698.5)	27 1/2 (698.5)
<b>Inside Width, Inches (mm)</b>	69 7/16 (1,764)	50 13/16 (1,284)
<b>Net Weight, lb (kg)</b>	214 (97)	176 (80)
<b>Shipping Weight, lb (kg)</b>	320 (146)	258 (117)

### Colors Available



## Classic Series



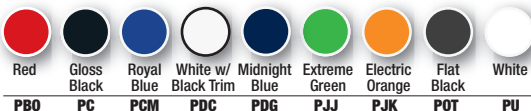
KRA2423PBO

### KRA2423 Classic 96 Series Roll Cabs

- Two 50" extra wide drawers, 5" and 3" deep, for easy access to key tools
- The top 5" drawer is ideal for maximum vertical socket storage, power tools, meters, etc.
- The 3" drawer is ideal for organizing wrenches, pliers, small power tools, torque wrenches, etc.
- These 5" and 3" deep drawers enhance the organized working experience
- Black casters and caster horns with wheels made of anti-vibration monprene
- Improved non-slip liners

Specifications	KRA2423 Series
<b>Cubic Inches (cm<sup>3</sup>)</b>	31,237 (530,000)
<b>Square Inches (cm<sup>2</sup>)</b>	8,604 (55,509)
<b>Width, Inches (mm)</b>	73 (1,854)
<b>Height, Inches (mm)</b>	39 (991)
<b>Depth, Inches (mm)</b>	24 (609.6)
<b>Load Capacity, lb (kg)</b>	2,400 (1089)
<b>Drawers</b>	17
<b>Net Weight, lb (kg)</b>	555 (252)
<b>Shipping Weight, lb (kg)</b>	670 (303)

### Colors Available





KRA2422PDC



KRA2496PDG



KRA2432PU

### Classic Series: New Colors Available

	White w/Black Trim (PDC)	Midnight Blue (PDG)	White (PU)
<b>Roll Cabs</b>	KRA2496PDC	KRA2496PDG	KRA2496PU
	KRA2432PDC	KRA2432PDG	KRA2432PU
	KRA2422PDC	KRA2422PDG	KRA2422PU
	KRA2411PDC	KRA2411PDG	KRA2411PU
	KRA2407PDC	KRA2407PDG	KRA2407PU
<b>Top Chests</b>	KRA2415PDC	KRA2415PDG	KRA2415PU
	KRA2410PDC	KRA2410PDG	KRA2410PU
	KRA2405PDC	KRA2405PDG	KRA2405PU
<b>Workstation Risers</b>	KRA2472PDC	KRA2472PDG	KRA2472PU
	KRA2454PDC	KRA2454PDG	KRA2454PU
<b>Lockers</b>	KRA2403PDC	KRA2403PDG	KRA2403PU
<b>End Cabs</b>	KRA2406PDC	KRA2406PDG	KRA2406PU

### Roll Carts

#### KRSC43 Series Roll Carts

- Features a split-top that slides out from the center to provide total access to a generous 7" deep top compartment
- Cart body is entirely welded double wall design, not bolted, for lasting strength – Spot welds 3"–4" apart
- Rolled edges and a rear flange on drawers provide a solid feel to drawers under load
- Two shot molded rubber/nylon corner bumpers protect nearby objects and provide long lasting brand identification and professional appearance
- Full length two-point locking lid and separate manual rear lock rod for drawers – more secure than single point lock used by many other manufacturers

Specifications	KRSC43 Series
<b>Cubic Inches (cm<sup>3</sup>)</b>	20,783 (340,572)
<b>Square Inches (cm<sup>2</sup>)</b>	4,392 (28,335)
<b>Width, Inches (mm)</b>	40 (1,016)
<b>Height, Inches (mm)</b>	46 (1,168)
<b>Depth, Inches (mm)</b>	20 (508)
<b>Load Capacity, lb (kg)</b>	2,400 (1,089)
<b>Lid Capacity, lb (kg)</b>	120 (54) each side
<b>Drawers</b>	6
<b>Casters</b>	6" x 2"
<b>Net Weight, lb (kg)</b>	262 (112)
<b>Shipping Weight, lb (kg)</b>	312 (135)



KRSC43PJJ

#### Colors Available



- Do not open multiple drawers
- Read safety precautions on pages W1 to W4

# TOOL STORAGE

## Roll Carts



KRSC246PCM1



KRSC246PDO7

### Colors Available



Stainless: **PB01** **PC1** **PCM1** **PDG1** **PES1** **PJJ1** **PJK1** **POT1**  
 Bed Liner: **PN7** **PF17** **PET7** **PQD7** **PD07** **PKG7** **PKH7** **POT7**

### KRSC246 Series Roll Carts

- Unit is 24" deep for the most storage capacity
- Lockable top section is 7" deep, allowing you to lock up work in process
- Top section also provides openings to vertically store pry bars and extensions up to 36" (914mm) long
- Welded cart body yields lasting strength
- Choose from two durable flip lid materials: stainless steel or truck bed liner
- Bumpers have a hard interior yet a soft exterior to reduce damage to other objects
- Six drawers: (2) 2" deep; (2) 4" deep; and (2) 6" deep
- Four monoprene casters for better maneuverability and less vibration

Specifications	KRSC246 Series
<b>Cubic Inches (cm<sup>3</sup>)</b>	21,979 (360,171)
<b>Square Inches (cm<sup>2</sup>)</b>	4,880 (31,483)
<b>Width, Inches (mm)</b>	36 (914)
<b>Height, Inches (mm)</b>	46 (1,168)
<b>Depth, Inches (mm)</b>	24 (610)
<b>Load Capacity, lb (kg)</b>	2,400 (1,089)
<b>Lid Capacity, lb (kg)</b>	150 (68)
<b>Drawers</b>	6
<b>Casters</b>	6" x 2"
<b>Net Weight, lb (kg)</b>	318 (144)
<b>Shipping Weight, lb (kg)</b>	373 (172)



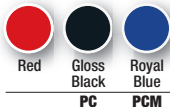
KRBC50TPC

### KRBC50T Series Roll Carts (Blue-Point®)

- New cart locking system for theft protection
- Heavy duty cart-push handle
- Roll-off pallet design for easy customer delivery
- 6" x 2" heavy duty casters (brakes on two of the casters)
- Rugged one-piece bumper guards
- Retractable side-work table
- Longer drawer handles
- Can holder
- Prybar and tool holders on each side of cart
- Retractable side-work table

Specifications	KRBC50T Series
<b>Cubic Inches (cm<sup>3</sup>)</b>	17,935 (293,902)
<b>Square Inches (cm<sup>2</sup>)</b>	7,878 (50,826)
<b>Width, Inches (mm)</b>	38 (970)
<b>Height, Inches (mm)</b>	42 (1,071)
<b>Depth, Inches (mm)</b>	22.4 (569)
<b>Load Capacity, lb (kg)</b>	705 (319)
<b>Drawers</b>	5
<b>Casters</b>	6" x 2"
<b>Net Weight, lb (kg)</b>	180 (81.6)
<b>Shipping Weight, lb (kg)</b>	216 (98)

### Colors Available



**PC** **PCM**

## Roll Carts

### Roll Carts: New Colors Available

#### KRBC10TB Series Roll Carts

- Plated fasteners resist corrosion and self-locking nuts assure a rigid, secure assembly
- Locking support tabs add strength, increase load capacity and facilitate quick assembly
- Made from heavy-gauge steel for superior strength
- Retractable side-work table
- Protective rubber bumpers
- Comes with casters assembled



KRBC10TBPJJ



KRBC10TBPU

	Extreme Green (PJJ)	White (PU)
Roll Carts	KRBC10TBPJJ	KRBC10TBPU

## Under Hood Rolling Service Tray

#### SOSTPC Under-Hood Service Tray (Matte Black)

- Leg clearance of 25" allows service tray to slide under hood from the front or side of vehicle
- Height-adjustable support post (36.5" to 48.6") allows tray to clear fender or front end on most vehicles
- Removable parts tray and screwdriver holders built into the tray
- Protective bumpers included for the support post
- Maximum load capacity: Tray (125 lb.), Drawer (25 lb.)



SOSTPC

## Road Chests

#### KRA60B Series Heavy Duty Road Chests

- Deeper drawers, over 15" front to back, holds more tools required for service
- 5" deep narrow drawer and 5" deep top compartment holds power tools and deep sockets
- Friction style drawer slides for optimal use in dusty, gritty environments
- Protective cover and drop front for quick access to top compartment and drawers
- Lid (cover/front) is rigid enough for repeated heavy use and keeps its shape due to a UNIQUE full length lid stiffener, which is welded to the sides for optimal rigidity
- The front section of the cover contains a backing plate to reduce flex
- Safety lock on cover keeps cover in position when open
- Two full-length piano hinges help to position the cover with little effort
- Class 1 heavy gauge steel is used throughout – spot welds 3"–4" apart
- Full width double-wall construction supports loaded drawers
- Rolled edges and a rear flange on drawers provide a solid feel to drawers under load
- Plastic bump tops for quiet closing and protection
- Full length, two-point lock rod secures both sides – more secure than single point lock used by many other manufacturers

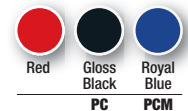
#### KRC20 Nylon Cover

- Protective nylon cover for KRA60B Series Heavy Duty road chests



KRA60BPCM

#### Colors Available



Specifications	KRA60B Series
Cubic Inches (cm <sup>3</sup> )	5,343 (87,556)
Square Inches (cm <sup>2</sup> )	1,939 (12,509)
Width, Inches (mm)	26 (660)
Height, Inches (mm)	19 5/16 (491)
Depth, Inches (mm)	16 7/8 (428)
Load Capacity, lb (kg)	500 (220)
Drawers	8
Net Weight, lb (kg)	120 (54)
Shipping Weight, lb (kg)	155 (70)



- Do not open multiple drawers
- Read safety precautions on pages W1 to W4

# TOOL STORAGE ACCESSORIES

## Metal Boxes



KRW185

### Metal Boxes

#### KRW185 Metal Box

- Five drawers each 2 1/4" deep
- 2 1/2" deep top compartment with 2" crown on lid to hold items up to 4 1/2" deep
- Drawers lock when lid is shut

Stock No.	Width, Inches (mm)	Height, Inches (mm)	Depth, Inches (mm)	Net Weight, lb (kg)
KRW185	20 (508)	12 3/4 (324)	9 (229)	29 (13)

## Covers



KAC761CAS



KAC761EGS



KAC761EOS



KAC761RBS

### Color "S" Logo Covers

- Snap-on® "S" logo graphics are color coded to match the roll cab (not included)
- Cover made of high quality 200 Denier nylon with heavy duty nylon zippers

Cover Description	Black w/Candy Apple Red Logo/Stitching	Black w/Extreme Green Logo/Stitching	Black w/Electric Orange Logo/Stitching	Black w/Pink Logo/Stitching	Black w/Royal Blue Logo/Stitching	Black w/Red Logo/Stitching
KRL722/KRA2411/ KRA2422 Cover	KAC761CAS	KAC761EGS	KAC761EOS	KAC761PKS	KAC761RBS	KAC761RDS
KRA2423 Cover	KAC773CAS	KAC773EGS	KAC773EOS	KAC773PKS	KAC773RBS	KAC773RDS
KRL722/KRL791 or KRL722/KRA2454 Cover	KAC761791CAS	KAC761791EGS	KAC761791EOS	KAC761791PKS	KAC761791RBS	KAC761791RDS
KRA2423 with a KRA2454 Cover	KAC241815CAS	KAC241815EGS	KAC241815EOS	KAC241815PKS	KAC241815RBS	KAC241815RDS
KRA2422/KRA2411 with a KRA2454 Cover	KAC242210CAS	KAC242210EGS	KAC242210EOS	KAC242210PKS	KAC242210RBS	KAC242210RDS

## Drawer Guards and Protectors/EPIQ Series Tool Storage



### Drawer Protectors

- Fits under the entire length of the drawer handle to protect the paint finish from scratches
- Keeps drawers looking new
- High strength 3M® adhesive backing keeps protectors in place for life
- Easy to install – just peel off paper from adhesive backing, angle into position under drawer handle and press into place
- Drawer protectors are needed only for drawers 4" deep or deeper

Application	Brushed Stock No.	Polished Stock No.	Matte Black Stock No.
KERN602A Roll Cabs (7 pc. Set)	KADPSERN602A	KADPPERN602A	KADPMERN602A
KERN682A Roll Cabs (7 pc. Set)	KADPSERN682A	KADPPERN682A	KADPMERN682A
KERN843A Roll Cabs (11 pc. Set)	KADPSERN843A	KADPPERN843A	KADPMERN843A
KERP763A Roll Cabs (8 pc. Set)	KADPSERP763A	KADPPERP763A	KADPMERP763A
KERP843A Roll Cabs (8 pc. Set)	KADPSERP843A	KADPPERP843A	KADPMERP843A



### Guard Sets

- Protective accessories coated in actual Snap-on powder-coat paint colors
- Made from laser-cut steel
- Bottom guard is made from stainless steel for corrosion protection
- Provides scratch protection
- Available in six powder-coated colors: Royal Blue (PCM), Candy Apple Red (PJH), Extreme Green (PJJ), Electric Orange (PJK), Hot Pink (PNK) and Gloss Black (PC)
- Orange tint is slightly different than the actual *Snap-on* orange color



KA2411SETPCM



KA2411SETPJH



KA2411SETPJJ



KA2411SETPJK



KA2411SETPNK

### KRA2411 Series Roll Cab 11 Piece Guard Set

Includes (1) 50" drawer front, (1) corner guard set, (1) drawer guard set and (1) stainless steel bottom guard (roll cab not included)

Stock No.	Description
KA2411SETPCM	Royal Blue
KA2411SETPJH	Candy Apple Red
KA2411SETPJJ	Extreme Green
KA2411SETPJK	Electric Orange
KA2411SETPNK	Pink
KA2411BSET	Gloss Black

### KRA2418 Series Roll Cab 18 Piece Guard Set

Includes (1) 50" drawer front, (1) corner guard set, (1) drawer guard set and (1) stainless steel bottom guard (roll cab not included)

Stock No.	Description
KA2418SETPCM	Royal Blue
KA2418SETPJH	Candy Apple Red
KA2418SETPJJ	Extreme Green
KA2418SETPJK	Electric Orange
KA2418SETPNK	Pink
KA2418BSET	Gloss Black

### KRA2422 Series Roll Cab 10 Piece Guard Set

Includes (2) 50" drawer fronts, (1) corner guard set, (1) drawer guard set and (1) stainless steel bottom guard (roll cab not included)

Stock No.	Description
KA2422SETPCM	Royal Blue
KA2422SETPJH	Candy Apple Red
KA2422SETPJJ	Extreme Green
KA2422SETPJK	Electric Orange
KA2422SETPNK	Pink
KA2422BSET	Gloss Black

### KRA2423 Series Roll Cab 17 Piece Guard Set

Includes (2) 50" drawer fronts, (1) corner guard set, (1) drawer guard set and (1) stainless steel bottom guard (roll cab not included)

Stock No.	Description
KA2423SETPCM	Royal Blue
KA2423SETPJH	Candy Apple Red
KA2423SETPJJ	Extreme Green
KA2423SETPJK	Electric Orange
KA2423SETPNK	Pink
KA2423BSET	Gloss Black



- Do not open multiple drawers
- Read safety precautions on pages W1 to W4

# TOOL STORAGE ACCESSORIES

## Customization

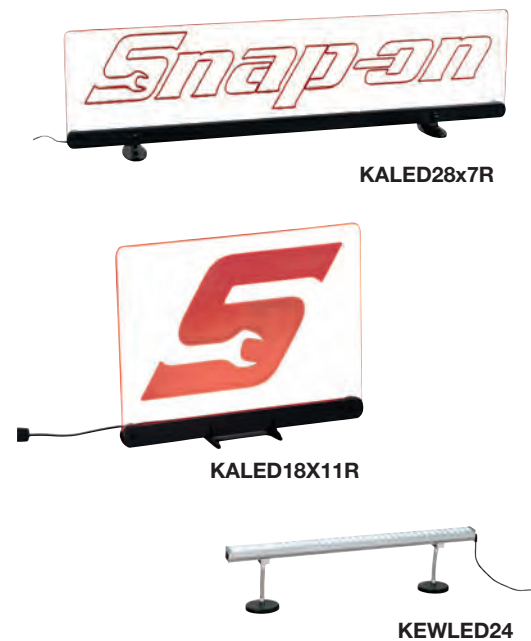


### Roll Cab Handle Bars

- Fits all Classic, Heritage and KRSC carts
- Hot new colors to match or contrast roll cabs or carts
- Heavy duty aluminum construction
- Powder coated paint
- Knurled grip

Stock No.	Description
KA2422HDLB	Black w/Silver Etching
KA2422HDLBU	Royal Blue w/Silver Etching
KA2422HDLGN	Extreme Green w/Silver Etching
KA2422HDLOR	Electric Orange w/Silver Etching
KA2422HDLR	Polished Chrome w/Etching
KA2422HDLPK	Pink w/Silver Etching
KA2422HDLRD	Candy Apple Red w/Silver Etching

## Tool Storage Lighting



### LED Logo Light Panels

- Can be mounted to steel surface with rare earth magnets (included)
- Use AC or DC power with 110V AC plug and battery pack (included)
- Acrylic panel is dipped and coated for abrasion resistance

Stock No.	Size, inches	Description
KALED28X7O	28 x 7	Full Logo, Orange Light
KALED28X7P	28 x 7	Full Logo, Pink Light
KALED28X7W	28 x 7	Full Logo, White Light
KALED8X11B	8 x 11	Wrench "S" LED, Blue Light
KALED8X11G	8 x 11	Wrench "S" LED, Green Light
KALED8X11O	8 x 11	Wrench "S" LED, Orange Light
KALED8X11P	8 x 11	Wrench "S" LED, Pink Light
KALED8X11R	8 x 11	Wrench "S" LED, Red Light
KALED8X11W	8 x 11	Wrench "S" LED, White Light

### LED Workstation Light

#### KEWLED24 Workstation Desklight

- Flexible magnet for easy positioning
- Super bright LED
- Length 26" (600mm); max depth 1 3/8" (34mm)

## Workcenter Accessories



### Workcenter Accessories

#### KATVBRKT Flat Panel Television Mounting Bracket

- Simple and convenient way to display a flat panel television in *Snap-on* workcenters
- The bracket fits monitor screens from 12"–36" sizes
- The mounting holes are Video Electronics Standards Association (VESA®) compatible and will fit most mounting hole patterns on the back of flat-panel monitors
- Hardware and mounting instructions to mount most monitors included
- Attach wall mount to television first, making it very simple to install with one person
- It is recommended to have an assistant when installing to the Slots 'n dots™ mounting system of *Snap-on* workcenters

## Floor and Kneeling Mats

### Color "S" Logo Floor Mats

- The Snap-on® "S" logo graphics on the floor mat are color coded to match the color of the tool storage unit
- Anti-fatigue cushioned floor mat – 36" W x 54" L
- Floor mat eases lower back stress and leg and foot discomfort from prolonged standing on hard surfaces
- Floor mat resists most shop chemicals and provides a sure footing surface

Stock No.	Size, inches	Description
JKAFM3654CAS	36 x 54	Black with Candy Apple Red "S" Logo
JKAFM3654EGS	36 x 54	Black with Extreme Green "S" Logo
JKAFM3654EOS	36 x 54	Black with Electric Orange "S" Logo
JKAFM3654RBS	36 x 54	Black with Royal Blue "S" Logo
JKAFM3654RDS	36 x 54	Black with Red "S" Logo
JKAFM3654PKS	36 x 54	Black with Pink "S" Logo



JKAFM3654CAS



JKAFM3654EGS



JKAFM3654EOS



JKAFM3654RBS

## Tool Storage Unit Maintenance



KACKCLEANER



KACKFLTCLNR



KACKSPDWAXX



KACKMCFIBER1



KACKLQDPLSH



KACKCAREKIT

### Cleaning Supplies

- Water-based solution is body shop safe
- To be used on tool boxes, shop equipment and even tools. It is safe on plastic so it can be used for diagnostic hand-held product as well

#### KACKCLEANER Cleaner/Degreaser, 16 oz.

- Safely remove grease, dirt, oil, fingerprints and more

#### KACKFLTCLNR Matte & Flat Finish Cleaner/Degreaser, 16 oz.

- Safely remove grease, dirt, oil, fingerprints and more
- Cleans without adding a shine to the flat/matte surface

#### KACKSPDWAXX Speed Wax, 16 oz.

- Bring back the shine and resist water spots, dust, fingerprints and grease

#### KACKLQDPLSH Liquid Polish, 7.6 oz.

- Safely clean, polish and protect stainless steel and anodized aluminum

#### KACKMCFIBER1 Microfiber Cloth, 16" x 16"

- Microfiber cloth is machine washable, lint-free and can be used wet or dry

#### KACKCAREKIT Premium Care Kit

- Safely remove grease, dirt, oil, fingerprints and more with the cleaner/degreaser
- Bring back the shine and resist water spots, dust, fingerprints and grease with the Speed Wax
- Safely clean, polish and protect stainless steel and anodized aluminum with the Liquid Polish
- Microfiber cloth is machine washable, lint-free and can be used wet or dry



• Read safety precautions on pages W1 to W4

# 1/4" DRIVE

## Ratchets



**Dual 80® Technology Based Ratchets**  
 Stop, Turn and Listen. A smoother, stronger ratchet.  
 Try them to believe them.

**Dual 80 Technology Ratchets Feature:**

- 72-tooth gear
- Seven teeth in contact with gear to provide strength and durability
- Up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



TLL72



TS72



TRF72



T72FOD



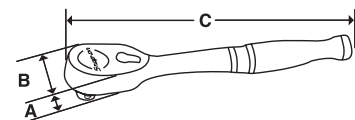
GT72FOD



TFY72



TY72



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TLL72	1/4	Extra Long Handle Ratchet	72	5°	7/16	15/16	9	RKRT72A
TS72	1/4	Finger Tip Ratchet	72	5°	7/16	1 1/2	1 1/2	RKRTHNF72
TRF72	1/4	Quick Release Flex Head Ratchet	72	5°	7/16	15/16	6 1/4	RKRTR72A

ASME®/ANSI® B107.10

## FOD (Foreign Object Damage) Ratchets

- Designed to help prevent foreign object damage in sensitive work environments
- Coverplate and reverse lever permanently affixed to ratchet head with rivets to prevent chance of small parts debris

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T72FOD	1/4	Standard Handle	72	5°	7/16	15/16	4 11/16	—
GT72FOD	1/4	Standard Handle	72	5°	7/16	15/16	4 11/16	—

ASME/ANSI B107.10

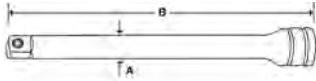
## Special Application Ratchets

- Features a hole through the head and square drive so the fastener may be held steady with a Hex wrench as the fastener's collar is tightened
- Snap-on® ratchets are put through rigorous testing to perform in the real world and provide trouble-free performance that stands the test of time
- Snap-on ratchets are designed to have the lowest profile and work with the shortest swing arc, providing better access to restricted areas
- Dual 80 Ratchet Technology features dual pawls and a 72-tooth gear providing for more power in less lateral space
- Six teeth in full contact with gear to provide strength and durability
- A mere 5° ratcheting arc
- Sealed head keeps dirt and other contaminants out of the head mechanism
- For use with standard or Hi-Lok® sockets

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TFY72	1/4	Flex-head Hi-Lok Ratchet	72	5°	7/16	15/16	6 1/4	RKRTY72
TY72	1/4	Hi-Lok Ratchet	72	5°	7/16	15/16	4 5/8	RKRTY72

ASME/ANSI B107.10

## Ratchet and Socket Accessories

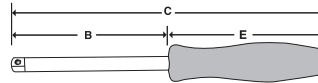


TMXK3

### Knurled Extension

Stock No.	A	B
TMXK3	5/16	3

ANSE®/ANSI® B107.10



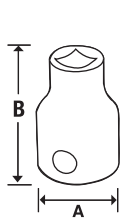
TMR40

TMR4G

### Ratcheting Driver

- Use with any 1/4" drive socket to create a ratcheting nut driver
- 3-position ratchet mechanism works in forward, reverse or lock out the ratcheting action completely

Stock No.	Color	B	C	E
TMR40	Orange	3 7/8	8 31/32	5 3/32
TMR4G	Green	3 7/8	8 31/32	5 3/32

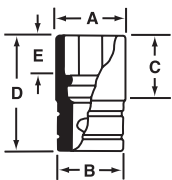


PMP303

### Metric Pipe Plug Socket

- Used to adjust the intake and exhaust valve rocker arms on Mercury Marine® 4-stroke outboard motors
- Motor sizes: 10, 15, 20, 25 and 30 hp

mm	Stock No.	A	B
3	PMP303	12.1	22.2

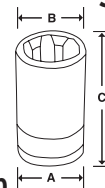


RTM9

### Low Profile, mm

mm	12	A	B	C	D	E
5	RTM5	7.7	12.1	—	20.2	2.2
5.5	RTM5.5	8.3	12.1	—	20.2	2.6
6	RTM6	9.3	12.1	—	19.3	2.7
7	RTM7	10.5	12.1	—	19.0	2.8
8	RTM8	11.5	12.1	—	19.0	3.6
9	RTM9	12.7	12.1	9.2	18.7	3.9
10	RTM10	14.0	12.1	9.4	19.0	4.7
11	RTM11	15.4	12.1	6.2	17.3	4.5
12	RTM12	16.5	12.1	6.1	17.8	4.9
13	RTM13	17.6	12.1	5.9	18.1	5.1

## Special Purpose Sockets



TORX®/Deep

- Manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- Nickel/chrome plating helps protect against corrosion and makes it easy to wipe clean
- For removing and installing vacuum pumps on BMW® N63 V8 engines without removing the catalytic converter saving technician an average of two hours



STLE70

#	Stock No.	A	B	C
E7	STLE70	31/64	3/8	2



S6810

### S6810 Flip Socket, 8mm/10mm

- 8mm and 10mm flip socket
- For removing and installing under belly pans on various vehicles
- BMW vehicles use 30 fasteners that are a combination of 8mm and 10mm that hold the under belly pans on various vehicles; you have the convenience of one tool to work on both sizes
- Lexus® vehicles use 10mm fasteners
- Infiniti® and Mercedes® vehicles use 8mm fasteners
- Splash shields on Chevrolet® Cruze® vehicles and Buick® Verano® vehicles use 8mm fasteners
- Manufactured from special alloy steel
- Precision forged and heat treated for optimum strength and durability
- Double hex (12-point) allows socket to engage single hex fastener every 30° rather than every 60°, allowing for better access in restricted areas
- Overall length 1.44"



**WARNING**



- Do not use "cheater bars" on handles
- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# 1/4" DRIVE

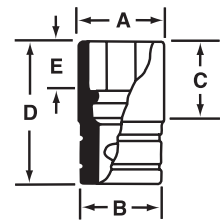
## Sockets



### Shallow Magnetic, mm

mm	6	A	B	D	E	6
5	MGMM5	8.4	12.1	22.8	4.6	•
5.5	MGMM5.5	9.3	12.1	22.8	5.1	•
6	MGMM6	10.2	12.1	22.8	6.1	•
7	MGMM7	11.5	12.1	22.8	6.1	•
8	MGMM8	12.7	12.7	23.8	6.1	•
10	MGMM10	15.2	15.2	23.8	6.1	•
12	MGMM12	17.3	17.3	23.8	6.4	•
13	MGMM13	18.9	18.9	23.8	7.9	•
14	MGMM14	20.5	20.5	23.8	8.6	•
15	MGMM15	21.3	21.3	23.8	8.6	•

Set Contains: 110MGMM



DPTM8



DPTM10

### 110MGMM Magnetic Shallow Metric Socket Set (10 pcs.) 6 pt

- Magnetic sockets are perfect for installing and removing a fastener as the magnetic feature will hold the fastener in the socket saving time and frustration
- Square drive side hole works with ball or pin type retention
- Flank Drive® wrenching system grips the fastener on the socket flanks (flats) to deliver up to 15 to 20% more turning power

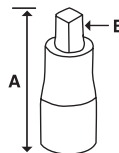
### DPTM8 Shallow Impact Socket, 8mm, 10 pt DPTM10 Shallow Impact Socket, 10mm, 10 pt

- 2009 to current Honda® Odyssey® and Pilot® vehicles front seat tracks; two fasteners on each track, one each 8mm and 10mm
- Forged from tough alloy steel
- Heat treated to a lower hardness to add impact resistance and ductility

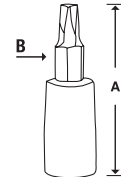
## Bit Sockets



TMAXS3E



PTMTS4SE



### Stubby Hex Socket Driver

#	Hex	Square Drive, inches	A	B
3/32	TMAXS3E	1/4	1 1/32	TMAXS3E2

### TMAXS3E Stubby Hex Bit Socket

- Manufactured from special alloy steel and heat treated for optimum strength
- Snap-on® bits are designed with a precise fit and tight tolerance to prevent slippage and disengagement
- For fasteners on Rolls Royce® commercial aircraft V2500 engines, there are up to 60 fasteners per engine
- A stubby bit socket allows for a positive fit giving more direct torque when removing or installing these fasteners

### MORTORQ®/Superbit

#	Stock No.	Square Drive, inches	A	B
MTS-4	PTMTS4SE	1/4	1 3/4	PTMTS4E2

### PTMTS4SE MORTORQ Stubby Bit Socket

Applications: Connects the fuel cell to the electric motors and other systems on Hyundai® Tucson® IX Fuel Cell vehicles

## Bit Sockets (Blue-Point®)



BLPT1430

### TORX®/Standard

#	Stock No.	Square Drive, inches	Length, inches
T6	BLPT146	1/4	1 7/16
T7	BLPT147	1/4	1 7/16
T8	BLPT148	1/4	1 7/16
T9	BLPT149	1/4	1 7/16
T10	BLPT1410	1/4	1 7/16
T15	BLPT1415	1/4	1 7/16
T20	BLPT1420	1/4	1 7/16
T25	BLPT1425	1/4	1 7/16
T27	BLPT1427	1/4	1 7/16
T30	BLPT1430	1/4	1 7/16



BLPTL1430

### TORX®/Long

#	Stock No.	Square Drive, inches	Length, inches
T6	BLPTL146	1/4	3 15/16
T7	BLPTL147	1/4	3 15/16
T8	BLPTL148	1/4	3 15/16
T9	BLPTL149	1/4	3 15/16
T10	BLPTL1410	1/4	3 15/16
T15	BLPTL1415	1/4	3 15/16
T20	BLPTL1420	1/4	3 15/16
T25	BLPTL1425	1/4	3 15/16
T27	BLPTL1427	1/4	3 15/16
T30	BLPTL1430	1/4	3 15/16

## Bit Sockets (Blue-Point®)

### Hex/Long, mm

mm	Hexagon	Square Drive, Inches	Length, Inches
4	BLPHL144	1/4	3 15/16
5	BLPHL145	1/4	3 15/16
6	BLPHL146	1/4	3 15/16



BLPHL146

### Hex/Long, inches

Hexagon	Square Drive, Inches	Length, Inches
1/8	BLPHL1418	3 15/16
5/32	BLPHL14532	3 15/16
3/16	BLPHL14316	3 15/16



BLPHL14316

### BLPTHC87 General Service Set (Blue-Point)

- Covers full range of metric sizes from 2.5mm to 19mm and fractional from 1/8" to 3/4"
- Drive size increases with bit size to offer maximum strength
- Set includes 1/4", 3/8" and 1/2" drive bit sockets
- Comes in durable compact case, perfect for home or on the road
- One of the most comprehensive TORX®/Hex bit driver sets on the market



BLPTHC87

### BLPTHC87 Set. 87 pcs Includes:

	Stock No.	Size	Drive Size, inches	
External Torx Sockets	BLPTE144	E4	1/4	
	BLPTE145	E5	1/4	
	BLPTE146	E6	1/4	
	BLPTE147	E7	1/4	
	BLPTE148	E8	1/4	
	BLPTE3810	E10	3/8	
	BLPTE3812	E12	3/8	
	BLPTE3814	E14	3/8	
	BLPTE3816	E16	3/8	
	BLPTE1218	E18	1/2	
	BLPTE1220	E20	1/2	
	BLPTE1222	E22	1/2	
	BLPTE1224	E24	1/2	
	Torx Bit Sockets	BLPT146	T6	1/4
		BLPT147	T7	1/4
BLPT148		T8	1/4	
BLPT149		T9	1/4	
BLPT1410		T10	1/4	
BLPT1415		T15	1/4	
BLPT1420		T20	1/4	
BLPT1425		T25	1/4	
BLPT1427		T27	1/4	
BLPT1430		T30	1/4	
BLPT3840		T40	3/8	
BLPT3845		T45	3/8	
BLPT3850		T50	3/8	
BLPT1255		T55	1/2	
BLPT1260		T60	1/2	
Long Torx Bit Sockets	BLPTL146	T6	1/4	
	BLPTL147	T7	1/4	
	BLPTL148	T8	1/4	
	BLPTL149	T9	1/4	
	BLPTL1410	T10	1/4	
	BLPTL1415	T15	1/4	
	BLPTL1420	T20	1/4	
	BLPTL1425	T25	1/4	
	BLPTL1427	T27	1/4	
	BLPTL1430	T30	1/4	
	BLPTL3840	T40	3/8	
	BLPTL3845	T45	3/8	
	BLPTL3850	T50	3/8	
	BLPTL1255	T55	1/2	
	BLPTL1260	T60	1/2	

	Stock No.	Size	Drive Size, inches	
Metric Hex Bit Sockets	BLPH1425	2.5mm	1/4	
	BLPH123	3mm	1/4	
	BLPH124	4 mm	1/4	
	BLPH125	5 mm	1/4	
	BLPH126	6 mm	1/4	
	BLPH386	6 mm	3/8	
	BLPH387	7 mm	3/8	
	BLPH388	8 mm	3/8	
	BLPH389	9 mm	3/8	
	BLPH3810	10 mm	3/8	
	BLPH1210	10 mm	1/2	
	BLPHM1212	12 mm	1/2	
	BLPH1214	14 mm	1/2	
	BLPH1217	17 mm	1/2	
	BLPH1219	19 mm	1/2	
	Long Metric Hex Bit Sockets	BLPHL144	4 mm	1/4
		BLPHL145	5 mm	1/4
		BLPHL146	6 mm	1/4
		BLPHL387	7 mm	3/8
BLPHL388		8 mm	3/8	
BLPHL389		9 mm	3/8	
BLPHL3810		10 mm	3/8	
Fractional Hex Bit Sockets	BLPH1418	1/8"	1/4	
	BLPH14964	9/64"	1/4	
	BLPH14532	5/32"	1/4	
	BLPH14316	3/16"	1/4	
	BLPH14732	7/32"	1/4	
	BLPH1414	1/4"	1/4	
	BLPH38732	7/32"	3/8	
	BLPH3814	1/4"	3/8	
	BLPH38516	5/16"	3/8	
	BLPH3838	3/8"	3/8	
	BLPH12716	7/16"	1/2	
Long Fractional Hex Bit Sockets	BLPH1212	1/2"	1/2	
	BLPH12916	9/16"	1/2	
	BLPH1258	5/8"	1/2	
	BLPH1234	3/4"	1/2	
	BLPHL1418	1/8"	1/4	
	BLPHL14532	5/32"	1/4	
	BLPHL14316	3/16"	1/4	
	BLPHL38732	7/32"	3/8	
	BLPHL3814	1/4"	3/8	
	BLPHL38516	5/16"	3/8	
	BLPHL3838	3/8"	3/8	



- Do not use chrome or industrial finish hand or power tools with impact drivers
- Read safety precautions on pages W1 to W4

# 3/8" DRIVE

## Ratchets



### Dual 80® Technology Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.

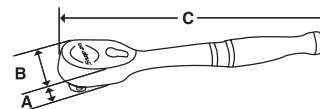
Try them to believe them.

#### Dual 80 Technology Ratchets Feature:

- 80-tooth gear
- Seven teeth in contact with gear to provide strength and durability
- Up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



FLL80



### FLL80 Dual 80 Technology Ratchet, Chrome

Use for serpentine belts, fasteners that are hard to reach, or a tight access area where a 1/2" drive will not fit.

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
FLL80	3/8	Extra Long Handle Ratchet	80	4.5°	3/4	1 5/8	17 1/2	RKRF80

ASME®/ANSI® B107.10



F80FOD



GF80FOD



GFL80FOD

### FOD Ratchets (Foreign Object Damage)

- Aviation and other critical applications where Foreign Object Damage prevention is crucial for success
- Designed to have the lowest profile and work with the shortest swing arc, providing better access to restricted areas

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
F80FOD	3/8	Standard Handle	80	4.5°	9/16	1 1/4	7 7/16	—
GF80FOD	3/8	Standard Handle, Black Industrial	80	4.5°	9/16	1 1/4	7 7/16	—
GFL80FOD	3/8	Long Handle, Black Industrial	80	4.5°	9/16	1 1/4	10 5/16	—

ASME/ANSI B107.10



FCY72

### Hi-Lok® Ratchet

- Features a hole through the head and square drive so the fastener may be held steady with a Hex wrench as the fastener's collar is tightened
- Snap-on® ratchets are put through rigorous testing to perform in the real world and provide trouble-free performance that stands the test of time
- Snap-on ratchets are designed to have the lowest profile and work with the shortest swing arc, providing better access to restricted areas
- Dual 80 Ratchet Technology features dual pawls and a 72-tooth gear providing for more power in less lateral space
- Six teeth in full contact with gear to provide strength and durability
- A mere 5° ratcheting arc
- Sealed head keeps dirt and other contaminants out of the head mechanism
- For use with standard or Hi-Lok sockets

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
FCY72	3/8	Hi-Lok Ratchet	72	5°	7/16	15/16	4 5/8	RKRFCY72

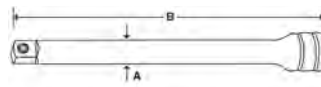
ASME/ANSI B107.10



## Ratchet and Socket Accessories

### Extension/Friction Ball

Stock No.	Size Drive, inches	A	B
FX2	3/8	31/64	2



FX2



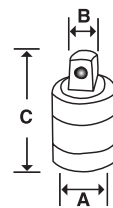
202IPFX

### Swivel Extensions

- Laser welded pivot pin allows smooth, full 30° swivel action for efficient power transfer
- Manufactured from special alloy steel and heat treated for optimum strength and durability
- Provides versatility for the technician as they can use any shallow, semi-deep, deep, 6pt, 12pt, metric or SAE impact socket – you are not limited to just one size

Stock No.	Shank Dia., inches	Length, inches	Set Contains:
IPFX6	9/16	6	•
IPFX9	9/16	9	•

202IPFX



GSAF1F

### Adaptor

Industrial Stock No.	A	B	C	Replacement Square Drive
GSAF1F	1/2	3/8	1 13/16	GSAF1F2

ASME®/ANSI® B107.10

### GSAF1F 1/2" to 3/8" Adaptor

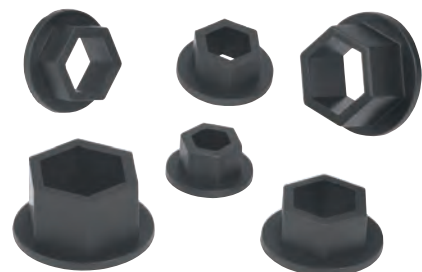
- Unique bit retention system provides a tight fit with the socket base to prevent the bit from loosening or detaching from the socket
- Improved design offers maximum durability
- Not designed for use with an impact gun
- To replace a bit, simply punch out the bit like the previous model – recommend using the SPP931 to remove and install the bit
- GSAF1F2 bit is not designed for use with the GSAF1E base

### Non-marring Metric Socket Inserts

- Designed for use with Snap-on® 1/4" and 3/8" drive metric sockets
- Tough glass-reinforced nylon offers excellent strength yet will not damage soft metals, plated fasteners or powder-coated surfaces
- Large lip makes insert removal easy
- Set covers most popular metric sizes; inserts are marked for easy identification
- Do not use socket inserts with impact tools
- These socket inserts are consumables, they are not warranty items

Stock No.	Socket Size	Fastener Size	Working Torque, in. lb.	Set Contains:
PSCM1208	12mm	8mm	80	•
PSCM1410	14mm	10mm	155	•
PSCM1612	16mm	12mm	240	•
PSCM1713	17mm	13mm	400	•
PSCM1915	19mm	15mm	450	•
PSCM2217	22mm	17mm	700	•

PSCM600



PSCM600



- Do not use "cheater bars" on handles
- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# 3/8" DRIVE

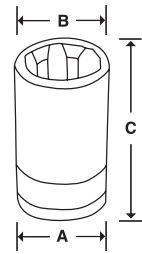
## Sockets



207RFLE



FLEPL120



## Low-Profile Inverted TORX®

Set Contains:

207RFLE

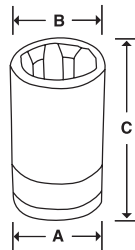
Size	Stock No.	A	B	C	
8	RFLE80	17.2	11.4	17.3	•
10	RFLE100	17.2	12.8	20.6	•
11	RFLE110	17.2	14.3	21.1	•
12	RFLE120	17.2	15.6	21.7	•
14	RFLE140	17.2	16.9	23.0	•
16	RFLE160	17.9	18.7	24.3	•
18	RFLE180	19.5	20.3	25.4	•

## TORX Plus® w/Countersink

Size	Stock No.	A	B	C
10	FLEPL80	7/16	11/16	1 5/32
12	FLEPL120	19/32	11/16	1 5/32
14	FLEPL140	5/8	11/16	1 5/32
16	FLEPL160	3/4	11/16	1 5/32
18	FLEPL180	13/16	11/16	1 5/32



FLCE180



## Shallow TORX with Countersink

Size	Stock No.	A	B	C
E14	FLCE140	11/16	5/8	1 5/32
E16	FLCE160	23/32	3/4	1 1/4
E18	FLCE180	25/32	13/16	1 5/16

### FLCE140 TORX Socket with Countersink

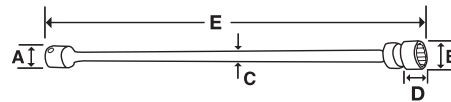
- For connecting rod cap bolts on various Toyota® and Scion® vehicles
- The FLCE140 is similar to Toyota special tool number 09013-1C551

### FLCE160 TORX Socket with Countersink

- For cam sprocket on 2.5L FB engine on a 2011 and current Subaru® Forester® vehicles
- Camshaft timing gear assembly on various 2012 Toyota vehicles
- Similar to Toyota special tool number 09013-1C560

### FLCE180 TORX Socket with Countersink

- Spider gear in the rear differential on a 2010 to current Chevrolet® Camaro® vehicles



206PFSXM

## Swivel Ball Extension, mm

Set Contains:



206PFSXM

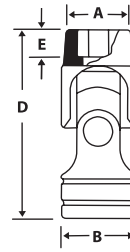
mm	6	A	B	C	D	E	6
10	PFSXM910B	19.1	14.4	9.5	5.6	243.4	•
11	PFSXM911B	19.1	15.6	9.5	6.3	243.8	•
12	PFSXM912B	19.1	16.9	9.5	6.8	244.6	•
13	PFSXM913B	19.1	18.4	12.4	7.6	245.9	•
14	PFSXM914B	19.1	19.8	12.4	9.1	247.9	•
15	PFSXM915B	19.1	20.4	12.4	9.1	247.4	•

### PFSXM910B and PFSXM912B

Applications: Toyota and Lexus® vehicles transmission pan bolts plus several underdash applications. Volvo® vehicle: removing intake faster and easier.

### Deep Universal, inches

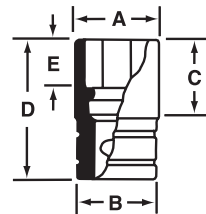
		A	B	D	E
3/8	<b>FDSU12</b>	9/16	11/16	2 13/32	3/8
7/16	<b>FDSU14</b>	5/8	11/16	2 13/32	7/16
1/2	<b>FDSU16</b>	23/32	11/16	2 13/32	15/32
9/16	<b>FDSU18</b>	25/32	11/16	2 13/32	17/32
5/8	<b>FDSU20</b>	27/32	11/16	2 13/32	9/16
11/16	<b>FDSU22</b>	15/16	3/4	2 15/32	9/16
3/4	<b>FDSU24</b>	1	3/4	2 15/32	9/16



FDSU22





DPFM12



M2115

### Shallow 10 pt.



		A	B	C	D	E
12	<b>DPFM12</b>	18.3	18.3	—	26.9	7.1

#### DPFM12 Shallow-Impact Socket

- The DPFM12 is for clutch pressure plate bolts found on the flywheel assembly on Mitsubishi® Eclipse® and Dodge® Stratus® vehicles
- Forged from tough alloy steel
- Heat treated to a lower hardness to add impact resistance and ductility


### Surface Drive (M-Series)

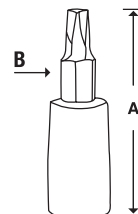
- Use in the industrial market for assembly line work
- The lead in chamfer and special design of these sockets will engage with a fastener while rotating on a power nut runner

		A	B	C	D	E
8	<b>M2108</b>	12.7	19.1	16.5	31.8	5.6
10	<b>M2110</b>	16.5	19.1	16.5	31.8	7.4
10	<b>M2210</b>	16.5	19.1	39.1	50.8	7.4
15	<b>M2115</b>	22.2	22.2	25.4	38.1	11.4

## Bit Sockets

### MORTORQ®/Superbit

	Stock No.	Square Drive, inches	A	B
MTS-2	<b>PFMTS2E</b>	3/8	1 3/4	<b>PFMTS2E2</b>



PFMTS2E



**WARNING**



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# 3/8" AND 1/2" DRIVE

## Bit Sockets (Blue-Point®)



BLPT3850

### TORX®/Standard

#	Stock No.	Square Drive, inches	Length, inches
T40	<b>BLPT3840</b>	3/8	.8
T45	<b>BLPT3845</b>	3/8	.8
T50	<b>BLPT3850</b>	3/8	.8



BLPTL3850

### TORX/Long

#	Stock No.	Square Drive, inches	Length, inches
T40	<b>BLPTL3840</b>	3/8	3.17
T45	<b>BLPTL3845</b>	3/8	3.17
T50	<b>BLPTL3850</b>	3/8	3.17



BLPHL3810

### Hex/Long, mm

mm		Square Drive, inches	Length, inches
7	<b>BLPHL387</b>	3/8	3.17
8	<b>BLPHL388</b>	3/8	3.17
9	<b>BLPHL389</b>	3/8	3.17
10	<b>BLPHL3810</b>	3/8	3.17



BLPHL3838

### Hex/Long, inches

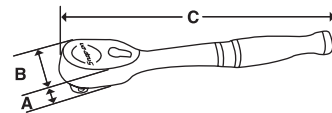
		Square Drive, inches	Length, inches
7/32	<b>BLPHL38732</b>	3/8	3.17
1/4	<b>BLPHL3814</b>	3/8	3.17
5/16	<b>BLPHL38516</b>	3/8	3.17
3/8	<b>BLPHL3838</b>	3/8	3.17

# 1/2" DRIVE

## Ratchet



S80AFOD

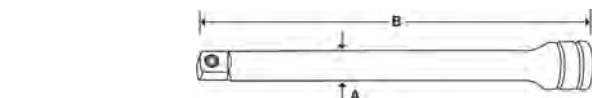


### FOD (Foreign Object Damage) Ratchet

- Designed to help prevent foreign object damage in sensitive work environments
- Coverplate and reverse lever permanently affixed to ratchet head with rivets to prevent chance of small parts debris

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
<b>S80AFOD</b>	1/2	Standard Handle	80	4.5°	3/4	1 5/8	10 5/6	—

ASME®/ANSI® B107.10



SXX10

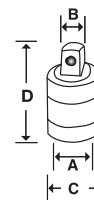
### Knurled Extension, chrome

Stock No.	A	B
<b>SXX10</b>	5/8	10

ASME/ANSI 107.10M



GLAS1F



### Square Drive Adaptor

Industrial Stock No.	A	B	C	D	Replacement Square Drive
<b>GLAS1F</b>	3/4	1/2	1 7/16	2 7/16	<b>GLAS1F2</b>

ASME/ANSI 107.10

## NPC18

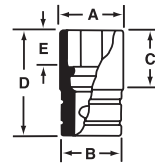
[www.snapon.com/handtools](http://www.snapon.com/handtools)

### Shallow, mm

#### IMDM270 12-Point Metric Shallow-Impact Socket

• Use for servicing inner rack and pinion nuts on BMW® X5 and X6 vehicles

mm	12	A	B	C	D	E
27	IMDM270	39.4	39.4	27.1	50.8	20.3



IMDM270



310SIMMADDON



312SIMDM



SIMDM200

310SIMMADDON  
312SIMDM

### Deep, mm

Set Contains:

mm	6	12	A	B	C	D	E	6	12
10	—	SIMDM100	15.0	23.2	66.7	82.6	7.9		
11	—	SIMDM110	18.2	23.2	66.7	82.6	8.7		
12	—	SIMDM120	19.0	23.2	66.7	82.6	9.5		
13	—	SIMDM130	20.6	23.2	66.7	82.6	10.3		
14	—	SIMDM140	22.2	23.2	66.7	82.6	10.3		
15	—	SIMDM150	23.8	23.8	50.0	82.6	10.3		•
16	—	SIMDM160	24.6	24.6	50.0	82.6	11.9		•
17	—	SIMDM170	25.1	25.1	57.9	82.6	11.2		•
18	—	SIMDM180	26.7	26.7	61.0	82.6	12.7		•
19	—	SIMDM190	28.3	28.3	61.0	82.6	14.2		•
20	—	SIMDM200	29.9	29.9	61.0	82.6	14.2		•
21	—	SIMDM210	31.5	31.5	61.0	82.6	14.2		•
22	—	SIMDM220	33.1	33.1	71.6	88.9	15.7		•
23	—	SIMDM230	33.1	33.1	64.3	88.9	15.9		•
24	—	SIMDM240	34.9	34.9	63.5	88.9	15.9		•
25	SIMM250	SIMDM250	36.3	36.3	63.5	88.9	15.9	•	•
26	SIMM260	—	37.9	37.9	71.0	88.9	19.8	•	
27	SIMM270	SIMDM270	39.4	39.4	71.0	88.9	20.3	•	•
29	SIMM290	SIMDM290	41.3	41.3	71.6	88.9	21.3	•	
30	SIMM300	SIMDM300	42.9	42.9	71.6	88.9	21.6	•	
32	SIMM320	SIMDM320	45.8	45.8	71.6	88.9	22.4	•	
33	SIMM330	SIMDM330	46.0	46.0	72.8	88.9	22.4	•	
34	SIMM340	SIMDM340	49.3	49.3	72.8	88.9	22.6	•	
35	SIMM350	SIMDM350	50.8	50.8	72.8	88.9	22.9	•	
36	SIMM360	SIMDM360	50.8	50.8	72.8	88.9	22.9	•	



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# 1/2" DRIVE

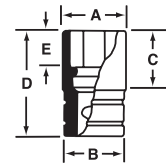
## Sockets



313SIMD



SIMD240A



## Deep, inches

			A	B	C	D	E	
1/2	—	<b>SIMD160A</b>	13/16	29/32	2 5/8	3 1/4	3/8	•
9/16	—	<b>SIMD180A</b>	7/8	29/32	2 5/8	3 1/4	13/32	•
5/8	—	<b>SIMD200A</b>	31/32	29/32	2 5/8	3 1/4	15/32	•
11/16	—	<b>SIMD220A</b>	1 1/16	1 1/16	2 5/8	3 1/4	1/2	•
3/4	—	<b>SIMD240A</b>	1 1/8	1 1/8	2 5/8	3 1/4	9/16	•
13/16	—	<b>SIMD260A</b>	1 1/4	1 1/4	2 5/8	3 1/4	19/32	•
7/8	—	<b>SIMD280A</b>	1 5/16	1 5/16	2 3/32	3 1/2	9/16	•
15/16	—	<b>SIMD300A</b>	1 3/8	1 3/8	2 3/32	3 1/2	3/4	•
1	—	<b>SIMD320A</b>	1 7/16	1 7/16	2 7/8	3 1/2	3/4	•
1 1/16	—	<b>SIMD340A</b>	1 9/16	1 9/16	2 11/16	3 1/2	25/32	•
1 1/8	—	<b>SIMD360A</b>	1 5/8	1 5/8	2 11/16	3 1/2	25/32	•
1 3/16	—	<b>SIMD380A</b>	1 11/16	1 1/2	2 11/16	3 1/2	25/32	•
1 1/4	—	<b>SIMD400A</b>	1 3/4	1 1/2	2 11/16	3 1/2	1	•
1 5/8	<b>SIM520</b>	—	2 3/8	1 3/4	2 7/8	3 1/2	15/16	•

Set Contains:

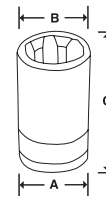
313SIMD



S6324



IMSLE240



## Crank Shaft Bolt Impact Socket, mm

### S6324 Crank Shaft Bolt Socket

- For removing and installing crank shaft bolts on Audi® A4®, A6® and A8® vehicles
- Socket is 1/2" drive 24mm and overall length is 2" which is critical to the crank shaft bolt application
- Manufactured from special alloy steel
- Precision forged and heat treated for optimum strength and durability
- Flank Drive® wrenching system grips fastener on the flanks/flats increasing torque by 15–20% while preventing the fastener from rounding and increasing the life of the socket

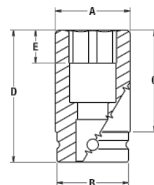
### IMSLE240 TORX® Impact Socket

- Use on front axle nut on M, C, E and S class Mercedes® vehicles

	Stock No.	A	B	C
E24	<b>IMSLE240</b>	1 1/16	1 1/16	1 1/2



SIMML180



## Extra Deep, mm

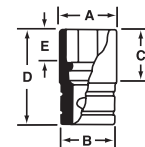
### SIMML180 6-Point Metric Extra Deep Impact Socket

- Remove and install the fuel tank hold-down strap on International 4400 chassis. The fuel tank must be removed to replace the fuel sending unit
- 5" long to reach through the frame to access the fastener without the need of an extension

		A	B	D	E
18	<b>SIMML180</b>	27	27	127.3	13.2



DPSM16

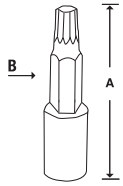


## Shallow 10 pt., mm

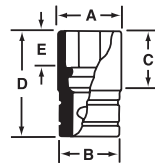
### DPSM16 Shallow Impact Socket

- The DPSM16 is for removing the rear lower control arm bolts on 2001 and newer Honda® Civic® and Acura® RSX® vehicles
- Forged from tough alloy steel
- Heat treated to a lower hardness to add impact resistance and ductility

		A	B	D	E
16	<b>DPSM16</b>	24.6	24.6	38.1	11.9



STX50TPE



M3118

### TORX Plus®

#### STX55TPE TORX Plus Socket Driver

- Use to remove and install T55 TORX Plus fasteners that hold the bed to the frame on Ford® F-Series® pick-up trucks

#### STX60TPE TORX Plus Socket Driver

- For removing and installing T60 TORX Plus fasteners on fuel pump of the 30L Cummins® engine family

#	Stock No.	Square Drive, inches	A	B
45IP	STX45TPE	1/2	2 9/16	FTX45TPE2
45IP	STX50TPE	1/2	2 43/64	STX50TPE2
55IP	STX55TPE	1/2	2 3/4	FTX55TPE2
60IP	STX60TPE	1/2	3 9/32	FTX60TPE2

### Surface Drive (M-Series)

- Snap-on® M-Series sockets offer a precise fit, optimum hardness and durability, and ring-groove and pin hole for use on a variety of industrial fastening applications
- M-Series sockets also feature surface drive technology to ensure a long service life

mm	6	A	B	C	D	E
11	M3111	16.6	23.6	19.1	38.1	8.1
13	M3113	22.0	23.6	19.1	38.1	9.7
15	M3115	23.6	23.6	21.3	38.1	12.4
15	M3215	23.6	23.6	40.4	57.2	12.4
18	M3118	28.4	28.4	21.3	38.1	11.2

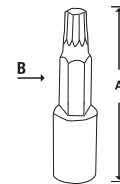
### Triple Square/Long, mm

#### STSM10LE Metric Triple Square Driver

- Extra long bit and rounded shaft does not interfere with the camshaft
- Manufactured from special alloy steel and heat treated for optimum strength
- Snap-on bits are designed with a precise fit and tight tolerance to prevent slippage and disengagement

#### Applications:

- Audi® engines, 2004 to present:
  - V8 4.2L
  - V6 2.8L (2 valves per cylinder)
  - V6 2.7L (5 valves per cylinder)
  - 1.8L Turbo
- Audi TT Axle Bolts



STSM10LE

mm	Stock No.	Square Drive, inches	A	B
10	STSM10LE	1/2	6 5/32	STSM10LE2

### TORX®/Standard, Blue-Point®

#	Stock No.	Square Drive, inches	Length, inches
T55	BLPT1255	1/2	2 3/4
T60	BLPT1260	1/2	2 3/4



BLPT1260

### TORX/Long, Blue-Point

#	Stock No.	Square Drive, inches	Length, inches
T55	BLPTL1255	1/2	4 3/4
T60	BLPTL1260	1/2	4 3/4



BLPTL1260



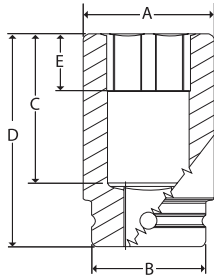
- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# 3/4" DRIVE AND SPLINE

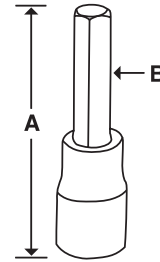
## Sockets and Bit Sockets



IMM422A



LAW19E



### Shallow, mm

mm	6	A	B	C	D	E
42	IMM422A	63.1	44.5	46.9	66.9	28.6

### Hex/Standard, Impact

mm	Hex	Square Drive, inches	A	B
17	LAW17E	3/4	104.7 (4 1/8")	SAM17E2
19	LAW19E	3/4	111.9 (4 13/32")	SAM19E2

## Spline Sockets

- Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft
- Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque to reduce risk of damage to the fastener or to the tool

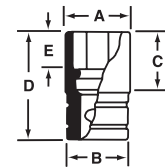
- Sockets comply with both the AS954 Aerospace standard and military specifications MS-33787 and MIL-W-8982
- The unique spline wrenching configuration can also be used on ordinary 6-point and 12-point fasteners with an advantage similar to the Snap-on Flank Drive® wrenching system



TES10B



FES200B



Set Contains:

209TFES

### Shallow, inches

Stock No.	Square Drive, in.	A	B	C	D	E			
#7	7/32	TES7B	1/4	11/32	27/64	29/64	59/64	7/32	•
#8	1/4	TES8B	1/4	3/8	27/64	29/64	59/64	17/64	•
#9	9/32	TES9B	1/4	7/16	3/16	37/64	59/64	19/64	•
#10	5/16	TES10B	1/4	29/64	29/64	19/32	59/64	21/64	•
#12	3/8	FES120B	3/8	35/64	21/32	19/32	1 3/64	23/64	•
#14	7/16	FES140B	3/8	5/8	11/16	5/8	1 7/64	7/16	•
#16	1/2	FES160B	3/8	23/32	3/4	39/64	1 7/64	29/64	•
#18	9/16	FES180B	3/8	53/64	53/64	39/64	1 7/64	15/32	•
#20	5/8	FES200B	3/8	57/64	57/64	45/64	1 15/64	35/64	•

**209TFES Shallow Spline Socket Set** Includes 1/4" drive shallow sockets TES7B thru TES10B (#7 to #10) and 3/8" drive shallow sockets FES120B thru FES200B (#12 to #20)(9 pcs.) in magnetic storage tray



TEL10B



FEL200B

Set Contains:

207TFEL

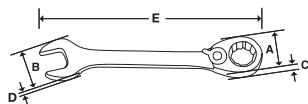
### Deep, inches

Stock No.	Square Drive, in.	A	B	C	D	E			
#7	7/32	TEL7B	1/4	11/32	27/64	1 43/64	2	7/32	•
#8	1/4	TEL8B	1/4	3/8	7/16	1 43/64	2	17/64	•
#10	5/16	TEL10B	1/4	29/64	29/64	1 43/64	2	21/64	•
#12	3/8	FEL120B	3/8	35/64	5/8	1 41/64	2 1/8	23/64	•
#14	7/16	FEL140B	3/8	41/64	43/64	1 3/4	2 1/8	7/16	•
#18	9/16	FEL180B	3/8	53/64	53/64	1 55/64	2 3/8	15/32	•
#20	5/8	FEL200B	3/8	57/64	57/64	1 27/32	2 3/8	35/64	•

**207TFEL Deep Spline Socket Set** Includes 1/4" drive deep sockets TEL7B thru TEL10B (#7 to #10) and 3/8" drive deep sockets FEL120B thru FEL200B (#12 to #20) (7 pcs.) in magnetic storage tray



## FLANK DRIVE® Plus Combination Ratcheting Box/Open End



SOEXRM7



SOEXR10

### Standard, 15° Offset, mm

mm	12	A	B	C	D	E	Reverse Lever Repair Kit
6	SOEXRM6	16.3	13.8	6.7	3.7	125.5	RKW12
7	SOEXRM7	16.8	15.1	6.9	3.9	137.4	RKW1

### Standard, 15° Offset, inches

in	12	A	B	C	D	E	Reverse Lever Repair Kit
1/4	SOEXR8	21/32	9/16	9/32	5/32	4 15/16	RKW12
5/16	SOEXR10	27/32	11/16	9/32	3/16	5 29/32	RKW1

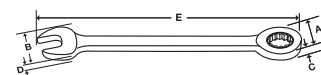
## FLANK DRIVE Combination Ratcheting Box/Open End



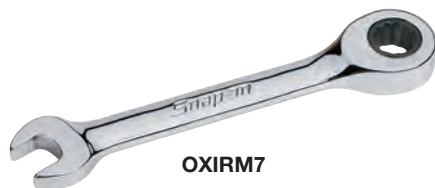
OEXRM7

### Standard, 0° Offset, mm

mm	12	A	B	C	D	E
6	OEXRM6	16.3	13.2	6.7	3.5	122.9
7	OEXRM7	16.8	15.2	6.9	3.9	134.6



ASME® B107.100



OXIRM7



OXIR10

### Short, 0° Offset, mm

mm	12	A	B	C	D	E
6	OXIRM6	16.3	13.2	6.7	3.5	80.8
7	OXIRM7	16.8	15.2	6.9	3.9	84.8

ASME B107.100

### Short, 0° Offset, inches

in	12	A	B	C	D	E
1/4	OXIR8	21/32	17/32	9/32	5/32	3 3/16
5/16	OXIR10	21/32	11/16	9/32	3/16	3 17/32

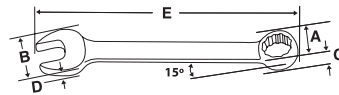
ASME B107.100



- Do not use “cheater bars” on handles
- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# WRENCHES

## FLANK DRIVE® Plus Combination



SOEXM705



SOEXM150



SOEX703K1



SOEX704

### Standard, mm

Set Contains:

SOEXM705

mm	12	A	B	C	D	E	12
20	SOEXM20	30	41	13	9	292	•
21	SOEXM21	31	43	13	9	304	•
22	SOEXM22	33	46	14	10	318	•
23	SOEXM23	34	47	14	10	327	•
24	SOEXM24	35	49	15	11	337	•

ASME® B107.100

### Short, mm

mm	12	A	B	C	D	E
10	SOEXM100	15	21	7	5	133
11	SOEXM110	17	23	8	6	138
12	SOEXM120	18	25	8	6	143
13	SOEXM130	20	27	9	6	148
14	SOEXM140	21	29	9	7	152
15	SOEXM150	22	31	10	7	157
17	SOEXM170	25	35	11	8	167

### Standard, inches

Set Contains:

SOEX703K1

SOEX704

in	12	A	B	C	D	E	12	12
15/16	SOEX30	1 3/8	1 29/32	19/32	13/32	13 1/4		•
1	SOEX32	1 15/32	2 1/32	5/8	7/16	14		•
1 1/16	SOEX34	1 9/16	2 5/32	19/32	15/32	14 3/4		•
1 1/8	SOEX36	1 5/8	2 5/16	11/16	15/32	15 17/32		•
1 3/16	SOEX38	1 23/32	2 13/32	23/32	1/2	16 1/4	•	
1 1/4	SOEX40	1 13/16	2 9/16	3/4	17/32	17	•	
1 5/16	SOEX42	1 29/32	2 21/32	3/4	9/16	17 25/32	•	

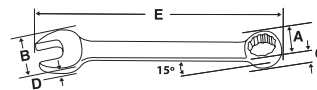
## FLANK DRIVE® Combination



OEXM705



OEXM706



### Standard, mm

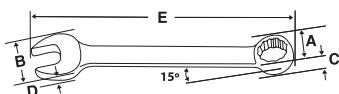
Set Contains:

OEXM705

OEXM706

mm	12	A	B	C	D	E	12	12
20	OEXM200B	30	41	13	9	292	•	
21	OEXM210B	31	43	13	9	304	•	
22	OEXM220B	33	46	14	10	318	•	
23	OEXM230B	34	47	14	10	327	•	
24	OEXM240B	35	49	15	11	337	•	
25	OEXM250B	37	52	16	11	356		•
26	OEXM260B	38	53	16	11	363		•
27	OEXM270B	39	55	17	12	375		•
28	OEXM280B	40	56	17	12	375		•
29	OEXM290B	42	58	18	12	394		•
30	OEXM300B	44	61	19	13	413		•

## FLANK DRIVE® Combination



OEX703K1



OEX703K2



OEX704B

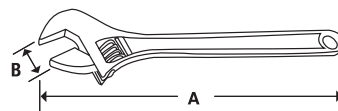
### Standard, inches

Hex Size	Set Contains:	Set Contains:								
		OEX703K1	OEX703K2	OEX704B						
15/16	12	A	B	C	D	E	12	12	12	
1	OEX30B	1 3/8	1 29/32	19/32	13/32	13 1/4				•
1 1/16	OEX32B	1 15/32	2 1/32	21/32	7/16	14				•
1 1/8	OEX34B	1 9/16	2 3/16	11/16	15/32	14 3/4				•
1 1/4	OEX36B	1 5/8	2 5/16	11/16	17/32	15 7/16				•
1 3/8	OEX38B	1 3/4	2 7/16	3/4	1/2	16 5/16	•			
1 1/2	OEX40B	1 13/16	2 9/16	3/4	17/32	17 1/16	•			
1 5/8	OEX42B	1 29/32	2 21/32	3/4	9/16	17 13/16	•			
1 3/4	OEX44B	2	2 13/16	3/4	19/32	18 9/16		•		
1 7/8	OEX46B	2 1/16	2 29/32	7/8	19/32	19 1/32		•		
2	OEX48B	2 5/32	3 1/16	7/8	5/8	20 1/16		•		

## Folding Set and Adjustable Wrench



AWEF6M6K



GAJS30

### Combination

#### AWEF6M6K Fractional/Metric Hex Folding Set

- Turn-and-Flip feature eliminates the need for constant removal of tool to reposition it in screw head when working next to obstructions
- 90° stops turn the tool into a speed wrench
- Hex sizes molded into storage case for easy identification of each Hex
- Flutes in storage case allow easy selection
- Access the blades from top or bottom, eliminating the need to unstack the blades
- High-torque steel is 20% stronger and twice the wear resistance of standard grades of steel
- Handle is 40% stronger than steel cases
- Corrosion-resistant finish resists solvents and is five times more corrosion resistant than the competition

### Blue-Point® Adjustable Wrench

#### GAJS30 Blue-Point Adjustable Wrench

- SAE and metric scales on fixed jaw indicate wrench opening
- Fixed jaw and handle are forged in one piece to ensure maximum strength
- Side-adjusting nut style provides smoother operation, allows greater jaw opening and offers minimum jaw play
- Wrench is balanced to minimize wrist stress
- Hole at handle end for tether or hanging

Stock No.	A inches (mm)	B inches (mm)
GAJS30	30 (778)	3 11/32 (85)

ASME®/ANSI® B107.8M-1996



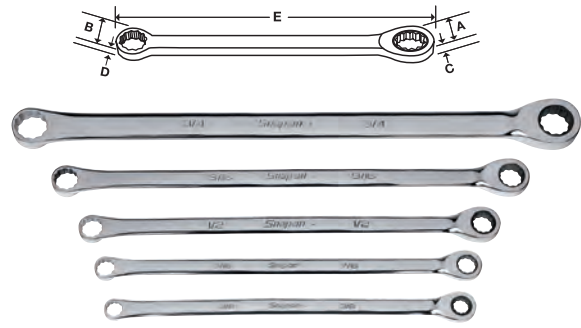
- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4

# HIGH PERFORMANCE WRENCHES

## High Performance Ratcheting Box Flank Drive®



**XDHRM606**



**XDHR705**

### Ratcheting Box, mm

Set Contains:

**XDHRM606**

mm	12	A	B	C	D	E	12
8	<b>XDHRM8</b>	17.9	11.5	7.1	6.4	230.6	
9	<b>XDHRM9</b>	19.4	13.0	7.9	6.4	243.7	
11	<b>XDHRM11</b>	21.4	15.5	8.7	8.7	269.5	•
12	<b>XDHRM12</b>	23.4	17.1	9.1	9.1	282.6	•
14	<b>XDHRM14</b>	27.0	20.2	10.3	10.3	336.6	•
16	<b>XDHRM16</b>	30.6	22.6	11.1	11.1	362.3	•
18	<b>XDHRM18</b>	34.5	25.0	11.9	12.3	388.1	•
19	<b>XDHRM19</b>	36.5	26.2	12.7	12.3	401.2	•

### Ratcheting Box, inches

Set Contains:

**XDHR705**

in	12	A	B	C	D	E	12
5/16	<b>XDHR10</b>	45/64	1/4	9/32	29/64	9 5/64	
3/8	<b>XDHR12</b>	27/32	9/16	21/64	19/64	10 3/32	•
7/16	<b>XDHR14</b>	27/32	39/64	11/32	11/32	10 39/64	•
1/2	<b>XDHR16</b>	63/64	23/32	13/32	23/64	11 5/8	•
9/16	<b>XDHR18</b>	1 1/16	13/16	13/32	13/32	13 1/4	•
5/8	<b>XDHR20</b>	1 13/64	7/16	7/16	57/64	14 17/64	
11/16	<b>XDHR22</b>	1 17/64	7/16	15/32	15/16	14 49/64	
3/4	<b>XDHR24</b>	1 7/16	1 3/64	1/2	31/64	15 51/64	•

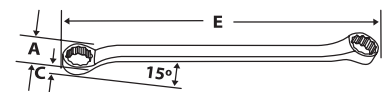
## High Performance Flank Drive



**XDHFM1618**



**XDH4648**



### Box/0° Offset Heads, mm

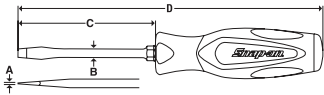
mm	12	A	C	E
13-15	<b>XDHFM1315</b>	20.1-221.5	9.8-10.9	323.5
16-18	<b>XDHFM1618</b>	23.8-26.3	11.3-12.1	372.1

### Box/15° Offset Heads, inches

in	12	A	C	E
9/16-5/8	<b>XDH1820A</b>	13/16-29/32	13/32-7/16	12 3/8
11/16-3/4	<b>XDH2224A</b>	31/32-1 1/32	15/32-3/4	14 7/32
3/4-7/8	<b>XDH2428</b>	1 3/64-1 1/64	31/64-37/64	15 3/4
25/32-7/8	<b>XDH2528</b>	1 5/64-1 13/64	35/64-37/64	16 5/64
1 1/16-1 1/4	<b>XDH3440</b>	1 31/64-1 47/64	5/8-23/32	18 1/4
1 1/4-1 5/16	<b>XDH4042</b>	1 47/64-1 13/16	23/32-47/64	19 1/4
1 1/4-1 3/8	<b>XDH4044</b>	1 47/64-1 15/16	23/32-49/64	20 1/4
1 1/4-1 7/16	<b>XDH4046</b>	1 47/64-2	23/32-51/64	21
1 7/16-1 1/2	<b>XDH4648</b>	2-2 1/16	51/64-13/16	22

Aerospace Spec. AS954E

# SCREWDRIVERS



## Cabinet Type/Soft Handle

Red	Orange	Green	A	B	C	D
SGD1410BR	SGD1410BO	SGD1410BG	.032"	3/16	10	14 5/32
SGD1416BR	SGD1416BO	SGD1416BG	.032"	3/16	16	20 5/32
SGD4100BR	SGD4100BO	SGD4100BG	.032"	1/4	9 15/16	14 3/4

## Soft Handle Flat Tip

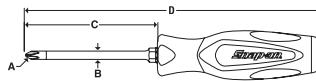


SGD1410BR



SGD1416BG

## Standard



Red	Orange	Green	A	B	C	D
SGDP62IRBR	SGDP62IRBO	SGDP62IRBG	#2	1/4	6	10 7/8
SGDP84BR	SGDP84BO	SGDP84BG	#4	3/8	8	15 5/8

## Soft Handle Phillips®



SGDP62IRBR

## Extra Long

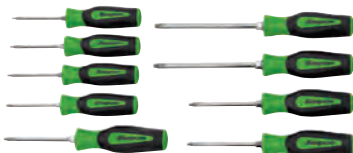
- 3/16" diameter shanks allow access to tight recesses
- Instinct® handles offer a unique combination of power, comfort and versatility
- Chrome-plated blades for corrosion-resistance and easy clean-up
- New size offers more flexibility in choosing correct driver for getting into those tight places



SGDP216BR

Red	Orange	Green	A	B	C	D
SGDP216BR	SGDP216BO	SGDP216BG	#2	3/16	16	20 5/32

## TORX® Tip/Instinct Soft Handle



SGD TX90BG



SGD TX90BO



SGD TXL70BR

## Standard

Designed for internal type TORX fasteners used in automotive and appliance industries

Green	Orange	A	B	C	D	Set Contains:
SGD TX38BG	SGD TX38BO	T8	3/16	3	7 1/4	•
SGD TX310BG	SGD TX310BO	T10	3/16	3	7 1/4	•
SGD TX315BG	SGD TX315BO	T15	3/16	3	7 1/4	•
SGD TX320BG	SGD TX320BO	T20	3/16	3	7 1/4	•
SGD TX425BG	SGD TX425BO	T25	1/4	4	8 7/8	•
SGD TX427BG	SGD TX427BO	T27	1/4	4	8 7/8	•
SGD TX430BG	SGD TX430BO	T30	1/4	4	8 7/8	•
SGD TX640BG	SGD TX640BO	T40	5/16	6	10 7/8	•
SGD TX645BG	SGD TX645BO	T45	5/16	6	10 7/8	•

## Long

- Offers more torque with less cam-out
- Longer exposed lengths provide access to difficult-to-reach fasteners such as headlight/tailight assemblies
- Thin blade diameters provide optimal clearance yet alloy offers strength to handle torque/turning force
- Solid TORX tip is stronger than a tamper-resistant TORX tip

Red	A	B	C	D	Set Contains:
SGD TX1008BR	T8	3/16	10	14 1/8	•
SGD TX1010BR	T10	3/16	10	14 1/8	•
SGD TX1015BR	T15	3/16	10	14 1/8	•
SGD TX1020BR	T20	3/16	10	14 1/8	•
SGD TX1225BR	T25	1/4	12	16 7/8	•
SGD TX1227BR	T27	1/4	12	16 7/8	•
SGD TX1230BR	T30	1/4	12	16 7/8	•



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

## Special Application



### Marine Plug Screwdrivers

- Instinct® screwdriver handles offer a unique combination of power, comfort and versatility
- Chrome-plated blade for corrosion-resistance and easy clean-up

Stock No.	A	B	C	D
SGD153BR	.050	3/8	2 3/4	8 1/4
SGD155BR	.050	1/2	2 29/32	10 3/8

#### SGD153BR Marine Plug Screwdriver

- Blade is turned from 3/8" diameter alloy stock for strength and uniformity
- Used on medium marine plugs and medium-slotted fasteners

#### SGD155BR Marine Plug Screwdriver

- Blade is turned from 1/2" diameter alloy stock for strength and uniformity
- Used on large marine plugs and large slotted fasteners

### Push-Pull Spring Tools

Stock No.	A	B	C	D
SPRG6180	3/32	3/16	5 29/32	9 9/16
SPRG6250	7/64	1/4	5 29/32	10 5/16

- Designed to securely hold and maneuver small to medium size springs
- Deep "V-groove" tip and "C-groove" capture prevents spring from sliding off
- Use to remove light-duty to medium-duty compression or extension springs such as door springs, latch springs, brake adjuster springs, throttle return springs plus deck tensioner and stabilizer springs on tractors/mowers

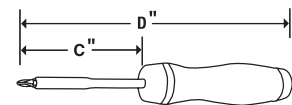
## Ratcheting Screwdrivers/Hard Handle



SSDMR4BR



SSDMR4BG

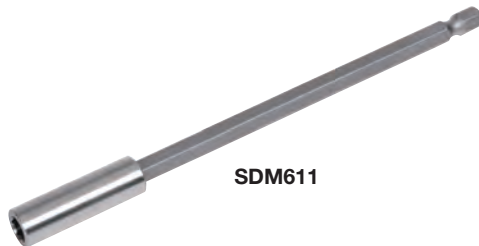


### Standard Handle

Stock No.	Handle	Color	C	D
SSDMR4BR	Standard	Red	3 25/32	8 3/4
SSDMR4BG	Standard	Green	3 25/32	8 3/4

- Includes SDM211B (3/16") and SDM213B (9/32") Flat Tip bits plus SDM221IRB (#1), SDM222IRB (#2) and SDM223IRB (#3) PHILLIPS® ACR® bits

## Screwdriver Bit Accessories



SDM611



SDM25

### Magnetic Insert Bit Holder

#### SDM611 Insert Bit Magnetic Holder

- For quick hex bit changes when used with electric drill or screw gun
- Magnetic bit retention
- 6" long

### Magnetic Nut Drivers

- Allows ratcheting screwdrivers (with 1/4" hex end) to be used as a nutdriver. 1/4" size
- Magnet securely holds nut during use

Stock No.	Size	Hex Size, inches	Length, inches
SDM25	1/4"	1/4	1 3/4
SDMN31	5/16"	1/4	1 3/4

### Master Bit Set (1/4" Hex)

#### SDM410 Metric Bit Set

- Popular array of adaptors allowing use with hand or cordless tools
- Blow-molded parts case to keep components organized (PB900)

	Stock No.	#	
<b>Flat Tip Bit</b>	SDM211B	3/16"	
	SDM212B	7/32"	
	SDM213B	1/4"	
	SDM214C	5/16"	
	SDM215C	3/8"	
<b>PHILLIPS® ACR® Bit</b>	SDM221RB	#1	
	SDM222RB	#2	
	SDM223RB	#3	
<b>POZIDRIV® ACR Bit</b>	SDM251IRC	#1	
	SDM252IRB	#2	
	SDM253IRC	#3	
<b>PHILLIPS Limited Clearance Bit</b>	SDM222CZ	#2	
<b>Metric Hex Bit</b>	SDMM2702.5B	2.5	
	SDMM2702B	2	
	SDMM2703B	3	
	SDMM2704C	4	
	SDMM2705C	5	
	SDMM2706C	6	
	SDMM2708B	8	
	SDMM2710B	10	
	<b>TORX® Bit</b>	SDMT8D	T8
		SDMT9D	T9
SDMT10D		T10	
SDMT15D		T15	
SDMT20D		T20	
SDMT25D		T25	
SDMT27D		T27	
SDMT30D		T30	
SDMT40D		T40	



SDM410

	Stock No.	#
<b>TORX Tamper-Resistant Bit</b>	SDMTR10	T10
	SDMTR15	T15
	SDMTR20	T20
	SDMTR25	T25
	SDMTR27	T27
	SDMTR30	T30
	SDMTR40	T40
	SDMTR8	T8
<b>1/4" Hex opening, 1/4" drive</b>	TMBS8A	
<b>1/4" Hex to 1/4" Square</b>	GMB3042	
<b>Insert Bit Magnetic Holder</b>	SDM11	
<b>Storage Case</b>	PB900	



SDMC8RD



SDMC8OT

### SDMC8RD Series Diamond Screwdriver Bit Set

	Stock No.	#
<b>Flat Tip Diamond Bit</b>	SDMD213	1 mm/5.5 mm
<b>PHILLIPS Diamond Bit</b>	SDMD221	#1
	SDMD222	#2
	SDMD223	#3
<b>TORX Diamond Bit</b>	SDMDT15	T15
	SDMDT20	T20
	SDMDT25	T25
	SDMDT30	T30

#### SDMC8RD Screwdriver Bit Set

- Set includes one Flat Diamond Tip Bit (1mm), three *Phillips* Diamond Tip Bits (#1, #2, #3) and four *TORX* Diamond Tip Bits (T15, T20, T25, T30) in SDMC8R Storage Case
- All bits are 1/4" Hex shank

### SDMC8T Series Screwdriver Bit Set

- All bits are 1/4" Hex shank

	Stock No.	#
<b>TORX Bit</b>	SDMT8D	T8
	SDMT9D	T9
	SDMT10D	T10
	SDMT15D	T15
	SDMT20D	T20
	SDMT25D	T25
	SDMT27D	T27
	SDMT30D	T30

#### SDMC8GT Screwdriver Bit Set

- Set includes eight *TORX* Bits (T8 thru T30) in SDMC8G Storage Case

#### SDMC8OT Screwdriver Bit Set

- Set includes eight *TORX* Bits (T8 thru T30) in SDMC8O Storage Case

#### SDMC8RT Screwdriver Bit Set

- Set includes eight *TORX* Bits (T8 thru T30) in SDMC8R Storage Case



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

## Bit Sets



SDMC8GP



SDMC8RMH



SDMC8RH

### SDMC8P Screwdriver Bit Set

- All bits are 1/4" Hex shank

Description	Stock No.	#
Flat Tip Bit	SDM211B	3/16"
	SDM213B	9/32"
PHILLIPS® ACR® Bit	SDM221IRB	#1
	SDM222IRB	#2
	SDM223IRB	#3
PHILLIPS Limited Clearance Bit	SDM222CZ	#2
SCRULOX® Bit	BTS2	#2
Hex-to-Square Adaptor	GMB3041	1/4" Hex to 1/4" Square

### SDMC8GP Screwdriver Bit Set

- Set includes eight pieces SDMC8G in Green Storage Case

### SDMC8OP Screwdriver Bit Set

- Set includes eight pieces SDMC8O in Orange Storage Case

### SDMC8RP Screwdriver Bit Set

- Set includes eight pieces SDMC8R in Red Storage Case



CTS561BITXL

### CTS561BITXL Adaptor and Bit Set

- Comprehensive set offering including stainless steel insert bit adaptor
- Additional length provides greater access and minimizes drill contact with work surface
- Ideal for use with cordless drills and screwdrivers
- Power bits made from tough S2 steel
- Overmolded bit case with indexable trays for easy storage
- Ideal for applications requiring reach/clearance such as interior automotive/dash work, engine components/brackets, interior panels, etc.

#### Set includes:

- T8, T10, T15, T20, T25, T27, T30
- Phillips bits #1, #2, #3
- Square bits #1, #2
- Slotted
- 6" stainless adaptor w/ magnet retention
- SDM611 Adaptor, 6" magnetic bit
- CTS561BITCS case, indexable

### SDMC8RMH Screwdriver Bit Set

- All bits are 1/4" Hex shank

Description	Stock No.	#
Metric Hex Bit	SDMM2702B	2 mm
	SDMM2702.5B	2.5 mm
	SDMM2703B	3 mm
	SDMM2704C	4 mm
	SDMM2705C	5 mm
	SDMM2706C	6 mm
	SDMM2708B	8 mm
	SDMM2710B	10 mm

### SDMC8RMH Screwdriver Bit Set

- Set includes eight Metric Hex Bits 2–10mm in SDMC8R Storage Case

### SDMC8RH Screwdriver Bit Set

- All bits are 1/4" Hex shank

Description	Stock No.	#
Hex Bit	SDM2706D	3/32"
	SDM2708D	1/8"
	SDM2709D	9/64"
	SDM2710D	5/32"
	SDM2712D	3/16"
	SDM2714D	7/32"
	SDM2716D	1/4"
	SDM2720D	5/16"

### SDMC8RH Screwdriver Bit Set

- Set includes eight Hex Bits 3/32"–5/16" in SDMC8R Storage Case



SDMEXT27K


### SDMEXT27K Adaptor and Bit Set (27 pcs)

Description	Stock No.	#
Flat Tip Bit	SDM211B	3/16"
	SDM212B	1/4"
	SDM213B	9/32"
PHILLIPS ACR Bit	SDM221IRB	#1
	SDM222IRB	#2
	SDM223IRB	#3
PHILLIPS Power Bit	SDM321B	#1
	SDM322B	#2
	SDM323A	#3
Magnetic Nutsetter	SDMN25	1/4" Hex x 1/4"
	SDMN31	1/4" Hex x 5/16"
SCRULOX Bit	BTS1	#1
	BTS2	#2
	BTS3	#3


Description	Stock No.	#
TORX® Bit	SDMT10D	T10
	SDMT15D	T15
	SDMT20D	T20
	SDMT25D	T25
	SDMT27D	T27
	SDMT30D	T30
Hex-to-Square Adaptor, 1/4" Hex to 1/4" Square	GMB3041	1" Long
	GMB3042	2" Long
	GMB3046	6" Long
Hex-to-Square Adaptor, 1/4" Hex to 3/8" Square	AB3042	2" Long
	AB3046	6" Long
Inset Bit Magnetic Holder	SDM11	—
Quick-Change Coupler, 1/4" Drive	TMC109A	—



### Tamper-Resistant TORX®

	Stock No.	#	Length, inches
	SDMTR308	T8	1 15/16
	SDMTR310	T10	1 15/16
	SDMTR315	T15	1 15/16
	SDMTR320	T20	1 15/16
	SDMTR325	T25	1 15/16
	SDMTR327	T27	1 15/16
	SDMTR330	T30	1 15/16

### Square

	Stock No.	#	Length, inches
	SDMTS301	#1	1 15/16
	SDMTS302	#2	1 15/16
	SDMTS601	#1	6
	SDMTS602	#2	6

## Standard and Extra-Long Awls, Hooks and Picks



PSLRQC4LT



SGSR104AR



SGSR104AO



SGSR104AG

### Picks and Scribes/Interchangeable

- Quick-change collet allows picks and hooks to be interchanged fast and without tools
- Six LEDs illuminate dark work areas
- Black oxide finish protects the strong chrome-vanadium steel shafts
- Includes PSLRQC4LT-1 thru PSLRQC4LT-4 picks/hooks, durable roll-up nylon pouch and 3 "AAA" batteries

Set Contains:

PSLRQC4LT

Description	Stock No.	
Straight Pick	PSLRQC4LT-1	•
Complex Pick	PSLRQC4LT-2	•
90° Pick	PSLRQC4LT-3	•
Hook Pick	PSLRQC4LT-4	•

### Seal Removal Tools/Soft Grip

Red	Green	Orange	Tip Style	Blade Length, inches	Overall Length, inches	Red	Green	Orange
SGSR1AR	SGSR1AG	SGSR1AO	Spoon	5 1/4	8	•	•	•
SGSR2AR	SGSR2AG	SGSR2AO	Spoon	2 1/2	5 11/32	•	•	•
SGSR3AR	SGSR3AG	SGSR3AO	Contoured	2 1/2	5 11/32	•	•	•
SGSR4AR	SGSR4AG	SGSR4AO	Contoured	5 1/4	8	•	•	•

Set Contains:

SGSR104AR

SGSR104AG

SGSR104AO

## Prybars



PBFG415



PPN300

### PBFG415 Fiberglass Prybar

- Drop forged, hardened steel wedge end with rust-resistant black finish is chemically bonded to fiberglass handle
- 50,000 strands of fiberglass are sleeved by a polypropylene jacket for comfort and variable hand placement during use
- About one-half the weight of a steel prybar (of the same length) and less flexible than a steel prybar for greater leverage
- Polypropylene sleeve is resistant to heat and cold for greater comfort in all temperatures

### Prying/Smoothing Tools

- Intended for spreading/smoothing epoxy, adhesives and silicone uniformly
- Other uses include: cleaning small parts, paint stripping in confined spaces, removing/installing O-rings and gaskets, prying dashboard parts and vents, and prying apart electronic key fobs to access the battery for replacement

Set Contains:

PPN300

Stock No.	Length, Inches	Tip Profile	
PPN1030	7	Narrow	•
PPN2040	7	Medium	•
PPN4050	7	Wide	•



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# PLIERS

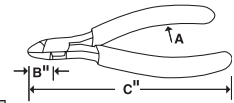
## Cutters



85CF

### Standard Diagonal

Stock No.	Description	Handle Style (A)	Jaw Length, inches (B)	Length, inches (C)
85CF	Standard Diagonal	1 11/16	1/10	6



## Needle Nose



95CF



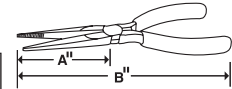
97CF



597CF

### Needle Nose

Stock No.	Description	Jaw Length, inches (A)	Length, inches (B)
95CF	Standard	1 11/16	6
97CF	Long, Slim Jaw	3 3/16	9
597CF*	Pin Gripping	3 3/16	9



\*Jaws feature matched parallel and cross grooves

#### 95CF Needle Nose Pliers

- Rounded jaw edges minimize nicks to wire when making loops or bends
- Jaw tips are perfectly aligned and feature machined teeth for precise gripping strength with positive control
- Contoured handle for more comfort and better leverage
- Tip width: .10"

#### 97CF Needle Nose Pliers

- Long, slim, diamond-serrated jaws provide a better grip and up to 30% increased pulling power
- Long contoured handle with cushion grips and new joint location provide increased comfort and leverage
- Ramped tips provide stronger jaws and increased accessibility
- Natural steel finish has a tough, protective clear coating to guard against corrosion
- Rounded jaw edges minimize wire nicks when looping or bending wire

#### 597CF Pin-Gripping Needle Nose Pliers

- Designed for maximum gripping strength; jaws feature matched parallel and cross grooves for pulling or holding pins
- Long, slim, diamond-serrated jaws provide a better grip and up to 30% increased pulling power
- Long contoured handle with cushion grips and new joint location provide increased comfort and leverage
- Ramped tips provide stronger jaws and increased accessibility
- Natural steel finish has a tough, protective clear coating to guard against corrosion
- Rounded jaw edges minimize wire nicks when looping or bending wire

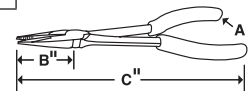
### Long Reach

- Long, slim jaws and flush riveted joints for increased reach into recessed areas
- Ideal for electric and electronic work, holding pins or small components



911CF

Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
911CF	Long Handle	3 3/16	11



### Special Purpose

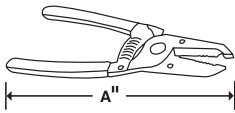
Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
497CF	90° Angle	3 3/16	7 1/4

#### 497CF Angle Jaw Needle Nose Pliers

- Long, slim, diamond-serrated jaws provide a better grip and up to 30% increased pulling power
- Long contoured handle with cushion grips and new joint location provide increased comfort and leverage
- Ramped tips provide stronger jaws and increased accessibility
- Natural steel finish has a tough, protective clear coating to guard against corrosion
- Rounded jaw edges minimize wire nicks when looping or bending wire



497CF



### Strippers/Cutters/Crimpers

Wire Stripper/Cutter/Crimper

Stock No.	Description	Length, inches (A)	Strips AWG Sizes
PWCS7CF	Wire Stripper/Cutter/Crimper	6 3/4	12, 14, 16, 18, 20
PWCS7CF	Wire Stripper/Cutter/Crimper	6 3/4	14 to 24 AWG

#### PWCS7CF Wire Stripper/Cutter/Crimper

- Unique smaller wire stripper/crimper that strips 12, 14, 16, 18 and 20 gauge insulated wire
- Crimps insulated and bare wire connectors
- Wire cutter in the jaw and handle
- Ideally suited for work in confined areas such as under dash or within electrical service enclosures

#### PWCS7CF Wire Stripper/Crimper/Cutter (7")

- Cutting wire and crimping terminals for: speaker wire, wire for navigation and entertainment systems, data wires that connect to computers, body control modules, power windows and door locks, dash gauges and running lights for boats



PWCS7CF



PWCS7CF

## Pliers and Cutters (Blue-Point®)



BDGMPL845



BDGCPL700

### Miniature Pliers and Cutters/Vinyl Grips

Stock No.	Description	Jaw Length, inches	Length, inches	Set Contains:	
				BDGMPL845	BDGCPL700
BDG45CMP	Combination Pliers	1	4 11/16	•	•
BDG85CMP	Diagonal Cutter	2 1/32	4 11/32	•	
BDG85CTMP	Thin Diagonal Cutter	2 3/32	4 5/8	•	•
BDG945CMP	45° Bent Nose Pliers	1	4 11/16	•	•
BDG65CMP	Duckbill Pliers	1 5/32	4 7/8	•	
BDG95CMP	Long Nose Pliers	1 1/8	4 7/8	•	
BDG95CLMP	Long Needle Nose Pliers	2 1/16	5 25/32	•	•
BDGMPEC5	End Cutter	5/16	4 1/32	•	

#### BDGMPL845 Miniature Pliers and Cutters Set

- Includes eight commonly used mini pliers for precision work in confined spaces

#### BDGCPL700 Pliers and Cutters Set

- Set includes: BDG48CP 8" Slip Joint Pliers, BDG88CP 8 1/8" Diagonal Cutters and BDG98CP 8" Needle Nose Pliers plus the three miniature pliers and cutter indicated in the chart to cover a large range of jobs
- BDG98CP Needle Nose Pliers features a fastener-turning jaw and cutter



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# CUTTING

## Knives



SEK74MAKG



SEK74MAKK



SEK74MAKO



SEK74MAKR



SEK76LMNG



SEK76LMNK



SEK76LMNO



SEK76LMNR

### SEK74MAK Series Specialty Knives

- Japanese AUS 8 high carbon steel provides superior cutting performance and incredible edge retention
- Modified hollow ground drop-point blade reduces resistance when cutting
- Versatile blade shape is ideal for cutting, skinning, scraping and stabbing
- Ambidextrous flipper and IKBS™ bearing system ensure smooth, fast opening without springs
- Friction grooves provide positive engagement of thumb or index finger when needed
- 6061 T6 cold forged anodized aluminum handle is durable, lightweight and built to withstand the abuse of a shop environment
- Liner-lock design with recessed liners and barrel spacers create a knife that is safe, strong and thin but still easy to close and clean
- Stainless pocket clip enables tip-down carry for safety and security
- Lanyard hole can be utilized for additional security when cutting

**SEK74MAKG Large Wrinkle™ Knife Green**

**SEK74MAKK Large Wrinkle Knife Black**

**SEK74MAKO Large Wrinkle Knife Orange**

**SEK74MAKR Large Wrinkle Knife Red**

### SEK76LMN Series Specialty Knives

- Satin finish blade with laser cut Snap-on® logo
- Unique modified tanto blade is flat ground – provides a durable edge for easy cutting of tough materials in a shop environment
- Friction grooves on blade spine provide traction for thumb or index finger during cutting
- Tried and true lockback design ensures safety with an ambidextrous thumb stud for easy one-handed opening
- Unique reversible stainless steel pocket clip for easy carry
- Nylon/fiberglass injection-molded handles are strong and extremely lightweight
  - Nylon/fiberglass handles resist corrosive shop fluids
  - Contoured for an ergonomic grip
  - Slim profile for easy carry
  - Unique checkered design offers a secure grip in any condition

**SEK76LMNG Kommer Lockback Knife Green**

**SEK76LMNK Kommer Lockback Knife Black**

**SEK76LMNO Kommer Lockback Knife Orange**

**SEK76LMNR Kommer Lockback Knife Red**

## SPARK PLUG TOOLS

### FLANK DRIVE® Spark Plug Sockets



S9706KFUAMAG

#### Universal

#	6	A	B	C
5/8	<b>S9706KFUAMAG</b>	3/8	27/32	3 3/4

#### S9706KFUAMAG 6-Point Magnetic Universal Spark Plug Socket

- Autos, light trucks, motorcycles and power equipment where access is more restricted



S9714MKL

#### Standard, mm

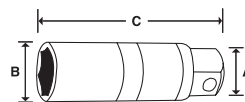
mm	6	Square Drive, in.	A	B	C	Rubber Insert
14mm	<b>S9714MKL</b>	3/8	19	19.6	149.2	<b>S9714MK-2</b>

ASME/ANSI® B107.10

#### S9714MKL 6-Point Metric Spark Plug Socket

- Nissan® 1.8L Versa® and 2.0L Sentra® vehicles
- Various Mercedes® and BMW® vehicles
- Newer Toyota® and Honda® vehicles
- Newer Ford® 5.4L vehicles

NPC34



S9716KLMAG



S9714MKMAG

#### Magnetic

- Knurled surface for finger tightening/removal
- Magnetic retention for secure grip on spark plug in deep well cavity
- Magnetic design offers smooth release and will not wear out
- Spark plug configuration is cold formed for extended tool life

mm	11	6	A	B	C
—	9/16	<b>S9716KLMAG</b>	5/8	25/32	5 7/8
14	—	<b>S9714MKMAG</b>	19	19.6	57.2

#### S9716KLMAG 6-Point Magnetic Spark Plug Socket

- 2005 Ford Mustang® vehicles (4.6L 3-valve Engine)
- 2004 Ford F-150® trucks (5.4L V8 3-valve engine)

#### S9714MKMAG 6-Point Magnetic Spark Plug Socket

- Nissan 1.8L Versa and 2.0 Sentra vehicles
- Various Mercedes and BMW vehicles
- Newer Toyota and Honda vehicles
- Newer Ford 5.4L engines

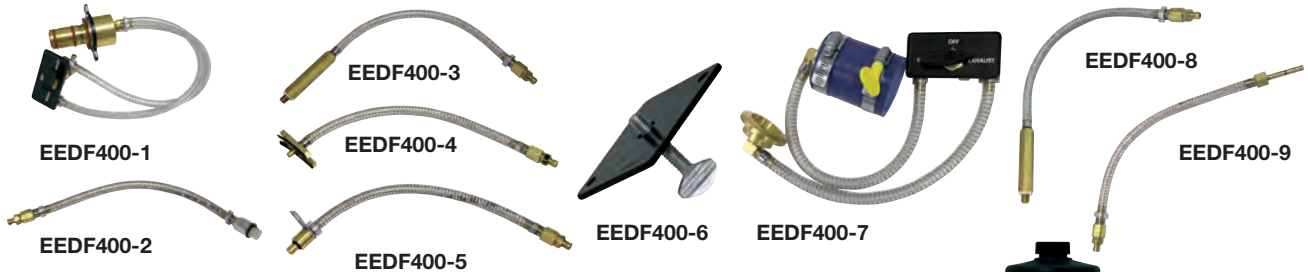
### EEDF400 Diesel EGR and Induction Cleaning System

- The Problem: The performance of clean diesel engines using cooled EGR and common rail injection can be adversely affected by soot and fuel deposits
- The EEDF400 System safely cleans the Diesel EGR circuit, coolers, intake, injectors, turbo charger and fuel system
- Converts cleaner into foam to better penetrate hard carbon
- Increases cetane and enhances fuel atomization for more complete combustion
- Lowers emissions, smooths rough idle, improves fuel economy and performance
- Technical Support: 1-877-776-8486



EEDF400

Stock No.	Fluid Capacity	Input Pressure Min.	Hose Length	Operating Temperature Range	Dimensions	Shipping Weight, lbs.
EEDF400	64 oz.	60 psi	7.5'	40 °F–120 °F	16.5"L x 10.5"W x 11.75"H	10.8



EEDF400-1

EEDF400-3

EEDF400-4

EEDF400-2

EEDF400-5

EEDF400-6

EEDF400-7

EEDF400-8

EEDF400-9

### Optional Accessories

#### EEDF400-1 EGR Cleaning Adaptor

- EGR adaptor for Ford® 6.0L engines

#### EEDF400-2 EGR Cleaning Adaptor

- EGR adaptor for Ford 6.4L engines

#### EEDF400-3 EGR Cleaning Adaptor

- EGR adaptor for Duramax® engines

#### EEDF400-4 EGR Cleaning Adaptor

- EGR adaptor for Mercedes®/universal engines

#### EEDF400-5 EGR Cleaning Adaptor

- EGR adaptor for Duramax turbo boost engines

#### EEDF400-6 EGR Cleaning Adaptor

- EGR adaptor for Cummins® manual opener engines

#### EEDF400-7 EGR Cleaning Adaptor

- EGR adaptor for Cummins engines (2007–2010)

#### EEDF400-8 EGR Cleaning Adaptor

- EGR adaptor for IZUSU®/BMW®/Mercedes engines

#### EEDF400-9 EGR Cleaning Adaptor

- EGR adaptor for Mercedes Sprinter® engines

#### EEDF400-10 EGR S-Tool

- EGR S-Tool

#### EEDF400-11 EGR Cleaning Adaptor

- EGR adaptor for Ford 6.7L engines

#### EEDF400-12 EGR Cleaning Adaptor

- EGR adaptor for Audi®/VW® engines (M14 x 1.5)

#### EEDF400-EGR Diesel EGR and Induction Cleaner

- Diesel EGR and induction cleaner for the EEDF400. Case of (12) 32 oz. bottles

#### EEDF400-INJ Diesel Fuel Injector Cleaner

- Diesel fuel injector cleaner for the EEDF400. Case of (12) 12 oz. bottles



EEDF400-EGR

EEDF400-INJ

Ford/Navistar®

### Fuel Line Disconnect Tools

- This set includes a total of four fuel line disconnect tools:
  - a straight and a 90° angle (for 11.8mm fuel lines)
  - a straight and a 90° angle (for 16mm fuel lines)
- The OEM tool sets ZTSE4773 and ZTSE4772 do not include the straight tools – the straight tools allow access into tight areas
- All four tool handles are highly visible orange for easy identification

#### FDT11 Angled Fuel Disconnect Tool

- 90° angle for 11.8mm fuel lines

#### FDT11STR Straight Fuel Disconnect Tool

- For 11.8mm fuel lines



FDT1116

#### FDT16 Angled Fuel Disconnect Tool

- 90° angle for 16mm fuel lines

#### FDT16STR Straight Fuel Disconnect Tool

- For 16mm fuel lines

#### FDT1116 Fuel Line Disconnect Tool Set

- Set includes FDT11, FDT11STR, FDT16 and FDT16STR (4 pc)



- Keep away from children
- Read safety precautions on pages W1 to W4

## Ford®/Navistar®



YA1140

### Fuel Injector Sockets

- Complies with Ford TSB 11-10-10
- 12-point, 17mm crowfoot design allows socket to slip onto the injector easily at any angle
- Design allows you to spin the socket under bent fuel lines
- Nose geometry reduces electrical connection damage
- The depth stop keeps the socket at the specified height
- Thick mass reduces flex and flare nut damage
- Design allows for clearance to torque the fitting without a torque adaptor

#### YA1140-1 Long Diesel Injector Crowfoot Socket

- Ford 6.7 L Power Stroke® Diesel
- The in-line design of the YA1140-1 allows accurate torquing of the injector and clears the plastic housing and fuel return line

#### YA1140-21 Offset Diesel Injector Crowfoot Socket

- Ford 6.7 L Power Stroke Diesel
- The design of the YA1140-21 allows it to rotate under the fuel line while the depth stop keeps it at the specified height to clear the plastic housing

#### YA1140 Diesel Injector Crowfoot Socket Set

Set includes YA1140-1 and YA1140-21 (2pc)



TAP1225

### Ford Diesel Turbo Tools

#### TAP1225 Turbo Vane Actuator Puller

- Specially designed for Ford 6.4L turbo diesel to save the technician time
- Compact size fits on or off the truck
- Self-aligning for easy install
- Remove the actuator link rod from the arm on the turbo of 2008 to 2010 Ford 6.4L Power Stroke diesel engines
- When servicing either the turbo or actuator they must be separated; over time this connection becomes too tight to remove without great force and is easily damaged if pried on
- Leg-type pullers are bulky and hard to use on this spring-loaded arm
- Simply rotate the arm up, slip the self-centering puller over the arm, and with two wrenches the stud is pushed out of the arm in seconds



S6340E

### Injector Hold Down Fastener Tools

#### S6340E TORX® Bit Socket

- Perfect length of 3 1/8" is ideal for removing and reassembly of Ford Power Stroke 6.0L diesel injectors
- A regular length T40 bit socket is too short and a long T40 bit socket is too long when used with a ratchet or torque wrench and will not fit the application

#### S6340E2 TORX Driver Bit, T40

## Automotive Diesel



IPK1170

### Injector Pullers

#### IPK1170 Injector Puller Kit

- Injector puller kit for GM® LB7 Duramax® engines
- Pulls injector straight
- Pulls far enough to completely remove a stuck injector
- Saves time by reducing the likelihood of loosening the sleeves (up to 1/2 hr. per sleeve)
- Removes sleeve from injector without damage



IPK1220

#### IPK1220 Injector Puller Kit

- Removes diesel injectors on VW® and Audi® vehicles from 2000 to present
- The correct tools all in one kit; no searching for shop tools
- Kit contains three adaptors with 2 lb slide weight on a 10" slide shaft
- Kit includes newest style adaptor that will keep this kit current for the next ten + years



TVS1240

### Turbo Vane Socket

#### TVS1240 Turbo Vane Socket

- Split socket made from alloy steel and designed with additional strength
- Correct geometry to reduce the possibility of damaging the sensor
- Fits the confined location between the cold and hot sides of the turbo

## Heavy-Duty Truck Service Tools



S6213



S6224



S6314



SIM462TW

### Impact Sockets

#### S6213 U-Joint Strap Bolt Socket

- Use for removal of 13mm U-Joint strap bolts found on Volvo®, Mack® and other heavy-duty vehicle applications. 13mm, 12 point, 1/2" drive, 8" long

#### S6224 30/30 Air Brake Chamber Socket

- Extra-long design allows quick and safe removal of long threaded brake release stud assemblies
- Flank Drive® wrenching system where the socket grips the fastener on the flanks/flats increasing torque by 15–20%
- Forged from tough alloy steel to increase safety
- Impact sockets are heat treated to a lower hardness to add impact resistance and ductility

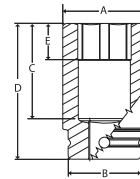
#### S6314 Extra-Long Impact Socket

- Manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- Flank Drive grips fastener on the flanks/flats increasing torque by 15–20% and prevents fastener from rounding and increases the life of the socket
- Socket overall length is 3 1/4"

mm	mm	6	Square Drive, inches	A	B	D	E
—	3/4	S6224	1/2	1 1/8"	1 1/8"	6"	9/16"

#### SIM462TW Deep Impact Socket

- Designed to remove the lug nuts from Caterpillar® Model 793 mining trucks
- The 72 lug nuts on each wheel are spaced only 6mm away from each other and the thin wall design of this socket accommodates easy removal
- Flank Drive wrenching system grips the fastener on the flanks/flats, which delivers 15 to 20% more turning power



SIM462TW

Size, inches	Stock No.	Square Drive, inches	A	B	C	D	E
1 7/16	SIM462TW	3/4	2	1 3/4	2 1/2	3 1/2	7/8

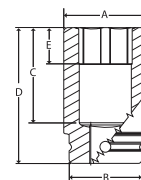
## Aviation



AOCO1



LGSW125



IMTSX29

### Aircraft Oil Filter Wrenches

#### AOCO1 FOD Oil Can Opener

- Testing by Saybolt laboratory proves this can opener eliminates a cause of FOD, eliminating costly down time and repairs
- Using a screwdriver to open an oil can may leave metal debris in the oil, causing FOD to turbines
- Can opener is made of reinforced high-quality plastic designed to open a quart can of oil
- Durable, ergonomic, nonslip design is pocket size and can be attached to a key ring

### Aircraft Landing Gear Wrench

#### LGSW125 Landing Gear Socket Wrench

- Used to remove and replace the landing gear harness thru bolt on Embraer 190 aircraft
- 1 1/4" deep well socket with 1/4" slit cut into it allows the speed cable to pass through
- 3/8" square drive allows torque wrench to torque the nut to 80 in. lb.
- Flex head and overall length is 11 1/2"

#### IMTSX29 External MORTORQ® Impact Socket

- Use on fan bolts found on Rolls Royce® engines used on Airbus® A380 jets

Size, inches	Stock No.	Square Drive, inches	A	B	C	D	E
3/4	IMTSX29	3/4	1 3/8	1 5/8	1	2	9/16



• Read safety precautions on pages W1 to W4

# TORQUE

## TECHANGLE® Torque Wrenches



ATECH1FR240B



ATECH2FR100B



ATECH3FR250B

### TECHANGLE

- Dual progressive LEDs allow user to see active torque at various work positions; enables user to anticipate torque and slow down as they get closer to desired torque level
- Large LCD screen – numbers become larger and bolder during active torque making it easier to read during use
- Textured grip offers a comfortable, non-slip surface
- Flared end prevents your hand from slipping off during high-leverage applications
- Ratchet mechanism features Snap-on® Dual 80° Design – only 4.5° of ratchet arc
- Cycle counter to ensure how many fasteners have been torqued
- Six measurement modes – ft. lb., in. lb., Nm, dNm, Kgcm, and angle at the touch of a button
- Torque accuracy  $\pm 2\%$  CW,  $\pm 3\%$  CCW, 20% to 100% of full scale
- Low-profile buttons protect against accidental activation

- “Motorcycle-style” handle with seamless textured grip offers a comfortable, non-slip surface
- Protected end cap design with solid brass contacts prevents accidental loosening and ensures continuity
- Highly configurable – 10 presets with the ability to customize numerous functions (sleep mode, LCD display, calibration, etc.) and store up to 50 records
- Long battery life – 80 hours continuous use
- Torque then angle allows the user to torque fasteners and then switch to angle without removing the torque wrench from the fastener
- “Exclusive Battery Carriage Slide” minimizes battery movement if tool is dropped or impacted for reliability
- Uses (3) AA alkaline batteries (included)
- Two year warranty
- Country of Origin: USA

#### ATECH1FR240B TECHANGLE

Electronic Torque Wrench

#### ATECH2FR100B TECHANGLE

Electronic Torque Wrench

#### ATECH3FR250B TECHANGLE

Electronic Torque Wrench

- 4 alert modes (LCD, Dual LED, Audible, Vibratory)
  - Improved temperature operating range of 0 to 130 °F
  - Angle accuracy  $\pm 1\%$  of reading  $\pm 1^\circ$  at angular velocity  $>10^\circ/\text{sec}$
- Applications: Head bolts on large and small trucks, passenger vehicles, motorcycles, snowmobiles, ATVs, automobile suspensions and brakes

Specifications	ATECH1FR240B†	ATECH2FR100B†	ATECH3FR250B†
Square Drive, in	1/4	3/8	1/2
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head
Gear Teeth	72	80	80
Gear Action	5°	4.5°	4.5°
Range, in lb	12–240	60–1,200	150–3,000
Range, ft lb	1–20	5–100	12.5–250
Range, N•m	1.36–27.12	6.8–135.0	16.9–339.0
Angle Range	0° to 360°	0° to 360°	0° to 360°
Head Depth, inches	7/16	9/16	3/4
Head Width, inches	7/8	1 1/4	1 5/8
Operating Temperature	0–130 °F (0–54 °C)	0–130 °F (-17–54 °C)	0–130 °F (-17–54 °C)
Storage Temperature	0–130 °F (0–54 °C)	0–130 °F (-17–54 °C)	0–130 °F (-17–54 °C)
Humidity	up to 90% noncondensing	up to 90% noncondensing	up to 90% noncondensing
Housing Color	Black	Black	Black
Length, inches	16.4	17.9	26.6
Ratchet Service Kit	<b>RKRT72A</b>	<b>RKRF80</b>	<b>RKRS80</b>
Torque Accuracy: 20–100% of full scale	$\pm 2\%$ CW, $\pm 3\%$ CCW	$\pm 2\%$ CW, $\pm 3\%$ CCW	$\pm 2\%$ CW, $\pm 3\%$ CCW

Additional technical information is available at [www.snapon.com/doijustright](http://www.snapon.com/doijustright)

† €

## Adjustable Click Type TQ Series



TQFRN350E

### Newton Meter Torque Wrenches with Conversion Scale / $\pm 4\%$ Accuracy

Square Drive, inches	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, max	Range, min	Increments	Length, inches	Head Width, inches	Head Depth,* inches	Ratchet Service Kit
1/2	TQFRN350E	Flex Head	32	11°	350 N•m	70 N•m	5 N•m	22 1/8	1 5/8	3/4	R33BFRK

\*Does not include square drive dimension

The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale. For more information, go to [www.snapon.com/torque/techangle](http://www.snapon.com/torque/techangle) and [www.torqueinlesstime.com](http://www.torqueinlesstime.com).



## ControlTech™ Industrial Torque Wrenches



CTECH1FR240



CTECH1R240



CTECH2FR100



CTECH3FR250



CTECH4R600



CTECH1J240



CTECH2Y100



CTECH3X250



CTECH4Z600

### Common Features

- Torque and Angle combo modes provide the most accurate and fastest way to achieve torque plus angle in a single motion (patent pending)
- Built-in calibration factor for different head lengths (patent pending)
- Dual side LED indicator lights with configurable settings
- Large LCD screen with backlight
- Four indicator modes: LCD, LED, audible, vibratory
- Rugged, all-steel body for strength
- 50 presets with lockout ability
- Sequence programming and job mode
- USB downloadable data
- Industry-leading 2 year warranty
- Includes storage case

### Common Specifications

- Construction: Steel Housing
- Torque Accuracy: +/- 2%CW, +/-3%CCW
- Angle Accuracy: +/-1% of Reading, +/- 1° @ Angular Velocity > 10°/Sec < 180°/Sec
- Angle Range: 0–360°
- Storage Capacity: 1,500 Readings
- Number of Presets: 50
- Operating Temperature: 0 to 130 °F (-18 to 54 °C)
- Storage Temperature: 0 to 130 °F (-18 to 54 °C)
- Humidity: Up to 90% Noncondensing
- Country of Origin: USA

Stock No.	Head Type	Square Drive, inches	Gear Teeth	Gear Action	Range, in lb	Range, ft lb	Range, Nm	Shank Diameter, inches	Weight, lb (kg)	Length, inches (mm)
CTECH1FR240*	Sealed Flex Head	1/4	72	5°	12–240	1.0–20.0	1.4–27.2	—	2.0 (.9)	14.1 (358)
CTECH1R240*	Sealed Fixed Head	1/4	72	5°	12–240	1.0–20.0	1.4–27.2	—	2.0 (.9)	14.1 (358)
CTECH2FR100**	Sealed Flex Head	3/8	80	4.5°	60–1,200	5–100	6.8–135.6	—	3.1 (1.4)	18.9 (480)
CTECH3FR250†	Sealed Flex Head	1/2	80	4.5°	150–3,000	12.5–250	16.9–339	—	4.5 (2.0)	26.7 (678)
CTECH4R600††	Sealed Fixed Head	3/4	32	11°	360–7,200	30–600	40.7–813.5	—	10.5 (4.8)	48.6 (1,234)
CTECH1J240	Interchangeable	—	—	—	12–240	1.0–20.0	1.4–27.2	J (0.425")	1.8 (0.8)	12.5 (318)
CTECH2Y100	Interchangeable	—	—	—	60–1,200	5–100	6.8–135.6	Y (0.560")	2.7 (1.2)	17.2 (437)
CTECH3X250	Interchangeable	—	—	—	150–3,000	12.5–250	16.9–339	X (0.735")	3.6 (1.6)	24.1 (612)
CTECH4Z600	Interchangeable	—	—	—	360–7,200	30–600	40.7–813.5	Z (0.990")	7.6 (3.5)	44.8 (1,138)

\* Uses Ratchet Service Kit RKRT72. Includes 3 AAA Lithium batteries.

\*\* Uses Ratchet Service Kit RKRF80. Includes 3 AA Lithium batteries.

† Uses Ratchet Service Kit RKRS80. Includes 3 AA Lithium batteries.

†† Uses Ratchet Service Kit RKRQC4. Includes 3 AA Lithium batteries.

*The certification of accuracy provided per ASME and ISO Standards is 20% to 100% of full scale. For more information, go to [www.snapon.com/torque/techangle](http://www.snapon.com/torque/techangle) and [www.torqueinlesstime.com](http://www.torqueinlesstime.com).*



- Do not exceed rated torque
- Do not use to break fasteners loose
- Periodic re-calibration is necessary to maintain accuracy
- Read safety precautions on pages W1 to W4

# TORQUE

## Torque Drivers



QDRIVER2A



QDRIVER4NMA

### Adjustable Torque Drivers

- 1/4" square drive end complements earlier QDRIVER models with 1/4" hex bit holders
- Pin retains the socket to the square drive
- Freewheels 90° when specified torque is obtained
- Torques only in the clockwise direction; accuracy within  $\pm 6\%$  (from 20% to 100% full scale)
- Easy-to-read torque setting
- Comfortable ergonomic tri-lobe grip
- Certificate of Calibration included – insures accuracy in conformance to ASME B107.14-2004 and ISO 6789:2003
- Torque screwdrivers calibrated to torque standards of the National Institute of Standards Technology (NIST)

Stock No.	Range	Increments	Length, inches
QDRIVER2A	20–100 in oz (14–70 N•cm)	1 in oz	5 <sup>7</sup> / <sub>16</sub>
QDRIVER3A	3–15 in lb (34–169 N•cm)	0.2 in lb	6 <sup>1</sup> / <sub>4</sub>
QDRIVER4A	5–40 in lb (56–451 N•cm)	0.5 in lb	6 <sup>11</sup> / <sub>16</sub>
QDRIVER4NMA	90–450 N•cm	5.0 N•cm	6 <sup>11</sup> / <sub>16</sub>

## Interchangeable Head, Click-Type Torque Wrenches



RTWH60Y

### Ratcheting Flare Nut Heads, 12-Point, inches

#### RTWH60Y Ratcheting Flare Nut Head

- Designed and manufactured in compliance with Boeing ST2599 specifications
- Metric sizes available on special order. See your Snap-on® representative for details

Stock No.	Shank Dia.	Size, inches
RTWH60Y	Y (0.560")	<sup>15</sup> / <sub>16</sub>

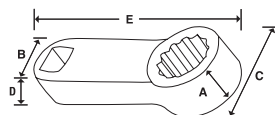
## Flank Drive® Torque Adaptors

- Manufactured from special alloy steel
- Precision forged and heat treated for optimum strength and durability
- Double hex (12-point) configuration allows socket to engage single hex fastener every 30° rather than every 60°, allowing for better access in restricted areas

- Design features radius edges which will resist damage/nicks
- Center-to-center length on adaptor for easy torque calculations
- Larger sizes feature thicker construction for strength



208FRDHM



208FRDH

### Standard, mm (3/8")

Set Contains:

208FRDHM

Working Torque, in lb	mm	12	A	B	C	D	E	12
420	10	FRDHM10	17.1	18.8	7.8	11.1	50.8	•
690	12	FRDHM12	18.8	18.8	8.2	11.0	50.8	•
720	13	FRDHM13	21.0	18.8	7.8	11.1	50.8	•
1050	14	FRDHM14	21.0	18.8	9.4	11.0	50.8	•
1,200	15	FRDHM15	25.1	18.8	7.8	11.1	50.8	•
1,400	16	FRDHM16	22.6	18.8	11.0	11.0	50.8	•
1,400	18	FRDHM18	22.4	18.8	13.3	11.1	50.8	•
1,400	19	FRDHM19	27.4	18.8	13.3	11.0	50.8	•

### Standard, inches (3/8")

Set Contains:

208FRDH

Working Torque, in lb	12	A	B	C	D	E	12
190	<sup>5</sup> / <sub>16</sub>	FRDH101	0.475	.750	<sup>1</sup> / <sub>4</sub>	<sup>7</sup> / <sub>16</sub>	2 •
420	<sup>3</sup> / <sub>8</sub>	FRDH121	0.570	.750	<sup>5</sup> / <sub>16</sub>	<sup>7</sup> / <sub>16</sub>	2 •
500	<sup>7</sup> / <sub>16</sub>	FRDH141	0.655	.750	<sup>11</sup> / <sub>32</sub>	<sup>7</sup> / <sub>16</sub>	2 •
710	<sup>1</sup> / <sub>2</sub>	FRDH161	0.740	.750	<sup>11</sup> / <sub>32</sub>	<sup>7</sup> / <sub>16</sub>	2 •
1,050	<sup>9</sup> / <sub>16</sub>	FRDH181	0.825	.750	<sup>3</sup> / <sub>8</sub>	<sup>7</sup> / <sub>16</sub>	2 •
1,400	<sup>5</sup> / <sub>8</sub>	FRDH201	0.890	.750	<sup>7</sup> / <sub>16</sub>	<sup>7</sup> / <sub>16</sub>	2 •
1,400	<sup>11</sup> / <sub>16</sub>	FRDH221	0.989	.750	<sup>1</sup> / <sub>2</sub>	<sup>7</sup> / <sub>16</sub>	2 •
1,400	<sup>3</sup> / <sub>4</sub>	FRDH241	1.080	.750	<sup>1</sup> / <sub>2</sub>	<sup>7</sup> / <sub>16</sub>	2 •
2,706	<sup>15</sup> / <sub>16</sub>	FRDH301	1.374	.750	<sup>7</sup> / <sub>16</sub>	<sup>7</sup> / <sub>16</sub>	2

Conventional Hex

### Standard, inches (1/2")

Working Torque, in lb	12	A	B	C	D	E	
3,564	<sup>1</sup> / <sub>16</sub>	SRDH341	1.563	1.032	<sup>19</sup> / <sub>32</sub>	<sup>19</sup> / <sub>32</sub>	2



SRDH341

## 18V Platform



CT8815A



CT8810A



Friction Ring



Quick Change



Pinned Anvil

### 18V Impact Wrenches

#### CT8815A 1/2" Square Drive 18V Cordless Impact Wrench

- High-capacity 72 watt-hour, 18V lithium battery for long run time
- High-efficiency rare-earth magnet, 4-brush, motor for maximum durability
- Fastest 1/2" impact wrench on the market and will remove a 7/8" bolt tightened at 300 ft lb in less than 5 seconds
- The CT8815A can remove 544 bolts tightened at 200 ft lb on one battery charge
- Cold-formed, alloy steel anvil for maximum durability
- Provides an incredibly powerful 230 ft lb at a light weight 4.25 lb
- More torque and greater mobility than you've ever experienced in a 1/2" drive impact
- The digital fuel gauge and micro-controller in the lithium battery monitor temperature and amperage to prevent motor overheating
- Ergonomics designed into the over-molded grip and cushion-mounted motor provide continuous use without fatigue
- A portable powerhouse that will withstand the toughest conditions in or out of the shop
- CE – DE, ES, GB, FR, IT, NL, UL, CUL

#### CT8810A 3/8" Square Drive 18V Cordless Impact Wrench

- High-capacity 72 watt-hour, 18V lithium battery for long run time
- High-efficiency rare-earth magnet, 4-brush, motor for maximum durability
- Fastest 3/8" impact wrench on the market and will remove a 7/8" bolt tightened at 300 ft lb in less than 5 seconds
- The CT8810A can remove 544 bolts tightened at 200 ft lb on one battery charge
- Cold-formed, alloy steel anvil for maximum durability
- Provides an incredibly powerful 230 ft lb at a light weight 4.25 lb
- More torque and greater mobility than you've ever experienced in a 3/8" drive impact
- The digital fuel gauge and micro-controller in the lithium battery monitor temperature and amperage to prevent motor overheating
- Ergonomics designed into the over-molded grip and cushion-mounted motor provide continuous use without fatigue.
- A portable powerhouse that will withstand the toughest conditions in or out of the shop
- CE – DE, ES, GB, FR, IT, NL, UL, CUL

Specifications	CT8815A	CT8810A
Battery Type	Lithium Ion	Lithium Ion
Battery Voltage	18	18
Square Drive, inches (mm)	1/2 (13)	3/8 (10)
Anvil Type	Friction Ring	Friction Ring
Torque Output ft lb (N•m)	230 (311.8)	230 (311.8)
Blow Per Minute, bpm	3,480	3,480
Free Speed, rpm	2,400	2,400
Charge Time (minutes)	30	30
Length, inches (mm)	6 3/4 (171)	6 3/4 (171)
Weight w/Battery, lb (kg)	4 1/2 (2.4)	4 1/2 (2.4)
Warranty (tool & charger)	1 Year	1 Year
Warranty (battery)	1 Year	1 Year
Pinned	CT8815AP	CT8810AP
Quick Change	—	CT8810AQC
Tool only	CT8815ADB	CT8810ADB
Battery (qty)	CTB8185 (2)	CTB8185 (2)
Storage Case	CTT0TEA	CTT0TEA
Charger	CTC720	CTC720
Optional Protective Boot	CT8810B00T	CT8810B00T



- Do not use chrome hand tools with impact drivers
- Use only impact sockets and impact accessories with impact wrenches
- Read safety precautions on pages W1 to W4

## 18V Platform



CT4418

### 18V Impact Wrench

#### CT4418 3/8" Square Drive 18V Cordless Impact Wrench

- Integrated 0.5 Watt LED light provides excellent visibility
- High efficiency rare-earth magnet, 4-brush, motor for maximum durability
- Micro-controlled digital switch, with variable speed, protects the unit from overheating
- High capacity 2.5Ah, 18V Ni-Cad battery for long run time
- Alloy steel, heat treated, helical gears for maximum durability
- Alloy steel hammer and gear carrier, accurately machined at Murphy plant, for maximum durability
- Patented impact mechanism design
- Cold-formed, alloy steel anvil for maximum durability
- Robust design passes 6' drop test. Housings are made from high-strength, impact-modified 30% glass-filled Nylon 6 material
- 180 ft lb torque output
- Ergonomic design, with soft grip handles to reduce user fatigue

Specifications	CT4418
Battery Type	Ni-Cad 2.5Ah
Battery Voltage	18
Square Drive, inches (mm)	3/8 (10)
Anvil Type	Friction Ring
Torque Output ft lb (N•m)	180 ft lb
Blow Per Minute, bpm	3,440
Free Speed, rpm	2,230
Charge Time (minutes)	40 minutes
Length, inches (mm)	6 3/4 (171)
Weight w/Battery, lb (kg)	5 1/2 (2.5)
Warranty (tool & charger)	1 Year
Warranty (battery)	1 Year
Pinned	CT4418P
Quick Change	CT4418QC
Tool only	CT4418DB
Battery (qty)	CTB4187 (2)
Storage Case	CTT0TEA
Charger	CTC620
Optional Protective Boot	CT8810B00T



CAG6850DBKIT

### 18V/14.4V Cordless Adhesive Gun

#### CAG6850DBKIT 18V/14.4V Cordless Adhesive Gun Kit

- High-efficiency melt chamber – up to 2.2 lb of material output per hour
- Precision, solid-state temperature control – state-of-the-art electronics for consistent performance
- Easy-squeeze two-finger trigger – unique design allows for constant use with no fatigue
- Low battery/auto shut-off alarm – audible signal lets you know when battery is low
- Multiple power sources – works with 14.4V or 18V lithium or Ni-cad slide on batteries
- Rugged high-impact nylon housing – drop tested at 15 ft.
- On/Off activator – one-push start-up for rapid <4 minute warm-up time
- Ready/on/low battery indicator – visual indicator allows the user to quickly see the state of operation

Applications:

Dent pulling, temporary metal tacking, pin repair, wire staking, woods, metals, plastics, fiberglass

Specifications	CAG6850DBKIT
Weight	2.7 lb with 18V Lithium Battery
Actuation	Manual Feed
Adhesive Output	2.2 lb Per Hour
Adhesive Stick	1/2" Round
Nozzle Type	Ball Check
Stroke: Grams Per Squeeze	1.2
Service Rating	Industrial
Temperature	380° Maximum
Temperature Control	Solid State

CAG6850-900 Black Dent-Pulling Adhesive Stick

### 14.4V Ratchets

- 30 ft lb torque output
- Digital variable-speed trigger for precise control
- Built-in brake stops the tool from throwing sockets and fasteners
- Uses a chromed wear bushing to increase brake life
- Over and under temperature protection keeps tool operating at peak efficiency
- Utilizes a 14.4V lithium ion battery pack that can also be used in existing Snap-on® 7.2V lithium ion micro tools
- Battery “fuel gauge” LED cleverly integrated into handle
- Cushion-grip handle provides positive tool control with less fatigue
- Large, accessible reversing knob for easy mechanism direction changes
- Integrated LED headlight

#### CTR725A 1/4" Square Drive 14.4V Cordless Ratchet

- Easily withstands 45 ft lb of manual torque
- CE – DE, ES, FR, IT, GB, NL, JP
- CTR725 includes: CTR725DB Ratchet, CTB8172 Batteries (2 each) and CTC772 Charger in CTSC2 Soft-Side Bag

#### CTR761A 3/8" Square Drive 14.4V Cordless Ratchet

- Easily withstands 158 ft lb of manual torque
- CTR761 includes: CTR761DB Ratchet, CTB8172 Batteries (2 each) and CTC772 Charger in CTSC2 Soft-Side Bag



CTR725A



CTR761A

Specifications	CTR725A	CTR761A
Square Drive, inches (mm)	1/4 (6)	3/8 (10)
Torque Output, ft lb (N•m)	30 (40.6)	30 (40.6)
Free Speed, rpm	350	350
Battery Voltage	14.4V	14.4V
Weight, lb (kg)	2.5 (1.1)	2.5 (1.1)
Battery (qty)	CTB8172 (2)	CTB8172 (2)
Battery Charger	CTC772	CTC772
Tool Only	CTR725ADB	CTR761ADB



CDR761A

### 14.4V Drill

#### CDR761A 14.4V Cordless Drill Kit

- Light weight drill and battery only 2.4 lb – matches weight of 12V competitor microdrills
- Small size to get in tight spots – under dash, firewall, etc
- Cushion grip handle – non-slip, comfort for the operator, positive tool control allows the operator to work longer with less fatigue
- 150 in lb of torque handles a wide variety of applications
- Two-speed drill (400/1400 rpm) – low speed for higher torque applications/high speed for steel drilling
- Variable speed switch – good featherability at low speed for driving screws and control
- Fuel gauge – lets you keep track of battery capacity
- 9-position clutch – delivers a range of torques from 8 to 50 in lb
- 3/8" keyless drill chuck-single sleeve durable steel chuck – make changing bits easy
- One-year full warranty and serviced by Snap-on Service Centers

#### Applications:

- Interior and dash work
- Body shop applications
- Drilling out stripped fasteners
- Removing and installing panels and screws
- Ideal for light metals and plastic

Specifications	CDR761A
Battery Type	Lithium
Battery Voltage	14.4
Chuck Cap., inches	3/8
Clutch Settings	9
Free Speed, rpm	0–400 Low (0–1,400 High)
Height, inches (mm)	7.8 (198.1)
Length, inches (mm)	7.5 (190.5)
Width, inches (mm)	1.9 (48.5)
Torque Output, in lb (N•m)	150 (16.9)
Weight w/Battery, lb (kg)	2.4 (1.1)
Operating Temperature	-4 °F (-20 °C) to 140 °F (60 °C)
Sound Pressure Level, dBA	73.7
Sound Power Level, dBA	85.3
Warranty (tool & charger)	1 Year
Warranty (battery)	1 Year
Storage Case	CTMINITOTE
Tool Only	CDR761ADB
Battery (qty)	CTB8172 (2)
Battery Charger	CTC772



- Use only impact sockets and impact accessories with impact wrenches and ratchets
- Do not use in flammable atmosphere
- Read safety precautions on pages W1 to W4

# POWER TOOLS, CORDLESS

## 14.4V/7.2V Micro Lithium Platforms



CT761

- Impact Wrenches**  
**CT761 – 3/8" Square Drive**  
**14.4V Micro Lithium Cordless**  
**Impact Kit**
- 2000 rpm free speed
  - 120 ft lb (162.7 N•m) torque output
  - Variable speed trigger
  - Built-in brake
  - 2.0Ah battery
  - Built-in LED light
  - One-year warranty



CTS761

- Cordless Screwdriver**  
**CTS761 – 1/4" Hex 14.4V**  
**Micro Lithium Cordless Drill Kit**
- 400 rpm free speed
  - 150 in lb (11.3 N•m) torque output
  - Variable speed trigger
  - 9-position clutch
  - 2.0Ah battery
  - Built-in LED light
  - One-year warranty
  - 300 in lb manual torque



CT725

- Impact Wrenches**  
**CT725 – 1/4" Square Drive**  
**Impact. 7.2/14.4V Micro**  
**Lithium Impact**
- 60 ft lb of torque output
  - Variable-speed digital toggle-style trigger
  - Built-in brake stops the anvil from spinning
  - Twin-beam LED lights
  - Built-in fuel gauge
  - 30-minute charge time



CTS725

- Cordless Screwdriver**  
**CTS725 – 1/4" Hex 7.2/14.4V**  
**Micro Lithium Cordless**  
**Screwdriver**
- 100 in lb of torque output
  - 400 rpm
  - Variable-speed digital toggle-style trigger
  - 275 in lb manual spindle lock
  - 9-position clutch
  - Built-in LED lights
  - Includes tool, two batteries, charger and tote bag

	Impact Wrenches		Screwdrivers	
Specifications	CT761	CT725	CTS761	CTS725
Battery Type	Lithium	Lithium	Lithium	Lithium
Battery Voltage	14.4	14.4	14.4	14.4
Square Drive, inches (mm)	3/8 (10)	1/4 (6)	1/4 Hex	1/4 Hex
Torque Output, ft lb (N•m)	120 (163)	65 (88)	—	—
Torque Output, in lb (N•m)	—	—	150 (16.9)	100 (11.2)
Clutch Settings	—	—	9	9
Free Speed, rpm	2,200	2,200	400 low/1400 high	400
Blows Per Minute, bpm	3,000	3,000	—	—
Charge Time (minutes)	55	55	55	55
Length, inches (mm)	6 1/2 (165)	6 1/4 (159)	5.8 (147)	5.4 (137)
Width, inches (mm)	1.9 (48)	1.8 (46)	1.9 (48)	1.9 (48)
Height, inches (mm)	7 3/4 (197)	7 1/2 (191)	7 3/4 (197)	7 1/2 (191)
Weight w/Battery, lb (kg)	2.4 (1.8)	2.1 (0.9)	2 (0.9)	2 (0.9)
Warranty (tool & charger)	1 Year	1 Year	1 Year	1 Year
Warranty (battery)	1 Year	1 Year	1 Year	1 Year
Quick Change	CT761QC	CT725QC	—	—
Tool only	CT761DB	CT725DB	CTS761DB	CTS725DB
Battery (qty)	2	2	2	2
Blow Molded Case/Soft Case	CTMINITOTE	CTMINITOTE	CTMINITOTE	CTMINITOTE
Charger	CTC772	CTC772	CTC772	CTC772

† C E

## Lights

### CTLED7850 LED Work Light, 18V

- 300 lumens for a super-bright output
- Dual-reflector system: flood or spot option
- 12-hour run time
- 120° rotating head
- Low-battery indicator
- Tempered glass lens
- Resists automotive fluids
- Light weight aluminum head
- Impact-modified nylon housing
- 18-mirror reflector included; changes unit into a flood light



CTLED7850

## Charger/Batteries



CTB8185



CTB8172

## Cordless Battery Packs (Snap-on® CT and CDR Series Tools)

Stock No.	Type	Voltage	Style	Charge Time (min.)	Used With
CTB8185	Lithium	18	Slide-on	30	CT8850 series, CT8815 series, CT8810 series
CTB8172	Lithium	14.4	Tower	55	CT625, CT661 series, CTS661 series, CT725 series, CT761 series, CTS725 series, CTR761 series, CTS761 series

## Snap-on Battery Charger

Stock No.	Type	Application
CTC772	3.0A 7.2V Lithium Battery Charger	All 14.4V and 7.2V Micro Lithium batteries



CTC772

## Polisher/Impact Wrench Electric



ETB1580B

### Polisher

#### ETB1580B Polisher (Blue-Point®)

- 6-position speed setting allows user to dial in desired speed
- Variable-speed trigger lets user vary the speed within the range and have control over polishing speed
- Push-button spindle lock for quick-and-easy pad changes
- Polish and detail autos, trucks and boats



ETB1650A

### Impact Wrench

#### ETB1650A Electric Impact Wrench (1/2" Square Drive)

- 8.5A motor delivers a powerful 350 ft lb of torque
- Heavy duty 16-gauge electrical cord – resists oil
- Forward-reverse toggle switch – for fast, easy rotation selection
- Double-blow molded case protects your investment while transporting it
- One year warranty
- ETL certification
- Remove/install auto and light truck fasteners in professional garages, scrap yards or for use at home

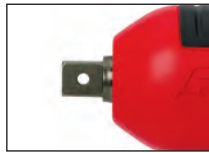


- Use only impact sockets and impact accessories with impact wrenches
- Do not use in flammable atmosphere
- Read safety precautions on pages W1 to W4

## 3/4" and 1/2" Square Drive Impact Wrenches



MG1250



Thru-Hole Anvil (P)



3" Long Anvil (L)



6" Extra-Long Anvil (XL)



MG725G



### Snap-on® Super Duty

#### MG1250 Series 3/4" Square Drive Impact Wrench

- 1pc magnesium housing assures precision alignment of components and reduces vibration
- Continuous oil-bath lubrication reduces wear and increases life
- Twin-hammer mechanism delivers hard-hitting blows with fewer moving parts for longer tool life
- Six-vane rotor delivers maximum torque and speed to remove stubborn fasteners
- Cushion-grip variable-speed trigger reduces user fatigue
- Balanced design distributes weight evenly to increase control
- Anvil stops with release of the trigger to prevent throwing fasteners
- One-hand reverse button for easy operation

### Snap-on Super Duty

#### MG725 Series 1/2" Square Drive Impact Wrench

- 1pc machined magnesium housing is extremely durable, lightweight and provides alignment of internal parts to reduce vibration
- Eight-vane rotor provides faster motor startup and greater performance with more torque
- Patented cushion grip helps insulate user's hand from cold and reduces vibration to reduce user fatigue
- Patented tip valve trigger provides increased air flow and greater tool control
- Twin-hammer impact mechanism is durable and hard hitting to quickly remove stubborn fasteners
- Sealed-in oil-bath lubrication keeps impact mechanism lubricated for less wear
- Slim-style nose is ideal for working in restricted access areas
- Anvil stops with release of the trigger to prevent throwing of fasteners
- Cushion-grip trigger button delivers improved comfort and control

### Super Duty

Specifications	MG1250†	MG1250L†	MG1250XL†	MG1250P†	MG725G†	MG7250†
Drive Size, inches (mm)	3/4 (19)	3/4 (19)	3/4 (19)	3/4 (19)	1/2 (13)	1/2 (13)
Max. Torque, ft lb (N•m)	1,200 (1,627)	1,200 (1,627)	1,200 (1,627)	1,200 (1,627)	810 (1,098)	810 (1,098)
Free Speed rpm	6,200	6,200	6,200	6,200	9,800	9,800
Blows per Minute	1,050	1,050	1,050	1,050	1,270	1,270
Extended Anvil Length, inches (mm)	—	3 (76)	6 (152)	—	—	—
Anvil Type	Friction Ring	Friction Ring w/Thru-Hole	Friction Ring w/Thru-Hole	Thru-Hole	Friction Ring	Friction Ring
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	6.4 (46) [181]	6.4 (46) [181]	6.4 (46) [181]	6.4 (46) [181]	4.0 (29) [113]	4.0 (29) [113]
Air Inlet Thread Size	3/8"-18 NPT	3/8"-18 NPT	3/8"-18 NPT	3/8"-18 NPT	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8 (10) ID	3/8 (10) ID	3/8 (10) ID	3/8 (10) ID	3/8 (10) ID	3/8 (10) ID
Vibration Level, m/s <sup>2</sup>	10.38	10.38	10.38	10.38	6.6	6.6
Sound Level dBA Pressure	99.8	99.8	99.8	99.8	99.9	99.9
Length, inches (mm)	8 (203)	10 (254)	13 (330)	8 (203)	7.7 (194)	7.7 (194)
Weight, lb (kg)	8.1 (3.7)	9 (4.09)	10 (4.5)	8 (3.6)	4.8 (2.2)	4.8 (2.2)
Vinyl Boot (included)	MG1200B00T	MG1200B00T	MG1200B00T	MG1200B00T	MG725GB00T	MG7250B00T

Impact wrench suffix: P = Pinned anvil, L = Long anvil, XL = Extra long anvil. Standard anvil for applications where frequent socket change is required. Pinned anvil for high-torque applications where socket security is a priority. Long or extra long anvil for tight applications that require extra reach.

† C E



## 1/2" Square Drive Impact Wrench (Blue-Point®)

### AT5500 1/2" Square Drive Impact Wrench

- 550 ft lb of torque, 7,400 rpm, 1,200 blows per minute
- Built-in five-position adjustable air regulator plus a variable speed trigger for maximum user control
- Tapered nose increases accessibility to confined areas
- Ball-bearing mounted motor creates a smooth running operation for longer tool life
- 1pc aluminum housing provides a durable tool
- Twin-hammer impact mechanism designed to hit hard yet offer tool longevity
- Inlet filter screens out dirt and grit; easy-to-remove filter for cleaning
- One-year limited warranty

EU/CE – DE, ES, FR, IT, NL, UK (all models)



AT5500

### Heavy Duty

Specifications	AT5500
Drive Size, inches (mm)	1/2 (13)
Max. Torque, ft lb (N•m)	550 (745)
Free Speed rpm	7400
Blows Per Minute	1200
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.2 (30) [118.9]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8
Vibration Level, m/s <sup>2</sup>	4.0
Sound Level dBA Pressure	94
Length, inches (mm)	7.9 (20)
Weight, lb (kg)	6.4 (2.9)
Vinyl Boot (optional)	AT5500B00T

## 3/8" Square Drive Impact Wrenches

### MG325 3/8" Drive Impact Wrench

- 1pc magnesium housing for precise internal component alignment to reduce vibration
- Twin-hammer impact mechanism delivers hard-hitting blows with fewer moving parts to quickly remove stubborn fasteners
- Continuous oil bath lubrication prolongs tool life by reducing premature component wear
- Eight-vane motor delivers maximum speed and torque
- Light weight, balanced design distributes weight evenly to reduce user fatigue
- One-handed forward/reverse lever for user convenience
- Cushion-grip handle insulates user's hand from cold and absorbs vibration
- Comfort-cushion trigger button allows the user to work comfortably with less finger stress
- Anvil stop feature means anvil will stop when trigger is released to avoid throwing fasteners



MG325G

### Snap-on® Super Duty

Specifications	MG325G†	MG3250†
Drive Size, inches (mm)	3/8 (10)	3/8 (10)
Max. Torque, ft lb (N•m)	325 (440)	325 (440)
Free Speed rpm	10,700	10,700
Blows Per Minute	1,400	1,400
Anvil Type	Friction Ring	Friction Ring
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.4 (17) [68]	2.4 (17) [68]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Hose Size, inches	3/8 (10)	3/8 (10)
Vibration Level, m/s <sup>2</sup>	4.54	4.54
Sound Level dBA Pressure	99.1	99.1
Length, inches (mm)	6.1 (155)	6.1 (155)
Weight, lb (kg)	2.88 (1.3)	2.88 (1.3)
Vinyl Boot (included)	MG325GB00T	MG3250B00T



MG3250

† C E



- Use only impact sockets and impact accessories with impact wrenches
- Read safety precautions on pages W1 to W4

# POWER TOOLS, AIR

## Ratchet



FAR7000

### FAR7000 3/8" Square Drive Air Ratchet

- Fast – 410 rpm free speed for fast removal/installation
- Slim-drive head combined with a long reach – 11.2" overall length – makes getting into tight spots easy
- Adjustable exhaust deflector directs exhaust away from the work area
- Light weight – just 2.08 lb – combined with the ergonomic comfort-grip handle reduces fatigue
- Maximum torque of 30 ft lb will not strip threads
- 2.6 CFM air consumption
- CE – DE, ES, FR, IT, NL, UK

## Air Ratchet

Specifications	FAR7000
Drive Size, inches (mm)	3/8 (10)
Max. Torque, ft lb (N•m)	0-30 (0-40.6)
Free Speed rpm	410
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	2.6 (18.6) [73.6]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Air Pressure, psig (kPa)	90 (620)
Recommended Hose Size, inches	3/8" (10) ID
Sound Level dBA Pressure	91.4
Length, inches (mm)	11.2 (284.5)
Weight, lb (kg)	2.08 (0.94)
Vinyl Boot (optional)	FAR7000BOOT

## Die Grinder



PT400L

## Heavy Duty

Specifications	PT400L
Rated Power, hp (kW)	1.0 (.6)
Free Speed rpm	23,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.17 (30) [118]
Air Inlet Thread Size	1/4"-18 NPT
Recommended Hose Size, inches	3/8" (10 mm)
Sound Level dBA Pressure	84.7
Length, inches (mm)	12 1/4 (311)
Weight, lb (kg)	2.5 (1.1)

### PT400L Heavy Duty Extended 1 HP Die Grinder

- 1 HP thermally balanced air motor
- Dual taper collet system
- Ergonomic comfort grip handle
- Heavy duty grinding with 1/4" mounted points and 1/4" grinding burrs

## Die Grinder (Blue-Point®)



AT120L

## Straight Head – 1/4" Collet

Specifications	AT120L
Collet Size, inches	1/4 (6.35 mm)
Rated Power, hp (kW)	0.22 (.164)
Free Speed rpm	23,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3.0 (22)
Air Inlet Thread Size	1/4"-18 NPT
Inner Hose Size Diameter, inches (mm)	3/8 (10)
Vibration Level, m/s <sup>2</sup>	1.83
Sound Level dBA Pressure	77
Length, inches (mm)	11.02 (280)
Weight, lb (kg)	1.45 (.66)

### AT120L Extended-Length Mini Die Grinder

- Extended reach of 4.5" to gain access into limited work space
- Comfort grip reduces fatigue
- Built-in speed regulator matches tool speed to the job
- Safety throttle – release the lever and the tool turns off
- CE – DE, ES, FR, IT, GB, NL



PT430



PT490

### PT430 Cut Off Tool (3")

- Powerful thermally balanced air motor cools internal parts and tool surface
- Double bearings for smooth operation
- Light weight and ergonomic comfort grip handle for less user fatigue
- Built-in speed regulator for easy adjustment
- Rear-diffused exhaust directs exhaust away from the work area
- Paddle-style trigger/safety lever for easy operation
- Precision-machined steel end plates
- Adjustable wheel guard so tool can be used at any angle
- CE – DE, ES, FR, IT, GB and NL
- UL – JP

### PT490 Angle Cut Off Tool (4")

- 4" cutting wheel
- Powerful thermally balanced air motor cools internal parts and tool surface
- Steel angle head with heavy duty spiral bevels gears for tool longevity
- Double bearings for smooth operation
- Instinct side handle (included) to increase leverage and ergonomic comfort-grip handle for less user fatigue
- Built-in speed regulator for easy adjustment
- Rear-diffused exhaust directs exhaust away from work area
- Paddle-style trigger/safety lever for easy operation
- Precision-machined steel end plates
- Adjustable wheel guard so tool can be used at any angle
- CE – DE, ES, FR, IT, GB and NL
- UL – JP

## Cut Off Tools

Specifications	PT430	PT490
Wheel Size, inches (mm)	3 (76)	4 (102)
Rated Power, hp (kW)	1.0 (0.75)	1.0 (0.75)
Free Speed rpm	25,000	12,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	4.17 (30) [118]	4.17 (30) [118]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Air Pressure, psig (kPa)	90 (620)	90 (620)
Recommended Hose Size, inches	3/8 (10) I.D.	3/8 (10) I.D.
Vibration Level, m/s <sup>2</sup>	6.92	3.41
Sound Level dBA Pressure	87	87.8
Length, inches (mm)	7.18 (183)	9 (229)
Weight, lb (kg)	1.6 (.73)	3.5 (1.6)
3" Cutter Wheels (36 grit) (optional)	AT150-20A	—
3" Cutter Wheels (54 grit) (optional)	AT150-29A	—
4" Cutter Wheels	—	AT154RWHLMP (optional)



- Do not operate without the guard
- Do not use grinder accessories above their maximum rated RPM
- Read safety precautions on pages W1 to W4

## Cutting Tools



AT153

### AT153 Cut Off Tool (3")

- Compact size excellent for accessing areas with limited working space
- Heavy duty bevel gears for tool longevity
- Indexing adjustable guard controls the direction of sparks
- Spindle lock eliminates the need for special wrenches for fast change of cut-off wheels
- Adjustable built-in regulator easily adjusts up to 17,000 rpm free speed
- CE – DE, ES, FR, IT, GB, NL

#### Related Items:

**AT150C29A** 3" Cut Off Wheel (54 grit)

Wheel not included with tool.



AT154

### AT154 Cut Off Tool (4")

- Overall tool length of 14.8" provides extended reach for easier access
- Powerful 0.7 hp motor for maximum performance when cutting under a load
- Built-in regulator permits easy speed adjustment to a maximum free speed of 15,000 rpm
- Side handle offers additional tool control
- CE – DE, ES, FR, IT, GB, NL

#### Related Items:

**AT154RWHLMP** 4" x 1/16" x 3/8" Aluminum Oxide Cutter Wheels (6-pack).

Wheel not included with tool.

## Cut Off Tools (Blue-Point®)

Specifications	AT153	AT154
Wheel Size, inches (mm)	3 (76)	4 (101.5)
Rated Power, hp (kW)	0.5 (0.37)	0.7 (0.5)
Free Speed rpm	17,000	15,000
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	3.5 (24) [99.1]	4.0 (26) [113.3]
Air Inlet Thread Size	1/4"-18 NPT	1/4"-18 NPT
Recommended Air Pressure, psig (kPa)	90 (620)	90 (620)
Recommended Hose Size, inches	3/8 (10)	3/8 (10)
Vibration Level, m/s <sup>2</sup>	<2.86	<2.86
Sound Level dBA Pressure	85	104
Length, inches (mm)	7.3 (185)	14.8 (376)
Weight, lb (kg)	3.3 (1.5)	4.3 (1.95)
3" Cutter Wheels (36 grit) (optional)	AT150-20A	—
3" Cutter Wheels (54 grit) (optional)	AT150C28A	—
4" Cutter Wheels	—	AT154RWHLMP (optional)



PTS500



PTS1000

### PTS500 Mini Air Saw

- Can cut 1/8" (3mm) thick mild steel
- Low vibration – 3.68 m/s<sup>2</sup> – for less user fatigue
- Chuck accepts standard 0.035" thick air saw blades
- Featherable paddle trigger with safety lever for easy operation
- 360° adjustable exhaust deflector
- Smooth cutting action
- Comfort-grip handle
- Includes (3) 3 5/8" long air saw blades (1 each: 18TPI, 24TPI and 32TPI)
- CE – DE, ES, FR, IT, GB, NL
- UL – Listed: JP

### PTS1000 Dual Chuck Air Saw

- Dual chuck accepts 0.035" standard air saw blades and 6" long reciprocating saw blades
- Can cut 1/8" (3 mm) thick mild steel
- Smooth cutting action
- Comfort grip handle
- Low vibration (2.99 m/s<sup>2</sup>) for less user fatigue
- Featherable paddle trigger with safety lever for easy operation
- 360 degree adjustable exhaust deflector
- Includes (3) 3 5/8" long air saw blades (1 each 18TPI, 24TPI and 32TPI) and (1) 6" long reciprocating saw blade (18TPI)
- CE – DE, ES, FR, IT, GB, NL
- UL – Listed: JP

## Air Saws

Specifications	PTS500	PTS1000
Free Speed, rpm	9,500	10,000
Air Pressure	90 psig (620kPa)	90 psig (620kPa)
Air Consumption, Free Speed, CFM (SCFM) [L/MIN]	1.2 (8.5) [33.9]	1.0 (7.0) [28.3]
Air Inlet Thread Size	1/4"-18NPT	1/4"-18NPT
Recommended Hose Size, inches	3/8" (10mm)	3/8" (10mm)
Vibration Level, m/s <sup>2</sup>	3.68	2.99
Sound Level dBA Pressure	90.7	87.1
Stoke Length, inches (mm)	3/8" (10)	3/8" (10)
Length, inches (mm)	7.8 (198)	9.4 (238)
Weight, lb (kg)	0.99 (0.45)	1.53 (0.69)



- Do not operate without the guard
- Do not use cut-off wheels above their maximum rated RPM
- Read safety precautions on pages W1 to W4

# POWER TOOL ACCESSORIES

## Air and Reciprocating Saw Blades



BTSS620



ASB4-42

### Double Square Bit

#### BTSS620 Double Square Power Bit

- Provide extra clearance and minimize tool contact with work surface
- Minimize potential damage to painted panels on RVs and trailers
- Ideal for use with all types of drills
- 6" long

### Air Saw Blades

Stock No.	Application/Material Thickness	Teeth per Inch	Blade Length, inches	Qty, Each
ASB4-42	Over 0.20"	18	3 5/8	10 each
ASB4-43	0.08" to 0.20"	24	3 5/8	10 each
ASB4-44	0.00" to 0.08"	32	3 5/8	10 each

## Air Hammer Accessories



PHGL37KT

### Extra-Long Drift Punches

- Use to break free hard-to-reach bolts and pins that have seized due to rust
- Designed for suspension work where rusted shock and strut bolts cannot be accessed with conventional length punches and tapered drifts

Set Contains:

PHGL37KT

Stock No.	Description	Length, inches	Size, inches (mm)	
PHGL78	Air Hammer Drift	5	5/16 (8)	•
PHGL710	Air Hammer Drift	5	3/8 (10)	•
PHGL712	Air Hammer Drift	5	1/2 (12)	•

## Air Hose



IM2005A

### Rubber Air Hose

Ideal for industrial applications. Male threads at both ends.

Stock No.	Hose I.D., inches	Hose Length, feet	Thread Size	Maximum Pressure, psi
IM2004A	3/8	2	1/4"-18 NPT	300
IM2005A	3/8	25	1/4"-18 NPT	325
IM2008A	3/8	50	1/4"-18 NPT	325
IM2009A	1/2	50	3/8"-18 NPT	325

## Air Line Coupler and Adaptor



AHC31

### Air Line Coupler and Adaptor

Stock No.	Body Size, inches	Style	Thread Size	Type
AHC31	1/2	Industrial Interchange	3/8"-18 NPT	Male

NPC52

www.snapon.com/powertools

### EESC319 ETHOS+ Scan Tool

- Effortless access to codes and data for dozens of systems on over 40 makes; Domestic, Asian and optional European coverage
- Quick navigation with a touch of your finger, or use the four-way keypad
- Big 5 1/2" color touchscreen for clear, detailed results
- Keyless data connector for all OBD-II vehicles
- Compare seven live data parameters on screen at once, or graph up to four side by side to isolate the root cause of vehicle problems
- Perfect for new users, service writers and as a shared tool for the entire shop
- Powers from vehicle so you can keep moving all day long; simply connect to vehicle for automatic boot-up in ten seconds
- Vehicle-specific code descriptions in plain English
- Covers newer technologies like TPMS, hybrid power systems, body controls, suspension and steering angle sensor
- Diagnose vehicles dating back to 1980, with optional OBD-I adaptors
- Customizable settings and tools to fit the way you work
- Pause, record, save, playback live data
- Create custom data lists to speed the display and compare exactly the data you want
- Set min/max triggers to catch data that falls outside normal range
- Zoom in on graphs to see more detail, find glitches, nail down intermittent problems
- User-programmable shortcut key to perform frequent tasks with just one touch
- Also covers all ten modes of OBD-II. Read and clear codes, reset the MIL, view current data, determine emissions readiness, onboard monitors, ECU info, pending codes, permanent codes and more
- Internal AA battery power to review results off-vehicle



EESC319

#### Includes:

ETHOS+ scan tool, 5' data cable with keyless OBD-II connector, USB cable, padded nylon carry case, six AA batteries, AC power adaptor and quick-start guide

#### Optional Accessories

- EESP319E** European software activation
- EAK0301B07B** European vehicle adaptor kit
- EAK0301B08A** OBD-I adaptor kit 1
- EAK0288B04B** OBD-I adaptor kit 2
- EAX0068L10A** Extended length 9' OBD-II data cable
- EAK0313B02A** Hand strap and folding stand
- EAC0110L35A3** Screen protector (3-pack)

## VANTAGE™ Ultra Power Graphing Meter

### EETM309 VANTAGE Ultra Power Graphing Meter

- High-speed lab scope, digital and graphing meter, plus expert information makes it easy to verify component faults
- Exclusive Fast-Track® guided component tests verify component failures; with test procedures, automatic meter setup, connector diagrams, component locator and waveform library
- Test components before replacing for accurate first-time repairs
- Our fastest operating system with superfast boot-up in only 5 seconds; diagnostics results in only 30 seconds
- Easy one-touch navigation using big 8" color touchscreen or keypad operation
- Vehicle-specific component tests for over 40 domestic, Asian and European makes, 1981–current
- PC connectivity via USB port; save, share, view, print files via ShopStream Connect™ application available at no charge
- Coverage for thousands of components on all major vehicle systems – engine, fuel, transmission, emissions, ignition, ABS, lighting, solenoids, valve train, cooling, climate, antitheft, oxygen sensor and many more
- Save your diagnostic results and screen images on internal micro SD card
- Digital/graphing meter and high-speed 2-channel lab scope, features:
  - 6 million samples/sec
  - 3MHz bandwidth
  - Preset and custom meter settings
  - Peak detect, cursors and glitch capture to help find problems other scopes miss
- CE – Yes, English Only



EETM309

#### Includes:

- VANTAGE Ultra Component Test Meter
- 2 shielded scope leads, probes, clips
- 110V AC power adaptor
- High energy lithium-ion battery pack
- Soft-sided nylon carry case

#### Optional Accessories

- EETA308D** Precision low amp probe
  - EPPV302AL** Low pressure transducer
  - EPPV302AT** Medium pressure transducer
  - EPPV302AH** High pressure transducer
  - EAC0111L76A3** Screen protectors
  - SOLVANUFOAM3** Organizers for 3-series carts
  - SOLVANUFOAM4** Organizers for 4-series carts
- Plus a wide range of ignition adaptors



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

# HAND HELD DIAGNOSTICS

## Multifunction Diagnostic System



EEMS328

### EEMS328 MODIS™ Ultra Diagnostic System

- Integrated software suite with scan tool, lab scope, graphing meter and expert information makes it easy to verify faults
- Superfast boot up in only five seconds; get diagnostic results in only 30 seconds
- Easy one-touch navigation using big 8" color touchscreen or keypad operation
- OEM-specific scanner coverage for more than 40 domestic, Asian and (optional) European makes
- Exclusive Fast-Track® Troubleshooter tips save time and avoid comebacks
- Exclusive *Fast-Track* Guided Component Tests verify component failures with test procedures, automatic meter setup, connector diagrams and a waveform library
- Exclusive steady-charge battery technology automatically charges from vehicle connector
- A single keyless data cable for OBD-II applications saves connection time
- Unique "cause and effect" diagnostics – use powerful functional tests while viewing live data parameters on-screen
- Full scanner capabilities include coverage for vehicle-specific codes, live data, functional tests, relearns, adaptations
- Save your diagnostic results, codes, data, screen images on internal micro SD card
- PC connectivity via USB port. Save, share, view, print files via ShopStream Connect™ application available at no charge

- Exclusive data graphing with glitch capture to find elusive intermittent faults
- OEM-specific coverage for 1980 and later US vehicles, 1983 and later Asian vehicles, and optional 1992 and later European vehicles
- Coverage for dozens of the most popular systems – engine, transmission, airbag, ABS, body, steering, suspension, TPMS, hybrid power, lighting, instrument, park assist, climate and many more
- Digital/graphing meter and high-speed 2-channel lab scope, features:
  - 6 million samples/sec
  - 3MHz bandwidth
  - Preset and custom meter settings
  - Peak detect, cursors and glitch capture
  - Helps find problems other scopes miss
- CE – English only
- Includes keyless universal OBD-II adaptor, (2) shielded scope leads with probes and clips, 110V AC power adaptor, high energy lithium-ion battery pack and (2) custom fit organizer trays

### Optional Accessories for EEMS328 MODIS Ultra:

- EESP328E** European vehicle software
- EAK0301B07B** European vehicle adaptors
- EAK0301B10A** Complete OBD-I adaptor kit (17 adaptors plus jumper lead set)
- EETA308D** Precision low amp probe
- EEPV302AL** Low pressure transducers
- EEPV302AT** Medium pressure transducers
- EEPV302AH** High pressure transducers
- EAC0111L76A3** Screen protectors
- EAK0312L19A** Grab-n-go tote case
- EAX0068L10A** 9' Extended OBD-II data cable
- MODISUFOAM3** Organizers for 3-series carts
- MODISUFOAM4** Organizers for 4-series carts
- EAZ0079L11A** 8' x 2' MODIS Ultra shop banner

## Integrated Diagnostic and Information Systems



EEMS327

### EEMS327 VERUS® PRO Integrated Diagnostic and Information System

#### Specifications

#### DISPLAY TABLET

- Thin-profile tablet with 10" high-resolution 1024 x 600 screen
- Built-in camera to save and share photos for records
- Bluetooth® and Wi-Fi to access your web resources
- High-energy lithium-ion battery pack for hours of continuous operation
- USB, audio and auxiliary ports make it easy to add accessories
- Big hard drive to save data and install your own applications

#### SOFTWARE

- Exclusive ShopStream™ integrated diagnostic suite with scanner, scope, guided component tests, online expert forum, vehicle records, optional ShopKey™ Repair Information
- Genuine Windows® multi-tasking to view multiple applications side by side
- Powerful data manager saves vehicle records, photos, technician notes, screen images, scanner and scope data

#### SCANNER MODULE

- A single keyless adaptor for OBD-II vehicle applications
- Connects wirelessly to the display tablet with *Bluetooth* for remote operation
- OEM-specific coverage for over 40 manufacturers, as far back as 1980 (European optional)
- Codes, live data, functional tests, relearns and adaptations for dozens of vehicle systems
- Exclusive *Fast-Track* Troubleshooter with millions of validated code tips, symptom tips and time savers

#### SCOPE MODULE

- More flexibility with the new hot-dockable USB scope module
- High-speed 4-channel lab/ignition scope and digital/graphing meter
- Six mega samples/second sample rate and glitch capture detects faults other scopes miss
- Scale range: 0–100mV to 0–400V, 50kV secondary ignition
- Sweep rate: 50 microseconds to 20 seconds (5 min. in GMM mode) so you don't miss a thing
- Exclusive *Fast-Track* guided component tests for 40 domestic, Asian and European manufacturers
- VDC, VAC, ohms, frequency, duty cycle, pulse width, diode test and more
- Includes: VERUS PRO Display Tablet, wireless scan module, upgradable software on hard drive, keyless OBD-II data cable, OBD-I adaptor kit 1, lithium-ion battery pack, USB cable, 110V AC power adaptor, custom-fit case



### VERUS® PRO Accessories

#### EAA0365L04A VERUS PRO Docking Station

- Convenient and secure charging station for VERUS PRO
- Place VERUS PRO on the bench, or store “at the ready”
- Keep your tool powered and charged up all day long – uses standard power adaptor included with VERUS PRO
- 15-pin video connector – to connect to your external big-screen monitor to display VERUS PRO results
- Built-in USB hub to connect up to four USB devices
- Multi-position stand: vertical, angle or fold to lay flat in tool storage drawer
- Simple and secure drop-in docking makes for fast grab and go portability



EAA0365L04A

#### EAC0107L17A3 VERUS PRO Screen Protector Sheets

- Includes three screen protector sheets
- Custom-fit for VERUS PRO
- Easy peel-and-stick application
- Easy to replace – simply peel off old protector sheet and press on a new one
- Keeps screen clean and protected from scratches, solvents and dirt
- Helps maintain touchscreen sensitivity
- Crystal-clear protection for optimum viewing in the shop or in the sun



EAC0111L76A3

### ETHOS® + Accessories

#### EAC0110L35A3 Screen Guards

- Includes three screen protector sheets
- Custom-fit for the screen on ETHOS +
- Easy peel-and-stick application
- Simple to replace – peel off old sheet, press on a new one
- Keep your screen clean and protected from scratches, solvents and dirt for a clear view
- Helps maintain touchscreen sensitivity
- Crystal-clear protection for optimum viewing in the shop

#### EAK0313B02A Grip Kit

- Comfortable hand strap for ETHOS + Scan Tool
  - Adjustable hook and loop strap gives secure fit on large and small hands
  - Makes it easy to hold and carry ETHOS + with one hand
  - Secure mounting directly to back of ETHOS + Scan Tool
  - Comfortable nylon pad for all-day use
  - Works equally well for left or right-hand users

#### EESP319E European Vehicle Software Activation

- Comprehensive OEM specific coverage is critical for servicing European makes, from fault codes and data for dozens of vehicle systems, to functional tests, relearns and adaptations for vehicles with those features
- Coverage for Audi®, BMW®, FIAT®, Jaguar®, Land Rover®, Mercedes®, MINI®, SMART®, Volvo® and Volkswagen® vehicles as far back as 1992
- EAK0301B07B European Adaptor Kit available separately for use with EESP319E European Vehicle Software Activation
- See your Snap-on representative



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

# HAND HELD DIAGNOSTICS

## Hand Held Diagnostic Accessories



EAC0111L76A3



EAC0111L51A

### MODIS™ Ultra Accessories

#### EAC0111L76A3 MODIS Ultra Screen Protectors

- Includes three screen protector sheets
- Custom-fit for the MODIS Ultra screen
- Easy peel-and-stick application
- Simple to replace – peel off old sheet and press on a new one
- Keep your screen clean and protected from scratches, solvents, dirt, for a clear view
- Helps maintain touchscreen sensitivity
- Crystal-clear protection for optimum viewing in the shop or in the sun

#### EAC0111L51A Protective Skin

- Custom-molded to precisely fit MODIS Ultra
- Soft, sturdy, flexible thermoplastic rubber
- Protects tool from dirt, grease and automotive fluids – keep your tool looking like new
- Personalize your MODIS Ultra with a custom all-black look
- Forms a non-slip grip over outside of your MODIS Ultra platform
- Access openings for screen, connectors and cooling vents for unimpeded operation
- 1pc construction – stretches for a tight fit over MODIS Ultra
- MODIS Ultra diagnostic tool is not included with the EAC0111L51A protective skin

#### EESP328E MODIS Ultra European Vehicle Software Activation

- Comprehensive OEM specific coverage is critical for servicing European makes, from fault codes and data for dozens of vehicle systems, to functional tests, relearns and adaptations for vehicles with those features
- Coverage for Audi®, BMW®, FIAT®, Jaguar®, Land Rover®, Mercedes®, MINI®, SMART®, Volvo® and Volkswagen® vehicles as far back as 1992
- EAK0301B07B European Adaptor Kit available separately for use with EESP328E European Vehicle Software Activation
- See your Snap-on representative



EAZ0077L07A



EAZ0079L11A

### Service Banners

#### EAZ0077L07A VERUS® PRO Service Banner

- Shows customers your shop is equipped with the latest diagnostic and information technology to do the job right the first time
- Big, bright, full-color 8' L x 2' H shop banner
- Durable, heavy 15 oz. ultra-flex vinyl with reinforced grommets for easy hanging

#### EAZ0079L11A MODIS Ultra Service Banner

- MODIS Ultra Service Banner
- Show customers your shop is equipped with the latest diagnostic and information technology to do the job right the first time
- Big, bright, full-color 8' L x 2' H shop banner
- Durable, heavy 15 oz. ultra-flex vinyl with six reinforced grommets make it easy to display

### Scan Tool Accessories

#### EESP327E VERUS® PRO European Vehicle Software Activation

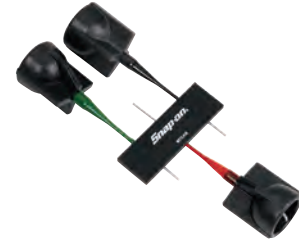
- Comprehensive OEM specific coverage is critical for servicing European makes, from fault codes and data for dozens of vehicle systems, to functional tests, relearns and adaptations for vehicles with those features
- Coverage for Audi®, BMW®, FIAT®, Jaguar®, Land Rover®, Mercedes®, MINI®, SMART®, Volvo® and Volkswagen® vehicles as far back as 1992
- EAK0301B07B European Adaptor Kit available separately for use with EESP327E European Vehicle Software Activation
- See your Snap-on representative

### Scope and Meter Accessories

#### Adaptors and Pick-ups

##### MTTL430 Backprobe Adaptors (3 pack)

- Bendable stainless steel tips for easy insertion into terminal connectors
- Three ID boot colors for quick circuit identification
- Premium component construction – stainless steel tips, high temp composite and boot materials for long, reliable life
- Textured composite body for good grip
- Recessed loop ends for fast and reliable connection using alligator clips, grabbers or hook connections
- Removable boots enable custom color selections or restoring color to tired and dirty used boots with the MTTLBOOTS multi pack of boots
- Portable storage strip holds all three probes



MTTL430

### Storage



VERUSPFOAM3



MODISUFOAM3



SOLVANUFOAM3



VERUSPFOAM4



MODISUFOAM4



SOLVANUFOAM4

#### Custom Fit Foam Organizers

- Custom-fit four-piece set of rigid foam inserts provides total organization for your tool and accessories so you always know where to find them
- Turn your tool cart into a high-end mobile diagnostic workstation
- Keep your diagnostic power locked, loaded and always at the ready
- Keep your valuable diagnostic investment clean, organized, secure and protected
- Dedicated locations for standard accessories, plus optional accessories like scan adaptors, scope accessories, ignition adaptors, amp probe and more

Foam Set	Diagnostic Platform Used On	Roll Carts Used On
VERUSPFOAM3	VERUS Pro	KRSC30/31/32/33 series
VERUSPFOAM4	VERUS Pro	KRSC40/46 Series
MODISUFOAM3	MODUS™ Ultra	KRSC30/31/32/33 series
MODISUFOAM4	MODUS Ultra	KRSC40/46 Series
SOLVANUFOAM3	SOLUS® Ultra/VANTAGE Ultra	KRSC30/31/32/33 series
SOLVANUFOAM4	SOLUS Ultra/VANTAGE Ultra	KRSC40/46 Series



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

# HAND HELD DIAGNOSTICS

## Storage



EAK0313L05A

### EAK0313L05A Compact Tote Case

- Provides protection and portability in the shop or on the road
- Compact 12.5" x 10" x 3" size holds diagnostic tool and some accessories
- Reinforced semi-rigid case with padded sides for protection of valuable diagnostic tools
- Tough polyester fabric with hook-and-loop straps inside to secure your tools and accessories
- Bold embroidered Snap-on® logo shows you work with Snap-on quality tools
- Elastic net compartment for small accessories
- Zippered on three sides so case opens flat for easy access
- Sturdy sewn-in handle with molded comfort grip
- Accommodates any SOLUS®-series, ETHOS®-series or VANTAGE®-series diagnostic tools



EAK0312L19A

### EAK0312L19A Padded Carry Case

- Provides protection and portability in the shop or on the road
- Reinforced semi-rigid nylon case with padded sides for protection of valuable diagnostic tools
- Three padded compartments for your Snap-on diagnostic tools, plus two elastic net compartments for accessories
- Zippered on three sides so case opens flat for easy access
- Generous 14" x 19" x 4" size holds diagnostic tool and many accessories
- Sturdy sewn-in handle and embroidered Snap-on logo
- Accommodates VERUS® PRO, VERDICT®, SOLUS-series, ETHOS-series, VANTAGE series

## OBD II Scan Tools

### MICROSCAN® III OBD-II Scan Tool

#### EESC720 MICROSCAN III OBD-II Scanner

- Read and clear OBD-II codes and display live data parameters on all makes of 1996–newer vehicles in under 30 seconds
- Covers enhanced engine codes for diagnostic depth on most GM®, Ford® and Chrysler® vehicles
- Read and clear ABS codes on select GM, Ford and Chrysler vehicles
- Graphing display compares three live-data parameters on screen at once to see cause-and-effect of vehicle faults
- Big 4" touchscreen for fast navigation; shows detailed results with clarity
- Exclusive built-in code tip database shows possible causes of engine fault codes
- Covers all ten modes of OBD-II: read codes, clear codes, reset the MIL, view current data, emissions readiness, onboard monitors, ECU information, pending codes and more
- No batteries required – powers from vehicle; simply connect MICROSCAN III to a vehicle for automatic boot-up



EESC720

- Create custom data lists. Record, save, play back data and screen images for reference
- Built-in choice of software language – English, Espanol, Francais
- Includes: MICROSCAN III Scan Tool, 5' data cable with OBD-II connector, USB cable and quick-start guide



EAK0302L03A

#### EAK0302L03A MICROSCAN III OBD-1 Adaptor Kit

- Connect MICROSCAN III to pre-1996 GM, Ford, Chrysler and Toyota® vehicles
- OBD-I adaptors are compatible with vehicles as far back as 1983
- Includes OBD-I data cable, DC power cable and Ford 1B, Chrysler 1, GM 1, Toyota 1 and Toyota 2 adaptors
- Note: For MICROSCAN III only. Not compatible with Snap-on brand scan tools

### Pocket iQ™ Heavy Duty Scan Tool

#### EEHD183030S Pocket iQ EOBD Heavy Duty Scan Tool

- The *Pocket iQ* is a generic scan tool for all commercial vehicles from light duty to class 8 trucks
- The *Pocket iQ* provides the following support for:
  - Medium and heavy duty trucks
  - J1708 and Expanded J1939 heavy duty standard
  - EOBD engine and fault-code data for light to heavy duty trucks
  - Light duty trucks OBD II
- Medium and heavy duty truck – the *Pocket iQ* reads active fault codes, reads and clears inactive fault codes, and monitors EOBD engine data, J1708 and J1939 engine, brake, VECU, body controllers and transmission data
- Light duty truck – reads active fault codes, reads and clears inactive fault codes, and monitors OBD II engine data
- Reporting tools – enables technicians to save vehicle diagnostic and fleet performance information on the device in a PDF or text format. Once saved, the reports can be printed from the *Pocket iQ* to a standard PCL3 printer or transferred to a memory stick (stick sold separately)
- Upgradeable – The *Pocket iQ* USB port allows for future updates/ upgrades and provides the ability to download reports to your memory stick
- The EEHD183030S includes EOBD support which is needed to read fault codes on 2012 and newer vehicles sold in North America
  - This support allows user to read additional data and faults on vehicles such as Volvo®, Mack®, Paccar®, Kenworth®, Peterbilt®, Nissan® and other vehicles
  - This is an expanded OBD system that is being used on vehicles now featuring a new protocol set based on European on-board diagnostics
- The *Pocket iQ* heavy duty standard-suite upgrade provides the functions necessary to diagnose J1708 and J1939 EPA 07 and newer electronic controlled engines
  - This updated information fault code data and support has been expanded for engine, transmission, ABS, VECU, instrument cluster, emissions SCR and vehicle body systems
  - In addition, the heavy duty standard suite upgrade provides OBD II/EOBD support for medium and heavy duty vehicles
  - Includes enhanced J1939 and OBD II/EOBD support provides read-only information for the following modules: Eaton®, Mack, Meritor WABCO®, Navistar – International®, Volvo, ZF Meritor®, Bendix®, Caterpillar®, Cummins® and Detroit Diesel® Trucks

#### Basic Functions

- Provides J1587, J1939, and OBD II/EOBD data
- Reads and clears active and inactive fault codes
- Displays trip data
- Collects and stores vehicle data from multiple vehicles
- Checks engine speed/load, pressures, temperatures and other data



EEHD183030S

- Displays freeze frame data and newly enhanced coverage for heavy duty truck engines:
  - 2008 to 2013 PACCAR MX®
  - 2013 to 2014 Volvo medium duty engines
  - 2011 to 2014 Hino®
  - 2011 to 2013 Fuso®
  - 2010 to 2013 Isuzu®
  - 2011 to 2013 UD® light duty engines (Canada only)
  - 2006 to 2013 GM®
  - 2003 to 2013 Ford®
  - 2007 to 2013 Chrysler® trucks
- If you currently own the heavy duty standard application or EEHD181030S *Pocket iQ*, you can purchase the EEHD893000U upgrade kit to obtain access to new features and support

#### EEHD183030S Includes:

- EEHD181030PB Soft case for *Pocket iQ*
- EEHD501002 Power and data cable
- EEHD488024 6-pin Deutsch adaptor
- EEHD482028 9-pin Deutsch adaptor
- EEHD481013 OBDII adaptor
- EEHD403098 USB cable
- EEHD481090 AC/DC adaptor, 1.5A 12V
- EEHD181030 2 Battery pack



**WARNING**



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

# HAND HELD DIAGNOSTICS

## Heavy Duty Vehicle Diagnostics



### Pocket iQ™ Software

#### EEHD692020 Tractor-Trailer ABS Software Kit

- Software allows user to interface with the tractor ABS, trailer ABS and the PLC
- Reads current and historic fault codes
- Reads current brake data
- Clears current and historic fault codes
- Tests the tractor-trailer interface
- Automatically detects and reads the OEM's ECU brake system configuration
- Actuates modulators and valves
- Cycles brake retarder relays
- Tests wheel sensors and traction disabling
- Reads the trailer ECU data (odometer, trip odometer)
- Tests the trailer "ABS Warning" lamp
- Checks battery voltage to the trailer
- Includes EEHD602020 PLC adaptor

#### EEHD693004 Pocket iQ All-Engines Software Suite

- Includes the *Pocket iQ* scan tool, EEHD639010SO International®/Navistar® engine software, EEHD693015SO DDEC engine software and EEHD693024SO Caterpillar® engine software
- Technical Support: 1-800-639-6774

#### EEHD693004SO Pocket iQ All-Engines Software Suite

- Includes the EEHD639010SO *International/Navistar* engine software, EEHD693015SO DDEC engine software and EEHD693024SO *Caterpillar* engine software
- Does not include the *Pocket iQ* scan tool
- Software only
- Technical Support: 1-800-639-6774

#### EEHD693024 Pocket iQ Lite Application for Caterpillar Engines

- The CAT® Lite software brings proprietary information and support for the ACERT® 2002–2009 and electronic engines 1990–2002
- Read proprietary data and fault codes on *CAT* electronic engines and *CAT ACERT* engines
- Program idle shutdown parameters
- Program min/max vehicle speed limits
- Cylinder cutout for cylinder poor-performance identification
- Read, save and clear fault codes
- Read and save vehicle-trip information
- Read live vehicle data
- Create vehicle health reports
- Technical Support: 1-800-639-6774
- Includes the *Pocket iQ* Scan Tool
- Optional accessories
  - EEHD401015 9-pin Deutsch adaptor for *Caterpillar* engines
  - EEHD401014 9-pin T-adaptor for *Caterpillar* engines

#### EEHD693024SO Pocket iQ Lite Application for Caterpillar Engines

- Same as EEHD693024 but does not include the *Pocket iQ* scan tool
- Software only

#### EEHD693010 Pocket iQ Lite Application for International/Navistar Engines

- Support for the *International* 1,2,3 box engines 1994–2006 and *Navistar MaxxForce*® engines 2007–2012
- Read proprietary data and fault codes on *International/Navistar MaxxForce* engines
- Program idle shutdown parameters
- Program min/max vehicle speed limits
- Cylinder cutout for cylinder poor-performance identification
- DPF Regen for cleaning of the diesel particulate filter on *MaxxForce* engines
- Read, save and clear fault codes
- Read and save vehicle-trip information
- Read live vehicle data
- Create vehicle health reports
- Technical Support: 1-800-639-6774
- Includes the *Pocket iQ* scan tool

#### EEHD693010SO Pocket iQ Lite Application for International/Navistar Engines

- Same as EEHD693010 but does not include the *Pocket iQ* scan tool
- Software only

#### EEHD693013 Pocket iQ Lite Application for DDEC Engines

- Support for DDEC MBE (900,4000) 2001–2006, DDEC II, III, IV and V engines 1989–2006
- Read proprietary data and fault codes on DDEC engines
- Program idle shutdown time
- Enable and disable idle shutdown timer
- Program max vehicle road speed limits
- Program min and max cruise control MPH
- Cylinder cutout for cylinder poor-performance identification on DDEC engines
- DPF Regen for cleaning of the diesel particulate filter for DDEC engines
- DDEC MBE (900,4000) DDEC II, III, IV and V engines
- Technical Support: 1-800-639-6774
- Includes the *Pocket iQ* scan tool

#### EEHD693015SO Pocket iQ Lite Application for DDEC Engines

- Same as EEHD693013 but does not include the *Pocket iQ* scan tool
- Software only

### EEHD892021 Tractor-Trailer

#### ABS Software

- EEHD892021 ABS Suite Coverage
  - Bendix® ABS system
  - Meritor® WABCO® Air and Hydraulic ABS system
  - Wabash National® MBS-1P and MBS-2 ABS system
  - Eaton® GEN4 and GEN5 ABS system
  - Haldex® PLC, PLC Plus, PLC Select ABS system
- Connects to tractors/trailers utilizing SAE J1587/J1708 communication protocol
- Works with either 24V or 12V systems
- Supports PLC
- To install the software, go to: [prolinkiq.nexiq.com](http://prolinkiq.nexiq.com)
- Technical Support: 1-800-639-6774
- Required item
  - This brake software is for the: Pocket iQ® EEHD181030S or EEHD183030S (Sold Separately)
- Optional item
  - When a tractor is unavailable to power a trailer for diagnosis, connect to a battery with the EEHD421001 J560 PLC cable



EEHD683004

### EEHD893000U HDS OBD-II/EOBD Software Update

- Heavy duty standard suite upgrade provides the functions necessary to diagnose J1708 and J1939 EPA 2007 and newer electronic controlled engines
- Provides J1587, J1939, and OBD-II/EOBD data
- Reads and clears active and inactive fault codes
- Displays trip data
- Collects and stores vehicle data from multiple vehicles
- Checks engine speed/load, pressures, temperatures and other data
- Displays freeze frame data
- Technical Support: 1-800-639-6774
- Provides read-only information for the following manufacturers:
  - Eaton, Mack®, Meritor® WABCO, Navistar® – International®, Volvo® ZF Meritor, Bendix, Caterpillar®, Cummins®, Detroit Diesel® Engines
  - 2008–2013 PACCAR MX®
  - 2013–2014 Volvo heavy duty engines
  - 2011–2013 Hino®
  - 2011–13 Fuso®
  - 2010–2013 Isuzu®
  - 2011–2013 UD® medium duty engines
  - 2006–2013 GM®
  - 2003–2013 Ford®
  - 2007–2013 Chrysler® light duty engines (Canada only)
- Optional Accessories
  - EEHD483023 EOBD Adaptor Volvo/Mack US 13 Engines
  - EEHD481013 OBD II Adaptor

### Pro-Link® iQ™ Extreme Diagnostic Kit

#### EEHD683004 Extreme Heavy Duty Pro-Link iQ Kit

Smarter. Easier. Essential. The recognized standard in diagnostic scan tools. This kit includes all current available software for diagnostics, the most common adaptors, the fault code guide and includes the hardened case to protect your investment.

#### Key Functions and Features:

- Large, sharp color graphics
- Information clearly displayed
- Fast data downloads
- Portable and powerful
- One-year warranty
- Technical Support: 1-800-639-6774

#### EEHD683004 Included Components and Accessories:

- EEHD188001 Pro-Link iQ scan tool
- EEHD481009 HD/1962 GM Truck for GM truck CAT® engine adaptor
- EEHD488028 9-pin Deutsch adaptor
- EEHD488024 6-pin Deutsch adaptor
- EEHD481013 OBD-II/J1962 adaptor
- EEHD481003 12-pin connector
- EEHD501002 power and data cable
- EEHD488099 110V power adaptor
- EEHD219006 Extreme heavy duty case
- EEHD4001018 2-cell battery pack
- EEHD1402813 Stylus pen (one in kit)
- EEHD909008 Heavy duty fault code guide
- EEHD602020 PLC adaptor

#### EEHD683004 Included Software:

- EEHD883076U EOBD update
- EEHD883007 J1939 update
- EEHD889015 for DDEC VI software (2007–2009) for Detroit Diesel electronic systems

- EEHD888015 For DDEC software suite – DDEC III, IV and V (1995–2006) for Detroit Diesel electronic controls
  - EEHD889031 for Detroit Diesel MBE engines (Pre-EPA07)
  - EEHD880024 for Caterpillar ACERT® 2.0 (2003–2009) for diesel engines
  - EEHD889024 for CAT electronic engines (1990–2003)
  - EEHD883005 Allison® software suite – GEN IV, 1K/2K, 3K/4K, CEC1 for Allison engines
  - EEHD888014 suite for air and hydraulic diagnostic systems for WABCO engines
  - EEHD881048 LMT software – enhanced for Ford, GM and Isuzu vehicles
  - EEHD880010 International engines software 2.0 (1994–2006) for International engines
  - EEHD883009 for Navistar MaxxForce (2007–2013) diesel engines
  - EEHD889013 for Bendix air ABS systems
  - EEHD882021 trailer brakes (Eaton, Wabash®, Haldex trailer ABS) brakes
- EEHD683004 Optional Accessories:**
- EEHD401015 9-pin adaptor for CAT engines
  - EEHD4001019 4-cell battery pack
  - EEHD1402813 Stylus pen (six pack)



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

# HAND HELD DIAGNOSTICS

## Heavy Duty Vehicle Diagnostics



### iQ™ Software/Engine Applications

#### EEHD883015 Detroit Diesel® DDEC Suite II, III, IV, V Engine Software

- The Pro-Link® iQ Detroit Diesel Engines Application provides reprogramming and diagnostic capability for DDEC II, III, IV and V electronic systems (1989–2006)
- Easy to use and portable
- No interface cable setup
- Read, save and clear fault codes
- Read and save vehicle trip information
- Read live engine data
- Create vehicle health reports
- Read proprietary data and fault codes on DDEC engines
- Recalibrate EGR differential pressure sensor
- Activate digital outputs
- Activate PWM outputs
- Cylinder cutout
- ECM inputs
- ECM outputs
- Technical Support: 1-800-639-6774

#### EEHD883009 Navistar® MaxxForce® Engine Software Update (2009–2012)

- Provides diagnostic and testing capability for EPA 2007 and EPA 2010 vehicles plus 2009–2012 Navistar MaxxForce electronic engines and MaxxForce Big Bore engines
- New support coverage for Big Bore 11, 13, and 15L engines
- Diagnostic functionality
  - Read and clear fault codes
  - Perform OEM special test
  - Calibrate programmable parameters
- Buy new or update your existing Navistar MaxxForce engine suite
- Technical Support: 1-800-639-6774

#### EEHD883009U Navistar MaxxForce Engine Software Update (2009–2012)

- Updates previous EEHD881009 Navistar MaxxForce engine software to EEHD883005 standard
- Provides diagnostic and testing capability for EPA 2007 and EPA 2010 vehicles plus 2009–2012 Navistar MaxxForce electronic engines and MaxxForce Big Bore engines
- New support coverage for Big Bore 11, 13, and 15L engines
- Diagnostic functionality
  - Read and clear fault codes
  - Perform OEM special test
  - Calibrate programmable parameters
- Buy new or update your existing Navistar MaxxForce Engine suite
- Technical Support: 1-800-639-6774

#### EEHD883076U OBD II Software Application

- The Pro-Link iQ OBD II scanner and EOBD software application provides engine emission–related diagnostic capability for a wide range of light, medium and heavy duty trucks
- With the combined power of easy-to-use Pro-Link iQ scanner and functionality of the OBD II and EOBD software application, service bay technicians experience unprecedented out-of-the-box productivity
- Timely updates are available online to ensure the latest versions are always available
- Read fault codes
  - Clear fault codes
  - View engine data
  - Display freeze frame data
- Technical Support: 1-800-639-6774

#### Optional Accessories

- EEHD483023 OBD II Adapter
- EEHD481013 EOBD Adapter for Volvo®/Mack® engines US 13

### iQ Software/Transmission Applications

#### EEHD883005 Allison® Transmission Suite

- Provides diagnostic and testing capability for Allison GEN 3 and 4 (1K/2K/3K/4K) transmissions as well as WTEC and CEC 1 transmissions
- Reduces training required for set-up and/or software usage
- Basic functions
  - Read, clear and view fault codes
- Buy new or update your existing Allison transmission suite
- Technical Support: 1-800-639-6774

#### EEHD883005U Allison Transmission Suite Software Update

- Updates previous EEHD888005 Allison transmission suite software to EEHD883005 standard
- Provides diagnostic and testing capability for Allison GEN 3 and 4 (1K/2K/3K/4K) transmissions as well as WTEC and CEC 1 transmissions
- Reduces training required for set-up and/or software usage
- Basic Functions
  - Read, clear and view fault codes
- Buy new or update your existing Allison transmission suite
- Technical Support: 1-800-639-6774



### iQ™ Software/Heavy Duty ABS Applications

- Software allows user to interface with the tractor ABS, trailer ABS and trailer PLC
- Reads current and historic fault codes
- Reads current brake data
- Clears current and historic fault codes
- Tests the tractor-trailer interface
- Automatically detects and reads the OEM's ECU brake-system configuration
- Actuates modulators and valves
- Cycles brake-retarder relays
- Tests wheel sensors and traction disabling
- Reads the trailer ECU data (odometer, trip odometer)
- Tests the trailer "ABS warning" lamp
- Checks battery voltage to the trailer



#### EEHD882021 Tractor-Trailer ABS Software

- EEHD882021 ABS Suite Coverage
  - Wabash National® MBS-1P and MBS-2 ABS system
  - Eaton® GEN4 and GEN5 ABS system
  - Haldex® PLC, PLC Plus, PLC Select ABS system
- Connects to tractors/trailers utilizing SAE J1587/J1708 communication protocol
- Works with either 24V or 12V systems
- Supports PLC
- To install the software, go to: [prolinkiq.nexiq.com](http://prolinkiq.nexiq.com)
- Technical Support: 1-800-639-6774
- Required Item
  - This brake software is for the: Pro-Link® iQ EEHD188001 diagnostic scan tool (sold separately)
- Optional Item
  - When a tractor is unavailable to power a trailer for diagnosis, connect to a battery with the EEHD421001 J560 PLC cable

#### EEHD682021 Tractor-Trailer ABS Software Kit

EEHD682021 Tractor-trailer ABS kit includes EEHD882021 ABS software suite and EEHD602020 J560 PLC adaptor.

#### EEHD682014 Tractor-Trailer ABS Software Suite

EEHD682014 Tractor-trailer ABS software suite includes EEHD882021 ABS software suite, EEHD888014 for Meritor Wabco® air and hydraulic brake systems software and EEHD889013 Bendix® ABS software for Bendix brake system.

#### EEHD682020 Complete Tractor-Trailer ABS Software Kit

EEHD682020 Complete tractor-trailer ABS Kit includes EEHD882021 ABS software suite, EEHD88801 for Meritor Wabco air and hydraulic software, EEHD889013 ABS software for Bendix brake systems and EEHD602020 J560 PLC adaptor.

### iQ Software/Heavy Duty Standard Applications

#### Heavy Duty Standard Software, J1939 (2007–current)

Snap-on offers Heavy Duty Standard (HDS) generic applications covering engines, transmissions and brakes that provide access to limited, nonproprietary diagnostic information

- Provides the information necessary to diagnose most SAE J1939 EPA 2007 and newer electronic-controlled engines
- Also provides enhanced module support, including transmission, brakes, VECU, body controller, instrument cluster and emissions (SCR)
- Provides read-only information for medium and heavy duty engines supporting J1939 for diagnostics

#### Basic Functions

- Read active fault codes
- Read and clear inactive fault codes (will not clear codes on Caterpillar® electronic engines)
- Read DPF fault codes
- View non-proprietary parameters

#### EEHD883007 Heavy Duty Standard Software, J1939 (2007–current)

#### EEHD883007U HD Update Kit:

- Use if you currently own the HDS J1939 application. Purchase of software update will allow access to new features and support
- Technical Support: 1-800-639-6774

### Adaptors, Cables and Accessories for Pro-Link iQ Diagnostic scan tool

#### EEHD602020 PLC Adaptor

J560 PLC adaptor

#### EEHD482028 9 Pin Deutsch Adaptor

9-Pin Deutsch adaptor for Pocket iQ™ or EEHD188001 Pro-Link iQ



EEHD602020



EEHD482028



- Do not operate in environment with explosive vapor
- Read safety precautions on pages W1 to W4

## Videoscopes



BK6500

### BK6500 Video/Still Recording Digital Borescope

- For enhanced viewing, a 4.3" (109mm) diagonal LCD screen – 40% larger viewing area than previous model
- Confirm mechanical problems before disassembly
- Dual-imager lenses: straight ahead and 90° angle
- Imager length: 36" (914mm)
- Touchscreen interface enables easy feature selection
- Store the digital video image to internal memory or to an SD card
- Rechargeable lithium battery
- USB port to transfer data
- Two year warranty – serviced through Snap-on Repair Centers
- CE – DE, ES, FR, IT, GB, NL



BK5600

### BK5600 True Digital Video Inspection Scope

- 4.3" diagonal screen vs. 2.4" diagonal screen of original BK5500 for even better viewing
- Digital still image capture with included SD card storage
- Includes 36" digital imager with 8.5mm diameter head
- Uses six AA alkaline batteries
- Touchscreen interface enables easy feature selection
- 90° glass-mirror and magnet-retrieval accessories included
- Includes storage tray – keep in your tool storage drawer for security
- Two year warranty – serviced through Snap-on Repair Centers
- CE – DE, ES, FR, IT, GB, NL



BK8000

### BK8000 Wireless Digital Videoscope

- 4.3" diagonal screen is 23% larger for even better viewing
- Digital video and image capture with internal memory as well as SD card storage
- 36" dual imager is included – see straight ahead or at a 90° angle
- Wireless 802.11n provides clear image transmission
- Rechargeable lithium batteries in both the viewer and imager
- Three megapixel rear-view camera allows technician to document pre-service vehicle condition
- Touchscreen interface enables easy feature selection
- USB port for mass storage
- Includes blow-molded case
- Two year warranty – serviced through Snap-on Repair Centers
- CE – DE, ES, FR, GB, IT, NL
- BK5500, BK5500W and BK6000 imagers are not compatible with BK8000 units

Stock No.	BK6500	BK5600	BK8000
<b>Power Supply</b>	3.7V Li-ion, 2600 mAh 9.6 watt hour battery	6 AA Alkaline Batteries	(2) 3.7V Li-ion, 2600 mAh 9.6 watt hour battery
<b>Width, inches (mm)</b>	Viewer: 1.77 (45)	Viewer: 1.77 (45)	Viewer: 1.77 (45)
<b>Length, inches (mm)</b>	Viewer: 7.2 (180); Imager: 36 (0.91)	Viewer: 7.2 (180); Imager: 36 (0.91)	Viewer: 7.2 (180); Imager: 36 (0.91)
<b>Height, inches (mm)</b>	Viewer: 3.94 (100)	Viewer: 3.94 (100)	Viewer: 3.94 (100)
<b>Resolution (Reading Display)</b>	480 x 272 RGB Backlight LED	480 x 272 RGB Backlight LED	480 x 272 RGB Backlight LED
<b>Video Out</b>	NTSC/PAL	NTSC/PAL	NTSC/PAL
<b>Run Time (hours)</b>	3–4 hours on full charge	Alkaline Batteries: 4; NiMH Rechargeable Batteries: 6	3–4 hours on full charge
<b>Operating Temperature Range</b>	32 to 140 °F (0 to 60 °C)	32 to 140 °F (0 to 60 °C)	32 to 140 °F (0 to 60 °C)
<b>Storage Temperature</b>	-4 to 140 °F (-20 to 60 °C)	-4 to 140 °F (-20 to 60 °C)	-4 to 140 °F (-20 to 60 °C)
<b>Field of View, Forward</b>	approx. 56° diagonal	approx. 56° diagonal	approx. 56° diagonal
<b>Field of View, Side</b>	approx. 56° diagonal	approx. 56° diagonal	approx. 56° diagonal
<b>Resolution</b>	Imager: 640 x 480	Imager: 640 x 480	Imager: 640 x 480
<b>Optimal Focal Range</b>	0.5" to 12" (12 cm to 30.5 cm)	0.5" to 12" (12 cm to 30.5 cm)	0.5" to 12" (12 cm to 30.5 cm)
<b>Water Resistance</b>	Imager only when assembled: to a depth of 10' (3 m)	Imager only when assembled: to a depth of 10' (3 m)	Imager only when assembled: to a depth of 10' (3 m)



**BK8000-55**



**BK5500-38-1**

**BK8000-55 Dual View Imager, 5.5mm Diameter**  
**BK8000-56 Dual View Imager, 5.5mm Diameter**

- 5.5mm imagers get into much tighter spaces than standard 8.5mm
- Dual-view digital cameras see straight ahead or at a 90° angle
- No need for additional mirror attachment, nothing to fall off the imager
- Close focus provides incredible detail
- Imagers are resistant to all common automotive chemicals
- Two year warranty for added purchase security
- CE – DE, ES, FR, IT, GB, NL, JP

**BK5500-38-1 Forward View Imager, 3.8mm Diameter**  
**BK5500-38-2 Side View Imager, 3.8mm Diameter**

- Analog sensor technology provides small package size to access the smallest port sizes
- Forward view Imager allows the user to see combustion cup of piston
- Side-view imager allows the user to see the cylinder wall and valves
- 3.8mm outside diameter fits most glow plug ports
- Imagers are resistant to all common automotive chemicals
- Two year warranty for added purchase security

Stock No.	BK8000-55/BK8000-56	BK5500-38-1/BK5500-38-2
<b>Description (Chart)</b>	BK8000-55: Forward/Side View Imager (5.5mm head) BK8000-56: Forward/Side View Imager (5.5mm head)	BK5500-38-1: Forward View Imager (3.8mm head) BK5500-38-2: Side View Imager (3.8mm head)
<b>Power Supply</b>	100 mA	100 mA
<b>Width, inches (mm)</b>	.2165 (5.5)	.1496 (3.8)
<b>Length, inches (mm)</b>	BK8000-55: 36 (914) BK8000-56: 79 (2,006)	36 (914) —
<b>Operating Temperature Range</b>	32 to 113 °F (0 to 45 °C)	32 to 113 °F (0 to 45 °C)
<b>Storage Temperature</b>	-4 to 158 °F (-20 to 70 °C)	-4 to 158 °F (-20 to 70 °C)
<b>Optimal Focal Range</b>	1 to 12" (2.5 to 30cm)	1 to 12" (2.5 to 30cm)
<b>Water Resistance</b>	Imager to a depth of 10' (3m)	Imager to a depth of 10' (3m)
<b>Lighting Description: Forward View</b>	4 mini-LEDs with custom ring light pipe	3 mini-LEDs with custom ring light pipe
<b>Lighting Description: Side View</b>	Single LED with custom light pipe	2 super bright LEDs with custom light pipe
<b>Weight, lb. (kg)</b>	BK8000-55: 0.5 (0.227) BK8000-56: .75 (0.340)	0.14 (0.07) —
<b>Maximum Light Output: Forward View</b>	300 Lux at at 1" (open air dissipation)	300 Lux at at 1" (open air dissipation)
<b>Maximum Light Output: Side View</b>	2,400 Lux at 1" (open air dissipation)	2,400 Lux at 1" (open air dissipation)
<b>Maximum Bend Radius</b>	3/4" (19.05mm)	3/4" (19.05mm)
<b>Humidity</b>	5 to 100% non-condensing	5 to 100% non-condensing
<b>Use on</b>	<b>BK8000, BK6500, BK5600</b>	<b>BK5500, BK5500W, BK6000</b>

## Digital Multimeter Accessories

### Backprobe Kit (For Digital Multimeters)

- Just slip the probing pin into the backside of the electrical connector and attach the meter lead to the alligator clip at opposite end of the pin
- Five colors (black, red, yellow, green, blue) make circuit identification easy
- Each color-coded group of pins contains four pins for multiple simultaneous test points
- Sharp pin point easily pierces the wire insulation, if needed
- Insulated boots protect the circuit being tested from shorting between circuits and/or a short circuit to ground
- The probing pin can be bent to access an electrical connector at unusual angle for awkward connections
- Compact size makes the pins easy to fit in tight spots

#### MTTL720 Backprobe Pin Kit

#### MTTLB720 Multi-Backprobe Pin Kit

Includes: Five 45° sharp, five 45° blunt, five 90° sharp, five straight sharp



**MTTL720**



**MTTLB720**



- Do not use in an environment with explosive vapor
- Read safety precautions on pages W1 to W4

# TESTING AND ELECTRONICS

## Circuit Testers



EECT400

### EECT400 Digital Display Circuit Tester

- Used to detect voltage, power, ground and circuit integrity
- LCD display provides a “no-guess” voltage value of the circuit
- Backlit LED indicates green for ground or red for power
- Provides one-handed operation of circuit tester and close up of digital display of a multimeter
- One hand free to jiggle wires, replace fuse or operate a switch
- Surge protected circuitry displays 3 to 19.99V DC ( $\pm 0.3V$  accuracy)
- Computer safe <10mA circuit draw for confident testing (Do not use on airbags)
- 3 1/2" stainless-steel corrosion-free shank
- Patented Instinct® clear handle for pure visibility, style and comfort
- Solid copper clip – superior quality component for maximum electrical signal transfer
- Terminal screw connection – ensures a positive electrical signal and easy field repair
- Superior flex wire – glides past components and remains flexible in cold conditions
- Convenient field replaceable – digital display board and spring assembly
- Molded contact and finger-turn strain relief are tough
- O-ring sealed moisture-free connection for longer life
- Technical support: 1-888-382-6522
- CE – DE, ES, FR, IT, GB, NL



EECT74

### Specialty Circuit Tester

#### EECT74 Amp Hound

- Use on 6V, 12V and 24V electrical systems
- No need to remove a fuse which reduces the amount of time to determine the current in the circuit
- Finding parasitic drains can now be done without removing a fuse or resetting the offending circuit
- No more – pull a fuse, check the meter, pull a fuse, check the meter – instead, check the complete fuse box quickly
- Will not short a circuit while the fuse is removed
- Convenient – touch the probes to the top of the fuse
- Versatile – tests all of the most common automotive fuses types and amp ranges
- Audible – tones lets you know when you are touching a fuse – no guesswork; makes working on under-the-dash fuse boxes simpler
- Intelligent audible tones and digital displays
  - Active circuit unit beeps 3x and displays amp value
  - Inactive circuit beeps continuously and displays (000)
  - Open or blown fuse will not beep and displays (- - -)

CE – DE, ES, FR, IT, GB, NL

Technical support: 1-800-537-1077

## Digital Display Circuit Tester

Specifications	EECT400
<b>Voltage</b>	6 and 12V DC
<b>Range</b>	3 to 19.9V DC
<b>Resolution</b>	0.1V DC
<b>Accuracy</b>	$\pm 0.3V$
<b>Cord Color</b>	Black
<b>Cord Type</b>	Straight Flexible Rubber
<b>Outside Wire Diameter, mm</b>	4.0mm (0.16")
<b>Cord Length, inches (extended)</b>	6' (2m)/18 gauge
<b>Replacement Cord Assembly</b>	<b>EECTCORD400</b>
<b>Replacement LED Spring Assembly/Color</b>	<b>EECT400LCD</b>
<b>Handle Style and Size</b>	Medium <i>Instinct</i> /Clear
<b>Display</b>	Backlit 2000 count LCD
<b>Polarity</b>	Bi-Directional
<b>Surge Protected</b>	Overload displays 1.0V, then resets
<b>Operating Temperature</b>	0°–120 °F (-18°–50 °C)
<b>Terminal End</b>	Heavy duty copper clip
<b>Replacement Clip</b>	<b>EECTCLIP</b>
<b>Boot</b>	<b>EECTBOOT</b>
<b>Stainless Steel Shank Length, inches</b>	3 1/2
<b>Length, inches (cm)</b>	8 1/4 (20.96)
<b>Weight, lb (kg)</b>	0.4 (0.18)
<b>Warranty</b>	1 Year-Field Repairable
<b>Computer Safe</b>	Yes – 10mA or less draw (Do not use on airbags)

CE

Specifications	EECT74
<b>Operating Voltage</b>	6V, 12V, 24V
<b>Amperage Range</b>	5mA to 50A
<b>Minimum Detectable Current</b>	5mA for 5A fuse, 50mA for 50A fuse
<b>Large Scale Resolution</b>	.1A (100mA)
<b>Small Scale Resolution</b>	.01A (10mA)
<b>Fuse Type/Range: Standard (ATC)</b>	5A, 7.5A, 10A, 15A, 20A, 25A, 30A
<b>Fuse Type/Range: Mini (ATM)</b>	5A, 7.5A, 10A, 15A, 20A, 25A, 30A
<b>Fuse Type/Range: Maxi</b>	30A, 40A, 50A
<b>Accuracy</b>	+/- 5% of display
<b>Batteries</b>	3 x AA Alkaline Battery (Not Included)
<b>Battery Life</b>	Approx. 500 hrs of continuous use
<b>Auto Shut-Off</b>	After approx. 10 minutes of inactivity
<b>Banana Jacks</b>	Standard 4mm safety-shrouded jacks
<b>Size</b>	5.5" x 3.5" x 1.5"
<b>Weight, lb</b>	0.5
<b>Operating Temperature</b>	20 °F–120 °F
<b>Test Leads</b>	36 1000V CATIII 10A
<b>Case</b>	Nylon Pouch

• Note for Fuse Type/Range specification: Fuse values that aren't listed may be measured with only minor increased accuracy error.

### 6V and 12V Circuit Testers

- Used to detect power and ground, also to find shorts and breaks
- Patented Instinct® handle for style and comfort
- Copper clip is a superior quality component for maximum electrical signal transfer

#### EECT3HL 6V and 12V Classic Bulb Style Circuit Tester

- Incandescent bulb brightness adjusts proportionately to circuit voltage; the higher the circuit voltage, the brighter the light
- Mini-handle and long reach shank improves accessibility in confined workspaces
- Molded internal contact for low-loss signal transmission
- Patented *Instinct* handle for style and comfort
- Copper clip: maximum electrical signal transfer
- Terminal screw connection: makes cord replacement easy and ensures a positive electrical signal connection
- Superior flex wire: glides past components and remains flexible in cold conditions
- Premium rubber boot material: stays flexible over its life and is replaceable if worn
- CE – DE, ES, FR, IT, GB, NL
- Technical Support: 1-888-382-6522



EECT3HL

#### EECT314H Multi-voltage Circuit Tester

- Used to detect power and ground from 12V to 42V
- When testing less than 26V only the BLUE LED will illuminate
- From 27V to 42V, both the RED LED and the BLUE LED will illuminate simultaneously
- Smart LED design has more brilliant light output and longer life than a traditional bulb
- Molded internal contact links with the LED assembly top dimple for low-loss signal transfer
- Low power consumption smart circuit design
- Patented *Instinct* handle for style and comfort
- Copper clip is a superior quality component for maximum electrical signal transfer
- Terminal screw connection makes cord replacement easy and ensures a positive electrical signal connection
- Superior flex wire glides past components and remains flexible in cold conditions
- Finger turn screw-on strain relief is easy on/off and provides flexible wire protection at the critical bending point and is O-ring sealed
- Convenient circuit board and spring assembly for quick install and positive contact



EECT314H

#### Diagnostic Tips:

1. If testing for power on a 36V or 42V system and only the BLUE LED illuminates, this indicates a power circuit with excessive resistance
2. If testing for ground on a 36V or 42V system and only the BLUE LED illuminates, this indicates a poor ground with excessive resistance
3. In both cases, test other locations in this circuit to pinpoint the source of resistance (frayed wire, corroded or loose terminal)

Specifications	EECT3HL	EECT314H
<b>Voltage</b>	6–12	12–42
<b>Cord Type/Color</b>	Straight Cord Mini/Black	Coiled Cord/Black
<b>Cord Material/Wire Gauge</b>	Rubber/18	PolyUrethane/18
<b>Outside Wire Diameter</b>	4.0mm	4.0mm
<b>Cord Length, inches (extended)</b>	70	125
<b>Replacement Cord Assembly</b>	EECTCORDBLM	EECTCORDBL
<b>Replacement LED and Spring Assembly</b>	2-5130 Bulb	EECT314HLED/Blue (12–17V), Red (18–42V)
<b>Handle Size/Color</b>	Mini <i>Instinct</i> /Clear	Medium <i>Instinct</i> /Clear
<b>Terminal End</b>	Heavy duty – copper clip	Heavy duty – copper clip
<b>Replacement Clip</b>	EECTCLIP	EECTCLIP
<b>Boot</b>	EECTBOOT	EECTBOOT
<b>Stainless Steel Shank Length, inches</b>	3 5/8	3 5/8



- Do not use in an environment with explosive vapor
- Do not use probe as a punch
- Read safety precautions on pages W1 to W4

## Leak Detectors



EELD100A

### Diagnostic Smoke Machine

#### EELD100A Diagnostic Smoke Machine (EVAP)

- Find leaks – contains Diagnostic Smoke technology for EVAP testing and general-purpose applications
- Necessity – eight of the top ten emission DTC codes can be diagnosed with this unit
- Patented UltraTraceUV® non-contaminating dye solution pinpoints leaks smoke alone cannot
- Smoke solution does not produce an unpleasant odor in the shop
- Combo LED and UV light in one, plus special glasses are included
- Variable flow control manually reduces flow to help pinpoint the exact location of a leak
- Conveniently functions with OEM specified nitrogen, portable CO<sub>2</sub> bottle or shop air
- OEM approved smoke technology
- Product support – two year warranty and once registered, technical support at 1-800-901-1988
- Unit ships with enough smoke solution to perform 200 tests
- Convenient hanger for under-car and under-hood use
- Light weight and compact, stores in large bottom roll cab drawer or hang with optional cover to protect from shop dirt
- CE – DE, ES, FR, IT, GB, NL

#### Patents

- Nitrogen patent #6,526,808
- Nitrogen with dye patent #6,439,031
- Dye patent #6,392,227

#### Standard Accessories (included with EELD100A)

- EELD500-1 8 oz. bottle *UltraTraceUV* dye solution
- EELD301A2 Assorted cap plug kit
- EELD301A3 Exhaust cone (1" to 3 1/2" Dia, 6")
- EELD301A4 Smoke diffuser
- EELD100-4 Combination UV light and glasses
- EELD302A2 EVAP service port fitting
- EELD302A4 Schrader removal/install tool
- EELD100A-Z User manual in seven languages

#### Optional Accessories

- EELD500C02 CO<sub>2</sub> bottle and regulator  
– Ships empty and needs to be filled at a hardware/sporting goods store
- EELD500CVR Protective cover
- EELD500-1 Additional 8 oz. bottle of solution
- EELDGASCAP Gas cap adaptor (3 pack)
- EELDGASBMW Gas cap adaptor for BMW® Vehicles
- EELD100A-3 Smoke hose extension with nozzle
- EELD100A-4 Tee connector with Delrin® nozzle

#### Applications

Air cleaner assembly, air ducts, air valves, cylinder heads, diaphragms, EGR valve, evap, exhaust manifolds, exhaust pipes and mufflers, fuel tank pressure sensor, intercooler, intake gaskets, injector O-rings, loose clamps, map sensors, mass air flow meter, oil leaks, PVC valve and hoses, throttle body shaft, turbos, vacuum hoses, vacuum switches, wind and water

Specifications	EELD100A
Line Length/Power Supply, ft.(m)	8 (2.44)
Line Length/Smoke Supply, ft.(m)	8 (2.44)
Max. Pressure Input	170 PSI
Overall Dimensions, inches (mm)	12 H x 13 D x 12 W (305 H x 229 D x 305 W)
Power Consumption	12V DC, 25A
Power Supply	12V DC
Supply Volume	10 L/MIN
Weight, lb. (kg)	11.5 (5.25)

## Infrared Thermometers

These infrared thermometers safely monitor hot, hazardous or hard-to-reach materials without contamination or damage to the surface. Simply point at target, pull the trigger and read the temperature on the large, backlit LCD display.

Applications include:

- Pinpointing radiator core restrictions
- Checking exhaust and emission-control problems
- Measuring catalytic converter temperatures
- Diagnosing exhaust manifolds for combustion problems
- Measuring tire temperatures
- Measuring race-track temperatures
- Measuring bearing, rotor, drum or brake temperatures for potential problems
- HVAC – use for temperature room balancing, check supply/return registers duct work, monitor steam traps, furnace performance plus use in energy audits
- Check bearing, rotor, brake and drum temperatures
- Food Safety: perform HACCP temperature measurements at receiving docks, take cooking temperatures, check hot and holding temperatures, ensure storage temperatures on freezers, ovens and ranges

### CTG761 Series Infrared Thermometer

- Ergonomic design features a comfort grip equally comfortable for both right- and left-handed users
- Widest temperature range of -58 °F to 1,832 °F
- Most advanced features of any professional IR gun
- Single-button trigger makes it effortless to control
- Powered by 14.4V micro lithium battery and charger – interchangeable with our new 7.2V cordless tools and eliminates the need for extra chargers and back-up batteries
- Optional contact k-type thermocouple probe, adds to the flexibility of measuring temperatures in confined spaces, including liquid temperatures
- Seven year warranty
- Accurate to  $\pm 2\%$  or  $\pm 2\text{ }^\circ\text{C}$  or  $\pm 3\text{ }^\circ\text{F}$  whichever is greater
- Dual laser pointer to indicate the edges of the temp circle
- High contrast large display is even visible in bright sunlight
- Adjustable emissivity from 0.3 to 1.00
- Record with min, max and continual scan
- CE – DE, ES, FR, IT, GB, NL, JP



CTG761

### CTG761DB Infrared Thermometer

- Same as CTG761 but does not include battery, charger or storage case

Features	CTG761
IR Range	-50 °C–1000 °C (-58 °F–1832 °F)
IR Resolution	< 1000 °C/F : 0.1 °C/0.1 °F > 1000 °C/F : 1 °C/1 °F
IR Accuracy	0 °C–560 °C : $\pm 2\%$ or 2 °C -18 °C–0 °C : 3 °C -50 °C– -18 °C : 5 °C 560 °C–1000 °C : $\pm 2\%$ $\pm 3\text{dig}$
IR Repeatability (+23 Ems=0.95)	$\pm 2\%$ or $\pm 2\text{ }^\circ\text{C}$
K Type Range (Thermocouple) (Optional)	-200 °C–1300 °C
K Type Range Resolution (Thermocouple) (Optional)	-99 °C/F–999 °C/F : 0.1 °C/F Other : 1 °C/F
K Type Accuracy (Thermocouple) (Optional)	0.5% of Reading $\pm 1\text{ }^\circ\text{C}$
Response Time	500 mSec
Spectral Response	7–14um
Display Hold	Last reading and operating mode display for 10 sec nominal upon trigger release
Emissivity	0.30 to 0.99 Adjustable
Alarm	Alarm On/Off and High/Low
Record	Rec/Max/Min
Ambient Operating Range	0 °C to 50 °C (32 °F to 120 °F)
Relative Humidity	10%–80% RH non-condensing
Storage Temperature	-10 °C to 70 °C (14 °F to 158 °F) without battery
Distance to Spot Size	12 : 1 (90% energy covered)
Battery Type	Snap-on® Battery Pack (Lithium ion) 7.2V/14.4V
Battery Life	About 30 hrs continuous use Laser and Back Light
Tool Only	CTG761DB

### RTEMP8 Multi-laser Infrared Thermometer

- Easy-to-read color screen
- Modes include: E, MAX, MIN, DIF, AVG, HAL and LAL
- Distance: Spot: 12:1
- Temperature range: -60 °C to 760 °C (-76 °F to 1,400 °F)
- Operating range: 0 °C to 50 °C (32 °F to 122 °F)
- Battery: AAA size (2)
- Battery life: minimum of seven hours continuous use with laser and 30 hours continuous use without laser
- Thermometer automatically shuts off if left idle for more than 60 seconds
- Accuracy:  $\pm 1\text{ }^\circ\text{C}$  ( $\pm 1.8\text{ }^\circ\text{F}$ )
- CE – DE, ES, FR, IT, GB, NL  
UL – JP



RTEMP8

### RTEMPB7 Infrared Thermometer

- Modes include: E, MAX, MIN, DIF and AVG
- Distance: Spot: 12:1
- Temperature range: -35 °C to 365 °C (-31 °F to 689 °F)
- Operating range: 0 °C to 50 °C (32 °F to 122 °F)
- Battery: AAA size (2)
- Battery life: typically lasts 18 hours; minimum of 14 hours (continuous use)
- CE – DE, ES, FR, IT, GB, NL  
UL – JP



RTEMPB7



- Do not use in an environment with explosive vapor
- Use only in well vented area
- Read safety precautions on pages W1 to W4

# FUEL AND ENGINE SYSTEMS

## Compression Gauge Sets and Adaptors



MT27D

### Cone-Type Compression Gauge

#### MT27D Cone-Type Compression Gauge

- Range from 0–300 psi, 0–2,100 kPa
- Cone seal is held firmly over plug hole, unit does not thread in
- Ideal for small gasoline engines, motorcycles, ATVs and snowmobiles

## Fuel Systems



EEDF502

### Test Kits

#### EEDF502 Fuel Pressure Test Set

- Developed with input from technicians on adaptor selection for 7.3L, 6.7L, 6.4L and 6.0L Ford® Power Stroke® engines
- 0–100 psi gauge and hose assembly
- Low-pressure diesel-fuel delivery testing (lift pump)
- Correct fuel delivery and dynamic fuel pressure are crucial to having a properly running engine
- Helps prevent a lean condition that may cause burning of injectors or scorched cylinders
- Convenient protective slide-lid case that will fit in a 4" drawer for easy tool access
- Technical Support: 1-866-713-6007

**EEDF502-1, EEDF502-2:** Mostly used on 7.3L and 6.4L engines

**EEDF502-3:** Used on some 7.3L engines

**EEDF502-4:** Primarily used on 6.0L engines

**EEDF502-5, EEDF502-6, EEFI5008:** Primarily used on 6.7L engines

**EEFI5008, EEFI5009:** 3/8" diameter lines

**EEFI5008, EEFI50012, EEFI50013:** 5/16" diameter lines



IPK1180

### Specialty Service Tools

#### IPK1180 Fuel Injector Puller

- Developed to allow easy removal of injectors on all BMW® vehicles with direct injection
- Compact size allows for easy attachment and removal of the hard-to-reach injectors of the twin turbo V8 (N63) engine, reducing service time
- Easy to install on inline V6 and V8 (N63) engines, simply screw the tool onto the top of the injector, then with one or two taps with the slider, the injector will come out easily
- Pays for itself after the first couple of uses



A227

#### A227 Fuel Pressure Sensor Socket, 27mm

- For removing and installing fuel pressure sensors from fuel injection fuel rails under the intake
- Manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- Snap-on® sockets using the Flank Drive® wrenching system grip fasteners on the flanks/flats increasing torque by 15–20%; prevents fastener from rounding and increases the life of the socket
- Socket has an enlarged bolt clearance to fit over the sensor connector where a regular 27mm socket will not work
- Overall length of socket is 2"

#### Designed for:

Buick® Allure®: 2010–2011

Buick Enclave®: 2009–2011

Buick Lacrosse®: 2010–2011

Cadillac® CTS®: 2007–2011

Cadillac STS®: 2007–2010

Chevrolet® Camaro®: 2010–2011

Chevrolet Cobalt®: 2008–2010

Chevrolet HHR®: 2008–2010

Chevrolet Traverse®: 2009–2011

GMC® Acadia®: 2009–2011

Pontiac® Solstice GXP: 2007–2009

Saturn® Outlook XE: 2009–2010

Saturn Outlook XR: 2009–2010

Saturn Sky Red Line: 2007–2010



FLR630

### Fuel Inlet and Fuel Filter Tool

#### FLR630 Fuel-Tank Lock-Ring Tool

- Remove/install plastic fuel-tank lock-rings without damage
- Channel design on body allows legs to adjust from 4" to 7 1/2" while keeping drive centered
- Compact design prevents the tool from hanging over the work area and hitting other parts
- For newer, smaller GM® vehicles and vehicles with traditional size rings



### Fuel Line Disconnect Tools

#### LDT3730 Fuel and A/C Line Disconnect Pliers, 3/8"

- Unique design provides extra leverage when disconnecting quick-connect couplings on A/C and fuel lines
- Works in conjunction with 5/16", 3/8" or 1/2" adaptors from the ACT1370 or LDT6 disconnect sets
- Pliers' forks have different sized openings so the tool can be turned around to fit single or two step collar designed connector lines
- Can also be used to reconnect stubborn lines or connections that are in hard-to-reach areas



LDT3730

### Disconnect Tools for Low Profile Jiffy-Tite® Fittings

#### LDTJT538 Low Profile Jiffy-Tite Disc, 3/8"

#### LDTJT512 Low Profile Jiffy-Tite Disc, 1/2"

#### LDTJT55830 Low Profile Jiffy-Tite Disc, 3/8"-30°

#### LDTJT55839 Low Profile Jiffy-Tite Disc, 3/8"-39°

#### LDTJT534 Low Profile Jiffy-Tite Disc, 3/4"

#### LDTJT5 Low Profile Jiffy-Tite Disc Set

- Disengages the line from *Jiffy-Tite* quick-connect fittings without removal of the clip
- Teeth of the tool fit perfectly into tight tolerance of the connectors
- When rotated it allows the line to be pulled without damage to the connector or retaining clip so they can be reused
- Includes new 3/4" size making this the most comprehensive kit on the market
- There are an estimated 400 million *Jiffy-Tite* fittings in use around the world
- 2000 and newer GM® automobiles, trucks and SUVs
- 2004 and newer Chrysler® automobiles (3/8") and trucks (3/8", 1/2")
- 2005 Mercedes Benz® B-Class automobiles with platforms added each year after 2005
- Found on some Harley Davidson® V-Rod motorcycles
- Toyota® Hino® mid-sized trucks and other late model heavy duty trucks



LDTJT5

#### LDTJT5PB Storage Case

Storage case for LDTJT5 Low Profile *Jiffy-Tite* Disc set.

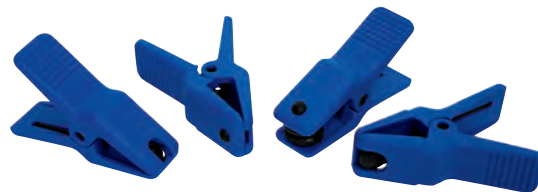
### Steel Line Stoppers

#### SLS4KT Steel Line Stopper Kit (4pc)

- Plugs disconnected lines, preventing fluid leakage
- Prevents fluid contamination
- Fast and easy to use; installs in seconds

#### For use on:

- Flare type brake lines
- Fuel lines
- Flare type fuel lines
- O-ring type AC lines
- Flare type AC lines
- Banjo lines



SLS4KT



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# BATTERY SERVICE

## Battery System Testers



EECS400A

### Wireless Battery System Tester

#### EECS400A Wireless Battery System Tester

- First in the industry – Test battery, starting and charging systems wirelessly
- New-found freedom – Techs can now move around the vehicle, rev engine and operate load controls while viewing the hand held units' screen prompts; no need for second tech's help
- Generation II now tests 8V golf carts and 24V HD trucks – plus new on-screen flows and button configuration is more user-friendly
- Versatile – Test lead acid, flooded, AGM, gel batteries, starting and charging systems, starter draw, alternator output (loaded/unloaded), diode ripple and parasitic drain
- Print – test results two ways
- On-screen commands – in six languages
- Displays – battery or battery pack condition as percent available capacity, rated capacity (i.e. CCAs), state of charge voltage and good, marginal or replace status
- The wireless micro LCD – features both a radio and an IR wireless-printer output for remote printout of the test results
- Test results – can be sent to either a Microsoft® PC (sold separately) via USB adaptor (included) or stand-alone IR printer (optional HHGA-PRINTER or 2-22566)
- Unit displays and prints in English, Spanish, French, German, Dutch and Italian
- Patented conductance technology, Patent # 6,768,309
- Displays multiple international units SAE (CCA), EN, JIS, DIN, EC plus Ah for 6V and 8V only
- Custom header for your company name, address, date and time
- Loose lead detection
- Temperature compensation
- RoHS-compliant brass-post adaptors included
- Reverse polarity protection
- Auto shut-off feature
- Bad cell is detected and displayed
- Magnet in both devices will hold in place for hands-free testing
- CE – DE, ES, FR, IT, GB, NL, JP
- Technical Support: 1-800-222-0956

#### IR Printer Specifications

- Infra red protocol: IrDA- and HPIR-Capable
- Normal distance from tester to adaptor: 18"
- USB cable: mini USB
- USB cable length: 36"
- Operating temperature: 32 °F to 120 °F
- Weight: .25 lbs

#### Applications:

- Tests 6V, 8V, 12V and 24V batteries
- Test batteries from 100 CCA to 3500 CCA (battery pack)
- Tests both series and parallel batteries
- Tests 6V, 12V, 24V and 36V starting and charging system

Specifications	EECS400A
<b>Battery Size Range</b>	100 CCA–3500 CCA
<b>DC Voltage: Range/Accuracy</b>	3.0V–49.9V/+/-2%
<b>LCD Display</b>	2.7" Backlit Graphic Display
<b>Power Supply</b>	9V (Internal Battery)
<b>Cable Length, inches (mm)</b>	24 (609.6) Battery Module
<b>Wireless Signal</b>	900MHz (Custom Protocol)
<b>Weight, lb. (kg)</b>	1.5 (.68)
<b>Warranty</b>	2 Years
<b>Wireless Range</b>	Approximately 50' (depending on environment)

### Remote-Starter Solenoid Switch

- 5' leads allow safer engine cranking while beneath or beside the vehicle so hands are away from belts and moving parts
- Switch housing prevents dirt and moisture from effecting the switch
- Heavy duty contacts reduce arcing
- Safety shield helps prevent accidental activation
- Switch rated at 40A at 12V or 20A at 24V
- Patented Instinct® comfort-designed handle

**MT302BG Remote-Start Switch, Green Handle**  
**MT302BO Remote-Start Switch, Orange Handle**  
**MT302BY Remote-Start Switch, Yellow Handle**  
**MT302BR Remote-Start Switch, Red Handle**

#### Applications:

- To “bump” the engine to align engine parts
- To “bump” the engine for parts’ inspection and/or removal
- Start the engine from under the hood with the key on



MT302BG

Specification	MT302B
<b>Voltage</b>	6V, 12V and 24V
<b>Cord Color</b>	Black
<b>Cord Type</b>	Straight
<b>Cord Material</b>	EDPM
<b>Cord Length</b>	5' (1.5m)
<b>Wire Gauge</b>	12
<b>Switch Amps</b>	40A @ 6 and 12V; 20A @ 24V

Specification	MT302B
<b>Outside Wire Diameter</b>	0.2" (5mm)
<b>Handle Type</b>	<i>Instinct</i>
<b>Handle Color</b>	Green/Orange/Red/Yellow
<b>Terminal Clip</b>	Copper
<b>Boot Material</b>	Flexible Composite
<b>Overall Length</b>	5'5" (1.65m)
<b>Weight</b>	0.82 lb. (0.37 kg)

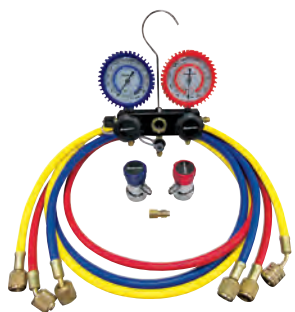
### EEPI175CAMO Power Inverter

- 175 watt
- Powers cell phones, computers, Nintendo® DS, DVD players, iPod® players and more
- Plugs into vehicle 12V power outlet, fits in cup holder
- Provides 110V AC household power inside your vehicle
- Provides two USB ports to power small electronic devices



EEPI175CAMO

## Air Conditioning



ACTR9600

### Heavy Duty Manifold Test Gauges

#### ACTR9600 Heavy Duty Manifold Set

- Heavy duty A/C manifold for large trucks, buses and reefer applications
- Larger profile aluminum block vs. smaller import blocks on competitive units
- Heavy duty conversion couplers for durability
- Couplers are spring loaded to prevent damage to valve cores
- Silicon dampened gauges for durability
- Extra-long 96" length Goodyear® hoses – one each: red, blue and yellow for added reach



ACT91339

### AC Service Kit

#### ACT91339 O-Ring Kit

- 18 common O-ring sizes to cover R134a and earlier R12 A/C system needs
- A total of 270 O-rings included in the assortment
- Made from hydrogenated nitrile and butadiene rubber
- Highly resistant to oils, chemicals, ozone and oxygen for reliability



• Read safety precautions on pages W1 to W4

# AIR CONDITIONING

## Recycling/Recharging Systems (R134a)



EEAC325BH

### KOOL KARE™ PLUS A/C Service Center (R134a)

#### EEAC325BH Hybrid-Vehicle A/C Service Center

- Service hybrid vehicles properly and safely. Hybrids are a fast-growing segment of the vehicle population. The features of this machine enable the technician to service both hybrid and non-hybrid vehicles, which can increase A/C repair shop revenue opportunities. Menu-selectable function gives user ability to clear any residual oil from A/C recover, recycle and recharge machine's fluid circuit and hoses, minimizing risk of oil cross contamination
- Meets new refrigerant-recovery standards J-2788 for high-voltage compressors
- A/C capacities database
- Automatic air purge
- Recovery accuracy  $\pm 1.0$  oz.
- Charge accuracy  $\pm 1/2$  oz.

Specification	EEAC325BH
<b>Dimensions</b>	49" H x 24" W x 34" D (124.5 cm x 60.9 cm x 86.4 cm)
<b>Electrical Req.</b>	115V, 60 Hz
<b>Operating Temperature Range</b>	50 °F to 120 °F (11 °C to 49 °C)
<b>Filter/Drier</b>	43 cu. in. (spin-on type)
<b>Pump Free-Air Displacement</b>	3 cfm (85 l/m)



ECFUVLEDA

### Ultraviolet Flashlights (Blue-Point®)

#### ECFUVLEDA UV Rechargeable Flashlight

- 400 nm wavelength – The sweet spot for A/C, oil and coolant dye-leak detection
- 95-min. run time at constant power output
- Plug-in charger and UV-enhancing glasses included
- Focusing lens enables broad and narrow searches
- Lithium ion battery
- Compact aluminum housing
- Off/On switch located on handle

NPC74



EEAC325B2012

#### EEAC325B2012 Database Update Card

- Vehicle refrigerant and oil capacity database update
- Updated vehicle database now includes many domestic and import vehicles through 2012
- Helps technician accurately charge a vehicle with the proper amount of refrigerant by putting information right at their finger tip
- Saves money and potential A/C system problems by preventing overcharging
- Database additions cover approximately 1800 more vehicle/model combinations
- This database is specifically written and designed for the EEAC325B and EEAC325BH

**Note:** EEAC325B serial number units 207044 and later DO NOT need update. EEAC325BH serial number units 200115 and later DO NOT need update. Update is already installed on these units.

#### Application:

- SD card contains updated database of vehicle A/C capacities (oil and refrigerant) for domestic and import vehicles as well as light trucks
- Sell EEAC325B2012 to customers who purchased their EEAC325B prior to January 1, 2013



ECFUV17

#### ECFUV17 True UV Flashlight

- 17 true LED bulbs provide impressive UV illumination
- Aluminum body with textured grip for durability and ease of use
- 25,000-hour bulb life for excellent reliability
- Uses three readily available AAA alkaline batteries
- Off/On switch located on handle
- Amber UV safety glasses also included

#### Specifications

- UV wavelength – 380–385 nm
- 25,000-hour LED bulb life
- 22 hours run time under normal work conditions

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SVTS272

### Cooling-System Tester

#### SVTS272 Cooling-System Tester

- New pump will achieve higher pressures needed for new vehicles
- Design reduces physical effort by nearly one-half
- Includes the four most commonly required adaptors
- Easy identification: adaptors look like the caps from the systems they test
- Safe pressure relief system protects technician from exposure to coolant
- Pump can produce up to 30 psi to pressure test cooling system of cars and light trucks and even heavy duty trucks with included adaptors
- Set can test 90%+ of the vehicles in the field
- Set can pressure test most US or Asian made vehicles
- Add additional adaptors required to test European made vehicles



SVTS2000

### Coolant-Barrier Pressure Tester

#### SVTS2000 Coolant-Barrier Pressure Tester

- Change cooling-system components without draining system
- Uses shop air to create light vacuum that prevents coolant from draining as a component is changed
- Large hose and higher air flow allows even overfilled systems to be worked on without draining
- Clear intake hose allows technician to see when coolant is being pulled into the tool
- Switch from coolant retention to pressure testing just by turning a valve handle

## Heater Hose Clamp Pliers



SHCP1A

### SHCP1A Remote Hose Clamp Pliers

- Used to remove standard, space-saver and pre-opened hose clamps up to 2"
- Unique jaw design works on all 3 clamp types
- Heavy duty 5/64" cable for extra long life
- Bi-mold grips with cable-snap feature
- Five-stop ratchet lock with slide guide
- Easy replacement-cable fixture



SHCP2

### SHCP2 Remote Hose Clamp Pliers

- Infinite locking positions – friction locking mechanism allows user to hold the clamp open at any position from closed to fully opened
- Ergonomic grip – low constant operating force applied to the wide comfortable pistol grip results in reduced effort and hand fatigue during operation
- Increased accessibility – longer cable is flexible over its entire length, allowing it to reach in and around obstacles that "slide style" remote hose clamp pliers cannot
- Longer clamp end – longer flexible engaging end works on larger clamps in any position on the hose
- Lifetime warranty on handle – repair kit available for cable and jaws



- Wear safety shield (user and bystander) when working on A/C systems
- Read safety precautions on pages W1 to W4

# WHEEL BALANCING/TIRE CHANGERS

## Wheel Balancing



EEWB3-2A

Stock No.	Description	EEWB3-1A	EEWB3-2A
EEWB3-02A	Style B Stud	•	•
EEWB3-03A	Style C Stud	•	
EEWB3-050A	Style E Stud	•	
EEWB3-11A	Adaptor Plate #1	•	
EEWB3-120A	Adaptor Plate #2	•	
EEWB3-13A	Adaptor Plate #3	•	
EEWB3-140A	Adaptor Plate #4	•	
EEWB3-21A	Adaptor Plate #1 (Light Truck and SUV)		•
EEWB3-22A	Adaptor Plate #2 (Light Truck and SUV)		•
EEWB3-10A	Stud A		•
EAK0309J20A	Storage Rack	Optional	Optional

- Pin plate kits are a system of plates and studs to center and lad the wheel at the lug-stud holds
- Mirrors mounting wheel to the vehicle's hub and minimizes imbalance errors
- Applies even pressure to lug-stud surfaces and locates the wheel on center of balancer shaft
- Avoids misalignment by improper and inconsistent mounting on the balancer
- When mounted, the plate and stud system places an even clamping force on the rim and centers the assembly on the balancer

### EAK0309J20A Storage Rack

Storage rack for the plates and pins in the EEWB3-1A.

### EEWB3-4 9pc Collet Set

- Precision-machined and sized collets fit perfectly into the rear pilot center of plastic-clad wheels
- Collets are shallow in length; not to interfere with the plastic tabs
- Recommended to be used in conjunction with a pin plate on the wheel's outer side

## Tire Changers



EEWH312A

### Swing Arm Tire Changer

#### EEWH312A Swing Arm Tire Changer

- Service OE wheel/tire assemblies on cars and light trucks
- 3-position bead breaker allows longer reach for performance tires and truck tires with tall sidewalls
- Bead-seating jets integrated in clamping jaws force additional air into tire
- Plastic protection on mount/dismount head prevents accidental rim damage
- Surge tank delivers additional amount of air during the bead-seating process
- Air lubricator and regulator supports corrosion protection for rust-proof air cylinders and valves
- High-torque 1HP turntable motor minimizes turntable stalling
- Dual clamping cylinders provide even clamping force on jaws to reduce wheel slippage

### EEWH312A Accessories and Consumables

Stock No.	Description	
EAA0351G93A	+6" Clamping Adaptors (4 each)	optional
EAA0351G94A	+8" ATV Adaptors (4 each)	optional
EAA0351G92A	Motorcycle Adaptors (4 each)	optional
EAA0351G95A	Light Truck Adaptors (4 each)	optional
EAA0304G84A	Mount/Dismount Head, Standard	standard
EAA0332G35A	Motorcycle Mount/Dismount Head	optional
EAA0247G20A	Composite Mount/Dismount Head	optional
ST4025966	Bead Depressing Roller	optional
EAA0247G15A	Mount/De-Mount Inserts (10 each)	optional
EAA0351G90A	Clamping Jaw Protectors	optional
8-03229A	Paste Bucket	standard
5-14126A	Paste Brush	standard

Stock No.	Description	
EAA0329G99A	Inflation Hose Assembly	standard
EAA0247G02A	Tire Mounting Bar	standard
EAA0247G04A	Protective Cover for EAA0247G02A	optional
EAA0304G14A	Wave Tire Tool	optional
EAA0247G14A	Motorcycle Bead Breaker Blade	optional
EAA0304G15A	Protective Cover for Bead Breaker Shovel	optional
EAA0304G51A	Bead Breaker Roller Board	optional
EAA0247G70A	Bead Clamp for Low Profile Tires	optional
EAA0270J11A	Safety Restraint Arm	optional
EAA0329G33B	Pneumatic Bead Assist	optional
EAA0304G52A	Plastic Rim Protector, Clip-on Type (3 each)	optional

### EEWH326A Tilt-Back Tire Changer

- Tilt back design speeds set-up and allows for a 15" tire and rim clearance
- Two-speed turntable offers a forward speed of 14 rpm to provide faster throughput when mounting initial bead and 7 rpm for precise speed control
- Integrated laser-guided mount/dismount head precisely locates the edge of the wheel, minimizing damage
- 3-position bead breaker covers multiple applications such as SUVs and light trucks that have taller sidewalls
- Pneumatic bead assist aids user when mounting low-profile tires with stiff sidewalls
- Bead-seating jets are integrated into clamping jaws and force additional air into tire during inflation
- Plastic protection on mount/dismount head and clamping jaws prevents accidental rim damage
- Surge tank delivers additional air during the bead-seating process
- Air lubricator and regulator supports corrosion protection for rust-proof air cylinders and valves
- High-torque 1HP turntable motor minimizes turntable stalling
- Dual clamping cylinders provide even clamping force on jaws to reduce wheel slippage
- Bead depressor pushes tire sidewall into the drop center and follows the tire as the turntable rotates for easier mounting
- Top roller allows user to lubricate top bead prior to dismounting tire and helps keep the bead in drop center
- Wheel depressor applies downward pressure during initial clamping
- Power lifting disc lifts tire off the lower bead of rim to aid user during the dismount process
- Technical Support: 1-800-225-5786



EEWH326A



EEWH326A Laser

### EEWH326A Accessories and Consumables

Stock No.	Description	
AAA0304G32A	Light Truck Adaptors (4 each)	optional
AAA0329G53A	Motorcycle/ATV Adaptors 8"-24" (4 each)	optional
AAA0332G91A	4" Clamping Adaptors (4 each)	standard
AAA0304G80A	+4" Offset Mount/Dismount Head	standard
AAA0304G84A	Mount/Dismount Head, Standard	standard
AAA0332G35A	Motorcycle Mount/Dismount Head	optional
AAA0247G20A	Composite Mount/Dismount Head	optional
AAA0304G37A	Plastic Mount/Dismount Head	optional
ST4025966	Bead-Depressing Roller	optional
AAA0247G15A	Mount/De-Mount Inserts (10 each)	standard
ST4027645	Medium-Length Jaw Protectors (4 each)	optional
EAC0087G48A	Protective Jaw Insert (1 each)	standard
8-03229A	Paste Bucket	standard
5-14126A	Paste Brush	standard

Stock No.	Description	
AAA0329G99A	Inflation Hose Assembly	standard
AAA0247G02A	Tire Mounting Bar	standard
AAA0247G04A	Protective Cover for AAA0247G02A	optional
AAA0304G14A	Wave Tire Tool	optional
AAA0247G14A	Motorcycle Bead-Breaker Blade	optional
AAA0304G15A	Protective Cover for Bead-Breaker Shovel	optional
AAA0304G51A	Bead-Breaker Roller Board	optional
AAA0247G70A	Bead Clamp for Low-Profile Tires	optional
AAA0304G72A	Safety Restraint Arm	optional
AAA0329G34B	Pneumatic Bead Assist	standard
AAA0304G52A	Plastic Rim Protector, Clip-on Type (3 each)	optional
AAA0328G91A	Adjustable Bead Breaker Disc for PBA	optional
AAA0332G32A	Rod with Tapered Roller for PBA (35mm dia.)	optional



- Read and follow all safety messages in instructions
- Read safety precautions on pages W1 to W4

# TIRE AND WHEEL

## Tire Pressure Monitoring System



TPMS3U

### TPMS Testers

#### TPMS3U TPMS3 Software Update

- Up to and including 2013 model year vehicle coverage: sensor testing, relearn procedures and ECU Sensor ID registration
- Added ECU sensor ID registration for Toyota®, Lexus®, Scion®, Honda® and Hyundai® vehicles
- Troubleshooter menu option assists technician diagnosing the TPM system
- Improved menu navigation with guided symptom-based TPM sensor tests and system relearn procedure
- Added ECU unlock for *Toyota*, *Lexus* and *Scion* vehicles using the TPMS dash-reset button
- Print the vehicle TPMS sensor data via webTPM desktop interface
- Part number lookup for OEM and aftermarket sensors
- Software purchase allows user to access new updates for a period of 12 months



TPMS3PRG

### TPMS3PRG Programmable Sensor Add-on Package

- Use the TPMS3 to program aftermarket Tire Pressure Monitoring System (TPMS) programmable sensors
- Replace a sensor with low battery life or one that is non-functioning
- Reduce sensor inventory costs – one sensor covers multiple vehicle applications
- Use to install a duplicate set of sensors in a summer/winter set of tires
- Kit consists of a 2GB Micro SD card along with registration certificate
- Registration certificate contains a code that is entered into webTPM and allows access to sensor programming functionality
- Requires TPMS3 software version CS2-02 or newer to install TPMS3PRG
- TPMS3PRG is a one-time activation to program aftermarket TPM sensors

#### The TPMS3PRG works with the sensor types listed below:

EZ-sensor®  
Alligator sens.it®  
NAPA® Echlin® Clone-able  
Standard® Clone-able  
Intermotor® Clone-able  
Dorman® DiRECT-FIT™  
OEC ID Copy (Orange)

**US TECHNICAL SUPPORT**  
**1-888-621-8767**

**CANADA TECHNICAL SUPPORT**  
**1-855-455-8767**

## Tire Pressure Gauges and Inflators



PG160

### Dial Type Pressure Gauge

#### PG160 Dial Type Pressure Gauge

- Calibrated in 1 psi increments from 10–160 psi
- 2 1/2" diameter dial gauge with shock-resistant gauge movement
- 12" flex hose for hard-to-reach valves (16" with chuck)
- Bleeder valve to relieve excess pressure to achieve proper inflation
- Dual foot chuck
- ±1% accuracy



TIF160

### Inflator

#### TIF160 Tire Pressure Gauge/Inflator

- 1% accuracy allows for use on vehicles equipped with TPMS sensors
- Shorter hose and body length make this gauge ideal for use on cars and light trucks
- Rugged dial and plunger style mechanism preserve gauge accuracy when dropped
- Stainless-steel braided hose
- 6–160 PSI, 60–1100 kPa
- Lifetime warranty

NPC78

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## Tire Pressure Gauges and Inflators



PGP20

### Pencil Tire Pressure Gauges

#### PGP20 Tire Pressure Pencil Gauge

- 20 psi pencil gauge for low pressure applications
- 0.5 psi accuracy for the full range of scale
- Laser engraved barrel
- Full metal body construction
- Pocket clip holds gauge securely in pocket
- Ideal for ATVs and riding mowers



PGPS50GB

#### PGPS50GB Master's Choice Pencil Gauge with Wooden Box

- Durable brass construction promotes longevity and resists corrosion
  - $\pm 1\%$  accuracy exceeds ANSI standards and allows for use on vehicles with TPMS sensors
  - Dual scale measures from 5 psi–50 psi and from 34.4 kPa–344.7 kPa
  - The solid maple box protects and showcases this high quality gauge
- PGPS50** Tire pressure gauge only  
**PGPS50-BOX** Wooden box only

## Axle Nut Sockets



YA6540

### Axle Lock Nut Removers

#### YA6540 Nut Remover Kit for Toyota®/Lexus® vehicles Axle Locks

- This tool kit prevents damage to the axle shaft threads when removing the lock nut
- Unlocks and removes the 30mm axle nuts from *Toyota/Lexus* vehicles
- Kit combines a 1/2" drive 12-point special depth 30mm impact socket and unique angle axle-nut release tool (patent pending)

#### YA6541 1/2" Drive 30mm Impact Socket

#### YA6542 Lock Nut Release Tool



WLT1

### Wheel Hub Lock Tool

#### WLT1 Wheel Hub Lock Tool

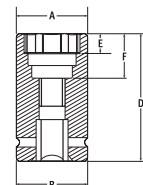
- Eliminates need for assistant to hold brake pedal while axle nuts are removed or installed
- Works on any vehicle with wheel stud bolt patterns ranging from 4mm x 100mm to 8mm x 170mm
- One-piece design with incorporated cushioned grip handle for comfort and ease-of-use
- Can also be used to hold rear differential yoke on solid axle vehicles during pinion seal or bearing service, as well as many other types of machines with drive shafts, yokes and universal joints



SIMM360TW

#### SIMM360TW

- Snap-on® sockets using the Flank Drive® Wrenching System grip the fastener on the flanks/flats which delivers 15 to 20% more turning power
- Impact sockets are heat-treated to a low hardness range compared to chrome sockets so that under heavy, continuous use, the impact socket will withstand the impact blows and wear rather than break
- The broach depth of our impact sockets will start to thread the nut onto the stud. Competitive sockets have a deeper Hex where the user needs to start the nut by hand
- Thin wall design provides the extra room needed to remove and install the axle nut on a Chevy® Sonic



BWDS483

### Budd Wheel Impact Socket

#### BWDS483 Budd Wheel Impact Socket

- Dual-opening socket allows just one socket to remove the outer Hex nut and the inner square nut used on budd wheel assemblies for semi trucks and buses
- *Flank Drive* Wrenching System configuration
- Special alloy steel for strength and durability
- Some budd wheel assemblies have long inner nuts while some have short inner nuts. The BWDS483 is designed to engage only short inner nuts; for long inner nuts, use the BWD483.

BWDS483	Description
Socket End Diameter (A)	2 <sup>15</sup> / <sub>64</sub>
Drive End Diameter (B)	2 <sup>15</sup> / <sub>64</sub>
Length (D)	4
Hex Depth (E)	<sup>5</sup> / <sub>8</sub>
Square Depth (F)	1 <sup>9</sup> / <sub>64</sub>
Hex Size	1 <sup>1</sup> / <sub>2</sub>
Square Size	<sup>13</sup> / <sub>16</sub>
Square Drive, inches	1
Finish	Industrial Finish



- Do not exceed rated pressure
- Read safety precautions on pages W1 to W4

# WHEEL ALIGNMENT/DRIVE LINE

## Ball Joint



BJR1



BJR2



BJP1OPT

### Ball Joint Socket

#### BJR1 Ball Joint Socket (Subaru® vehicles)

- Easily removes stubborn ball joints on select *Subaru* vehicles
- Stay safe dealing with low clearance and heavy corrosion
- Beat the flat rate by doing the job faster and with less effort
- Baja, 2003–2006
- Forester, 1998–2010
- Impreza, 1993–2010
- Legacy, 1990–2010
- Outback, 2000–2010

### Ball Joint Socket

#### BJR2 Ball Joint Socket (*Subaru* vehicles)

- Faster, safer ball joint removal for *Subaru* vehicles
- Easily remove stubborn ball joints for increased productivity
- 3/4" Hex on pressure screw can be driven by hand or with impact gun
- Beat the flat rate by doing the job faster and with less effort
- Industrial finish helps protect against corrosion
- Use on *Subaru* Tribeca® vehicles 2006–2012

### Ball Joint Press

#### BJP1OPT Adaptor Set

- Special application set for removal and installation of upper and lower ball joints
- Set must be used with the BJP1 Master Ball Joint Press Set
- Includes BJP1-22A, BJP1-24A, BJP1-25A, BJP1-26A and BJP1-27A Ball Joint Adaptors in storage tray

## Transmission



SRP400B

### Snap-Ring Pliers

- Parallel jaw lock-ring pliers (high leverage) for easy lock-ring removal/installation
- Cushion grips offer comfort while resisting transmission fluids
- Natural steel finish with a tough protective clear coating to prevent corrosion

Set Contains:

SRP400B

Stock No.	Jaw Opening, inches	Overall Length, inches	Angle Tip Width, inches	Tip Thickness, inches	Tip Width, inches	
SRP1C	up to 1 1/2	8 15/16	—	1/16	3/32	•
SRP2B	up to 1 1/2	8 7/8	3/32	1/8	—	•
SRP3B	up to 1 1/2	8 7/8	—	1/16	3/32	•
SRP5C	up to 1 1/4	10 1/8	—	1/8	5/32	•



SRP1C



SRP3B



SRP2B



SRP5C

#### SRP1C Snap Ring Pliers

- 90° angle serrated jaws (for GM® transmission output shaft)

#### SRP2B Snap Ring Pliers

- 90° angle serrated jaws with dimples for lock rings with tabs

#### SRP3B Snap Ring Pliers

- Straight tip serrated jaws

#### SRP5C Snap Ring Pliers

- Straight non-serrated tip with dimples for lock rings with tabs
- 7-pivot points create compound high-leverage for easy lock-ring expansion
- Jaws always remain parallel

NPC80

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## MIG Welder Accessories

### Accessories – MIG Welders

#### CKS15FN1030 Flexible Neck MIG Torch

- Flexible neck torch allows welding of exhaust pipes without loosening the exhaust hangers
- Torch can be placed in an infinite number of positions
- Consumables are interchangeable with standard Snap-on® MIG torches
- Includes torch, cable and CKSM3T3010 (.030") contact tips (3 each)
- For use ONLY with the following *Snap-on* Welders: MM140SL, MM250SL, MM350XL, MIG140, MIG220, YA212AIND, FM140A
- Torch length: 10' (3m)



CKS15FN1030



YA4607



EFPJURASSIC



EFPBONEHEDB



YA4608



EFPOLEGLORY

### Welding Helmets (Auto Darkening)

- Auto darkening welding helmets are triggered automatically by UV light sources
- Some models have adjustable sensitivity for various light conditions and an adjustable delay setting to maintain dark state for extended periods of time
- Fixed shade helmets offer a fixed #10 shade triggered automatically by UV light. Clear shade provides operator visibility to line up work prior to welding

Specifications	YA4607	YA4608
Shade	#6-13	Adjustable
Sensitivity	Adjustable	Adjustable
Delay	Adjustable	Adjustable
Clear Shade	#3.5	#3.5
Viewing Area, inches	3.74 x 3.35	3.82 x 2.44
Viewing Area, square inches	12.53	9.32
Number of Sensors	4	4
Delay Time, seconds	0.1–1.0 seconds	0.1–1.0 seconds
Switching Speed, milliseconds	0.4	0.04
Power Supply	Solar-Lithium	Solar-Lithium
Applicable Standards	ANSI, CE, DIN, EN, CSA, AS/NZS	ANSI, CE, DIN, EN, CSA, AS/NZS
Opt. Magnifying Lens 1.5x/2.0x	YA4600MAGKT	YA4600MAGKT
Warranty	2 years	3 years

### Welding Helmets

- Made of a new nylon material
- Helmet is much more flexible to get into tighter spaces
- Additional 1-1/4" of material on top of helmet for more coverage
- Cooler for the user as it will not heat up as much as ABS version
- Lighter weight and much more resistant to heat
- CE – English only

Specifications	EFPJURASSIC	EFPBONEHEDB	EFPOLEGLORY
Shield Style	180° Peripheral	180° Peripheral	180° Peripheral
Headband	•	•	•
Adjustable Headband	•	•	•
Impact Resistance	•	•	•
Lens Included	Clear and #10 Welding	Clear and #10 Welding	Clear and #10 Welding
Shade	#10	#10	#10
Viewing Area (square in.)	35.6	35.6	35.6
Applicable Standards	ANSI	ANSI	ANSI
Lens (included)	EFPCLLENREP	EFPCLLENREP	EFPCLLENREP
Opt. Auto Darkening Lens	EFPADFLNSA	EFPADFLNSA	EFPADFLNSA
Warranty	1 year	1 year	1 year



- Wear face shield and protective clothing while welding and cutting
- Do not allow bystanders while welding and cutting
- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# PARTS WASHERS

## Aqueous Based



PBC42B



PBC33B

## Aqueous Based Electric/Medium Duty

### PBC42B High-Pressure Parts Washer

- Blasts parts clean and de-greases in less time than other methods
- Cleaning wand sprays high-pressure cleaning solution and easily cleans holes and crevasses
- Internal heater increases cleaning solution effectiveness and helps loosen up dirt and grime
- Includes a timed automatic soak cycle that sprays cleaning solution over parts
- Removable 12-gallon reservoir features internal baffles to keep debris away from intake filter
- Includes 25 lb. of YADW896B powdered soap

Specifications	PBC42B
Power Source	Electric
Depth, inches	24
Reservoir Capacity, gal	12
Electrical Requirements	230V AC, 60Hz
Pump Motor, hp	3/4
Output Pressure, psi	500
Volume, gal/h	180
Heater, watts	1500
Open Height, inches	69
Inside Dimensions, inches	16 to 26 H x 40 W x 24 D
Overall Dimensions, inches	66 H x 45 W x 39 D

European Model – PBCH42BEUR (230V AC, 50 Hz)

### PBC33B Heated Aqueous Parts Washer

- Clean parts down to bare metal without excessive scrubbing
- Heated cleaning solution breaks the bond between grime and substrate
- Biodegradable and non-toxic solution does not contain harsh chemicals
- Filter under drain to catch particles of dirt
- Oil skimmer separates oil from cleaning solution for effective cleaning

Specifications	PBC33B
Power Source	Electric
Depth, inches	28
Reservoir Capacity, gal	20
Electrical Requirements	230V AC, 60Hz
Output Pressure, psi	50
Volume, gal/h	325
Heater, watts	1500
Open Height, inches	65
Inside Dimensions, inches	10 H x 21 W x 31 D
Overall Dimensions, inches	42 H x 37 W x 28 D

European Model – PBCH33B-EUR (230V AC, 50/60 Hz)

Canadian Model – PBCH33B-CAN (120V AC 60Hz)

## Brake Service Tools

### Brake Spring Tools

#### BT10 T-Handle Brake Spring Tool

- Easily relieves tension on single spring brakes for GM® vehicles
- Offers an easy way to remove single brake springs, so that brake shoes, emergency brake cables or brake cylinder can be serviced
- Hook grabs the spring while the tool point acts as a fulcrum to pry the spring free



BT10

#### BT20 Brake Spring Tool for Toyota® vehicles

- Special tip is designed to engage the shoe hold-down spring cup on *Toyota* vehicles
- For rear parking brake springs on 2000 to current Tacoma®, Tundra®, FJ Cruiser®, 4Runner®, Land Cruiser® and Camry®



BT20

## Snips

### Aviation Snips

- Offset blades allow cut material to flow beneath your hand without curling
- Maneuverable for angle cutting or pattern configurations
- Cuts up to 18 gauge mild steel
- Black oxide finish
- 1 1/8" cutting edge
- 9 1/2" long

**AVSOSR9 Snips** Green handle. Right hand cut.

**AVSOSL9 Snips** Red handle. Left hand cut.

#### AVSOS20 Aviation Snips Set

- Includes AVSOSR9 right hand snips and AVSOSL9 left hand snips (2pc)

**AVSS10 Snips** Yellow handle. Straight cut.

**AVSR10 Snips** Green handle. Right hand cut.

**AVSL10 Snips** Red handle. Left hand cut.

#### AVS30 Aviation Snips Set

- Includes AVSR10 right hand snips, AVSL10 left hand snips and AVSS10 straight snips (3pc)



AVSOS20



AVS30

## Driver

### Bearing Race and Seal Driver

#### ASD1 Universal Adjustable Bearing Race/Seal Driver

- Three-stepped jaws quickly adjust to accommodate bearing races and seals from 0.7"–3.39" (18mm–86mm) – eliminating the need for a driver and several different heads
- Step 1 jaw range: 0.7"–2.2" (18mm–56mm)
- Step 2 jaw range: 1.5"–3.0" (39mm–77mm)
- Step 3 jaw range: 1.89"–3.4" (48mm–86mm)
- Total depth/reach: 1.57" (40mm)
- Can be used on domestic, Asian and European-built vehicles, including motorcycles
- Takes up less space in your tool storage than a typical bearing race/seal driver set
- Not included in A1310A Bearing Race and Seal Driver Set



ASD1



- Do not direct air or fluid steams at body
- Do not use washer without fusible link or safety valve intact
- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# LIGHTING

## Flashlights/Spotlights/Utility Lights (Rechargeable)

### High-Output LED Flashlights

- Precision-machined aircraft aluminum
- Crush resistant 2000+ lb
- O-ring provides ultra-tight seal
- Shock-proof and water-resistant
- 3-way tactical switch (momentary on/constant on/lockout mode)



### ECFONELITE 12 LED Compact Light (Red)

- 12 SMD LEDs produce 100 lumens on high, 65 lumens on medium
- Uses 3 AAA alkaline batteries for seven hours run time on high or twelve hours on medium
- Robust rubber boot protects the light from drop hazards
- Compact enough to take anywhere
- Super durable, super portable
- Strong magnet on back attaches to ferrous surfaces
- Pocket clip for added versatility
- Dual position switch – 100% and 65% power levels
- Available in red, green and orange



Stock No.	Battery Type	Number of Batteries	Effective Range (up to)	Lumens	UV Light	Overall Length, Inches	Run Time (hours)
ECF900	AAA	1	190 ft. (58 Meters)	53 (50,000 Hr LED)	—	2.9	Approx. 1.3 hours on High Approx. 26.0 hours on Low
ECF900R	AAA	1	190 ft. (58 Meters)	53	—	2 7/8"	Approx. 1 hour 20 minutes on High Approx. 26.0 hours on Low
ECF925CR	AA Alkaline	1	266 ft. (81 Meters)	55	—	3 7/8"	Approx. 1 hour 45 minutes on High Approx. 40 hours on Low
ECF950BR	123A Lithium Alkaline	2	131 ft. (40 Meters)	31	—	—	Approx. 17 hours 30 minutes on High Approx. 85 hours on Low
ECF965CR	AA Alkaline	2	443 ft. (135 Meters)	150	Yes	5 7/8"	Approx. 1 hour 10 minutes on High Approx. 60 hours on Low
ECF975BR	123A Lithium Alkaline	2	636 ft. (194 Meters)	200	—	6"	Approx. 3 hours on High Approx. 40 hours on Low
ECFONELITE	AAA	3	—	100	—	—	7 (100%); 12 (65%)
ECFONELITEG (green)	AAA	3	—	100	—	—	7 (100%); 12 (65%)
ECFONELITEO (orange)	AAA	3	—	100	—	—	7 (100%); 12 (65%)



ECFLOOD

### Flood Lights

#### ECFLOOD LED Flood Light

- Powerful and uniformly bright illumination from 70 high output SMD LEDs
- Compact, robust construction with aluminum frame protected by rubber edge work
- IP65 resistant to water and dust infiltration
- 25' (7.6m) cord for excellent reach
- Various uses requiring extreme illumination, general repair, body shop use, under car, construction and home improvement

Stock No.	Lumens	Brightness	Weight	Dimensions, inches (mm)	Cable Gauge	Operating Voltage	Power Consumption	Temperature Range	Cable Length
ECFLOOD	2,500	4,000 lux @ 0.5m	4.85 lb (2,200 g)	8.78" W x 8.39" H x 3.03" D (223mm W x 213mm H x 77mm D)	18AWG	Input: 110V/50–60Hz Output: 24V DC (cord volts)	35W	-4 °F–104 °F (-20 °C–40 °C)	25' (7.62m)

## Flashlights/Spotlights/Utility Lights (Rechargeable)



ECFPEN7HO

### Rechargeable Flashlight

#### ECFPEN7HO Rechargeable Penlight

- Bright, broad illumination covers wide area
- Seven high output front-facing LEDs
- Spot lens on bottom of light for inspection applications
- Compact size fits in shirt pocket

## Flashlights/Spotlights/Utility Lights (Rechargeable)



ECFLED6HO



ECF985R



ECF985



ECUB128

### ECF985 Rechargeable Tactical LED Flashlight

- Precision-machined aluminum body made from solid aluminum with high-grade anodized finish
- Impact-resistant, shock-proof, crush-proof and water-resistant
- High/low power and lockout modes
- Focused spot with flood beam
- AC wall charger and DC car charger utilizing USB cable included
- IPX4 rated for water-resistance
- Limited lifetime warranty

### ECF985R Rechargeable Tactical LED Flashlight

- Same as ECF985 except housing is red



ECFPKTHP4

## Rechargeable Utility Lights

### ECFLED6HO High Output Rechargeable Shop Light (Blue-Point®)

- Six ultra-high output SMD (surface mount diode) LEDs
- Wide-oval light pattern for broad area coverage
- Bright spot light on top for inspection applications
- Dual position switch – toggle between front light and spot light
- Dual magnets – on back of light and bottom base
- Ratcheting hinge for multi-angle use
- Includes 110V AC charger and 12V in car charger
- Serviced by Snap-on repair centers

### ECUB128 128 LED Under Hood Light

- Light distributed 180° to illuminate the entire engine compartment
- Diffusion tube technology eliminates shadows
- 128 high-output LEDs create 700 lumens
- Light distributed 180° to illuminate the entire engine compartment
- Cordless design prevents entanglement while providing convenience
- Rechargeable lithium-ion 4400 mAh battery offers 3 hours of continuous light
- IP56 rated for water and dust resistance
- Under-hood bracket telescopes from 47" to 71" to fit most vehicles

### ECFPKTHP4 4 LED Rechargeable Folding Shop Light

- Four surface mount diode LEDs offer a significant increase in brightness over previous model
- 1200 mAh battery provides up to 2 1/2 hours of run time
- 90° light angle for broad illumination of workspace
- Belt/pocket clip to keep the light handy at all times
- Magnet on bottom base enables multi-angle use



- Do not remove or bypass the ground prong on any electrical plug
- Read safety precautions on pages W1 to W4

# LIGHTING

## Flashlights/Spotlights/Utility Lights (Rechargeable)



ECFSLIMRCA



ECFSLIMRCAB



ECFSLIMRCABK



ECFSLIMRCAG



ECFSLIMRCAO



ECFLED68SPB



ECFLED68SPBK



ECFLED68SPG



ECFLED68SPO



ECFLED68SPR

### Rechargeable Utility Lights

- 10 SMD front-facing LEDs provide high light output to work surfaces
- USB charger cord and charger for multiple options recharging
- 90° light angle with high light output – 170 lumens
- Bright spot light – 50 lumens output
- Two brightness level design
- Slim design for use in tight places
- CSA/UL, BC (California Energy Commission) approved

#### Applications:

- Cordless, rechargeable compact shop light that you can take anywhere
- Use under hood, under car, under dash

#### ECFSLIMRCA Slim Rechargeable Shop Light

(10 SMD LED), Red

#### ECFSLIMRCAB Slim Rechargeable Shop Light

(10 SMD LED) Blue

#### ECFSLIMRCABK Slim Rechargeable Shop Light

(10 SMD LED), Black

#### ECFSLIMRCAG Slim Rechargeable Shop Light

(10 SMD LED), Green

#### ECFSLIMRCAO Slim Rechargeable Shop Light

(10 SMD LED), Orange

### Cordless LED Shop Light w/Spot

- 68 high output LEDs with diffusion tube provide high light output to work surfaces
- USB charger cord and charger for multiple options recharging
- 350 lumen light output, 180° light angle coverage
- Bright spot light – 60 lumens output
- Multi-position folding top hook for increased usability
- Cordless, rechargeable compact shop light – take it anywhere
- Rechargeable lithium-ion 3,300 mAh battery offers three hours continuous light
- IP56 rating for water and dust resistance

#### Applications:

- Illuminates under hood, under car, under dash, wheel well area
- Cordless, rechargeable compact shop light with bright spot
- The take anywhere light

#### ECFLED68SPB Cordless LED Shop Light w/Spot Blue

#### ECFLED68SPBK Cordless LED Shop Light w/Spot Black

#### ECFLED68SPG Cordless LED Shop Light w/Spot Green

#### ECFLED68SPO Cordless LED Shop Light w/Spot Orange

#### ECFLED68SPR Cordless LED Shop Light w/Spot Red



ECFBARLED

### Rechargeable Utility Light

#### ECFBARLED Rechargeable Shop Light

- 500 lumens light output for broad illumination
- 3.7V, 4,000 mAh Lithium-ion battery, 5 hour charger, 3 1/2 hour runtime
- Dual position switch – 100% and 50% power levels
- Top and bottom ratcheting hooks for versatile positioning
- All key parts are user-replaceable reducing downtime on any necessary repairs
- A “use anywhere” light – on the job or at home, under hood, under car, in trunk, anywhere where additional lighting is needed
- Rechargeable feature saves money on batteries

### Utility Lights



ECU4722

### Twin Tube

#### ECU4722 Twin-LED Tube Angled Utility Light

- Wide-angle lens creates a mini-floodlight for broad coverage
- Polyground diffuser lens softens the light to reduce shadows for close-up use
- Shatterproof lens and housing for durability
- Long-life LEDs instead of relatively short-life fluorescent bulbs
- 10-amp electrical outlet at bottom of handle allows you to plug in an electric power tool, or an extension cord
- Integrated swivel hook/utility loop and magnetic strap
- Recessed on-off slide switch prevents inadvertently turning off power
- Brightness: 500 lumens



## Oil Filter Wrenches

### OFWTOY3KT Oil Filter Wrench Kit For Toyota® Vehicles (3pc)

- Deliver maximum torque for easy removal of *Toyota* oil-filter canisters
- Engages filter housing at multiple contact points
- Engages end flutes and housing exterior
- Drain hose assembly included to aid in the oil-draining process on those models equipped with a drain on the filter cap
- One wrench for 4-cylinder vehicles and one for the 6 and 8 cylinder models



OFWTOY3KT

## Funnels/Spouts



OFA38

### OFA38 Oil Funnel Adaptor for OFTOY38

- 2pc adaptor set for select *Toyota* vehicles
- For the following *Toyota* vehicles: Prius® and Yaris®
- Custom fit to the valve cover filler neck
- Made of durable plastic



OFA33

### OFA33 Oil Funnel Adaptor for OFHON33

- 2pc adaptor set for select *Honda*® vehicles
- For the following *Acura*® vehicle: MDX®
- For the following *Honda* vehicles: Pilot®, Ridgeline®, Odyssey®
- Made of durable plastic
- Custom fit to the valve cover filler neck



OFFM

### OFFM Threaded Oil Filler

- Prevents any unwanted mess; fastens and seals onto filler neck
  - Made of durable ABS plastic
  - Used on newer *Ford*® and *Mazda*® vehicles equipped with a 4 cylinder engine
- Ford* vehicle Applications:
- Explorer® 2.0L Ecoboost® 2012 to current
  - Escape® 2.5L 2012
  - Escape 2.0L Ecoboost 2013
  - Focus® 2.0L 2007 to current
- Land Rover*® vehicle Applications:
- Range Rover® Evoque 2.0T 2012 to current
- Mazda*® vehicle Applications:
- Mazda 3® 2006 to current
  - Mazda CX-5® 2013
  - Mazda MX-5 Miata® 2006 to current
  - Mazdaspeed3® 2.3L Turbo 2010 to current

## Mirror

### Telescoping Mirror (Blue-Point®)

#### UIM2NR No Swivel Rectangular Telescoping Mirror

- All-angle ball joint holds mirror head firmly at any angle
- Stainless steel handle is long, strong and lightweight
- Heavy duty grip will not slip in wet or oily hands
- Adjusts from 6 3/4" to 29 3/4"
- 2 9/16" x 3 3/4" rectangular head



UIM2NR



- Do not remove or bypass the grounding prong on any electrical plug
- Read safety precautions on pages W1 to W4



SPS2

### Seal Pullers

#### SPS2 Universal Seal-Puller Set

- Small seal puller used for common seal sizes and large seal puller used for larger seal sizes
- 2" and 4" pins for various seal diameter sizes with clearance requirements
- Surface area on hook helps prevent seal puller from piercing through the seal (0.25" where competitive units are smaller at 0.12")
- Pin creates a pivot point on the surface of the seal, thus distributing the force evenly over a larger surface area when compared to a traditional seal puller design



YA188LR

### Harmonic Balancer

#### YA188LR Long-Reach Harmonic-Balancer Installer

- Traditional harmonic-balancer installers cannot be used to install the harmonic balancers on V8s and V6s for late model GM®, Ford®, Chrysler® and Dodge® vehicles
- Kit includes tools for all three domestic car makers
- Reduce the risk of stripping threads inside the crank
- Reduce the risk of breaking crank bolts
- Kit includes YA188LR-1 thru YA188LR-5

#### YA188LR-1 Center Screw (M16 x 2.0)

- Use on GM 4.8L, 5.3L, 5.7L, 6.0L and 7.0L engines (2008–2012 model years)

#### YA188LR-2 Center Screw (M12 x 1.5)

- Use on Ford 3.0L, 3.5L, 4.6L, 5.4L and 6.8L engines (2004–2012 model years)

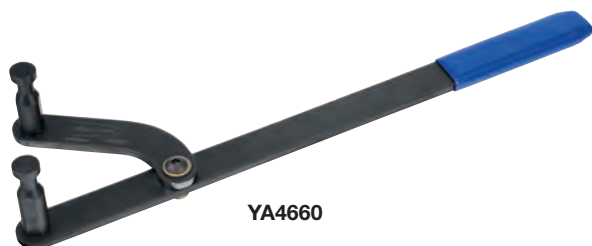
#### YA188LR-3 Center Screw (M14 x 1.5)

- Use on Chrysler/Dodge 4.7L, 5.7L and 6.1L V8 engines (2006–2012 model years)

#### YA188LR-4 Pressed Bearing and Nut

#### YA188LR-5 Center Screw (M12 x 1.75)

- Use on Chrysler/Dodge 3.7L V6 engines (2006–2012 model years)



YA4660

### Camshaft/Crankshaft Tool

#### YA4660 Camshaft Sprocket Holding Tool

- Pivoting design allows tool to fit in most cam and injection pump gear sizes
- Detent grooves on holding pins gives user a sure hold
- Use as a counter holder when loosening or tightening sprocket retainer bolts
- Use on vehicles with sprocket holes larger than 1/2" (12mm) and hole separations from 3/4"–7.6" (19mm–190mm)
- Commonly used on Ford, GM, Chrysler, Dodge, Honda®, Mazda®, Mitsubishi®, Nissan®, Toyota®, Audi®, Volkswagen®, Range Rover®, Saab® and Volvo® vehicles



YA1150

### Timing

#### YA1150 Small-Pin Cam Gear Holder

- Small diameter (10mm) grooved pins fit snugly into the small holes in the cam gear
- Long handle with cushioned grip provides excellent leverage so the cam gear bolt can be tightened or loosened
- This tool is a companion to YA9680, which has larger diameter pins for cam gears with larger holes



CGH1236

#### CGH1236 Cam-Gear Holder

- Tool holds the Hex at gear hub making removal and tightening of cam gear bolt easy and accurate for Chrysler® and Dodge® V6 cam gears
- Hole at center of the tool allows a socket to be inserted through the tool for removal and replacement of the cam gear bolt
- Fits large number of vehicles, 18 different models from 1995–2011



TGH15

#### TGH15 Timing Gear Holding Tool

- Securely holds timing gear during removal and installation
- Prevents movement during retaining bolt removal
- Allows rotation of cam gear to align valve timing marks
- Single-lever locking design is easy-to-use
- Slimline design allows maximum access

#### TSK5KT Timing Service Kit

- Complete kit for timing belt replacement and service
- Securely holds timing gear during removal and installation
- Prevents movement during retaining bolt removal
- Allows rotation of cam gear to align valve timing marks
- Single-lever locking design is easy-to-use
- Slimline design allows maximum access
- Kit includes TGH15 Timing Gear Holding Tool and CC100PK Single Cam Clamp Set



TSK5KT

### Power Steering/Alternator/Water Pump

#### ADT30KT Alternator Pulley Kit

- One-way clutch (OWC) pulleys and overrunning alternator decoupler (OAD) pulleys exist on over 20 million cars and growing
- Aids installation and removal of either OWC or OAD alternator decoupler
- Varying lengths of Hex, TORX® and spline configurations allow user to handle unique combinations for a difficult task
- Master kit eliminates the need to shop around for hard-to-find tools and reduces service-bay downtime that can erode a technician's profit
- Tool can be used on all major ADP Manufacturers including INA, Gates and Litens
- The most comprehensive kit on the market
- Features a combination of Hex bits, TORX bits, spline sockets and specialty bits to work in conjunction to remove pulleys from alternator. There are many potential combinations of these items depending on manufacturer of the pulley/alternator, or the make of vehicle
- Applications include: Audi®, BMW®, Buick®, Cadillac®, Chevrolet®, Chrysler, Citroen®, Dodge, Fiat®, Ford®, Honda®, Lexus®, Mercury®, Opel®, Pontiac®, Peugeot®, Porsche®, Renault®, Saturn®, Seat®, Scion®, Toyota® and VW® vehicles
- Drop-forged and precision CNC components to meet the tight tolerances of the application



ADT30KT

### Belt Tensioning Tool

#### SBT60 Serpentine Belt Tensioner Wrench

- Saves time by reducing the number of parts removed to change belts
- Double ended to fit more models
- Extra-long for more leverage
- Specially designed T60 TORX tip fits snug in the aluminum tensioner body to eliminate damage
- Allows the technician to loosen the spring pressure with minimal force and still maintain access to the lock pin hole when installing a new tensioner



SBT60

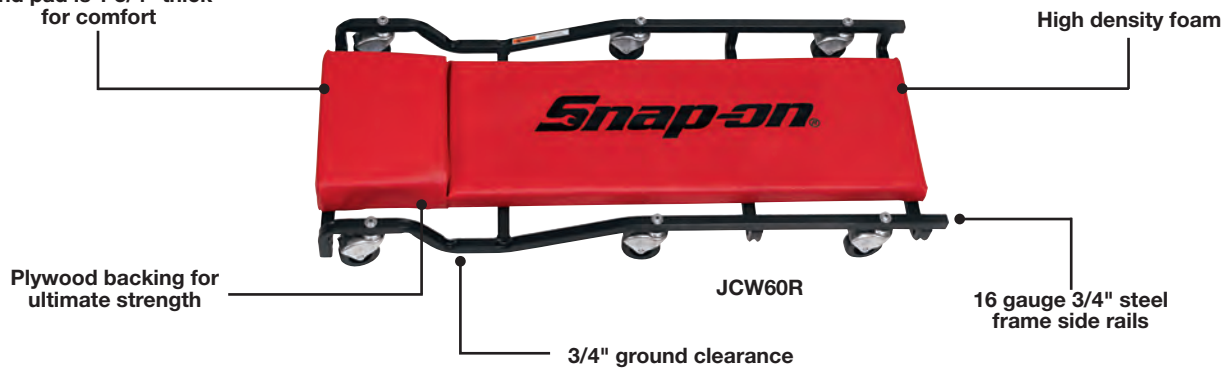


- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# CREEPERS AND COVERS

## Creepers

Headrest is 2 3/4" thick and pad is 1 3/4" thick for comfort



JCW600



JCW60MAX4



JCW60G



JCW60WLD

## Standard Creepers

### JCW60WLD Welding Creeper

- Westex® Indura® fabric offers resistance to flash fire, molten metal and welding exposures
- Fabric and foam pad meets California Technical Bulletin 117, Section E and UFAC Class 1 for flammability
- Fire-retardant, heavy duty 5/8" thick plywood backing

Stock No.	Pad Color	Overall Size, inches	Pad Length	Pad Width	Number of Casters	Caster Diameter
JCW600	Orange	40 L x 17 W x 4 H	39"	11"	6	2 1/2"
JCW60G	Green	40 L x 17 W x 4 H	39"	11"	6	2 1/2"
JCW60MAX4	Realtree MAX-4	40 L x 17 W x 4 H	39"	11"	6	2 1/2"
JCW60WLD	Matte Orange	40 L x 17 W x 4 H	39"	11"	6	2 1/2"

# CREEPERS AND COVERS

## Seat Creepers



JCW800



JCW80G



JCW80MAX4

## Seat Creepers

Stock No.	Pad Color	Overall Size, inches	Seat Size, inches	Drawer Size, inches
JCW800	Orange	14 1/4 L x 19 W x 15 H	10 L x 14 1/4 W	9 7/8 L x 11 1/2 W x 1 3/4 D
JCW80G	Green	14 1/4 L x 19 W x 15 H	10 L x 14 1/4 W	9 7/8 L x 11 1/2 W x 1 3/4 D
JCW80MAX4	Realtree MAX-4	14 1/4 L x 19 W x 15 H	10 L x 14 1/4 W	9 7/8 L x 11 1/2 W x 1 3/4 D

## Covers



SEATCOVERBLU



SEATCOVERBLK



SEATCOVERRED

### Seat Covers

**SEATCOVERBLU** Snap-on® Racing Seat Cover (Blue)

**SEATCOVERBLK** Snap-on Racing Seat Cover (Black)

**SEATCOVERRED** Snap-on Racing Seat Cover (Red)

- Universal fit for virtually all vehicles
- Reinforced expansion panels
- SAS technology = safety access system enabled
- Side airbag compatible
- Seat-lever compatible
- In-seat seat-belt compatible
- Premium weight – 4oz for durability and long life
- Water-resistant and machine washable



- Do not stand on or use as a cart
- Read safety precautions on pages W1 to W4

# VACUUMS

## Wet-Dry Vacuums



YA1105A

### YA1105A Wet/Dry Vacuum

- Long life 2-stage motor
- 4.5 gallon tank
- Includes 1.5" Wet/Dry Tool Set: hose with swivel end, crevice tool, upholstery tool, single bend wand, (2) straight extensions, floor tool housing with carpet face, brush face and squeegee face attachments
- Special detailing tool (YAT27440) sold separately



YA1023A

### YA1023A Wet/Dry Industrial Duty Vacuum

- Long life X1 motor, better water-lift performance using standard 15A plug
- Dual levels of filtration with conical and washable HEPA cartridge filter standard
- Strong 23 gallon poly tank
- Tool management clips included
- Includes HEPA filter and 1.5" Wet/Dry Tool Set: hose with swivel end, crevice tool, upholstery tool, round dusting tool, single bend wand, (2) straight extensions, floor tool, squeegee tool and tool adaptor
- Special detailing tool (YAT27440) sold separately



YA1009SSA

### YA1009SSA Industrial Wet/Dry Vacuum

- 11 gallon tank with EZ-dump drain hose
- Long-life 2-stage motor
- On-board tool storage
- Includes drain hose and 1.5" Wet/Dry Tool Set: hose with swivel end, crevice tool, upholstery tool, round dusting tool, single bend wand, (2) straight extensions, floor tool, squeegee tool and tool adaptor
- Special detailing tool (YAT27440) sold separately

Specifications	YA1105A	YA1023A	YA1009SSA
<b>Tank</b>	4.5 Gallon Poly	23 Gallon Poly	11 Gallon Stainless Steel
<b>Casters</b>	4 Swivel Casters	Large Rear/Front Swivel Casters	Large Rear/Front Swivel Casters
<b>Water Lift</b>	93"	93"	93"
<b>Motor</b>	2-stage	2-stage	2-stage
<b>CFM</b>	99	99	99
<b>Approval</b>	cULus	cULus	cULus
<b>Operation</b>	Full Wet and Dry	Full Wet and Dry	Full Wet and Dry
<b>Filtration</b>	Cone	Cone and HEPA Cartridge	Cone
<b>Tool Management</b>	None	On-Board (with clips)	On-Board (Dolly)

## Gloves



GLOVE301ARL

### Impact Gloves (M-Pact I Series)

- Designed for extra protection
- Antivibration palm protection and reinforced fingers
- Molded TPR (Thermal Plastic Rubber) top helps prevent cuts, scrapes and bruises



GLOVE305L

### Impact Gloves (M-Pact II Series)

- Compression-molded thumb panel
- Additional panels protect finger tips
- Stretch neoprene cuff with molded TPR closure
- Molded TPR protection protects top of the hand and knuckles
- High-abrasion grip finger
- Durable abrasion-resistant synthetic palm
- 2mm Poron® pad sandwiched between abrasion-resistant grip and molded TPR



GLOVE306L

### Impact Gloves (M-Pact III Series)

- 2pc 3D compression-molded knuckles protected with ballistic laminate
- Stretch neoprene cuff with molded TPR closure
- Molded TPR protection protects top of the hand and knuckles
- High-abrasion grip finger
- Durable abrasion-resistant synthetic palm
- 2mm Poron® pad sandwiched between abrasion-resistant grip and molded TPR

Stock No.	Size
GLOVE301ARS	Small
GLOVE301ARM	Medium
GLOVE301ARL	Large
GLOVE301ARXL †	X-Large
GLOVE301ARXX †	XX-Large

Stock No.	Size
GLOVE305S	Small
GLOVE305M	Medium
GLOVE305L	Large
GLOVE305XL	X-Large
GLOVE305XX	XX-Large

Stock No.	Size
GLOVE306S	Small
GLOVE306M	Medium
GLOVE306L	Large
GLOVE306XL	X-Large
GLOVE306XX	XX-Large

† C E

### Original Mechanic's Gloves

- Form-fitting stretch spandex top
- Long-lasting 2-layer thumb panel
- Additional panels of synthetic protection surround the finger tips
- Machine washable – will not shrink or fade
- Flexible TPR wrist closure
- Moisture-wicking trek dry material
- Durable abrasion-resistant synthetic palm

Stock No.	Size
GLOVE600S	Small
GLOVE600M	Medium
GLOVE600L	Large
GLOVE600XL	X-Large
GLOVE600XX	XX-Large



GLOVE600L



GLOVE601L

### Mossy Oak® Mechanic's Gloves

- Form-fitting stretch spandex top
- Long-lasting 2-layer thumb panel
- Additional panels of synthetic protection surround the finger tips
- Machine washable – will not shrink or fade
- Flexible TPR wrist closure
- Mossy Oak® gloves infinity design sublimated on moisture-wicking trek dry material
- Durable abrasion-resistant synthetic palm

Stock No.	Size
GLOVE601S	Small
GLOVE601M	Medium
GLOVE601L	Large
GLOVE601XL	X-Large
GLOVE601XX	XX-Large

### Extra-Thick Latex Technician's Gloves

- Twice as thick as standard latex gloves for tear-resistance
- Microtexture improves gripping power
- Powder-free, as powder promotes allergies
- Box of 100 makes it economical

Stock No.	Size
GLOVE9M	Medium
GLOVE9L	Large
GLOVE9XL	X-Large



GLOVE9L



- Do not remove or bypass the grounding prong on any electrical plug
- Read safety precautions on pages W1 to W4

# SHOP SUPPLIES/SAFETY

## Gloves



GLOVE500BXXB



GLOVE500RXXB



GLOVE501BXXB



GLOVE501RXXB

### Technician SuperCuff® Gloves

- SuperCuff design provides a super comfortable, snug and secure fit without restricting wrist and hand movement
- Reduced seam design for the index finger
- New streamline logo treatments

### Impact SuperCuff Gloves

- SuperCuff design provides a super comfortable, snug and secure fit without restricting wrist and hand movement
- New reduced seam design for the index finger
- New full finger dorsal TPR (Thermal Plastic Rubber) protection
- New 2-layer finger tips for longer life
- New streamline logo treatments
- Enhanced dexterity

	Stock No.	Size
Black	GLOVE500BSB	Small
	GLOVE500BMB	Medium
	GLOVE500BLB	Large
	GLOVE500BXLB	X-Large
	GLOVE500BXXB	XX-Large
Red	GLOVE500RSB	Small
	GLOVE500RMB	Medium
	GLOVE500RLB	Large
	GLOVE500RXLB	X-Large
	GLOVE500RXXB	XX-Large

	Stock No.	Size
Technicians	GLOVE501BSB	Small
	GLOVE501BMB	Medium
	GLOVE501BLB	Large
	GLOVE501BXLB	X-Large
	GLOVE501BXXB	XX-Large
	Impact	GLOVE501RSB
GLOVE501RMB		Medium
GLOVE501RLB		Large
GLOVE501RXLB		X-Large
GLOVE501RXXB		XX-Large



GLOVE504BXX



GLOVE505RXX



GLOVE304CGL

### Wrecker Gloves

- Extreme all over protection
- Cut resistant palm and thumb
- Reflective finger tips and cuff piping
- New streamline logo treatments
- Incredible dexterity
- Great for tow truck workers

### Deep Freeze Gloves

- Extreme weather all over protection
- Windproof with waterproof barrier
- Rubberized palm and thumb for great grip
- Reflective finger tips and cuff piping
- New streamline logo treatments
- Incredible dexterity

### Cold Weather Gloves

- Heavyweight fleece outer
- Wind proof insert with inner Nylax® lining
- Grip thumb and palm panel
- Nylon finger gussets stay flexible in all weather conditions
- Synthetic leather protects outer edge of thumb
- Gauntlet cuff with Velcro® closure
- Water resistant grip with 2pc palm

Stock No.	Size
GLOVE504BL	Large
GLOVE504BXL	X-Large
GLOVE504BXX	XX-Large

Stock No.	Size
GLOVE505RM	Medium
GLOVE505RL	Large
GLOVE505RXL	X-Large
GLOVE505RXX	XX-Large

Stock No.	Size
GLOVE304CGS	Small
GLOVE304CGM	Medium
GLOVE304CGL	Large
GLOVE304CXL	X-Large
GLOVE304CGXX	XX-Large



## Gloves



GLOVE500HXXB



GLOVE501HXXB



GLOVE504HXX

### Hi-Vis Technician

#### SuperCuff® Gloves

- SuperCuff design provides a super comfortable, snug and secure fit without restricting wrist and hand movement
- Reduced seam design for the index finger
- New streamline logo treatments

Stock No.	Size
GLOVE500HMB	Medium
GLOVE500HLB	Large
GLOVE500HLB	Large
GLOVE500HLB	X-Large
GLOVE500HXXB	XX-Large

### Hi-Vis Impact SuperCuff Gloves

- SuperCuff design provides a super comfortable, snug and secure fit without restricting wrist and hand movement
- New reduced seam design for the index finger
- New full finger dorsal TPR (Thermal Plastic Rubber) protection
- New 2-layer finger tips for longer life
- New streamline logo treatments
- Enhanced dexterity

Stock No.	Size
GLOVE501HMB	Medium
GLOVE501HLB	Large
GLOVE501HLB	Large
GLOVE501HLB	X-Large
GLOVE501HXXB	XX-Large

### Hi-Vis Wrecker Gloves

- Extreme all over protection
- Cut resistant palm and thumb
- Reflective finger tips and cuff piping
- New streamline logo treatments
- Incredible dexterity
- Great for tow truck workers

Stock No.	Size
GLOVE504HL	Large
GLOVE504HXL	X-Large
GLOVE504HXX	XX-Large

## Eye Protection



GLASS60R



GLASS60BK



GLASS60SAP

### GLASS50 and GLASS60 Series Safety Glasses

- Lens provides 99.9% UV protection
- Optically correct
- High velocity impact and high mass resistant
- Soft nose piece and ear pieces for comfort
- Sport style designed



GLASS50R



GLASS50BK

### Safety Glasses/Glass 50 and 60 Series

Specifications	GLASS50BK	GLASS50R	GLASS60BK	GLASS60R	GLASS60SAP
Lens	Clear	Clear	Clear	Clear	Clear
Frame	Black	Red	Black	Red	Sapphire
Antifog Coating	•	•	•	•	•

ANSI Z87.1 and CE EN166

### Safety Goggles

#### GAC1580A Dust/Impact Goggles

- Economic splash goggle with transparent clear body and indirect ventilation
- Fits over most prescription eyewear
- Fog-ban anti-fog coating
- Meets ANSI Z87.1-2010 and is certified to CSA Z94.3 standards



GAC1580A



• Read safety precautions on pages W1 to W4

# INDUSTRY SPECIALTY TOOLS

## Aviation Tool Storage



### Aviation Dog Boxes

Aviation technicians told us what they need. And we listened. Snap-on is excited to introduce this new line of rolling tool boxes with convenient hand-tow handles. Available in three sizes, these dog boxes let you load up the tools you need for a specific task and comfortably wheel them across the tarmac, from hangar to hangar, through the terminal or on a plane.

#### Interchangeable Handles

- Small and medium dog boxes feature an interchangeable hard steel wagon-style handle that keeps the box from wandering or nipping at your heels, or a soft nylon leash so you can choose the hand-tow handle that best fits your needs
- Handles can be quickly installed or changed with the wire lock pin

#### Deluxe Wagon-Style Handle

- The large dog boxes feature a deluxe hard steel wagon-style handle that is easy to steer and easy to control
- The swivel feature allows for a comfortable pulling position while the spring-loaded action keeps the handle in the upright position when the box is at rest

#### Hinged And Foldable Top

- Both large dog boxes feature a front lid that folds up and under the top lid to create a convenient, flat work surface, while still allowing access to the drawers
- When fully closed, the hinged cover lets you keep the drawers and box securely locked

#### Removable Chassis

- Each dog box can be removed from the rolling chassis with convenient lifting handles to allow for stationary storage on a bench or roll cab for easy accessibility

#### Rubber Wheels

- All models feature rubber caster wheels for a smooth and quiet ride along with maximum shock absorption
- Wheels can also be locked for safety



Specification	KRDB18	KRDB24	KRDB265	KRDB269
Brand	Blue-Point®	Blue-Point	Snap-on®	Snap-on
Description	Dog Box Small, Wheeled Tool Box	Dog Box Medium, Wheeled Tool Box	Dog Box Large, 5-Drawer Wheeled Tool Box	Dog Box Large, 9-Drawer Wheeled Tool Box
Storage Space (cubic inches)	1,530	2,540	4,452	4,288
Storage Space (square inches)	525	670	1,814	1,753
Number of Trays	4	4	—	—
Number of Drawers	—	—	5 full length	3 full length 6 compartment
Cantilever, Split-Top Opening	Yes	Yes	—	—
Flat Work Top	—	—	Yes	Yes
Pull Handle*	Interchangeable hard steel wagon handle or soft nylon leash	Interchangeable hard steel wagon handle or soft nylon leash	Deluxe hard steel wagon handle with soft grip	Deluxe hard steel wagon handle with soft grip
Carrying Handle	Yes	Yes	No	No
Rubber Wheels	Yes	Yes	Yes	Yes
Removable Chassis	Yes	Yes	Yes	Yes
Length, inches (mm)	18 (457)	24 (610)	26 (660)	26 (660)
Width, inches (mm)	10 (254)	12 (305)	14 3/4 (375)	14 3/4 (375)
Height, inches (mm)	13 1/4 (349)	12 (305)	17 1/4 (438)	17 1/4 (438)
Weight, lb (kg)	32 (14)	55 (25)	103 (47)	103 (47)

\*Designed to be pulled by hand

Already own a Snap-on tool box? Add a rolling-chassis to create your own dog box.

**DB18CHASSIS:** 18" Chassis with interchangeable hard and soft handles

**DB24CHASSIS:** 24" Chassis with interchangeable hard and soft handles

**DB26CHASSIS:** 26" Chassis hard handle only

## Aviation Tool Storage

### Soft-Sided Tool Bag with Wheels and a Telescoping Handle

#### TB50W Soft-Sided Tool Bag

- Multiple pockets inside and outside, to store a multitude of smaller items
- Large gate mouth opening to store larger items and for easy access
- Made of durable 1680 denier oxford nylon fabric, for strength and durability
- Telescoping handle with wheels, to roll rather than carry the bag
- Dimensions – 20" W x 12" H x 12" D

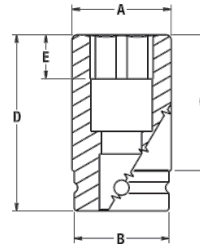


TB50W

## Hand and Impact Tools



M4431B



N8913

### Railroad Specialty Tools

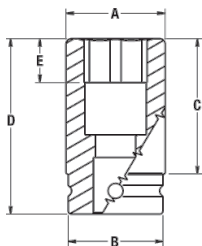
#### M4431B Car Yard Inspector Wrench

- Tightens air brake external nuts and cover screws
- Incorporates four 12-point sockets (3/4", 7/8", 15/16" and 1") plus a 9/16" open wrench all-in-one tool
- Box end portion of wrench is 10 3/8" long
- Open end portion of wrench is 6 1/4" long

#### N8913 Side-Bearing Cage Socket

- Use this 3/4" drive E20 TORX® socket to service the breakoff portion of the side bearing cage bolt
- Installation of shear type E20 bolt during alignment of suspensions on Hendrickson trailers

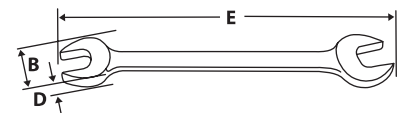
Size	Stock No.	A	B	C	D	E
E20	N8913	1 5/32"	1 5/8"	3/4"	1 3/4"	1/2"



5703747UP



GVO2628TH.20



#### GVO2628TH.20 Open End Wrench

- Used on railroad auxiliary generator coupler nuts (EMD Locomotives)

#### 5703747UP Rectangular Head Lag Socket

- For use on special rectangular head lag screws
- Rectangular head timber screw spikes are used to secure the rail anchor or rail clip
- The screw spikes are used by all railroads to varying degrees, but mainly the North American freight railroads (BNSF, NS, CSX, UPRR, KCS, CP Rail and CN Rail)
- The opening is 1 1/8" x 7/8" with a 1" square drive and can be used on an impact wrench

Size	Stock No.	A	B	C	D	E
1 1/8" x 7/8"	5703747UP	1 7/8"	2 1/8"	1 3/4"	3 1/2"	7/8"
1 3/16" x 7/8"	GVO2628TH.20	—	1 11/16"–1 13/16"	—	7/32"	10"



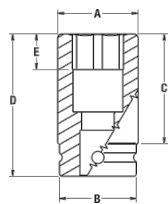
- Do not open multiple drawers
- Do not stand on rolling chassis
- Read safety precautions on pages W1 to W4

# INDUSTRY SPECIALTY TOOLS

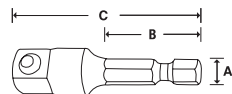
## Hand and Impact Tools



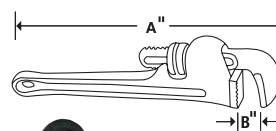
IM748BC1.5



ATSK3621



APW10VLV



GADW10VLV

## Oil and Gas Specialty Tools

### IM748BC1.5 1" Sq. Dr. to 1 1/2", 4-point, SAE

- These "end effector" sockets are used in the manufacturing of subsea and surface wellhead equipment for the oil and gas industry
- Others in the series include the IM753.1BC1.5, IM732BC1.5 and IM632BC1.5

### ATSK3621 7/16" Hex to 1/2" Sq. Dr. Adaptor

- Several gas and electric utility companies are using with our cordless power tools

### APW10VLV Valve Persuader Wrench

- "Refinery Wrench" used in oil and gas downstream facilities
- Great universal multi-tool for numerous daily applications including 4" and 6" quick turns to open and close valves

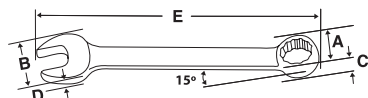
### GADW10VLV Adjustable Valve Persuader Wrench

- Two tools combined into one convenient operator's tool that can be used wherever valves are adjusted for flow and pressure
- 10" overall length supplies leverage while being compact enough to be easily carried
- Big-mouth adjustable wrench has large, 1 3/4" capacity
- 3/4" valve wheel wrench opening
- Precision hardened and anti-corrosion treated
- Easy-to-read size measurement scale: fractional on one side, metric on the other

Size	Stock No.	Square Drive, inches	A	B	C	D	E
1"	IM632BC1.5	3/4	2 1/8"	1 3/4"	—	2 1/4"	3/4"
1"	IM748BC1.5	1	2 7/8"	2 3/8"	1 5/8"	3 1/2"	7/8"
1.66"	IM753.1BC1.5	1	1 15/16"	2 3/8"	—	3 1/2"	1 1/16"
1	IM732BC1.5	1	2 1/8"	2 1/8"	—	2 3/4"	3/4"
1/2"	ATSK3621	1/2	7/16"	2"	3"	1/2"	—
10"	APW10VLV	—	10"	1 1/2"	—	—	—



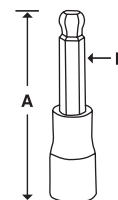
GOEXM270B



GTMAB7E



K1820A



## Automotive Specialty Tools

### GOEXM270B 27mm Open End 12 pt Combo Wrench

- Standard length Flank Drive® black industrial finish combination wrench

### K1820A T70 Long TORX® 1/2" Sq. Dr. Bit Socket

- Ford® cylinder head bolts mainly on diesels and some light commercial applications and Ford vehicles
- Transmission drain plugs on 2004 and later Subaru® WRX®, Legacy® or Forester® vehicles and the Saab® 9-2X vehicles
- Steering tie lever on MAN commercial vehicles

### GTMAB7E 7/32" Ball Hex 1/4" Sq. Dr. Bit Socket

Size	Stock No.	A	B	C	D	E
27mm	GOEXM270B	39mm	55mm	17mm	12mm	375mm
7/32"	GTMAB7E	1 7/8"	FAB7E2	—	—	—
T70	K1820A	5 3/8"	K1820A2	—	—	—



## Low-Profile Screwdrivers

- Super-flat, low-profile design fits in tight areas
- Measures 108mm in length and tapers from 16mm at base to 11mm at head
- Tether hole in handle to prevent FOD
- SSFP1 #1 Phillips® Tip
- SSFP2 #2 Phillips Tip
- SSF1 Flat Tip

### Pneumatic Torque Wrenches

- Control torque to +/- 5% accuracy by controlling input air pressure
- Dual-speed gearbox
- High-speed rundown gear up to greater than 100 RPM for fast rundown of nuts along the stud
- Low speed torque gear: much slower RPM ensures controlled and accurate torque
- Safety paddle requires two-handed operation of the wrench to keep both hands away from pinch points near the reaction arm
- Low vibration eliminates injury caused by repetitive use of impacting wrenches
- Continuous drive exhibits lower decibels than competitors pneumatic torque wrenches or impact wrenches
- Ideal for oil fields, construction, ship yards, power generation, railroads, maintenance, mining equipment maintenance and more
- Use with Snap-on® filter regulator PTQFRL



**PTQ0.5**

#### PTQ0.5 3/4" Drive

- 195–500 ft lb  
264–678 Nm



**PTQ1**

#### PTQ1 3/4" Drive

- 320–1,285 ft lb  
434–1,742 Nm



**PTQ3**

#### PTQ3 1" Drive

- 915–3,305 ft lb  
1,240–4,481 Nm



**PTQ8**

#### PTQ8 1 1/2" Drive

- 1,300–8,500 ft lb  
1,763–11,524 Nm

### Pneumatic Reaction Arm Kits

- Variety of reaction arms for any application

Pneumatic Torque Wrench Stock No.	Reaction Arm Stock No.	Reaction Arm Description	Reaction Arm Length	Reaction Arm Offset
<b>PTQ0.5 PTQ1</b>	<b>PTQ1-03S</b>	Short Arm Included with Wrench	4.48"	2.40"
	<b>PTQ1-03R</b>	Rotatable Arm	6.27"	2.13"
	<b>PTQ1-ALC7</b>	ALCO Arm	7.00"	No Offset
	<b>PTQ1-03L</b>	Long Arm	6.02"	2.44"
	<b>PTQ1CN612812</b>	Twin Tool Arm	6.75"–8.75" Adj.	No Offset
	<b>PTQ1-EXTRF12</b>	12" Wheel Gun Extension and Reaction Fixture	2.41"–4.59" Adj. 12.68"	No Offset
<b>PTQ3</b>	<b>PTQ3-03S</b>	Short Arm Included with Wrench	5.26"	3.3"
	<b>PTQ3-03R</b>	Rotatable Arm	8.2"	3.05"
	<b>PTQ3-ALC9</b>	ALCO Arm	9.00"	No Offset
	<b>PTQ3-03L</b>	Long Arm	7.65"	3.3"
	<b>PTQ3-CN65825</b>	Twin Tool Arm	6.5"–8.25" Adj.	3.25"
<b>PTQ8</b>	<b>PTQ8-03</b>	Reaction Arm Included with Wrench	10.68"	4.55"
	<b>PTQ8-03R</b>	Rotatable Arm	10.8"	4.1"
	<b>PTQ8-ALC11</b>	ALCO Arm	11"	No Offset
	<b>PTQ8-FROG</b>	Frog Nut Tool	8.23"	—

\*Tool length

### FRL Units\*

#### PTQFRL Filter-Regulator Unit

- Combination Filter-Regulator-Lubrication (FRL) unit gives you complete control over your pneumatic supply
- Unit includes the hoses, lubrication, couplings and gauges necessary to operate the torque wrench for safe, long-lasting performance

\*Optional FRL Units required to run PTQ wrenches above



**PTQFRL**

- Do not use chrome or industrial finish tools with impact drivers
- Keep hands away from pinch points when operating a pneumatic torque wrench
- Read safety precautions on pages W1 to W4



## Important Words

### About Safety

#### for Users and Bystanders

Following these basic safety rules is a good start toward protecting yourself — and others in the vicinity — from injury while using tools.

**Wear safety goggles**

**Use the right tool**

**Use the tool properly**

**Maintain the tool regularly**

**Keep tools away from children**

**Do not use tools on live electrical circuits unless specifically designed for such use**

**Read and follow instructions**



Safety messages in this catalog use the guidelines of the American National Standard ANSI Z535.4 for Product Safety Signs and Labels and ANSI Z535.3 Criteria for Safety Symbols. Messages associated with specific products use a triangular hazard alert symbol, signal word (CAUTION, WARNING, DANGER) and how to avoid the hazard. Each message refers to pages (W1 to W4) which provides additional safety symbols and three part messages advising of:

- The hazard

#### **How to avoid the hazard**

*The probable consequence of not avoiding the hazard*

**PLEASE READ AND FOLLOW** these messages to avoid injury to yourself and bystanders.

## Adaptors

### WARNING



- Adaptors can break from over-torque. **Do not use with impact drivers.** Do not exceed the torque stamped on adaptor. Broken adaptor can cause injury.

## AVR Battery Testers

### WARNING



- Batteries produce explosive gases and can explode and ignite. **Wear safety goggles. (User and bystanders)** Keep flames and sparks away from batteries.



*Battery explosion and Ignited gases can cause injury.*



## Battery Chargers, Testers (AVR), Portable Booster Packs

### WARNING



- Batteries produce explosive gases and can explode. **Wear safety shield. (User and bystanders)** Do not overcharge battery. **Keep flames and sparks away from batteries.**
- Sparks occur when connecting or disconnecting leads while charger is ON.



- **Charger must be OFF when connecting or disconnecting leads.** Do not allow leads on Booster Packs to contact each other.



*Battery explosion or ignited gases can cause injury.*

## Blow Guns

### WARNING



- Blow guns create flying particles, noise and pressure. **Wear safety shield. (User and bystanders)** Do not direct air at yourself or bystanders. **Wear hearing protection. (User and bystanders)** Keep out of reach of children.



- Vented:** Do not use if air supply is above 135 psig. Do not obstruct vents.

**Non-Vented:** Do not use if air supply is above 30 psig. *Flying particles, noise and high velocity air can cause injury.*

## Brake Tools

### WARNING



- Brake cylinder hones can fly apart if used outside cylinder. **Wear safety goggles. (User and bystanders)** Operate only while hone is within cylinder. *Flying parts can cause injury.*

## Butane Mini-Torches

### WARNING



- Butane can explode. Store at a temperature below 120 °F. Dispose of butane in accordance with regulations.



*Explosion or flames can cause injury.*

## Compressors

### WARNING



- Air from compressors may contain oil mist and other harmful materials for breathing. **Do not use air from this compressor as a breathing supply.** Oil and other impurities in breathing supply air can cause injury.

- Compressor systems contain air under pressure which can create a high pressure stream or ruptured vessel.



- **Wear safety goggles. (User and bystanders)** Relieve pressure before servicing. Do not modify/repair/rework pressure vessel or change safety relief pressure setting. A pressurized air stream or rupturing pressure vessel can cause injury.



- Moving components inside. **Do not use without all guards in place.** Moving components can cause injury.
- High voltage will create an electrical shock. **Disconnect all power before servicing.** High voltage can cause injury.



## Cordless Tools

### WARNING



- Battery packs present a risk of fire, explosion and electric shock. **Charge battery pack only with charger provided.** Do not store battery packs at temperatures above 120° F (49° C). Do not discard used batteries; return them to a Snap-on® repair center for recycling. Follow all safety messages in user's manual. Fire or explosion or electric shock can cause injury.



## Diagnostic Equipment

### WARNING



- Use of diagnostic equipment on rotating engine poses risk of flying particles and entanglement. **Wear safety goggles.**



**Use caution in routing cables.** Flying particles can cause injury. Poorly routed cables and test leads can cause entanglement and injury.



- Use of diagnostic equipment can cause electrical shock, fire and explosion.



**Use caution and proper procedures when connecting and disconnecting leads.** Diagnostic equipment must be located 18" or more above floor level.



**Avoid sparks and other sources of ignition.** Electrical shock, flames and explosion can cause serious injury.



- Improper use can cause hazardous conditions. **Read and follow all safety precautions accompanying the product.**



*Unexpected electrical, thermal or mechanical occurrences can cause injury.*

## Fuel System Tools

### WARNING



- Flammable liquid and fumes can ignite. **Wear safety shield. (User and bystanders)** Use only in well-ventilated areas. *Flames or explosion can cause injury.*



## Geared Head Torque Multipliers

### WARNING



- Use of gear head torque multipliers for torque control may result in inaccurate torque application.

**For accurate control of torque use an Electrotork®, a Torqometer® or other measuring device located directly on the fastener.**

*Limited accuracy of the torque ratio of a geared head torque multiplier may cause improper preload of the fastener if it is used for torque control.*

## Grinders, Grinding Wheels, Power Tool Accessories

(drill bits, wire brushes, grinding burrs, abrasive wheels, grinding wheels, valve grinders, valve grinding wheels)

### WARNING



- Grinding causes flying particles. Power tool accessories can break. **Wear safety goggles. (User and bystanders)** Do not operate without eyeshields, guards and holders in place.



**Do not use power tool accessories at speeds faster than their maximum rated RPM.**



*Flying particles and broken tools can cause injury.*

- Wire bristles can break and fly off. **Wear safety goggles. (User and bystanders)** Flying particles can cause injury.

• Force on the side of grinding wheels or discs can break them.

**Do not grind on the side of a grinding wheel or disc.**

*Broken grinding wheel or disc can cause injury.*

## Hammers

### (See Striking and Struck Tools)

## Hand Tools

### Handles

### WARNING



- Handles can break if overloaded. **Do not use "cheater bars" on handles.** Pull, do not push, on handles. *Broken handle or a fall can cause injury.*

### Sockets, Accessories

### WARNING

- Sockets and accessories can break if used with an impact wrench. **Do not use chrome or industrial finish hand tools with impact drivers.** *Broken sockets or accessories can cause injury.*

## Impact Wrenches

### WARNING



- Impact wrenches can cause breakage of sockets or accessories. **Wear safety goggles. (User and bystanders)** Do not use hand sockets with impact wrenches. *Flying objects can cause injury.*

## Knives

### **WARNING**



- Blades are sharp and can cut
  - Blades can break causing flying objects
- Wear safety goggles. (User and bystanders)**  
**Do not pry or bend blade.**  
**Keep away from children.**  
*Sharp edges and flying objects can cause injury.*

## Leak Detectors

### **WARNING**



- Gases, fluids or accumulated fumes may explode or ignite
- Do not expose fluids or fumes to flames, sparks or other sources of ignition.**  
**Wear safety goggles or safety shield.**  
**Use only in well-ventilated areas.**  
*Explosion or flames can cause injury. Fumes can cause breathing difficulty.*

## Lift Equipment

### Jacks, Jack Stands

### **WARNING**



- Vehicles supported by jacks or jack stands may fall if used improperly
- Do not exceed rated capacity of jack or jack stand.**  
**Do not work on vehicle supported by jack, use jack stands; use jack stands in pairs.**  
**Use jack and jack stands only on hard level surface.**  
**Lift and support vehicle only on its designated lift points.**  
*Failure of jack or jack stand or falling of vehicle can cause serious injury or death.*

### Lifts, Hoists

### **WARNING**



- Vehicles supported on lifts or hoists may fall if lifts are improperly installed, used or maintained
- Do not exceed rated capacity of the lift.**  
**Lift must support vehicle only on its designated lift points.**  
**Lifts must be installed by qualified installer.**  
**Lifts must be inspected and maintained in accordance with user's manual.**  
**Follow all instructions for proper use and all safety messages in user's manual.**  
*Failure of the lift or vehicle falling off of lift due to use of improper lift points can cause serious injury or death.*

## Lighting

### **WARNING**



- Electrical shock can result from absence of grounding prong
- Do not remove or by-pass the grounding prong in any electrical plug.**  
**Disconnect power before servicing.**  
*Electrical shock can cause injury.*

## Pliers/Cutters

### **WARNING**



- Broken tips or cut material can fly
- Wear safety goggles. (User and bystanders)**  
*Flying material can cause injury.*

## Power Tools

(impact wrenches, ratchets, hammers, sanders, grinders, cut-off tools)

### **WARNING**



- Power tools can cause flying particles
- Wear safety goggles. (User and bystanders)**  
*Flying particles can cause injury.*
  - Power tools generate noise

**Wear hearing protection. (User and bystanders)**  
*Prolonged exposure to noise can cause hearing loss.*
  - Power tools vibrate

**Avoid prolonged exposure to vibration.**  
*Prolonged exposure to vibration can cause injury.*
  - Improper use of power tools and accessories can cause broken tools

**Do not use without all guards in place.**  
**Use accessories rated at tool RPM or higher.**  
**Read and follow instructions before using power tools.**  
*Broken tools can cause injury.*

## Pressure Equipment and Pressure Gauges

(all equipment using pressurized air or hydraulic fluid such as tanks, spray guns and blow guns)

### **WARNING**



- Pressurized equipment, systems or tanks can break or leak
- Do not exceed the maximum pressure rating of equipment. Wear safety goggles or shield and protective clothing appropriate to the fluid.**  
*Pressurized fluid striking the body can cause personal injury. Flammable fluids such as gasoline, propane, etc. can ignite or explode and cause injury.*
- Fluids can leak or escape
- Use only in well-ventilated areas.**  
*Breathing vapors or fluids from leaks can cause illness or injury.*
- Pressurized air or fluid stream can propel dust or particles
- Do not direct air or fluid stream at your body or at others.**  
*Flying particles, air or fluid entering body can cause injury.*
- Improper use or maintenance of pressurized equipment can cause leaks or rupture
- Read and follow instructions.**  
*Leaking of pressurized equipment can cause injury.*

## Prybars

### **WARNING**



- Prying can cause flying chips. Chipped or cracked prybars can cause flying chips
- Prybars can chip if struck
- Wear safety goggles. (User and bystanders)**  
**Do not use pipe or lever extension.**  
**Do not use a prybar if chipped or cracked.**  
**Do not use a prybar as a punch or hammer.**  
*Flying chips can cause injury.*

## Pullers, Presses

### **WARNING**



- Puller or press parts under stress can break
- Wear safety goggles. (User and bystanders)**  
**Use the proper type and size puller or press.**  
**Screen the puller or press operation.**  
*Broken parts can cause injury.*

## Punches/Chisels (See Striking and Struck Tools)

## Ratchets

### **WARNING**

- Ratchet mechanism may slip or break if dirty
  - Mismatched or partially worn parts can cause ratchet to slip or break
- Frequently inspect, clean and lubricate all non-sealed ratchet mechanisms with light oil.**  
**Do not immerse sealed ratchet in fluids.**  
**Do not replace worn parts individually, use entire contents of the service kit.**  
*Ratchets that slip or break can cause injury.*

## Sanders

### **WARNING**



- Sanding disc or accessories can break if used above maximum rated RPM
- Wear safety shield. (User and bystanders)**  
**Do not use sanding discs or accessories above their maximum rated RPM.**  
**Do not use grinding wheels on sanders.**  
*Broken sanding disc or accessories can cause injury.*
- Wear hearing protection. (User and bystanders)**
- Some dust created by sanding, grinding and drilling activities contains chemicals known to cause cancer, birth defects and other reproductive harm
- Wear dust mask or respirator.**

## Scrapers

### **WARNING**



- Scrapers and putty knives can break if used for prying or chiseling
- Wear safety goggles. (User and bystanders)**  
**Do not use a scraper or putty knife as a prybar or chisel.**  
*Broken tools can cause injury.*

## Screwdrivers

### **WARNING**



- Screwdrivers can break if used as prybar, chisel or punch
- Wear safety goggles. (User and bystanders)**  
**Do not use a screwdriver as a prybar, chisel or punch.**  
*Broken screwdriver can cause injury.*
  - Plastic screwdriver handles do not provide electrical insulation

**Do not use on or near live electrical circuits.**  
*Electrical shock can cause injury.*

## Socket Usage

Select the proper type of socket for the application.

- **Hand Sockets** – All chrome-plated sockets and black finished sockets identified as hand sockets are for hand use only
- **Power Sockets** – Sockets designed and intended for use with power nut runners; do not use with impact drivers
- **Impact Sockets** – Sockets designed for durability when used with impact drivers; use only impact sockets with impact drivers




## Sockets, Power

### WARNING

- Power sockets or accessories can break if used on impact drivers
-  **Wear safety goggles. (Users and bystanders)**
-  **Do not use power sockets or accessories with impact drivers.**
- Broken tools can cause injury.*
- Flexible sockets and swivel joint tools rotate under power during use
- Wear safety goggles. (Users and bystanders)**
- Do not hold flexible sockets and swivel joint tools during use.**
- Rotating power tools can cause injury.*


## Striking and Struck Tools, Punches/Chisels

### WARNING

- Striking and struck tools can break or chip
- Chipped or mushroomed punch and chisel ends or metal weakened by improper grinding can fragment
- Oversized hammer can chip the punch or chisel
- Wear safety goggles. (Users and bystanders)**
- Do not use punch or chisel having mushroomed ends; dress edges or mushroomed ends to original shape with a hand file.**
- Do not misuse a chisel as a punch.**
- Hammer head diameter should be approximately 3/8" larger than head of punch or chisel.**
- Flying objects can cause injury.*
- Steel punches and chisels can cause sparks during use
-  **Do not use near flammable substance.**
- Flammable substances can ignite causing injury.*



## Hammers

### WARNING

- Hammers can cause flying chips. Chipped, mushroomed or cracked hammers can cause flying chips
- Glancing blows can cause flying chips
- Striking hard surface can cause flying chips
- Body hammers can chip or break if struck against hard surfaces
- Wear safety goggles. (Users and bystanders)**
- Do not use chipped, mushroomed or cracked hammers.**
- Strike squarely and avoid glancing blows. Do not strike other hammers or similar hard surfaces.**
- Use body hammers only for striking automotive-type sheet metal; do not strike hard surfaces.**
- Flying chips can cause injury.*
- Steel hammers can cause sparks during use
-  **Do not use near flammable substance.**
- Flammable substances can ignite causing injury.*
- COMPOTHANE® or urethane hammers can rupture or ignite if exposed to liquid oxygen
- Do not use COMPOTHANE or urethane hammers near liquid oxygen.**
- Ruptured and/or ignited COMPOTHANE or urethane can cause injury.*

## Tire Changers

### WARNING

- Tires can explode
-  **Wear safety goggles.**
- Do not over-pressurize tire.**
-  **Read and follow all safety precautions in user's manual**
- Exploding tire can cause serious injury.*


## Tool Storage Units

### WARNING

- Storage units can tip or strike you
-  **Do not open more than one loaded drawer at a time.**
- Keep children away.**
-  **Close lid and lock drawers and doors before moving.**
-  **Apply brakes on locking casters when not moving unit.**
- Do not step in or on drawers.**
- Secure units together with fasteners.**
-  **Read and follow instruction manual.**
- Tipping of storage unit or unit striking you can cause injury.*
- Units edges can cut or pinch
- Do not pull; push to move.**
- Wear gloves when lifting by edges.**
-  **Keep feet and fingers clear of edges when stacking, hanging or moving units.**
- Unit edges can cause injury.*

## Torque Testers

### WARNING

- Calibration weights can cause tester and its base to tip
-  **Wear safety goggles. (Users and bystanders)**
- Counterbalance or anchor mounting base.**
- Tipping base can cause injury.*




## Torque Wrenches

### WARNING

- Overtorquing can cause breakage
- Wrench can break while breaking fasteners loose
- Force against flex stops on flex head torque wrenches can cause head breakage
- An out-of-calibration torque wrench can cause part or tool breakage
-  **Wear safety goggles. (Users and bystanders)**
- Do not exceed rated torque.**
- Do not use a torque wrench to break fasteners loose.**
- Do not force head of flex head torque wrenches against stops.**
- Periodic recalibration is necessary to maintain accuracy.**
- Broken tools can cause injury.*




## Unibody and Frame-Straightening Equipment

### WARNING

- Improper usage can damage or break equipment
-  **Read and follow all instructions in user's manual.**
-  *Broken parts of the frame straightener or vehicle can cause personal injury.*
- Risk of entanglement
-  **Do not stand on or near ramps or rack when raising or lowering the rack.**
- Moving parts can cause injury.*
- Parts under high stress can break
- Do not exceed maximum capacity of lowest rated component of pull system.**
- Broken parts can cause injury.*

## Welders, Cutters

### Electric, Plasma DANGER

- Electric welding or plasma cutting causes ultra violet rays, localized magnetic fields, sparks, weld spatter and hazardous vapors and may cause electrical shock
- Bystanders will be exposed
-  **Wear welding helmet with appropriate shade lens while welding or cutting.**
- Wear gloves and protective clothing.**
- Use only in well-ventilated area.**
-  **Do not allow bystanders in area while welding or cutting.**
- Do not operate this equipment if you have an implanted electromechanical device.**
- Never coil electrode/torch lead around your body.**
-  **Read and follow all safety precautions in instructions.**
- Ultra violet rays will burn eyes, magnetic field may affect operation of medical devices.*
- Weld spatter, electrical shock or sparks can cause burns or other injuries.*



## Gas, Welding and Plasma Cutting

### WARNING

- Welding and cutting produce heat, weld spatter and hazardous vapors
- Wear face shield and protective clothing.**
- Use only in well-ventilated area.**
- Do not allow bystanders in immediate area.**
- Read and follow all safety precautions in instructions.**
- Byproducts of welding or cutting can cause burns or other bodily injuries.*


## Wheel Alignment Tools

### WARNING

- Suspension springs can slip out of engagement with spring compressors
-  **Follow instruction and assure that spring is properly engaged with the compressor.**
-  **Wear safety goggles. (User and bystander)**
- WA92 can break or disengage from spring if torqued over 30 lb ft
- Do not torque WA92 over 30 lb ft.**
- Broken compressor or disengaged spring can cause injury.*

## Wrenches

### WARNING

- Excess force can cause crowfoot or flare nut wrench slippage
-  **Do not over torque; no pipes or "cheater bars."**
-  **Use only moderate force on crowfoot and flare nut wrenches.**
- Broken or slipping wrenches can cause injury.*
- Slimline wrenches can break if overloaded
- Wear safety goggles. (Users and bystanders)**
- Broken wrench jaw can cause injury.*
- User can slip or fall if wrench breaks or fastener breaks loose
- Pull, do not push, on wrench handle.**
- Injury can occur if user loses balance.*

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3/4" Square Drive Tools

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- Impact Wrench, Air.....NPC46
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1" Square Drive Tools

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- Impact Sockets, Budd Wheel.....NPC79
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- Pneumatic Torque Wrench.....NPC99

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1 1/2" Square Drive Tools

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For customers not serviced by a Snap-on franchisee or representative, contact the Snap-on Customer Care Center via telephone at 877-762-7664 or e-mail [nccsupport@snapon.com](mailto:nccsupport@snapon.com). Outside North America, contact the closest sales office shown on pages 645-646. The following information will be required with customer's warranty request: (1) date and proof of purchase, (2) where customer purchased the product, (3) full name, (4) shipping address, (5) phone number, (6) e-mail address, and (7) item number(s) or approximate weight of return package. Warranty requests that do not include all the required information will not be processed. Once the warranty request is validated, the customer will be provided a RGA number and will be sent a shipping label either electronically thru e-mail or thru the U.S. mail, and must ship the product to Snap-on. Upon receipt of the product, the warranty claim will be reviewed and the product will be inspected. If the warranty request is found to be valid, the product will be repaired and returned to the customer or a replacement product or refund will be shipped to the customer. If the warranty claim is found to be invalid, the original product will be returned to the customer. By repairing or replacing a product, or providing a refund, Snap-on does not waive a claim that a product nevertheless has been subject to abnormal use.

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Personal safety and the proper use of tools and equipment are reflected in safety statements found throughout this catalog. More safety precautions for these products are detailed on pages W1 to W4.

Using the right tool and using it properly for the job it is designed for are both very important. It will help to safeguard the user as well as the tools and equipment.

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