

**Pliers**

*Pliers*





## Long Nose Pliers With Side Cutter

- Comfortable two-component handles combine durability with a secure non-slip grip.
- High-leverage joint placement increases leverage to reduce the cutting force needed.
- Jaws are polished with rust-protective coating.
- Cross-cut teeth in tips provide extra gripping power.
- Induction hardened and precisely ground cutting edges stay sharp longer.

## Heavy-Duty Diagonal Cutters

- Wider, high leverage jaws for increased cutting power.
- Induction-hardened and precisely ground cutting edges stay sharp longer.
- High-leverage joint placement increases leverage to reduce the cutting force needed.





## 6 Piece General Service Pliers Set

### Double-Dipped Plastic Handles

Product Code	Description
PLS-6A	6 Piece General Service Pliers Set

### Contents Include:

Product Code	Description	Product Code	Description
PL-1519C	5" utility superjoint	PL-76C	6 1/2" chain nose side cutters
PL-1520C	10" utility superjoint	23150	7" side cutting
PL-46C	6" diagonal cutting	23503	8 1/4" front-end stripper

### Features

- Combines Williams' most popular pliers in to a single set.
- 6 piece set packaged in a roll pouch.



PLS-6A

## PLIERS

## PLIERS SETS



## 4 Piece Combination Pliers Set

### Double-Dipped Plastic Handles

Product Code	Description
23052	4 Piece Combination Pliers Set

### Contents Include:

Product Code	Description
23102	8" slip joint pliers
23105	9 3/4" groove joint pliers
23407	7" heavy-duty diagonal cutting pliers
23411	8" long nose pliers

### Features

- Double-dipped plastic handle grips are comfortable yet durable.
- Jaws are polished with rust-protective coating.
- Packaged in a vinyl bag.



23052



## 4 Piece Combination Pliers Set

### Double-Dipped Plastic Handles

Product Code	Description
23054	4 Piece Combination Pliers Set

### Contents Include:

Product Code	Description
23106	11 3/4" groove joint pliers
23403	8" linesman pliers
23407	7" heavy-duty diagonal cutting pliers
23411	8" long nose pliers

### Features

- Double-dipped plastic handle grips are comfortable yet durable.
- Jaws are polished with rust-protective coating.
- Packaged in a vinyl bag.

23054



## Groove Joint Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Maximum Jaw Opening (Inches)
23104	6 1/4	7/8
23105	9 3/4	1 7/8
23106	11 3/4	2 1/4
23107	15 3/4	4 1/8

### Features

- Double-dipped plastic handle grips are comfortable yet durable.
- Jaws are phosphate finish for rust protection.
- Parallel jaw grip in all positions to maximum opening.

23104





## Utility Superjoint Pliers

### Double-Dipped Plastic Handles

Features	Overall Length (Inches)	Maximum Opening (Inches)	Tip Width (Inches)
PL-1519C	5	$\frac{1}{2}$	$\frac{3}{16}$
PL-1520C	10	$1\frac{1}{2}$	$\frac{5}{16}$
PL-1523C	12	$2\frac{5}{8}$	$\frac{1}{2}$
PL-1524C	16	4	$\frac{1}{2}$

#### Features

- Multiple parallel jaw positions are locked in to proper groove for superior non-slip performance.
- Serrated jaws for maximum gripping power.
- Polished heads resist rust and corrosion, extending the tool life.



PL-1524C



## Combination Slip-Joint Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Jaw Length (Inches)	Tip Width (Inches)
PL-6C	6	$1\frac{5}{32}$	$\frac{3}{8}$
PL-8C	8	$1\frac{13}{32}$	$\frac{3}{8}$
PL-10C	10	$1\frac{13}{32}$	$\frac{1}{2}$

#### Features

- Multiple parallel jaw positions are locked in to proper groove for superior non-slip performance.
- Serrated jaws for maximum gripping power.
- Polished heads resist rust and corrosion, extending the tool life.
- Shear type wire cutter extends tool use.



PL-8C

## PLIERS

## SLIP-JOINT & COMBINATION PLIERS





## Combination Slip-Joint Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)
23101	6 <sup>1</sup> / <sub>4</sub>
23102	8
23103	9 <sup>3</sup> / <sub>4</sub>

### Features

- Double-dipped plastic handle grips are comfortable yet durable.
- Jaws are polished with rust-protective coating.
- 2 position joint allows wide range of grip.
- Shear type wire cutter extends tool use.



23101



## Industrial Grade Linesman's Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-204C	Electrician's	7	<sup>1</sup> / <sub>2</sub>
PL-205C	Electrician's	8 <sup>1</sup> / <sub>2</sub>	<sup>17</sup> / <sub>32</sub>
PL-209X	New England	9 <sup>1</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>



### Features

- Designed for wiring, electrical equipment installation and maintenance for utility linemen.
- Polished faces look good and resist corrosion.
- Induction hardened cutting edges stay sharp longer.
- Diamond serrated jaws provide solid grip on wire.
- Double-dipped plastic handle grips are comfortable yet durable.



PL-204C



PL-209X





## Industrial Grade Linesman's Pliers

### Supplied Without Grips

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-208	Linesman's	8 1/2	17/32
PL-209	New England	9 1/2	3/4

### Features

- Designed for wiring, electrical equipment installation and maintenance for utility linemen.
- Polished heads resist rust and corrosion, extending the tool life.
- Induction hardened cutting edges stay sharp longer.
- Diamond serrated jaws provide solid grip on wire.
- Supplied without grips - handles are bare steel.



PL-208



PL-209

## PLIERS

## LINESMAN'S PLIERS



## Heavy-Duty Piano Wire Cutting Linesman's Pliers

### Double-Dipped Plastic and Bi-Mold Comfort Grip Handles

Product Code	Overall Length (Inches)	Handle Style	Maximum Cutting Capacity (Inches)
23603	9	Double-Dipped	3/32 Piano Wire

### Features

- Specially heat-treated for cutting piano wire and other hard wire.
- High leverage jaws for increase cutting power.
- Cross-cut teeth for extra gripping power.
- Return spring for faster, easier cutting.
- Induction hardened and precisely ground cutting edges stay sharp longer.



23603



## Standard Linesman's Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Jaw Length (Inches)
23402	7	1/2
23403	8	17/32

### Features

- High leverage jaws for increase cutting power.
- Cross-cut teeth for extra gripping power.
- Induction hardened and precisely ground cutting edges stay sharp longer.



23402



## High Leverage Diagonal Cutting Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Cutting Blade Length (Inches)
PL-57C	High Leverage Head Extra Long Handle, Offset	7 <sup>1</sup> / <sub>4</sub>	<sup>15</sup> / <sub>16</sub>
PL-411C	Head	11	1

### Features

- Handles are designed to cut wire with ease.
- Polished heads resist rust and corrosion, extending the tool life.
- Induction hardened cutting edges.



PL-57C



PL-411C



## Industrial Grade Diagonal Cutting Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Cutting Blade Length (Inches)
PL-44C	4	<sup>17</sup> / <sub>32</sub>
PL-45C	5	<sup>11</sup> / <sub>16</sub>
PL-46C	6	<sup>3</sup> / <sub>4</sub>
PL-47C	7	<sup>11</sup> / <sub>16</sub>

### Features

- Handles are designed to cut wire with ease.
- Polished heads resist rust and corrosion, extending the tool life.
- Induction hardened cutting edges.
- Regular flush cutters are used for cutting hard wire.



PL-46C







### Flush Cut Diagonal Cutting Pliers with Spring

#### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Cutting Blade Length (Inches)
PLM-1CS	4 <sup>1</sup> / <sub>4</sub>	<sup>17</sup> / <sub>32</sub>
PL-40CS	5	<sup>11</sup> / <sub>16</sub>

#### Features

- Handles are designed to cut wire with ease.
- Polished heads resist rust and corrosion, extending the tool life.
- Induction hardened cutting edges.
- Flush cutters are used for close cutting of medium wire.



PL-40CS

## PLIERS

## DIAGONAL CUTTING PLIERS



### Plastic Cutting Diagonal Pliers

#### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Cutting Blade Length (Inches)
PL-48C	6 <sup>3</sup> / <sub>8</sub>	<sup>7</sup> / <sub>8</sub>
PL-49C	7 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>8</sub>

#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Induction hardened cutting edges.



PL-48C



### Heavy-Duty Diagonal Cutting Pliers

#### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)
23406	6 <sup>1</sup> / <sub>4</sub>
23407	7

#### Features

- Jaws are polished with rust-protective coating.
- Wider, high leverage jaws for increased cutting power.
- Double-dipped plastic handle grips are comfortable yet durable.
- Induction hardened and precisely ground cutting edges stay sharp longer.



23406



## Standard Diagonal Cutting Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)
23404	5 1/2
23405	6 1/4

#### Features

- Jaws are polished with rust-protective coating.
- Double-dipped plastic handle grips are comfortable yet durable.
- Induction hardened and precisely ground cutting edges stay sharp longer.



23404



## End Cutting Nippers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Cutting Blade Length (Inches)
PLM-2C	4 1/2	15/32
PL-167	7 1/2	13/16

#### Features

- Ideal for cutting wire or nails that are close to the work.
- Polished heads resist rust and corrosion, extending the tool life.
- The wide throat clearance, width of blades and angles of the cutting edges along with the handle leverage provide for easy, clean cutting or nipping.



PLM-2C



PL-167





### Extra Long Reach Chain Nose Pliers

#### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-211C	Straight Jaw	11	2 <sup>13</sup> / <sub>16</sub>
PL-211BC	45° Bent Nose	11	2 <sup>9</sup> / <sub>16</sub>



#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Extra long handles provide access into confined areas and greater holding power at the tip.
- Bent nose model provides access to obstructed areas.



PL-211C

PL-211BC

## PLIERS

**DIAGONAL, END, SIDE CUTTING, & LONG NOSE PLIERS**



### High Leverage Chain Nose Pliers

#### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Jaw Length (Inches)	Width at Tip (Inches)
PL-98C	8	1 <sup>7</sup> / <sub>32</sub>	<sup>3</sup> / <sub>32</sub>



#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Longer handles for more convenient use and greater jaw gripping power.



PL-98C



## Chain Nose Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-95C	Short Nose w/cutter	5 1/2	1 5/32
PL-75C	Long Nose	6 3/4	2 5/16
PL-76C	Long Nose w/cutter	6 1/2	1 5/16
PL-77C	Extra Long Nose w/cutter	7 1/2	1 29/32



#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Diamond serrated jaws with industrial hardened cutting edges.

PL-95C

PL-75C



## Thin Bent Chain Nose Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-126C	73° Bent Thin Nose	6 1/4	1 1/4



#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Serrated jaws for extra gripping power.
- 73° bent nose model featured thin jaws angled to reach around obstacles and hard-to-reach spaces.

PL-126C



## Needle Nose Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-114CS	Short Nose	4 1/2	1
PL-116C	Long Nose	7	2 3/16



#### Features

- Polished heads resist rust and corrosion, extending the tool life.
- Serrated jaws provide extra gripping power.
- The PL-114CS short nose model is supplied with a spring and is designed for close, fine electrical and mechanical work.
- The PL-116C long nose model provides excellent gripping ability for use in tight, narrow places.

PL-116C

PL-114CS







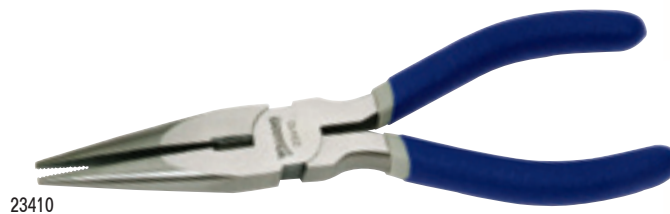
## Long Nose Pliers with Side Cutter

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)
23409	Bent Nose	6 1/4
23411	Straight Nose	8

#### Features

- Jaws are polished with rust-protective coating.
- Double-dipped plastic handle grips are comfortable yet durable.
- Induction hardened and precisely ground cutting edges stay sharp longer.



## PLIERS

## LONG NOSE PLIERS



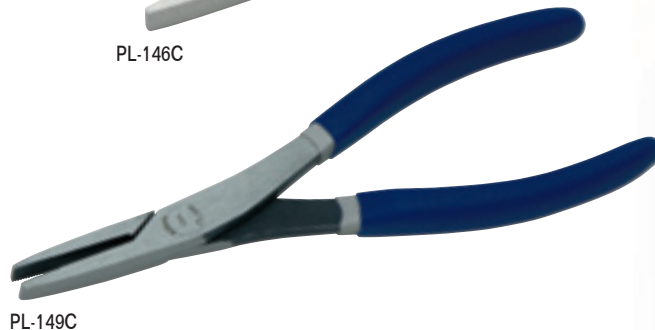
## Duck Bill Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Jaw Length (Inches)
PL-146C	Standard Jaw	6 1/2	2 1/16
PL-149C	High Leverage	8	1 1/4

#### Features

- Jaws are polished with rust-protective coating.
- Flat wide nose provides a better grip than the regular needle nose models.





## Electrical Mini Pliers

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Capacity (AWG)
23541	Mini Cutter	5 1/2	8
23542	Mini Stripper	5 1/2	8-18 Solid/10-22 Stranded
23543	Mini Crimper	5 1/2	10-22

### 23080 3 Piece Electrical Mini Pliers Set in Vinyl Pouch

#### Contents Include:

Product Code	Description	Product Code	Description
23541	Mini Cutter	23543	Mini Crimper
23542	Mini Stripper		



#### Features

- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- Cutter is hardened and precision-ground for cutting stranded and solid copper and aluminum wire.
- Stripper features up-front precision-ground stripping stations for exacting results in tight spaces.
- Crimper features front-end crimp pockets guaranteed to be free from burrs and sharp edges.



23541



23542



23543



## Heavy Duty Front End Wire Strippers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Capacity (AWG-solid wire)	Capacity (stranded wire)
23506	6 1/4	10-20	12-20
23518	6 1/4	14-24	16-26
23521	6 1/4	22-30	24-32

#### Features

- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- Spring-loaded handles speed work and reduce hand effort.
- Serrated gripping jaws in nose for use as pliers.
- 2-piece hardened steel pivot for long life service.
- Lock protects cutting edges in storage.



23506



## Super-Duty Front End Wire Strippers with Bolt Cutters

### Double-Dipped Plastic Handles with Curved Wire Cutter

Product Code	Overall Length (Inches)	Capacity (AWG-solid wire)	Capacity (stranded wire)
23533	7 1/4	10-18	12-20
23535	7 1/4	20-30	22-32

#### Features

- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- Longer, curved handles provide extra leverage and greater comfort.
- Serrated gripping jaws in nose for use as pliers.
- Built-in bolt cutters cleanly cut 6-32 and 8-32 screws.



23533





## Multi-Purpose Combination Wire Tools

### Double-Dipped Plastic Handles with Curved Wire Cutter

Product Code	Description	Overall Length (Inches)	Nose Style
23503	Front-end Stripper	8 1/4	Serrated Pliers
23524	Front-end Crimper	8 3/4	Anvil Cutter



#### Features

- Crimp and strip wire sizes 10-22 AWG.
- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- 23503 cuts 6 bolt sizes: 4-40 / 5-40 / 6-32 / 8-32 / 10-32 / 10-24.
- 23524 cuts 5 bolt sizes: 4-40 / 6-32 / 8-32 / 10-32 / 10-24.



23503



23524

## PLIERS

## WIRE STRIPPERS



## Romex® Strippers and Cutters

### Double-Dipped Plastic Handles with Staggered Type Strippers

Product Code	Description	Overall Length (Inches)	Stripper Sizes (AWG)
23512	Dual Romex®	7 3/4	12-2 / 14-2 NM-B
23515	10-2 Heavy Duty	7 3/4	10-2 NM-B



#### Features

- Staggered cutting design produces cleaner cuts with less effort.
- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- Built-in bolt cutters cleanly cut 6-32 and 8-32 screws.
- Serrated gripping jaws in nose for use as pliers.



23512



23515



## Coax Cable Multi Tool

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Stripper Sizes (AWG)
23530	Coax Cable Tool	8 1/2	RG6 / RG59



#### Features

- Cut, strip, and crimp popular RG6 and RG59 coax cable sizes with one tool.
- Curved cutting blade cuts cleanly with less effort.
- Instructions provided on the tool for easy operation.



23530



## 4-In-1 Datacom Wire Cutter

### Double-Dipped Plastic Handles

Product Code	Description	Overall Length (Inches)	Cutter Type
23527	4-in-1 Multi Purpose Datacom Wire Cutter	7 3/4	Anvil / Curved / Shear

#### Features

- Cuts solid and stranded copper electrical wire/cable and multi-conductor communications wire.
- Built-in bolt cutters cleanly cut 6-32 and 8-32 screws.
- Wire looping holes in jaws for speedy component assembly.
- Anvil cutter at nose allow nipping wire in close quarters, while 5/8" capacity curved cutter maintain cable shape.
- Steel wire-shear easily cuts steel reinforced coax.



23527



## Wire Twister / Cutter

### Produces Right Hand (clockwise) Twists

Product Code	Overall Length (Inches)	Jaw Length (Inches)	Cutting Blade Length (Inches)
WTC-11	8.5	1 1/16	1/4

#### Features

- Diamond-shaped, flat top jaw serrations hold wire firmly and resist knicking material being worked on.
- Diagonal nose configurations & "mini" frame allows access in tight quarters.
- Automatic return feature retracts automatically, speeding up operation use and reducing operator fatigue.
- Heat-treated cutting edge holds its edge for cutting tough (up to .041) stainless steel and safety wire.
- One hand operation allows for operator closing and locking with minimum of handle force.
- High carbon alloy steel forging are used for maximum durability and long life.



WTC-11







## PLIERS

## WIRE TOOLS & LOCKING PLIERS

### Locking Pliers and Set

#### Bi-Mold Comfort Grip Handles

Product Code	Overall Length (Inches)	Style
23201	5	Curved Jaw with Cutter
23202	7	Curved Jaw with Cutter
23203	10	Curved Jaw with Cutter
23210	7	Straight Jaw
23211	10	Straight Jaw
23220	6	Long Nose with cutter
23221	9	Long Nose with cutter

#### Locking Pliers Sets

Product Code	Description
23070	3 Piece Locking Pliers Set with Bi-Mold Comfort Grip Handles

#### Contents Include:

Product Code	Description
23201	5" Curved Jaw Locking Pliers with Cutter
23202	7" Curved Jaw Locking Pliers with Cutter
23203	10" Curved Jaw Locking Pliers with Cutter

#### Features

- Bi-mold handles provide comfortable grip, reducing hand fatigue.
- Convenient one-hand release lever.
- Heavy-duty jaw surfaces provide extra gripping power.
- Packed in a vinyl pouch.



## Locking Pliers

### Curved Jaw with Wire Cutter Locking Pliers

Product Code	Overall Length (Inches)
23301	5
23302	7
23303	10

### Straight Jaw Locking Pliers

Product Code	Overall Length (Inches)
23304	7
23305	10

### Long Nose with Wire Cutter Locking Pliers

Product Code	Overall Length (Inches)
23309	6
23310	9

### Locking C-Clamps

Product Code	Overall Length (Inches)
23320	6
23321	11

### Locking C-Clamps with Swivel Pad

Product Code	Overall Length (Inches)
23222	6

### 23072 3 Piece Locking Pliers Set

Contents Include:

Product Code	Description
23301	5" Curved Jaw Locking Pliers with Cutter
23302	7" Curved Jaw Locking Pliers with Cutter
23303	10" Curved Jaw Locking Pliers with Cutter

### 23074 4 Piece Locking Pliers Set

Contents Include:

Product Code	Description
23301	5" Curved Jaw Locking Pliers with Cutter
23303	10" Curved Jaw Locking Pliers with Cutter
23309	6" Long Nose with Wire Cutter
23310	9" Long Nose with Wire Cutter

### 23076 5 Piece Locking Pliers Set

Contents Include:

Product Code	Description
23301	5" Curved Jaw Locking Pliers with Cutter
23302	7" Curved Jaw Locking Pliers with Cutter
23305	10" Straight Jaw
23310	9" Long Nose with Wire Cutter
23320	6" Locking C-Clamp

### Features

- Convenient one-hand release lever.
- Heavy-duty jaw surfaces provide extra gripping power.



23303



23305



23309



23320



23072



23222



23074



23076



## Snap Ring Pliers

### Double-Dipped Plastic Handles

Product Code	Tip Size	Tip Angle (Degree)
PL-1620	0.038	0°
PL-1621	0.038	45°
PL-1622	0.038	90°
PL-1623	0.047	0°
PL-1624	0.047	45°
PL-1625	0.047	90°
PL-1626	0.070	0°
PL-1627	0.070	45°
PL-1628	0.070	90°
PL-1629	0.000	0°
PL-1630	0.090	45°
PL-1631	0.090	90°

### Combination Internal/External Snap Ring Pliers Set Pliers set in a plastic carrying case

#### Contents Include:

Product Code	Description
PL-1612	12 Piece Combination Internal/External Snap Ring Pliers Set

Set includes 1 each Snap Ring Plier listed above

### Combination Internal/External Snap Ring Pliers Set Pliers set in a plastic carrying case

#### Contents Include:

Product Code	Description
PL-1606	6 Piece Combination Internal/External Snap Ring Pliers Set

Set includes 1 each Snap Ring Pliers, PL-1620, PL-1622, PL-1623, PL-1625, PL-1626, PL-1628

#### Features

- Cushioned grip handles.
- Pliers are convertible for use on internal and external snap rings.
- Knurled center screw with spring for easy changing and secure hold.

## PLIERS

## LOCKING PLIERS & RETAINING RING PLIERS



PL-1622



PL-1620



PL-1621



PL-1612



PL-1606

## Retaining Ring Pliers and Set

### Double-Dipped Plastic Handles

Product Code	Description	Minimum Opening (Ctr. To Ctr.)	Maximum Opening (Ctr. To Ctr.)	Tips Included (Each Plier Includes 2 of Each)
PL-1600C-1	Internal pliers with tips	$\frac{3}{32}$	$\frac{25}{32}$	0.035" 90°
PL-1600C-2	External pliers with tips	$\frac{3}{32}$	1 $\frac{1}{32}$	0.045" 45° 0.045" Straight 0.060" Straight

### Snap Ring Pliers Set

Product Code	Description
PL-1600C	Snap Ring Pliers Set

### Contents Includes:

Product Code	Description
PL-1600C-1	PL-1600C-1 Internal Pliers
PL-1600C-2	PL-1600C-2 Internal Pliers

### Replacement Tip Set Contents Includes:

Product Code	Description
PL-1600C-3	16 Piece Replacement tip set

### Features

- Internal snap rings designed for use in housings, boxes, etc with bore diameters .375 to 1.750 inches.
- External snap rings designed for use in shafts, studs, etc with shaft diameters .250 to 1.438 inches.
- PL-1600C-1 and PL-1600C-2 each supplied with 8 tips (2 each: 90° x .035 and 45° x .045 angle tips and .045 and .060 straight tips).
- Made of high quality carbon steel with black-oxide finish to resist rust and other corrosions.
- Tips heat treated for a secure grip.
- Pliers provided with cushion grip handles.
- Set consists of one internal and one external snap ring pliers and 16 tips in a vinyl pouch.
- Tip set includes 4 each of interchangeable tips: 90° x .035 and 45° x .045 angle tips and .045 and .060 straight tips.



PL-1600C-1



PL-1600C-2

## Convertible Retaining Ring Pliers and Set

### Double-Dipped Plastic Handles

Product Code	Capacity (Max. Ring Dia.)	Tips Included (Includes 2 of Each)
23801	2"	0.038" Straight Tips (Yellow) 0.038" 90° Tips (Yellow) 0.047" Straight Tips (Green) 0.047" 90° Tips (Green) 0.070" Straight Tips (Copper)
23803	1"	0.024" Straight Tips (Red) 0.038" Straight Tips (Yellow) 0.038" 90° Tips (Yellow) 0.047" Straight Tips (Green) 0.047" 90° Tips (Green)

### Retaining Ring Pliers Set

Product Code	Description
23092	Retaining Ring Pliers Set

### Contents Includes:

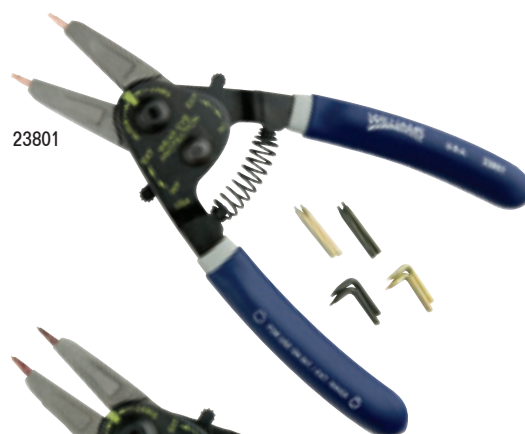
Product Code	Description
23801	2" Capacity Retaining Ring Pliers
23803	1" Capacity Retaining Ring Pliers

### Replacement Tip Kits Contents Includes:

Product Code	Description
23802	Replacement Tip Kit Only for 23801
23804	Replacement Tip Kit Only for 23803

### Features

- Easily convert for use on internal and external rings by moving convenient adjusting levers.
- Each pliers includes five pairs of color-coded tips for maximum versatility.
- Hex-shaped locking guides firmly hold tips in place.
- Double-dipped handles with air cushion pockets provide comfortable grip, reducing hand fatigue.
- Spring-loaded handles speed work.



23801



23803





## Heavy Duty Retaining Ring Pliers & Tips

### Double-Dipped Plastic Handles

Product Code	Description	Minimum Opening (Ctr. To Ctr.)	Maximum Opening (Ctr. To Ctr.)
PL-527	Internal snap ring pliers	$\frac{5}{16}$	$1 \frac{13}{32}$
PL-528	External snap ring pliers	$\frac{11}{32}$	$1 \frac{17}{32}$

### Tips for Heavy Duty Retaining Ring Pliers

Product Code	Description (Includes 2 each)
PL-529A	0.108" Straight Tips
PL-529B	0.108" 15° Tips
PL-529C	0.108" 45° Tips
PL-529D	0.108" 90° Tips
PL-530A	0.120" Straight Tips
PL-530B	0.120" 15° Tips
PL-530C	0.120" 45° Tips
PL-530D	0.120" 90° Tips

### Heavy Duty Retaining Ring Pliers Set PL-529

Product Code	Contents Include:
PL-527	Internal snap ring pliers
PL-528	External snap ring pliers

Set includes 2 each of heavy duty tips listed above



### Features

- Internal snap rings designed for use in housings, boxes, etc.
- External snap rings designed for use in shafts, studs, etc.
- Pliers supplied with spring ratchet lock assembly which allows the ring to be compressed or expanded with gradual adjustments which lock at the desired size without continued pressure on the handles.
- Made of high quality carbon steel with black-oxide finish to resist rust and other corrosions.
- Tips heat treated for a secure grip.
- Tips not provided with pliers when pliers are ordered individually.



PL-529

## PLIERS

## RETAINING RING PLIERS



## Fixed Tip Retaining Ring Pliers

### Double-Dipped Plastic Handles

Product Code	Overall Length (Inches)	Jaw Length (Inches)	Tip Diameter (Inches)	Minimum Jaw Opening (Inches)	Maximum Jaw Opening
<b>Internal</b>					
PL-531	5 1/2	7/8	0.38	3/32	2 3/8
PL-532	6 1/2	1	0.38	3/32	2 31/32
<b>External</b>					
PL-533	6 1/2	7/8	0.70	3/32	1 1/32
PL-534	7	2 1/16	0.70	3/32	1 1/4

### Features

- Internal - used for installing and removing internal retaining rings in a bore without damage to the ring.
- External - used for installing and removing external retaining rings on a shaft without damage to the ring.
- Manufactured from high carbon, heat treated steel.
- Designed for accurate fit and long wear by precision forming and induction hardening.
- Finished with black oxide coating.



PL-531

PL-532



PL-533

PL-534



## Locking Ring Pliers

### Black Jaws

Product Code	Overall Length (Inches)	Jaw Length (Inches)	Width at Tip (Inches)
PL-1515	8	1 3/8	5/16

### Features

- For spreading horseshoe lock washers and steel lock rings used on gear and bearing shafts.



PL-1515

