

*Wire Connectors*

*Terminals & Wire*

*Switches*

*Conduit Bending*

*Conduit Fishing*

*Hole Making*

*Hand Tools*

*Test Instruments*

*Cable Ties*

*Staples*

*Wire Management*

*Voice • Data • Video*

# ***Full Line Product Catalog***



# New Products

**NEW** Pulling Grips



90

**NEW**

Data • Voice • Video Products



173

**NEW**

CABLE WRAPTOR™



163

**NEW**

Heat Shrink Gun



164

**NEW**

Ultra Brutus™



88

**NEW**

ID & Stainless Steel Ties



150

<i><b>Wire Connectors</b></i>	<b>5</b>
<i><b>Terminals &amp; Wire</b></i>	<b>15</b>
<i><b>Switches</b></i>	<b>25</b>
<i><b>Conduit Bending</b></i>	<b>33</b>
<i><b>Conduit Fishing</b></i>	<b>65</b>
<i><b>Hole Making</b></i>	<b>101</b>
<i><b>Hand Tools</b></i>	<b>115</b>
<i><b>Test Instruments</b></i>	<b>131</b>
<i><b>Cable Ties</b></i>	<b>145</b>
<i><b>Staples</b></i>	<b>153</b>
<i><b>Wire Management</b></i>	<b>161</b>
<i><b>Voice • Data • Video</b></i>	<b>173</b>
<i><b>Index</b></i>	<b>189</b>

### **Wire Connectors**

Crimp Connectors .....	12
Copper Lugs .....	14
Twist-on Connectors .....	7-10
Grounding Accessories .....	14
Hi-Temp Black Connectors .....	8
Mechanical Lugs .....	12-13
Nylon Pigtail Connectors .....	11
Push-In Connectors (PushGard™) .....	11
Winged Connectors (WingGard™) .....	8

### **Terminals & Wire**

Clips & Clamps .....	23
Butt Splices & Kits .....	17, 20
Disconnects .....	19
Ring Terminals .....	17, 18
Spade Terminals .....	17, 18
GB Xtreme™ Terminals .....	17
Tap Splices .....	20
Terminal Blocks .....	20
Underground UF Splice Kits .....	22
Wire .....	23

### **Switches**

Door Switch .....	32
Pull Chain Switches .....	30, 31
Push Button Switches .....	29, 30
Rocker Switches .....	31
Rotary Switches .....	32
Toggle Switches .....	28, 29
Toggle Switch Cover .....	29

### **Conduit Bending**

Cyclone™ Electric Bender (B2000) .....	36
Hand Benders (including Big Ben™) .....	58-60
Hydraulic Benders / Accessories .....	40-53
Pumps .....	49-51
PVC Benders & Plug Sets .....	61-63
Sidewinder® Electric Bender (B2555) .....	37
Sidewinder® Mechanical Benders .....	54-57
Ultra Egor™ Hydraulic Bender .....	40-41
Storage Cases (Tool-Guard™) .....	64

### **Conduit Fishing**

Blower Systems .....	68-69
CO2 Systems .....	71-72
Fish Sticks .....	81
Fish Tapes (including UpperHand™) .....	76-80
Lubricants .....	91-93
Pull Line/Line Carriers .....	73-75
Pullers & Accessories .....	82-90
Reel Rollers & Jacks .....	96
Rope .....	93-94
Ultra Brutus™ .....	88-89
Wire Caddies & Carts .....	97-98

### **Hole Making**

35-Ton Hydraulic Punch .....	108
Drawstuds .....	110-111
Step Bits .....	112
Slug-Out™ Sets for Mild & Stainless Steel .....	103-107
Stud Punch .....	113

### **Hand Tools**

Circuit Alert™ .....	117-119
Cutters .....	122-123
Datacom/VDV .....	124-125

Knives .....	117, 130
Pliers .....	119, 126-128
Screwdrivers .....	119, 129
Wire Strippers .....	118, 120-124

### **Test Instruments**

Battery Tester (analog) .....	142
Continuity Testers .....	135
Multimeters (analog, digital, clamp-on) .....	139-141
Non-Contact Voltage Testers .....	136
Receptacle Testers/Analyzers .....	137
Tester Parts .....	142
Tone & Trace .....	138
Voltage Testers .....	133-136

### **Cable Ties**

Colored .....	150
Grip Strip™ .....	151
Heavy Duty .....	148
Miniature .....	147
Mounting Bases & Ties .....	149, 151
Releaseable .....	149
Standard .....	147
Tensioning Tools .....	151

### **Staples**

Category 3 & 5 Data .....	159
Coaxial .....	158, 160
Conduit Straps .....	158
Fiber-Insulated .....	160
Insulated Metal .....	156
Low Voltage .....	156, 159
Masonry .....	159, 160
MultiCable .....	157
Metal .....	156
Plastic .....	157
Roofing .....	160
Service Entrance .....	157, 158
Staple Gun .....	155-156

### **Wire Management**

Electrical Reference Books .....	172
Anchor Kit .....	171
Box Supports/Spacers .....	170, 172
Bushings/Insulators .....	178
Cable Clamps .....	167
Duct Seal Compound .....	169
Hanger Strap .....	169
Heat-Shrink Tubing .....	165-166
Knockout Seals .....	168
Screw Kits .....	171
Seals .....	168-169
Split Flex Tubing/Spiral Wrap .....	166
Stud Insulators .....	168
Tape .....	163-164
Wire Marking .....	170

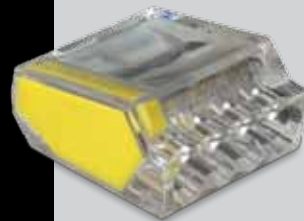
### **Voice • Data • Video**

Cable Boss™ Staple Gun .....	181
Cable Staples .....	181, 183
Coaxial Strippers/Cutters .....	177, 178
F-Series Connectors .....	177
Punch-down Tools .....	175
TelCom RJ-45 Modular Plugs .....	180
UTP/STP Cable Stripper .....	179
Wire Tracker™ Wire Tracer .....	176
Accessories .....	181-183



# *Wire Connectors*

Gardner Bender™ wire connectors are engineered to exceed the expectations of professional electricians. Perfect for commercial or residential applications, GB® wire connectors offer world-class quality, performance and application versatility.



page 11



page 7



page 12



page 13

Aluminum Mechanical Lugs.....	13
Aluminum Splicer-Reducers .....	13
Aluminum Split Bolt Connectors.....	12
Anti-Oxidant Compound (Ox-Gard™).....	14
Copper Mechanical Lugs .....	13
Copper Split Bolt Connectors.....	12
Crimp Connectors.....	12
Grounding Connectors (GreenGard™) .....	10
Grounding Accessories.....	14
Hi-Temp Black Connectors .....	8
Multi-Range Connectors (Hex-Lok®) .....	9
Pigtail Connectors.....	11
Push-In Connectors (PushGard™).....	11
Straight-Sided Connectors (WireGard™) .....	7
Universal Connectors (Uni-Lok®).....	10
Winged Connectors (WingGard®).....	8

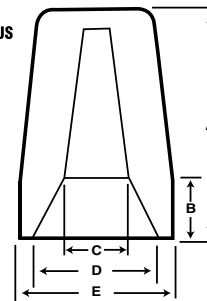
## WireGard™ Color-Coded Screw-On Wire Connectors

The industry standard twist-on connector with top quality, performance and durability.

- Color-coded for easy size selection.
- Tight, square-wire spring makes quick, secure connections for positive continuity.
- Tough, thermoplastic shell shields against environmental extremes.
- Resists chemical action from hydrocarbons, diluted acid or alkaline solutions.
- Flame-retardant properties resist heat distortion up to 105 °C (221 °F).
- High-dielectric shell features deep skirt design to prevent exposure of bare wire.
- Copper-to-copper connections only.



	Color	Part #	Pkg Qty	Wire Range	Min	Max
GB-1 (71B)		10-001	100/box	#22 - #16 AWG (connections rated at 300 V Max.)	1 #20 w/1 #22	2 #16
		12-001	25,000/bulk keg			
		12-001BU	150,000/bulk barrel			
		16-001	150/jar			
		19-001	14/card			
25-001	25/resealable bag					
GB-2 (72B)		10-002	100/box	#22 - #16 AWG (connections rated at 300 V Max.)	3 #22	3 #16
		12-002	10,000/bulk keg			
		12-002BU	96,000/bulk barrel			
		16-002	150/jar			
		19-002	14/card			
25-002	25/resealable bag					
GB-3 (73B)		10-003	100/box	#22 - #14 AWG (connections rated at 300 V Max. and 600 V Max.) <sup>2</sup>	3 #20	4 #16 w/1 #20
		12-003BU	53,000/bulk barrel			
		13-003	500/bag			
		16-003	100/jar			
		16-003M	300/jar			
		17-003	50/bag			
		19-003	12/card			
25-003	25/resealable bag					
GB-4 (74B)		10-004	100/box	#18 - #10 AWG (connections rated at 300 V Max. and 600 V Max.) <sup>2</sup>	1 #14 w/1 #18	3 #12
		12-004BU	32,400/bulk barrel			
		13-004	500/bag			
		16-004	200/jar			
		17-004	50/bag			
19-004	9/card					
25-004	25/resealable bag					
GB-6 (76B)		10-006	100/box	#18 - #10 AWG (connections rated at 300 V Max. and 600 V Max.) <sup>2</sup>	2 #14	2 #10 w/2 #12
		12-006BU	21,000/bulk barrel			
		13-006	250/bag			
		16-006	125/jar			
		17-006	50/bag			
19-006	6/card					
25-006	25/resealable bag					



Dimensions

	A	B	C	D	E
GB-1	37/64"	11/64"	1/8"	1/4"	21/64"
GB-2	45/64"	11/64"	3/16"	5/16"	25/64"
GB-3	27/32"	21/64"	13/64"	11/32"	7/16"
GB-4	15/16"	17/64"	15/64"	7/16"	35/64"
GB-6	1 1/16"	17/64"	2 1/64"	17/32"	2 1/32"

<sup>2</sup> Note: Connection rated at 600 V Max. for building wiring and rated at 1000 V Max. in lighting fixtures/luminaries and signs. See carton for detailed wire combination ratings or www.gardnerbender.com.

### Assortments

Part #	Pkg Qty	Description
19-AWC	9/card	2 gray, 2 orange, 3 yellow, 3 red
25-AWC	25/resealable bag	3 gray, 4 blue, 6 orange, 6 yellow, 6 red

## Hi-Temp Black Connectors for Tough Environments

Connectors manufactured with high-temperature-rated plastic to withstand extreme temperatures.

- Temperature-rated to 150 °C (302 °F).
- Available in two standard models.
- Copper-to-copper connections only.



GB-4 GB-3

Model	(Size)	Part #	Pkg Qty	Wire Range	Min	Max
GB-3	(73B)	10-003HT	100/box	#22 - #14 AWG <sup>1</sup>	3 #20	4 #16 w/1 #20
		27-003	10,000/bulk keg			
GB-4	(74B)	10-004HT	100/box	#18 - #10 AWG <sup>1</sup>	1 #14 w/1 #18	4 #14
		27-004	10,000/bulk keg			



<sup>1</sup> Connections rated at 300 V Max. and 600 V Max.




Note: Connection rated at 600 V Max. for building wiring and rated at 1000 V Max. in lighting fixtures/luminaries and signs. See carton for detailed wire combination ratings or www.gardnerbender.com.

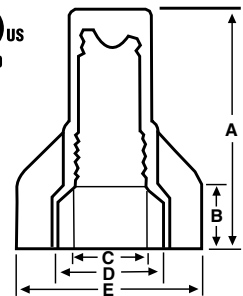
## WingGard® Color-Coded Twist-On Wire Connectors

Unsurpassed quality and durability in a high-leverage, easy-on wing-type design.

- Wings are knurled for a sure grip and offset from centerline for greater twisting leverage.
- Square-wire plated spring instantly adjusts to the shape and size of the splice.
- Flame-retardant properties resist heat distortion up to 105 °C (221 °F).
- High-dielectric shell features deep skirt design to prevent exposure of bare wire.
- Copper-to-copper connections only.



	Color	Part #	Pkg Qty	Wire Range	Min	Max
#84™		10-084	100/box	#22 - #10 AWG (connections rated at 300 V Max. and 600 V Max.)	2 #22	3 #12
		12-084BU	42,000/bulk barrel			
		13-084	500/bag			
		16-084	100/jar			
		16-084M	225/jar			
		17-084	50/bag			
		19-084	6/card			
		25-084	25/resealable bag			
#86™		10-086	100/box	#22 - #6 AWG (connections rated at 300 V Max. and 600 V Max.)	2 #20	4 #10
		12-086BU	22,500/bulk barrel			
		13-086	500/bag			
		16-086	125/jar			
		16-086L	325/jar			
		17-086	50/bag			
		19-086	6/card			
		25-086	25/resealable bag			
#89™		10-089	50/box	#14 - #6 AWG (connections rated at 300 V Max. and 600 V Max.)	1 #10 w/1 #12	1 #6 Str w/2 #8 Str
		13-089	100/bag			
		19-089	2/card			
		25-089	10/resealable bag			



Dimensions

	A	B	C	D	E
#84™	1 1/32"	5/16"	7/32"	1/4"	23/32"
#86™	1 1/4"	5/16"	9/32"	7/16"	29/32"
#89™	1 1/2"	7/16"	3/8"	3/4"	1 1/4"

Note: Connection rated at 600 V Max. for building wiring and rated at 1000 V Max. in lighting fixtures/luminaries and signs. See carton for detailed wire combination ratings or www.gardnerbender.com.

### Assortments

Part #	Pkg Qty	Description
16-8486	100/jar	50 red, 50 yellow
16-8486M	160/jar	80 red, 80 yellow
19-AWW	5/card	2 yellow, 2 red, 1 large gray
25-AWW	25/resealable bag	8 yellow, 8 red, 7 tan, 2 blue

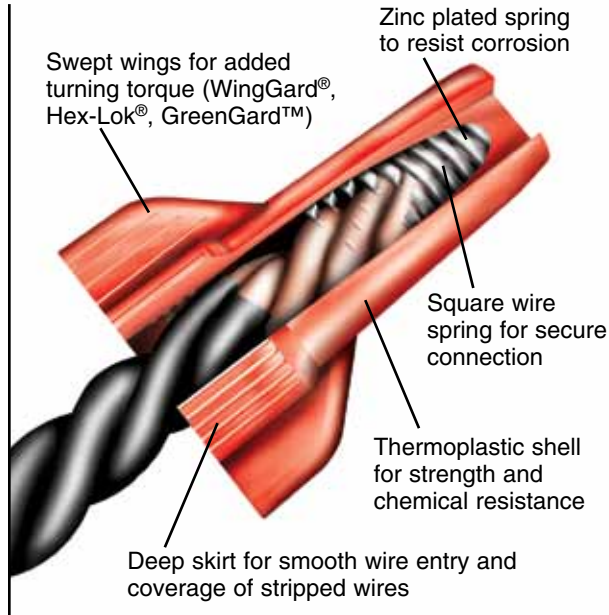


## Gardner Bender™ Twist-On Wire Connectors

*Engineered to exceed the expectations of professional electricians.*

### All GB® Twist-On Wire Connectors:

- Are designed to make wiring jobs fast, easy, safe and reliable.
- Provide maximum application flexibility by offering contractors myriad packaging options, ergonomic designs and wire ranges.
- Exceed UL standards for dielectric strength, wire pullout force and static heat resistance.
- Are manufactured of top-quality materials.
- Meet the requirements of nearly all budgets.
- Are continually evaluated for improvements and enhancements.





## Hex-Lok® Multi-Range Wire Connectors

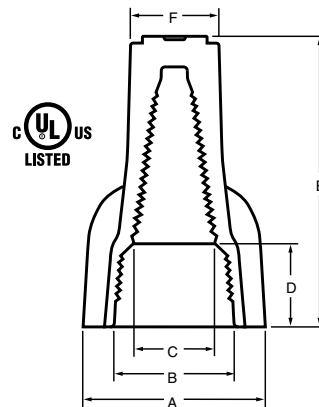
Multi-range, hex-head copper-to-copper connector covers 95% of everyday applications.

- Streamlined design for compact installations.
- Square-wire spring grabs and holds wires for secure connections.
- Long skirt covers stripped wires.
- Rated at 600 V Max. in building wire and at 1000 V Max. in lighting fixtures/luminaries and signs.
- Copper-to-copper connections only.



Patented

	Color	Part #	Pkg Qty	Wire Range	Min	Max
H1		10-1H1	100/box	#22 - #8 AWG	3 #22	3 #10
		12-1H1BU	28,000/bulk barrel			
		12-1H1BX	33,000/bulk barrel			
		13-1H1	500/bag			
		16-1H1	175/jar			
		16-1H1L	400/jar			
		17-1H1	50/bag			
		19-1H1	6/card			
		25-1H1	25/resealable bag			
H2		10-2H2	50/box	#14 - #6 AWG	3 #14	1 #6 w/1 #8
		12-2H2BU	16,000/bulk barrel			
		13-2H2	250/bag			
		19-2H2	6/card			
		25-2H2	25/resealable bag			



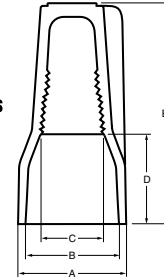
Dimensions



	A	B	C	D	E	F
H1	47/64"	9/16"	5/16"	21/61"	15/32"	5/16"
H2	1"	15/32"	25/64"	13/32"	121/64"	7/16"

## Uni-Lok® Universal Wire Connectors

Versatile and cost-effective, Uni-Lok® connectors are designed to accept a wide range of wire combinations.

- Swept mini-wings provide additional torque.
- Square-wire spring grabs and holds wires for secure connections.
- Long skirt covers stripped wires.
- Rated at 600 V Max. in building wire and at 1000 V Max. in lighting fixtures/luminaries and signs.
- Copper-to-copper connections only.



	Color	Part #	Pkg Qty	Wire Range	Min	Max
G1		10-1G1	100/box	#22 - #12 AWG	4 #22	3 #12
		12-1G1BU	40,000/bulk barrel			
		13-1G1	500/bag			
		19-1G1	6/card			
		25-1G1	25/resealable bag			
G2		10-2G2	100/box	#22 - #10 AWG	3 #20	5 #12
		13-2G2	500/bag			
		19-2G2	6/card			
		25-2G2	25/resealable bag			

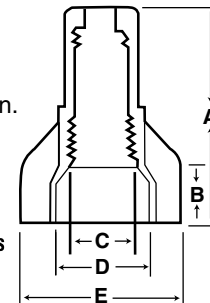
Dimensions


	A	B	C	D	E
G1	31/64"	27/64"	9/32"	13/32"	63/64"
G2	37/64"	33/64"	23/64"	27/64"	111/64"

## GreenGard™ Grounding Wire Connectors

Specifically designed for making positive ground connections, GreenGard™ connectors feature the same live-action as GB® WingGard® connectors with the added plating protection for corrosion resistance in grounding applications.

- Easier to use — New design enables torque-up with improved grip.
- Contoured, offset wings enable firm ground connections.
- Flame retardant, thermoplastic shell resists punctures, cuts, abrasion and corrosion.
- Connectors have a hole in the tip for ground wire.
- Solid copper-to-copper connections only.



	Color	Part #	Pkg Qty	Wire Range	Min	Max
#95™		10-095	100/box	#14 - #10 AWG (connections rated at 600 V Max.)	2 #14	4 #12
		13-095	500/bag			
		16-095	125/jar			
		19-095	6/card			
		25-095	25/resealable bag			

Dimensions

	A	B	C	D	E
#95™	1 1/4"	5/16"	9/32"	7/16"	29/32"



**INNOVATION**

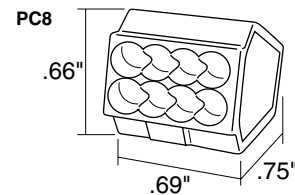
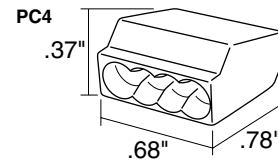
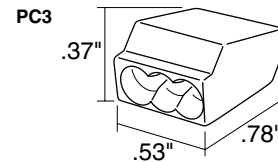
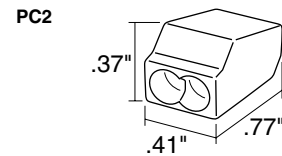
## PushGard™ Push-in Wire Connectors

Easy and fast to use, just strip and push conductors into PushGard™ connectors to make reliable, secure connections.

- Simplified insertion and compact size helps in tight locations.
- Clear polycarbonate housings have color-coded side panels for connection verification and identification.
- With corrosion-resistant stainless steel springs, PushGard™ connectors restrict wire pullout, yet corrections are possible with a simple left-right twist and pull.
- Continuity test point for easy voltage checks.
- Available in 2-,3-,4 and 8-port configurations.
- Rated at 600 V Max. in building wire and at 1000 V Max. in lighting fixtures/luminaries.
- Copper-to-copper connections only.



	Color	Ports	Part #	Pkg Qty	Wire Range
PC2		2	10-PC2	100/box	#22 - #12
			19-PC2	10/clam	AWG Solid (connections rated at 600 V Max.)
PC3		3	10-PC3	100/box	#22 - #12
			19-PC3	10/clam	AWG Solid (connections rated at 600 V Max.)
PC4		4	10-PC4	100/box	#22 - #12
			19-PC4	10/clam	AWG Solid (connections rated at 600 V Max.)
PC8		8	10-PC8	50/box	#22 - #12
			19-PC8	10/clam	AWG Solid (connections rated at 600 V Max.)



## Nylon Pigtail Connectors

Closed-end crimp connector designed for use with solid or stranded wire.

- Vibration resistant.
- Tin-plated seamless copper.
- Corrosion and chemical resistant.



Part #	Pkg Qty	Wire Range	Min	Max
20-089	10/clam	#22 - #14 AWG	2 #22	1 #14 w/1 #18
15-090	15/clam	#22 - #10 AWG	3 #18	1 #10 w/1 #20
20-090	10/clam	#22 - #10 AWG	3 #18	1 #10 w/1 #20



## Crimp Connectors

Use GB® crimp connectors for strong, vibration-resistant permanent connections in branch circuit and fixture wiring.

- Two styles and sizes available.
- Copper or zinc-plated steel.

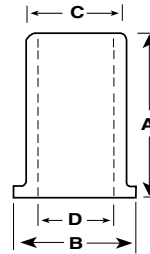


### Copper

Part #	Model	Pkg Qty	Wire Range	Min	Max
10-310C	310	100/clam	#18 - #10 AWG	2 #16	2 #10 w/1 #12
10-311C	311	50/clam	#14 - #8 AWG	3 #12	4 #10

### Zinc-plated Steel

Part #	Model	Pkg Qty	Wire Range	Min	Max
10-410	410	100/box	#18 - #10 AWG	2 #16	2 #10 w/1 #12
10-410C	410	100/clam			
13-410	410	500/bag			
20-410	410	12/clam			
10-411	411	50/box	#14 - #8 AWG	3 #12	4 #10
10-411C	411	50/clam			
20-411	411	8/clam			



Dimensions				
Model	A	B	C	D
310/410	3/8"	19/64"	1/4"	13/64"
311/411	5/8"	23/64"	21/64"	17/64"

## Copper Split Bolt Connectors

All-copper alloy construction for high mechanical strength, maximum conductivity and low resistance.

- Accept a wide range of solid and stranded conductors from 16 AWG – 3/0 AWG.
- Can be torqued with standard wrenches.



Part #	Pkg Qty	Wire Gauge
GSBC-8	2/clam	#16 - #10 AWG Stranded, #16 - #8 AWG Solid
GSBC-6	2/clam	#10 AWG Stranded, #10 - #8 AWG Solid
GSBC-4	2/clam	#8 - #4 AWG Solid
GSBC-2	2/clam	#6 - #2 AWG Solid

Part #	Pkg Qty	Wire Gauge
GSBC-1/0	1/clam	#4 - #0 AWG Solid
GSBC-2/0	1/clam	#2 - #00 AWG Solid
GSBC-3/0	1/clam	#2 - #000 AWG Solid

## Aluminum Split Bolt Connectors

Constructed of high-strength aluminum with oxide-displacing jaws to prevent galvanic corrosion.

- Accept conductors from 10 AWG – 4/0 AWG.
- Use GB® OX-GARD™ anti-oxidant treatment on Al-Al and Al-Cu to prevent corrosion and permit cooler connections.



Part #	Pkg Qty	Wire Gauge
GAK-2	1/clam	#8 - #2 AWG Solid
GAK-1/0	1/clam	#8 - #0 AWG Solid
GAK-2/0	1/clam	#10 AWG Stranded, #10 - #00 AWG Solid
GAK-4/0	1/clam	#6 - #0000 AWG Solid

## Aluminum Mechanical Lugs

- Feature high-strength, low-resistance aluminum construction.
- Accepts conductors from 14 AWG - 2/0 AWG.
- For 3/8" stud.
- Use GB® OX-GARD™ anti-oxidant treatment on Al-Al and Al-Cu to prevent corrosion and permit cooler connections.



### 1 Conductor

Part #	Pkg Qty	Wire Gauge
GTA-2	2/clam	#14 - #10 AWG Stranded, #14 - #2 AWG Solid
GTA-2/0	2/clam	#14 - #10 AWG Stranded, #14 - #00 AWG Solid

## Copper Mechanical Lugs

Provide maximum mechanical strength and minimum resistance.

- All-copper alloy construction features a compact design that is reusable.
- Accept a wide range of solid and stranded conductors from 14 AWG – 0 AWG.
- For 3/8" stud.



Part #	Pkg Qty	Wire Gauge	Part #	Pkg Qty	Wire Gauge
GSLU-25	2/clam	#14 - #10 AWG Stranded	GSLU-70	2/clam	#8 - #2 AWG Solid
GSLU-35	2/clam	#14 - #10 AWG Stranded, #14 - #6 AWG Solid	GSLU-125	2/clam	#6 - #0 AWG Solid

## Aluminum Splicer-Reducers

Designed to splice similar-gauge conductors or reduce the gauge from a larger wire diameter to a smaller one.

- Galvanic corrosion is limited by an internal wire stop, preventing direct contact of dissimilar metals inside.
- Use GB® OX-GARD™ anti-oxidant treatment on Al-Al and Al-Cu to prevent corrosion and permit cooler connections.



Part #	Pkg Qty	Wire Gauge
GSPA-2	2/clam	#14 - #10 AWG Stranded, #14 - #2 AWG Solid
GSPA-0	1/clam	#14 - #10 AWG Stranded, #14 - #0 AWG Solid
GSPA-4/0	1/clam	#6 - #0000 AWG Solid



## Copper Lugs

Heavy-duty lugs made from pure copper for maximum current flow.

- Tinned for corrosion resistance.
- Seamless barrel for maximum strength.
- Closed ends seal out moisture.



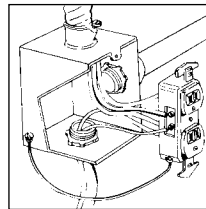
Part #	Pkg Qty	Wire Gauge	Stud Size
AML-200	2/clam	#6 AWG	1/4"
AML-201	2/clam	#6 AWG	5/16"
AML-202	2/clam	#6 AWG	3/8"
AML-203	2/clam	#4 AWG	5/16"
AML-204	2/clam	#4 AWG	3/8"

Part #	Pkg Qty	Wire Gauge	Stud Size
AML-205	2/clam	#2 AWG	5/16"
AML-206	2/clam	#2 AWG	3/8"
AML-207	2/clam	#1/0 AWG	3/8"
AML-208	2/clam	#2/0 AWG	3/8"

## Grounding Accessories

Convenient grounding accessories include products suitable for most job requirements.

- Zinc-plated grounding clips provide positive grounding to switch, outlet or junction boxes for #10, 12, 14 AWG copper grounding wire.
- Hex-head grounding screws secure ground wires to circuit box.
- Grounding clamps listed for direct burial and connection of ground wire to ground rod.



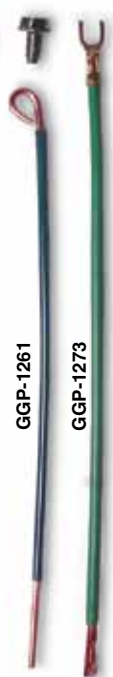
14-GRC



GGP-1502



GGG-1032HC



GGP-1261

GGP-1273



Part #	Pkg Qty	Description	Length	Ends
GGP-1261	25/bag	Grounding Pigtail; #12 AWG Solid	6 1/2"	Captured screw/stripped
GGP-1273	25/bag	Grounding Pigtail; #12 AWG Str	7"	Stripped/bare fork terminal
GGP-1282	25/bag	Grounding Pigtail; #12 AWG Str	8"	Captured screw/bare fork terminal
GGP-1461	25/bag	Grounding Pigtail; #14 AWG Solid	6 1/2"	Captured screw/stripped
GGP-1502	2/card	Grounding Pigtail; #12 AWG Solid	8"	Captured screw/bare fork terminal
14-GRC	1/card	Grounding Clamp for 1/2" - 1" pipe		
GGC-1508	8/card	Grounding Clip for Aluminum or Copper; Grounding wire; Zinc plated		
GGG-1032HC	100/clam	Hex-Head Ground Screw		
GGG-1512R	12/card	Green Round Washer Head Screw for Switch and Outlet Boxes		

## Ox-Gard™ Anti-Oxidant Compound

The perfect safeguard for aluminum-to-aluminum, aluminum-to-copper wire connections and aluminum conduit joints.

- Guards against oxidation.
- Improves conductivity; penetrates aluminum oxide to maintain inter-strand and inter-conductor current paths.
- Produces a cooler connection.

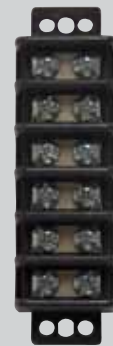
Part #	Pkg Qty	Description
OX-100	1/tube	1 oz Squeeze Tube
OX-100B	1/tube	1 oz Squeeze Tube (blister pack)
OX-400	1/tube	4 oz Squeeze Tube
OX-800	1/tube	8 oz Squeeze Tube





## ***Terminals & Wire***

Dependable and easy to use, Gardner Bender™ terminals and wiring accessories offer the high quality and application flexibility that professionals demand. Available in a variety of packaging options, look to Gardner Bender™ for secure wire connection options.



page 20



page 17



page 22



page 23

Alligator Clips.....	23
Battery Charging Clips, Clamps .....	23
Bullet Splices .....	19
Butt Splices & Kits.....	19,20,21
Disconnects .....	19
GB Xtreme® Terminals.....	17
Ring Terminals.....	17,18
Spade Terminals .....	17,18
Terminal Adapters.....	20
Terminal Kits.....	21
Tap Splices .....	20
Underground UF Splice Kit .....	22
Wire .....	23





**INNOVATION**

**GB Xtreme® Terminals**

Constructed with Heat Shrink insulation – adhesive lined to waterproof and environmentally seal electrical connections when crimped and heated.

- Insulates and protects connections from wire pullout, moisture intrusion and abrasion.
- Heat-activated adhesive melts and flows to create a seal.
- Resists salt water, oil, gasoline and other environmental contaminants.
- Rated at 600 Volt Max.
- Temperature rating: 221 °F (105 °C).



**Ring Terminals** 

22-18 Gauge



Part #	Pkg Qty	Stud Size
AMT-100	3/clam	8 to 10
AMT-4100	6/clam	8 to 10
AMT-5102	4/clam	10

16-14 Gauge



Part #	Pkg Qty	Stud Size
AMT-103	3/clam	8 to 10
AMT-4103	6/clam	8 to 10
AMT-5104	4/clam	10

12-10 Gauge



Part #	Pkg Qty	Stud Size
AMT-106	3/clam	8 to 10
AMT-108	3/clam	1/4"
AMT-4106	5/clam	8 to 10
AMT-5106	3/clam	10

**Spade Terminals** 

22-18 Gauge



Part #	Pkg Qty	Stud Size
AMT-110	3/clam	8 to 10
AMT-4110	16/clam	8 to 10

16-14 Gauge



Part #	Pkg Qty	Stud Size
AMT-113	3/clam	8 to 10
AMT-4113	6/clam	8 to 10

12-10 Gauge



Part #	Pkg Qty	Stud Size
AMT-116	3/clam	8 to 10
AMT-4116	5/clam	8 to 10

**Butt Splices** 

22-18 Gauge



Part #	Pkg Qty
AMT-120	3/clam
AMT-121	25/clam
AMT-4120	8/clam
AMT-5121	5/clam

16-14 Gauge



Part #	Pkg Qty
AMT-123	3/clam
AMT-124	25/clam
AMT-4123	7/clam
AMT-5123	5/clam

12-10 Gauge



Part #	Pkg Qty
AMT-126	3/clam
AMT-127	25/clam
AMT-4126	3/clam
AMT-5126	4/clam

Assortment



Part #	Pkg Qty	Description
GBX-TK	24/card	22-10 AWG assorted butt splices

**Terminals & Wire**

**NEW Heat Shrink Gun**

- Use with heat shrink tubing or terminals.
- Refillable butane can included.

Part #	Pkg Qty
MSTR-TORCH	1/clam



## General Purpose Terminals


Quick and reliable crimp-type wire connections.


- Color-coded by wire gauge size.
- Available in a variety of packaging options and stud sizes.
- Includes Spade and Ring Terminals, Disconnects, and Bullet, Butt & Tap Splices (p.17-19)


### Spade Terminals - Vinyl-Insulated Barrel

- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).



22-18 Gauge	Part #	Pkg Qty	Stud Size
	10-111	100/clam	4 to 6
	10-112	100/clam	8 to 10
	20-111	20/clam	4 to 6
	20-112	20/clam	8 to 10
	21-111	10/clam	4 to 6
	21-112	7/clam	8 to 10
	75-111	75/clam	4 to 6


16-14 Gauge	Part #	Pkg Qty	Stud Size
	10-113	100/clam	4 to 6
	10-114	100/clam	8 to 10
	15-114	15/clam	8 to 10
	20-113	20/clam	4 to 6
	20-114	20/clam	8 to 10
	21-113	10/clam	4 to 6
	21-114	10/clam	8 to 10
	75-113	75/clam	8 to 10


12-10 Gauge	Part #	Pkg Qty	Stud Size
	10-116	50/clam	8 to 10
	15-116	15/clam	8 to 10
	21-116	8/clam	8 to 10
	75-116	5/clam	8 to 10

### Ring Terminals - Non-Insulated

- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).



16-14 Gauge	Part #	Pkg Qty	Stud Size
	10-204	100/bag	8 to 10

12-10 Gauge	Part #	Pkg Qty	Stud Size
	10-206	100/bag	8 to 10

SEE PG  
122




FOR MORE INFO ON  
Crimp Tools


### Ring Terminals - Vinyl-Insulated Barrel


- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).




22-18 Gauge	Part #	Pkg Qty	Stud Size
	20-101	22/clam	4 to 6
	20-102	22/clam	8 to 10
	21-101	10/clam	4 to 6
	21-102	10/clam	8 to 10

16-14 Gauge	Part #	Pkg Qty	Stud Size
	10-103	100/clam	4 to 6
	10-104	100/clam	8 to 10
	10-105	100/clam	12 to 1/4"
	15-104	15/clam	8 to 10
	15-105	15/clam	12 to 1/4"
	20-103	22/clam	4 to 6
	20-104	22/clam	8 to 10
	20-105	17/clam	12 to 1/4"
	21-103	10/clam	4 to 6
	21-104	10/clam	8 to 10
	21-105	7/clam	12 to 1/4"
	21-1055	7/clam	5/16" to 3/8"
	75-104	75/clam	8 to 10

12-10 Gauge	Part #	Pkg Qty	Stud Size
	10-106	50/clam	8 to 10
	10-107	50/clam	12 to 1/4"
	10-108	50/clam	1/4" to 3/8"
	15-106	15/clam	8 to 10
	15-107	15/clam	12 to 1/4"
	15-108	15/clam	5/16" to 3/8"
	20-106	14/clam	8 to 10
	20-107	14/clam	12 to 1/4"
	20-108	13/clam	1/4" to 3/8"
	21-106	8/clam	8 to 10
	21-107	7/clam	12 to 1/4"
	21-108	7/clam	5/16" to 3/8"
	21-109	7/clam	7/16" to 1/2"
	75-106	50/clam	8 to 10


6 Gauge	Part #	Pkg Qty	Stud Size
	14-095	4/card	1/4"
	14-097	4/card	1/2"
	15-096	4/card	3/8"


4 Gauge	Part #	Pkg Qty	Stud Size
	14-099	4/card	1/2"
	15-098	4/card	3/8"

### Disconnects - Non-Insulated

- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).





16-14 Gauge	Part #	Pkg Qty	Tab	Type
	10-243F	100/bag	0.250"	Female

12-10 Gauge	Part #	Pkg Qty	Tab	Type
	10-245F	100/bag	0.250"	Female



### Disconnects - Vinyl-Insulated Barrel

- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).



22-16 Gauge	Part #	Pkg Qty	Tab	Type
	10-141F	100/clam	0.250"	Female
	10-141M	100/clam	0.250"	Male
	20-141F	21/clam	0.250"	Female
	20-141M	18/clam	0.250"	Male
	21-141F	10/clam	0.250"	Female
	21-141M	10/clam	0.250"	Male
	21-146F	10/clam	0.187"	Female
	21-146M	10/clam	0.187"	Male



16-14 Gauge	Part #	Pkg Qty	Tab	Type
	10-143F	100/clam	0.250"	Female
	10-143M	100/clam	0.250"	Male
	15-143F	15/clam	0.250"	Female
	15-143M	14/clam	0.250"	Male
	20-143F	20/clam	0.250"	Female
	20-143M	18/clam	0.250"	Male
	21-143F	10/clam	0.250"	Female
	21-143M	10/clam	0.250"	Male
	75-143F	75/clam	0.250"	Female

12-10 Gauge	Part #	Pkg Qty	Tab	Type
	10-145F	100/clam	0.250"	Female
	10-145M	100/clam	0.250"	Male
	15-145F	15/clam	0.250"	Female
	20-145F	16/clam	0.250"	Female
	20-145M	16/clam	0.250"	Male
	21-145F	8/clam	0.250"	Female
	21-145M	8/clam	0.250"	Male
	75-145F	50/clam	0.250"	Female



### Disconnects - Fully-Insulated


- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).



22-18 Gauge	Part #	Pkg Qty	Tab	Type
	10-151F	100/clam	0.250"	Female
	15-151F	15/clam	0.250"	Female
	15-151M	15/clam	0.250"	Male
	20-151P	20/clam	0.250"	F/M Pairs
	21-151F	6/clam	0.250"	Female
	21-151M	6/clam	0.250"	Male

16-14 Gauge	Part #	Pkg Qty	Tab	Type
	10-153F	100/clam	0.250"	Female
	10-153M	80/clam	0.250"	Female
	10-153P	100/clam	0.250"	F/M Pairs
	15-153F	15/clam	0.250"	Female
	15-153M	15/clam	0.250"	Male
	20-153F	20/clam	0.250"	Female
	20-153P	20/clam	0.250"	F/M Pairs
	21-153F	6/clam	0.250"	Female
	21-153M	6/clam	0.250"	Male



12-10 Gauge	Part #	Pkg Qty	Tab	Type
	10-155F	50/clam	0.250"	Female
	21-155F	4/clam	0.250"	Female
	21-155M	4/clam	0.250"	Male



22-10 Gauge	Part #	Pkg Qty	Tab	Type
	15-152P	12/clam	0.250"	F/M Pairs

### Bullet Splice - Fully Insulated

- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).




22-18 Gauge	Part #	Pkg Qty	Tab	Type
	20-161P	10/clam	0.156"	F/M Pairs
	21-161F	6/clam	0.156"	Female
	21-161M	6/clam	0.156"	Male


16-14 Gauge	Part #	Pkg Qty	Tab	Type
	20-163F	20/clam	0.156"	Female
	20-163M	20/clam	0.156"	Male
	20-163P	20/clam	0.156"	F/M Pairs
	21-163F	6/clam	0.156"	Female
	21-163M	10/clam	0.156"	Male


## Butt Splices



- Rated at 600 Volt Max.
- Temperature rating: 167 °F (75 °C).


22-18 Gauge	Part #	Pkg Qty
	10-121	100/clam
	15-121	15/clam
	20-121	22/clam
	21-121	10/clam
	75-121	75/clam


16-14 Gauge	Part #	Pkg Qty
	10-123	100/clam
	15-123	15/clam
	20-123	21/clam
	21-123	10/clam
	75-123	75/clam


12-10 Gauge	Part #	Pkg Qty
	10-126	50/clam
	15-126	15/clam
	20-126	15/clam
	21-126	8/clam
	75-126	50/clam

## Tap Splices

- Secure connections without stripping wire.
- Rated at 600 Volt Max.
- Temperature rating: 221 °F (105 °C).

22-18 Gauge	Part #	Pkg Qty
	15-2218	5/clam
	20-2218	5/clam <sup>12</sup>
	21-2218	5/clam <sup>13</sup>

16-14 Gauge	Part #	Pkg Qty
	10-100	25/clam
	20-100	5/clam <sup>12</sup>
	21-100	5/clam <sup>13</sup>

12-10 Gauge	Part #	Pkg Qty
	20-1210	4/clam <sup>12</sup>

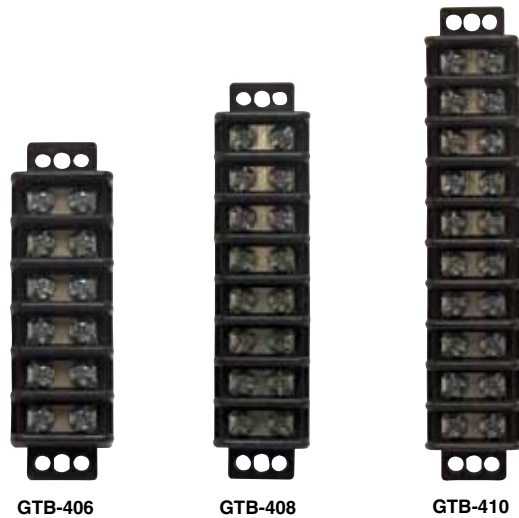
<sup>12</sup>10 clams/master    <sup>13</sup>5 clams/master

## Terminal Blocks



- Rated at 30 Amp/600 Volt max.
- Temperature rating: -40 °F (-40 °C) to 260 °F (130 °C).
- Wire range 22-10 AWG.
- Accepts #8 stud size.

Part #	No. of Poles	Pkg Qty
GTB-406	6	1/clam
GTB-408	8	1/clam
GTB-410	10	1/clam



GTB-406

GTB-408

GTB-410

## Terminal Adapters

Part #	Pkg Qty	Gauge	Type
10-283F	100/bag	16-14 AWG	Female
10-285F	100/bag	12-10 AWG	Female



## Terminal and Connector Kits and Assortments

- Large selection of popular terminals and connectors.
- Assorted wire ranges, terminal and connector types.

SEE PG  
**122**



FOR MORE INFO ON  
**Crimp Tools**

Part #	Pkg Qty	Description
10-170	100/clam	Ring and spade terminals, disconnects and butt splices, 22-14 AWG
15-120	15/clam	Fully insulated butt splice assortment, 22-10 AWG
15-2210	10/clam	Tap splice assortment, 22-10 AWG
15-2214	14/clam	Ring terminal assortment, 4-6 stud, 22-14 AWG
15-2216	14/clam	Spade terminal assortment, 8-10 stud, 22-14 AWG
CK-315	315/reusable case	WireGard™ and WingGard® connector kit, 22-6 AWG
CK-570	570/kit	WireGard™ and WingGard® connector kit, 22-6 AWG
GS-67K	25/clam	Stripper and crimper tool with ring and spade terminals, butt splices, female disconnects, 22-14 AWG
TK-32	32/card	WireGard™ and nylon pigtail connectors, 22-10 AWG
TK-40	40/card	Ring and spade terminals, butt splices, female disconnects, 22-10 AWG
TK-100	80/reusable case	WireGard™ connectors, ring and spade terminals, butt and tap splices, female disconnects, 22-10 AWG
TK-175	175/reusable case	Ring and spade terminals, butt splices, male and female disconnects, 22-10 AWG
TK-500	500/card	WireGard™ and nylon pigtail connectors, ring and spade terminals, butt and tap splices, male and female disconnects, 22-10 AWG
TK-806	100/case	Ring and spade terminals, butt splices, male and female disconnects, 22-10 AWG
TK-1210	28/card	Ring and spade terminals, butt splices, male and female disconnects, 12-10 AWG
TK-1614	48/card	Ring and spade terminals, butt splices, male and female disconnects, 16-14 AWG
TK-1822	46/card	Ring and spade terminals, butt splices, male and female disconnects, 22-18 AWG
TK-QC	18/clam	Tap splice kit, 22-10 AWG



CK-315

15-120

TK-806

## Underground UF Splice Kit

Accommodates waterproof splicing of #14 - #8 AWG UF copper wire.

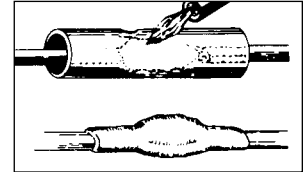
- Connector set screws engage each wire securely for a solid splice.
- Minimum conductor size 14/2 with ground.
- Maximum conductor size 8/3 with ground.
- Rated at 600 V max.

Part #	Pkg Qty	Description
HST-1300	1 kit	Underground UF Splice Kit



**Kit Contains:**

Qty	Description
4	Screw Splice Connectors
1	8" Heavy-Wall Polyolefin Heat-Shrink Tubing with Watertight Adhesive Liner



## Butt Splice Kit (#8 - #2 AWG)

Used for waterproof installation or repair of #8 - #2 AWG copper cable.

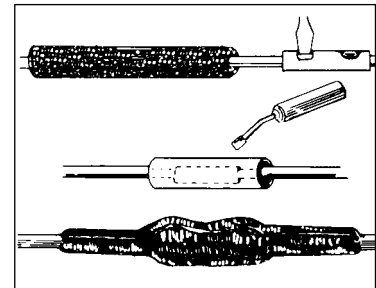
- Easy to use.
- Seal with heat gun or torch.
- Eliminates messy epoxies, tapes or mastics.
- Rated at 600 V max.

Part #	Pkg Qty	Description
HSB-28	1 kit	Butt Splice Kit



**Kit Contains:**

Qty	Description
1	Screw Splice Connectors
1	4" Heavy-Wall Polyolefin Heat-Shrink Tubing with Watertight Adhesive Liner



## Butt Splice Kit (#14 - #8 AWG)

Used for waterproof repair of well pipe cables and splices of stranded cable #14 - #8 AWG.

- Connector set screws engage each wire for a secure splice.
- Assures safe and permanent connections.
- Rated at 600 V max.

Part #	Pkg Qty	Description
HST-WP	1 kit	Butt Splice Connector Kit



**Kit Contains:**

Qty	Description
1	Screw Splice Connectors
1	4" Heavy-Wall Polyolefin Heat-Shrink Tubing with Watertight Adhesive Liner



## Battery Charging Clips

Designed specifically for battery and testing equipment applications, 5 - 50 Amp.

- Available in versatile sizes.



Part #	Pkg Qty	Description	Part #	Pkg Qty	Description
14-505	4/card	5 Amp	14-530	2/card	30 Amp
14-510	4/card	10 Amp	14-550	1/card	50 Amp
14-520	2/card	20 Amp			

## Insulated Battery Clamps

For battery, battery charger and testing equipment applications.

- Copper-clad clamp.
- Handle grips are insulated and color-coded for easy identification.



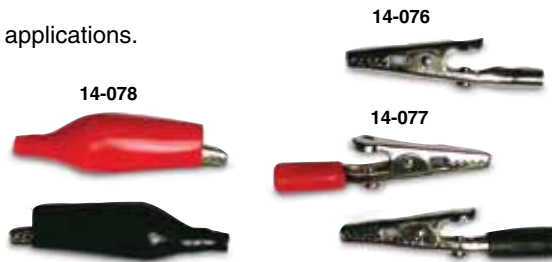
Part #	Pkg Qty	Description
14-610	2/card (1 red & 1 black)	10 Amp Copper Clad
14-630	2/card (1 red & 1 black)	30 Amp Copper Clad

## Alligator Clips

Multi-purpose alligator clips for home, auto and marine applications.

- Available with insulating sleeve.

Part #	Pkg Qty	Description
14-075	4/card	Non-Ins. #22 - #14 AWG 1 1/4"
14-076	4/card	Non-Ins. #22 - #14 AWG 2"
14-077	2/card	Barrel-Ins. #22 - #14 AWG 2"
14-078	2/card	Fully-Ins. #22 - #14 AWG 2"



## GB Xtreme® Primary Wire

Tinned copper wire provides maximum protection against corrosion and electrolysis.

- Ultra-flexible (Type 3) stranding.
- Resists salt water, battery acid, oil, gasoline and UV radiation.
- Insulation is heat and abrasion-resistant.
- Packaged in small spools.
- Rated to 600 V and 105 °C (221 °F) maximum.



	Part #	Pkg Qty	Wire Gauge	Length
	AMW-312	1/clam	12 AWG	12 FT
	AMW-314	1/clam	14 AWG	18 FT
	AMW-316	1/clam	16 AWG	25 FT
	AMW-318	1/clam	18 AWG	35 FT
	AMW-322	1/clam	12 AWG	12 FT
	AMW-324	1/clam	14 AWG	18 FT
	AMW-326	1/clam	16 AWG	25 FT
	AMW-328	1/clam	18 AWG	35

	Part #	Pkg Qty	Wire Gauge	Length
	AMW-332	1/clam	12 AWG	12 FT
	AMW-334	1/clam	14 AWG	18 FT
	AMW-336	1/clam	16 AWG	25 FT
	AMW-338	1/clam	18 AWG	35 FT

## NOTES





# Switches

Gardner Bender™ switches are available in many different styles and sizes. They are used in countless applications, from basic on-off to multifunction applications.



page 30



page 28



page 31



page 30

Door Switch .....	32
Pull-Chain Switches .....	30,31
Push-Button Switches .....	29,30
Rocker Switches .....	31
Rotary Switches .....	32
Toggle Switches .....	28,29
Toggle Switch Cover .....	29

## Switch Terminology

**Single Pole (SP):** A switch device that opens, closes or changes connections in a single conductor of an electrical circuit

**Double Pole (DP):** A switch device that opens, closes or changes connections in both conductors of the same circuit.

**Two Circuit (2 CIR):** A switch device that opens, closes or changes connections in a single conductor of two independent circuits.

**Single Throw (ST):** A switch device that opens, closes or completes a circuit at only one of the extreme positions of its actuator.

**Double Throw (DT):** A switch device that opens, closes or completes a circuit at both extreme positions of its actuator.

**Actuator:** A lever, push-button, slide, trigger or other means by which an external force is applied to operate a switch mechanism.

**Normally Open (NO):** A momentary type switch in which one or more circuits are open when the switch actuator is at its normal or rest position.

**Normally Closed (NC):** A momentary type switch in which one or more circuits are closed when the switch actuator is at its normal or rest position.

**Alternate Action (Double Action Push):** Push to make, then push to break, a circuit.

**Power Ratings for Switches:** The current handling capability of a switch measured in amperes, horsepower, lamp load or combinations of these with applicable voltages.



## UL/CSA Rated Switches

**A UL/CSA-marked rating** in amperes indicates that the switch meets or exceeds test house performance requirements of 6000 make-and-break cycles at the rated current, preceded by 50 make-and-break cycles at 150% switch current rating. 125% is used when switch ratings exceed 10 amperes.

**A UL/CSA horsepower-only rated device** meets minimum test requirements of 50 make-and-break cycles at the appropriate locked rotor current, followed by 6000 cycles at one-sixth the AC-locked rotor current and 10% of the DC-locked rotor current.

AC ampere ratings are resistive or inductive, with the inductive rating tested at 75% to 80% power factor.

AC horsepower ratings are inductive and tested at 40% to 50% power factor.

**“L” Rating** denotes ability of an AC-only switch to handle the initial high in-rush characteristics of a tungsten filament lamp on AC voltage only.

**“T” Rating** denotes ability of an AC/DC switch to handle the initial high in-rush characteristics of a tungsten filament lamp on either AC or DC voltage.

All **DC ratings** are 100% resistive only (non-inductive).

Many **AC-only rated** switches can be used in applications where less than 30 volts DC is required, provided current does not exceed full current rating of the switch.

**Ampere-rated** switches will *not* automatically handle in-rush characteristics of five to six times switch rating.

## Toggle Switches



Versatile toggle switch family with multiple position configurations.

- Available in single or double pole.
- Perfect for industrial equipment or emergency lighting.
- 1/2" mounting hole required.
- **Specifications:** 10 A, 277 V AC / 20 A, 125 V AC

**tip:** All switches must be installed with a hex nut (provided) behind panel to prevent damage during installation.

<b>Part Number</b>	<b>GWS-10</b>	<b>GWS-11*</b>	<b>GWS-110</b>	<b>GWS-121</b>
<b>Poles</b>	<b>SPST</b>			
<b>Pkg Qty</b>	1/card	1/card	1/card	1/card
<b>Toggle Position</b>	ON-OFF	ON-OFF	ON-OFF	ON-OFF
<b>Terminal Type</b>	Screw	Screw	"O" Ring & Screw	Spade
<b>Rating</b>	1½ HP 125-250 V AC	¾ HP 125-250 V AC	¾ HP 125-250 V AC	¾ HP 125-250 V AC

\*GWS-11 has an ON-OFF faceplate.

<b>Part Number</b>	<b>GWS-12</b>	<b>GWS-13</b>	<b>GWS-120</b>	<b>GWS-117</b>
<b>Poles</b>	<b>SPDT</b>			
<b>Pkg Qty</b>	1/card	1/card	1/card	1/card
<b>Toggle Position</b>	ON-ON	ON-OFF-ON	ON-OFF-ON	(ON)-OFF-(ON)
<b>Terminal Type</b>	Screw	Screw	Spade	Screw
<b>Rating</b>	¾ HP 125-250 V AC	¾ HP 125-250 V AC	¾ HP 125-250 V AC	¾ HP 125-250 V AC

( ) Indicates momentary action

<b>Part Number</b>	<b>GWS-14</b>	<b>GWS-15</b>	<b>GWS-16</b>	<b>GWS-123</b>
<b>Poles</b>	<b>DPST</b>		<b>DPDT</b>	
<b>Pkg Qty</b>	1/card	1/card	1/card	1/card
<b>Toggle Position</b>	ON-OFF	ON-ON	ON-OFF-ON	(ON)-OFF-(ON)
<b>Terminal Type</b>	Screw	Screw	Screw	Screw
<b>Rating</b>	1½ HP 125-250 V AC	1½ HP 125-250 V AC	1½ HP 125-250 V AC	1½ HP 125-250 V AC

( ) Indicates momentary action

<b>Part Number</b>	<b>GWS-17*</b>	<b>GWS-18*</b>	<b>GWS-124</b>	<b>GWS-125</b>	<b>GWS-125BP</b>
<b>Poles</b>	<b>SPST</b>				
<b>Pkg Qty</b>	1/card	1/card	1/card	1/card	10/box
<b>Toggle Position</b>	ON-OFF	ON-OFF	ON-OFF	ON-OFF	ON-OFF
<b>Terminal Type</b>	Screw	6" wire leads	screw	6" wire leads	6" wire leads
<b>Actuator</b>	bat lever	bat lever	short ball	short ball	short ball
<b>Rating</b>	3 A/240 V AC, 6 A/120 V AC	8 A/125 V, 4 A/250 V, 1/3 HP/125 V AC, 10 A/125 V AC	3 A/240 V AC, 6 A/120 V AC	3 A/250 V, 6 A/125 V	3 A/250 V, 6 A/125 V

( ) Indicates momentary action \*GWS-17 & 18 have an ON-OFF faceplate.

## Toggle Switch Cover

Tough EDPM rubber covers to protect switches from moisture, dust and dirt.

- Built-in hex nut base screws onto all GB® toggle switches.



Part #	Pkg Qty	Description
GSW-20	2/card	Toggle Switch Cover

## Double Insulated, Plastic Toggle Switches



Double insulated for moisture protection in all environments.

- Internal "O" ring design for moisture and dust resistance.
- Perfect for marine/recreational equipment and weather-resistant applications.
- **Specifications:** 10 A, 277 V AC / 20 A, 125 V AC

Part Number	GSW-19	GSW-114
Poles	SPST	SPDT
Pkg Qty	1/card	1/card
Toggle Position	ON-OFF	(ON)-OFF-(ON)
Terminal Type	Screw	Spade

## Momentary Contact Push-Button Switches



Basic push-button switch family utilized in applications requiring intermittent continuity contacts.

- Normally OFF or normally ON models.
- Screw terminals.
- Mounts in standard 1/2" diameter hole.
- Mounting nut included.

Part Number	GSW-22	GSW-23
Poles	SPST	
Pkg Qty	1/card	1/card
Toggle Position	OFF (ON)	ON (OFF)
Terminal Type	screw	screw
Plating	Black	Red
Rating	6 A/120 V AC, 3 A/240 V AC	3 A/120 V AC, 1.5 A/277 V AC

( ) Indicates momentary action

## Maintained Contact Push-Button Switch - Motor Rated



Maintained push-button switch rugged and versatile enough to be utilized in many applications.



- Push on, push off switch with #18 AWG, 6" stripped wire leads.
- Mounting nut included.



Part #	Pkg Qty	Poles	Toggle Position	Terminal Type	Rated
GSW-21	1/card	SPST	Push ON-Push OFF	Wire Leads	10 A/125 V AC, 8 A/125 V, 4 A/250 V, 1/3 HP 125 V AC

## Maintained Contact Push-Button Switches



Double insulated for moisture protection in all environments.



- Internal "O" ring design for moisture and dust resistance.
- Perfect for marine/recreational equipment and weather-resistant applications.
- **Specifications:** 1 A, 125 VT / 6 A, 125 VL / 6 A, 125 V AC / 3 A, 250 V AC

**tip:**

Horsepower Rating: AC horsepower ratings are inductive and tested at 40% to 50% power rating.



Part Number	GSW-24	GSW-24BP	GSW-25
Poles	SPST		
Pkg Qty	1/card	10/box	1/card
Toggle Position	ON-OFF	ON-OFF	ON-OFF
Terminal Type	6" wire leads	6" wire leads	6" wire leads
Plating	Nickel	Nickel	Brass
Circuit	2 pos. 2 wire	2 pos. 2 wire	2 pos. 2 wire

## Single Circuit Pull-Chain Switches



Basic ON-OFF switch family with pull-chain feature.



- ON-OFF switch with #18 AWG, 6" stripped wire leads.
- Mounts in 13/32" diameter hole (GSW-35 mounts in 1/2" diameter hole).
- Color coordinated nickel or brass plated.
- **Specifications:** 3 A/125 VL, 6 A/125 V AC, 3 A/250 V AC

**tip:**

"L" Rating Example: 3A/125VL means the switch is rated to handle the high in-rush from 3 amp incandescent AC loads.



Part Number	GSW-31	GSW-31BP	GSW-32	GSW-32BP	GSW-35*
Poles	SPST				
Pkg Qty	1/card	10/box	1/card	10/box	1/card
Toggle Position	ON-OFF	ON-OFF	ON-OFF	ON-OFF	ON-OFF
Terminal Type	6" wire leads	6" wire leads	6" wire leads	6" wire leads	wire leads
Plating	Nickel	Nickel	Brass	Brass	Nickel
Circuit	2 Pos. 2 Wire	2 Pos. 2 Wire	2 Pos. 2 Wire	2 Pos. 2 Wire	2 Pos. 2 Wire

\*All angle




## Variable Speed & Two Circuit Pull-Chain Switches



Pull chain switches for multifunction applications.



- Two and three speed switching.
- Push-in connections for #18 AWG wire.
- Mounts in 1 $\frac{1}{32}$ " diameter hole.
- **Specifications:** 6 A/125 V AC, 3 A/250 V AC, 6 A/125 VL

			
<b>Part Number</b>	<b>GWS-33</b>	<b>GWS-34</b>	<b>GWS-39</b>
<b>Poles</b>	<b>SPDT</b>	<b>SP3T</b>	<b>DP3T</b>
<b>Pkg Qty</b>	1/card	10/box	1/card
<b>Toggle Position</b>	OFF-ON-ON	OFF-ON-ON-ON	OFF-ON(A)-ON(B) -ON(A+B)
<b>Terminal Type</b>	wire leads	wire leads	6" wire leads
<b>Plating</b>	Brass	Brass	Brass
<b>Circuit</b>	3 Pos. 3 Wire	4 Pos. 4 Wire	4 Pos. 3 Wire

## Standard Rocker Switches



Heavy-duty rocker switches that fit .830" X 1.45" panel cutouts.





- Frame and rocker are black glass-filled nylon.
- Lighted or unlighted versions available.
- **Specifications:** 10 A/277 V AC, 20 A/125 V AC
- Switches with solder terminals come in a phenolic case and do not have a moisture and dust resistant seal.



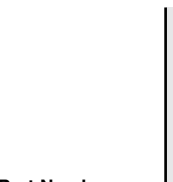

## Appliance Rocker Switches

Economy rocker switches that fit standard .550" X 1.125" panel cutouts.

- Perfect for machinery or appliances.
- Lighted or unlighted versions available.
- **Specifications:** 16 A/125 V AC, 8 A/250 V AC

		
<b>Part Number</b>	<b>GWS-45</b>	<b>GWS-49*</b>
<b>Poles</b>	<b>SPST</b>	
<b>Pkg Qty</b>	1/card	1/card
<b>Toggle Position</b>	ON-OFF	ON-OFF
<b>Terminal Type</b>	spade	spade
<b>Rating</b>	$\frac{1}{2}$ HP 125 - 250 V AC	$\frac{1}{2}$ HP 125 - 250 V AC

\*Red lighted

		
<b>Part Number</b>	<b>GWS-41</b>	<b>GWS-42*</b>
<b>Poles</b>	<b>SPST</b>	
<b>Pkg Qty</b>	1/card	1/card
<b>Toggle Position</b>	ON-OFF	ON-OFF
<b>Terminal Type</b>	spade	spade

\*Red lighted

## Mini Rocker Switch



Miniature rocker switch that fits .520" X .776" panel cutouts.



- Perfect for small machinery or appliances.
- Lighted or unlighted versions available.
- **Specifications:** 13 A/125 V AC, 10 A/250 V AC,  $\frac{1}{2}$  HP 125 - 250 V AC.



Part #	Pkg Qty	Poles	Toggle Position	Terminal Type	Rated
<b>GWS-48*</b>	1/card	<b>SPST</b>	ON-OFF	spade	10 A/125 - 250 V AC, $\frac{1}{2}$ HP 250 V AC, $\frac{1}{2}$ HP 125 V AC

\*Red lighted

## Rotary Switches



Single or three position switches in various fan and lighting applications.

- #18 AWG, 6" stripped wire leads.
- Brass terminals.



Part Number	GSW-61	GSW-63B	GSW-69	GSW-69BP	GSW-62	GSW-68
Poles	SPST				DP3T	
Pkg Qty	1/card	1/card	1/card	10/box	1/card	1/card
Toggle Position	ON-OFF	ON-OFF	ON-OFF	ON-OFF	OFF-ON(P)-ON(N) -ON(N+P)	OFF-ON(P)-ON(N) -ON(N+P)
Plating / Color	Brass	Black Button	Black Plastic	Black Plastic	Brass	Brass
Rating	6 A/125 V AC, 3 A/250 V AC	1.5 A/250 V AC	6 A/125 V AC, 3 A/250 V AC	6 A/125 V AC, 3 A/250 V AC	6 A/125 V AC, 3 A/250 V AC	6 A/125 V AC, 3 A/250 V AC
Mounting Hole	.406"	.513"	.513"	.513"	.406"	.513"

## Door Switch



Push button switch with metal box, cover plate and mounting hardware to operate lights when door is opened.

- Mounts in door jam.
- Fits in 1.25" X 2.75" X 2.0" deep approximate mounting hole.
- **Specifications:** 16 A/125 V AC, 10 A/250 V AC, 10 A/277 V AC, ½ HP 125 - 277 V AC.



Part Number	GSW-SK	GSW-26
Poles	SPST	
Pkg Qty	1/card	1/card
Toggle Position	Normally ON -Mom Contact	Normally ON -Mom Contact
Description	AC/DC Door Switch	Replacement for GSW-SK





## ***Conduit Bending***

Gardner Bender™ innovations have delivered the ultimate in job-site performance, durability and reliability since 1959. Gardner Bender™ provides a complete line of products to bend EMT, Rigid, IMC and PVC coated conduit.



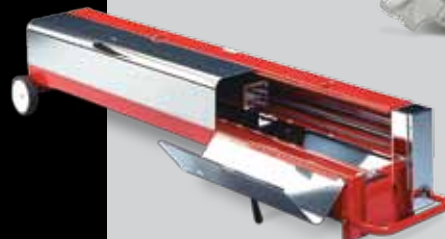
page 56



page 36



page 58



page 63

Guide to Bending Booklet .....	64	One-Shot Hydraulic Benders .....	42-48
Benders – Aluminum Rigid Conduit		Sidewinder® Electric Bender (B2555).....	37
Cyclone® Electric Bender (B2000).....	36	Sidewinder™ Mechanical Benders.....	54-57
Gardner™ EMT Hand Benders .....	59	Sweep/Segmental Hydraulic Benders ....	46, 48
One-Shot Hydraulic Benders .....	42-48	Ultra Eegor™ Hydraulic Bender .....	40
Sidewinder® Electric Bender (B2555).....	37	Bender Shoe Groups	
Sidewinder™ Mechanical Benders.....	54-57	Sidewinder® Electric Bender	
Sweep/Segmental Benders .....	46, 48	(B2555) - IMC.....	38
Ultra Eegor™ Hydraulic Bender .....	40	Sidewinder® Electric Bender	
Benders – EMT Conduit		(B2555) - Rigid.....	37
Big Ben® Hand Benders .....	58	Sidewinder® Electric Bender	
Cyclone® Electric Bender (B2000).....	36	(B2555) - EMT .....	38
Gardner™ EMT Hand Benders .....	59	Sidewinder® Electric Bender	
Iron Hand Benders .....	60	(B2555) - PVC-Coated .....	38
Sidewinder® Electric Bender (B2555).....	37	Hand Benders	
Sidewinder™ Mechanical Benders.....	54-57	Big Ben® Hand Benders .....	58
Ultra Eegor™ Hydraulic Bender .....	40	Gardner™ Thinwall Hand Benders .....	59
Benders – IMC Conduit		Iron Hand Benders .....	60
Cyclone® Electric Bender (B2000).....	36	Handles.....	61
Sidewinder® Electric Bender (B2555).....	37	Hickey Bending Heads.....	61
Sidewinder™ Mechanical Benders.....	54-57	Hydraulic Bender Accessories .....	52
Ultra Eegor™ Hydraulic Bender .....	40	Hydraulic Cylinder Specifications.....	53
Benders – PVC Conduit		PVC Plug Sets.....	63
HotBlanket™ Benders .....	63	Pumps	
HotBox™ Benders.....	62-63	Economy Electric.....	50
HotTube™ Bender.....	61	Manual Hydraulic.....	51
Benders – PVC-Coated Rigid Conduit		Submerged Electric .....	50
Cyclone® Electric Bender (B2000).....	36	Z-Class™ Electric.....	49
Sidewinder® Electric Bender (B2555).....	37	Table (Bend-Mate™ Bender	
Sidewinder™ Mechanical Benders ...	54, 56-57	Table for Ultra Eegor™).....	41
Benders – Rigid Steel Conduit		Storage Cases (Tool-Guard™) .....	64
Rigid Bender Capacities Chart .....	39		
Big Ben® Hand Benders .....	58		
Cyclone® Electric Bender (B2000).....	36		
Gardner™ EMT Hand Benders .....	59		
Iron Hand Benders .....	60		

## Bending Selection Guide

### Part # & Description

Combination Bending-Rigid, IMC, EMT Conduit	Page #	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"
B2000 Cyclone® Bender	36	X	X	X	X	X	X					
B2555 Sidewinder® Bender & BRIG-52	37	X	X	X	X	X	X					
B2555 Sidewinder® Bender & BEMT-52	37	X	X	X	X	X	X					
B2555 Sidewinder® Bender & IMC-52	37	X	X	X	X	X	X					
B2555 Sidewinder® Bender & BPVC-152	37	X	X	X	X	X	X					
B400L & DL Ultra Eegor™	40							X	X	X	X	
BW Series - Mechanical Sidewinder™ Bender (EMT)	56-57	X	X	X	X	X	X					
BW Series - Mechanical Sidewinder™ Bender (IMC)	55-57	X	X	X	X	X						
BW Series - Mechanical Sidewinder™ Bender (Rigid)	55-57	X	X	X	X	X						
Rigid Conduit Bending	Page #	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"
B2000 Cyclone® Bender	36	X	X	X	X	X	X					
B2555 Sidewinder® Bender & BRIG-52	37	X	X	X	X	X	X					
B400L & DL Ultra Eegor™	40							X	X	X	X	
B316S One-Shot Bender	42	X	X	X	X	X	X					
B308S Combination One-Shot/Sweep Bender	43			X	X	X	X	X	X	X	X	
B340S One-Shot Bender	44				X	X	X	X	X	X	X	
B359S Combination One-Shot/Sweep Bender	45				X	X	X	X	X	X	X	X
B306S Sweep/Segmental Bender	46				X	X	X	X	X	X	X	
B343S One-Shot Eject-O-Matic® Bender	47				X	X	X	X	X	X	X	
B351S Combination Eject-O-Matic® Bender	48				X	X	X	X	X	X	X	X
Mechanical Sidewinder™ Bender BW11,12,15, 20,30, 27	54-57	X	X	X	X	X						
Hand Benders - Gardner™ Bender	59	931B	932	933								
Hand Benders - Big Ben®	58	961	962									
Hand Benders - Malleable Iron	60	921	922	923								
Hand Benders - Hickeys	61	820	821	822								
EMT Conduit Bending	Page #	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"
B2000 Cyclone® Bender	36	X	X	X	X	X	X					
B2555 Sidewinder® Bender & BEMT-52	37	X	X	X	X	X	X					
B400L & DL Ultra Eegor™	40							X	X	X	X	
Mechanical Sidewinder™ Bender BW30, 27, 201, 221	54-57	X	X	X	X	X	X					
Hand Benders - Gardner™ Bender	59	930B	931B	932								
Hand Benders - Big Ben®	58	960	961	962								
Hand Benders - Malleable Iron	60	920	921	922	923							
IMC Conduit Bending	Page #	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"
B2000 Cyclone® Bender	36	X	X	X	X	X	X					
B2555 Sidewinder® Bender & IMC-52	37-38	X	X	X	X	X	X					
B400L & DL Ultra Eegor™	40							X	X	X	X	
Mechanical Sidewinder™ Bender BW11,12,15, 20,30, 27	54-57	X	X	X	X	X						
PVC-Coated Rigid Conduit Bending	Page #	½"	¾"	1"	1¼"	1½"	2"	2½"	3"	3½"	4"	5"
B2000 Cyclone® Bender	36	X	X	X	X	X						
B2555 Sidewinder® Bender & BPVC-152	37-38	X	X	X	X	X	X					
Mechanical Sidewinder™ Bender BW30,27,201, 221	54-57	X	X	X	X	X						

**IMPROVED Cyclone®**  
**Electric-Powered Conduit Bender**

One shoe bends 1/2" - 2" conduit with no loose parts:

- Rigid
- Rigid aluminum
- EMT
- IMC
- PVC-coated rigid (1/2" to 1 1/2")
- Ability to make repeatable bends at the same degree.
- Horizontal and vertical positions allow the unit to create accurate offset bends.
- Four-wheels increases mobility.
- Low-volt (95), high-volt (132) automatic shut-off helps protect electrical components from voltage fluctuations.
- Resetting circuit breaker eliminates down time changing fuses.
- On/Off switch allows user to shut machine down for extended periods of time.
- Hook attachment on pendant control frees hands while working with conduit.
- Minimal training time.
- Weather-resistant cover included.
- 110/115 V AC, 15 AMP 1 HP DC Motor.
- Dimensions: 47" x 33" x 43".
- Weight 408 lbs.



**B2000**

**Features:**

- |   |  |
|---|--|
| 1. <b>STRONG LEGS</b><br>Increased durability (10x life test) | 4. <b>FORK LIFT TUBES</b><br>Allows lifting and transport capability—built into base |
| 2. <b>LARGE TIRES/WHEELS</b><br>Increased mobility            | 5. <b>LIFT HOOK</b><br>Security (job-site) tethering                                 |
| 3. <b>STRONG UPRIGHT HANDLE</b><br>Ease of use                | 6. <b>STORAGE AREA</b><br>Storage for tools, etc. while in use                       |



Can be performed in the horizontal or vertical position.



Easy dial settings-makes training time virtually non-existent.

Part #	Description	Weight
B2000	Cyclone® Electric-Powered Production Bender, 115 V / 15 A	408 lbs

**Centerline Radius Chart:**

Conduit Size	PVC-Coated			
	IMC	Rigid	EMT	Rigid
1/2"	4 3/8"	5 3/8"	4 1/4"	4 3/8"
3/4"	5 5/16"	6 1/2"	5 3/8"	5 5/16"
1"	6 7/32"	7 27/32"	6 1/2"	6 7/32"
1 1/4"	7 23/32"	8 3/8"	7 27/32"	7 23/32"
1 1/2"	8 7/32"	N/A	8 3/8"	8 15/64"
2"	9 15/32"	N/A	9 21/32"	9 29/64"

## Electric Sidewinder® Bender

Bends ½" to 2" conduit:

- Rigid
- Rigid aluminum (schedule 40 max.)
- IMC
- EMT conduit
- PVC-coated rigid (40 mil)
- Up to 180 degree one-shot bends in ½" through 2" conduit.
- The handle detaches and pivots out of the way for offset bending.
- Competitor shoes are interchangeable (Greenlee, Current, etc.).
- 110/115 V AC
- 20 AMP



**B2555**

**note:** Bender & Shoe Groups can be purchased as a kit or individually.

### Centerline Radius Chart:

Conduit Size	EMT	IMC	Rigid
½"	4¼"	4¾"	4¾"
¾"	5¾"	4½"	4½"
1"	6¾"	5¾"	5¾"
1¼"	8¾"	7¼"	7¼"
1½"	8¾/32"	8¾/32"	8¼"
2"	9¾/16"	9¾/16"	9½"

Part #	Description	Capacity/Range	Weight
<b>B2555</b>	Electric Sidewinder® w/o Shoes	—	270 lbs
<b>B2555RIG</b>	Electric Sidewinder® w/ Rigid Shoe Group	½"-2" Rigid & ½"-1¼" IMC conduit	365 lbs
<b>B2555EMT</b>	Electric Sidewinder® w/ EMT Shoe Group	½" - 2" EMT conduit	430 lbs
<b>B2555IMC</b>	Electric Sidewinder® w/ IMC Shoe Group	1½" - 2" IMC conduit	410 lbs
<b>B2555PVC</b>	Electric Sidewinder® w/ PVC Shoe Group	½" - 2" 40 mil PVC-Coated conduit	365 lbs

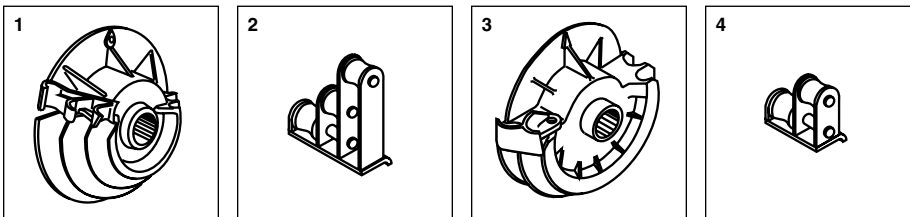
## Electric Sidewinder® Shoe Groups

### Rigid Shoe Group (½" to 2")

BRIG-52

Part #	Conduit	Description	Weight	I.D. #
<b>RS-5125</b>	½" & 1¼"	Rigid and IMC Bending Shoe	43 lbs	<b>1</b>
<b>RSR-5125</b>	½" & 1¼"	Rigid and IMC Support Roller	8 lbs	<b>2</b>
<b>RS-152</b>	1½" & 2"	Rigid Bending Shoe	36 lbs	<b>3</b>
<b>RSR-152</b>	1½" & 2"	Rigid Support Roller	6 lbs	<b>4</b>
<b>BX-1</b>	—	Metal Storage Box	36 lbs	—

Total Weight: 129 lbs



More Shoe Sets available on following page...

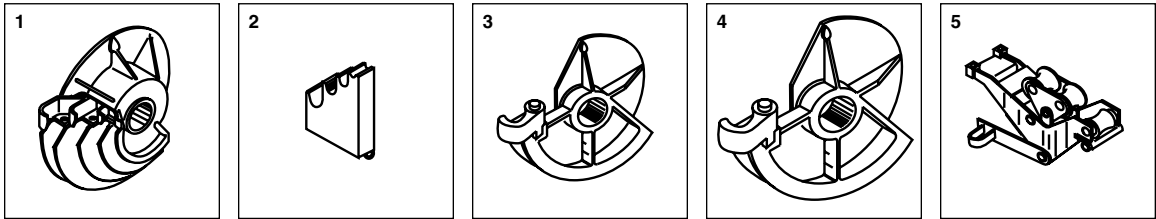
## Electric Sidewinder® Shoe Groups (cont.)

### EMT Shoe Group (1/2" to 2")

BEMT-52

Part #	Conduit	Description	Weight	I.D. #
ES-5125	1/2" & 1 1/4"	EMT Bending Shoe	24 lbs	1
ESR-5125	1/2" & 1 1/4"	EMT Support Unit	6 lbs	2
ES15	1 1/2"	EMT Bending Shoe	23 lbs	3
ES-2	2"	EMT Bending Shoe	31 lbs	4
ESR-152	1 1/2" & 2"	EMT Support Roller Unit	40 lbs	5
BX-1	—	Metal Storage Box	36 lbs	—

Total Weight: 160 lbs

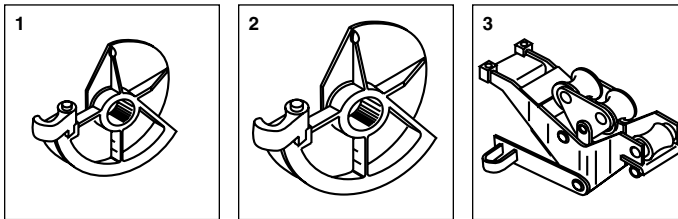


### IMC Shoe Group (1 1/2" to 2")

BIMC-152

Part #	Conduit	Description	Weight	I.D. #
IS-15	1 1/2"	IMC Bending Shoe	22 lbs	1
IS-2	2"	IMC Bending Shoe	29 lbs	2
ISR-152	1 1/2" & 2"	IMC Support Roller Unit	40 lbs	3
BX-1	—	Metal Storage Box	36 lbs	—

Total Weight: 127 lbs

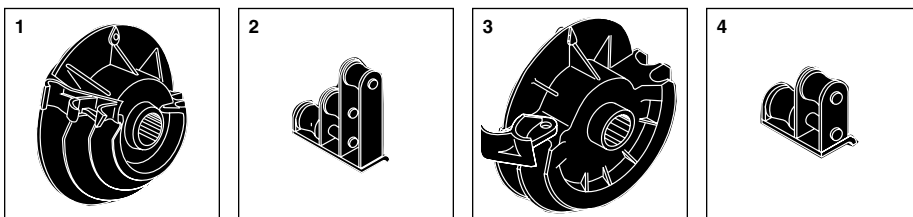


### PVC-Coated Rigid Shoe Group (1/2" to 2" or 40 mil)

BPVC-52

Part #	Conduit	Description	Weight	I.D. #
PVS-5125	1/2" & 1 1/4"	PVC-Coated Rigid Bending Shoe	43 lbs	1
PVR-5125	1/2" & 1 1/4"	PVC-Coated Rigid Support Roller	8 lbs	2
PVS-152	1 1/2" & 2"	PVC-Coated Rigid Bending Shoe	36 lbs	3
PVR-152	1 1/2" & 2"	PVC-Coated Rigid Support Roller	6 lbs	4
BX-1	—	Metal Storage Box	36 lbs	—

Total Weight: 132 lbs



## Rigid Bender Capacities Chart

One Shot / Sweep / Segmental

This chart is meant as a guide for bending capabilities only.  
 For those instances where doubt exists, a trial bend is recommended.

Pipe Size	Outside Dia.	Wall Thick.	Sched. Pipe*	Part #			
				B316S	B308S	B306S B340S B343S	B351S B359S
1/2"	.840"	.108"	40	X	X	WS	WS
		.147"	80	X	X	WS	WS
		.187"	160	WS	WS	WS	WS
		.294"	DEH	WS	WS	WS	WS
3/4"	1.050"	.113"	40	X	X	WS	WS
		.154"	80	X	X	WS	WS
		.218"	160	WS	WS	WS	WS
		.308"	DEH	WS	WS	WS	WS
1"	1.315"	.133"	40	X	X	WS	WS
		.179"	80	X	X	WS	WS
		.250"	160	WS	WS	WS	WS
		.358"	DEH	NR	WS	WS	WS
1 1/4"	1.660"	.140"	40	X	X	X	X
		.191"	80	X	X	X	X
		.250"	160	WS	WS	X	X
		.342"	DEH	NR	WS	WS	WS
1 1/2"	1.900"	.145"	40	X	X	X	X
		.200"	80	X	X	X	X
		.281"	160	WS	WS	X	X
		.400"	DEH	NR	WS	WS	WS
2"	2.375"	.154"	40	X	X	X	X
		.218"	80	NR	X	X	X
		.343"	160	NR	WS	X	X
2 1/2"	2.875"	.203"	40	NR	X	X	X
		.276"	80	NR	WS	X	X
		.375"	160	NR	WS	X	X
3"	3.500"	.216"	40	NR	X	X	X
		.300"	80	NR	WS	X	X
3 1/2"	4.000"	.226"	40	NR	X	X	X
		.318"	80	NR	WS	X	X
4"	4.500"	.237"	40	NR	X	X	X
		.337"	80	NR	NR	X	X
5"	5.563"	.258"	40	NR	NR	NR	X
		.375"	80	NR	NR	NR	X

**\*Schedule Pipe:**

- 40 = Standard
- 80 = Extra Duty
- 160 = Double Extra Duty
- DEH = Double Extra Heavy (slightly thicker than 160)

**Other:**

- NR = Not Recommended
- WS = Can be bent using wider spacing for swivel shoes

**IMPROVED Ultra Eegor™ Hydraulic Bender**

Bends 2½" to 4" conduit:

- Rigid
- Rigid aluminum (schedule 40 max)
- EMT
- IMC

No additional attachment sets required to change per pipe or conduit type.

- 30 ton, 28" stroke cylinder can make a 90° bend with one pass.
- Double-acting cylinder for rapid retraction, regardless of hose lengths and system losses.
- Improved shoes and follow bars to reduce conduit kinking during bending.
- Hydraulic power ensures the smoothest bends without deformations to the conduit.
- Constant radii follow bars eliminate the need for special calculations.
- Conduit is automatically stripped free from the shoe during the return cycle-which ensures no extra labor or damaged conduit.
- Angle markings on frame ensure easy and accurate bending.



**Centerline Radius Chart:**

Nominal Size	IMC	EMT	Rigid
2½"	13½"	13½"	13½"
3"	15⅞"	15⅞"	15⅞"
3½"	18½"	18½"	18½"
4"	21"	21"	21"

**B400L with BE400 Table, CS400 Cylinder Support & Z-Class™ Pump**

SEE PG  
**49**



FOR MORE INFO ON  
**Electric Pumps**

**tip:**

\*To convert older B400 or B400D to Long-stroke Cylinder, use CD3028KT Kit, which includes Long-stroke Cylinder, CS400 Cylinder Support and DC404 Decal.

Part #	Description	Pump	Weight
<b>B400L</b>	Long-stroke Ultra Eegor™	—	770 lbs
<b>B400LP408S</b>	Long-stroke Ultra Eegor™	P408S Electric	870 lbs
<b>B400DL</b>	Long-stroke Ultra Eegor™ w/o 3½" shoe group	—	770 lbs
<b>B400DLP408S</b>	Long-stroke Ultra Eegor™ w/o 3½" shoe group	P408S Electric	795 lbs
<b>CD3028KT*</b>	Eegor® Conversion Kit, 28" Stroke Cylinder		105 lbs
<b>CS400</b>	Cylinder Support for BE400 Table		30 lbs
<b>DC404</b>	Bend Angle Decal		1 lb

**Components Included with the Long-stroke Ultra Eegor™ Bender**

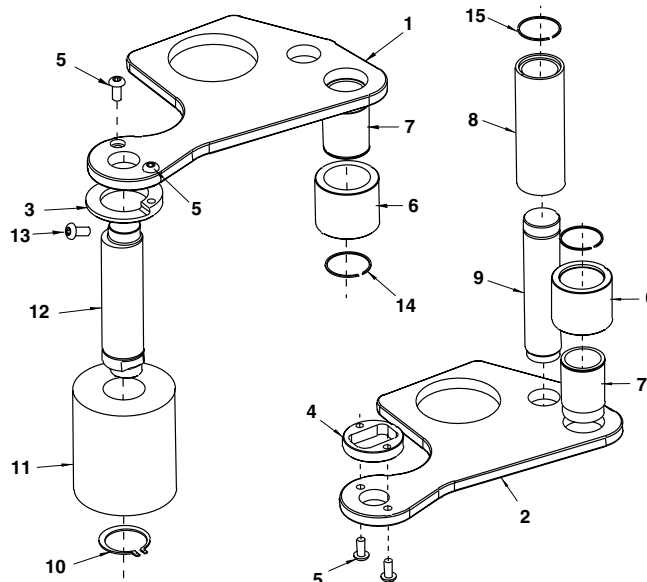
Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
<b>BS2500</b>	2½"	Bending Shoe	44 lbs	<b>1</b>	<b>BZ34</b>	3"	U-strap	5 lbs	<b>10</b>
<b>BS3000</b>	3"	Bending Shoe	50 lbs	<b>2</b>	<b>BZ39*</b>	3½"	U-strap	8 lbs	<b>11</b>
<b>BS3500</b>	3½"	Bending Shoe	75 lbs	<b>3</b>	<b>BZ44</b>	4"	U-strap	10 lbs	<b>12</b>
<b>BS4000</b>	4"	Bending Shoe	90 lbs	<b>4</b>	<b>BZ76</b>	-	U-strap Pin	4 lbs	<b>15</b>
<b>BFB2500</b>	2½"	Follow Bar	34 lbs	<b>5</b>	<b>BZ78</b>	-	Bend Shoe Pin	4 lbs	<b>16</b>
<b>BFB3000</b>	3"	Follow Bar	35 lbs	<b>6</b>	<b>CD3028</b>	-	30-Ton, Double-Acting Hyd. Cyl.	95 lbs	<b>17</b>
<b>BFB3500</b>	3½"	Follow Bar	42 lbs	<b>7</b>	<b>HC927</b>	-	(2) 10' Hose w/High-Flow Coupler	4 lbs	<b>18</b>
<b>BFB4000</b>	4"	Follow Bar	40 lbs	<b>8</b>	<b>BZ74</b>	-	Double Anchor Frame Pin	66 lbs	<b>19</b>
<b>BZ28</b>	2½"	U-strap	5 lbs	<b>9</b>	<b>CM20</b>	-	Metal Case for Ultra Eegor™	182 lbs	-

\*These parts are not included with B400DL and B400DLP408S.



**Replacement Components for Egor® Roller Assembly BZ72:**

Part #	# Req'd	Description	I.D. #
CK211950	1	Plate assembly (top)	1
CK212950	1	Plate assembly (bottom)	2
CF859489	1	Retaining collar	3
CF860013	1	Pilot keyway	4
CH204028	4	Button head cap screw	5
CF862281	2	Roller (short)	6
CF861108	2	Roller insert (short)	7
CK579281	1	Roller	8
CF863104	1	Roller axle	9
CM191044	1	Retaining ring	10
CM194900	1	Roller assembly	11
CM193350	1	Roller cam	12
B1021028	1	Roller cam cap screw	13
CH819044	AR	Wire, retaining	14
CH951044	1	Ring, retaining	15



BZ725 Top Plate Assembly

BZ726 Bottom Plate Assembly

**Bend-Mate™ Bender Table (Optional)**

Rugged table for Egor® hydraulic conduit benders allows one to work more comfortably and accurately.

- Hydraulic pivot jack adjusts table to horizontal or vertical positions for easy access.
- Rugged one-piece steel frame with 1/4" steel plate tabletop.
- Wheels and lift-handles included for easy movement.
- Two ton jack force.

Part #	Description	Weight
BE400	Bend-Mate™ Table - 30"W x 32"L x 56"H w/6" wheels	210 lbs
CS400	Cylinder Support for BE400 Table	30 lbs

\*57" with table raised.



BE400

**tip:** Using BE400 table with an Egor® Hydraulic Bender will help reduce labor costs, and physical strain.

**tip:** When ordering the optional BE400 Table for use with the Ultra Egor™, you must order the CS400 Cylinder Support.

## 1/2" - 2" One-shot Rigid Hydraulic Benders

Gardner Bender™ Rigid Benders are made with high-grade aluminum for durability, and interchangeable shoes that allow quick and precise bends.

- Bends 1/2" to 2" rigid steel or rigid aluminum conduit.
- Portable hand pump or economical electric pump options.
- Durable metal job box included.
- Optic angle gauge for quick references of bend progression.
- Ability to be powered by manual or electric pumps.

**note:** These benders are for use on Rigid conduit only.



Part #	Description	Weight
B316S	1/2" - 2" One-shot Rigid Bender	104 lbs
B316SPH39	1/2" - 2" One-shot Rigid Bender w/ PH39 Hand Pump	114 lbs
B316SPE22J	1/2" - 2" One-shot Rigid Bender w/ PE22J Electric Pump	160 lbs

SEE PG **49**  FOR MORE INFO ON **Electric Pumps**

### Centerline Radius Chart:

Nominal Size	Rigid Radius	Bending Shoe	Nominal Size	Rigid Radius	Bending Shoe
1/2"	3 <sup>9</sup> / <sub>16</sub> "	BZ12011	1 1/4"	7 1/4"	BZ12041
3/4"	4 1/2"	BZ12021	1 1/2"	8 1/4"	BZ12051
1"	5 13/16"	BZ12031	2"	9 1/2"	BZ12061

SEE PG **51**  FOR MORE INFO ON **Manual Pumps**

SEE PG **53**  FOR MORE INFO ON **Cylinders**

### Components Included with B316S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12011	1/2"	Bending Shoe	1 lb	1	BZ12071	-	(2) Pivot Shoes	1 lb	8
BZ12021	3/4"	Bending Shoe	1 lb	2	BZ12091	-	Angle Gauge	.5 lb	9
BZ12031	1"	Bending Shoe	2 lbs	3	BZ12375	-	(2) Pivot Pins	1 lb	10
BZ12041	1 1/4"	Bending Shoe	4 lbs	4	BZ12371	-	Bender Frame	25 lbs	11
BZ12051	1 1/2"	Bending Shoe	5 lbs	5	BZ12377	-	Shoe Lock Pin	.25 lb	12
BZ12061	2"	Bending Shoe	7 lbs	6	HC913	-	6' Hose	3 lbs	13
CS1010	-	10-ton Single-Acting Cylinder*	13 lbs	7	CM4	-	Metal Case	56 lbs	14

\*Must order A12 Smooth Saddle, see p. 52

## 1" - 2" Combination One-shot / Sweep Rigid Hydraulic Benders

Bends 1" to 2" rigid steel or aluminum conduit in one shot. Includes 2½" to 4" sweep bend shoes.

- Capability of one-shoe bending for elbows.
- Ability to produce sweep bends where several bending stages are necessary.
- Durable metal job box included.
- Ability to be powered by manual or electric pumps.



Part #	Description	Weight
B308S	1" - 2" One-shot / 2½" - 4" Sweep Combination	225 lbs
B308SPH80	1" - 2" One-shot / 2½" - 4" Sweep Combo w/ PH80 Hand Pump	253 lbs
B308SPE22J	1" - 2" One-shot / 2½" - 4" Sweep Combo w/ PE22J Elec. Pump	340 lbs

SEE PG **49**  FOR MORE INFO ON **Electric Pumps**

SEE PG **51**  FOR MORE INFO ON **Manual Pumps**

SEE PG **53**  FOR MORE INFO ON **Cylinders**

### Centerline Radius Chart:

Nominal Size	Rigid Radius	Bending Shoe	Nominal Size	Smallest Radius	Bending Shoe
1"	5 <sup>13</sup> / <sub>16</sub> "	BZ12031	2½"	10½"	BZ12382
1¼"	7¼"	BZ12041	3"	13"	BZ12383
1½"	8¾"	BZ12051	3½"	17½"	BZ12384
2"	9½"	BZ12061	4"	20"	BZ12385

### Components Included with B308S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12031	1"	Bending Shoe	2 lbs	1	CS2510	-	25-ton Single-Acting Cylinder*	31 lbs	9
BZ12041	1¼"	Bending Shoe	4 lbs	2	BZ13401	-	(2) Pivot Shoes	4 lbs	10
BZ12051	1½"	Bending Shoe	5 lbs	3	BZ12091	-	Angle Gauge	.5 lb	11
BZ12061	2"	Bending Shoe	7 lbs	4	BZ12376	-	(2) Pivot Pins	4 lbs	12
BZ12382	2½"	Sweep Bending Shoe	4 lbs	5	BZ12372	-	Bender Frame	54 lbs	13
BZ12383	3"	Sweep Bending Shoe	5 lbs	6	BZ12374	-	Shoe Lock Pin	.25 lb	14
BZ12384	3½"	Sweep Bending Shoe	9 lbs	7	HC913	-	6' Hose	3 lbs	15
BZ12385	4"	Sweep Bending Shoe	12 lbs	8	CM7	-	Metal Case	98 lbs	16

\*Must order A29 Smooth Saddle, see p. 52

## 1¼" - 4" One-shot Rigid Hydraulic Benders

Bends 1¼" to 4" rigid steel or rigid aluminum conduit.

- Choice of hand or electric pumps.
- Durable metal job box included.
- Ability to be powered by manual or electric pumps.



Part #	Description	Weight
B340S	1¼" - 4" One-shot Rigid Bender	334 lbs
B340SPH80	1¼" - 4" One-shot Rigid Bender w/ PH80 Hand Pump	350 lbs
B340SPE22J	1¼" - 4" One-shot Rigid Bender w/ PE22J Electric Pump	390 lbs
B340SP208J	1¼" - 4" One-shot Rigid Bender w/ P208J Electric Pump	325 lbs

### Centerline Radius Chart:

Nominal Size	Rigid Radius	Bending Shoe	Nominal Size	Rigid Radius	Bending Shoe
1¼"	7¼"	BZ12041	3"	13"	BZ12351
1½"	8¼"	BZ12051	3½"	17½"	BZ12391
2"	9½"	BZ12061	4"	20"	BZ12392
2½"	10½"	BZ12341			



### Components Included with B340S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12041	1¼"	Bending Shoe	4 lbs	1	BZ13401	-	(2) Pivot Shoes	4 lbs	9
BZ12051	1½"	Bending Shoe	5 lbs	2	BZ12091	-	Angle Gauge	.5 lb	10
BZ12061	2"	Bending Shoe	7 lbs	3	BZ12376	-	(2) Pivot Pins	4 lbs	11
BZ12341	2½"	Bending Shoe	15 lbs	4	BZ12374	-	Bender Frame	63 lbs	12
BZ12351	3"	Bending Shoe	15 lbs	5	BZ12377	-	Shoe Lock Pin	.25 lb	13
BZ12391	3½"	Bending Shoe	40 lbs	6	HC913	-	6' Hose	3 lbs	14
BZ12392	4"	Bending Shoe	41 lbs	7	CM7	-	Metal Case	98 lbs	15
CS2514	-	25-ton Single-Acting Cylinder*	31 lbs	8	B350	-	5" Conversion Kit (optional)	63 lbs	-

\*Must order A29 Smooth Saddle, see p. 52

## 1 1/4" - 5" One-shot Sweep Combination Rigid Hydraulic Benders

Bends 1 1/4" to 4" rigid steel or rigid aluminum conduit.

- Choice of hand or electric pumps.
- Durable metal job box included.
- Ability to be powered by manual or electric pumps.



Part #	Description	Weight
B359S	1 1/4" - 4" One-shot / 5" Sweep Combination	225 lbs
B359SPH80	1 1/4" - 4" One-shot / 5" Sweep Combo w/ PH80 Hand Pump	253 lbs
B359SP208J	1 1/4" - 4" One-shot / 5" Sweep Combo w/ P208J Elec. Pump	340 lbs

SEE PG  
**49**



FOR MORE INFO ON  
**Electric Pumps**

SEE PG  
**51**



FOR MORE INFO ON  
**Manual Pumps**

SEE PG  
**53**



FOR MORE INFO ON  
**Cylinders**

Centerline Radius Chart:

Nominal Size	Rigid Radius	Bending Shoe	Nominal Size	Rigid Radius	Bending Shoe
1 1/4"	7 1/4"	BZ12041	3"	13"	BZ12351
1 1/2"	8 1/4"	BZ12051	3 1/2"	17 1/2"	BZ12391
2"	9 1/2"	BZ12061	4"	20"	BZ12392
2 1/2"	10 1/2"	BZ12341			

### Components Included with B359S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12041	1 1/4"	Bending Shoe	4 lbs	1	CS2514*	-	25 ton Single Acting Cylinder	31 lbs	9
BZ12051	1 1/2"	Bending Shoe	5 lbs	2	BZ12388	-	(2) Pivot Shoes	4 lbs	10
BZ12061	2"	Bending Shoe	7 lbs	3	BZ12091	-	Angle Gauge	.25 lb	11
BZ12341	2 1/2"	Bending Shoe	14 lbs	4	BZ12390	-	(2) Pivot Pins	4 lbs	12
BZ12351	3"	Bending Shoe	15 lbs	5	BZ12389	-	Bender Frame	85 lbs	13
BZ12391	3 1/2"	Bending Shoe	40 lbs	6	BZ12374	-	Shoe Lock Pin	.25 lb	14
BZ12392	4"	Bending Shoe	41 lbs	7	HC913	-	6' Hose	3 lbs	15
BZ12386	5"	Sweep Bending Shoe	18 lbs	8	CM7	-	Metal Case	98 lbs	16

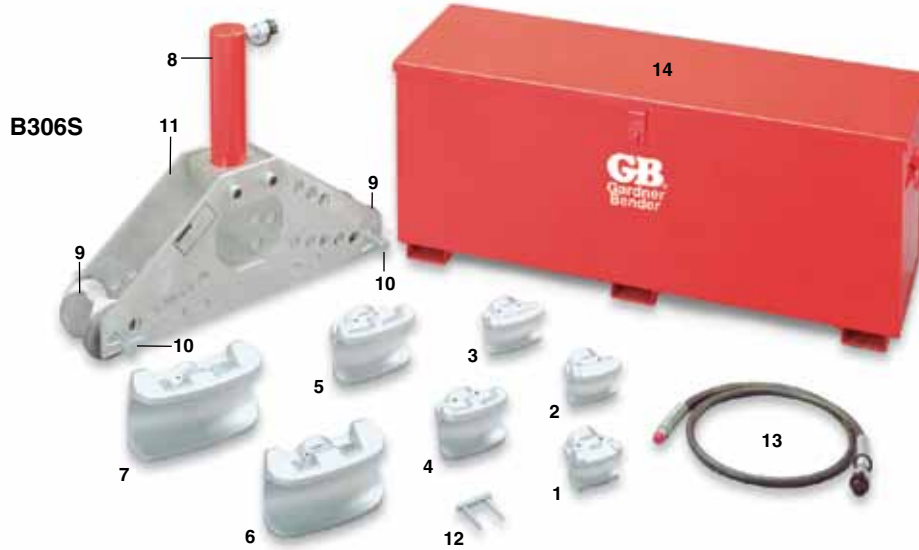
\*Must order A29 Smooth Saddle, see p. 52

## 1 1/4" - 4" Sweep/Segmental Rigid Hydraulic Benders

Bends 1 1/4" to 4" rigid steel or rigid aluminum conduit sweep/segmental.

- Choice of hand or electric pumps.
- Durable metal job box included.
- Ability to be powered by manual or electric pumps.

**tip:** For a quick reference guide, order GB® part #E507 at no charge.



Part #	Description	Weight
B306S	1 1/4" - 4" Sweep	216 lbs
B306SPH80	1 1/4" - 4" Sweep w/ PH80 Hand Pump	243 lbs
B306SPE22J	1 1/4" - 4" Sweep w/ PE22J Electric Pump	230 lbs

SEE PG **49**  FOR MORE INFO ON **Electric Pumps**

### Centerline Radius Chart:

Nominal Size	Smallest Radius	Bending Shoe	Nominal Size	Smallest Radius	Bending Shoe
1 1/4"	7 1/4"	BZ12397	3"	13"	BZ12383
1 1/2"	8 1/4"	BZ12380	3 1/2"	17 1/2"	BZ12384
2"	9 1/2"	BZ12381	4"	20"	BZ12385
2 1/2"	10 1/2"	BZ12382			

SEE PG **51**  FOR MORE INFO ON **Manual Pumps**

SEE PG **53**  FOR MORE INFO ON **Cylinders**

### Components Included with B306S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12379	1 1/4"	Sweep Bending Shoe	2 lbs	1	CS2510*	-	25 ton Action Cylinder	31 lbs	8
BZ12380	1 1/2"	Sweep Bending Shoe	2 lbs	2	BZ13401	-	(2) Pivot Shoes	4 lbs	9
BZ12381	2"	Sweep Bending Shoe	3 lbs	3	BZ12376	-	(2) Pivot Pins	4 lbs	10
BZ12382	2 1/2"	Sweep Bending Shoe	4 lbs	4	BZ12372	-	Bender Frame	54 lbs	11
BZ12383	3"	Sweep Bending Shoe	5 lbs	5	BZ12377	-	Shoe Lock Pin	.25 lb	12
BZ12384	3 1/2"	Sweep Bending Shoe	9 lbs	6	HC913	-	6' Hose	3 lbs	13
BZ12385	4"	Sweep Bending Shoe	12 lbs	7	CM7	-	Metal Case	98 lbs	14

\*Must order A29 Smooth Saddle, see p. 52

## 1¼" - 4" One-shot Eject-O-Matic® Rigid Hydraulic Benders

Bends 1¼" to 4" rigid steel and rigid aluminum conduit. Eject-O-Matic® feature retains conduit with a T-pin while bending shoe is hydraulically retracted. Once complete, the conduit automatically pops free.

- Optional 5" conversion kit available (B350) - segment only.
- Automatic ejection saves time and money.
- Ability to be powered by manual or electric pumps.

**tip:** Double Acting (two hose) cylinders provide controlled and powerful bending and return functions.



Part #	Description	Weight
B343S	1¼" - 4" One-shot	330 lbs
B343SPH84	1¼" - 4" One-shot w/ PH84 Hand Pump	380 lbs
B343SP408K	1¼" - 4" One-shot w/ P408K Electric Pump	362 lbs
B343SP408J	1¼" - 4" One-shot w/ P408J Electric Pump	430 lbs
B343SP408S	1¼" - 4" One-shot w/ P408S Electric Pump	432 lbs

### Centerline Radius Chart:

Nominal Size	Smallest Radius	Bending Shoe	Nominal Size	Smallest Radius	Bending Shoe
1¼"	7¼"	BZ12041	3"	13"	BZ12351
1½"	8¼"	BZ12051	3½"	17½"	BZ12391
2"	9½"	BZ12061	4"	20"	BZ12392
2½"	10½"	BZ12341			

SEE PG **49** FOR MORE INFO ON **Electric Pumps**

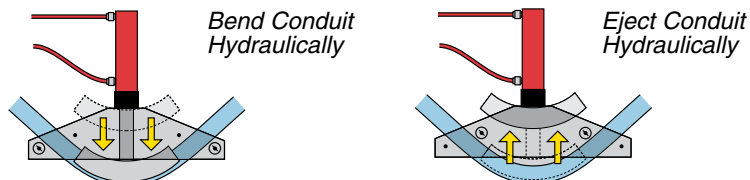
SEE PG **51** FOR MORE INFO ON **Manual Pumps**

SEE PG **53** FOR MORE INFO ON **Cylinders**

### Components Included with B343S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12041	1¼"	Bending Shoe	4 lbs	1	BZ13401	-	(2) Pivot Shoes	4 lbs	9
BZ12051	1½"	Bending Shoe	5 lbs	2	BZ12091	-	Angle Gauge	.5 lb	10
BZ12061	2"	Bending Shoe	7 lbs	3	BZ12376	-	(2) Pivot Pins	4 lbs	11
BZ12341	2½"	Bending Shoe	14 lbs	4	BZ12374	-	Bender Frame	78 lbs	12
BZ12351	3"	Bending Shoe	15 lbs	5	BZ12377	-	Shoe Lock Pin	.25 lb	13
BZ12391	3½"	Bending Shoe	40 lbs	6	HC913	-	(2) 6' Hoses	6 lbs	14
BZ12392	4"	Bending Shoe	41 lbs	7	CM7	-	Metal Case	98 lbs	15
CD3014	-	30-ton Double-Acting Cylinder*	31 lbs	8	B350	-	5" Conversion Kit (optional)	63 lbs	-

\*Must order A29 Smooth Saddle, see p. 52



## 1¼" One-shot Eject-O-Matic® Rigid Hydraulic Benders - 5" Sweep

Bends 1¼" to 4" rigid steel and rigid aluminum conduit in one shot and 5" sweep.

- Choice of hand or electric pumps.
- Durable metal job box included.
- Eject conduit hydraulically by moving one pivot pin.
- Ability to be powered by manual or electric pumps.



Part #	Description	Weight
B351S	1¼" - 4" One-shot / 5" Sweep Combination	377 lbs
B351SPH84	1¼" - 4" One-shot / 5" Sweep Combo w/ PH84 Hand Pump	410 lbs
B351SP408J	1¼" - 4" One-shot / 5" Sweep Combo w/ P408J Elec. Pump	458 lbs
B351SP408S	1¼" - 4" One-shot / 5" Sweep Combo w/ P408S Elec. Pump	460 lbs

### Centerline Radius Chart:

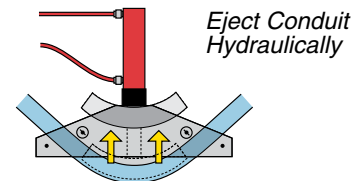
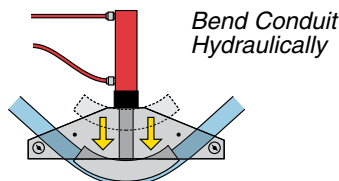
Nominal Size	Rigid Radius	Bending Shoe	Nominal Size	Rigid Radius	Bending Shoe
1¼"	7¼"	BZ12041	3"	13"	BZ12351
1½"	8¾"	BZ12051	3½"	17½"	BZ12391
2"	9½"	BZ12061	4"	20"	BZ12392
2½"	10½"	BZ12341			



### Components Included with B351S Models:

Part #	Conduit	Description	Weight	I.D. #	Part #	Conduit	Description	Weight	I.D. #
BZ12041	1¼"	Bending Shoe	4 lbs	1	CD3014*	-	30 ton Double Acting Cylinder	31 lbs	9
BZ12051	1½"	Bending Shoe	5 lbs	2	BZ12388	-	(2) Pivot Shoes	10 lbs	10
BZ12061	2"	Bending Shoe	7 lbs	3	BZ12091	-	Angle Gauge	.5 lb	11
BZ12341	2½"	Bending Shoe	14 lbs	4	BZ12390	-	(2) Pivot Pins	4 lbs	12
BZ12351	3"	Bending Shoe	15 lbs	5	BZ12389	-	Bender Frame	85 lbs	13
BZ12391	3½"	Bending Shoe	40 lbs	6	BZ12377	-	Shoe Lock Pin	.25 lb	14
BZ12392	4"	Bending Shoe	41 lbs	7	HC913	-	(2) 6' Hoses	13 lbs	15
BZ12386	5"	Sweep Bending Shoe	18 lbs	8	CM7	-	Metal Case	98 lbs	16

\*Must order A29 Smooth Saddle, see p. 52





**NEW Z-Class™ Electric Pumps**

Introducing Gardner Bender™ Z-Class™ hydraulic pumps—pumps that run cooler, use less electricity and are easier to service than conventional pumps. Gardner Bender™ has used the latest metallurgical, bearing and seal technologies to produce a pump whose features and benefits far surpass the electric pumps that are available today. By reducing the number of moving parts, improving flow dynamics and decreasing friction, Z-Class™ pumps will stay on the job longer, require less energy to operate and when needed, have lower service costs.

- Two-speed high-efficiency pumps.
- Self-priming, high-flow 1st stage pump.
- Large, heavy-duty bearings and balanced rotating components.
- Replaceable piston check-valves.
- Powerful universal motor and excellent low-voltage operating.
- Brush design lasts 4-times longer.
- Ergonomic high strength composite.

	P208J	P408S
Motor Size	1.7hp	1.7hp
Type	Z-Class™	Z-Class™
Reservoir Capacity	2 gallon	2 gallon
Pump Type	single-acting	double-acting
Pressure Rating		
1st stage (psi)	100	100
2nd stage (psi)	10,000	10,000
Output Flow Rate		
1st stage (in <sup>3</sup> /min)	700	700
2nd stage (in <sup>3</sup> /min)	60	60
Valve Type	3 way/2 pos.	4 way/3 pos.
Current Draw (max) (Amps)	20	20
Motor Voltage (VAC)	115	115
Sound (dba)	85-90	85-90
Weight (lbs)	70	85
Relief Valve Adj. Range (psi)	2,000-10,000	2,000-10,000

**Double-Acting Pump**  
 P408S  
 1.7 HP Pump



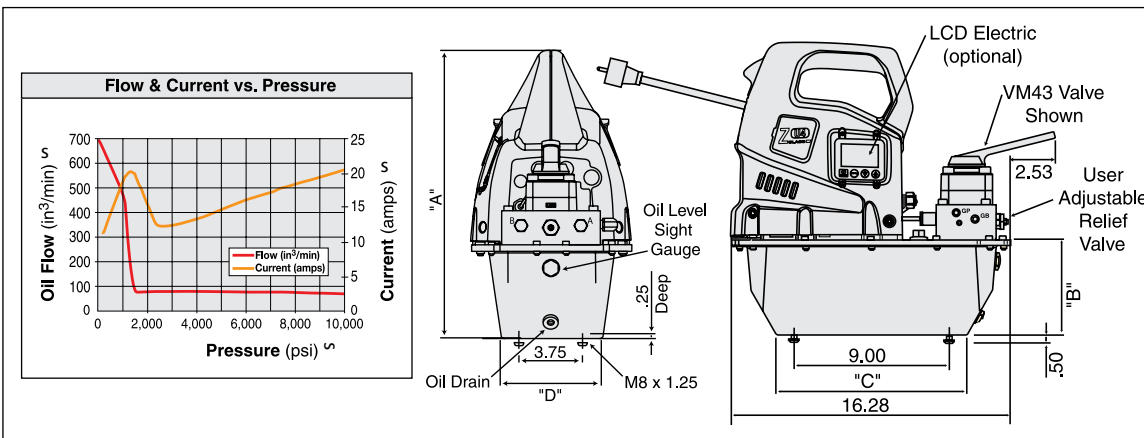
**Single-Acting Pump**  
 P208J  
 1.7 HP Pump



**Back-lit LCD**

Provides essential information:

- Hour & cycle counts
- Low voltage warning
- Self-test, diagnostic and read-out capabilities
- Pressure read-out and adjustable trigger pressure settings
- Information displayed in 6 languages



## Economy Electric Pumps

### PE20D & PE22J

- Lightweight - 22 - 41 lbs.
- 115 V AC 50/60 cycle universal motor works well with long extension cords or generator-driven power.
- Long 10' remote control for operator safety.
- Great for medium-sized cylinders.

## Submerged Electric Pumps

### PE24J

- Powerful 1/2 hp induction motor is submerged in the oil reservoir to run cooler, protect motor, simplify pump interface, save space, reduce noise.
- Large 1.7 gallon reservoir allows for a wide operation of cylinders.
- Full-length slide tube for visual monitoring of oil level.

### Single-Acting Pump

PE20D  
1/2 HP Pump



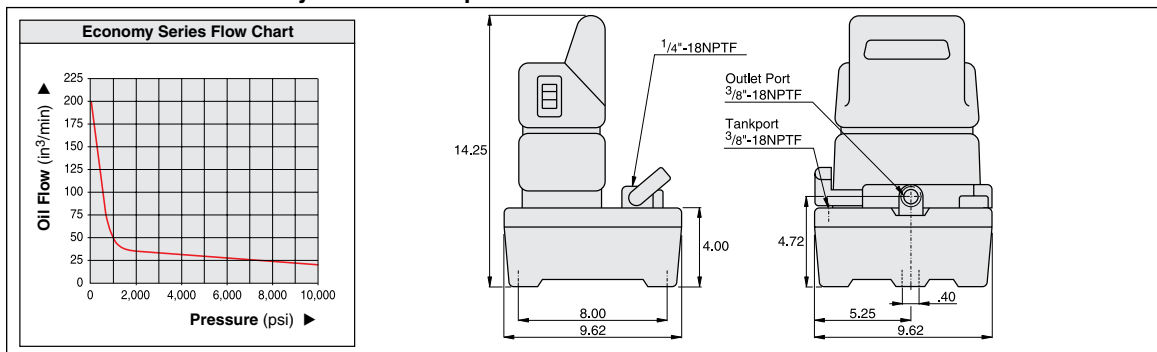
### Single-Acting Pump

PE22J  
1/2 HP Pump



	PE20D	PE22J
Motor Size	1/2 hp	1/2 hp
Type	Economy	Economy
Reservoir Capacity	1 gallon	1 gallon
Pump Type	Single-Acting	Single-Acting
Pressure Rating		
1st stage (psi)	200	200
2nd stage (psi)	10,000	10,000
Output Flow Rate		
1st stage (in <sup>3</sup> /min)	200	200
2nd stage (in <sup>3</sup> /min)	20	20
Valve Type	Dump	3-way, 2 pos.
Current Draw (Amps)	9.5	9.5
Motor Voltage (VAC)	115	115
Sound (dba)	85	85
Weight	29 lbs	27 lbs

### PE20D or PE22J Economy Electric Pumps

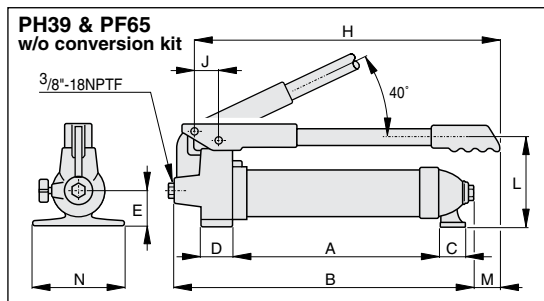
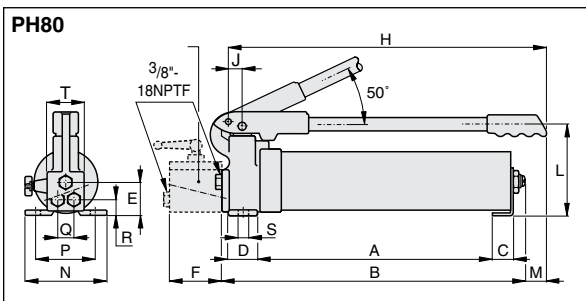
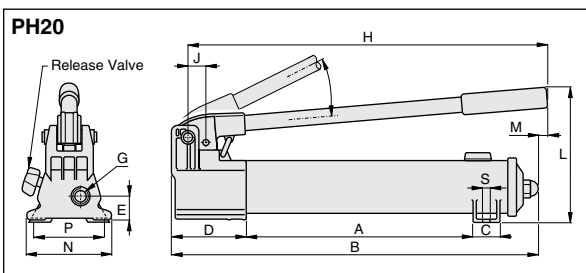


## Manual Hydraulic Pumps

Durable manual pumps utilized with Gardner Bender™ hydraulic bender sets.

- PH80 and PH84 models feature two-speed action for faster cylinder cycle time.
- PH39 has economical single-speed design.
- All pumps contain internal high-pressure relief overload protection.

	PH20	PH39	PH80	PF65
<b>Pump Type</b>	Single-Speed	Single-Speed	Two-Speed	Single-Speed
<b>Usable Oil Capacity (in<sup>3</sup>)</b>	20	40	134	22
<b>Pressure Rating</b>				
1st stage (psi)	N/A	N/A	350	N/A
2nd stage (psi)	10,000	10,000	10,000	6,500
<b>Oil Displ. per Stroke</b>				
1st stage (in <sup>3</sup> )	N/A	N/A	.99	N/A
2nd stage (in <sup>3</sup> )	.055	.16	.15	.16
<b>Max. Handle Effort</b>	72 lbs	111 lbs	104 lbs	125 lbs
<b>Piston Stroke (in)</b>	.50	.81	1.00	.81
<b>Piston Diameter</b>				
1st stage (in)	.75	.94	1.13	.50
2nd stage (in)	.38	.44	.44	N/A
<b>Dimensions (in)</b>				
A	7.31	15.50	16.75	8.25
B	13.25	20.47	21.22	12.88
C	1.13	1.28	1.00	1.28
D	3.37	1.50	1.75	1.5
E	1.13	1.25	2.13	1.88
F	-	-	-	-
H	12.56	18.25	20.75	8.5
J	.75	1.18	1.14	1.18
L	5.63	4.69	6.88	4.38
M	-	2.56	.75	.51
N	3.75	5.25	5.75	5.25
P	3.18	-	4.76	-
Q	-	-	-	-
R	-	-	.83	-
S	-	-	.31	-
T	-	-	-	-
<b>Weight</b>	4.5 lbs	13 lbs	24 lbs	12 lbs



## Hydraulic Bender Accessories

Quality accessories to increase bending efficiency.

See following page for Hydraulic Cylinder Specifications.

### Hoses and Oil

Part #	Description	Weight
H8210	10' Rubber Hydraulic Hose w/ AH630 coupler	4 lbs
H864	6' Rubber Hydraulic Hose w/ AH630 coupler	2 lbs
HC913	6' Rubber Hydraulic Hose w/ CH604 coupler	3 lbs
HC963	6' Plastic Hydraulic Hose w/ CH604 coupler	2 lbs
HC927	10' Rubber Hydraulic Hose w/ CH604 coupler	4 lbs
HF100	Hydraulic Oil, Quart	2 lbs
HF101	Hydraulic Oil, Gallon	8 lbs

### Couplers

Part #	Description	Weight
A630	Hydraulic Coupler: 1/4" Female Half	.5 lb
	Hydraulic Coupler: 1/4" Male Half	.5 lb
C604	Hydraulic Coupler: 3/8" High-flow Female Half	.5 lb
	Hydraulic Coupler: 3/8" High-flow Male Half	.5 lb
CD411	Universal Dust Cap for CR400 & CH604, plastic	.1 lb

### Smooth Saddles

Part #	For Use With	2A Thread	Weight
A12	10-ton Cylinders	1 - 8 UNC	5 lbs
A29	25 ton Cylinders	1 1/2 - 16 UNC	7 lbs

**tip:** When ordering a replacement hydraulic cylinder for your bender you must also order a new smooth saddle. See chart above.

**note:** When installing a new saddle, apply LOCTITE® thread locker to threads prior to installation.



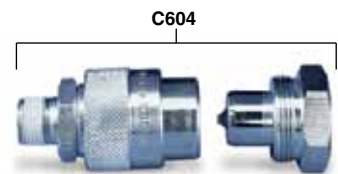
HF101



H864

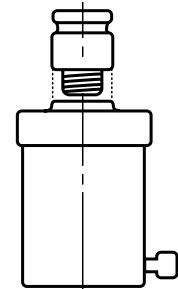
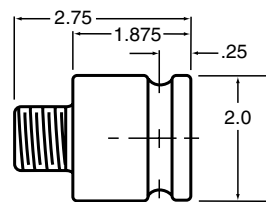


A630



C604

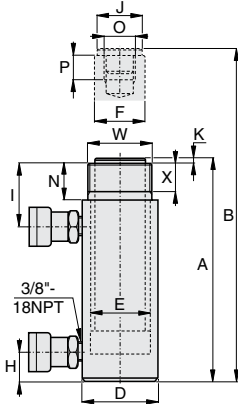
A12/A29 Dimensions



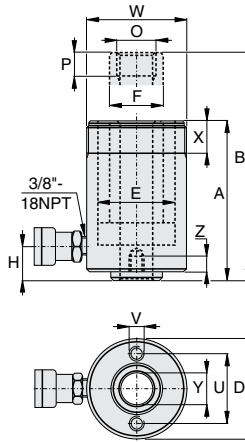
## Hydraulic Cylinder Specifications



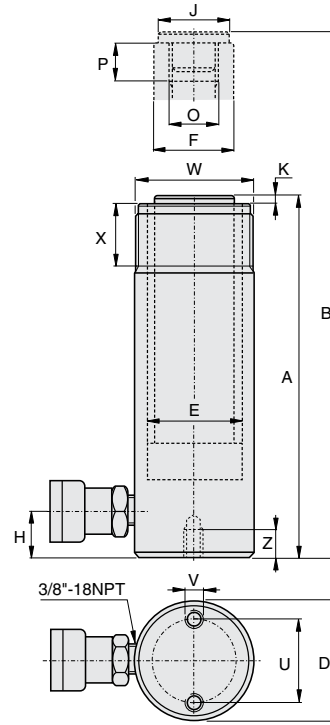
CH1211 has a 1.88" diameter base that protrudes .25" from base.



CD1012, CD308,  
 CD3014 models



CH1211 model



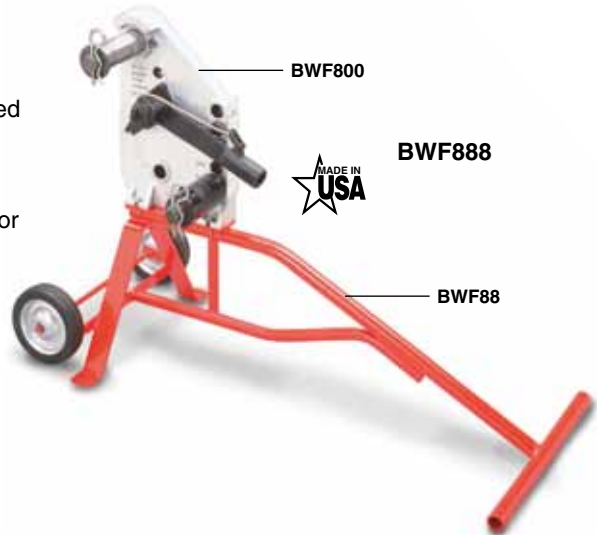
CS106, CS1010,  
 CS2510, CS2514 models

		CH1211	CS106	CS1010	CS2510	CS2514	CD1012	CD308	CD3014
Cylinder Capacity (tons)		12.00	10.00	10.00	25.00	25.00	10.00	30.00	30.00
Stroke (in)		1.63	6.13	10.13	10.25	14.25	12.00	8.25	14.50
Max Cylinder Capacity (tons)	Push						10.00	30.00	30.00
Max Cylinder Capacity (tons)	Pull						4.00	5.00	5.00
Cylinder Effective Area (in <sup>2</sup> )		2.77	2.23	2.23	5.15	5.15			
Cylinder Effective Area (in <sup>2</sup> )	Push						2.23	6.51	6.51
Cylinder Effective Area (in <sup>2</sup> )	Pull						0.80	3.00	3.00
Oil Capacity (in <sup>3</sup> )		4.52	13.67	22.59	52.79	73.39			
Oil Capacity (in <sup>3</sup> )	Push						26.80	53.67	92.70
Oil Capacity (in <sup>3</sup> )	Pull						9.00	25.00	43.00
Collapsed Height (in)	A	4.75	9.75	13.75	14.75	18.75	18.00	15.25	21.63
Extended Height (in)	B	6.38	15.88	23.88	25.00	33.00	30.00	23.50	36.13
Outside Diameter (in)	D	2.75	2.25	2.25	3.38	3.38	2.88	4.00	4.00
Cylinder Bore Diameter (in)	E	2.13	1.69	1.69	2.56	2.56	1.69	2.88	2.88
Plunger Diameter (in)	F	1.38	1.50	1.50	2.25	2.25	1.38	2.13	2.13
Cyl. Base to Advance Port (in)	H	0.75	0.75	0.75	1.00	1.00	1.44	1.44	1.56
Top to Ret. Port (in)	I						2.25	3.19	3.19
Saddle Diameter (in)	J	—	1.38	1.38	2.00	2.00	1.38	2.00	2.00
Saddle Protr. from Plunger (in)	K	—	0.25	0.25	0.41	0.41	0.06	0.41	0.41
Plunger Internal Thread (in)	O	3/4-16	1-8	1-8	1 1/2-16	1 1/2-16	1-8	1 1/2-16	1 1/2-16
Plunger Thread Length (in)	P	0.63	0.75	0.75	1.00	1.00	1.00	1.00	1.00
<b>Base Mounting Holes</b>									
Bolt Circle Diameter (in)	U		1.56	1.56	2.31	2.31	—	—	—
Thread (in)	V		5/16-18	5/16-18	1/2-13	1/2-13	—	—	—
Thread Depth (in)	Z		.50	.50	.75	.75	—	—	—
Collar Thread (in)	W	2 3/4-16	2 1/4-14	2 1/4-14	3 5/16-12	3 5/16-12	2 1/4-14	3 5/16-12	3 5/16-12
Collar Thread Length (in)	X	1.19	1.13	1.13	1.94	1.94	1.06	1.94	1.94
Center Hole Diameter (in)	Y	0.77							
Weight (lbs)		6.20	9.80	14.00	31.00	39.00	31.00	40.00	64.00
Rating (tons)		12	10	10	25	25	10	30	30
Saddle (sold separately) (tons)		12	10	10	25	25	10	30	30

## Mechanical Sidewinder™ Benders

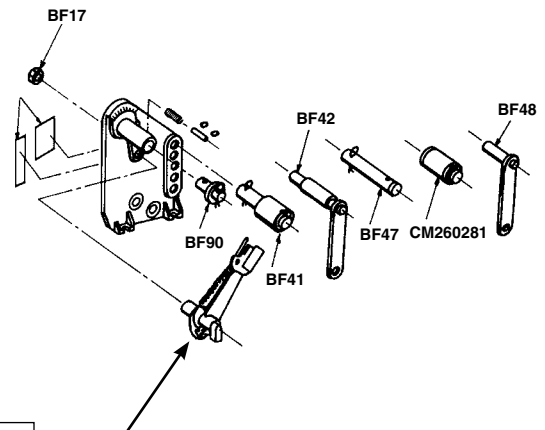
A fully portable system that bends:

- ½" to 1½" rigid steel, rigid aluminum, PVC-Coated rigid and IMC conduit.
- ½" to 2" EMT conduit.
- Removable bender can be bolted onto workbench or truck bed for unparalleled flexibility.
- 0° to 90° bend indicator built into the frame shows bend angle while bending.
- Double-dog ratchet prevents shoe spring-back during bends; allows fast release after bending.
- Interchangeable shoes adapt single bender frame to cover widest range of conduit types.

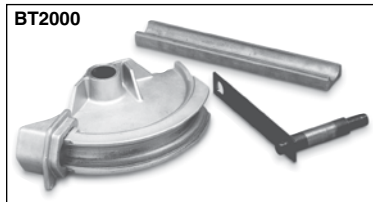


### BWF800 Bender Head Assembly

Part #	Description	Weight
BWF888	Sidewinder™ Bender w/ out Shoe Groups	64 lbs
BF41	Urethane Roller Assembly & Shaft Assembly	3 lbs
BF42	2" EMT Strap	8 lbs
BF43	Frame, Retainer Pin and Decals	25 lbs
BF47	Shaft Assembly	3 lbs
BF48	2" Steel Sleeve and Strap Kit	4 lbs
BF49	Ratchet Assembly	9 lbs
BF52	Bend Instruction Decals	1 lb
BF90	Shoe Lock Kit (upgrade older frames)	2 lbs
BT112520	Insert Teeth (for 1¼" - 1½" and 2" shoes)	1 lb
CM260281	Urethane Roller Only	1 lb



Jaws attach to shoes with chain.



### Repair Kits for BF49

Part #	Description
BW72	Lever and Washer Kit
BW74	Drive Pawl and Spring Kit
BW75	Hold Pawl and Spring Kit
BW76	Pin and Spring Kit

See Repair Parts Sheet for a detailed breakdown of these kits.

**tip:** A bend handle is not included with these units. A 6 ft. piece of 1" Dia. Rigid conduit can be used.

### Bending Shoes

Part #	Clamping Jaw Range	Conduit	Weight	Clamping Jaw Part #	Weight
BT57510	½", ¾" & 1"	EMT	15 lbs	BZ1306	2 lbs
BT12515	1¼" - 1½"	1½" EMT	34 lbs	BZ1307	4 lbs
BT2000*	2"	EMT	39 lbs	BZ13081	4 lbs
BR57510	½", ¾" & 1"	Rigid & IMC	18 lbs	BZ1306	2 lbs
BR12515	1¼" - 1½"	Rigid & IMC	28 lbs	BZ1307	4 lbs
BR20000	2"	Aluminum Rigid	33 lbs	BZ1308	3 lbs

\*Shoe includes BZ1345 follow bar and strap.

## Sidewinder™ ½" - 1" Rigid / IMC Bender

Bends ½", ¾" and 1" rigid steel and IMC conduit.

- Shoe lock slips into place and removes easily for quick change-outs.
- Fully portable.



Part #	Weight	Contains		
		Part #	Description	Weight
BW11	78 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BR57510	½", ¾" & 1" Rigid & IMC Shoe	18 lbs

## Sidewinder™ 1¼" - 1½" Rigid / IMC Bender

Bends 1¼" and 1½" rigid steel and IMC conduit.

- Shoe tooth inserts can be replaced in the field which allows extended service life.
- Order part number BT112520.



Part #	Weight	Contains		
		Part #	Description	Weight
BW12	88 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BR12515	1¼" & 1½" Rigid & IMC Shoe	28 lbs

## Sidewinder™ ½" - 1½" Rigid / IMC Bender

Bends ½" to 1½" rigid steel and IMC conduit.

- Combines features and bending capabilities of BW11 and BW12.
- Able to handle the most commonly used rigid and IMC conduit sizes.



Part #	Weight	Contains		
		Part #	Description	Weight
BW15	106 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BR57510	½", ¾" & 1" Rigid & IMC Shoe	18 lbs
		BR12515	1¼" & 1½" Rigid & IMC Shoe	28 lbs

## Sidewinder™ Rigid / IMC & Rigid Aluminum Conduit Bender

Bends 1/2" to 1 1/2" rigid and IMC and 2" rigid aluminum conduit. Adds 2" rigid aluminum conduit bending capability to 1/2" to 1 1/2" rigid and IMC capacity of BW15 Sidewinder™.

- Larger shoes feature field-replaceable tooth inserts for extended service life.
- Set includes metal storage box.



		Contains		
Part #	Weight	Part #	Description	Weight
BW20	175 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BW20S (Shoe Set)	BR57510 1/2", 3/4" & 1" Rigid & IMC Shoe	18 lbs
			BR12515 1 1/4" & 1 1/2" Rigid & IMC Shoe	28 lbs
			BR20000 2" Rigid Aluminum Shoe	33 lbs
		CM4 4-cubic-foot Case	26 lbs	

*Shoes available separately or as a BW20S Set*

## Sidewinder™ Bender for All Conduit Types

Bends 1/2" to 1 1/2" rigid and IMC, 1/2" to 2" EMT, 1/2" to 2" rigid aluminum and 1/2" to 1 1/2" PVC-coated rigid conduit.

- The most comprehensive Sidewinder™ set for every job.
- Larger shoes feature filed-replacement-tooth inserts for extended service life.
- Set includes metal storage box.



		Contains		
Part #	Weight	Part #	Range	Weight
BW30	290 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BW30S (Shoe Set)	BT57510 1/2", 3/4", & 1" EMT Shoe	18 lbs
			BT12515 1 1/4" & 1 1/2" EMT Shoe	28 lbs
			BT2000 2" EMT Shoe	28 lbs
			BR57510 1/2", 3/4" & 1" Rigid & IMC Shoe	28 lbs
			BR12515 1 1/4" & 1 1/2" Rigid & IMC Shoe	28 lbs
			BR20000 2" Rigid Aluminum	28 lbs
			CM7 7-cubic-foot Case	51 lbs



## Sidewinder™ Bender for Most Conduit Types

Bends 1/2" to 1 1/2" rigid and IMC, 1/4" to 2" EMT and 1" to 1 1/2" PVC-coated rigid conduit.

- The economical choice for bending the most popular sizes of rigid/IMC and larger EMT conduit.
- Set includes metal storage box.



Part #	Weight	Contains		Weight
		Part #	Description	
BW27	210 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BW27S (Shoe Set)	BT12515 1/4" & 1 1/2" EMT Shoe	28 lbs
			BT2000 2" EMT Shoe	39 lbs
			BR57510 1/2", 3/4" & 1" Rigid & IMC Shoe	18 lbs
			BR12515 1/4" & 1 1/2" Rigid & IMC Shoe	28 lbs
		CM4 4-cubic-foot Case	26 lbs	

*Shoes available separately or as a BW27S Set*

## Sidewinder™ EMT & PVC-Coated Rigid Conduit Bender

Bends 2" EMT and 1 1/2" PVC-coated rigid conduit.

- Field-replaceable shoe-tooth inserts extend service life.
- Order part number BT112520.



Part #	Weight	Contains		Weight
		Part #	Description	
BW201	99 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BT2000	2" EMT Shoe	39 lbs

## Sidewinder™ EMT & PVC-Coated Rigid Conduit Bender

Bends 1/2" to 2" EMT and 1/2" to 1 1/2" PVC-coated rigid conduit.

- Larger shoes feature filed-replacement-tooth inserts for extended service life.
- Set includes metal storage box.



Part #	Weight	Contains		Weight
		Part #	Description	
BW221	184 lbs	BWF888	Sidewinder™ Bender Frame	64 lbs
		BW221S (Shoe Set)	BT57510 1/2", 3/4" & 1" EMT Shoe	18 lbs
			BT12515 1/4" & 1 1/2" EMT Shoe	28 lbs
			BT2000 2" EMT Shoe	39 lbs
			CM4 4-cubic-foot Case	26 lbs



**NEW Big Ben® Conduit Hand Bender**

GB's new series of Big Ben® aluminum hand benders has improved traditional hand benders by enlarging the hook, increasing the foot pedal size and clearance, highlighting the markings and incorporating a dual sight-line system for bending on the floor or in the air. GB's new Big Ben® series offers industry standard markings to simplify the contractor's job. Made of rugged, heat-treated aluminum, the Big Ben® series is backed by a lifetime warranty and is available in the most common sizes of 1/2", 3/4" and 1".

- All models include embossed sight lines for 10°, 22°, 30°, 45°, 60° and 90°.
- Industry-standard markings– 30° bend when handle is straight up.
- Bigger hook with a 5x durability factor.
- Bigger foot pedal– 40% larger.
- More foot room allows for a booted foot.
- Bend-back channel easily corrects conduit over-bends.
- Vise-Mate™ holds conduit while cutting or reaming.



SEE PG **61** FOR MORE INFO ON **Handles**



*These benders available with or without high-strength steel handle*

**Lifetime Warranty**

Part Number	960H		961H		962H	
	Head Only	Head & Handle	Head Only	Head & Handle	Head Only	Head & Handle
<b>Description</b>	Head Only	Head & Handle	Head Only	Head & Handle	Head Only	Head & Handle
<b>Application</b>	1/2" EMT		3/4" EMT / 1/2" Rigid		1" EMT / 3/4" Rigid	
<b>Material</b>	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
<b>Weight</b>	1.34 lbs	5.06 lbs	1.58 lbs	5.34 lbs	3.16 lbs	7.01 lbs
<b>Bend Radius</b>	3.69"	3.69"	4.74"	4.74"	5.81"	5.81"
<b>EMT Size</b>	1/2"	1/2"	3/4"	3/4"	1"	1"
<b>Rigid Size</b>	—	—	1/2"	1/2"	3/4"	3/4"



**Industry Standard Style**  
30° bend when handle is straight up



**Bigger Hook**  
With a 5x durability factor



**Bigger Foot Pedal**  
40% larger



**More Foot Room**  
Allows for a booted foot



**Bend-Back Channel**  
Easily corrects conduit over-bends



**Vise-Mate™**  
Holds conduit while cutting or reaming

**GB EXCLUSIVE!** Gardner™ EMT / Rigid  
**Aluminum Hand Benders (Series 930B-933)**

Bends 1/2" to 1 1/4" EMT, and 1/2" to 1" rigid and rigid aluminum conduit.

- Built-in acrylic level gauge helps make precise bends in half the time.
- All models include embossed sight lines for 10°, 22.5°, 30°, 45°, 60° and 90°.
- Patented Vise-Mate™ holds conduit steady as it is cut to appropriate size.



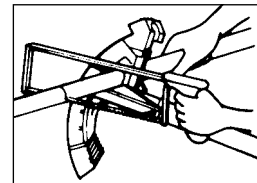
These benders are available with or without high-strength steel handle

**Lifetime  
 Warranty**

SEE PG **61** FOR MORE INFO ON **Handles**



Part Number	930B	930H	931B	931H
Description	Head Only	Head & Handle	Head Only	Head & Handle
Application	1/2" EMT		3/4" EMT / 1/2" Rigid	
Fits Handle #	BH-75	Included	BH-75	Included
Material	Aluminum	Aluminum	Aluminum	Aluminum
Weight	.8 lbs	5.3 lbs	2.3 lbs	6.4 lbs
Bend Radius	5"	5"	6"	6"
EMT Size	1/2"	1/2"	3/4"	3/4"
Rigid Size	—	—	1/2"	1/2"



Insert conduit through Vise-Mate™ opening and cut to desired length.



Part Number	932	932H	933
Description	Head Only	Head & Handle	Head Only
Application	1" EMT / 3/4" Rigid		1 1/4" EMT / 1" Rigid
Fits Handle #	BH-100	Included	BH-125
Material	Aluminum	Aluminum	Aluminum
Weight	4.1 lbs	10 lbs	7.75 lbs
Bend Radius	8"	8"	12"
EMT Size	1"	1"	1 1/4"
Rigid Size	3/4"	3/4"	1"

## Iron Hand Benders (Series 920-923)

Bends 1/2" to 1 1/4" EMT and 1/2" to 1" rigid and rigid aluminum conduit.

- Cast-in-place degree marks facilitate accurate bends.
- Constructed of rugged-malleable iron for strength and durability.
- Arrow and diamond indicate beginning and back-of-bend locations.

**Lifetime  
Warranty**



These benders are available with or without high-strength steel handle

SEE PG **61** FOR MORE INFO ON Handles

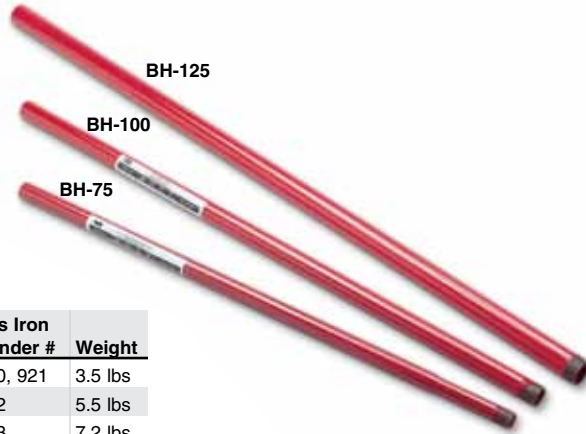
Part Number	920		921	
	Head Only	Head & Handle	Head Only	Head & Handle
Description	1/2" EMT		3/4" EMT / 1/2" Rigid	
Application	1/2" EMT		3/4" EMT / 1/2" Rigid	
Fits Handle #	BH-75	Included	BH-75	Included
Material	Iron	Iron	Iron	Iron
Weight	2.7 lbs	7.2 lbs	5 lbs	9.6 lbs
Bend Radius	5"	5"	6"	6"
EMT Size	1/2"	1/2"	3/4"	3/4"
Rigid Size	—	—	1/2"	1/2"

Part Number	922		923	
	Head Only	Head & Handle	Head Only	Head & Handle
Description	1" EMT / 3/4" Rigid		1 1/4" EMT / 1" Rigid	
Application	1" EMT / 3/4" Rigid		1 1/4" EMT / 1" Rigid	
Fits Handle #	BH-100	Included	BH-125	Included
Material	Iron	Iron	Iron	Iron
Weight	4.9 lbs	14.5 lbs	14 lbs	14 lbs
Bend Radius	8"	8"	11"	11"
EMT Size	1"	1"	1 1/4"	1 1/4"
Rigid Size	3/4"	3/4"	1"	1"

## Hand Bender Handles

High quality, pre-threaded bender handles for all Gardner Bender™ bender heads.

- Constructed of high-strength steel.
- Powder painted for increased durability.
- Comfort grip design ensures increased grasping capabilities.



Part #	Size	Fits Aluminum Bender #	Fits Iron Bender #	Weight
BH-75*	3/4" NPT x 38" long	930B, 931B, 960, 961	920, 921	3.5 lbs
BH-100*	1" NPT x 44" long	932, 962, 820, 821	922	5.5 lbs
BH-125	1 1/4" NPT x 54" long	933, 822	923	7.2 lbs

\* Patented

## Hickey Bending Heads

For 1/2" to 1" rigid conduit.

- Manufactured using permanent mold process with high-strength, heat-treated aluminum.
- Lightweight and extremely durable.

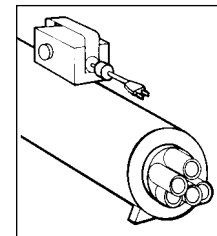


Part #	Rigid Size	Fits Bender Handle #	Weight
820	1/2"	BH-100	.9 lb
821	3/4"	BH-100	1.2 lbs
822	1"	BH-125	2.2 lbs

## **GB EXCLUSIVE!** HotTube™ PVC Bender for 1/2" to 2" Conduit (schedule 40-80)

This high-production bender can simultaneously heat up to five lengths of 1/2" conduit and up to three lengths of 3/4" conduit, without rotating.

- Adjustable thermostatic control heats conduit fast and maintains perfect bending temperature.
- Patented technology enables HotTube™ to maintain temperature in wide range of ambient temperatures and wind conditions.
- No need to rotate conduit. Won't burn or scorch.
- Insulated, weatherproof housing provides safe, cool operation—unit is portable immediately after use.
- Dimensions: 27 3/8" x 5 1/2" x 8 1/2".
- Temperature Range: 0 °F - 350 °F.



Part #	Description	Power Requirements			Weight
		Watts	Volts	Amps	
BHT-520A	1/2" - 2" HotTube™	1440	115/120	12	24 lbs

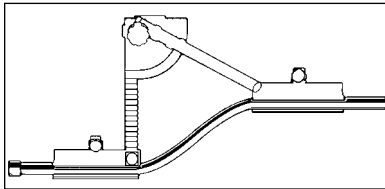
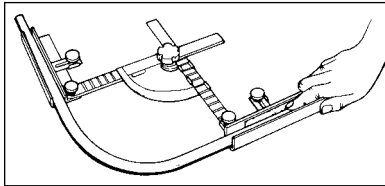
## HotBox™ PVC Bender for ½" to 2" Conduit (schedule 40-80)

Complete PVC bending system includes Bend-Guide™ bending gauge.

- Highly polished reflector surfaces heat conduit quickly and evenly.
- Low power consumption.
- Lightweight with convenient carrying handle and cover clasp.
- Bending guide adjusts for 0° to 90° bend segments in any radius from 6" to 12".
- Dimensions: 29½" x 7" x 7⅛".
- Temperature Range: 0 °F - 450 °F.



Part #	Description	Power Requirements			Weight
		Watts	Volts	Amps	
BHB-520D	½" - 2" HotBox™	1450	115/120	12	17 lbs
BHE-50K	Replacement Heating Element	1450	115/120	12	1 lb



Convenient Bend-Guide™ is included with every BHB-520D.

## HotBox™ PVC Bender for ½" to 4" Conduit (schedule 40-80)

Meets most PVC bending needs. Accommodates conduit range from ½" to 4".

- Highly polished reflector surfaces heat conduit quickly and evenly.
- Large wheels provide job-site portability.
- Allows conduit to be reheated and reformed.
- Dimensions: 54½" x 8½" x 11½".
- Temperature Range: 0 °F - 400 °F.



Part #	Description	Power Requirements			Weight
		Watts	Volts	Amps	
BHB-540A	½" - 4" HotBox™	2400	115/120	20	34 lbs
BHE-540	Replacement Heating Element	2400	115/120	20	3.5 lbs

## HotBox™ PVC Bender for ½" to 6" Conduit (schedule 40-80)

Accommodates conduit range from ½" to 6". Specially designed covers and heat flow system allow heating of shorter lengths as well as lengths sufficient for 48" radius, 90° elbows.

- Highly polished reflector surfaces heat conduit quickly and evenly.
- Power drive model automatically rotates conduit for faster bends.
- Large wheels provide job-site portability.
- Allows conduit to be reheated and reformed.
- Dimensions: 74" x 11½" x 14".
- Temperature Range: 0 °F - 400 °F.

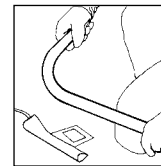
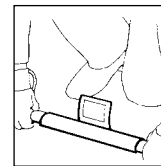
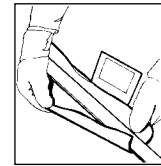


Part #	Description	Power Requirements			Weight
		Watts	Volts	Amps	
BHB-560	½" - 6" HotBox™	5500	230	24	60 lbs
BHB-560P	½" - 6" HotBox™ w/ Power Rotator	5500	230	24	68 lbs
BHE-560	Replacement Heating Element	5500	230	24	8.5 lbs

## HotBlanket™ PVC Benders for ½" to 4" Conduit (all schedules)

New improvements have made this family of conduit benders the most durable and economical bending system in the industry.

- Internal thermostatic control will not scorch or burn conduit.
- Use in any in-place position.
- Thermostatic control heats pipe fast, even in cold or windy conditions.
- Multiple circuit design extends the life of the blankets.
- Multiple wound heavy-gauge wire ensures the longest life of any bending blanket.

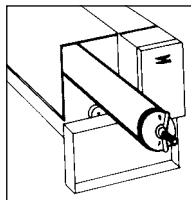


Part #	Conduit Size	Dimensions (L x W)	Power Requirements			Weight
			Watts	Volts	Amps	
BB5150	½" - 1½"	18" x 7½"	310	120	2.6	2 lbs
BB2030	2" - 3"	25" x 11¼"	690	120	6.3	3 lbs
BB3040	3" - 4"	36" x 14¾"	1120	120	10.2	6 lbs

## PVC Plug Set

Prevents conduit from collapsing or deforming by supporting the inside surface during heating and bending.

- Decreases heating time by trapping hot air in the conduit.
- Use with 2" and larger conduit.
- Includes durable storage case.



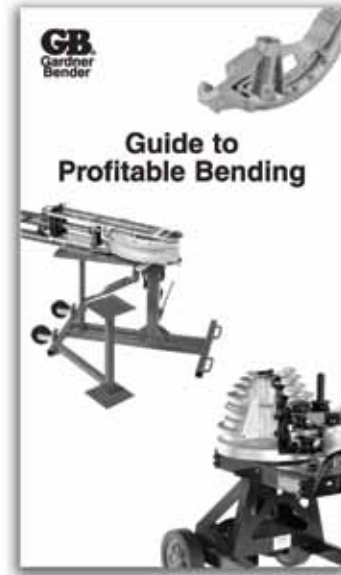
Part #	Description	Weight	Components		
			Part #	Description	Weight
BVS-240	2" - 4" PVC Plug Set	6 lbs	BVP20	2" PVC Plug	.32 lb
			BVP25	2½" PVC Plug	.38 lb
			BVP30	3" PVC Plug	.44 lb
			BVP40	4" PVC Plug	.44 lb

## Guide to Bending Booklet

Easy-to-use instructions for completing multiple types of conduit bends.

- Contains quick reference charts and guides.
- Easy to carry.
- Provided at no charge.

Part #	Description
E507	Guide to Profitable Bending Booklet



## Tool-Guard™ Metal Storage Cases

Shelter equipment from dust, grease, dirt or loss on the jobsite, maintenance area or shop.

- Constructed of durable 16-gauge steel with quality arc-welded seams.
- Dual rolled-lip design resists sprung hinges, keeps cover aligned, adds rigidity and strength.
- Continuous heavy-duty hinges stand up to rugged use.
- Water-resistant design retards leakage.
- Bottom skids enhance protection and permit easy forklift movement.
- Recessed closure shields padlock from cutting and prying attempts. (lock not included).
- Painted with rust-resistant primer and finished in durable red enamel.

**tip:** Use #5 Master Lock® lock when locking boxes.



CM7



CM20

Part #	Size cu. in.	Inside Dimensions				Shelf Dimensions		Weight
		Length	Width	Rear Height	Front Height	Length	Width	
CM4	4½	31"	14"	14"	14"	–	–	56 lbs
CM7	8	36"	19"	18"	18"	–	–	98 lbs
CM20	28	60"	24"	28"	28"	59½"	5¼"	182 lbs





## ***Conduit Fishing***

Gardner Bender™ offers a complete range of solutions for conduit fishing and cable pulling, with the contractor in mind. From fish tapes to powered cable pullers, our products are designed around durability, innovation and ease of use.



page 76



page 69



page 88



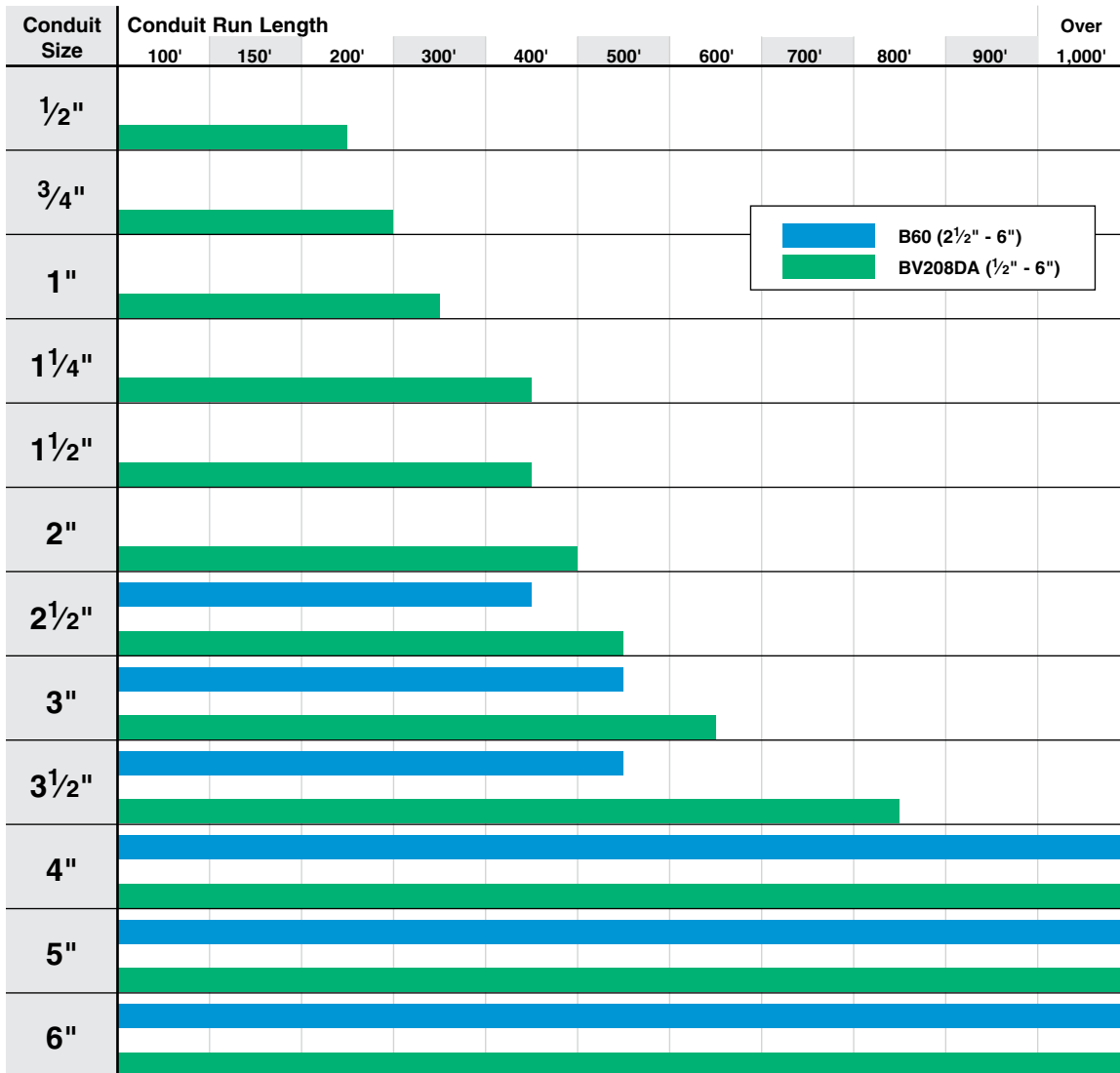
page 75

Blower Systems	Material Handling
JetLine® Super Blower™ (Electric) .....68	Reel Rollers
Super Blo-Vac™ System (Blower/Vacuum) .69	30" Reel Roller .....96
Cable Pullers and Accessories	Handy-Saver™ Reel Roller .....96
2,000 lb Mini-Brutus™ Powered Puller .....82	Reel Jacks - Telescoping .....96
8,000 lb Brutus™ Powered Puller.....83	Wire Caddies & Carts
10,000 lb Ultra Brutus™ Powered Puller 88-89	Deluxe Spool Cart & Caddy Combo .....98
Sub-Assembly Kits.....84	Hand Wire Caddy .....97
Brutus™ Powered Puller	Heavy-Duty Spool Cart &
Application Instructions ..... 85-87	Caddy Expander Combo .....98
Hook Sheaves.....91	Portable Wire Caddy .....97
Pulling Grips.....90	Portable Wire Dispenser .....99
Tension Meter.....91	Replacement Parts .....99
Conduit Measuring Tape.....75	Spool Caddy Cart .....97
CO2 Systems	Wire Dispenser.....98
Air Compressor Seal-Off.....73	Lubricants
CO2 Refill Connector .....72	Wire-Aide™ .....91
Powr House™ Conduit Fishing Systems....71	Poly-Gel™ .....92
Powr-Pak I™ 5 lb. Portable System.....72	Super-Slick™ .....93
Fish Tapes and Accessories	Pull Line / Line Carriers
Cable Snake™ Steel Fish Tapes ..... 77-78	Foam Line Carriers .....74
Economy Fish Tape .....79	Heavy-Duty Bulk Nylon Line .....75
Fiberline™ Non-Conductive	The Inflatables® Line Carriers.....73
Fiberglass Fish Tapes.....79	Missile Line Carriers.....73
Fish Tape Ball .....80	Poly-Pull™ Line .....75
Fish Tape Leader .....80	Power Saver™ Line Packages.....74
Nylo-Flex™ Non-Conductive	Tag-Along™ Line Packages .....74
Nylon Fish Tapes.....80	Rope
Replacement Tapes - Steel .....79	Rope Selection Guide .....95
Rewind™ Fish Tape Winder.....77	Poly-Pro™ General Purpose Rope.....94
Streamline™ Steel Fish Tapes.....78	Super Tuff-Pull™ Double Braided Rope.....93
UpperHand™ Steel Fish Tapes.....76	Tuff-Pull™ Single Braided Rope .....94
UpperHand™ Non-Conductive	Vacuum / Blowers
Fiberglass Fish Tapes.....76	Super Blo-Vac™ System.....69
Fish Sticks	
12' Fish Ease™ .....81	
15' Glo Fish™ .....81	

## Conduit Installation Chart

- **JetLine® Super Blower™ System (B60)** Page 68
- **Super Blo-Vac™ System (BV208DA)** Page 69

The following chart illustrates typical conduit installation. Fewer bends and lighter pull lines can increase the maximum distances obtainable. The chart below refers to a typical run with (4) 90° bends and no obstructions or leaks, using JetLine® PL232 Pull Line (200lb test) and foam line carriers.

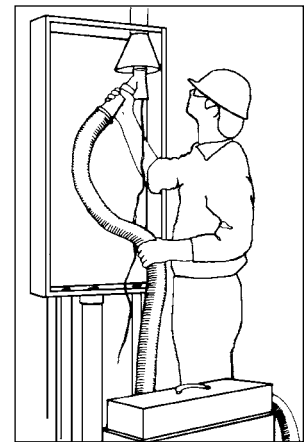


**GB**  
Gardner  
Bender **INNOVATION**

## JetLine® Super Blower™ System

The most powerful blower system in the market.

- Blower unit delivers 275 cfm at 3 psi – more than enough to blow ½" Poly-Pull™ rope 1000' or more through conduit up to 6" diameter.
- Lightweight (35 lbs) and compact (24" x 7½" x 8¼") power unit can be hand-carried to the work area.
- Extra-long 25' hose allows power unit to be located outside the manhole or vault.
- All work is done from one end of the conduit, permitting one-person operation. Works on 115 V AC power.
- System includes Dial-A-Line™ Seal-Off System; eliminates extra steps by allowing simple "dial" selection of feed-thru opening size for up to ½" pull rope.
- Can use pull rope and True Tape® conduit measuring tape simultaneously.
- 115 V AC, 23 A; Power Consumption 2.65 kw.
- Specifications: max. 4 psi; 150 cfm; 3 motors (1½ hp each).



Part #	Description	Weight
B60	JetLine® Super Blower™ Conduit Fishing System	56 lbs

### System Includes:

Part #	Description	Weight	I.D. #	Part #	Description	Weight	I.D. #
B3000	Power Unit	34 lbs	1	F400B	Line Carrier for 3", 3½", 4" conduit	.1 lb	5
126025*	25' x 2½" Heavy-duty Hose	12 lbs	2	M5000	5" Plastic Line Carrier	.4 lb	6
B26	Large Dial-A-Line™ Seal-Off Body	.7 lb	3	M6000	6" Plastic Line Carrier	.5 lb	7
BV24	Seal-Off for 2½" - 6" conduit	3.3 lbs	4				

\*Order catalog number 901152 to replace hose cuff end as necessary.

## Super Blo-Vac™ System

This rugged blower/vacuum system handles 1/2" to 6" conduit.

- Blows or vacuums most debris and water from conduit runs.
- High-impact, lightweight polypropylene construction will not rust or dent.
- Compartments can be unlatched and separated. Recovery compartment capacity expandable to 9 gallons by using bottom tool storage compartment.
- 10" diameter metal hubbed wheels allow mobility.
- Complete package includes Dial-A-Line™ Seal-offs, The Inflatables® line carriers, foam line carriers, Power Saver™ and Tag-Along™ line packages. All accessories store neatly in self-contained tool storage compartment.
- Three-stage blower/vacuum motor delivers up to 25% more power for longer runs and faster operation.
- 115 V AC, 13 A, 14 1/4" x 16 1/2" x 39 3/4"
- Specifications: max. 5 psi; 95 cfm; 2 1/4 hp; 134" vacuum.



Part #	Description	Weight
BV208DA	Super Blo-Vac™ Power Conduit Fishing System	63 lbs

System Includes:

Part #	Description	Weight I.D. #	Part #	Description	Weight I.D. #	
1525	Cart	25 lbs	1	JV08	Short Seal-off for 1/2" - 1 1/4" conduit .1 lb	11
JV12	Seal-off for 1 1/4" - 2 1/2" conduit	.3 lb	2	JV09	Long Seal-off for 1/2" - 1 1/4" conduit .1 lb	12
LP3200B	(5) 200' Line Pkgs for 3/4" conduit	.9 lb	3	B26	Large Dial-A-Line™ Seal-off Body .7 lb	13
LP4200	(5) 200' Line Pkgs for 1" conduit	1.6 lbs	4	BV23	Seal-off for 1 1/4" - 2 1/2" conduit .3 lb	14
LP2206T	(2) 400' Line Pkgs for 1 1/4" or larger conduit	.6 lb	5	BV24	Seal-off for 2 1/2" - 6" conduit 3.3 lbs	15
LP2207T	(2) 800' Line Pkgs for 1 1/4" or larger conduit	1 lb	6	BV1281	Crevice Tool (for clean-up) .1 lb	16
JV210	Filter Bag (for vacuuming)	.1 lb	7	LP2150	(10) 150' Line Pkgs for 1/2" conduit .8 lb	17
12568	8' x 1 1/2" Heavy-duty Hose*	3.3 lbs	8	LP3450	(5) 450' Line Pkgs for 3/4" conduit 1.4 lbs	18
BV12	Hose Adapter (to Dial-A-Line™ body)	.1 lb	9	LP4450	(5) 450' Line Pkgs for 1" conduit .8 lb	19
JV07	Dial-A-Line™ Seal-off Body	.2 lb	10	FC1-10	(1 ea) Foam Line Carriers for 1/2" - 4" conduit 1 lb	20

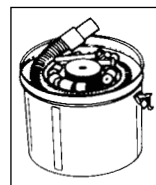
\*15' x 1 1/2" heavy-duty hose available. Order Part #125615.

### Super Blo-Vac™ Specifications

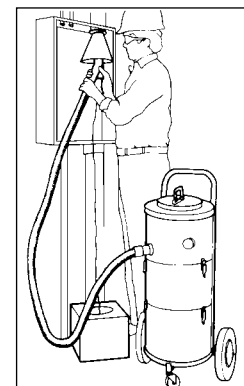
Vacuum* (inches of waterlift)	134"
Maximum Air Pressure*	5 psi
Electrical Rating	120 V AC, 13.8 A
Type of Motor	By-pass
Number of Impeller Stages	3
Recovery Capacity**	9 gallons
Net Weight	55 lbs
Height w/Cart	41"
Motor Brush Life	750 hours

\* Will vary with voltage and atmospheric conditions @ sealed vacuum.

\*\* When using Recovery Compartment and Tool Storage Compartment together.



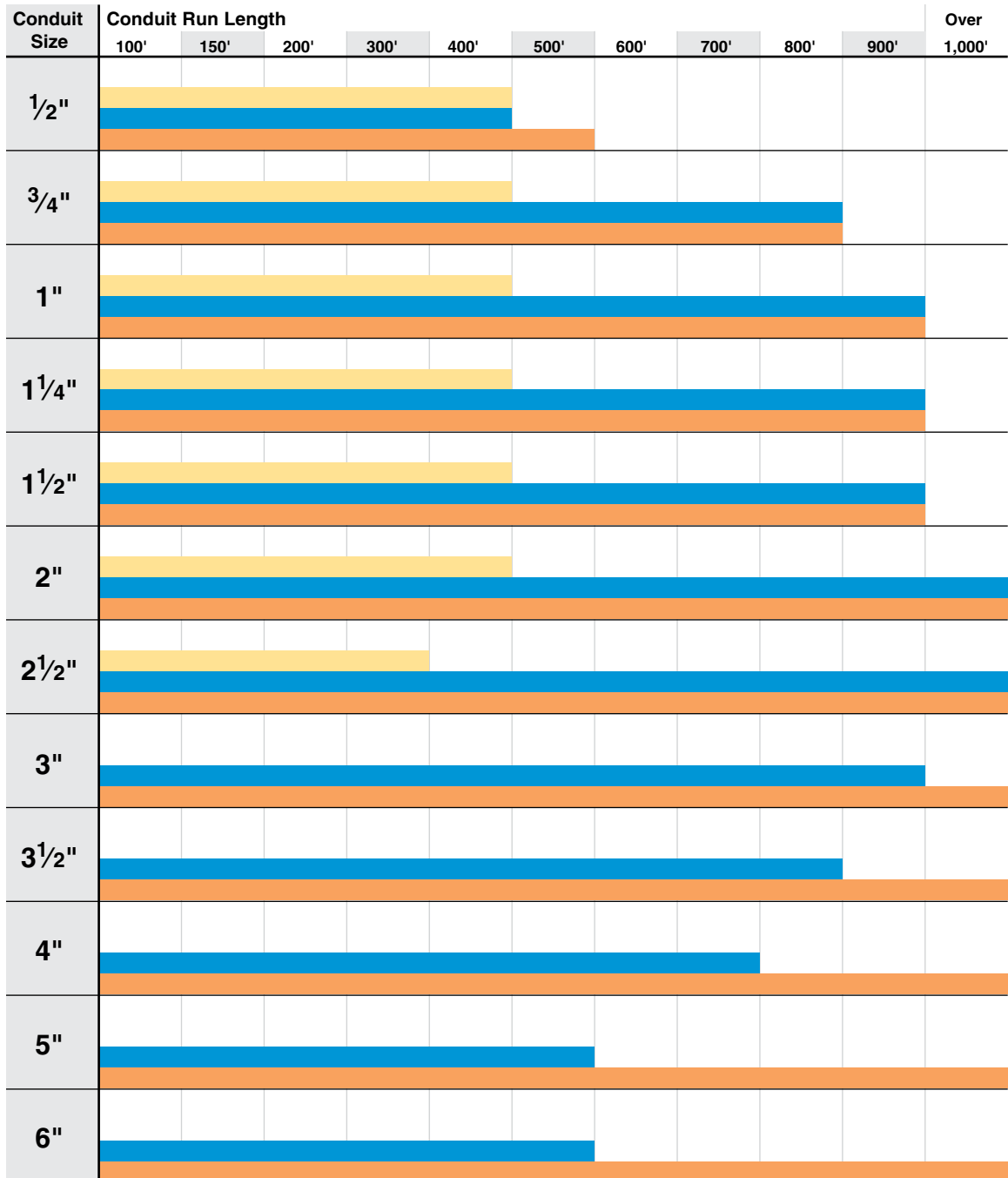
Tool Storage Compartment



## Conduit Installation Guide

- **Powr-Pak I™ 5-lb Portable System (J025)** Page 72
- **Powr House™ System with 20-lb CO<sub>2</sub> (J0225LC + 1208)** Page 71
- **Powr House™ System with 50-lb CO<sub>2</sub> (J0225LC + 950)** Page 71

The following chart illustrates typical conduit installation. Fewer bends and lighter pull lines can increase the maximum distances obtainable. The chart below refers to a typical run with (4) 90° bends and no obstructions or leaks, using JetLine® PL232 Pull Line (200-lb test) and foam line carriers.

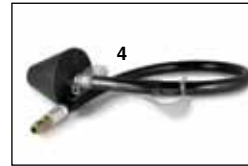
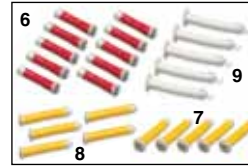


**GB EXCLUSIVE! Powr House™ Conduit Fishing Systems**

For 1/2" to 6" conduit.

- Completely self-contained with no electrical power source required. Use 50 lb cylinder as source for refilling smaller cylinders (requires RV5 refill connector).
- Quick, easy setup.
- Metered operating valve controls CO<sub>2</sub> volume to minimize waste and maximize safety.
- Locking pull ring prevents accidental discharge.
- 1" tank thread.
- Specifications: 840 psi @ 70 °F.

**Accessories included with JO225LC**



Part #	Description	Weight
<b>JO225LC</b>	Powr House™ Conduit Fishing System without CO <sub>2</sub> Cylinder	40 lbs
<b>950</b>	50 lb CO <sub>2</sub> Cylinder (full) (JO250 only)	161 lbs
<b>1208</b>	20 lb CO <sub>2</sub> Cylinder (full) (JO220 only)	58 lbs



**JO225LC & 950**  
 (50 lb Cylinder)



**JO225LC & 1208**  
 (20 lb Cylinder)



**JO225LC Powr House™**  
**CO<sub>2</sub> System w/o Cylinder**

**Contents Included in JO225LC:**

Part #	Description	Weight	I.D. #	Part #	Description	Weight	I.D. #
<b>1105A*</b>	12" Valve Assembly with UG12 hose only	3.6 lbs	<b>1</b>	<b>FC1</b>	Foam Line Carrier for 1/2" conduit	.1 lb	<b>13</b>
<b>1215</b>	Seal-off for 1/2" - 1" conduit with 2' hose	.4 lb	<b>2</b>	<b>FC2</b>	Foam Line Carrier for 3/4" conduit	.1 lb	<b>14</b>
<b>1142</b>	Angle Adapter (for 1215 Seal-off)	.1 lb	<b>3</b>	<b>FC3</b>	Foam Line Carrier for 1" conduit	.1 lb	<b>15</b>
<b>1216</b>	Seal-off for 1 1/4" - 2 1/2" conduit with 2' hose	.8 lb	<b>4</b>	<b>FC4</b>	Foam Line Carrier for 1 1/4" conduit	.1 lb	<b>16</b>
<b>1206</b>	Seal-off for 1 1/2" - 6" conduit	5.2 lbs	<b>5</b>	<b>FC5</b>	Foam Line Carrier for 1 1/2" conduit	.1 lb	<b>17</b>
<b>LP2150</b>	(10) 150' Line Pkgs for 1/2" conduit	1.3 lbs	<b>6</b>	<b>FC6</b>	Foam Line Carrier for 2" conduit	.1 lb	<b>18</b>
<b>LP3200</b>	(5) 200' Line Pkgs for 3/4" conduit	.8 lb	<b>7</b>	<b>FC7</b>	Foam Line Carrier for 2 1/2" conduit	.1 lb	<b>19</b>
<b>LP3300</b>	(5) 300' Line Pkgs for 3/4" conduit	1.1 lbs	<b>8</b>	<b>FC8</b>	Foam Line Carrier for 3" conduit	.1 lb	<b>20</b>
<b>LP4300</b>	(5) 300' Line Pkgs for 1" conduit	1.1 lbs	<b>9</b>	<b>FC9</b>	Foam Line Carrier for 3 1/2" conduit	.1 lb	<b>21</b>
<b>LP2206T</b>	(3) 400' Line Pkgs for 1 1/4" or larger conduit	.6 lb	<b>10</b>	<b>FC10</b>	Foam Line Carrier for 4" conduit	.1 lb	<b>22</b>
<b>LP2207T</b>	(3) 800' Line Pkgs for 1 1/4" or larger conduit	.6 lb	<b>11</b>	<b>FC11</b>	Foam Line Carrier for 5" conduit	.1 lb	<b>NS</b>
<b>LP2208T</b>	(3) 600' Line Pkgs for 1 1/4" or larger conduit	.9 lb	<b>12</b>	<b>FC12</b>	Foam Line Carrier for 6" conduit	.1 lb	<b>NS</b>

\*Order UG12 for hose only. Order UG121112 for hose and coupling assembly.

NS=Not Shown

## Powr-Pak I™ 5-lb Portable System

For 1/2" to 2 1/2" conduit.

- Exclusive from Gardner Bender.
- Lightweight, portable system requires no electrical power.
- Metered operating valve controls volume, preventing waste.
- 5 lb cylinder can be refilled from larger cylinder using #RV5 refill connector.
- Locking pull ring prevents accidental discharge.
- 3/4" NGA tank thread.
- Specifications: 840 psi @ 70 °F.



Part #	Description	Weight
J025	Powr-Pak I™ Portable CO <sub>2</sub> Conduit Fishing System	16 lbs
J025A	Powr-Pak I™ Portable CO <sub>2</sub> Conduit Fishing System w/out Cylinder	10 lbs

### System Includes:

Part #	Description	Weight	I.D. #	Part #	Description	Weight	I.D. #
1103N	5-lb-capacity CO <sub>2</sub> Cylinder w/valve (full)	18 lbs	1	F125B	(4) Line Carriers for 3/4" - 1 1/2" conduit	.6 lb	9
1102	Shoulder Strap	.4 lb	2	F250B	(2) Line Carriers for 1 1/2" - 2 1/2" conduit	.6 lb	10
1215	2' hose seal-off for 1/2" - 1" conduit	.4 lb	4	LP2150	(10) 150' Line Pkgs for 1/2" conduit	1.3 lbs	11
1142	Angle Adapter (for 1215 Seal-off)	.1 lb	5	LP3200	(5) 200' Line Pkgs for 3/4" conduit	.8 lb	12
1216	2' hose seal-off for 1 1/4" - 2 1/2" conduit	.8 lb	6	LP4300	(5) 300' Line Pkgs for 1" conduit	1.1 lbs	13
RV5	Refill Connector (with 1137 Cone)	.8 lb	7	LP1701B	1000' Nylon Bulk Line	1 lb	14
FC1	(5) Foam Line Carriers for 1/2" conduit	.1 lb	8	LP1702B	2000' Nylon Bulk Line	1 lb	15

## CO<sub>2</sub> Refill Connector

Connection for refilling CO<sub>2</sub> cylinders.

- Flexible urethane hose with quick disconnects.
- Saves time.



Part #	Description	Weight
RV5	CO <sub>2</sub> Cylinder Refill Connector	.8 lb



## Air Compressor Seal-Off

Use with most commercial air compressors to blow pull line into conduit or duct. For use with 2½" to 6" conduit sizes.

- The Dial-A-Line™ feature is incorporated into the compressor fitting.
- Maximum 200 cfm rating.
- Shut-off valve.

### CAUTION

Use in 2½" - 6" conduit only. To avoid rapid pressure build-up, do not use on smaller sizes of conduit.

Part #	Description	Weight
CB21V	Air Compressor Seal-off	6 lbs

Sold as complete assembly only.



½" N.P.T.  
 (AM-2)  
 Air Coupler

## The Inflatables® Line Carriers

For ¾" to 6" conduit.

- Each inflatable line carrier adjusts to fit the conduit; four items cover a range of eleven diameters of rigid, IMC, EMT, PVC or flexible conduit, or single-bore duct.
- Heavy-gauge waterproof woven nylon assures long life.

Part #	Qty	Description	Weight
F125	5/bx	The Inflatables® Line Carrier for ¾", 1" & 1¼" conduit	.6 lb
F250	5/bx	The Inflatables® Line Carrier for 1½", 2" & 2½" conduit	.6 lb
F400	2/bx	The Inflatables® Line Carrier for 3", 3½" & 4" conduit	.3 lb
F600	2/bx	The Inflatables® Line Carrier for 5" & 6" conduit	.3 lb



## Missile Line Carriers

For 2" to 6" conduit.

- Fast blowing and vacuuming of 2" to 6" diameter conduit by low-friction plastic carriers.
- Easily removed from conduit if stuck or jammed.

Part #	Qty	Description	Weight
M2000	1/bg	Missile Line Carrier for 2" conduit (w/rope eye)	.1 lb
M3000	1/bg	Missile Line Carrier for 3" conduit (w/rope eye)	.3 lb
M4000	1/bg	Missile Line Carrier for 4" conduit (w/rope eye)	.3 lb
M5000	1/bg	Missile Line Carrier for 5" conduit (w/rope eye)	.4 lb
M6000	1/bg	Missile Line Carrier for 6" conduit (w/rope eye)	.5 lb



## Foam Line Carriers

For 1/2" to 6" conduit.

- Cleans water and debris from most conduit – rigid, EMT, IMC, PVC or flexible.
- Durable for indefinite re-use.

Part #	Qty	Description	Weight
FC1	10/bx	Foam Line Carrier for 1/2" conduit	.3 lb
FC2	10/bx	Foam Line Carrier for 3/4" conduit	.3 lb
FC3	10/bx	Foam Line Carrier for 1" conduit	.4 lb
FC4	10/bx	Foam Line Carrier for 1 1/4" conduit	.4 lb
FC5	5/bx	Foam Line Carrier for 1 1/2" conduit	.3 lb
FC6	5/bx	Foam Line Carrier for 2" conduit	.4 lb
FC7	5/bx	Foam Line Carrier for 2 1/2" conduit	.6 lb
FC8	5/bx	Foam Line Carrier for 3" conduit	.6 lb
FC9	2/bx	Foam Line Carrier for 3 1/2" conduit	.5 lb
FC10	2/bx	Foam Line Carrier for 4" conduit	.6 lb
FC11	2/bx	Foam Line Carrier for 5" conduit	.8 lb
FC12	2/bx	Foam Line Carrier for 6" conduit	.8 lb



## Power Saver™ Line Packages

For 1/2" to 1" conduit.

- Carrier and pull line included in a single, handy package. Line is dispensed smoothly and quickly as line carrier moves through conduit.
- No knots to tie, no foam carriers to retrieve.
- Color coded packages indicate line diameter.



Part #	Qty	Description	Length	Color	Breaking Strength	Weight
LP2150	50/bx	Power Saver™ Line Package for 1/2" conduit	150'	Red	17 lbs	.8 lb
LP3300	25/bx	Power Saver™ Line Package for 3/4" conduit	300'	Yellow	17 lbs	.8 lb
LP3450	25/bx	Power Saver™ Line Package for 3/4" conduit	450'	Yellow	17 lbs	.8 lb
LP4300	25/bx	Power Saver™ Line Package for 1" conduit	300'	White	17 lbs	.8 lb
LP4450	25/bx	Power Saver™ Line Package for 1" conduit	450'	White	17 lbs	.8 lb

## Tag-Along™ Line Packages

For 1 1/4" to 6" conduit.

- Handles longer runs with less energy.
- Line is dispensed as package moves through conduit attached to line carrier.
- Works with foam or inflatable line carriers.



Part #	Qty	Description	Length	Breaking Strength	Weight
LP2206T	10/bx	Tag-Along™ Pull Line Package	400'	22 lbs	.6 lb
LP2207T	10/bx	Tag-Along™ Pull Line Package	800'	22 lbs	1.1 lbs
LP2208T	10/bx	Tag-Along™ Pull Line Package	600'	22 lbs	.9 lb

## Heavy-Duty Bulk Nylon Line

Doubles as general-purpose line for layout of suspended ceilings, plumb-lines and masonry construction.

- Use with line carriers for any size conduit.
- All packages are center-dispensing (except #LP1707).

Part #	Qty	Description	Length	Breaking Strength	Weight
LP1701	6/bx	Heavy-duty Bulk Nylon Line	1000'	100 lbs	2.5 lbs
LP1722	6/bx	Heavy-duty Bulk Nylon Line	2200'	90 lbs	6.3 lbs



## Poly-Pull™ Series Pull Line

Super high strength – up to 500 lbs breaking strength.

- Self-lubricated polyolefin line lasts for years; will not rust, rot or mildew.
- Center-dispensing box pays out line smoothly.
- Blow directly into conduit using Dial-A-Line™ Seal-off bodies

PL235



PL232B

Part #	Description	Length	Breaking Strength	Outside Diameter	Color	Weight
PL102	Poly-Twine™ Pull Line	6500'	190 lbs	1/8"	Yellow	13 lbs
PL102B	Poly-Twine™ Pull Line in bucket	6500'	190 lbs	1/8"	Yellow	14 lbs
PL232B	Poly-Pull™ Line in bucket	6500'	210 lbs	1/8"	Blue tracer	11 lbs
PL235	Poly-Pull™ Line in dispenser box	2200'	500 lbs	3/16"	Red tracer	15 lbs
PL235B	Poly-Pull™ Line in bucket	2200'	500 lbs	3/16"	Red tracer	16 lbs

## Conduit Measuring Tape

Blow or vacuum through the run to estimate wire length or to locate obstructions.

- Strong and durable.
- Breaking strength of 165 lbs.
- Mildew and rot-resistant.



Part #	Description	Dimensions	Weight
ST40	Super True Tape® Measuring Tape	2750' Roll x 1/4" wide	3.6 lbs



**GB**  
Gardner  
Bender **INNOVATION**

Conduit Fishing

76

**GB EXCLUSIVE! UpperHand™ Fish Tape**

GB's series of UpperHand™ fish tapes has improved traditional hand fishing with the first ergonomic fish tape in the industry. The improved design is manufactured with impact-resistant ABS and nylon resins and includes a full, wrap-around interior ring to increase durability. The UpperHand™ series is backed by an industry leading 5-year limited warranty.

- Exclusive Ergonomic Handle reduces wrist strain.
- Exclusive Comfort Formed Grip reduces forearm strain.
- Exclusive cushioned Rubber Hand Grips for ease of operation and comfort (certain models).
- Impact Modified Handle and Housing that exceeds the 25 ft drop-test.
- Plated Steel Wire resists corrosion (certain models).



Patented

**A Tape for Every Job**



**Standard Carbon Steel**

Tried-and-true, tough and economical solution for wire pulling.



**Corrosion-Resistant Plated Carbon Steel (R series)**

The toughest, most durable tape for long-lasting use.



**Non-Conductive Fiberglass Core with Nylon Jacket**

Exclusive non-conductive tip and unique flat shape is easier to feed yet able to pull up to 500 lbs.

SEE PG  
**77**

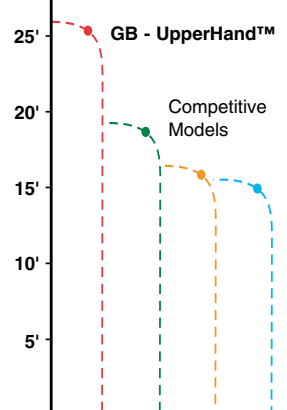


FOR MORE INFO ON  
**Fish Tape Winder**

**Five Year  
Warranty**

	FTN-100R	FTS-65R	FTS-125R	FTS-250R
Tape Length	100'	65'	125'	250'
Tape Material	Fiberglass Core w/ Nylon Jacket	Corrosion-Resistant Plated Carbon Steel		
Pkg Qty	1/card	1/card	1/card	1/card
Handle / Housing Material	Nylon / ABS w/ rubber grips	Nylon / ABS w/ rubber grips	Nylon / ABS w/ rubber grips	Nylon / ABS w/ rubber grips
Tape Dimensions	TBD	TBD	TBD	TBD
Weight	2.99 lbs	3.0 lbs	5.2 lbs	8.2 lbs
Internal / External Ring Dia.	5½" / 12"	4" / 8½"	5½" / 12"	5½" / 12"

**Drop Test Results**



Tested to withstand a  
**25' drop**



**Ergonomic Handle**

Reduces fatigue and wrist strain by allowing the user to keep their wrist in a natural position

**GB**  
 Gardner  
 Bender **INNOVATION**

**GB EXCLUSIVE! UpperHand™ Rewind™ Fish Tape Winder**

New UpperHand™ Rewind™ Fish Tape Winder is GB's new two-piece winding solution that is easier to use than any other manual winding system available. The Rewind™ works on all 100', 125' and 250' UpperHand™ fish tapes.

- Designed exclusively for UpperHand™ fish tapes.
- Molded tabs Snap into the UpperHand™ housing to firmly secure.
- 3/8" Drive Socket fits standard ratchet.
- Over-molded Rubber Hand Grip on Ratchet. improves operation and comfort.
- High-Impact ABS Construction withstands drops of greater than 25'.
- Fits the following UpperHand™ Fish Tape models:  
 - FTS-125R - FTS-250 - FTN-100R



Patented



**Attaches Easily**

No tools are needed – just turn the handle and snap into place. No other winder is as easy to use!

**Reduces Strain/Improves Productivity**

Efficient ratcheting feature saves arm movements – and time on the job.

**Keeps Tape Smooth**

Easy, steady retrieval maintains tape's original shape for long-lasting use.

Part #	Pkg Qty	Description
FTW-10	1/card	Rewind™ Fish Tape Winder

**Cable Snake™ Steel Fish Tape**

Rugged, ergonomically-designed steel fish tape.

- Comfortable handle made of impact-resistant plastic.
- Handle will not pop-out.
- Largest opening and gripping surface in the industry.
- GB exclusive trigger design cleans tape and provides constant tension during retrieval.
- Tape is wound directly into housing. No need to “snap” retaining tapes.
- Wire has clean lubricating properties to prevent rust.
- Maximum design strength 500 lbs.
- Fish tape ball helps guide through tricky bends.
- Patented.



Patented

Part #	Description	Weight
FTS-100GR	120' x 1/8" x .0625" Cable Snake™	4.6 lbs
FTS-200GR	240' x 1/8" x .0625" Cable Snake™	7.2 lbs

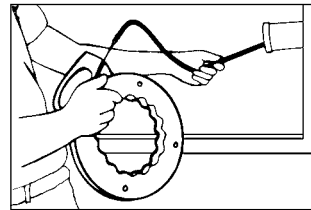
## Streamline™ Steel Fish Tape

Setting the industry standard for quality and dependability.

- Tape is wound directly into housing; no need to “snap” retaining tapes; no sticky residue inside housing.
- Form-fitting finger grips around reel fit the hand comfortably.
- Shatter-proof reel stands up to on-the-job abuse.
- Four viewing ports on reel show how much tape remains.
- Easy disassembly for fast replacement of tape.
- Maximum design strength 500 lbs.



Part #	Description	End Type	Reel Dia.	Weight
FTS-50B	50' x 1/8" x .045" Fish Tape	Curled	8 1/2"	2.3 lbs



## Cable Snake™ Steel Fish Tape

Perfect for short runs installing electrical boxes, outlets, lighting fixtures, doorbells and security systems.

- Compact design houses 25' of tape and fits in tool box or on tool belt.
- Flat wire steel tape fishes down walls, under carpets and over ceilings.
- Wedge-shaped tip prevents hang-up.
- Low-memory tape does not curl during extension - perfect for non-conduit situations.
- Formed handle fits easily in hand.
- Compact tape rewind knob for quick wind-up.



Patented

Part #	Description	Weight
EFT-21P	25' Cable Snake™ Fish Tape	1.10 lbs



### Standard fish tape used for conduit

High memory tape curls when extended not allowing fishing through walls



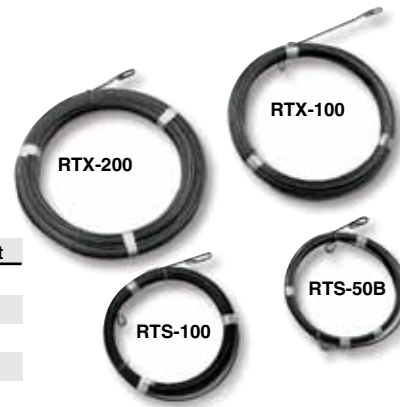
### 25' Cable Snake™

Low memory tape does not curl when extended, making it ideal for fishing overhead or through walls

## Replacement Fish Tape

Replacement tape FTS series.

- Durable flat steel tapes in 1/8" and 1/4" widths.



Part #	Description	Fits Housing Number	Weight
RTS-50B	50' x 1/8" x .045" Steel	FTS-50B	1.2 lbs
RTS-100	100' x 1/8" x .060" Steel	FTS-100CE, FTS-100GR	3.0 lbs
RTS-200	200' x 1/8" x .060" Steel	FTS-200CE, FTS-200GR	5.6 lbs
RTX-100	100' x 1/4" x .060" Steel	FTX-100	5.8 lbs
RTX-200	200' x 1/4" x .060" Steel	Bulk (no housing)	11 lbs

## Economy Fish Tape

Economical 50' tape.

- Standard steel material.
- View port in reel allows user to see amount of tape used.



Part #	Description	Reel Dia.	Weight
EFT-50B	50' x 1/8" x .045" Fish Tape	7"	1.8 lbs

## Fiberline™ Non-Conductive Fiberglass Fish Tape

For use in telecom, electrical, wall and floor conduit, walker duct and utility installations.

- Fiberglass non-conductive properties for safer pushing/pulling in occupied duct and panel boxes.
- Inner feed design for quick payout and rewind.
- Rust and corrosion resistant, superior pulling strength, will not kink.
- High visibility in crowded conduit.
- Fish tape eye accommodates #10 wire.
- Repair kit keeps parts handy.
- FiberLine™ Hand Puller protects fiberglass rod while pulling. Works on most competitive fiberglass fish tapes.
- Maximum design strength 250 lbs.



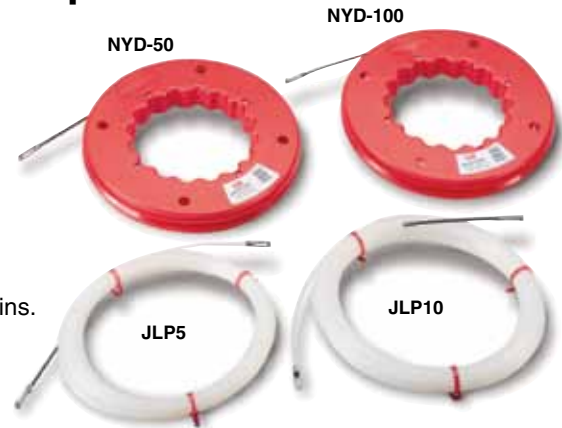
Part #	Description	Weight
FTF-200	200' FiberLine™ w/ 3/16" rod	18 lbs

\*FTRK-20 Repair Kit Available

## Nylo-Flex™ Non-Conductive Nylon Fish Tape

Non-conductive fish tape – light and flexible.

- Designed for use in conduit with existing wires or cables.
- Glides through ½" to 4" conduit.
- High-strength nylon tape tested at 300 lbs average tensile strength.
- Shatterproof reel is virtually indestructible; features no-slip, form-fitting finger grips.
- Four viewing ports on reel show how much tape remains.
- 6-inch spiral wound metal leader with pulling eyelet included (attached).
- Tape diameter is 3/16".



Part #	Description	Weight
NYD-50	50' Nylo-Flex™ Non-conductive Fish Tape Housing	1.2 lbs
NYD-100	100' Nylo-Flex™ Non-conductive Fish Tape Housing	2.2 lbs
JLP5	50' Non-conductive Replacement Tape (coil only)	1 lb
JLP10	100' Non-conductive Replacement Tape (coil only)	1.5 lbs

## Fish Tape Ball

Eye holds 7 #10, 12 #12 or 19 #14 bare wires.

- Attaches directly to most 1/8" x .0625" steel fish tapes.
- Maximum design strength 500 lbs.

Part #	Description	Weight
FTB-10	Fish Tape Ball	.06 lb

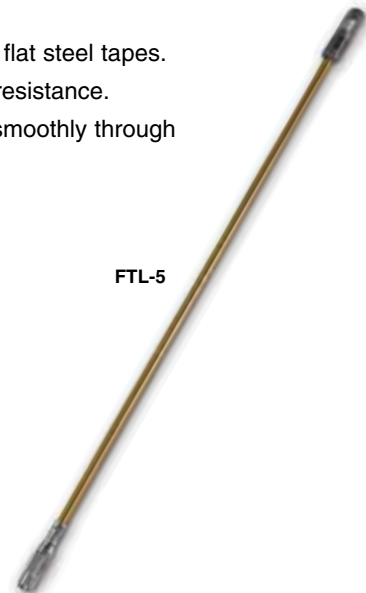


## Fish Tape Leader

Multi-Flex™ is a flexible, non-kink, round metallic leader perfect—for flat steel tapes.

- Double-sheathed to prevent unraveling. Brass plated for corrosion resistance.
- Spring Coil easily curves around bends, yet is rigid enough to fish smoothly through conduit with existing wire.
- High strength – tested at 400 lb tensile strength.
- Attaches directly to 1/8" tapes, adapts to fit 1/4" tapes.

Part #	Description	Weight
FTL-5	Fish Tape Leader, Multi-Flex™	.5 lb



FTL-5



### **NEW** Fish Ease™ 12' Fish Sticks

- 3 durable interlocking fiberglass rods extend up to 12'. (4' sections).
- 1/4" diameter ensures rigidity when extended.
- 2 different threading tips provided for a variety of applications.

Part #	Description	Dimensions	Weight
FTX-12L	Fish Ease™ 12' Fish Sticks	(3) 4' sections x 1/4"	1 lb



### **NEW** Glo Fish™ 15' Glow in the Dark Fish Sticks

- 3 interlocking fiberglass rods extend up to 15'.
- Made from luminescent fiberglass to make fishing through walls or over ceilings easier.
- 1/4" diameter ensures rigidity when extended.

Part #	Description	Dimensions	Weight
FTX-15GL	Glo Fish™ 15' Fish Sticks	(3) 4' sections x 1/4"	1 lb



**NEW Mini-Brutus™ Cable Puller**

Gardner Bender introduces the new Mini-Brutus™ 2,000 pound pulling system. With the PT2000M power drive, the CP2000M is an all-in-one light to medium duty cable puller. When removed, the power drive can also be used as a pipe threader (adapters not provided). Durable square tubular steel frame construction prevents buckling and the welded steel base improves stability. Multi-position adjustable arm increases versatility and allows cable pulls from any direction. Self-contained, compact design sets up in minutes and is perfect for pulls in small panels or tight locations.

- Rated for pulls up to 2,000 pounds.
- Self-contained design for quick setup and takedown.
- Adjustable arm fully extends to 70".
- Extended height to 9' 8" for convenience.
- 44" x 13½" x 18" collapsible frame for portability and easy storage.
- 5½" wheels to improve jobsite portability.
- Pulls loads up to 18' per minute to avoid wire installation damage.
- Two-part urethane baked-on paint to resist chipping and rust.
- Metal case provided for Power Drive and components.



Stored Position (CP2000)



Part #	Description
CP2000	Mini-Brutus™ Cable Puller Frame
CP2000M	Mini-Brutus™ Cable Puller w/ Motor & Components
PT2000M	Power Drive Kit for CP2000 & CP2000M



**CP2000M Includes:**

Part #	Description
CP2000	Mini-Brutus™ Cable Puller Frame
PT2000M	Power Drive Kit

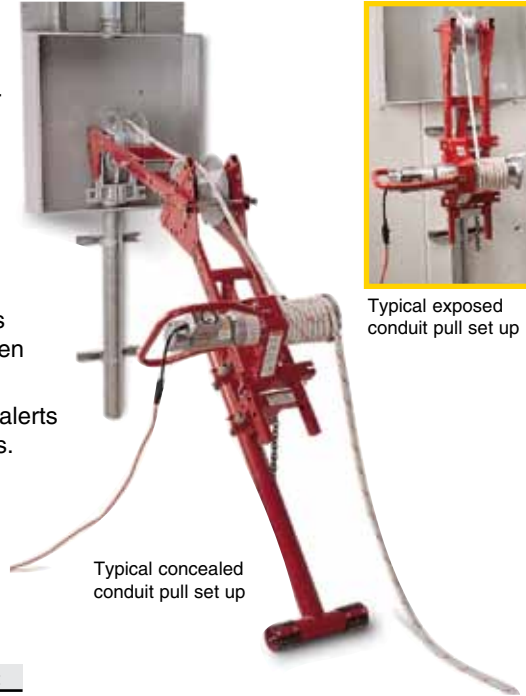
**PT2000M**



## Brutus™ Powered Puller

Pulls up to 8,000 lbs.

- Exclusive planetary gear design lets powerhead deliver smooth, sure power without breakage.
- 30% more pulling force than competitors' models.
- Versatile frame mounts power head almost anywhere.
- Frame assembles in numerous configurations.
- No chains or sprockets to break.
- Powerful 1½ hp motor starts under full load. Capstan is non-reversing with backstop brake. Will not reverse when power is shut off.
- Load read-out meter indicates pulling load at all times; alerts operator to hung-up cable or other excessive conditions.
- Two-way power head mounting adapts to tight corners.
- Pulls 10 feet/minute without buckling or bending.
- Heavy-duty metal case included.
- Min 15 A, Max 30 A.



Typical exposed conduit pull set up

Typical concealed conduit pull set up

Part #	Description	Weight
CP8000	Brutus™ Powered Puller for exposed or concealed conduit	355 lbs

### CP8000 Includes:

Part #	Qty	Description	Weight	I.D. #
CP800	1	Power Head	60 lbs	1
CP503	3	2' Chain Assembly	3 lbs	4
CP505	5	8" Lock Pins	7 lbs	5
CP601	1	Conduit Frame Adapter	55 lbs	6
S-8512	3	12" Sheave	7 lbs	7
CP622	3	10" Lock Pins	3 lbs	8
CP631	1	Boom Extension	18 lbs	9
CP701	1	Puller Base Extension	25 lbs	10
CP702	1	Coupling Clamp	8 lbs	11
CP703	1	Adjustable Pipe Adapter	22 lbs	12
CP706	1	3" Conduit Coupling	5 lbs	13
CP707	1	3½" Conduit Coupling	4 lbs	14
CP708	1	4" Conduit Coupling	3 lbs	15
CP709	1	6" Lock Pin	2 lbs	16
HS-8512	1	12" Cable Sheave with Hook	20 lbs	17
CM20	1	Metal Case with CM44 Casters	133 lbs	18



CP8000

### CP8000D Includes:

Part #	Qty	Description	Weight	I.D. #
CP800	1	Power Head	60 lbs	1
CP503	2	2' Chain Assembly	3 lbs	4
CP505	3	8" Lock Pins	7 lbs	5
CP601	1	Conduit Frame Adapter	55 lbs	6
S-8512	1	12" Sheave	7 lbs	7
CM20	1	Metal Case with CM44 Casters	133 lbs	18

### CP8001 Includes:

Part #	Qty	Description	Weight	I.D. #
CP800	1	Power Head	60 lbs	1
CP80*	1	Floor Mount Kit (on following page)	33 lbs	3

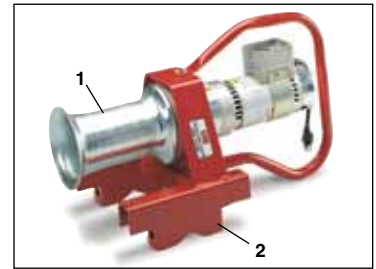


\*Complete with 4¾" x 5½" concrete wedge anchors.

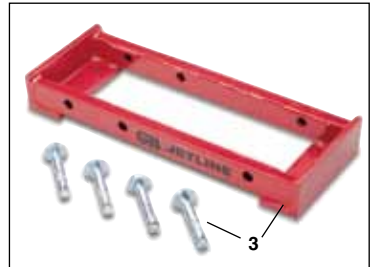
## Brutus™ Powered Puller Sub-Assembly Kits

May be purchased as additions to existing cable-puller sets.

Part #	Description	Weight	Part #	Qty	Description	Weight	I.D. #
CP800	Power Assembly	110 lbs	CP801	1	Power Head	60 lbs	1
				1	Base Mounting Bracket	50 lbs	2
CP80*	Floor Mount Kit	33 lbs	CP80	1	Floor Mount w/ Anchors	65 lbs	3
CP600	Conduit Frame & Sheave Adapter Assembly	72 lbs	CP503	2	2' Chain Assembly	3 lbs	4
			CP505	3	8" Lock Pins	7 lbs	5
			CP601	1	Conduit Frame Adapter	55 lbs	6
			S-8512	1	12" Sheave	7 lbs	7
CP630	Boom Extension Kit	22 lbs	CP622	3	10" Lock Pins	3 lbs	8
			CP631	1	Boom Extension	18 lbs	9
CP700	Puller Base Extension Kit	94 lbs	CP503	1	2' Chain Assembly	3 lbs	10
			CP505	2	8" Lock Pins	7 lbs	11
			S-8512	1	12" Sheave	7 lbs	12
			CP701	1	Puller Base Extension	25 lbs	13
			CP702	1	Coupling Clam	8 lbs	14
			CP703	1	Adjustable Pipe Adapter	22 lbs	15
			CP706	1	3" Conduit Coupling	5 lbs	16
			CP707	1	3½" Conduit Coupling	4 lbs	17
			CP708	1	4" Conduit Coupling	3 lbs	18

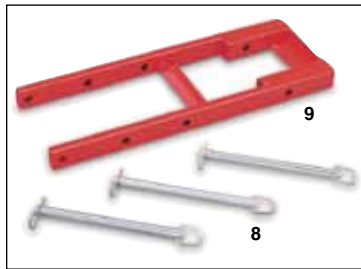


CP800



CP80

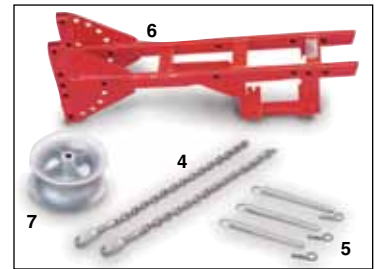
\*Complete with 4¾" x 5½" concrete wedge anchors.



CP630



CP700



CP600

## Optional Equipment

May be purchased as additions to existing cable-puller sets.

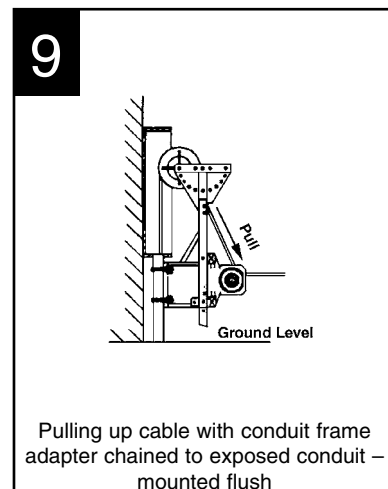
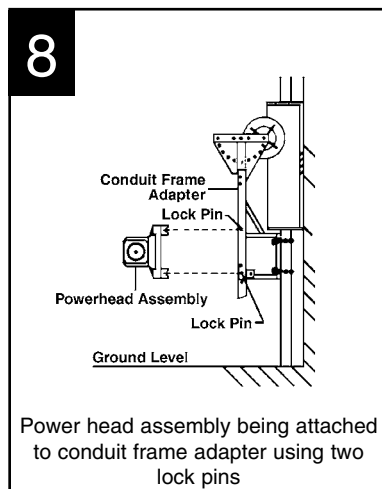
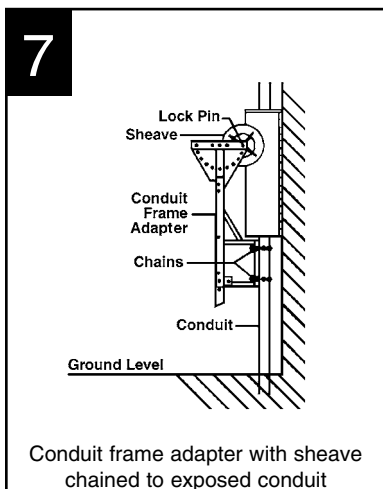
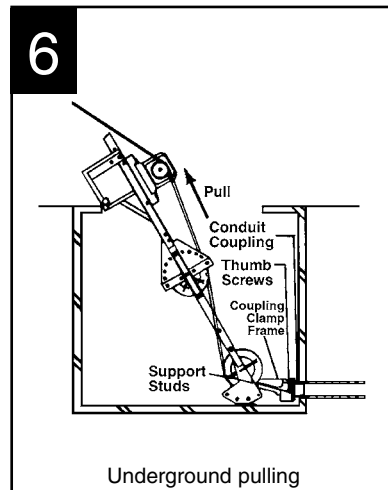
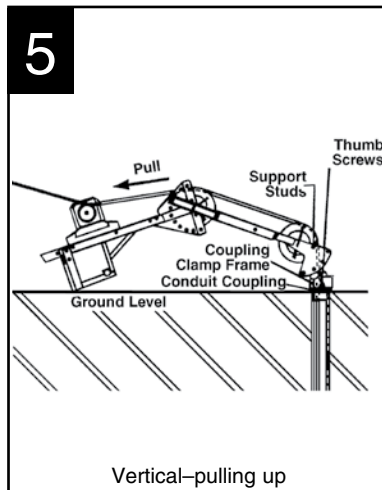
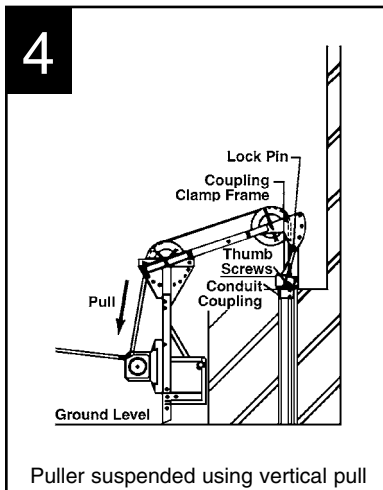
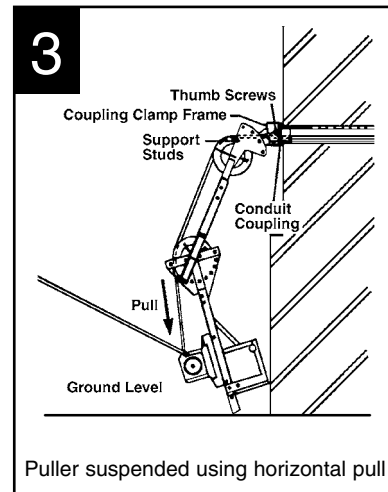
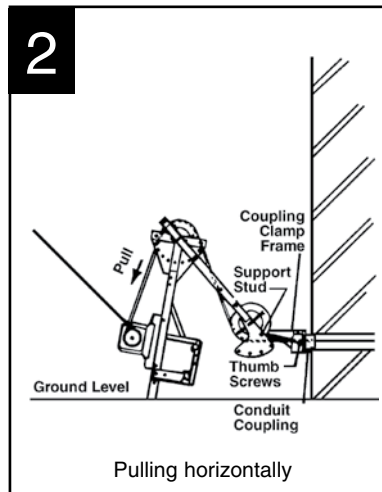
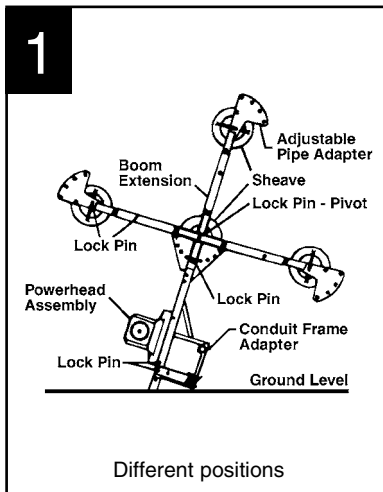
Part #	Description	Weight	I.D. #
CP709	6" Lock Pin	2 lbs	1
CP1002	Rope Steel Stand (For 300' Rope)	12 lbs	2
HS-8512	12" Cable Sheave with Hook	20 lbs	3
CM16	Metal Case with CM 44 Casters	133 lbs	-
RST-7530	Double Braided Rope (¾" x 300' spool)	54 lbs	-
RST-7560	Double Braided Rope (¾" x 600' spool)	109 lbs	-
CP10	Load Readout (meter only CA1064001)	3 lbs	4
CP15	Foot Switch for Remote Operation	4 lbs	5
CP504	6' Chain Assembly	6 lbs	6
CP704	2" Conduit Coupling	7 lbs	7
CP705	2½" Conduit Coupling	6 lbs	8
CP806	Capstan (standard) 10'/min.	7 lbs	-
CP807	Capstan (large diameter) 12'/min.	11 lbs	9



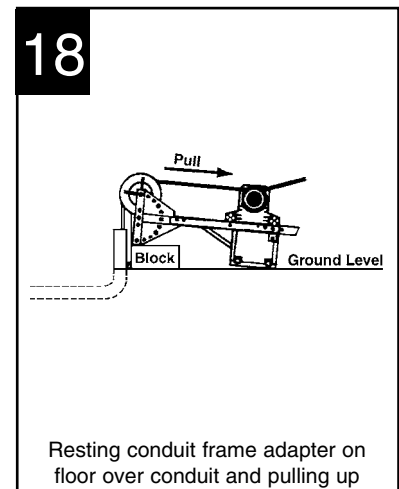
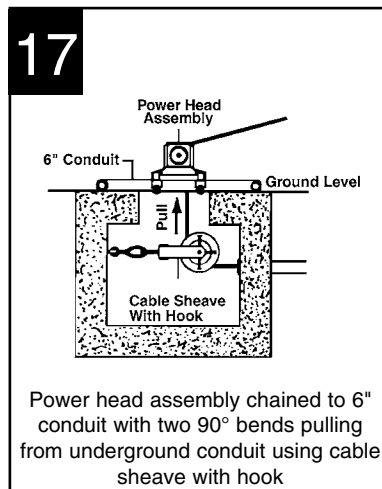
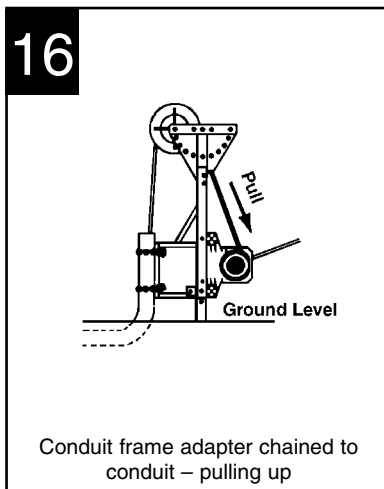
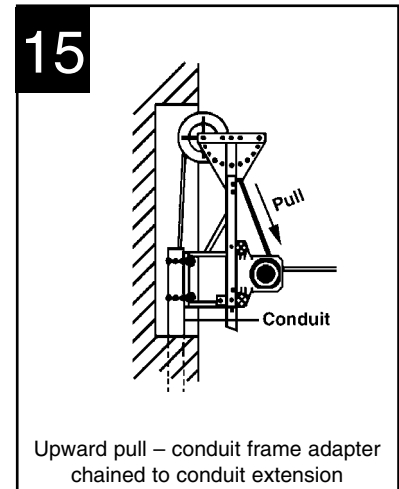
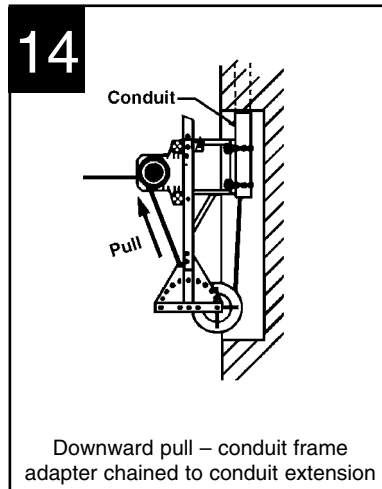
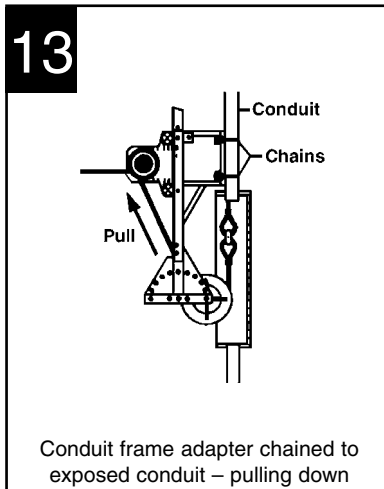
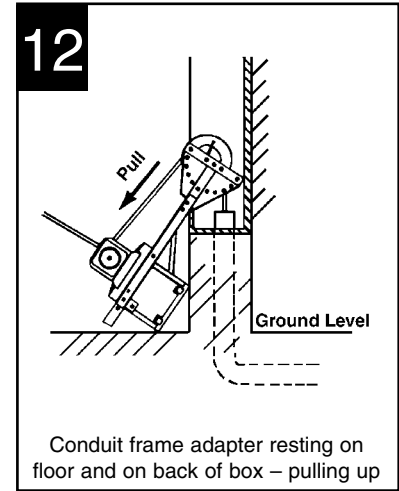
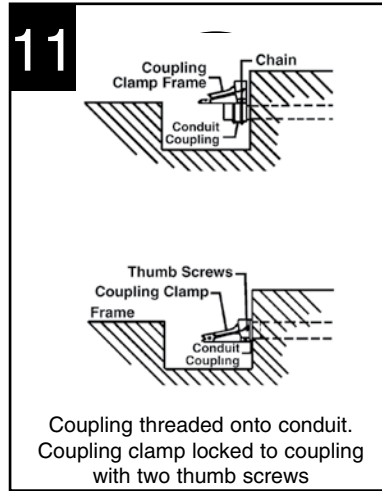
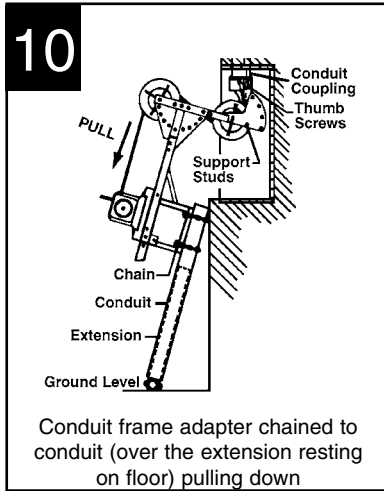
**tip:** For maximum performance and safety, use only original GB® rope.

SEE PG **93** FOR MORE INFO ON **Rope**

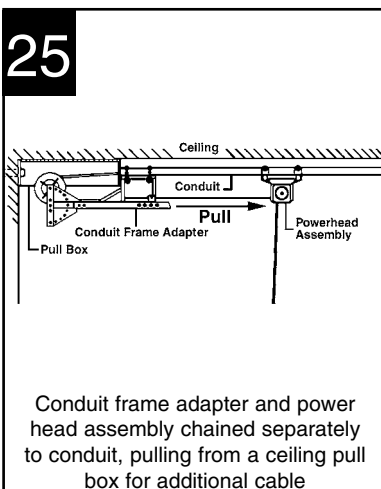
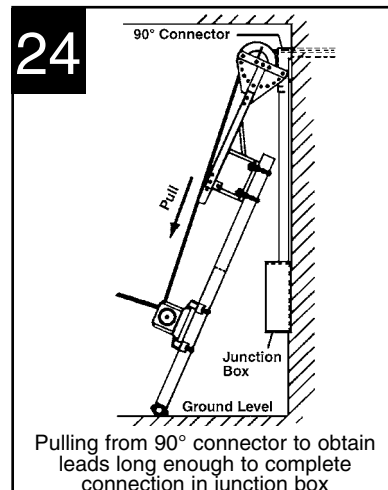
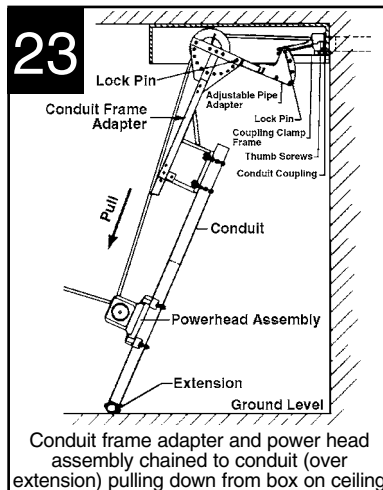
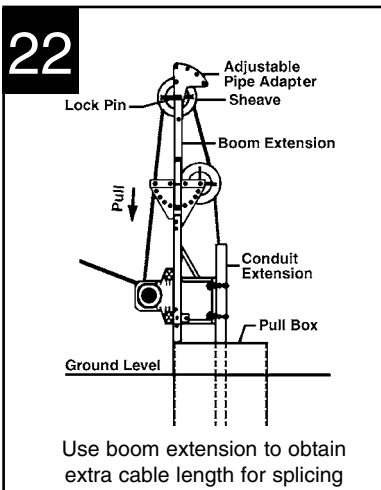
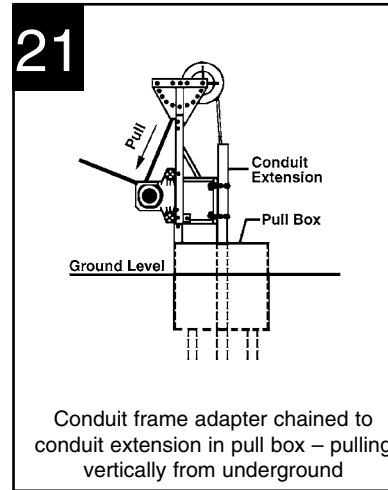
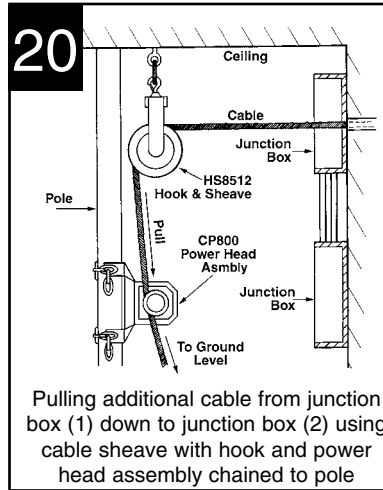
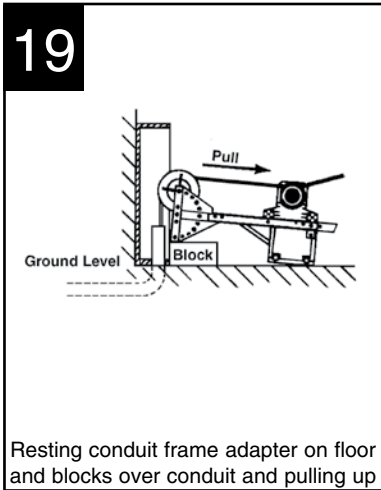
## Brutus™ Puller Application Instructions



## Brutus™ Puller Application Instructions



## Brutus™ Puller Application Instructions



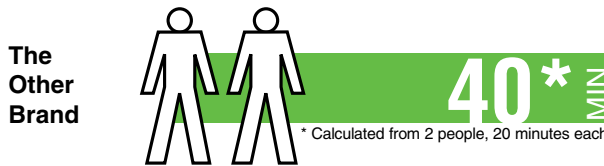
**NEW Ultra Brutus™ Cable Puller**

Leading the heavy-duty class, the new Ultra Brutus™ 10,000 lb Cable Puller takes both the labor and the labor cost out of cable pulls. Commercial electrical contractors that need both equipment and operator to be ready at all times will appreciate its flexible operation, mobility and labor saving features.

Engineered for heavy-duty use on commercial, industrial and utility electrical jobsites, the Ultra Brutus™ stands out from the crowd with its one-person, 2-minute set-up. Unlike any other cable puller, the Ultra Brutus™ comes fully assembled from the factory and can be completely set-up by one person. This set-up and tear down takes one-tenth of the time that competitive pullers require.



Patent Pending



The Gardner Bender Ultra Brutus™ 10,000 lb. Puller has an innovative design that features a 1 person set-up in under 2 minutes!

Part #	Description	Weight	Recommended Rope	Pulling Force	Motor
CP10K	Ultra Brutus™ Cable Puller	385 lbs	RST-7830/ RST-7860	10,000 lbs	1.7 Hp



**Fast 1 person set-up**



1 Pump main boom to 30°



2 Flip booms into position and lock



3 Align with conduit, properly adjust booms



4 Place in conduit



Requires no assembly  
Space saving design  
• Folds to 61" L x 28" W x 39" H  
• Footswitch included





- A**
- 5 conduit adapters**
- 2" - 4" adapters stored conveniently onboard
  - Doesn't need to be fastened to conduit



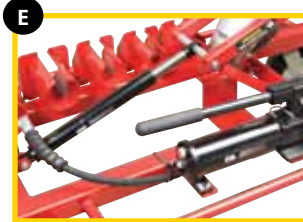
- B**
- Extended boom**
- Allows 12' of cable to be pulled from the conduit to the capstan



- C**
- Quick toolless angle adjustment**
- Spring loaded pin reduces risk of loss
  - Faster positioning saves time
  - Adjusts up to 300°



- D**
- Easily change pulling direction**
- Only requires one person
  - Doesn't require disassembly
  - Speeds up and simplifies set-up
  - Safer for the user
  - No tools required



- E**
- Hydraulic assisted boom lift/ one person setup**
- Set-up in 2 minutes with 1 person
  - Designed for optimal safety
  - Adjust boom to any angle



- F**
- 10,000 lb. pulling capacity**
- Non-reversing planetary gear motor for consistent pulling power up to 10,000 lbs.



- G**
- Swiveling casters/ mobility**
- Moves easily on dirt and gravel
  - Flat-free wheels



- No assembly required/ fast setup**
- No loose parts
  - No tools required
  - Includes footswitch

**NEW Junior Basket-Type Pulling Grips**

- 340–820 lbs maximum rated capacity
- Ideal for small job requirements
- Single weave of galvanized steel mesh
- For use in conduit or cable tray
- Flexible pulling eye
- Light duty pulling (80–780 lbs)



Part #	Description	Max Rated Capacity (lbs)
PGJ-025	.25–.36" (6.4–9.1 mm)	340
PGJ-037	.37–.49" (9.4–12.4 mm)	340
PGJ-050	.50–.61" (12.7–15.5 mm)	340
PGJ-062	.62–.74" (15.7–18.8 mm)	560
PGJ-075	.75–.99" (19.1–25.1 mm)	820
PGJ-100	1.00–1.24" (25.4–31.5 mm)	820

**NEW T-Basket-Type Pulling Grips**

- 1,360–6,200 lbs maximum rated capacity
- Ideal for medium-duty applications
- Double weave of galvanized steel mesh
- For use in conduit, tray, overhead, or underground
- Flexible pulling eye
- Medium duty pulling, standard mesh length (1,360–6,200 lbs)



Part #	Description	Max Rated Capacity (lbs)
PGT-075	.75–.99" (19.1–25.1 mm)	1,360
PGT-100	.75–.99" (19.1–25.1 mm)	1,360
PGT-150	.75–.99" (19.1–25.1 mm)	3,280
PGT-200	.75–.99" (19.1–25.1 mm)	3,700
PGT-250	2.50–2.99" (63.5–75.9 mm)	4,900
PGT-300	3.00–3.49" (76.2–88.6 mm)	4,900
PGT-350	3.50–3.99" (88.9–101.3 mm)	6,200

**NEW T-Basket-Type Pulling Grips (short mesh length)**

- 900–6,200 lbs maximum rated capacity
- Ideal for medium-duty applications
- Double weave of galvanized steel mesh
- For use in conduit, tray, overhead, or underground
- Flexible pulling eye
- Medium duty pulling, short mesh length (900–6,200 lbs)



Part #	Description	Max Rated Capacity (lbs)
PGTS-050	.50–.61" (12.7–15.5 mm)	900
PGTS-062	.62–.74" (15.7–18.8 mm)	1,120
PGTS-075	.75–.99" (19.1–25.1 mm)	1,360
PGTS-100	1.00–1.49" (25.4–37.8 mm)	1,920
PGTS-150	1.50–1.99" (38.1–50.0 mm)	3,280
PGTS-200	2.00–2.49" (50.8–63.2 mm)	3,700
PGTS-250	2.50–2.99" (63.5–75.9 mm)	4,900
PGTS-300	3.00–3.49" (76.2–88.6 mm)	4,900
PGTS-350	3.50–3.99" (88.9–101.3 mm)	6,200

**NEW K-Basket-Type Pulling Grips**

- 1,120–9,600 lbs maximum rated capacity
- Ideal for long, heavy-duty cable pulls
- Double weave of galvanized steel mesh
- For use in conduit, tray, overhead, or underground
- Forged steel compact rotating eye
- Heavy duty pulling, long runs, swivel head (1,120–9,600 lbs)



Part #	Description	Max Rated Capacity (lbs)
PGK-050	.50–.61" (12.7–15.5 mm)	1,120
PGK-062	.62–.74" (15.7–18.8 mm)	1,360
PGK-075	.75–.99" (19.1–25.1 mm)	1,920
PGK-100	1.00–1.49" (25.4–37.8 mm)	3,280
PGK-150	1.50–1.99" (38.1–50.0 mm)	3,280
PGK-200	2.00–2.49" (50.8–63.2 mm)	5,440
PGK-250	2.50–2.99" (63.5–75.9 mm)	6,600
PGK-300	3.00–3.49" (76.2–88.6 mm)	8,200
PGK-350	3.50–3.99" (88.9–101.3 mm)	9,600
PGK-400	4.00–4.49" (101.6–114.0 mm)	9,600

## Hook Sheaves

Suspends cable overhead and reduces strain on pulling equipment.

- Keeps cable together for easier manageability and enables direction of cable to be changed.
- Sheave made of rugged aluminum alloy. Hook frame made of welded steel.
- Rated at 8,000-lb capacity.

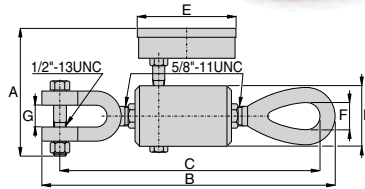


Part #	Description	Width	Dia.	Weight	Hook Only	Weight	Sheave Only	Weight
HS-8512	Hook Sheave	5"	12"	20 lbs	H-8512	13 lbs	S-8512	7 lbs
HS-8518	Hook Sheave	5"	18"	30 lbs	H-8518	20 lbs	S-8518	10 lbs
HS-8524	Hook Sheave	5"	24"	43 lbs	H-8524	29 lbs	S-8524	14 lbs

## Wire & Cable-Pulling Tension Meter

Monitors tension throughout the pull to prevent over-stressing cable. Perfect for use with powered pullers.

- Self-contained hydraulically-operated meter measures in 200-lb increments up to 10,000 lbs maximum capacity.
- Maximum-indicating pointer helps read pre-selected loads.
- ± 2% accuracy.
- Comes with certificate of calibration.
- Minimum Reading 1,000 lbs; Increments 200 lbs.



Part #	Description	Capacity	A	B	C	D	E	F	G	Weight
TM5	Tension Meter	10,000 lbs	4.75"	9.75"	9.29"	2.00"	3.69"	.88"	.75"	9 lbs

## Wire-Aide™ Wire-Pulling Lubricant

Slides on smoothly and clings throughout the pull. Modified wax-base formula dries to a slippery film.

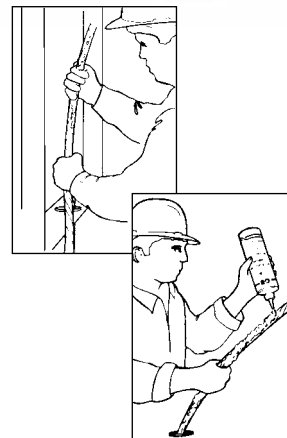
- Greaseless, non-toxic compound will not stain skin, clothing or construction trim; cleans up quickly with soap and water.
- Stable and safe to use. Withstands normal temperature extremes and will not dry out in the container. Non-combustible, non-conductive and non-corrosive.
- Will not damage conduit or insulation.
- Remains stable with multiple freeze-thaw cycles.
- Suitable for fiber-optic wire.



Part #	Container Size	Weight
79-002	1 gal. Pail	9 lbs
79-003	5 gal. Pail	42 lbs
79-006	1 qt. Squeeze Bottle	2 lbs

### Wire-Aide™ Specifications

Base	Wax, modified	Staining Properties	Non-staining to hard surfaces
Color	Yellow	Removal	Soap and hot water
Viscosity	Heavy cream-like paste	Abrasion Protection	Excellent
pH	Approx. 6.5 - 7.0	Cling Ability	Excellent
Freezing Point	28° F	Water Resistance	Repels water to some extent
Freeze-Thaw Stability	OK/3 cycles	Hardening Charac.	Non-hardening
Lubricity	Excellent	Condition on Drying	Waxy-film
Shelf Life	Indefinite	Flash Point	Non-combustible
Corrosion Test	Non-corrosive to metals		



## Poly-Gel™ Cable-Pulling Lubricant

Perfect for all types of insulation and conduit, including fiber-optic cable, cable with low-density, linear low-density polyethylene, polyurethane and semi-conducting jackets.

- Clean, clear gel, water-based for easy cleanup. Non-staining and non-toxic.
- Dries to a clear, non-conductive film for easy handling, stripping and terminating of cable. Will not gum up or harden on conduit.
- Easy and versatile to use. Apply manually or with pump.
- Workable over wide temperature range:
  - Poly-Gel™ +28 °F to +200 °F
  - All Season Poly-Gel™ -10 °F to +180 °F



Part #	Description	Container Size	Weight
79-201	Poly-Gel™	1 qt. Squeeze Bottle	2.5 lbs
79-202	Poly-Gel™	1 gal. Pail	8.75 lbs
79-203	Poly-Gel™	5 gal. Pail	42 lbs
79-301	All Season Poly-Gel™	1 qt. Squeeze Bottle	2.5 lbs

### Poly-Gel™ Specifications

Base	Poly-oxyethylene/Water
Color	Blue
Viscosity	Thick Clear Gel
pH	7.2 - 8.2
Freezing Point	28 °F
Freeze-Thaw Stability	Excellent
Lubricity	Excellent
Shelf Life	Indefinite
Corrosion Test	Non-corrosive
Staining Properties	Non-staining
Removal	Soap and water
Cling Ability	Excellent
Condition on Drying	Semi-fluid film
Flash Point	Non-combustible

### All Season Poly-Gel™ Specifications

Base	Polyethylene polymer
Color	Lime Green
Viscosity	Heavy gel-like paste
pH	Approx. 6.5 - 7.5
Freezing Point	-10 °F
Freeze-Thaw Stability	OK/3 cycles
Lubricity	Excellent
Shelf Life	Indefinite
Corrosion Test	Non-corrosive to metals
Staining Properties	Non-staining to hard surfaces
Removal	Soap and Water
Cling Ability	Excellent
Condition on Drying	Lubricious film
Flash Point	Non-combustible

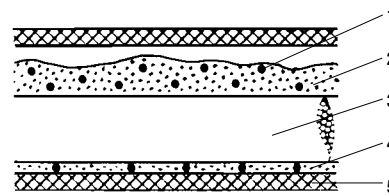
## Super-Slick™ Cable-Pulling Lubricant

Exclusive GB® Micro Bead Formula rolls cable through the longest pulls.

- Lowest pulling tension. This GB® lubricant innovation combines a lubricating agent with microbeads that act as miniature ball bearings to raise the cable off the conduit surface. Cable literally rolls through the run, reducing friction by an additional 30% compared to regular lubricants.
- Adheres throughout long pulls. Creates a slick film that will not rub off or dry out on long pulls or re-pulls.
- Requires up to 45% less lubricant per foot than regular lubricants, actually reducing cable-pulling costs.
- Stable under temperature extremes of 28 °F to 200 °F and withstands repeated freeze-thaw cycles.
- Harmless to skin and safe for the environment. Non-toxic, non-flammable and non-corrosive to all conduit types. Easily cleans up with water and will not stain clothing.
- Universally compatible with all cable types and jacket materials, including low-density and linear low density polyethylene, polyurethane and semi-conducting jackets.



Part #	Container Size	Weight
79-401	1 qt. Squeeze Bottle	2.5 lbs
79-402	1 gal. Jug	8.75 lbs
79-403	5 gal. Pail	42 lbs



1. Micro Beads
2. Shear-sensitive carrying agent with suspended lubricating oil
3. Cable
4. Thin film of lubricating oil
5. Conduit wall

### Super-Slick™ Specifications

Base	Water	Staining Properties	Non-staining
Color	White	Removal	Water Rinse
Viscosity	2100 cps@ 50 rpm	Abrasion Protection	Excellent
pH	6.0 - 8.0	Cling Ability	Excellent
Freezing Point	30.2 °F	Hardening Charac.	Non-Hardening
Freeze-Thaw Stability	Excellent	Condition on Drying	Slick Film
Lubricity	Excellent	Flash Point	Non-Combustible
Shelf Life	Indefinite		

## Super Tuff-Pull™ Double Braided Rope

The toughest, strongest pulling rope available. Double-braided 100% polyester construction, delivers the highest working loads and tensile strength at every diameter.

- Super abrasion resistance for longer life.
- Low stretch, high strength characteristics result from exclusive manufacturing process which carefully controls yarn tension during braiding. Torque-free, non-rotating, non-kinking performance due to double-braided construction for ease of handling—wet or dry.
- Weather resistant. Will not rot or mildew.
- The 3/4" diameter rope includes a factory-spliced eye on both ends.



Super Tuff-Pull™ is constructed of a jacket braided over a braided core. Double braided construction entirely shields one of the two ropes from abrasion.

Part #	Size	Working Load*	Weight
RST-5030	1/2" x 300'	3,500 lbs	30 lbs
RST-5060	1/2" x 600'	3,500 lbs	61 lbs
RST-7530**	3/4" x 300'	8,000 lbs	54 lbs
RST-7560**	3/4" x 600'	8,000 lbs	109 lbs
RST-7830***	7/8" x 300'	10,000 lbs	97 lbs
RST-7860***	7/8" x 600'	10,000 lbs	202 lbs

\* Working loads are based on use with GB® Cable Pullers and for the purpose of pulling wire through conduit.

\*\* Preferred for Brutus™ 8,000-lb Cable Puller.

\*\*\* Preferred for Ultra Brutus™ 10,000-lb Cable Puller.

## Tuff-Pull™ Single Braided Rope

Toughest, strongest single-braided rope available. Constructed of 12 strands of 100% polyester fibers braided over and under each other in a circular pattern.

- Non-rotating, non-kinking performance due to braided construction (unlike ordinary twisted rope) makes handling easy.
- Low stretch, high strength characteristics result from tension-controlled braiding process.
- Weather-resistant. Will not rot or mildew.
- The 3/4" diameter rope includes a factory-spliced eye on both ends.



Part #	Size	Working Load	Weight
RTP-3830	3/8" x 300'	1125 lbs	14 lbs
RTP-5030	1/2" x 300'	2125 lbs	21 lbs
RTP-7530	3/4" x 300'	4500 lbs	58 lbs

### tip:

Vary rope application. Reverse the rope, end-for-end. Alternate the lay of the rope around capstan and sheaves.

Store rope in clean dry area, preferably on well-ventilated racks.

Keep rope away from chemical contact or fumes.

Avoid exposing rope to extreme heat in excess of 140 °F.



Tuff-Pull™ is constructed of 12 strands of polyfibers braided over and under each other in a circular direction.

## Poly-Pro™ General Purpose Rope

Strong, durable, lightweight polypropylene general purpose rope for manual wire pulling and general construction applications (barrier rope, tie downs, tow rope, etc.).

- Resistant to mildew, rot and chemical action.

Part #	Size	Working Load	Weight
RGP-2525	1/4" x 250'	113 lbs	4 lbs
RGP-2560	1/4" x 600'	113 lbs	9 lbs
RGP-3825	3/8" x 250'	243 lbs	10 lbs
RGP-3860	3/8" x 600'	243 lbs	23 lbs
RGP-5025	1/2" x 250'	420 lbs	18 lbs
RGP-5060	1/2" x 600'	420 lbs	37 lbs
RGP-50120	1/2" x 1200'	420 lbs	66 lbs
RGP-7530	3/4" x 300'	850 lbs	44 lbs
RGP-7560	3/4" x 600'	850 lbs	81 lbs



### WARNING

Not recommended for powered cable pulling.

## Rope Selection

1. Select the proper rope for the job.

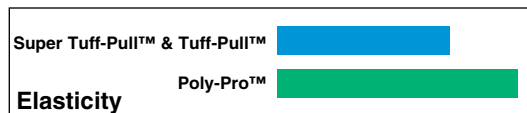
### CAUTION

Always choose a strong, durable rope with limited elasticity and long service life. The material, tensile strength and recommended working load are critical factors.

- a. **Working Load Rating** represents the maximum pulling load to which the rope should be subjected. It increases with rope diameter and is calculated for rope in good condition with appropriate splices under normal service. *Note: Working load guidelines are void under conditions of rapid or sudden load changes.*



- b. **Tensile Strength** is the average breaking point of new, unused rope. It gives some indication of the rope's ability to withstand sudden or shock loads. Tensile strength decreases over time as the rope is used and should not be relied upon as an indication of working strength.

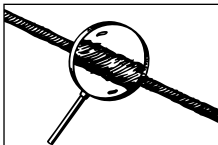


**tip:** Polyester ropes such as Tuff-Pull™ and Super Tuff-Pull™ are preferred for cable pulling because of their low elasticity, high strength and endurance.

2. Inspect the rope thoroughly before each use.

### CAUTION

Avoid using rope that shows signs of wear, such as frayed ends, broken yarns or pulled strands.

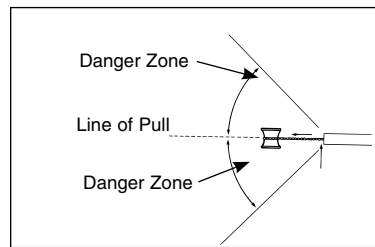


## Rope Usage

1. Always check all fittings, splices, connectors, etc. before using rope.
2. Do not stand directly in line with rope under tension.

### WARNING

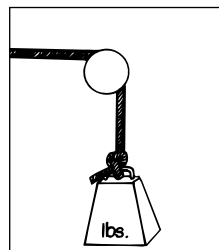
All synthetic rope under load will recoil if it, or a fitting (chain, hook, bolt, etc.) fails. The snap-back action will propel the rope - and any still attached metal fittings - at high speed. Serious injury to persons or property in the vicinity is possible.



3. Do not overload the rope.

### CAUTION

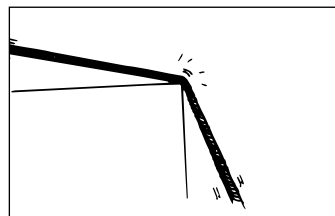
Handle loads slowly and smoothly to avoid sudden strains or shock loads which can exceed the rope's breaking strength. Such dynamic loading occurs when a load is picked up, stopped, moved or swung and may subject the rope to two or three times its normal working load.



4. Avoid abrasive conditions.

### CAUTION

Rough surfaces and sharp edges can severely damage rope. Do not pull rope over sharp bends or angles. Make sure chocks, capstans, sheaves and pulleys are free of burrs and rust and rotate freely. Keep rope surface clean. Do not drag it over rough ground; dirt and grit will work into and cut inner fibers.

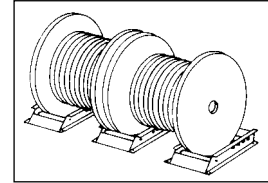


## Handy-Saver™ Reel Roller

Durable roller base that permits fast, easy loading and re-loading.

- 3000 lb capacity per pair.
- Slanted ramp permits fast, easy loading and unloading.
- Five roller slot adjustments set for wide range of reel diameters; no limit on reel widths.
- Epoxy-coated solid steel platform withstands heavy use.
- For 15" to 30" diameter reels.
- Dimensions: 26" L x 11¼" W x 4½" H.

Part #	Description	Weight
WRR-100	Handy-Saver™ Reel Roller (1 ea.)	48 lbs

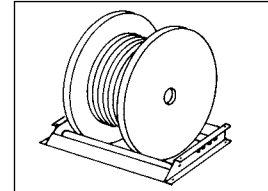


## 30" Reel Roller

Holds reels up to 30" diameter; 2000 lb capacity.

- Five roller slot adjustments to fit reel diameter.
- Epoxy-coated solid steel platform with handy loading/unloading ramp.
- Dimensions: 33½" L x 26½" W x 4½" H.

Part #	Description	Weight
WRR-300	30" Reel Roller	50 lbs

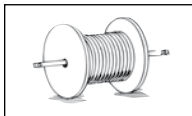


## Telescoping Reel Jacks

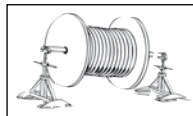
Easily set up in minutes to dispense or take up wire, cable, rope or hose.

- Adjustable jack height accommodates various reel sizes.
- Roller bearings on jack permit smooth reel rotation.
- High-strength steel construction holds up to 5000-lb reel.

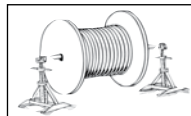
Part #	Dimensions	Jack Height Range	Reel Capacity		Weight
			Size	Weight	
TRJ-56	14½" L x 15" W	13" to 28"	28" to 56"	2500 lbs. (ea.)	25 lbs
TRJ-96	24" L x 16" W	22" to 54"	46" to 96"	2500 lbs. (ea.)	49 lbs



Insert spindle through center of reel.



Place reel jacks under each end of spindle, aligning roller bearings with spindle grooves, and raise one jack until reel end clears floor.



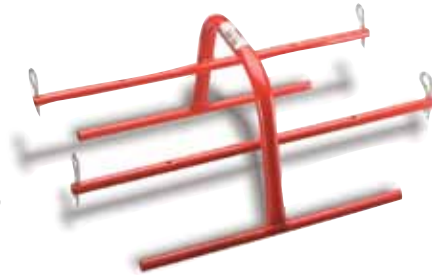
Raise opposite jack until spindle is level.



## Hand Wire Caddy

Convenient hand carrying or dispensing of small quantities of reeled wire.

- Rugged construction from  $\frac{5}{8}$ " .083 steel tubing, epoxy-coated to reduce chipping and peeling.
- Holds up to eight reels, each 7" diameter by 5" wide, or four reels, each 7" diameter by 6" to 10" wide.



Part #	Description	Dimensions	Weight
WSP-100E	Hand Caddy	22½" L x 13½" W x 9½" H	6 lbs

## Portable Wire Caddy

Maximum flexibility to dispense six 500' spools of #6 to #10 AWG or twelve 7" diameter by 5" wide wire reels at the same time.

- Durable welded square-tube steel frame to stand up to tough job-site applications.
- WSP-115 model comes with wire guide and casters.



WSP-115

Part #	Description	Dimensions	Weight
WSP-115	Wire Caddy with Casters	16" L x 26" W x 20½" H	8 lbs

## Spool Caddy Cart

Transport and dispense reels of building wire, coaxial and multi-conductor cables.

- Hand Caddy WSP-100E is included. The caddy is easily attached to and detached from cart for maximum capacity and flexibility.
- Constructed of heavy-duty, steel tubing holds up to 300 lbs.
- Semi-pneumatic steel wheels are much more durable than plastic wheels.
- Special channel allows up to two hand caddies to attach to cart.



WSP-140 Assembled

WSP-140 Unassembled

Part #	Description	Dimensions	Weight
WSP-140	Spool Caddy w/ WSP-100E	22" L x 16" W x 43" H	27 lbs

## Deluxe Spool Cart & Caddy Combo

- Holds up to 23 500' spools or two 2,500' spools.
- Constructed of heavy-duty steel tubing holds up to 400 lbs. Durable semi-pneumatic wheels.
- WSP-144 offers five spool holders that attach in six positions to hold reel/spool combinations:
  - Ten - 23 reels, each 5" - 7" diameter and 5" - 10" wide
  - Four reels, each 10" - 12" diameter, 7" wide
  - Two reels, each 15" - 18" diameter, 14" wide
- Hand Caddy (WSP-100E) is easily attached to and detached from cart using a special channel.

Part #	Description	Dimensions	Weight
WSP-144	Deluxe Spool Caddy	22" L x 18½" W x 43" H	28 lbs



WSP-144

## Heavy-Duty Spool Caddy

- Constructed of heavy-duty steel tubing, holds up to 700 lbs.
- Shock-absorbing, semi-pneumatic wheels mounted on ball bearing steel rims with easy-service grease fittings.
- Dispenses THHN, THW, Romex® and other materials from horizontal or vertical position.
- Two wire guide feeders permit wire feed in any direction.
- WSP-150 has a versatile carrying capacity. Holds four reels each 10" diameter x 15" wide, or three reels, each 12" - 14" diameter, or two reels each 12" - 15" diameter x 15" wide or one 24" diameter reel 15" wide.

Part #	Description	Dimensions	Weight
WSP-150	Heavy-Duty Spool Caddy	22" L x 18½" W x 45" H	60 lbs



WSP-150

## Wire Dispenser

Capacity to handle ten 2500' spools up to 18" diameter.

- Swivels a full 360° on the base.
- All-steel construction.
- Base has two fixed and two swivel locking casters.
- Spindles are mounted at an angle to keep wire reels in proper payout position.
- Easily rolls through standard 36" door opening.

Part #	Description	Dimensions	Weight
WCM-10	Wire Dispenser	36⅞" L x 31⅜" W x 59¼" H	155 lbs



## Wire Caddy Replacement Parts

- Replacement parts for Gardner Bender™ wire caddies.

WSP144050



WSP144251



WSP144253

Part #	Description	For Wire Cart:	Qty	Weight
WSP144050	Spool Caddy Bars 18" L	WSP-144, WSP-140	5	1.5 lbs
WSP144010	Hex Head Bolt	WSP-144	2	.5 lb
WSP144251	R-Clips	All Caddies	10	.5 lb
WSP144253	Wheels	WSP-144	2	5 lbs
WSP144254	Axle Caps	WSP-144	2	.5 lb
WSP1502517	Spool Caddy Bars 20" L	WSP-150, WSP-155	1	4 lbs

## Portable Wire Dispenser

- Unique design makes carrying boxed or coiled wire easy. Dispenser spins wire straight and flat.
- Adjustable flexible legs fit all sizes of wire coils or boxes.
- Stores coils up to 50 lbs or 250' Romex®.

Part #	Description	Dimensions	Weight
740	Portable Wire Dispenser	17 <sup>5</sup> / <sub>8</sub> " Dia; 13 <sup>1</sup> / <sub>2</sub> " H	4 lbs



## NOTES



# *Hole Making*

From single parts to complete kits, Gardner Bender™ has versatile, durable hole-making products that contractors depend on. If you need to knockout, punch, notch, drill or insulate, Gardner Bender™ has the right tool for the job.



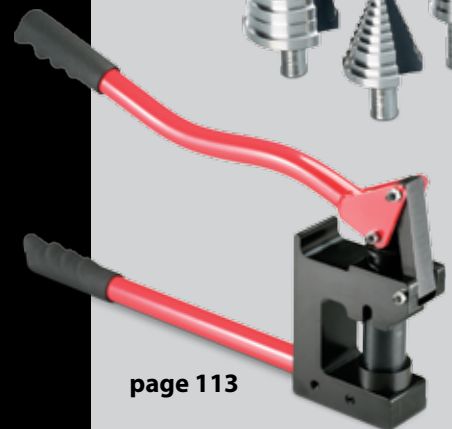
page 107



page 109



page 112



page 113

Slug-Out™ Knockouts	
35 Ton Hydraulic Punch .....	108
Draw Studs .....	110-111
Hydraulic Slug-Out™ Sets .....	103-104
Individual Components .....	107, 110-111
Mechanical Slug-Out™ Sets ....	105-106, 112
Notching Pliers .....	108
Super Stainless Steel	
Slug-Out™ Sets .....	109, 112
Stud Punch .....	113
Step Bits .....	112

## Slug-Out™ Hydraulic Knockout Sets

Punches holes for 1/2" to 4" conduit in distribution boxes, electrical panels or troughs.

- Four point design allows slug to drop automatically without splitting.
- Punches up to 10-gauge mild steel and 12-gauge stainless steel.
- Hand or foot operation; choose hand or foot-powered hydraulic pump.
- Assortment of punches, dies and accessories.
- Includes metal storage case (11 1/8" x 18 3/4" x 6 1/4").
- Competitors' punches and dies are interchangeable.



Part #	Description	Weight
KOH14A	Hydraulic Slug-Out™ Set w/o punches and dies and with PH20 Hand Pump	27 lbs
KOF520	1/2" - 2" Hydraulic Slug-Out™ Set with PF65 Foot Pump	40 lbs
KOH520A	1/2" - 2" Hydraulic Slug-Out™ Set with PH20 Hand Pump	31 lbs
KOF540	1/2" - 4" Hydraulic Slug-Out™ Set with PF65 Foot Pump	59 lbs
KOH540A	1/2" - 4" Hydraulic Slug-Out™ Set with PH20 Hand Pump	50 lbs

### KOH14A Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
PH20	Hand Pump - 2 speed	-	5 lbs	22	CH1211	12-ton Hydraulic Cylinder	-	6 lbs	26
KPR7540	Drawstud for 3/4" - 4" Punches & Dies	-	2.5 lbs	23	H864	6" Rubber Hose Coupler	-	2 lbs	27
KPS50*	Stainless Steel Pull Rod, 3/8" dia.	-	.2 lb	24	CM5	Metal Case	-	11 lbs	28
KC3540**	Converter	-	.4 lb	25					

### KOF520 & KOH520A Sets Include:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KP2000B	2" Punch	2 3/8"	2 lbs	11
KD500B	1/2" Die	7/8"	1 lb	2	KD2000B	2" Die	2 3/8"	2 lbs	12
KP750B	3/4" Punch	1 3/32"	.4 lb	3	PF65	Foot Pump (KOF520 only)	-	12 lbs	21
KD750B	3/4" Die	1 3/32"	1 lb	4	PH20	Hand Pump - 2 speed (KOH520A only)	-	5 lbs	22
KP1000B	1" Punch	1 11/32"	1 lb	5	KPR7540	Drawstud for 3/4" - 4" Punches & Dies	-	2.5 lbs	23
KD1000B	1" Die	1 11/32"	1 lb	6	KPS50*	Stainless Steel Drawstud, 3/8" dia.	-	.2 lb	24
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	KC3540**	Converter	-	.4 lb	25
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	CH1211	12-ton Hydraulic Cylinder	-	6 lbs	26
KP1500B	1 1/2" Punch	1 5/16"	2 lbs	9	H864	6" Rubber Hose Coupler	-	2 lbs	27
KD1500B	1 1/2" Die	1 5/16"	2 lbs	10	CM5	Metal Case	-	11 lbs	28

### KOF540 & KOH540A Sets Include:

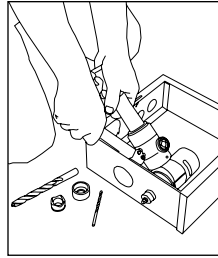
Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KP3000	3" Punch	3 1/2"	4 lbs	15
KD500B	1/2" Die	7/8"	1 lb	2	KD3000	3" Die	3 1/2"	4 lbs	16
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KP3500	3 1/2" Punch	4"	4 lbs	17
KD750B	3/4" Die	1 3/32"	1 lb	4	KD3500	3 1/2" Die	4"	4 lbs	18
KP1000B	1" Punch	1 11/32"	1 lb	5	KP4000	4" Punch	4 1/2"	4 lbs	19
KD1000B	1" Die	1 11/32"	1 lb	6	KD4000	4" Die	4 1/2"	4 lbs	20
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	PF65	Foot Pump (KOF540 only)	-	12 lbs	21
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	PH20	Hand Pump - 2 speed (KOH540A only)	-	5 lbs	22
KP1500B	1 1/2" Punch	1 5/16"	2 lbs	9	KPR7540	Drawstud for 3/4" - 4" Punches & Dies	-	2.5 lbs	23
KD1500B	1 1/2" Die	1 5/16"	2 lbs	10	KPS50*	Stainless Steel Drawstud, 3/8" dia.	-	.2 lb	24
KP2000B	2" Punch	2 3/8"	2 lbs	11	KC3540**	Converter	-	.4 lb	25
KD2000B	2" Die	2 3/8"	2 lbs	12	CH1211	12-ton Hydraulic Cylinder	-	6 lbs	26
KP2500	2 1/2" Punch	2 7/8"	3 lbs	13	H864	6" Rubber Hose Coupler	-	2 lbs	27
KD2500	2 1/2" Die	2 7/8"	3 lbs	14	CM5	Metal Case	-	11 lbs	28

\* Must be used with 1/2" punch and die. \*\* Must be used with 3 1/2" - 4" punch and die.

## Slug-Out 90™ Set

1/2" to 2" conduit size.

- Right-angle head swivels 360° for flexible punching in tight work spaces.
- Punches up to 2 1/2" conduit sizes, up to 10-gauge mild steel and 12-gauge stainless steel.
- No cumbersome "spacers" required.
- Compact, lightweight size: 7 1/2 pounds and 13" in length.
- Operating pressure rated at 10,000 psi.
- Set includes the most popular draw studs, punches, and dies for punching holes for 1/2" to 2" conduit all packed in a sturdy storage case.



Part #	Description	Weight
KOS5290	Self-contained Hydraulic Slug-Out 90™ Set	15 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KP1500B	1 1/2" Punch	1 15/16"	2 lbs	9
KD500B	1/2" Die	7/8"	1 lb	2	KD1500B	1 1/2" Die	1 15/16"	2 lbs	10
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KP2000B	2" Punch	2 3/8"	2 lbs	11
KD750B	3/4" Die	1 3/32"	1 lb	4	KD2000B	2" Die	2 3/8"	2 lbs	12
KP1000B	1" Punch	1 11/32"	1 lb	5	KLP6	Hydraulic Driver	-	10 lbs	13
KD1000B	1" Die	1 11/32"	1 lb	6	KPR7520	Drawstud	-	1 lb	14
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	KPS50	Drawstud	-	.2 lb	15
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	KSA50	Drawstud Adapter	-	.3 lb	16

Seal Repair Kit KLP6K1

## Slug-Out™ Self-Contained Hydraulic Knockout Set

1/2" to 2" conduit size.

- Hydraulic driver punches up to 10-gauge mild steel and up to 12-gauge stainless steel.
- Four-point design allows slug to drop automatically without splitting.
- Lightweight and easy to use.
- Hydraulic driver operates in any position.

**Optional 2 1/2" and 3" punch and die available.**



Part #	Description	Weight
KOS520	Slug-Out™ Self-contained Hydraulic Set	14 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KD1500B	1 1/2" Die	1 15/16"	2 lbs	10
KD500B	1/2" Die	7/8"	1 lb	2	KP2000B	2" Punch	2 3/8"	2 lbs	11
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KD2000B	2" Die	2 3/8"	2 lbs	12
KD750B	3/4" Die	1 3/32"	1 lb	4	KLP2	Hydraulic Driver	-	10 lbs	13
KP1000B	1" Punch	1 11/32"	1 lb	5	KPR7520	Drawstud	-	1 lb	14
KD1000B	1" Die	1 11/32"	1 lb	6	KPS50	Drawstud	-	.2 lb	15
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	KSA50	Drawstud Adapter	-	.3 lb	16
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	K88020	Metal Storage Case	-	4.1 lbs	17
KP1500B	1 1/2" Punch	1 15/16"	2 lbs	9					

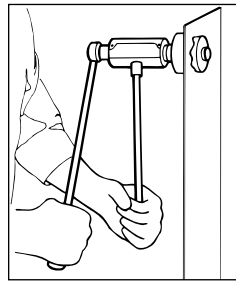
Seal Repair Kit KLP2K1



## Slug-Out™ Quick Hand Ratchet

1/2" to 2" conduit size.

- Four-point design allows slug to drop automatically without splitting.
- Smooth operating ratchet handles up to 10-gauge mild steel and 12-gauge stainless steel.



Part #	Description	Weight
KOR520	Slug-Out™ Ratchet Set	16 lbs
KOR14	Ratchet (without punch and dies)	12 lbs

### KOR520 Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KD1500B	1 1/2" Die	1 15/16"	2 lbs	10
KD500B	1/2" Die	7/8"	1 lb	2	KP2000B	2" Punch	2 3/8"	2 lbs	11
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KD2000B	2" Die	2 3/8"	2 lbs	12
KD750B	3/4" Die	1 3/32"	1 lb	4	KOR14	Ratchet	-	12 lbs	13
KP1000B	1" Punch	1 11/32"	1 lb	5	KOR50	1/2" Screw Adapter	-	.4 lb	14
KD1000B	1" Die	1 11/32"	1 lb	6	KOR75125	3/4" - 1 1/4" Screw Adapter	-	1 lb	15
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	KOR152	1 1/2" - 2" Screw Adapter	-	1 lb	16
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	K88020	Metal Storage Case	-	4 lbs	17
KP1500B	1 1/2" Punch	1 15/16"	2 lbs	9					

## Slug-Out™ Set With Ratchet Wrench

1/2" to 2" conduit size.

- Four-point design allows slug to drop automatically without splitting.
- Punches up to 10-gauge mild steel and 12-gauge stainless steel.
- Set includes ratchet wrench, six sizes of punches and dies, and two drive screws all packaged in a rugged storage case.

Part #	Description	Weight
KOW520	Mechanical Slug-Out™ Set w/ KW52 Wrench	12 lbs



### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KP1500B	1 1/2" Punch	1 15/16"	2 lbs	9
KD500B	1/2" Die	7/8"	1 lb	2	KD1500B	1 1/2" Die	1 15/16"	2 lbs	10
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KP2000B	2" Punch	2 3/8"	2 lbs	11
KD750B	3/4" Die	1 3/32"	1 lb	4	KD2000B	2" Die	2 3/8"	2 lbs	12
KP1000B	1" Punch	1 11/32"	1 lb	5	KW52	Hand Ratchet Wrench	-	1 lb	13
KD1000B	1" Die	1 11/32"	1 lb	6	KSB50B	1/2" Bearing & Drive Screw	-	1 lb	14
KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7	KS752B	3/4" - 2" Bearing & Drive Screw	-	1 lb	15
KD1250B	1 1/4" Die	1 11/16"	2 lbs	8	K88007	Storage Case	-	1.5 lbs	16

## Slug-Out™ Set for 1/2" to 1 1/4" conduit size

Four-point design allows slug to drop automatically without splitting.

- Punches up to 10-gauge mild steel and 12-gauge stainless steel.
- Set includes the four most popular sizes of punches and dies packed in a sturdy storage case.



Part #	Description	Weight
KOM50125	Mechanical Slug-Out™ Set	3 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP500B	1/2" Punch	7/8"	.4 lb	1	KP1250B	1 1/4" Punch	1 11/16"	2 lbs	7
KD500B	1/2" Die	7/8"	1 lb	2	KD1250B	1 1/4" Die	1 11/16"	2 lbs	8
KP750B	3/4" Punch	1 3/32"	.4 lb	3	KSB50B	1/2" Bearing & Drive Screw	-	1 lb	9
KD750B	3/4" Die	1 3/32"	1 lb	4	KS752B	3/4" - 2" Bearing & Drive Screw	-	1 lb	10
KP1000B	1" Punch	1 11/32"	1 lb	5	K88004	Storage Case	-	1.5 lbs	11
KD1000B	1" Die	1 11/32"	1 lb	6					

## Slug-Out™ Set for 1 1/2" to 2" conduit size

Four-point design allows slug to drop automatically without splitting.

- Punches up to 10-gauge mild steel and 12-gauge stainless steel.
- Durable storage case.



Part #	Description	Weight
KOM152	Mechanical Slug-Out™ Set	4 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP1500B	1 1/2" Punch	1 5/8"	2 lbs	1	KD2000B	2" Die	2 3/8"	2 lbs	4
KD1500B	1 1/2" Die	1 5/8"	2 lbs	2	KS752B	3/4" - 2" Bearing & Drive Screw	-	1 lb	5
KP2000B	2" Punch	2"	2 lbs	3	K88001	Storage Case	-	1.5 lbs	6

## Slug-Out™ Assortment Kit for 2 1/2" to 4" conduit size

Expand capability of 1/2" - 2" sets.

- Four-point design allows slug to drop automatically without splitting.
- Punches up to 10-gauge mild steel and 12-gauge stainless steel.
- Packed in metal storage case.



Part #	Description	Weight
KOH2540	Slug-Out™ Set in Metal Case	22 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KP2500	2 1/2" Punch	2 7/8"	3 lbs	1	KD3500	3 1/2" Die	4"	4 lbs	6
KD2500	2 1/2" Die	2 7/8"	3 lbs	2	KP4000	4" Punch	4 1/2"	4 lbs	7
KP3000	3" Punch	3 1/2"	4 lbs	3	KD4000	4" Die	4 1/2"	4 lbs	8
KD3000	3" Die	3 1/2"	4 lbs	4	K88008	Metal Storage Case	-	5 lbs	9
KP3500	3 1/2" Punch	4"	4 lbs	5					

## Slug-Out™ Individual Punch & Die

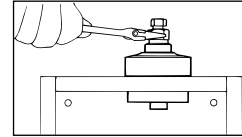
1/2" to 4" conduit size.

- A complete selection of 11 individual punch, die and drive screw sets from 1/2" - 4".
- Four-point design allows slug to drop automatically without splitting.
- Punches up to 10-gauge mild steel and 12-gauge stainless steel.

KOM300 Apart



KOM300 Assembled



Part #	Weight	Pipe Size	Hole Size	Punch #	Weight	Die #	Weight	Drive Screw #	Weight	Drive Nut #
KOS-500B	1.5 lbs	1/2"	7/8"	KP500B	.4 lb	KD500B	1 lb	KSB50B	1 lb	-
KOS-750B	1.5 lbs	3/4"	1 3/32"	KP750B	.4 lb	KD750B	1 lb	KS752B	1 lb	-
KOS-1000B	1.8 lbs	1"	1 11/32"	KP1000B	1 lb	KD1000B	1 lb	KS752B	1 lb	-
KOS-1250B	1.75 lbs	1 1/4"	1 11/16"	KP1250B	2 lbs	KD1250B	2 lbs	-	-	-
KOS-1250DS	1.8 lbs	1 1/4"	1 11/16"	KP1250B	2 lbs	KD1250B	2 lbs	KS752B	1 lb	-
KOS-1500B	1.8 lbs	1 1/2"	1 15/16"	KP1500B	2 lbs	KD1500B	2 lbs	-	-	-
KOS-1500DS	1.9 lbs	1 1/2"	1 15/16"	KP1500B	2 lbs	KD1500B	2 lbs	KS752B	1 lb	-
KOM1732	3 lbs	-	1 7/32"	KP1732B	.3 lb	KD1732B	.3 lb	KS752B	1 lb	-
KOM200	2 lbs	2"	2 3/8"	KP2000B	2 lbs	KD2000B	2 lbs	KS752B	1 lb	-
KOM250	4 lbs	2 1/2"	2 7/8"	KP2500	3 lbs	KD2500	3 lbs	KS2530	1.5 lbs	KSN2530
KOM300	5 lbs	3"	3 1/2"	KP3000	4 lbs	KD3000	4 lbs	KS2530	1.5 lbs	KSN2530
KOM350	10 lbs	3 1/2"	4"	KP3500	4 lbs	KD3500	4 lbs	KS3540	4 lbs	KSN3540
KOM400	11 lbs	4"	4 1/2"	KP4000	4 lbs	KD4000	4 lbs	KS3540	4 lbs	KSN3540
KKT316	Keyway Tool (for use with KOM1732)									

## Individual Slug-Out™ Components

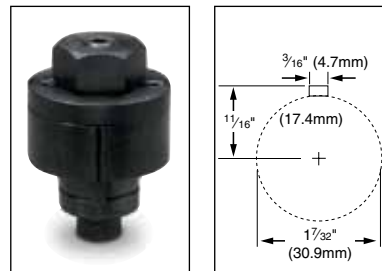
1/2" to 4" conduit size.

- Four-point design allows slug to drop automatically without splitting.
- Punches up to 10-gauge mild steel and 12-gauge stainless steel.

Part #	Description	Hole Size	Weight
KP500B	1/2" Punch	7/8"	.4 lb
KD500B	1/2" Die	7/8"	1 lb
KSB50B	Drive Screw for 1/2" Punch & Die	-	1 lb
KP750B	3/4" Punch	1 3/32"	.4 lb
KD750B	3/4" Die	1 3/32"	1 lb
KS752B	Drive Screw for 3/4" thru 2" Punch & Die	-	1 lb
KP1000B	1" Punch	1 11/32"	1 lb
KD1000B	1" Die	1 11/32"	1 lb
KP1250B	1 1/4" Punch	1 11/16"	2 lbs
KD1250B	1 1/4" Die	1 11/16"	2 lbs
KP1500B	1 1/2" Punch	1 15/16"	2 lbs
KD1500B	1 1/2" Die	1 15/16"	2 lbs
KP1732B	1 7/32" Punch	1 7/32"	2 lbs
KD1732B	1 7/32" Die	1 7/32"	2 lbs
KP2000B	2" Punch	2 3/8"	2 lbs
KD2000B	2" Die	2 3/8"	2 lbs
KP2500	2 1/2" Punch	2 7/8"	3 lbs
KD2500	2 1/2" Die	2 7/8"	3 lbs
KSN2530	Drive Screw for 2 1/2" & 3" Punch & Die	-	1.5 lbs
KP3000	3" Punch	3 1/2"	4 lbs
KD3000	3" Die	3 1/2"	4 lbs
KP3500	3 1/2" Punch	4"	4 lbs
KD3500	3 1/2" Die	4"	4 lbs
KSN3540	Drive Screw for 3 1/2" & 4" Punch & Die	-	4 lbs
KP4000	4" Punch	4 1/2"	4 lbs
KD4000	4" Die	4 1/2"	4 lbs



KEYWAY TOOL



Punches holes for oil-tight electrical switches. Keyway tool (Part # KKT316) forms 3/16" notch in punched hole to prevent rotary movement of switch.

## 35-Ton Hydraulic Punch

Punches clean, burr-free bolt and small conduit holes in mild steel plates, beams, railings, bus bars or angle iron up to 1/2" thick.

- Portable or fixed applications. Lift and position with easy-carry handle or mount for production setups. Height 13 3/4", weight 35 lbs.
- Four punch and die sets included for round holes 7/16" - 1 3/16" diameter (gives clearance for 3/8", 1/2", 5/8" or 3/4" bolts or conduit) plus die changeover tool set. Throat depth 3".
- Holding plates grip work while punching to prevent binding and clamp punch in place to free operator's hands.



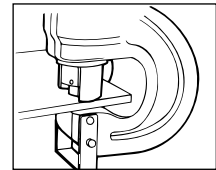
Part #	Description	Weight
SP3500	35-ton Steel Punch Set	40 lbs

### Set Includes:

Part #	Description	Weight
SPD-438	3/8" Punch & Die Set	1 lb
SPD-563	1/2" Punch & Die Set	1 lb
SPD-688	5/8" Punch & Die Set	1 lb
SPD-813	3/4" Punch & Die Set	1 lb
SPK10	Installation Kit	5 lbs

**tip:** Hydraulic Pumps and Hoses recommended for use with SP-3500 Punch:

- PE20D Electric Pump
- HC913 6' Hose
- PH39 Manual Pump
- HC927 10' Hose
- PH80 Manual Pump



SEE PG **49**  FOR MORE INFO ON **Electric Pumps**

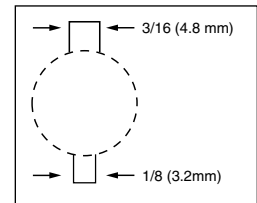
SEE PG **51**  FOR MORE INFO ON **Manual Pumps**

## Notching Pliers

Creates clean notches for making keyways for push button switches.

- Ergonomically padded handles for easy use.
- Accommodates up to 10-gauge mild steel.

Part #	Description	Weight
NP-1	Notching Pliers	3.3 lbs
NPR-1	Replacement Head for NP-1	1.2 lbs



## Hydraulic Super Stainless Steel Slug-Out™ Set

1/2" - 2" conduit size.

- Punches stainless steel up to 10-gauge (3.5 mm).
- Exclusive three-knife design splits slug into three pieces.
- Easy-to-use portable pump.
- Includes durable steel case.



Part #	Description	Weight
KSS520A	Hydraulic Super Slug-Out™ Set	35 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KPS500	1/2" Punch	7/8"	.4 lb	1	KDS1500	1 1/2" Die	1 15/16"	2.5 lbs	10
KDS500	1/2" Die	7/8"	1 lb	2	KPS2000	2" Punch	2 3/8"	5 lbs	11
KPS750	3/4" Punch	1 3/32"	.4 lb	3	KDS2000	2" Die	2 3/8"	4.5 lbs	12
KDS750	3/4" Die	1 3/32"	1 lb	4	PH20	Hand Pump	-	5 lbs	13
KPS1000	1" Punch	1 11/32"	1 lb	5	KPR7540	Drawstud for 3/4" - 2"	-	2.5 lbs	14
KDS1000	1" Die	1 11/32"	1 lb	6	KPS50	Drawstud for 1/2"	-	.2 lb	15
KPS1250	1 1/4" Punch	1 11/16"	2 lbs	7	CH1211	12 ton Hydraulic Cylinder	-	6 lbs	16
KDS1250	1 1/4" Die	1 11/16"	2 lbs	8	H864	6' Rubber Hose Coupler	-	2 lbs	17
KPS1500	1 1/2" Punch	1 15/16"	3 lbs	9					

## Super Stainless Steel Slug-Out™ Set

1/2" - 2" conduit size.

- Punches stainless steel up to 10-gauge (3.5 mm).
- Exclusive three-knife design splits slug into three pieces.
- Rugged storage case.
- Extended punch life.



Part #	Description	Weight
KSS520	1/2" - 2" Super Stainless Steel Knockout Set	4 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KPS500	1/2" Punch	7/8"	.4 lb	1	KPS1500	1 1/2" Punch	1 15/16"	3.5 lbs	9
KDS500	1/2" Die	7/8"	1 lb	2	KDS1500	1 1/2" Die	1 15/16"	2.5 lbs	10
KPS750	3/4" Punch	1 3/32"	.4 lb	3	KPS2000	2" Punch	2 3/8"	5 lbs	11
KDS750	3/4" Die	1 3/32"	1 lb	4	KDS2000	2" Die	2 3/8"	4.5 lbs	12
KPS1000	1" Punch	1 11/32"	1 lb	5	KPR7520	3/4" - 2" Drawstud for Hydraulic Driver	-	1 lb	13
KDS1000	1" Die	1 11/32"	1 lb	6	KSA50	1/2" Adapter	-	.3 lb	14
KPS1250	1 1/4" Punch	1 11/16"	2 lbs	7	KPS50	1/2" Drawstud	-	.2 lb	15
KDS1250	1 1/4" Die	1 11/16"	2 lbs	8	K88020	Metal Case	-	4 lbs	16

**tip:** Use this set to expand your KOS5290 or KOS520.



## Drawstuds

Shown Actual Size



**KPS50** 2½" x ¾"



**KSA50** 1¾" x ¾"



**KOR75125** 3¾" x ¾"



**KOR152** 4¾" x ¾"



**KPR7520** 4¾" x ¾"



**KC3540** 2¾" x 1½"



**KOR50** 3" x ¾"

**KPR7540** 10½" x ¾"



## Drawstuds

Shown Actual Size



**KS3540** Stud 7<sup>5</sup>/<sub>8</sub>" x 1<sup>1</sup>/<sub>8</sub>"



**KSN3540** Hex Drive Nut 2<sup>1</sup>/<sub>2</sub>" x 1<sup>3</sup>/<sub>8</sub>"



**KS752B** Drawstud & Bearing 4<sup>1</sup>/<sub>4</sub>" x 3<sup>3</sup>/<sub>4</sub>"



**KSB50B** Drawstud & Bearing 2<sup>3</sup>/<sub>4</sub>" x 3<sup>3</sup>/<sub>8</sub>"



**KS2530** Stud 6" x 3<sup>3</sup>/<sub>4</sub>"



**KSN2530** Hex Drive Nut 1<sup>1</sup>/<sub>2</sub>" x 1"

## Mechanical Super Stainless Steel Slug-Out™ Set

1/2" - 1 1/4" conduit size.

- Punches stainless steel up to 10-gauge (3.5 mm).
- Exclusive three-knife design splits slug into three pieces.
- Constructed of high-alloy tool steel.
- Rugged storage case.



Part #	Description	Weight
KSS50125	1/2" - 1 1/4" Super Slug-Out™ for Stainless Steel	4 lbs

### Set Includes:

Part #	Description	Hole	Weight	I.D. #	Part #	Description	Hole	Weight	I.D. #
KPS500	1/2" Punch	7/8"	.4 lb	1	KPS1250	1 1/4" Punch	1 11/16"	2 lbs	7
KDS500	1/2" Die	7/8"	1 lb	2	KDS1250	1 1/4" Die	1 11/16"	2 lbs	8
KPS750	3/4" Punch	1 3/32"	.4 lb	3	KSB50B	Bearing and Drawstud for 1/2"	-	.5 lb	9
KDS750	3/4" Die	1 3/32"	1 lb	4	KS752B	Bearing and Drawstud for 3/4" - 2"	-	1 lb	10
KPS1000	1" Punch	1 11/32"	1 lb	5	K88007	Storage case	-	1.5 lbs	11
KDS1000	1" Die	1 11/32"	1 lb	6					

## Step Bits

Drills large holes in confined spaces.

- Self-starting, self-centering drill tip. No pilot hole required.
- For accurate step-by-step drilling in sheet metals. Drills through 10-gauge mild steel or stainless steel.
- Double flute cutting action drills clean, round holes quickly and safely with minimum effort.
- Exclusive three-lobed shank for positive, non-slip grip in drill chucks.
- Made of high-speed steel for faster drilling and longer life.
- Applications include junction boxes, switch boxes, metal studs, electrical appliances, lighting fixtures and many other uses.



Part #	Sizes	Increments	No. of Sizes	Shank Size	Step Thickness	Weight
SB-205	1/4" - 3/4"	1/16"	9	3/8"	1/8"	1 lb
SB-207	3/16" - 7/8"	1/16"	12	3/8"	1/8"	1.3 lbs
SB-209	7/8" - 1 1/8"	-	2	1/2"	1/8"	1.5 lbs
SB-210	7/8" - 1 3/8"	1/16"	11	3/8"	1/8"	1.8 lbs



## Stud Punch

Punches 1<sup>11</sup>/<sub>32</sub>" holes for 1/2" to 1" conduit or pipe.

- Features a spring loaded sleeve that increases the life and accuracy of the punch while providing a smoother cutting action.
- Easily punches "H" studs without damaging flanges.
- Automatic stripper.
- High-leverage design permits punching holes in aluminum studs and mild steel (up to 20-gauge) with minimum effort.
- From the center of the punch to the back of the housing measures 2".



Part #	Description	Weight	Punch #	Weight	Die #	Weight
SP-7	Stud Punch	6 lbs	43-52	1 lb	43-95	1 lb



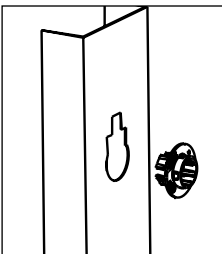
**INNOVATION**

## Stud Insulators

One piece design insulating 360° protection for cable runs through metal studs.

- Fits all pre-punched and field punched hole sizes and configurations.
- Unique folding tabs for fast, one-handed installations.
- Meets NEC article 300-4(b) and CEC rule 12-516.

Part #	Pkg Qty	Description
SI-25	25/bag	Metal Stud Insulators



## NOTES



# Hand Tools

Hand tools are a part of every tool box. With exclusive features for safety, durability, reliability and life strength, Gardner Bender™ hand tools offer superior performance on every job.



page 118



page 123



page 127



page 129

Circuit Alert® Tools	
Circuit Alert® Tester .....	117
Circuit Alert® Knife.....	117
Circuit Alert® Wire Strippers.....	118
Circuit Alert® Work Lights .....	118
Circuit Alert® Pliers.....	119
Circuit Alert® Screwdrivers .....	119
Cable Rippers.....	123
Cutters	
BX cutter.....	128
Ratcheting .....	129
PVC.....	129
Datacom/ VDV	
Cable strippers .....	124
Punch-down .....	125
Crimpers.....	125
Fuse Puller .....	130
Knives .....	117, 130
Multi-tools .....	122
Pliers	
Long Nose .....	126
Linemen's.....	127
Screwdrivers .....	129
Wire Strippers.....	120-122

# CIRCUIT ALERT®

## Safe & Convenient

This patented line of tools with Snap-in sensor detects AC voltage without contacting live wires

Snap-In Sensor



Wire Strippers

Work Lights

Screwdrivers

Pliers

Electrician's Knives

**BE SAFE. WORK SMART.**

## NEW Circuit Alert® Voltage Sensing Module

The Circuit Alert® voltage sensing module fits in a whole variety of Circuit Alert® tools.

- Non-contact AC voltage detection.
- Audio and visual alerts.
- Pocket clip.
- Tri-directional momentary on/off switch.

Patented

Part #	Description
CAM-10	Voltage-sensing module

## CIRCUIT ALERT®

www.circuitalert.com



CAM-10 Pocket Clip

## NEW Circuit Alert® Voltage Sensing Electrician's Knife

Rip, strip and cut with one tool.

- Durable, heavy-duty casing.
- Designed specifically for electricians.
- Blade type: industry standard.

Patented

Part #	Description
RKT-21	Circuit Alert® Electrician's Knife with stripper & NM cable ripper

For more information, go to www.circuitalert.com



SEE PG  
**130**



FOR MORE INFO ON  
**RK-6 Electrician's Knife**

**NEW** **Circuit Alert®**  
**Voltage Sensing Wire Strippers**

- Audible and visual alerts indicate the presence of voltage.
- Cuts and strips solid and stranded wire.
- Stainless steel body for maximum corrosion resistance.
- Ergonomic, cushioned handles for ultimate comfort and control.
- Double bevel cutting blades for superior nick resistance.
- Dual gripping positions for traditional or forward hand positions.
- Easy-to-read stamped markings.
- Cuts and rethreads bolt sizes 6-32, 8-32 and 10-32.
- Wire looping holes form wire to fit on screw terminals.
- Plier nose for gripping and pulling.
- cULus listed tester.
- Durable, drop resistant construction.

Patented



[www.circuitalert.com](http://www.circuitalert.com)



GST-55M

GST-70M

GST-224M

Part #	Description	Wire Gauge	Length
GST-55M	Circuit Alert® Voltage Sensing Wire Stripper	#10 - #18 AWG	7"
GST-70M	Circuit Alert® Voltage Sensing Crimper/Stripper	#8 - #20 AWG & Multi Crimping Stations	7"
GST-224M	Circuit Alert® Voltage Sensing NM Cable Stripper	12/2 & 14/2 NM Cable	7½"



Patents Pending



Wire Stripping



Volt Sensing (50-600 VAC)



Bolt Cutting and Rethreading

**NEW** **Circuit Alert®** **Work Lights**

Designed for electricians for maximum versatility and hands-free operation in one durable tool.

- Multi-adjustable.
- Stand up base.
- Rugged design and construction.
- Batteries included.

Patented



[www.circuitalert.com](http://www.circuitalert.com)



FLT-10

FLT-20



90° Swivel Head



Rotating Hang Hook

For more information, go to [www.circuitalert.com](http://www.circuitalert.com)

**NEW** Circuit Alert® Pliers

Circuit Alert® pliers combine common electrician's needs with Gardner Bender's over-molded, comfort grip.

- Crimp terminals.
- Cut wire and cable up to 10 AWG.
- Strip wire.
- Hammer head.
- Forged steel construction for long life.
- Precision hardened cutting blades

Patented

Part #	Description	Size
GPT-70	Circuit Alert® Voltage Sensing Side Cutters	7"
GPT-80	Circuit Alert® Voltage Sensing Long Nose Pliers	8"
GPT-90	Circuit Alert® Voltage Sensing Linesmens	8"



[www.circuitalert.com](http://www.circuitalert.com)



Testing



GPT-80 – Wire Stripping



GPT-90 – Hammer Head

**NEW** Circuit Alert® Screwdrivers

The Circuit Alert® screwdrivers deliver up to 10-in-1 bits and insulated comfort grip handles.

- Use with Hex-Lok® connectors.

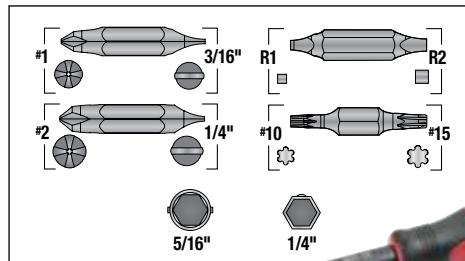
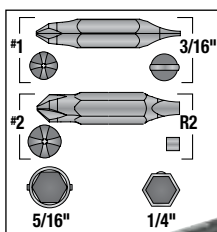
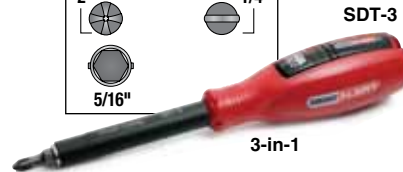
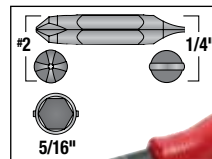
Patented



[www.circuitalert.com](http://www.circuitalert.com)

SEE PG **9** FOR MORE INFO ON **Hex-Lok® Wire Connector**

Part #	Description	Bits
SDT-3	Circuit Alert® Voltage Sensing Screwdriver 3-in-1	See diagram
SDT-6	Circuit Alert® Voltage Sensing Screwdriver 6-in-1	See diagram
SDT-10	Circuit Alert® Voltage Sensing Screwdriver 10-in-1	See diagram



## Wire Strippers

### Comparison Chart

Feature	GS-40	GS-355	GS-360	GS-361	GES-55	GESP-55	GES-224	GESP-224	GST-70M	GST-55M	GST-224M
Voltage Sensing									X	X	X
Spring Action Return	X	X	X	X	X	X	X	X	X	X	X
Pliers Nose		X	X	X	X	X	X	X	X	X	X
Loop Hole	X	X	X	X	X	X	X	X	X	X	X
Deluxe Cushion Grip				X	X	X	X	X	X	X	X
Locking Handle	X		X								
Wire Stripping Range											
Solid	#10 - #24	#10 - #20	#10 - #20	#16 - #30	#10 - #18	#10 - #18	#12 & #14	#12 & #14	#8 - #20	#10 - #18	#12 & #14
Stranded	#10 - #24	#10 - #20	#10 - #20	#16 - #30	#12 - #20	#12 - #20	—	—	#10 - #22	#12 - #20	—
NM Cable	—	—	—	—	—	—	14/2 & 12/2	14/2 & 12/2	—	—	14/2 & 12/2

### ArmorEDGE® Wire Stripper

Strips and cuts solid and stranded wire.

- Stainless steel body for maximum corrosion resistance.
- Ergonomic, cushioned handles for ultimate comfort and control.
- Double bevel cutting blades for superior nick resistance.
- Dual gripping positions for traditional or forward hand positions.
- Easy-to-read laser-etched markings.
- Cuts and rethreads bolt sizes 6-32, 8-32 and 10-32.
- Wire looping holes form wire to fit on screw terminals.
- Plier nose for gripping and pulling.
- Limited Lifetime Warranty.
- GESP-70 crimps insulated and non-insulated terminals, crimps coaxial "F" connectors, cuts bolt sizes 4-40, 5-40, 6-32, 8-32, 10-24 and 10-32.



GES-55



GESP-55



GESP-70

Part #	Description	Handle	Wire Gauge	Length
GES-55	ArmorEDGE® Wire Stripper	Curved	#10 - #18 AWG	6"
GESP-55	ArmorEDGE® Wire Stripper	Symmetric	#10 - #18 AWG	6"
GESP-70	ArmorEDGE® Multi-Tool Stripper/Crimper	Symmetric	#10 - #22 AWG	8"
GES-224	ArmorEDGE® NM Cable Stripper	Curved	12/2 & 14/2 NM Cable	7"
GESP-224	ArmorEDGE® NM Cable Stripper	Symmetric	12/2 & 14/2 NM Cable	7"

Limited Lifetime Warranty



12/2 and 14/2 NM Cable Stripper



10-18 AWG Wire Stripper



GES-224



GESP-224



## Milwaukee Clipper™ Strippers

Strips solid or stranded wire.

- Compact tool adjusts quickly to any of eight wire sizes.
- Hardened spring steel provides strength and durability.
- Looping hole bends and loops wire for termination on screws.
- Vinyl grips for added comfort.
- GS-40 includes spring return for easy handling.



Part #	Description	Wire Gauge	Length
GS-40	Milwaukee Clipper™ Stripper w/spring	#10 - #24 AWG	5"

## Wire Strippers

Strips solid or stranded wire.

- Precision stripping stations.
- Laser-etched markings.
- Pliers nose and curved cutting blade aid in pulling and cutting wire.
- Power spring return reduces hand fatigue.
- Curved handles for added comfort.
- Looping hole forms wire to fit on screw terminal.
- Comfortable high-leverage handles.



GS-355



GS-360



GS-361

Part #	Description	Wire Gauge	Length
GS-355	Stripper	#10 - #20 AWG	6¼"
GS-360	Stripper with lock	#10 - #20 AWG	6"
GS-361	Small Gauge Stripper	#16 - #30 AWG	6¼"

## Strip-Easy™ Stripper

Strips solid or stranded wire.

- Strips wires clean with one easy squeeze, up to a full 7/8".
- Blades cut insulation without nicking conductor. Jaws open automatically to remove wire without crushing ends.
- AWG size clearly marked at each cutting hole.
- Comfortable no-slip handles.



Part #	Description	Wire Gauge	Length
SE-92	Automatic Wire Stripper	#8 - #22 AWG	8"

## Automatic Stripper & Crimper

Strips solid or stranded wire.

- Automatic jaw-loaded wire stripper self-adjusts.
- Crimps insulated, and non-insulated terminals.
- Comfort high-leverage handles.

Part #	Description	Wire Gauge	Length
GS-394	Automatic Wire Stripper	#10 - #26 AWG	8"



## Multi-Tools

### Comparison Chart

Feature	GS-365	GS-370	GESP-70
Spring Action Return	X		
Pliers Nose	X	X	X
Conduit Reamer Nose	X		
Loop Hole	X	X	X
Deluxe Cushion Grip	X	X	X
Locking Handle	X		
Cutter Blade	X	X	X
Cuts & Rethreads Bolts	X	X	X
Crimps Insulated Terminals	X	X	X
Crimps Non-insulated Terminals	X	X	X
Copper & Steel Crimp Sleeves	X	X	X
Coaxial Connectors	X	X	X
Wire Stripping Range	#6 - #16	#10 - #22	#10 - #22



## Multi-Tool Stripper, Cutter & Crimper

Strips and cuts wire.

- Strips copper and aluminum wire, solid or stranded.
- Cuts and rethreads bolt sizes 4-40, 5-40, 6-32, 8-32, 10-24 and 10-32.
- Pliers nose for pulling and looping wire.
- Crimps insulated & non-insulated terminals.
- Crimps coaxial "F" connectors.
- Curved cutting blade.
- Comfort high-leverage handles.
- Precision ground-stripping stations prevent nicking conductor while stripping.



Part #	Description	Wire Gauge	Length
GS-370	Multi-Tool	#10 - #22 AWG	8½"

## Multi-Tool Stripper, Cutter & Crimper

Strips #6 - #16 AWG solid, #8 - #18 AWG stranded.

- Strips copper and aluminum wire, solid or stranded.
- Cuts and rethreads bolt sizes 4-40, 5-40, 6-32, 8-32,
- Crimps #310, 311, 410 and 411 crimp sleeves, solderless terminals and coaxial connectors.
- Pliers nose for pulling and looping wire.
- Snub nose for reaming ½" and 1" conduit.
- Precision ground-stripping stations prevent nicking conductor while stripping.
- Lock for compact storage.



Part #	Description	Wire Gauge	Length
GS-365	Multi-Tool Stripper and Cutter	#6 - #16 AWG, Solid #8 - #18 AWG, Stranded	8½"

## Multi-Tool Cable Strippers

Strips, crimps and cuts bolts.

- Crimps terminals.
- Strips 10-22 AWG wire.



Part #	Description	Wire Gauge	Length
GS-366	Multi-tool crimper & stripper	#10 - #22 AWG	9¼"

## Romex® Strippers

### Comparison Chart

Feature	CR-100	CRC-100	CR-1000	GRX-3224
Spring-Action Return				X
Pliers Nose				X
Loop Hole				X
Wire Stripper			X	X
Locking Handle				X
Cutter Blade			X	X
Cuts & Rethreads Bolts				X
Cable Ripping Range	12/2 & 14/2 NM cable	12/2 & 14/2 NM cable	10/2 & 14/2 NM Cable	12/2 & 14/2 NM cable



\* See ArmorEDGE® and Circuit Alert® sections for additional Romex® / NM cable strippers.

## Dual Romex® Stripper

Strips outer sheath of #12/2 or #14/2 cable in one tool.

- Strips single conductor #12 or #14 AWG.
- Power spring return reduces hand fatigue.
- Curved cutting blade.
- Pliers nose.
- Wire looping hole.
- Cuts and rethreads bolt sizes 6-32 and 8-32.
- Locking handle for compact storage.



Part #	Description	Wire Gauge	Length
GRX-3224	NM Cable Stripper	12/2 & 14/2 NM Cable and #12 AWG and #14 AWG single conductor	7 <sup>5</sup> / <sub>8</sub> "

## Cable Ripper

Slits outer covering of Romex® (all sizes, both old and new) and other non-metallic (type NM) sheathed cable.

- Wire gauge on handle checks and strips #6 to #14 AWG.
- Nickel-plated finish resists corrosion.

Part #	Description	Wire Gauge	Length
CR-100	Cable Ripper	12/2 & 14/2 NM Cable	4"
CRC-100	Curved Cable Ripper	12/2 & 14/2 NM Cable	4"
CR-1000	Premium Cable Ripper	12/2 & 14/2 NM Cable	4"



1. Rip open cable jacket 2. Cut off cable jacket 3. Strip wire ends

Romex® is a registered trademark of Southwire Company, Carrollton, GA

## Datacom Strippers

### Comparison Chart

Feature	GTPS-100	GS-359	SE-98	GTPS-3200
Strips RG-58		X	X	
Strips RG-59		X	X	
Strips RG-6		X	X	
Strips CAT 3 Cable	X			X
Strips CAT 5 Cable	X			X
Strips Flat Telephone Wire				X
Cutter Blade to Cut Cable		X		X

### UTP/STP Cable Stripper

Strips UTP and STP cable up to .24" (6.2mm) diameter.

- Tension release lever for easy positioning and release of cable.
- Compact design for easy handling.
- For use on CAT 3 and CAT 5 cable.



GTPS-100



GTPS-3200

Part #	Description	Wire Gauge	Length
GTPS-100	UTP/STP Round Cable Stripper	UTP/STP	3¼"
GTPS-3200	Premium Cable Stripper	UTP, STP, flat, round from 1/8" to 3/8" in diameter and silver satin and other flat cables	4½"

### Coaxial Stripper

Cuts and strips RG-59 and RG-6 coaxial cable.

- Can be used with both standard and quad shield cable.
- Multiple size stripping stations strip both the outer jacket and inner conductor.
- Exclusive hex-shaped slot helps push "F" connectors onto cable.
- Curved cutting blade.

Patented



Part #	Description	Wire Gauge	Length
GS-359	Coaxial Stripper	RG-59 & RG-6	6¼"

### Coaxial Cutter & Stripper

Cuts and strips coaxial cable (RG-58, RG-59 and RG-6).

- Easily adjusts to various cable thickness.
- One-squeeze cutting action.
- Includes replacement blade model #SERB-25.



Part #	Description	Wire Gauge	Length
SE-98	Coaxial Cable Cutter & Stripper	RG-58, RG-59 & RG-6	4¾"

## Punch-Down Tools

High-impact design assures good quality terminations.

- Inserts and cuts cable in termination blocks.
- Constructed of durable ABS resin.
- Impact adjustment with high/low setting accommodates multiple applications.
- Extra blade can be stored in handle.
- Spring-loaded design quickly and easily inserts and trims terminations.
- 110-style blade used in CAT 3 and CAT 5 terminations.
- 66-style blade used to terminate phone wiring.



PDT-110



PDT-110LC



Part #	Description	Network	Length
PDT-110	Type-110 Terminal Punch-Down Tool with Blade	Data	7½"
PDT-110LC	Non-Impact Punch-Down Tool	Data	5¾"

Replacement Blades:

Part #	Description
PDB-66110	Type-66 Replacement Blade
PDB-110	Type-110 Replacement Blade



PDB-66110



PDB-110

## Wire Stripper & Punchdown Tool

Cuts, strips & terminates.

- Strips: RG6, CAT3, CAT5, UTP, STP flat and round, speaker wire, flat telephone wire.
- Type 110/66 terminal punchdown.



Part #	Description	Network	Length
SPD-10L	Ergo datacom combination tool	Data	7"

## RJ45/RJ11 Modular Plug Crimp Tool

Used to produce patch cable and handset cables, cut, strip and crimp.

- Heat-treated steel frame provides strength and durability.
- Replacement cutting blade extends the life of the tool.
- Slip-resistant handles.



GMC-1145

Part #	Description	Plugs	Pins
GMC-1145	Telephone Crimp Tool, RJ-11/12 and RJ-45	RJ-11, RJ-12 RJ-45	2, 4, 6 8



## Long Nose Pliers

### Long Nose Pliers

Multi-function pliers – cuts, strips and crimps.

- Use needle nose to form wire or grip small parts.
- Strips #14 - #16 AWG solid or stranded wire.
- Crimps insulated terminals up to #10 AWG.
- Cutting blade cuts solid or stranded wire.



Part #	Description	Length
GS-385	Long Nose w/ Cutter and Crimper	6½"

### Long Nose Pliers with Side Cutter

Long nose design for forming and looping wire and handling small parts.

- Forged from high-carbon steel for durability and strength.
- Knurling on jaws grips work tightly.
- Cutting edges are heat treated to hold their edge.
- Comfort-grip handles.



Part #	Description	Length
GPS-3238	Long Nose Pliers	8½"

## Cutting Pliers

### Cutting Pliers, Box Joint

Tapered nose allows cutting in tight locations.

- Dual cutting edge and high-leverage handle design for optimal gripping and cutting performance.
- Precision-machined and induction-hardened knives strengthen cutters and provide consistent performance when cutting aluminum, copper and medium-hard steel wire.
- Comfort-grip handles.



GPS-3220



GS-386

Part #	Description	Length
GPS-3220	Cutting Pliers, Box Joint	8"
GS-386	Diagonal Cutting Pliers	6 ¾"

### Cutting Pliers, Curved Diagonal

Angled head allows cutting in tight locations.

- Dual cutting edges and high-leverage handle design for optimal gripping and cutting performance.
- Precision-machined and induction-hardened knives strengthen cutters and provide consistent performance when cutting aluminum, copper and medium-hard steel wire.
- Flared handles for added comfort.



Part #	Description	Length
GPS-3228	Cutting Pliers, Curved Diagonal	8"

## Linemen's Pliers

### Linemen's Pliers

Medium-duty side-cutting pliers.

- Cuts copper or aluminum wire.
- Serrated, square tip jaw for extra grip on bolts.
- Hardened-steel construction for long life.
- Comfort-grip handles.



Part #	Description	Length
GS-387	Linemen's Pliers	7½"

### Linemen's Pliers with Fish Tape Puller

Built-in groove designed for gripping and pulling flat fish tape.

- Forged from high-carbon steel for durability and strength.
- Precision-machined and induction-hardened knives strengthen cutters and provide consistent performance when cutting aluminum, copper and medium-hard steel wire.
- Comfort-grip handles.



Built-in groove designed for gripping and pulling flat fish tape

Part #	Description	Length
GPS-3214	Linemen's Pliers w/ Fish Tape Puller	9½"

SEE PG **76** FOR MORE INFO ON **Fish Tapes**

### Linemen's Pliers, Round Nose

Standard pliers cut aluminum, copper and medium-hard steel wire.

- Forged from high-carbon steel for durability and strength.
- Dual cutting edges and high-leverage handle design for optimal gripping and cutting performance.
- Precision-machined and induction-hardened knives strengthen cutters and provide consistent performance.
- Comfort-grip handles.



Part #	Description	Length
GPS-3219	Linemen's Pliers, Round Nose	9¼"

### Linemen's Pliers with Cutter & Crimper

High-leverage tool with crimping die and side cutters.

- Comfort-grip handles.



Part #	Description	Length
GCP-3400	Linemen's Pliers and Crimping Tool	9½"

## Crimping Pliers

### 8" Crimping Pliers

Crimp insulated or non-insulated terminals.

- Cuts copper and aluminum wire.
- Tapered nose for cutting in tight locations.

Part #	Description	Length
GS-388	Crimping Pliers	8"



### BX & Flexible Cable Cutter

Cuts BX, MC, AC, and liquid tight 3/8".

- High durability blade provides 2X normal wear characteristics.
- Includes storage space for replacement blades.
- Pivot shaft is reinforced with high strength steel sleeve.
- 25 foot drop test.
- Thumbwheel for easy blade change, no tooling required.
- Quick-clamp feature automatically adjusts to cable size and secures it for splitting.
- Automatic release ejects cable.
- Cutting depth adjustment ensures clean cuts without nicking cable.

Part #	Description	Length
GBX-300	BX Armor Cutter	7 1/4"

Replacement Parts:

Part #	Description	Pk
GBRX-301	Replacement Blade	3pk



Extra blade storage



### Cable Cutter

Cable-cutting tool designed to cut cleanly with high-leverage one-hand operation.

- Cuts soft copper & aluminum cable.

Part #	Description	Cut Size	Length
GC-375	Cable Cutter	2/0	8"



### High-Leverage Cutters

Cuts soft copper and aluminum cable up to 1000 MCM.

- Heat-treated alloy steel jaws make fast, sharp cuts.
- Lightweight fiberglass handles on GC-500 and GC-1000 feature comfortable rubber grips.

Part #	Description	Cut Size	Length
GC-500	Cable Cutter	500 MCM max	24"
GC-1000	Cable Cutter	1000 MCM max	33"



GC-1000

GC-500



## Ratcheting Cable Cutter

Cut copper and aluminum cable up to 750 MCM.

- Ratcheting mechanism for increased leverage.
- Variable-force cutting action permits choice between high force and speed.
- Dual-action handles cut from either direction; easy to use in tight spots.
- Hardened alloy-steel blades are easily sharpened without removing them from tool.
- Rubber hand grips permit firm grip control.



Part #	Description	Jaw Opening	Length
GRC-750	Ratcheting Cable Cutter	1 <sup>9</sup> / <sub>16</sub> "	15 <sup>3</sup> / <sub>4</sub> "

## Cut-A-Way® PVC Conduit Cutter

Cuts flexible, watertight flexible and schedule 40 PVC conduit 1/2" to 2".

- Design makes fast, clean cuts.
- Tough, lightweight nylon handles.
- Compact 8" tool fits neatly and safely into pocket or tool pouch.



GPC-200



GKC-100A

Part #	Description	Length
GPC-200	Cut-A-Way® PVC Cutter (2")	17"
GKC-100A	Cut-A-Way® PVC Cutter (1")	8"

## Insulated Screwdriver Set

Part #	Description	Length	Set Contains:	
			Qty	Description
SCE-3262	Insulated Screwdriver Set, 2 pc.	8"	1	No. 2 Phillips® tip
			1	3/16" Slotted tip



## Reversible Insulated Screwdriver

Reversible tip combines two tools into one.

- Molded shaft insulation provides secondary protection against accidental electrical shock.
- Ergonomic grip is engineered for maximum torque with minimum effort.



SEE PG  
**119**

FOR MORE INFO ON  
**Circuit Alert®  
 Screwdrivers**



Part #	Description	Reverse from	Reverses to
SCE-3260	Insulated Screwdriver, Reversible tip	No. 2 Phillips®	3/16" Slotted

## Triple Tap

Three-in-one tapping tool designed for electrical work.

- Cleans and rethreads holes.
- Made of top-grade steel.

**Tap Sizes**  
 6-32    8-32    10-24



Part #	Description	Length
TT-10B	3 Size Tapping Tool	6 <sup>1</sup> / <sub>2</sub> "

## Fuse Puller

Part #	Description	Fuse Size	Length
FPE-20	Fuse Puller	0-200A/250V and 0-100A/600V	8"



## Electrician's Knife

Rip, strip, and cut with one tool.

- Reversible blade for longer life.
- Quick blade change.
- Wire stripper.
- NM cable ripper.
- Storage area in handle for spare blades.
- Includes three replacement blades.

Patent Pending

Part #	Description
RK-6	Electrician's Knife, 6"



Cable Ripper



Wire Stripper

SEE PG  
117

FOR MORE INFO ON  
**Circuit Alert®**  
Knife

## Electrician's Knife

Two-in-one tool has sharpened blade for skinning wire and screwdriver tip for screws.

- Tempered carbon-steel blades sharpen easily and hold their edge.
- Compact 3 $\frac{3}{4}$ " size.

Part #	Description
KF-200	Two-in-one Electrician's Knife





## ***Test Instruments***

Testing equipment can be put to good use ensuring that electrical equipment is properly installed and safe to operate. Faulty installations can be lethal; the condition of electrical installations can be established when contractors use test equipment. Gardner Bender™ is pleased to offer this innovative, full featured line of test equipment designed to make electrical work faster and safer.



page 136

page 137



page 140

page 141

Battery Tester (Analog).....	142	Voltage Testers	
Continuity Tester		Voltage Testers Comparison Chart.....	133
Heavy-Duty .....	135	6-way Circuit .....	134
Multimeters - Analog		Heavy-Duty 3-way .....	134
Analog Multimeters Comparison Chart....	139	Low Voltage Twin Probe.....	133
Five Function, 12-Range .....	139	Screwdriver, Voltage Probe &	
Six Function, 14-Range .....	139	Continuity Tester .....	134
Seven Function, 19-Range .....	139	Solenoid .....	135
Multimeters - Clamp-On		Tester Leads .....	142
Clamp-On Comparison Chart.....	141	Tester Replacement Parts	
AC Clamp Meter with Lockjaw.....	141	(fuses, batteries) .....	143
Auto-Ranging Digital .....	141		
Multimeters - Digital			
Digital Multimeters Comparison Chart....	140		
Three Function, 13-Range .....	140		
Four Function, 14-Range .....	140		
Seven Function, 7-Range Auto-Ranging .....	140		
Non-Contact Voltage Testers			
Non-Contact Voltage Testers			
Comparison Chart .....	136		
Circuit Alert® .....	136		
Live-Wire™ .....	136		
Receptacle Testers/Analyzers			
Receptacle Testers/Analyzers			
Comparison Chart .....	137		
Lan Tracker™ .....	138		
Receptacle Tester & Circuit Analyzer.....	137		
GFCI & Circuit Analyzer .....	137		

# Voltage Testers

## Selection Chart

Feature	GET-3202	GET-3100	GET-3213	GET-3206	GCV-3206	GVT-392	GCT-3304	GAT-3400	GVD-3504	GVD-3505
<b>Voltage Range</b>										
AC Voltage	5-50V	80-250V	80-300V	120-300V	12-250V	120-480V			50-600V	12-600V
DC Voltage	5-50V	80-250V	80-300V	150-380V	12-250V	120-480V		6-12V		
<b>Functions</b>										
Polarity						X				
Continuity					X		X			
Tracing										
<b>Indication</b>										
Audible									X	X
Visual	X	X	X	X	X	X	X	X	X	X
Vibration						X				
<b>General</b>										
Lead Length	5.5"	2"	24"	30"	30"	26"	36"	36"		
Pocket Clip	X	X	X		X		X	X	X	X
Agency Approvals	(ETL)	(UL)	(ETL)	(ETL)	(ETL)	(ETL)			(ETL)	(ETL)
Drop Rating	6'	6'	6'	6'	6'	6'	6'	6'	6'	6'
Crush Rating	150 lb	150 lb	150 lb	150 lb	150 lb	150 lb	150 lb	150 lb	150 lb	150 lb
CAT Rating	I 50V	II 300V	II 300V			III 600V			III 600V	III 600V
Warranty	1 year	1 year	1 year	1 year	1 year	1 year	1 year	1 year	1 year	1 year

## Low Voltage Twin Probe Circuit Tester

Tests AC/DC Voltage from 5 - 50 V AC/DC, 50-60 Hz.

- Indicator glows when voltage is present and brightens as voltage increases.
- Insulated alligator clip test leads.
- Pocket clip for added convenience.
- Dual Insulated, durable ABS housing.

### TESTS

- ✓ Low volt outdoor lighting
- ✓ Low volt control panels
- ✓ Doorbells
- ✓ Alarm systems
- ✓ Automotive 12 V DC and 36 V DC



No batteries required

Part #	Description
GET-3202	Low Voltage Twin Probe Circuit Tester



## Twin Probe Circuit Tester

Tests AC/DC Voltage from 80-250 V AC/DC.

- Neon indicator glows when voltage is present and brightens as voltage increases.
- Insulated housing.
- Insulated test leads.
- Pocket clip for added convenience.
- 2" test lead.

### TESTS

- ✓ DC motors
- ✓ Switches
- ✓ Outlets



No batteries required

Part #	Description
GET-3100	Twin Probe Circuit Tester



## Heavy-Duty 3-way Voltage Tester

Tests AC/DC Voltage at 120, 240 and 277 V.

- Individual indicators for each voltage range assures reliability.
- Functional, lightweight design features twin flexible leads and convenient pocket clip.
- 24" test lead.
- Dual insulated, durable ABS housing.

### TESTS

- ✓ Outlets
- ✓ Panels
- ✓ Light fixtures
- ✓ Switches
- ✓ Circuit Breakers

Part #	Description
GET-3213	Heavy-Duty 3-way Voltage Tester



## 6-Way Circuit Tester

Tests AC Voltage at 120, 240, 480 V and DC Voltage at 150, 300 and 500 V.

- 30" test lead.
- Bright neon indicators.
- Rugged twin-probe design features heavy-duty test lead insulators.

### TESTS

- ✓ Outlets
- ✓ Light Fixtures
- ✓ Switches
- ✓ Circuit Breakers
- ✓ Motors
- ✓ Appliances
- ✓ Fuses

Part #	Description
GET-3206	6-Way Circuit Tester



## Combination Screwdriver, Voltage Probe & Continuity Tester

Tests for Continuity and 12 - 250 AC/DC Voltages.

- LED indicator glows when voltage or continuity exists.
- Operates from (2) LR-44 batteries, included.
- Convenient screwdriver tip and pocket clip.

### TESTS

- ✓ Outlets
- ✓ Fuses
- ✓ Switches
- ✓ Extension cords
- ✓ Light fixtures
- ✓ Low Voltage Lighting Circuits

Part #	Description
GCV-3206	Combination Screwdriver, Voltage Probe & Continuity Tester



## Solenoid Voltage Tester

Test AC/DC Voltage from 120 - 480 V and DC Polarity.

- Dual voltage indication: solenoid vibration and neon bulb.
- Neon bulb indicates DC polarity.
- Built-in slots in probe housing hold probes for one-hand testing and storage.
- 4' reach from probe to probe with probes unlocked.
- High-impact, dual insulated, case stands up to rugged service.

### TESTS

- ✓ Outlets
- ✓ Panels
- ✓ Light fixtures
- ✓ Switches
- ✓ Circuit Breakers
- ✓ Extension Cords



Probes lock together to enable one handed testing of standard outlet

Part #	Description
GVT-392	Solenoid Voltage Tester



## Heavy-Duty Continuity Tester

Tests for continuity in non-energized circuits.

- 36" insulated test lead with alligator clip.
- Bright indicator bulb lights if continuity exists.
- Operates from (2) AAA batteries.
- Pocket clip for added convenience.

### TESTS

- ✓ Extension cords
- ✓ Fuses
- ✓ Switches
- ✓ Water heater coils
- ✓ Unenergized low voltage wiring



Part #	Description
GCT-3304	Heavy-Duty Continuity Tester



## Automotive Voltage Tester

Used to test DC Voltage in automotive applications.

- DC Voltage from 6-12 V.
- Durable ABS Housing w/pocket clip.
- 3' test lead with alligator clamp.
- Pocket clip for added convenience.

### TESTS

- ✓ Fuses in junction block
- ✓ Automotive circuits for voltage
- ✓ Back probe connectors & sockets



Part #	Description
GAT-3400	Automotive Voltage Testers



## Non-Contact Voltage Testers

### Comparison Chart

Feature	GVD-3504	GVD-3505
Detection Range	50-600 V AC	12-600 V AC
Visual	X	X
Audible	X	X
Adjustable Sensitivity		X
Pocket Clip	X	X
Agency Approvals	(ETL)	(ETL)
Warranty	1 year	1 year
Batteries (included)	1 AAA	(2) Button Cells



### Circuit Alert® Non-Contact Voltage Detector

Indicates the presence of AC Voltage from 50 - 600 V.

- Visual (flashing) and audible (beeping) indicators signal presence of voltage.
- Built-in "safe test" feature assures batteries are operating properly.
- Compact design fits in shirt pocket.
- Operates from 1-AAA battery.

#### TESTS

- ✓ Outlets
- ✓ Switches
- ✓ Circuit breaker panels
- ✓ Wiring
- ✓ Light fixtures

Part #	Description
GVD-3504	Circuit Alert™ Non-Contact Voltage Detector



Patented



### Live-Wire™

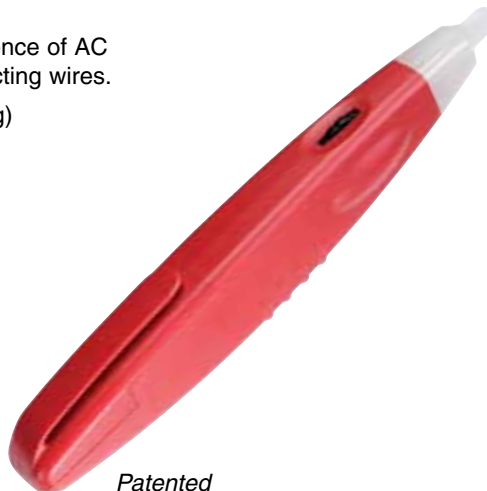
Adjustable sensitivity detects the presence of AC Voltage from 12 - 600 V without contacting wires.

- Visual (flashing) and audible (beeping) indicators signal presence of voltage.
- Adjustable sensing levels.
- Built-in "safe test" feature assures batteries are operating properly.
- Operates from 2-LR44 1.5 Volt batteries (included).

#### TESTS

- ✓ Doorbells
- ✓ Low voltage lighting
- ✓ Outlets
- ✓ Switches
- ✓ Electrical panels
- ✓ Light fixtures

Part #	Description
GVD-3505	Live-Wire™



Patented





## Receptacle Testers / Analyzers

### Comparison Chart

Tests for:	GRT-3500	GFI-3501
Open Ground	X	X
Open Neutral	X	X
Open Hot	X	X
Hot / Ground Reversed	X	X
Hot / Neutral Reversed	X	X
Correct Wiring	X	X
GFCI Test Function		X
Agency Approvals	ETL	ETL
Warranty	1 year	1 year

### Receptacle Tester & Circuit Analyzer

Tests standard receptacles to ensure proper wiring.

- Neon indicators give positive indication of circuit status.
- Compact unit simply plugs into any standard 3-wire/grounded receptacle (110 - 125 V AC circuits).
- Tests for six circuit conditions: open ground, open neutral, open hot, hot/ground reverse, hot/neutral reverse, and correct wiring.
- Succession of yellow and red lights provides indication of circuit status or specifies wiring errors.
- Easy-to-read three views – top, side and bottom.

#### TESTS

- ✓ Standard outlets
- ✓ Extension cords



Tests standard outlets

Part #	Description
GRT-3500	Receptacle Tester & Circuit Analyzer

One Year  
 Warranty



### Ground Fault Receptacle Tester & Circuit Analyzer

Tests ground fault receptacles by overloading circuit and tripping GFCI.

- Easy to use. Simply plug tester into any circuit protected by a ground fault receptacle (110 - 125 V AC) and press black button to overload circuit.
- Tests for seven conditions: ground fault interruption, open ground, open neutral, open hot, hot/ground reverse, hot/neutral reverse, and correct wiring.
- Succession of yellow and red lights provides indication of circuit status or specifies wiring errors.
- Tester trips GFCI between 6 - 9 mA.

#### TESTS

- ✓ Standard outlets
- ✓ GFCI outlets
- ✓ Extension cords



Tests standard outlets



Tests outlets protected by GFCIs

Part #	Description
GFI-3501	Ground Fault Receptacle Tester & Circuit Analyzer

One Year  
 Warranty



## Lan Tracker™ Multi-Purpose Wire Tracer

Traces any unshielded and unenergized wire or cable.

- Four transmitter plug types encased inside closeable hatch:
  - RJ-11
  - Alligator Clips
  - Coax
  - RJ-45
- Detects unshielded wires up to 12", when using ground clip.
- Adjustable sensitivity detects wires in close proximity.
- L.E.D. intensifies as the signal gets stronger.
- Audible feature differentiates transmitter signal from other signals.
- Requires; (2) AA batteries for transmitter (included)  
(4) 1.5 V LR-44 batteries for Receiver Wand (included)



Patented

Five Year  
Warranty



Part #	Description
GET-4220K	Lan Tracker™ Multi-Purpose Wire Tracer



Trace Coax Cable



Trace Data Cables



Trace Phone Lines



Compact Receiver

## Analog Multimeters

Full family of analog multimeters test AC Voltage, DC Voltage, DC Current, Resistance, Continuity, and batteries.

- Manual range selection.
- Easy to read, color-coded analog displays.
- All testers include test leads and operating instructions.
- All are Agency approved and incorporate fuse overload protection circuitry.



GMT-312



GMT-318



GMT-319



Feature	GMT-312	GMT-318	GMT-319
<b>Voltage Range</b>			
AC Voltage	300V	500V	1000V
DC Voltage	300V	500V	1000V
<b>Current Range</b>			
AC Current			
DC Current	250 mA	250 mA	10 A
<b>Functions</b>			
Resistance	1 Meg	50K	10 Meg
Decibels (on AC voltage ranges)	-20 to +56dB	-20 to +56dB	-8 to +62dB
Continuity (Audible)			X
Battery Testing		X 1.5 & 9V	X 1.5 & 9V
<b>Specifications</b>			
Manual Range Selection	X	X	X
Total Functions	5	6	7
Total Ranges	12	14	19
Fuse	250 mA	250 mA	500 mA & 10A
Accuracy	±5%	±4%	±4%
<b>General</b>			
Agency Approval	ETL CE	ETL CE	ETL CE
CAT Rating	II 300V	II 500V	II 1000V
Warranty	1 year	1 year	1 year

## Digital Multimeters

Full family of digital multimeters test AC Voltage, DC Voltage, Resistance, Continuity, Temperature, Diodes, and Batteries.

- Manual and auto ranging styles.
- Easy to read digital displays.
- All testers include test leads and operating instructions.
- Conforms to UL 61010-1 standards and certified to CAN/CSA C22.2.



Circuit Breakers



Batteries



Back-Lit Display



Magnetic Attachment

GDT-311



GDT-3190



GDT-3200



Feature	GDT-311	GDT-3190	GDT-3200
<b>Voltage Range</b>			
AC Voltage	500V	500V	500V
DC Voltage	600V	600V	600V
<b>Functions</b>			
Resistance	2 meg $\Omega$	2 meg $\Omega$	20 meg $\Omega$
Diode Test			X
Continuity (Audible)			X
Temperature (Probe type)			X-40 to 1832°F
Battery Testing		X1.5 & 9V	X1.5V
<b>Specifications</b>			
Manual or Auto Ranging	Manual	Manual	Auto
Total Functions	3	4	7
Total Ranges	13	14	7
Display Count	2000	2000	2000
Low Battery Indicator	X	X	X
Auto Off		X	X
Rubber Boot		X	X
Magnet Strap			X
Backlit LCD			X
<b>General</b>			
Agency Approval	ETL CE	ETL CE	ETL CE
Drop Rating	3'	6'	6'
Crush Rating	150 lb	150 lb	150 lb
CAT Rating	III 600V	III 600V	III 600V
Warranty	1 year	1 year	1 year

## Clamp-On Multimeters

Gardner Bender™ clamp meters test AC Current, AC Voltage, DC Voltage, Resistance and Continuity.

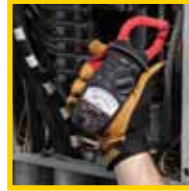
- Manual and autoranging styles.
- Easy-to-read displays.
- All testers include test leads and operating instructions.



Current (GCM-221)



Voltage (GCM-221)



Current (GCM-500)



Voltage (GCM-500)



Feature	GCM-500	GCM-221
<b>Voltage Range</b>		
AC Voltage	600V	600V
DC Voltage	60V	
<b>Current Range</b>		
AC Current	600A	600A
<b>Functions</b>		
Resistance	1000 Ω	200 Ω
Continuity		X
Audible Buzzer		X
<b>Specifications</b>		
Manual or Auto Ranging	Manual	Auto
Total Functions	4	3
Total Ranges	8	3
Display Count		1000
Data Hold	X	X
Jaw Size	1 1/2"	1 1/4"
Fuse	500 mA	
Accuracy	±5%	AC V: ±1.5% AC A: ±2.0% Ω : ±1.0%
<b>General</b>		
Agency Approval	ETL	CE
Drop Rating	3'	6'
Crush Rating	150 lb	150 lb
CAT Rating		II 600V, III 300V
Warranty	1 year	1 year

## Analog Battery Tester

Tests all common batteries to determine if they are charged or need replacement.

- Tests from 1.5 V button cells to 22.5 V photo cells.
- Includes test leads for easy testing.

### TESTS

- ✓ AA, AAA, C, D, N
- ✓ 1.5 V button cells
- ✓ 1.25 V Ni-Cad rechargeable
- ✓ 3 V lithium
- ✓ 22.5 V photo & lantern cells
- ✓ 6 V lantern
- ✓ 12 V, 15 V Photo cells
- ✓ 9 Volt

Part #	Description
GBT-500A	Analog Battery Tester



One Year  
Warranty

## Analog Battery Tester

Tests most common household battery types to determine existing charge.

- Moveable contact arm fits multiple battery sizes.
- Simple "Low/Good" indicator.

### TESTS

- ✓ AA
- ✓ AAA
- ✓ C
- ✓ D
- ✓ 9 V
- ✓ 1.5 V button cells
- ✓ N

Part #	Description
GBT-3502	Analog Battery Tester



Movable contact arm fits multiple battery sizes

One Year  
Warranty

## Test Leads

Replacement leads for Gardner Bender™ meters.

- Tough ABS construction.
- Flexible cords for easy use.

Part #	Description	Models
RTL-103	Small Test Leads	GDT-11, GDT-190
RTL-107	Push-on Alligator Clips	RTL-103, RTL-108, RTL-200
RTL-108	Mid-size Test Leads	GMT-312, GMT-318
RTL-200	Large Test Leads	GDT-292A, GDT-293A, GDT-294A, GDT-295A, GCM-500, GCM-221
RTL-300*	Small Test Leads	GDT-311, GDT-3190, GDT-3200, GMT-319

\*not pictured



RTL-103



RTL-107



RTL-200



RTL-108

## Replacement Parts and Accessories

### Test Instruments

Model	FUSES					Batteries
	10A/250V	0.5A/250V	2.0A/250V	0.2A/250V	0.25A/250V	
<b>Analog Multimeters</b>						
GMT-312		X				(1) AA
GMT-318		X				(1) AA
GMT-319		X				(2) AAA
<b>Digital Multimeters</b>						
GDT-311						(1) 9 Volt
GDT-3190			X			(1) 9 Volt
GDT-3200			X			(1) 9 Volt
<b>Clamp Meters</b>						
GCM-221				X	X	(2) AAA
GCM-500	X					(1) AA
<b>Probe Testers</b>						
GAT-3400					X	
GBT-500A	X					
GBT-3502	X				X	
GCT-3304						(2) AAA
GCV-3206						(2) LR44
GET-3100						
GET-3202						
GET-3206						
GET-3213						
GET-4220K						(2) AA & (4) LR44
GVD-3504						(1) AAA
GVD-3505						(2) 1.5 V LR44
GVT-392						

## NOTES





# *Cable Ties*

Gardner Bender™ offers a broad range of cable ties in a wide variety of materials, color, style and size options to meet your specific needs. A patented design and high quality construction make Gardner Bender™ ties a great solution for bundling wire, cable, hoses, ducts and in countless other applications.



page 151



page 147



page 151



page 151



Cable Ties

Colored .....	150
Grip-Strip™ Hook-and-Loop Fasteners.....	151
Heavy Duty (Natural & Ultraviolet Black).....	148
Miniature (Natural & Ultraviolet Black).....	147
Releaseable (Natural & Ultraviolet Black).....	149
Standard (Natural & Ultraviolet Black).....	147
Mounting Bases and Ties	
(Natural & Ultraviolet Black).....	149, 151
Tensioning Tools .....	151



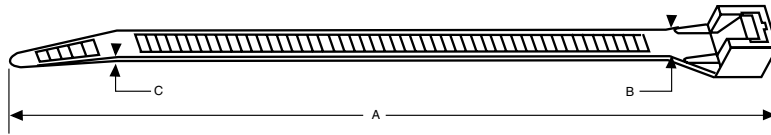
**INNOVATION**



## Miniature & Standard Cable Ties

Gardner Bender offers a broad range of cable ties, great for bundling wire, cable, hoses, ducts and countless other applications.

- Made from durable nylon 6/6 material.
- Ultraviolet black (UVB) ties resist harmful light rays – primarily for outdoor use.
- Serviceable through temperatures -40 to 85 °C (-40 to 185 °F).
- UL recognized component listing E125869.
- Meets UL 94 V-2 flammability classification.
- Patented DoubleLock® design has teeth on both sides of the tie, ensuring 50% greater strength than industry standards.



### Miniature

Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
4"	Natural	45-104	40/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR
	Natural	46-104	100/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR
	Natural	46-104M	1,000/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR
	UVB	45-104UVB	30/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR
	UVB	46-104UVB	100/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR
	UVB	46-104UVBM	1,000/bag	—	18 lb	4"	0.095"	0.035"	13/16"	UR

### Standard

Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
6"	Natural	46-206	100/bag	DLOCK	45 lb	6.00"	0.13"	0.055"	13/8"	—
	Natural	46-206M	1,000/bag	DLOCK	45 lb	6.00"	0.13"	0.055"	13/8"	—
	UVB	46-206UVB	100/bag	DLOCK	45 lb	6.00"	0.13"	0.055"	13/8"	—
8"	Natural	45-308	20/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	Natural	46-308	100/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	Natural	46-308M	1,000/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	Natural	46-507	500/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	UVB	45-308UVB	15/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	UVB	46-308UVB	100/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
	UVB	46-308UVBM	1,000/bag	DLOCK	75 lb	8.00"	0.17"	0.055"	2"	UR
11"	Natural	45-312	12/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	Natural	46-310	100/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	Natural	46-310M	1,000/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	Natural	46-311	300/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	Natural	46-210	100/bag	DLOCK	45 lb	11.00"	0.13"	0.055"	3"	—
	UVB	45-312UVB	8/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	UVB	46-210UVB	100/bag	DLOCK	45 lb	11.00"	0.13"	0.055"	3"	—
	UVB	46-310UVB	100/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
	UVB	46-310UVBM	1,000/bag	DLOCK	75 lb	10.90"	0.17"	0.055"	3"	UR
14"	Natural	45-315	8/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR
	Natural	46-315	100/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR
	Natural	46-315M	1,000/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR
	UVB	45-315UVB	8/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR
	UVB	46-315UVB	100/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR
	UVB	46-315UVBM	1,000/bag	DLOCK	75 lb	13.95"	0.17"	0.055"	4"	UR

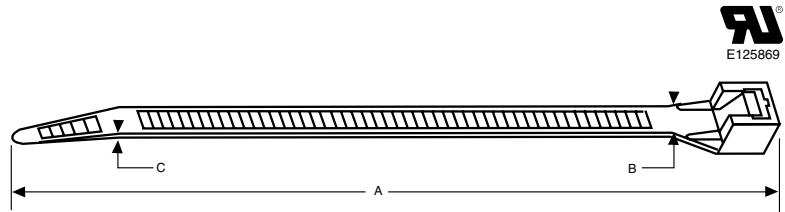
**Cable Ties**



## Heavy-Duty Cable Ties

Heavy-duty design offers 120 and 175 lbs of tensile strength.

- Patented DoubleLock® design (on 120 lb) ensures 50% greater tensile strength.
- Ultraviolet black (UVB) ties resist harmful light rays – primarily for outdoor use.



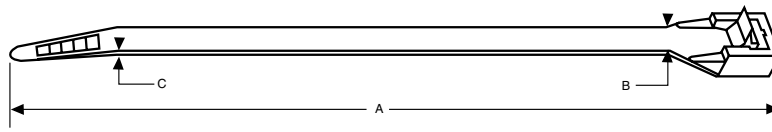
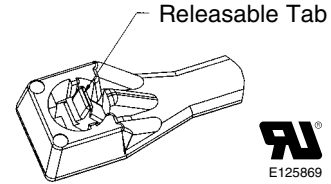
Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
8"	Natural	46-408	100/bag	DLOCK	120 lb	8.00"	0.25"	.072"	2"	UR
	UVB	46-408UVB	100/bag	DLOCK	120 lb	8.00"	0.25"	.072"	2"	UR
12"	Natural	46-412	100/bag	DLOCK	120 lb	12.00"	0.25"	.072"	3"	UR
	UVB	46-412UVB	100/bag	DLOCK	120 lb	12.00"	0.25"	.072"	3"	UR
15"	Natural	45-515	10/bag	DLOCK	120 lb	15.00"	0.25"	.072"	4"	UR
	Natural	46-415	50/bag	DLOCK	120 lb	15.00"	0.25"	.072"	4"	UR
	UVB	45-515UVB	10/bag	DLOCK	120 lb	15.00"	0.25"	.072"	4"	UR
	UVB	46-415UVB	50/bag	DLOCK	120 lb	15.00"	0.25"	.072"	4"	UR
17"	Natural	45-518	10/bag	—	175 lb	17.00"	0.35"	.07"	4.90"	UR
	Natural	46-418	50/bag	—	175 lb	16.93"	0.35"	.07"	4.90"	UR
	UVB	46-418UVB	50/bag	—	175 lb	16.93"	0.35"	.07"	4.90"	UR
	UVB	45-518UVB	10/bag	—	175 lb	17.00"	0.35"	.07"	4.90"	UR
21"	Natural	45-521	10/bag	—	175 lb	20.70"	0.35"	.07"	5.5"	UR
	Natural	46-421	50/bag	—	175 lb	20.78"	0.35"	.07"	5.51"	UR
	UVB	46-421UVB	50/bag	—	175 lb	20.78"	0.35"	.07"	5.51"	UR
	UVB	45-521UVB	10/bag	—	175 lb	20.70"	0.35"	.07"	5.5"	UR
24"	Natural	45-524	10/bag	—	175 lb	23.97"	0.35"	.07"	7"	UR
	Natural	46-424	50/bag	—	175 lb	23.97"	0.35"	.07"	7"	UR
	UVB	46-424UVB	50/bag	—	175 lb	23.97"	0.35"	.07"	7"	UR
	UVB	45-524UVB	10/bag	—	175 lb	23.97"	0.35"	.07"	7"	UR
30"	Natural	46-330	25/bag	—	175 lb	30.50"	0.35"	.07"	9"	UR
	UVB	46-330UVB	25/bag	—	175 lb	30.50"	0.35"	.07"	9"	UR
36"	Natural	45-536	10/bag	—	175 lb	35.91"	0.35"	.07"	10.30"	UR
	Natural	46-436	50/bag	—	175 lb	35.91"	0.35"	.07"	10.30"	UR
	UVB	45-536UVB	10/bag	—	175 lb	35.91"	0.35"	.07"	10.30"	UR
	UVB	46-436UVB	50/bag	—	175 lb	35.91"	0.35"	.07"	10.30"	UR
48"	Natural	45-548	10/bag	—	175 lb	48.00"	0.35"	.07"	14.30"	UR
	Natural	46-448	50/bag	—	175 lb	48.00"	0.35"	.07"	14.30"	UR
	UVB	45-548UVB	10/bag	—	175 lb	48.00"	0.35"	.07"	14.30"	UR
	UVB	46-448UVB	50/bag	—	175 lb	48.00"	0.35"	.07"	14.30"	UR



### Releasable Cable Ties

Temporarily fastens wires, cables and hoses.

- Extended releasable tab in the head makes for easy release and reusability.
- Great for temporary work or where frequent servicing is required.
- Ultraviolet black (UVB) ties resist harmful light rays – primarily for outdoor use.



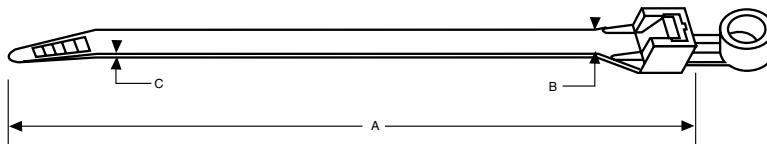
Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
8"	Natural	47-108	25/bag	—	50 lb	8.00"	0.17"	0.05"	1.75"	UR
	UVB	47-108UVB	25/bag	—	50 lb	8.00"	0.17"	0.05"	1.75"	UR
16"	UVB	47-115UVB	4/bag	—	175 lb	15.25"	0.52"	0.09"	4"	UR
22"	UVB	47-121UVB	3/bag	—	175 lb	21.50"	0.52"	0.09"	6"	UR
28"	UVB	47-127UVB	3/bag	—	175 lb	27.75"	0.52"	0.09"	8"	UR



### Mounting Cable Ties

Secures bundles to walls, studs or other surfaces easily.

- Accepts #10 screws.
- Ultraviolet black (UVB) ties resist harmful light rays – primarily for outdoor use.

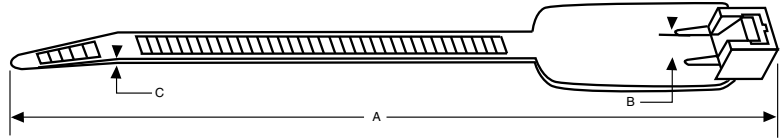


Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
8"	Natural	45-308MT	20/bag	—	50 lb	8.63"	0.17"	0.055"	2"	UR
	Natural	48-308	100/bag	—	50 lb	8.63"	0.17"	0.050"	1¾"	UR
	UVB	45-308MTUVB	15/bag	—	50 lb	8.63"	0.17"	0.055"	2"	UR
	UVB	48-308UVB	100/bag	—	50 lb	8.63"	0.17"	0.055"	1¾"	UR
14"	Natural	48-315	100/bag	—	50 lb	14.63"	0.17"	0.055"	4"	UR



### NEW ID Cable Ties

- ID tab allows for easy identification.
- For indoor use.



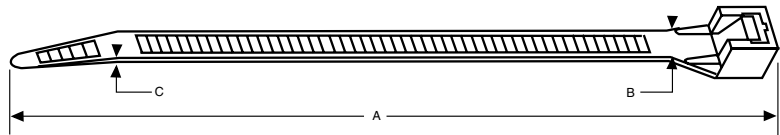
Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
8"	Natural	45-308ID	25/bag	—	50 lb	8"	0.17"	0.05"	2"	—



### Colored Cable Ties

Colored cable ties fasten wire for easy bundle identification.

- Patented DoubleLock® design ensures 50% more tensile strength than industry standards.
- Flexible nylon material allows cable ties to remain serviceable through temperature ranges of -40 to 185 °F (-40 to 85 °C).
- Recognized under component program of UL, E125869.
- Meets flammability classification UL 94 V-2.



Length	Color	Part #	Pkg Qty	DoubleLock®	Tensile Strength	Length A	Width B	Thickness C	Bundle Dia. Max.	UL
8"	Flr Blue	45-308FB	20/bag	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR
	Flr Green	45-308FG	20/bag	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR
	Flr Yellow	45-308FY	20/bag	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR
	Green	45-308G	20/bag	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR
	Green	46-308G	100/bag	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR



### NEW Stainless Steel Cable Ties

- 304 Stainless Steel design for harsh, corrosive, and salt-water environments.
- Resists chemicals and radiation exposure as well as enduring extreme temperatures.
- Stainless steel is great for clean environments such as food processing areas.
- Self-locking ball mechanism meets low insertion force requirements while maintaining high tensile strength.

Length	Part #	Pkg Qty	Tensile Strength	Bundle Dia. Max
6"	45-306SS	10/bag	100 lb	1.5"
11"	45-312SS	10/bag	100 lb	3.75"



## Mounting Bases

- Adhesive-backed mounting bases for securing wire and cable bundles.
- Center screw hole for extra holding power.
- Molded with durable nylon 6/6 material.
- Four-sided insertion design for mounting flexibility.

Part #	Pkg Qty	Size	Fits Widths	UR	Recommended Cable Ties	Color
45-MB	5/bag	1" x 1"	.10" - .17"	UL	18 lbs to 75 lbs	Natural
45-MBUVB	5/bag	1" x 1"	.10" - .17"	UL	18 lbs to 75 lbs	Black
MB-20	100/bag	1" x 1"	.10" - .17"	UL	18 lbs to 75 lbs	Natural



## Economy Cable Tie Tensioning Tool

Tightens and cuts off cable ties.

- Quick twist snaps off excess length.
- Use for all cable ties up to 75 lbs tensile strength.
- Lightweight, economical.

Part #	Description
CTT-45	Economy Cable Tie Tensioning Tool



## Grip-Strip™ Hook-and-Loop Fasteners

Reusable strip fastens wires and cables.

- Wrap excess around bundle – no waste.
- Great for home/office, tools and electronics.
- Cinch tab allows attachment to cable or cord.

Length	Part #	Pkg Qty	Color
8"	45-V8BK	5/bag	Black
15"	45-V15BK	3/bag	Black

## NOTES





# Staples

Gardner Bender™ provides a complete line of staple and fastening solutions for all industries, including industrial, residential, construction, or manufacturing. From low voltage wire to service entrance cables, professionals rely on Gardner Bender™ for quality fastening products.



page 158

page 156



page 157



page 158

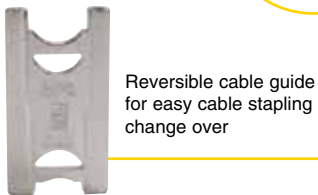
Category 3 & 5 Data Staples.....	159
Coaxial Cable Staples.....	159
Conduit Straps.....	158
Fiber-Insulated Staples.....	160
Insulated Metal Staples.....	156
Low Voltage Wire Staples.....	158, 160
Masonry Staples.....	159, 160
Metal Staples.....	156
MultiCable Staples.....	157
Plastic Staples.....	157
Roofing Staples.....	160
Service Entrance Staples.....	157
Service Entrance Straps.....	158
Staple Gun.....	155



**NEW Cable Boss® Staple Gun**

- Secures 120V & low-volt cable: Romex®, Coaxial & CAT 5 from the same tool.
- Comfort grip areas for 2-handed operation.
- Easy trigger force.
- Ergonomic handle.
- Secures round and flat cable.
- 3 sizes covering: NM, Coax, Voice/Data, Low Volt.

Patented



Part #	Pkg Qty
MSG-501	1/clam



Size	Part #	Pkg Qty	Color	Application
5/16"	MPS-2080	250/box	Blue	Voice/Data: CAT 5e Speaker Wire: 16/2, 16/4, 12/2 (standard and in-wall styles) Security Wire: 18/4
3/8"	MPS-2100	200/box	White	Coax: RG-6 Voice/Data: CAT 6 NM Cable: 14/2, 14/3, 12/2
1/2"	MPS-2125	200/box	Black	Coax: RG-6 Quad Shield NM Cable: 10/2, 12/3 Structured Cabling: Siamese CAT 5e, Siamese CAT 5e and 16/4 Speaker wire

## Low-Volt Staple Gun

- Heavy-duty stainless steel design.
- Safety handle for compact storage.
- Staples cover wide range of wire applications.
- Easy loading.



Part #	Pkg Qty
MSG-301	1/clam



Size	Part #	Pkg Qty	Application
5/32"	MMS-3101	625/box	Use with alarm, bell, intercom, security, speaker, and thermostat wires
1/4"	MMS-3102	625/box	Use with television, CAT 5e, CAT 6, RG-59, and computer wires

## IMPROVED Metal Staples

Secures Romex® wire and other types of non-metallic (NM) cable.

- Recessed head drives faster and protects cable insulation.
- Pointed legs drive in straight; will not split wood.
- Preferred length.
- Virtually "Oil-Free" for cleaner handling.
- Sharper tips for easy starting.



Dims W x L	Part #	Pkg Qty	Application
1/2"	MS-1550	24/card	14/2, 12/2, 10/2
	MS-1555	50/card	
	MS-150	100/box	
	MS-500J	500/jar	
	MS-550	500/box	
	MS-950B	5,000/bucket	
	MS-950BU	10,000/bucket	

Dims W x L	Part #	Pkg Qty	Conductor
9/16"	MS-1575	18/card	14/3, 12/3, 10/3
	MS-1577	50/card	
	MS-175	100/box	
	MS-450J	450/jar	
	MS-575	500/box	
	MS-975B	4,000/bucket	

## Insulated Metal Staples

Secures and protects non-metallic (NM), BX, MC, AC and UF cable.

- Insulator made from durable polyethylene.
- Plastic insulator protects cables and helps prevent arc faults.



Dims W x L	Part #	Pkg Qty	Application
1/2"	MSI-1525	15/card	14/2 & 12/2 cable
	MSI-50B	50/bag	
	MSI-150	100/box	
	MSI-200J	200/jar	
	MSI-550	500/box	
	MSI-950B	4,000/bucket	

## Service Entrance Staples

Secures service entrance cables.

- Pointed offset legs drive in straight.
- Will not split wood.



Dims W x L	Part #	Pkg Qty	Application
1 <sup>3</sup> / <sub>16</sub> " x 1 <sup>3</sup> / <sub>8</sub> "	GSE-15310	10/card	SEU #6/3 with ground
	GSE-310	100/box	
1 <sup>1</sup> / <sub>8</sub> " x 1 <sup>1</sup> / <sub>2</sub> "	GSE-15410	10/card	4/3 and 2/3 SE cable
	GSE-410	100/box	
1 <sup>5</sup> / <sub>8</sub> " x 2 <sup>1</sup> / <sub>8</sub> "	GSE-710	100/box	4/0 SE, Large BX, Romex®, Greenfield

## Plastic Staples

Secures Romex®, UF and other types of non-metallic (NM) cable.

- Fast and easy to install – both zinc-plated nails drive together without splitting wood.
- Nail heads are recessed for minimum exposure.
- Smooth saddles prevent damage to insulation.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.



14 Gauge

Size	Part #	Pkg Qty	Color	Application
1/2"	PS-1550	15/card	White	14/2, 12/2, 10/2
	PS-50	50/bag	White	
	PS-150	100/box	White	
	PS-150Z	100/bag	White	
	PS-150ZJ	100/jar	White	
	PS-225J	225/jar	White	
	PS-250	250/bag	White	
	PS-550	500/box	White	
PS-750B	2,000/bucket	White		

Size	Part #	Pkg Qty	Color	Application
3/4"	PS-1575	15/card	White	14/3, 12/3, 10/3
	PS-75	50/bag	White	
	PS-175	100/box	White	
	PS-175Z	100/bag	White	
	PS-175ZJ	175/jar	White	
	PS-275	250/bag	White	
	PS-575	500/box	White	



**INNOVATION**

## NEW MultiCable Staples

Organizes and secures multiple cable runs on a stud.

- Secures NM/Romex®, coaxial and CAT 5 all on the same st
- Snap lock gate quickly and easily secures all cables.
- Self-centering tab guides perfect placement on the stud.
- Secures with a nail or staple for wood studs, a screw for metal studs.



Part #	Pkg Qty	Stud Type	Cable Combinations
MCS-20W	20/box	Wood/Metal	(8) NM-B Flat 14-2
MCS-100W	100/box	Wood/Metal	(8) NM-B Flat 12-2
			(4) NM-B Flat 10-2
			(2) NM-B Round 14-3
			(2) NM-B Round 12-3
			(10) RG-59
			(8) RG-6
			(10) CAT-5



## Clip-on Plastic Staples

Secures Romex®, UF and other type-NM cable.

- Fast and easy to install – both zinc-plated nails drive together.
- Hardened nails can penetrate cement block, mortar or plaster surfaces.
- Nail heads are recessed for minimum exposure.
- Smooth saddles prevent damage to cable insulation.
- UV-protected polyethylene saddle resists rot, rust and deterioration.



Size	Part #	Pkg Qty	Type	Application
1/2"	PSM-1550	25/clam	Masonry	14/2, 12/2, 10/2

## Service Entrance Cable Straps

Plastic insulated straps quickly and easily secure service entrance cable.

- Electro-zinc plated nails provide strength and durability.
- Polyethylene straps stabilized against UV rays and extreme cold; withstand deterioration and breakage.



Part #	Pkg Qty	Application	Part #	Pkg Qty	Application
GSE-105	5/card	#6 SEU	GSE-304	4/card	#2 SER
GSE-170	70/box	#6 SEU	GSE-330	30/box	#2 SER
GSE-205	5/card	#2 SEU	GSE-402	2/card	#4/0 SEU
GSE-250	50/box	#2 SEU	GSE-505	5/card	#6 SER



## Conduit Plastic Straps

Enables secure fastening of plastic electrical conduit, schedule 40 PVC, copper tubing, etc.

- Heavy-duty polyethylene resists deterioration from UV rays and breakage from extreme cold.



Size Dia.	Part #	Pkg Qty	Application	Size Dia.	Part #	Pkg Qty	Application
.840"	GCC-120	6/card	1/2" conduit	1.66"	GCC-410	10/bag	1 1/4" conduit
1.05"	GCC-220	20/bag	3/4" conduit	1.9"	GCC-510	10/bag	1 1/2" conduit
1.315"	GCC-310	10/bag	1" conduit	2.375"	GCC-610	10/bag	2" conduit

## Coaxial Cable Staples

Secures RG-59 and RG-6 coaxial cables.

- UV-resistant polyethylene saddle.
- For indoor and outdoor applications.
- Zinc-plated nails resist rust and corrosion.



Size	Part #	Pkg Qty	Color
1/4"	PSB-1650	25/card	Black
	PSW-1650	25/card	White
	PSB-165	50/card	Black
	PSW-165	50/card	White
	PSB-100	100/box	Black
	PSW-100	100/card	White
	PSW-200J	200/jar	White

Size	Part #	Pkg Qty	Color
1/4"	PCC-1525	25/clam	Black
	PCC-300	300/jar	Black
7/16"*	PSG-15	15/card	Gray
	PSG-100	100/box	Gray

\*For RG-8, triaxial and up to 25 pairs UTP cable

## Low Voltage Plastic Staples

Secures bell, speaker, thermostat and telephone wire.

- For inside and outside applications.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Size	Part #	Pkg Qty	Color
3/16"	PLT-1525	25/clam	Tan
	PLW-1525	25/clam	White
3/16"	PMB-1525	25/card	Black
	PMW-100	100/box	White
	PSB-1600	25/card	Black
	PSW-1600	25/card	White
	PSB-160	100/card	Black
	PSW-160	100/card	White

## Masonry Low Voltage Staples

Secures bell, speaker, thermostat and telephone wire.

- Hardened nails can penetrate cement block, mortar or plaster surfaces.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Size	Part #	Pkg Qty	Color
3/16"	PMC-1525W	25/clam	White

## Category 3 & 5 Data Staples

Secures RJ-11, RJ-12, RJ-45, Category 3 and Category 5 wire.

- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Part #	Pkg Qty	Color
PTP-25	25/clam	Blue
PTP-250J	300/jar	Blue



## Masonry Category 3 & 5 Data Staples

Secures and protects RJ-11, RJ-12, RJ-45, Category 3 and Category 5 wire.

- Hardened nails can penetrate cement block, mortar or plaster surfaces.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Part #	Pkg Qty	Color
PTM-25	25/clam	Blue



## Coaxial Masonry Staples

Secures RG-59 and RG-6 coaxial cables.

- Hardened nails can penetrate cement block, mortar or plaster surfaces.
- UV-Protected.



Size	Part #	Pkg Qty	Color
1/4"	PCS-1525	25/card	Black
	PCS-100	100/box	Black
	PCS-1600	25/clam	Black
	PCS-300B	300/jar	Black

## Coaxial Roofing Staples

Secures RG-59 and RG-6 coaxial cables.

- Extra-long nail accommodates roofing applications.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Size	Part #	Pkg Qty	Color
1/4"	PSR-25	25/card	Black

## Double Coaxial Staples

Secures multiple RG-59, RG-59 quad shield, RG-6 and RG-6 quad shield wire.

- UV-resistant polyethylene saddles will not rust, rot or deteriorate.
- Zinc-plated nails resist rust and corrosion.



Size	Part #	Pkg Qty	Color
1/4"	PDS-1525B	25/clam	Black

## Double Coaxial Masonry Staples

Secures multiple RG-59, RG-59 quad shield, RG-6 and RG-6 quad shield wire.

- Hardened nails can penetrate cement block, mortar and plaster surfaces.
- UV-resistant polyethylene saddles will not rust, rot or deteriorate.



Size	Part #	Pkg Qty	Color
1/4"	PDC-1525B	25/clam	Black

## Low Voltage Fiber Insulated Staples

Secures bell, speaker, telephone and thermostat wire.

- Insulates and protects cable.



Size	Part #	Pkg Qty	Color
1/8"	MSB-1540	40/card	Brown
	MSW-1540	40/card	White

## Kwik Mount Staples

Fastens and guides wires.

- Wires easily snap in or out of two usable sides.
- Accommodates Category 5 wire.
- Use to secure holiday light sets, sound system wires, etc.



Size	Part #	Pkg Qty
7/8" X 3/16" X 1/4"	PWS-1525	25/card





# *Wire Management*

When wires become entangled they are safety hazards, for both the equipment and the owner. Gardner Bender™ offers a variety of products for protection and neatness. As the needs of professional electricians change in managing wire and cable, Gardner Bender™ continues to deliver innovative solutions.

page 163



page 167



page 165



page 168



Anchor Kit - Plastic Conical .....	171
Box Supports/Spacers .....	170, 172
Cable Clamps - Plastic .....	167
Cable Clamps - Rubber Insulated .....	167
Cable Wraptor™ .....	163
Duct Seal Compound .....	169
Grommets .....	168
Hanger Strap .....	169
Heat-Shrink Gun .....	164
Heat-Shrink Tubing	
Thin Wall Polyolefin .....	165
Colored PVC .....	165
Heavy-Wall .....	166
Knockout Seals .....	168
Reference Book - "Wiring Simplified" .....	172
Reference Book - "Ugly's Electrical References" ...	172
Screw Kits .....	171
Seals .....	169
Spiral Wrap .....	166
Split Flex Tubing .....	166
Stud Insulators .....	168
Tape	
Electrical .....	163
Friction .....	164
Silicone Self-Sealing .....	164
Liquid Electrical .....	164
Wire Markers - Pocket Pack .....	170

**NEW Cable Wraptor™**

Simple design, endless solutions.

- "T" handle feature allows for easy carrying from one job to the next.
- Large hang hole is perfect to store and hang.
- Stainless steel hinge and spring to prevent rusting.
- Large teeth design for secure locking system.
- Easy release trigger.
- Cable tie looping hole for permanent attachment.
- Spring-loaded hinge helps close tail.

Part #	Pkg Qty	Bundle Dia. Max.	Size
CW-T1RR50	50/box	1 1/8"	small
CW-T2RR25	25/box	2"	medium
CW-T3RR25	25/box	3"	large
CW-T4RR20	20/box	4"	x-large



Patented



**Electrical Tape**

Quality electrical tape designed for general purpose electrical applications.

- Made from low-lead PVC material.
- For applications up to 600 V.
- Temp rating up to 80 °C (176 °F).

Part #	Pkg Qty	Sleeve Qty	Width	Length	Color
GTP-307	1/roll	10/sleeve	3/4"	30'	Black
GTP-307D	1/card	—	3/4"	30'	Black (w/Dispenser)
GTP-307WD	1/card	—	3/4"	30'	Black - Weather Resistant (w/Dispenser)
GTP-607	1/roll	10/sleeve	3/4"	60'	Black
GTP-607P	1/puck	—	3/4"	60'	Black
GTB-667P	1/puck	—	3/4"	60'	Blue
GTN-667P	1/puck	—	3/4"	66'	Brown
GTO-667P	1/puck	—	3/4"	66'	Orange
GTG-667P	1/puck	—	3/4"	66'	Green
GTR-667P	1/puck	—	3/4"	66'	Red
GTW-667P	1/puck	—	3/4"	66'	White
GTY-667P	1/puck	—	3/4"	66'	Yellow
GTPC-512	5/card	—	3/4"	12'	Assorted (Red, White, Blue, Green, Yellow)
GTPC-550	5/clam	—	1/2"	20'	Assorted (Red, White, Blue, Green, Yellow)



## Friction Tape

Black friction tape with matted finish, available in two lengths.

- Matted finish provides the best gripping surface available.
- Use over electrical splices, wrapping grips or sporting goods.
- Available in two lengths: 30' or 60'.

Part #	Pkg Qty	Description
GTF-300	1/roll	¾" wide, 30' long
GTF-600	1/roll	¾" wide, 60' long



## Silicone Self-Sealing Tape

High quality tape that insulates all shapes of conductors to 400 V.

- Insulates and seals surfaces from -65 °C to 260 °C (-85 °F to 500 °F).
- Fuses to itself in seconds to stay watertight.
- Permanent mold in 24 hours or in minutes with heat application.

Part #	Pkg Qty	Description
HTP-1010	1/roll	1" wide, 10' long



## **NEW** Liquid Electrical Tape

A liquid coating used to insulate and protect electrical splices and connections.

- Waterproof, will not unravel or deteriorate like traditional tape.
- Great for home, auto/marine and electrical applications.
- Indoor/outdoor.
- Brush-on applicator included.

Part #	Pkg Qty	Color
LTB-400	4 oz/bottle	Black
LTR-400	4 oz/bottle	Red
LTG-400	4 oz/bottle	Green
LTW-400	4 oz/bottle	White
LTS-600	6 oz/spray	Black



## **NEW** Heat Shrink Gun

- Use with heat shrink tubing or terminals.
- Refillable butane can included.

Part #	Pkg Qty
MSTR-TORCH	1/clam





## Heavy-Wall Heat-Shrink Tubing

Provides maximum reliability for insulating and protecting wire, cables and terminations.

- High impact, abrasion and corrosion resistance.
- Submersible and great for direct burial installations.
- Inner adhesive bonds to plastics, rubber, neoprene, steel, polyethylene.
- Continuous operating temperature: -55 °C (-67 °F) - 125 °C (257 °F).
- Shrink temperature: 120 °C (250 °F).



Part #	Pkg Qty	Inside Diameter		Length
		Before	Finished	
HWT-0722	1/bag	3/4"	7/32"	6"
HWT-1138	1/bag	1 3/32"	3/8"	6"
HWT-1550	1/bag	1 1/2"	1/2"	6"



## Split Flex Tubing

Protects hoses, wire and cables from cuts, abrasions and UV wear.

- Excellent for managing cords for electronics, under hood or trailer wiring.
- Corrugated for added flexibility.
- Split down the center for wire breakout where needed.



Part #	Inside Dia.	Length	Color	Pkg Qty
FLX-3810	3/8"	10'	Black	1/bag
FLX-5007	1/2"	7'	Black	1/bag
FLX-757GR	3/4"	5'	Gray	1/bag
FLX-1007	1"	5'	Gray	1/bag

## Spiral Wrap

Manages wire and cable neatly and allows for cable to break out at desired locations.

- Made from flexible polyethylene.
- Protects cables from cuts, abrasions and UV wear.



Part #	Description	Color	Includes:		
			Qty	Description	Inside Dia.
FSP-AST	Assorted	Clear	1	4' length	3/8"
			1	4' length	1/8"

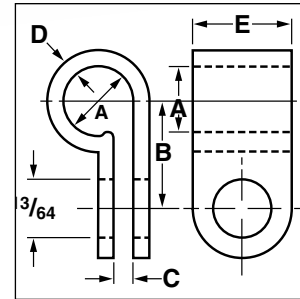
## Plastic Cable Clamps

Polypropylene clamps hold harnesses, cables and tubing.

- Used for construction, maintenance and assembly-line operations.
- Use in control cabinets, panels and general applications.
- Tough, durable, yet extremely lightweight.
- Working temperature range: -54 °C (-66 °F) to 170 °C (340 °F).
- Clean, smooth edges for easy handling.
- Fast installation.



Part #	Pkg Qty	Dimensions					Color
		A dia.	B	C	D	E width	
PPC-1525	18/card	1/4"	29/64"	1/32"	3/64"	3/8"	Natural
PPC-1525UVB	18/card	1/4"	29/64"	1/32"	3/64"	3/8"	Black
PPC-1538	15/card	3/8"	31/64"	1/32"	3/64"	3/8"	Natural
PPC-1538UVB	15/card	3/8"	31/64"	1/32"	3/64"	3/8"	Black
PPC-1550	12/card	1/2"	35/64"	3/64"	3/64"	3/8"	Natural
PPC-1550UVB	12/card	1/2"	35/64"	3/64"	3/64"	3/8"	Black
PPC-1575	6/card	3/4"	3/64"	3/32"	3/64"	1/2"	Natural
PPC-1575UVB	6/card	3/4"	3/64"	3/32"	3/64"	1/2"	Black
PPC-1600	4/card	1"	51/64"	3/32"	3/64"	1/2"	Natural



## Rubber Insulated Clamps

Secures wire and cable in industrial, auto/marine and where vibrations may occur.

- Corrosive-resistant plated steel clamp.
- Flexible 1/2" wide body.
- Secure with 1/4" screw.

Part #	Size	Pkg Qty
PPR-1550	1/2"	2 pcs
PPR-1575	3/4"	2 pcs
PPR-1600	1"	1 pc



## Plastic Kwik Clips

Mount bundles, cables, cords, tools etc. to drywall, wood and painted surfaces.

- Ratcheting/releasable feature allows adjustment to a range of bundle diameters.
- Adhesive backed.

Part #	Pkg Qty	Description	Color
GKK-1538	6/card	Holds 3/8" Cable	Natural
GKK-1538UVB	6/card	Holds 3/8" Cable	Black
GKK-1550	4/card	Holds 1/2" Cable	Natural
GKK-1575	2/card	Holds 3/4" Cable	Natural

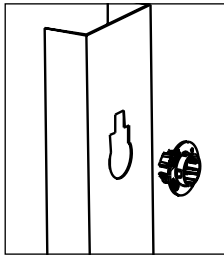


## Stud Insulators

One piece design insulating 360° protection for cable runs through metal studs.

- Fits all pre-punched and field punched hole sizes and configurations.
- Unique folding tabs for fast, one-handed installations.
- Meets NEC article 300-4(b) and CEC rule 12-516.

Part #	Pkg Qty	Description
SI-25	25/bag	Metal Stud Insulators



Patented

SEE PG  
**113**



FOR MORE INFO ON  
**Stud Punch**

## Grommets

Protect wires from chafing against drilled holes.

Part #	Pkg Qty	Inside Dimensions
GHG-1525	6/card	1/4"
GHG-1538	5/card	3/8"
GHG-1550	4/card	1/2"
GHG-1575	3/card	3/4"
GHG-AST	8/clam	1/4", 3/8", 1/2", 3/4"



## Knockout Seals (1/2" to 4")

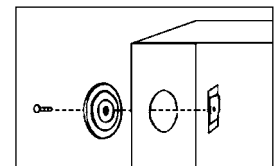
Easy-to-use metal knockout seal.

- Fast and easy to install from inside or outside of box.
- Embossed for quick self-centering in unused knockouts. One screw holds seal in place.
- Made of rust-proofed, cold-rolled galvanized steel. Screw and bar are zinc-plated.
- Marked for size and catalog number for easy identification.
- 16-gauge steel; 3/8" thread.



Part #	Pkg Qty	For Knockout Dia
KO701	100/box	1/2"
KO701C	5/clam	1/2"
KO702	50/box	3/4"
KO702C	3/clam	3/4"
KO703	25/box	1"
KO704	25/box	1 1/4"

Part #	Pkg Qty	For Knockout Dia
KO705	10/box	1 1/2"
KO706	10/box	2"
KO707	10/box	2 1/2"
KO708	10/box	3"
KO709	10/box	3 1/2"
KO710	10/box	4"



SEE PG  
**104**



FOR MORE INFO ON  
**Hydraulic Drivers & Pull Studs**



## Snap-In Seals (1/2" to 2")

Convenient snap-in feature for quick installation.

- Zinc-plated to resist corrosion.

Part #	Pkg Qty	For Knockout Dia.
601	100/box	1/2"
602	100/box	3/4"
603	50/box	1"



## Galvanized Hanger Strap

For hanging or fastening conduit, pipe or cables.

- Flexible for easy use.

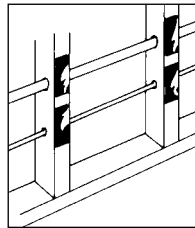


Part #	Pkg Qty	Description
GHS-1510	1/card	10' x 3/4" x 20 gauge

## Saf-Te-Plate™ Protectors

Protects cable and plastic pipe from nail punctures.

- Plate attaches to wood studs with a single hammer blow.
- Required for compliance with NEC 1990 Article 300-4A.



Part #	Pkg Qty	Description
FP159-3	100/box	1 1/2" x 3" x 16 gauge Metal Safety Plate
FP159-6	50/box	1 1/2" x 6" x 16 gauge Metal Safety Plate

## Duct Seal Compound

Seals conduit openings against drafts, dust, moisture and noise.

- Protects terminal boxes, pot heads and bushings from corrosive elements.
- Deadens switch gear panel noise.
- Dough-like compound is easily "thumbed" over holes and gaps.
- Will not harden or form a skin under normal conditions.
- Not for use outdoors.
- Specifications:
  - Viscosity: ASTM D-217 300-gram load - 7.0 -11.0; ASTM DS-S2 100-gram load - 9.0 -15.0
  - Temperature Range: Adheres at -20 °F (-29 °C). Will not slump after 1 hr. at 350 °F (175 °C).
  - Flash Point: Over 550 °F (285 °C).
  - Other Properties: Non-conducting, non-deteriorating, non-toxic, non-corrosive, non-staining, non-curable; 99% solid, coil-based.



Part #	Pkg Qty	Description
DS-130	30 pugs	1 lb Pugs
DS-530	6 pugs	5 lb Pugs

## Pocket Pack Wire Markers

Pocket-sized booklets of cloth wire markers and matching terminal markers.

- Saves time and money during all on-site and in-plant initial hookup, troubleshooting, maintenance and repair.
- Nylon-impregnated cloth resists moisture, dirt and oil.
- Non-smear legends assure high visibility for instant, positive identification.
- Matching terminal marker with every wire marker, plus an extra page of blank write-on wire and terminal markers for special legends.

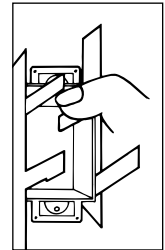


Part #	Marker Legends	Qty
42-027	0 - 9	45/ea
42-028	A - Z	10/ea
	0 - 15	10/ea
	Symbols: +, -, /	10/ea
42-029	1 - 45	10/ea
42-030	46 - 90	10/ea
42-035	1 - 15	6/ea
	16 - 90	4/ea
	A - Z	2/ea
	Symbols: +, -, /, 0	2/ea
42-ALPHA	Circuit Breaker Box Marker Book	

## Box Supports

Saves time for installing outlet or switch boxes.

- Screwless support for ease of use.
- Simple to use:
  1. Mark corners of box position and drill four 1/2" holes.
  2. Saw between holes to make box opening.
  3. Place box into opening.
  4. Slip box supports into openings alongside box; one with long end up, the other down.
  5. Bend fingers of box supports into box while firmly pressing box against wall.



Part #	Pkg Qty	Description
800	25 sets/box	Box Support Set (pair)



**NEW Electrician's Screw Kits**

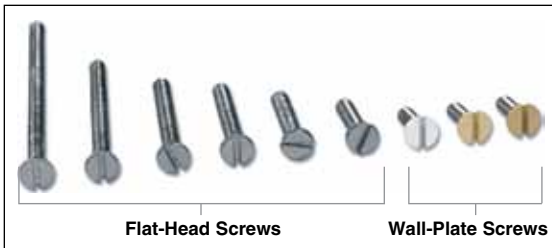
Assorted sizes & lengths of commonly used electrical machine screws.

- Slotted round-head screws for switches, receptacles and outlet applications.
- Slotted flat-head screws for all-purpose electrical fastening.

Part #	Pkg Qty	Type	Contents
SK-832	370 pcs	8-32 Round Head	1/2", 3/4", 1", 1 1/4", 1 1/2", 2"
SK-632	370 pcs	6-32 Flat Head	3/4", 1", 1 1/4", 1 1/2", 2", 3"
SK-832WP	135 pcs	8-32 Round Head	1/2", 3/4", 1", 1 1/4", 1 1/2", 2" wall plate screws (white, ivory & almond)
14-WPI	10/card	Wall Plate Screws	Ivory
14-WPW	10/card	Wall Plate Screws	White



SK-832WP



**Big Red™ Plastic Conical Anchor Kit**

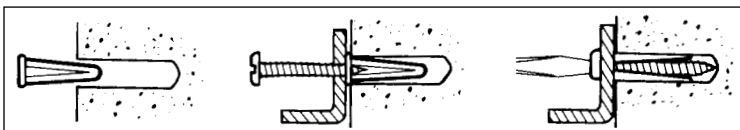
Perfect multi-purpose kit for professionals and end-users.

- Tapered end for easy installation.
- Flanged ribs prevent turning or twisting in hole.
- Carbide drill bit included with each kit.

Part #	Pkg Qty	Description
AP4-K100	1 kit	Plastic Anchor Kit

**Kit Contains:**

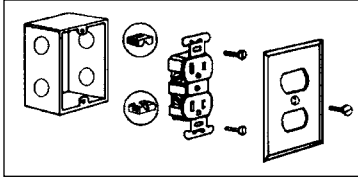
Qty	Description
100	1/4" x 1" Anchors
100	#10 x 1" Slot/Phillips Combo Head Sheet-Metal Screws
1	1/4" Carbide Drill Bit



## Quick Fix Spacers

Adjusts length of receptacle or switches for proper fit of face plates.

- Four-inch stack of spacers twists apart easily for desired thickness.

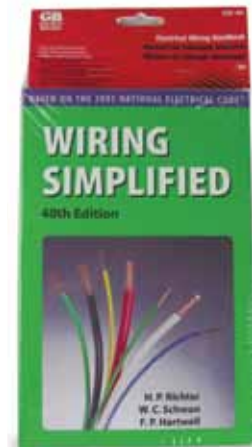
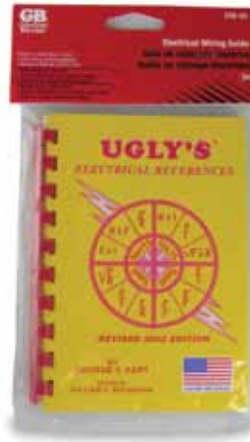


Part #	Pkg Qty	Description
GSP-04	4 strips	Spacers

## **NEW** Electrical Reference Books

Reference books that outline safe wiring recommendations based on the National Electric Code.

Part #	Pkg Qty	Description
ERB-UG	1	<i>Ugly's Electrical References - Revised 2002 Edition.</i> A quick, on-the-job reference guide for the most commonly required information in an easy-to-read format.
ERB-WS	1	<i>Wiring Simplified 40th Edition</i> A comprehensive book that translates the NEC rules into easy-to-understand explanations on how to complete safe wiring installs in homes.





## *Voice • Data • Video*

As home and work becomes more automated with technology there is a need in the market for innovations and better solutions for professionals and for homeowners installing home theaters, and networks.

The Gardner Bender™ Voice Data Video program includes tools, testers, connectors, and fasteners that will support both coax and data installations.



page 178



page 177



page 182



page 176

**Coax Cable Products**

Coax Cable Stripper/Cutter.....	177
Coaxial Cutter/Crimp RG-59 RG-6 .....	178
Coaxial Cutter & Stripper .....	178
Compression Crimp Tool .....	178
Compression F-Series Connector, RG-6 bulk .....	177
F-Series Coax Connector, Female Adapter .....	177
Splitter Satellite/Digital TV 5 MHz-2 GHz .....	177
Tool-Less F-Series Coax & UTP/STP Cable Tester ....	176
Wire Tracker™ Wire Tracer.....	176

**Twisted Pair Products**

Cable-Test™ Plus Coax & UTP/STP Cable Tester ..	176
Combo Blade 66/110 (Cut Style) .....	175
Non-Impact Punch-Down Tool .....	175
Premium Electrician Scissors/Cutters.....	180
Punch-Down Blade .....	175
Punch-down Tool.....	175
RJ-45 / RJ-11 Modular Plug Crimp Tool .....	179
TelCom RJ-45 Cat 5 Modular Plug .....	180
TelCom RJ-45 Cat 6 Modular Plug .....	180
UTP/STP Cable Stripper .....	179

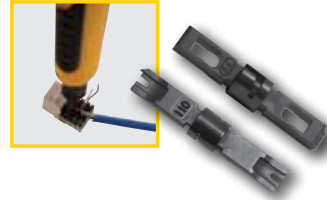
**Accessories**

Cable Boss® Staple Gun .....	181
Cable Boss™ Staples .....	181
Cable Snake™ Steel Fish Tape .....	181
Cable Ties .....	182
Cat 3 & 5 Data Staples.....	183
Coaxial Cable Clamp for RG-6 .....	183
Coax Staple.....	183
Fish Ease™ 12' Fish Sticks .....	182
Grip Strip™ Hook-and-Loop Fasteners .....	182
Split-Flex Tubing .....	183

## Punch-Down Tool

High-impact design assures good quality terminations.

- Inserts and cuts cable in termination blocks.
- Impact adjustment with high/low setting accommodates multiple applications.
- Extra blade can be stored in handle.
- Spring-loaded design quickly and easily inserts and trims terminations.
- Include hook and spudger to help installation.
- 110-style blade used in CAT 3 and CAT 5 terminations (cut and non-cut).
- 66-style blade used to terminate phone wiring (cut and non-cut).



Part #	Description	Length
PDT-3110	Type-110 Terminal Punch-Down Tool with Two Blades (Type 110 and Type 66)	5¾"

## Combo Blade 66/110 (Cut Style)

- 110-style blade used in CAT 3 and CAT 5 terminations (Cut).
- 66-style blade used to terminate phone wiring (Cut).

Part #	Description
PDB-66110	Combo Blade 66/110



## Punch-Down Blade

- 110-style blade used in CAT 3 and CAT 5 terminations.
- Cut and non-cut.

Part #	Description
PDB-3110	Type-110 Replacement Blade



## Non-Impact Punch-Down Tool

- Non-impact punch-down.
- Non-cut blade.
- 110-style blade used in CAT 3 and CAT 5 terminations.



Part #	Description	Network	Length
PDTL-3110	Non-Impact Punch Down Tool	Data	7½"

## Tool-Less F-Series Connector, RG-6

- Cable termination is easy with our ITC (Instant Tool-less Connectors) products.
- Strip your cable with our GB® SE-398, fold braid back.
- JUST PUSH into ITC Connector.

Part #	Description	Wire Gauge	Pkg Qty
ITC-RG-6	Tool-Less Connector	RG-6	2
ITC-RG-6C	Tool-Less Connector	RG-6	6



ITC-RG-6 / ITC-RG-6C

## Cable-Test™ Plus Coax & UTP/STP Cable Tester

- Tests all coax and Cat 3-6 patch cords and installed cables for proper wiring.
- Test for opens, shorts, miswires, reversals, and shield continuity.

Part #	Description	Pkg Qty
TT64202	Cable Tester	1/clam, 2/clams/mstr



## Wire Tracker™ Wire Tracer

A must-have tester for audio visual installers and data com technicians.

- Multi-purpose wire tracer for identifying wires such as coax, CAT 5, speaker, phone, or any non-energized (non-live) wires
- Adapter plugs include: RJ-45, RJ-11, Coax, Automotive fuse blade, and Insulated clamps
- Adjustable sensitivity positively identifies a single wire when multiple wires are routed in close proximity
- Audible and visual indication
- Operates from (2) AAA batteries (transmitter) and 4-LR44 batteries (receiver) (included).

Part #	Description	Pkg Qty
ET64220	Cable Tester	1/clam, 2/clams/mstr





## Coaxial Cutter & Stripper

- Cuts and strips coaxial cable (RG-58, RG-59, RG-6, and RG-6 quad).
- Easily adjusts to various cable thickness.

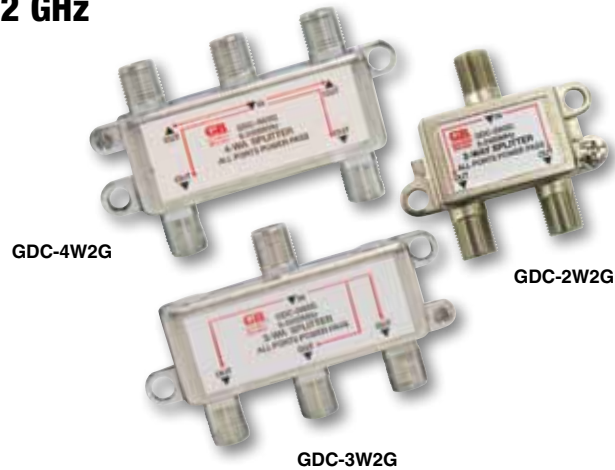
Part #	Description	Wire Gauge	Length
SE-398	Coaxial Cable Cutter & Stripper	RG-59 & RG-6	6 1/4"



## Splitter Satellite/Digital TV 5 MHz-2 GHz

- Bandwidth: 5 MHz - 1 GHz
- Impedance: 75 Ohm
- Over 120 dB of RFI Shielding
- Low insertion loss
- PCB Printed circuit board design
- Nickel plated housing
- Splits signals up to 2, 3, or 4 outlets

Part #	Description
GDC-2W2G	Splitter Satellite 2-Way
GDC-3W2G	Splitter Satellite 3-Way
GDC-4W2G	Splitter Satellite 4-Way



## Compression F-Series Connector, RG-6 bulk

F-Type Coaxial Connector

- For use with RG-6/Quad Coaxial Cable.
- Nickel plated to resist corrosion.

Part #	Description	Pkg Qty	Type
GDC-6C	Compression Connector	50/Bag	RG-6/Quad
GDC-6CM	Compression Connector	4/Bag	RG-6/Quad



GDC-6C / GDC-6CM

## F-Series Coax Connector, Female Adapter

- To combine two lengths of coaxial cable.
- To connect cables through wall.

Part #	Description	Wire Gauge	Pkg Qty
GDC-FAM	Coax Connector	RG-6	2



## Compression Crimp Tool (Universal)

- Permanent connection.
- Works with most brands.
- Compression connectors add a water tight seal.

Part #	Description	Range
COM-320	Crimp Tool	Universal



## Compression Crimp Tool

- Permanent connection.
- Works with most brands.
- Compression connectors add a water tight seal.
- Compact size.

Part #	Description	Range
COM-310	Crimp Tool	RG-6, RG-6 Quad, RG-59

Part #	BNC	F-Type	Mini Coax	RCA	RG11
COM-310		✓			
COM-320	✓	✓	✓	✓	✓



## Coaxial Cutter/Crimp RG-59 RG-6

- Crimps RG-59 and RG-6 "F" Connectors.
- Machined black blade cuts coaxial cable.
- Cushioned handles.

Part #	Description	Pkg Qty
GS-389	Coaxial Cutter/Crimp	1/Cd, 5 Cds/mstr



## Coax Cable Stripper/Cutter

- Cuts and strips RG-59 and RG-6 coaxial cable.
- Can be used with both standard and quad shield cable.
- Multiple size stripping stations strip both the outer jacket and inner conductor.
- Exclusive hex-shaped slot helps push "F" connectors onto cable.
- Curved cutting blade.

*Patented*

Part #	Description	Wire Gauge	Length
GS-359D	Coaxial Stripper	RG-59 & RG-6	6 1/4"



## RJ-45 / RJ-11 Modular Plug Crimp Tool

Used to produce patch cable and handset cables, cut, strip, and crimp.

- Heat-treated steel frame provides strength and durability.
- Comfort grip handles.
- RJ-11 and RJ-45 Plugs.

Part #	Description	Plugs	Pins
GMC-1145D	Telephone Crimp Tool, RJ-11 and RJ-45	RJ-11, RJ-12, RJ-45	2, 4, 8



## RJ-45 / RJ-11 Modular Plug Crimp Tool

Used to produce patch cable and handset cables, cut, strip, and crimp.

- RJ-11 and RJ-45m 8 Port.

Part #	Description	Plugs	Pins
GMC-2000D	Module Crimp Tool	RJ-11, RJ-45	2, 4, 8



## UTP/STP Cable Stripper

Strips UTP and STP cable up to 0.24" (6.2 mm) diameter.

- Tension release lever for easy positioning and release of cable.
- Compact design for easy handling.
- For use on CAT 3 and CAT 5 cable.

Part #	Description	Wire Gauge	Length
GTPS-3100	UTP/STP Round Cable Stripper	UTP-STP	3 1/4"



## UTP/STP Cable Stripper

Strips UTP and STP cable up to 0.24" (6.2 mm) diameter.

- Tension release lever for easy positioning and release of cable.
- Compact design for easy handling.
- For use on CAT 3 and CAT 5 cable.

Part #	Description	Wire Gauge	Pins
GTPS-3200	Premium Cable Stripper	UTP, STP, flat, round from 1/8" to 3/8" in diameter and silver satin and other flat cables	4 1/2"



## Premium Electrician Scissors/Cutters

Stainless steel with precision hollow-ground and hardened for long-lasting edge.

- One micro-serration blade reduces slippage.
- Extension tang to get extra tough.
- Right and Left handed users.
- Full Length: 5 1/2" (138 mm), Cutting Length: 1 5/8" (42 mm)
- For Shearing: Soft cable, up to 22 mm dia., Insulation materials, Electrical tape, many other materials, and stripping insulation.



Part #	Description	Length
ES-360	Scissors/Cutters	5 1/2"

## TelCom RJ-45 Cat 5 Modular Plug, 8-Position, 8-Contact, Rounded Cable, Solid Wire

- RJ45 Modular Connectors
- Use with network/twisted pair cable CAT-5E



Part #	Description	Pkg Qty	Type
GMC-88C5	Modular Plug	50/Bag	CAT-5e
GMC-88M5	Modular Plug	8/Bag	CAT-5e

## TelCom RJ-45 Cat 6 Modular Plug, 8-Position, 8-Contact, Rounded Cable, Solid Wire

- RJ45 Modular Connectors
- Use with network/twisted pair cable CAT-6



Part #	Description	Pkg Qty	Type
GMC-88M6	Modular Plug	50	CAT-6
GMC-88C6	Modular Plug	8	CAT-6

## Cable Boss® Staple Gun

- Secures 120 V & low-volt cable: Romex®, Coaxial & CAT 5 from the same tool.
- Comfort grip areas for 2-handed operation.
- Easy trigger force.
- Ergonomic handle.
- Secures round and flat cable.
- 3 sizes covering: NM, Coax, Voice/Data, Low Volt.

Part #	Description
MSG-501V	Cable Boss® Staple Gun



Patented

## Cable Boss™ 5/16" Blue Staples

- Insulated staple.
- Barbed leg design for superior holding power.
- Secures flat and round cable.

Part #	Size	Pkg Qty	Color	Application
MPS-2080V	5/16"	250/box	Blue	Voice/Data: CAT 5e Speaker wire: 16/2, 16/4, 12/2 (standard and in-wall styles) Security Wire: 18/4 Thermostat: 18/7 Telephone Wire: 24/8



## Cable Boss™ 1/2" Black Staples

- Insulated staple.
- Barbed leg design for superior holding power.
- Secures flat and round cables.

Part #	Size	Pkg Qty	Color	Application
MPS-2125V	1/2"	200/box	Black	Coax: RG-6 Quad Shield NM Cable: 10/2, 12/3 Structured Cabling: Siamese CAT 5e, Siamese CAT 5e and 16/4 Speaker Wire



## Cable Snake™ Steel Fish Tape

- Perfect for short runs installing electrical boxes, outlets, lighting fixtures, doorbells and security systems.
- Compact design houses 25' of tape and fits in tool box or on tool belt.
- Flat wire steel tape fishes down walls, under carpets and over ceilings.
- Wedge-shaped tip prevents hang-up.
- Low-memory tape does not curl during extension—perfect for non-conduit situations.
- Formed handle fits easily in hand.
- Compact tape rewind knob for quick wind-up.

Part #	Description	Weight
EFT-321P	25' Cable Snake™ Fish Tape	1.10 lbs.



Patented

## Fish Ease™ 12' Fish Sticks

- 3 durable interlocking fiberglass rods extend up to 12'. (4' sections).
- 1/4" diameter ensures rigidity when extended.
- 2 different threading tips provided for a variety of applications.

Part #	Description	Dimensions	Weight
FTX-312	Fish Ease™ 12' Fish Sticks	3-4' sections x 1/4"	1 lb.



## Assorted Cable Ties

- Colored cable ties fasten wire for easy bundle identification.
- Patented DoubleLock® design ensures 50% more tensile strength than industry standards.
- Flexible nylon material allows cable ties to remain serviceable through temperature ranges of -40 to 185 °F (-40 to 85 °C).
- Recognized under component program of UL, E125869.
- Meets flammability classification UL 94 V-2.



Part #	Color	Pkg Qty	Tensile Strength	Lengths
10095VDV	Assorted	200/Bag	75 lbs.	4" and 8"



## 8" Mounting Tie

- 8" Cable Ties
- Tensile Strength: 50 lb.
- Bundle Diameter: 2"

Part #	Color	Pkg Qty	Double Lock™	Tensile Strength	Length	Width	Thickness	Bundle Dia. Max.	UL
45-308MTG	Grey	15/pk	DLOCK	75 lb	8"	0.17"	0.055"	2"	UR



## Grip-Strip™ Hook-and-Loop Fasteners

Reusable strip fastens wires and cables.

- Wrap excess around bundle—no waste.
- Great for home/office, tools and electronics.
- Cinch tab allows attachment to cable or cord.

Part #	Description	Pkg Qty	Length
45-V8BK	Grip-Strip™	5/Bag	8"
45-V15BK	Grip-Strip™	50/Bag	8"



## Split Flex Tubing

Protects hoses, wire and cables from cuts, abrasions and UV wear.

- Excellent for managing cords for electronics, under hood or trailer wiring.
- Corrugated for added flexibility.
- Split down the center for wire breakout where needed.



Part #	Inside Diameter	Length	Color	Pkg Qty
FLX-757GRV	3/4"	5'	Gray	1/bag

## 1/4" Coaxial Cable Clamp for RG-6

- Secures RG-59, RG-6 coaxial and other.
- Combo screw for safer installs.
- Screw-in depth 1/2".



Part #	Description	Pkg Qty	Size
PEC-31525	Cable Clamp	20/Bag	1/4"

## Coax Staple 1/4"

- Black masonry staple.
- Secures RG-59, RG-6 and RG-6Q cables to cement, block, mortar or plaster.
- Hardened nail penetrates cement block, plaster and mortar.
- Zinc plated nails resist corrosion.
- UV protected.
- Clip-on strap permits hands free installation.



Part #	Description	Pkg Qty	Size	Color
PCS-3600	Coax Staple	50/Bag	1/4"	Black

## Coax Staple 1/4"

- Secure 1/4" coaxial cable including RG-59 and RG-6 types.
- Corrosion resistant zinc plated nail for indoor/outdoor use.
- UV resistant saddle.



Part #	Description	Pkg Qty	Size	Color
PSW-3650	Coax Staple	50/Bag	1/4"	White

## Cat 3 & 5 Data Staples (RJ-11; RJ-12; RJ-45; Cat 3 & 5)

- Secures CAT 3, CAT 5, and other datacom wires.
- Easy nailing.
- Protects wire insulation.
- Will not rust, crack or deteriorate.



Part #	Description	Pkg Qty	Size	Color
PTP-325	Data Staple	50/Bag	1/4"	Blue

## Terminating Coaxial Cable – Terminology

### Parts of the Cable



#### Jacket

Placed on the outside of the cable to protect all of the other internal components of the wire from the environment.

#### Foil

A thin foil shield is wrapped over the dielectric which helps to prevent high frequency noise from interfering with the data signal.

#### Dielectric

Usually constructed out of solid plastic or a foam plastic, this is used to separate the Center Conductor from the shielding.

#### Center Conductor

This is the part of the cable that the data travels on. RG-6 and RG-6 Quad have 18 AWG copper coated steel wire, while RG-59 has a smaller 22 AWG center conductor.

#### Braid

The second part of the shielding on coaxial cables, braiding is typically made from a number of copper or aluminum wires



woven together to form a conductor around the dielectric core. The braiding prevents lower frequency noise from interfering with the data signal.

### Cable Types

**RG-6** is the recommended standard cable for use in satellite and cable television networks. RG-6 loses only about 50% of the signal every 100 ft., due to its 18 AWG center conductor and combination aluminum foil/aluminum braid shield.

**RG-6 Quad** has the same center conductor and signal loss ratio as the RG-6, but features an extra layer of shielding. This cable is optimal for use where extra protection from outside interference is needed.

**RG-59** is no longer the recommended standard for cable or satellite television networks, due to its smaller center conductor and less shielding. This combination results in an 80-90% data loss over 100 ft. span.



### Connectors

The most common type of coaxial cable connector.

#### Compression (Professional)

The compression connector is approved by cable and satellite providers because of the permanent and water tight connection it makes with the cable. Although this connector creates a professional quality connection it is easy enough for anyone to install.

(Part #: GDC-6CM)



#### Push On (Best)

This connector provides the same permanent install as the compression connector, but does not need a compression tool to install. (Part #: ITC-6)



#### Crimp On (Better)

This connector works by pushing the connector over the stripped end of the RG-6 or RG-6 Quad coaxial cable and using a special crimping tool the connector is squeezed or crimped onto the cable.



#### Twist On (Good)

The twist on connector threads onto the stripped end of the coaxial connector until it is fully seated on the cable, this connector requires no other tools.





## Creating a Coax Cable

### Step 1 – Connector Selection

Select the type of connector that will be needed for your application from the connector selection guide.

1



### Step 2 – Cut Cable

Note: It is important that you use a round cutter to maintain the cable geometry. (Part #: GC-330)

2



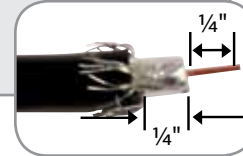
### Step 3 – Strip Cable

Note: F-Connectors require a two step 1/4" x 1/4" strip, make sure you are using an F-connector wire stripper. (Part #: SE-398)

To strip the cable place the cable in the blade end of the stripper, press down on the stripper handle, and while applying pressure rotate the stripper multiple times.

Before placing the connector over the stripped end of the wire the metal braiding needs to be pushed back over the jacket of the cable, then push on the connector until the white dielectric is even with the center hole of the connector.

3



### Step 4 – Terminate

#### Compression

Insert the cable, with the compression connector placed on the end, into the compression tool and squeeze the handle until the handle is flush with the tool. (Part #: COM-310 or COM-320 Pro)

#### Crimp

Strip cable, fold braid back. Insert the cable, push white dielectric until flush with center hole. Place connector in tool. Squeeze and crimp. (Part #: GS-389)

4



### Step 5 – Testing

Test the cable with a continuity tester to make sure cable is properly terminated with no opens or shorts. (Part #: TT64202)

5



## Terminating Twisted Pair Cables Terminology



### Twisted Pair Cable

is given this name because of how the pairs of conductors from a single circuit are twisted together for the purpose of cancelling out electromagnetic interference.

### Cable Types

**Category 3 Cable (Cat 3)** is the FCC recommended cable for phone use, but can also be used for data networks that are limited to 10 Mbs.

**Category 5e and 6 Cable (Cat 5e and Cat 6)** both of these cables are used for computer data networking. Both of these cables will support 10/100/1000 Mbs network speeds, the only difference being that Cat 6 cables will have lower transmission errors in a 1000 Mbs environment.

### Data Jack

is used when more than one connection is going to be used in a fixed location. Most commonly the cables will be run through the wall to a data jack in an office or at a work station.

### Connectors

**RJ-11 Modular Plug** is a 2 pair or 4 wire connector that is used when creating phone line patch cords. Each connector can support up to two phone lines.

**RJ-45 Modular Plug** is a 4 pair or 8 wire connector that is used when creating patch cables for computer data networks.

## Creating a Twisted Pair Patch Cable (RJ-45)

### Step 1

Strip back 2 inches of outer jacket.  
(Part #: GTPS-3200)



### Step 2

Separate pairs into proper sequence based on type of cable being made:

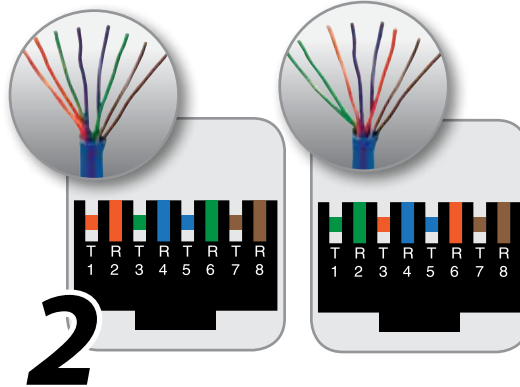
#### Straight Thru (most commonly used):

Wire both ends of the cable as noted in the diagram.  
(Dashed Orange, Orange, Dashed Green, Blue, Dashed Blue, Green, Dashed Brown, Brown)

#### Crossover Cable (used to connect like devices (ie. router to router):

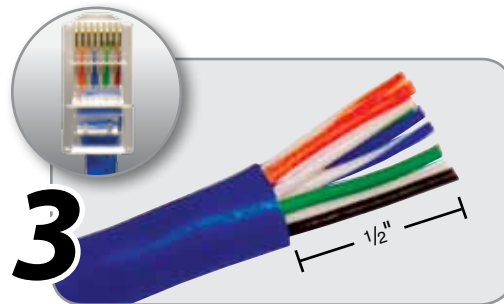
Wire one end as shown above and wire the other end as shown in below diagram.

(Dashed Green, Green, Dashed Orange, Blue, Dashed Blue, Orange, Dashed Brown, Brown)



### Step 3

Now group and flatten the wires so they are laying side by side and trim them to 1/2" from the outer jacket. Slide the RJ-45 Plug onto the trimmed wires with the release down (brown pair should be on the right).



### Step 4

Terminate the plug using a modular plug crimping tool by inserting the plug into the RJ-45 die and squeeze the handles. (Part #: GMC-1145D)



### Step 5

Test the cable with a continuity tester to make sure the cable is properly terminated. (Part #: TT64202)



## Terminating into a Data Jack

### Step 1

Strip back 2 inches of outer jacketing. Avoid damaging or nicking the pairs. (Part #: *GTPS-3200*)

### Step 2

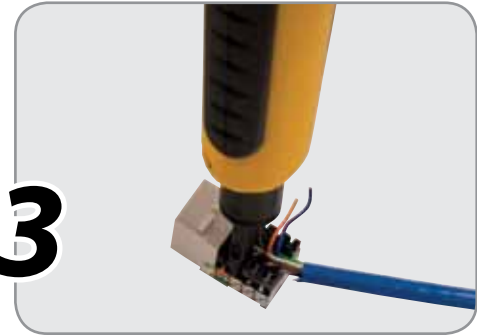
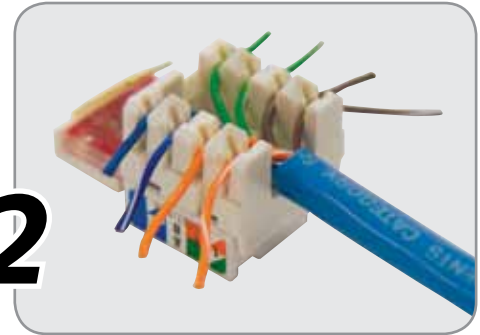
Place the wires into the data jack based on the color diagram printed on the wiring jack (T568B is most common). Leave no more than 1/2" of the wire untwisted.

### Step 3

Terminate the wires in the jack using a punch down tool, making sure the cutting edge is on the outside of the jack. For easy termination use GB® impact punchdown tool. (Part #: *PDT-3110*)

### Step 4

Test the connections by using a wiremap tester. (Part #: *TT64202*)



<b>NAME</b>	<b>PG</b>	<b>NAME</b>	<b>PG</b>	<b>NAME</b>	<b>PG</b>
Alligator Clips.....	23	Cable Clamps - Plastic.....	167	Fiberline™ Non-Conductive	
Aluminum Mechanical Lugs.....	13	Cable Clamps - Rubber Insulated.....	167	Fiberglass Fish Tapes.....	79
Aluminum Splicer-Reducers.....	13	Cable Pullers and Accessories		Fish Tape Ball.....	80
Aluminum Split Bolt Connectors.....	12	2,000 lb Mini-Brutus™ Powered Puller.....	82	Fish Tape Leader.....	80
Anchor Kit - Plastic Conical.....	171	8,000 lb Brutus™ Powered Puller.....	83	Nylo-Flex™ Non-Conductive Nylon Fish Tapes.....	80
Anti-Oxidant Compound (Ox-Gard™).....	14	Sub-Assembly Kits.....	84	Replacement Tapes - Steel.....	79
Battery Charging Clips, Clamps.....	23	10,000 lb Ultra Brutus™ Powered Puller..	88-89	Rewind™ Fish Tape Winder.....	77
Battery Tester (Analog).....	142	Brutus™ Powered Puller		Streamline™ Steel Fish Tapes.....	78
<b>Benders – Aluminum Rigid Conduit</b>		Application Instructions.....	85-87	UpperHand™ Steel Fish Tapes.....	76
Cyclone® Electric Bender (B2000).....	36	Hook Sheaves.....	91	UpperHand™ Non-Conductive	
Gardner™ EMT Hand Benders.....	59	Tension Meter.....	91	Fiberglass Fish Tapes.....	76
One-Shot Hydraulic Benders.....	42-48	Conduit Measuring Tape.....	75	<b>F-Series Coax Connector,</b>	
Sidewinder® Electric Bender (B2555).....	37	Cable Snake™ Steel Fish Tape.....	181	Female Adapter.....	177
Sidewinder™ Mechanical Benders.....	54-57	Cable-Test™ Plus Coax & UTP/STP		Fuse Puller.....	130
Sweep/Segmental Benders.....	46	Cable Tester.....	176	GB Xtreme™ Terminals.....	17
Ultra Eegor™ Hydraulic Bender.....	40-41	Cable Ties.....	147-150	Grip-Strip™	
<b>Benders – EMT Conduit</b>		Cable Wraptor™.....	163	Hook-and-Loop Fasteners.....	151, 182
Big Ben® Hand Benders.....	58	Cable Wraptor™.....	163	Grounding Accessories.....	14
Cyclone® Electric Bender (B2000).....	36	Category 3 & 5 Data Staples.....	159, 183	Grounding Connectors (GreenGard™).....	10
Gardner™ EMT Hand Benders.....	59	Circuit Alert®		Guide to Bending Booklet.....	64
Iron Hand Benders.....	60	Circuit Alert® Tester.....	117	<b>Hand Benders</b>	
Sidewinder® Electric Bender (B2555).....	37	Circuit Alert® Knife.....	117	Big Ben® Hand Benders.....	58
Sidewinder® Mechanical Benders.....	54-57	Circuit Alert® Wire Strippers.....	118	Gardner™ Thinwall Hand Benders.....	59
Ultra Eegor™ Hydraulic Bender.....	40-41	Circuit Alert® Work Lights.....	118	Iron Hand Benders.....	60
<b>Benders – IMC Conduit</b>		Circuit Alert® Pliers.....	119	Handles.....	61
Cyclone® Electric Bender (B2000).....	36	Circuit Alert® Screwdrivers.....	119	Hickey Bending Heads.....	61
Sidewinder® Electric Bender (B2555).....	37	<b>CO2 Systems</b>		Hanger Strap.....	169
Sidewinder™ Mechanical Benders.....	54-59	Air Compressor Seal-Off.....	73	Heat-Shrink Tubing - Colored PVC.....	165
Ultra Eegor™ Hydraulic Bender.....	40-41	CO2 Refill Connector.....	72	Heat-Shrink Tubing - Heavy-Wall.....	166
<b>Benders – PVC Conduit</b>		Powr House™ Conduit Fishing Systems.....	71	Heat-Shrink Tubing - Thin Wall Polyolefin..	165
HotBlanket™ Benders.....	63	Powr-Pak I™ 5 lb. Portable System.....	72	<b>Heavy Duty Cable Ties</b>	
HotBox™ Benders.....	62-63	Coaxial Cable Staples.....	159	(Natural & Ultraviolet Black).....	148
HotTube™ Bender.....	61	Coaxial Cable Clamp for RG-6.....	183	Hi-Temp Black Connectors.....	8
<b>Benders – PVC-Coated Rigid Conduit</b>		Coaxial Cable Stripper/Cutter.....	177	Hydraulic Bender Accessories.....	52
Cyclone® Electric Bender (B2000).....	36	Colored Cable Ties.....	150	Hydraulic Cylinder Specifications.....	53
Sidewinder® Electric Bender (B2555).....	37	Compression Crimp Tool.....	178	Insulated Metal Staples.....	156
Sidewinder™ Mechanical Benders.....	54-57	Compression F-Series Connector,		Knives.....	117, 130
<b>Benders – Rigid Steel Conduit</b>		RG-6 Bulk.....	177	Knockout Seals.....	168
Rigid Bender Capacities Chart.....	39	Conduit Straps.....	158	Low Voltage Wire Staples.....	158, 160
Big Ben® Hand Benders.....	58	Continuity Tester		<b>Lubricants</b>	
Cyclone® Electric Bender (B2000).....	36	Heavy-Duty.....	135	Wire-Aide™.....	91
Gardner™ EMT Hand Benders.....	59	Copper Mechanical Lugs.....	13	Poly-Gel™.....	92
Iron Hand Benders.....	60	Copper Split Bolt Connectors.....	12	Super-Slick™.....	93
One-Shot Hydraulic Benders.....	42-48	Crimp Connectors.....	12	<b>Masonry Staples.....</b>	159, 160
Sidewinder® Electric Bender (B2555).....	37	<b>Cutters</b>		<b>Material Handling</b>	
Sidewinder™ Mechanical Benders.....	54-57	BX cutter.....	128	Reel Rollers	
Sweep/Segmental Hydraulic Benders.....	46	Ratcheting.....	129	30" Reel Roller.....	96
Ultra Eegor™ Hydraulic Bender.....	40-41	PVC.....	129	Handy-Saver™ Reel Roller.....	96
<b>Bender Shoe Groups</b>		<b>Datacom/ VDV</b>		Reel Jacks - Telescoping.....	96
Sidewinder® Electric Bender (B2555) - IMC.....	38	Coax Cable Products.....	176-178	Wire Caddies & Carts	
Sidewinder® Electric Bender (B2555) - Rigid.....	38	Twisted Pair Products.....	176-180	Deluxe Spool Cart & Caddy Combo.....	98
Sidewinder® Electric Bender (B2555) - EMT.....	38	Accessories.....	181-183	Hand Wire Caddy.....	97
Sidewinder® Electric Bender		Disconnects.....	19	Heavy-Duty Spool Cart &	
(B2555) - PVC-Coated.....	38	Door Switch.....	32	Caddy Expander Combo.....	98
<b>Blower Systems</b>		Duct Seal Compound.....	169	Portable Wire Caddy.....	97
JetLine® Super Blower™ (Electric).....	68	Electrician Scissors/Cutters.....	180	Portable Wire Dispenser.....	99
Super Blo-Vac™ System (Blower/Vacuum).....	69	Fiber-Insulated Staples.....	160	Replacement Parts.....	99
<b>Box Supports/Spacers.....</b>	170, 172	<b>Fish Sticks</b>		Spool Caddy Cart.....	97
<b>Bullet Splices.....</b>	19	12' Fish Ease™.....	81	Wire Dispenser.....	98
<b>Butt Splices &amp; Kits.....</b>	17, 20, 21	15' Glo Fish™.....	81	<b>Metal Staples.....</b>	156
<b>Cable Boss® Staple Gun.....</b>	181	<b>Fish Tapes and Accessories</b>		Miniature Cable Ties	
<b>Cable Boss® Staples.....</b>	181	Cable Snake™ Steel Fish Tapes.....	77-78	(Natural & Ultraviolet Black).....	147
		Economy Fish Tape.....	79		

NAME	PG	NAME	PG	NAME	PG
Mounting Bases and Ties (Natural & Ultraviolet Black).....	149, 151	Roofing Staples .....	160	Screwdriver, Voltage Probe & Continuity Tester .....	134
MultiCable Staples .....	157	Rope		Solenoid .....	135
Multimeters - Analog		Rope Selection Guide .....	95	Winged Connectors (WingGard®) .....	8
Analog Multimeters Comparison Chart .....	139	Poly-Pro™ General Purpose Rope .....	94	Wire .....	23
Five Function, 12-Range .....	139	Super Tuff-Pull™ Double Braided Rope.....	93	Wire Markers - Pocket Pack .....	170
Six Function, 14-Range .....	139	Tuff-Pull™ Single Braided Rope.....	94	Wire Strippers.....	120-122
Seven Function, 19-Range .....	139	Rotary Switches.....	32	Multi-tool.....	122
Multimeters - Clamp-On		Screwdrivers.....	129	Cable Rippers.....	123
Clamp-On Comparison Chart .....	141	Screw Kits.....	171	Wire Tracker™ Wire Tracer.....	176
AC Clamp Meter with Lockjaw .....	141	Seals .....	169		
Auto-Ranging Digital .....	141	Service Entrance Staples .....	157		
Multimeters - Digital		Service Entrance Straps.....	158		
Digital Multimeters Comparison Chart.....	140	Slug-Out™ Knockouts			
Three Function, 13-Range .....	140	35 Ton Hydraulic Punch .....	108		
Four Function, 14-Range .....	140	Draw Studs.....	110-111		
Seven Function, 7-Range Auto-Ranging.....	140	Hydraulic Slug-Out™ Sets.....	103-104		
Multi-Range Connectors (Hex-Lok®) .....	9	Individual Components .....	107, 110-111		
Non-Contact Voltage Testers		Mechanical Slug-Out™ Sets ...	105-106, 112		
Non-Contact Voltage Testers		Notching Pliers .....	108		
Comparison Chart .....	136	Super Stainless Steel			
Circuit Alert® .....	136	Slug-Out™ Sets .....	109, 112		
Live-Wire™ .....	136	Spade Terminals .....	17, 18		
Pigtail Connectors.....	11	Spiral Wrap .....	166		
Plastic Staples .....	157	Split Flex Tubing .....	166, 183		
Pliers		Splitter Satellite/Digital			
Long Nose .....	126	TV 5MHz-2 GHz.....	177		
Linemen's .....	127	Standard Cable Ties			
Pull-Chain Switches .....	30, 31	(Natural & Ultraviolet Black).....	147		
Pull Line / Line Carriers		Staple Gun .....	155, 156		
Foam Line Carriers .....	74	Step Bits .....	112		
Heavy-Duty Bulk Nylon Line.....	75	Storage Cases (Tool-Guard™) .....	64		
The Inflatables® Line Carriers.....	73	Straight-Sided Connectors (WireGard™) ..	7		
Missile Line Carriers .....	73	Stud Insulators .....	168		
Poly-Pull™ Line.....	75	Stud Punch .....	113		
Power Saver™ Line Packages .....	74	Table (Bend-Mate™ Bender			
Tag-Along™ Line Packages .....	74	Table for Ultra Eegor™).....	41		
Pumps		Tape - Electrical .....	163		
Economy Electric.....	50	Tape - Friction.....	164		
Manual Hydraulic.....	51	Tape - Liquid Electrical .....	164		
Submerged Electric .....	50	Tape - Silicone Self-Sealing .....	164		
Z-Class™ Electric.....	49	Tap Splices .....	20		
Punch-Down Blade .....	175	TelCom RJ-45 Cat 5 Modular Plug .....	180		
Punch-Down Tool .....	175	TelCom RJ-45 Cat 6 Modular Plug .....	180		
Push-Button Switches .....	29, 30	Tensioning Tool .....	151		
Push-In Connectors (PushGard™).....	11	Terminal Adapters.....	20		
PVC Plug Sets.....	63	Terminal Kits.....	21		
Receptacle Testers/Analyzers		Tester Leads .....	142		
Receptacle Testers/Analyzers		Tester Replacement Parts			
Comparison Chart .....	137	(fuses, batteries) .....	143		
Lan Tracker™ .....	138	Toggle Switch Cover.....	29		
Receptacle Tester & Circuit Analyzer .....	137	Toggle Switches.....	28, 29		
GFCI & Circuit Analyzer .....	137	Underground UF Splice Kit .....	22		
Reference Book - "Ugly's Electrical		Universal Connectors (Uni-Lok®).....	10		
References" .....	172	UTP/STP Cable Stripper.....	179		
Reference Book - "Wiring Simplified" ..	172	Vacuum / Blowers			
Releaseable Cable Ties		Super Blo-Vac™ System.....	69		
(Natural & Ultraviolet Black).....	149	Voltage Testers			
Ring Terminals.....	17, 18	Voltage Testers Comparison Chart.....	133		
RJ-45 / RJ-11 Modular Plug		6-way Circuit.....	134		
Crimp Tool.....	179	Heavy-Duty 3-way .....	134		
Rocker Switches .....	31	Low Voltage Twin Probe.....	133		

Romex® is a registered trademark of the Southwire Company, Carrollton, GA

PART #	PG	PART #	PG	PART #	PG	PART #	PG	PART #	PG
601.....	169	10-245F.....	19	15-143F.....	19	20-141M.....	19	42-029.....	170
602.....	169	10-283F.....	20	15-143M.....	19	20-143F.....	19	42-030.....	170
603.....	169	10-285F.....	20	15-145F.....	19	20-143M.....	19	42-035.....	170
740.....	99	10-2G2.....	10	15-151F.....	19	20-145F.....	19	42-ALPHA.....	170
800.....	170	10-2H2.....	9	15-151M.....	19	20-145M.....	19	45-104.....	147
820.....	61	10-310C.....	12	15-152P.....	19	21-151F.....	19	45-104UVB.....	147
821.....	61	10-311C.....	12	15-153F.....	19	20-151P.....	19	45-306SS.....	150
822.....	61	10-410.....	12	15-153M.....	19	20-153F.....	19	45-308.....	147
920.....	60	10-410C.....	12	15-2210.....	21	20-153P.....	19	45-308FB.....	150
921.....	60	10-411.....	12	15-2214.....	21	20-161P.....	19	45-308FG.....	150
922.....	60	10-411C.....	12	15-2216.....	21	20-163F.....	19	45-308FY.....	150
923.....	60	10-PC2.....	11	15-2218.....	20	20-163M.....	19	45-308G.....	150
932.....	59	10-PC3.....	11	16-001.....	7	20-163P.....	19	45-308ID.....	150
933.....	59	10-PC4.....	11	16-002.....	7	20-2218.....	20	45-308MT.....	143
950.....	71	10-PC8.....	11	16-003.....	7	20-410.....	12	45-308MTG.....	182
960.....	58	1103N.....	72	16-003M.....	7	20-411.....	12	45-308MTUVB.....	143
961.....	58	1105A.....	71	16-004.....	7	21-100.....	20	45-308UVB.....	147
962.....	58	12-001.....	7	16-006.....	7	21-101.....	18	45-312.....	147
1102.....	72	12-001BU.....	7	16-084.....	8	21-102.....	18	45-312SS.....	150
1142.....	71, 72	12-002.....	7	16-084M.....	8	21-103.....	18	45-312UVB.....	147
1206.....	71	12-002BU.....	7	16-086.....	8	21-104.....	18	45-315.....	147
1208.....	71	12-003BU.....	7	16-086L.....	8	21-105.....	18	45-315UVB.....	147
1215.....	71, 72	12-004BU.....	7	16-095.....	10	21-1055.....	18	45-515.....	148
1216.....	71, 72	12-006BU.....	7	16-1H1.....	9	21-106.....	18	45-515UVB.....	148
1525.....	69	12-084BU.....	8	16-1H1L.....	9	21-107.....	18	45-518.....	148
12568.....	69	12-086BU.....	8	16-8486.....	8	21-108.....	18	45-518UVB.....	148
125615.....	69	12-1G1BU.....	10	16-8486M.....	8	21-109.....	18	45-521.....	148
126025.....	68	12-1H1BU.....	9	17-003.....	7	21-111.....	18	45-521UVB.....	148
10-001.....	7	12-2H2BU.....	9	17-004.....	7	21-112.....	18	45-524.....	148
10-002.....	7	13-003.....	7	17-006.....	7	21-113.....	18	45-524UVB.....	148
10-003.....	7	13-004.....	7	17-084.....	8	21-114.....	18	45-536.....	148
10-003HT.....	8	13-006.....	7	17-086.....	8	21-116.....	18	45-536UVB.....	148
10-004.....	7	13-084.....	8	17-1H1.....	9	21-121.....	20	45-548.....	148
10-004HT.....	8	13-086.....	8	19-001.....	7	21-123.....	20	45-548UVB.....	148
10-006.....	7	13-089.....	8	19-002.....	7	21-126.....	20	45-MB.....	151
10-084.....	8	13-095.....	10	19-003.....	7	21-141F.....	19	45-MBUVB.....	151
10-086.....	8	13-1G1.....	10	19-004.....	7	21-141M.....	19	45-V15BK... 151, 182	
10-089.....	8	13-1H1.....	9	19-006.....	7	21-143F.....	19	45-V8BK... 151, 182	
10-095.....	10	13-2G2.....	10	19-084.....	8	21-143M.....	19	46-104.....	147
10095VDV.....	182	13-2H2.....	9	19-086.....	8	21-145F.....	19	46-104M.....	147
10-100.....	20	13-410.....	12	19-089.....	8	21-145M.....	19	46-104UVB.....	147
10-103.....	18	14-075.....	23	19-095.....	10	21-146F.....	19	46-104UVBM.....	147
10-104.....	18	14-076.....	23	19-1G1.....	10	21-146M.....	19	46-206.....	147
10-105.....	18	14-077.....	23	19-1H1.....	9	21-151M.....	19	46-206M.....	147
10-106.....	18	14-078.....	23	19-2G2.....	10	21-153F.....	19	46-206UVB.....	147
10-107.....	18	14-095.....	18	19-2H2.....	9	21-153M.....	19	46-210.....	147
10-108.....	18	14-097.....	18	19-AWC.....	7	21-155F.....	19	46-210UVB.....	147
10-111.....	18	14-099.....	18	19-AWW.....	8	21-155M.....	19	46-308.....	147
10-112.....	18	14-505.....	23	19-PC2.....	11	21-161F.....	19	46-308G.....	150
10-113.....	18	14-510.....	23	19-PC3.....	11	21-161M.....	19	46-308M.....	147
10-114.....	18	14-520.....	23	19-PC4.....	11	21-163F.....	19	46-308UVB.....	147
10-116.....	18	14-530.....	23	19-PC8.....	11	21-163M.....	19	46-308UVBM.....	147
10-121.....	20	14-550.....	23	20-089.....	11	21-2218.....	20	46-310.....	147
10-123.....	20	14-610.....	23	20-090.....	11	25-001.....	7	46-310M.....	147
10-126.....	20	14-630.....	23	20-100.....	20	25-002.....	7	46-310UVB.....	147
10-141F.....	19	14-GRC.....	14	20-101.....	18	25-003.....	7	46-310UVBM.....	147
10-141M.....	19	14-WPI.....	171	20-102.....	18	25-004.....	7	46-311.....	147
10-143F.....	19	14-WPW.....	171	20-103.....	18	25-006.....	7	46-315.....	147
10-143M.....	19	15-090.....	11	20-104.....	18	25-084.....	8	46-315M.....	147
10-145F.....	19	15-096.....	18	20-105.....	18	25-086.....	8	46-315UVB.....	147
10-145M.....	19	15-098.....	18	20-106.....	18	25-089.....	8	46-315UVBM.....	147
10-151F.....	19	15-104.....	18	20-107.....	18	25-095.....	10	46-330.....	148
10-153F.....	19	15-105.....	18	20-108.....	18	25-1G1.....	10	46-330UVB.....	148
10-153M.....	19	15-106.....	18	20-111.....	18	25-1H1.....	9	46-408.....	148
10-153P.....	19	15-107.....	18	20-112.....	18	25-2G2.....	10	46-408UVB.....	148
10-155F.....	19	15-108.....	18	20-113.....	18	25-2H2.....	9	46-412.....	148
10-170.....	21	15-114.....	18	20-114.....	18	25-AWC.....	7	46-412UVB.....	148
10-1G1.....	10	15-116.....	18	20-121.....	20	25-AWW.....	8	46-415.....	148
10-1H1.....	9	15-120.....	21	20-1210.....	20	27-003.....	8	46-415UVB.....	148
10-204.....	18	15-121.....	20	20-123.....	20	27-004.....	8	46-418.....	148
10-206.....	18	15-123.....	20	20-126.....	20	42-027.....	170	46-418UVB.....	148
10-243F.....	19	15-126.....	20	20-141F.....	19	42-028.....	170	46-421.....	148

PART #	PG	PART #	PG	PART #	PG	PART #	PG	PART #	PG
46-421UVB.....	148	AMT-4100.....	17	BEMT-52.....	38	BZ12061.....	42-45,	CM4.....	42, 64
46-424.....	148	AMT-4103.....	17	BF41.....	54	.....	47-48	CM5.....	103
46-424UVB.....	148	AMT-4106.....	17	BF42.....	54	BZ12071.....	42	CM7.....	43-48, 64
46-436.....	148	AMT-4110.....	17	BF43.....	54	BZ12091.....	42-45,	COM-310.....	178
46-436UVB.....	148	AMT-4113.....	17	BF47.....	54	.....	47-48	COM-320.....	178
46-448.....	148	AMT-4116.....	17	BF48.....	54	BZ12341.....	44-45,	CP10.....	84
46-448UVB.....	148	AMT-4120.....	17	BF49.....	54	.....	47-48	CP1002.....	84
46-507.....	147	AMT-4123.....	17	BF52.....	54	BZ12351.....	44-45,	CP10K.....	88
47-108.....	143	AMT-4126.....	17	BF90.....	54	.....	47-48	CP15.....	84
47-108UVB.....	143	AMT-5102.....	17	BFB2500.....	40	BZ12371.....	42	CP2000.....	82
47-115UVB.....	143	AMT-5104.....	17	BFB3000.....	40	BZ12372.....	43, 46	CP2000M.....	82
47-121UVB.....	143	AMT-5106.....	17	BFB3500.....	40	BZ12374.....	44, 45, 47	CP503.....	83, 84
47-127UVB.....	143	AMT-5121.....	17	BFB4000.....	40	BZ12375.....	42	CP504.....	84
48-308.....	143	AMT-5123.....	17	BH-100.....	61	BZ12376.....	43-44,	CP505.....	83, 84
48-308UVB.....	143	AMT-5126.....	17	BH-125.....	61	.....	46-47	CP600.....	84
48-315.....	143	AMW-312.....	23	BH-75.....	61	BZ12377.....	42-44,	CP601.....	83, 84
75-104.....	18	AMW-314.....	23	BHB-520D.....	62	.....	46-48	CP622.....	83, 84
75-106.....	18	AMW-316.....	23	BHB-540A.....	62	BZ12379.....	46	CP630.....	84
75-111.....	18	AMW-318.....	23	BHB-560.....	63	BZ12380.....	46	CP631.....	83, 84
75-113.....	18	AMW-322.....	23	BHB-560P.....	63	BZ12381.....	46	CP700.....	84
75-116.....	18	AMW-324.....	23	BHE-50K.....	62	BZ12382.....	43, 46	CP701.....	83, 84
75-121.....	20	AMW-326.....	23	BHE-540.....	62	BZ12383.....	43, 46	CP702.....	83, 84
75-123.....	20	AMW-328.....	23	BHE-560.....	63	BZ12384.....	43, 46	CP703.....	83, 84
75-126.....	20	AMW-332.....	23	BHT-520A.....	61	BZ12385.....	43, 46	CP704.....	84
75-143F.....	19	AMW-334.....	23	BIMC-152.....	38	BZ12386.....	45, 48	CP705.....	84
75-145F.....	19	AMW-336.....	23	BPVC-52.....	38	BZ12388.....	45, 48	CP706.....	83, 84
79-002.....	91	AMW-338.....	23	BR12515.....	54, 55	BZ12389.....	45, 48	CP707.....	83, 84
79-003.....	91	AP4-K100.....	171	BR20000.....	54	BZ12390.....	45, 48	CP708.....	83, 84
79-006.....	91	B1021028.....	41	BR57510.....	54, 55	BZ12391.....	44-45,	CP709.....	83, 84
79-201.....	92	B2000.....	36	BRIG-52.....	37	.....	47-48	CP80.....	83, 84
79-202.....	92	B2555.....	37	BS2500.....	40	BZ12392.....	44-45,	CP800.....	83, 84
79-203.....	92	B2555EMT.....	37	BS3000.....	40	.....	47-48	CP8000.....	83
79-301.....	92	B2555IMC.....	37	BS3500.....	40	BZ13401.....	43,	CP8000D.....	83
79-401.....	93	B2555PVC.....	37	BS4000.....	40	.....	44, 46, 47	CP8001.....	83
79-402.....	93	B2555RIG.....	37	BT12515.....	54	BZ28.....	40	CP801.....	84
79-403.....	93	B26.....	68, 69	BT2000.....	54, 57	BZ34.....	40	CP801.....	84
920H.....	60	B3000.....	68	BT57510.....	54	BZ39.....	40	CP806.....	84
921H.....	60	B306S.....	39, 46	BTI12520.....	54	BZ44.....	40	CP807.....	84
922H.....	60	B306SPE22J.....	46	BV12.....	69	BZ72.....	41	CR-100.....	123
930B.....	59	B306SPH80.....	46	BV1281.....	69	BZ725.....	41	CR-1000.....	123
930H.....	59	B308S.....	39, 43	BV208DA.....	69	BZ726.....	41	CRC-100.....	123
931B.....	59	B308SPE22J.....	43	BV23.....	69	BZ74.....	40	CS1010.....	42, 53
931H.....	59	B308SPH80.....	43	BV24.....	68, 69	BZ76.....	40	CS106.....	53
932H.....	59	B316S.....	39, 42	BV24.....	68, 69	BZ78.....	40	CS2510.....	43, 46, 53
960H.....	58	B316SPE22J.....	42	BVP20.....	63	C604.....	52	CS2514.....	44, 45, 53
961H.....	58	B316SPH39.....	42	BVP25.....	63	CAM-10.....	117	CS400.....	40, 41
962H.....	58	B340S.....	39, 44	BVP30.....	63	CB21V.....	73	CTT-45.....	151
A12.....	52	B340SP208J.....	44	BVP40.....	63	CD1012.....	53	CW-T1RR50.....	163
A29.....	52	B340SPE22J.....	44	BVS-240.....	63	CD3014.....	47, 48, 53	CW-T2RR25.....	163
A630.....	52	B340SPH80.....	44	BW11.....	55	CD3028.....	40	CW-T3RR25.....	163
AML-200.....	14	B343S.....	39, 47	BW12.....	55	CD3028KT.....	40	CW-T4RR20.....	163
AML-201.....	14	B343SP408J.....	47	BW15.....	55	CD308.....	53	DC404.....	40
AML-202.....	14	B343SP408K.....	47	BW20.....	56	CD411.....	52	DS-130.....	169
AML-203.....	14	B343SP408S.....	47	BW201.....	57	CF859489.....	41	DS-530.....	169
AML-204.....	14	B343SPH84.....	47	BW20S.....	56	CF860013.....	41	E507.....	62
AML-205.....	14	B350.....	44, 47	BW221.....	57	CF861108.....	41	EFT-21P.....	78
AML-206.....	14	B351S.....	39, 48	BW221S.....	57	CF862281.....	41	EFT-321P.....	181
AML-207.....	14	B351SP408J.....	48	BW27.....	57	CF863104.....	41	EFT-50B.....	79
AML-208.....	14	B351SP408S.....	48	BW27S.....	57	CH1211.....	53, 103, 109	ERB-UG.....	172
AMT-100.....	17	B351SPH84.....	48	BW30.....	56	CH204028.....	41	ERB-WS.....	172
AMT-103.....	17	B359S.....	39, 45	BW30S.....	56	CH819044.....	41	ES15.....	38
AMT-106.....	17	B359SP208J.....	45	BW72.....	54	CH951044.....	41	ES-2.....	38
AMT-108.....	17	B359SPH80.....	45	BW74.....	54	CK211950.....	41	ES-360.....	180
AMT-110.....	17	B400DL.....	40	BW75.....	54	CK212950.....	41	ES-5125.....	38
AMT-113.....	17	B400DLP408S.....	40	BW76.....	54	CK-315.....	21	ESR-152.....	38
AMT-116.....	17	B400L.....	40	BWF888.....	54-57	CK-570.....	21	ESR-5125.....	38
AMT-120.....	17	B400LP408S.....	40	BX-1.....	37, 38	CK579281.....	41	ET64220.....	176
AMT-121.....	17	B60.....	68	BZ12011.....	42	CM16.....	84	F125.....	73
AMT-123.....	17	BB2030.....	63	BZ12021.....	42	CM191044.....	41	F125B.....	72
AMT-124.....	17	BB3040.....	63	BZ12031.....	42, 43	CM193350.....	41	F250.....	73
AMT-126.....	17	BB5150.....	63	BZ12041.....	42-45, 47-48	CM194900.....	41	F250B.....	72
AMT-127.....	17	BE400.....	41	BZ12051.....	42-45,	CM20.....	40, 64, 83	F400.....	73
				.....	47-48	CM260281.....	54	F400B.....	68



PART #	PG	PART #	PG	PART #	PG	PART #	PG	PART #	PG
F600	73	GDT-311	140, 143	GS-67K	21	GSW-61	32	JLP10	80
FC1	71, 72, 74	GDT-3190	140, 143	GSBC-1/0	12	GSW-62	32	JLP5	80
FC10	71, 74	GDT-3200	140, 143	GSBC-2	12	GSW-63B	32	JO225LC	71
FC11	71, 74	GES-224	120	GSBC-2/0	12	GSW-68	32	JO25	72
FC1-10	69	GES-55	120	GSBC-3/0	12	GSW-69	32	JO25A	72
FC12	71, 74	GESP-224	120	GSBC-4	12	GSW-69BP	32	JV07	69
FC2	71, 74	GESP-55	120	GSBC-6	12	GSW-SK	32	JV08	69
FC3	71, 74	GESP-70	120	GSBC-8	12	GTA-2	13	JV09	69
FC4	71, 74	GET-3100	133, 143	GSE-105	158	GTA-2/0	13	JV12	69
FC5	71, 74	GET-3202	133, 143	GSE-15310	157	GTB-406	20	JV210	69
FC6	71, 74	GET-3206	133, 134, 143	GSE-15410	157	GTB-408	20	K88001	106
FC7	71, 74	GET-3213	133, 134, 143	GSE-170	158	GTB-410	20	K88004	106
FC9	71, 74	GET-4220K	138, 143	GSE-205	158	GTB-667P	163	K88007	105, 122
FLT-10	118	GFI-3501	137	GSE-250	158	GTF-300	164	K88008	106
FLT-20	118	GGC-1508	14	GSE-304	158	GTF-600	164	K88020	104, 105, 109
FLX-1007	166	GGP-1261	14	GSE-310	157	GTG-667P	163	KC3540	103, 110
FLX-3810	166	GGP-1273	14	GSE-330	158	GTN-667P	163	KD1000B	103-107
FLX-5007	166	GGP-1282	14	GSE-402	158	GTO-667P	163	KD1250B	103-107
FLX-757GR	166	GGP-1461	14	GSE-410	157	GTP-307	163	KD1500B	103-107
FLX-757GRV	183	GGP-1502	14	GSE-505	158	GTP-307D	163	KD1500B	103-107
FP159-3	169	GGG-1512R	14	GSE-710	157	GTP-307WD	163	KD1732B	107
FP159-6	169	GHG-1525	168	GSLU-125	13	GTP-607	163	KD2000B	103-107
FPE-20	130	GHG-1538	168	GSLU-25	13	GTP-607P	163	KD2500	103, 106, 107
FSP-AST	166	GHG-1550	168	GSLU-35	13	GTPC-512	163	KD3000	103, 106, 107
FTB-10	80	GHG-1575	168	GSLU-70	13	GTPC-550	163	KD3000	103, 106, 107
FTF-200	79	GHG-AST	168	GSP-04	172	GTPS-100	124	KD3500	103, 106, 107
FTL-5	80	GHS-1510	169	GSPA-0	13	GTPS-3100	179	KD4000	103, 106, 107
FTN-100R	76	GKC-100A	129	GSPA-2	13	GTPS-3200	124, 179	KD4000	103, 106, 107
FTS-100GR	77	GKK-1538	167	GSPA-4/0	13	GTR-667P	163	KD500B	103-107
FTS-125R	76	GKK-1538UVB	167	GST-224M	118	GTW-667P	163	KD750B	103-107
FTS-200GR	77	GKK-1550	167	GST-55M	118	GTY-667P	163	KD750B	103-107
FTS-250R	76	GKK-1575	167	GST-70M	118	GVD-3504	133, 136, 143	KDS1000	109, 112
FTS-50B	78	GMC-1145	125	GSW-10	28	GVD-3505	133, 136, 143	KDS1250	109, 112
FTS-65R	76	GMC-1145D	179	GSW-11	28	GVT-392	133, 135, 143	KDS1500	109
FTW-10	77	GMC-88C5	180	GSW-110	28	H8210	52	KDS2000	109
FTX-12L	81	GMC-88C6	180	GSW-114	29	H864	52, 103, 109	KDS500	109, 112
FTX-15GL	81	GMC-88M5	180	GSW-117	28	HC913	42-48, 52	KDS750	109, 112
FTX-312	182	GMC-88M6	180	GSW-12	28	HC927	40, 52	KF-200	130
GAK-1/0	12	GMT-312	139, 143	GSW-120	28	HC963	52	KKT316	107
GAK-2	12	GMT-318	139, 143	GSW-121	28	HF100	52	KLP2	104
GAK-2/0	12	GMT-319	139, 143	GSW-123	28	HF101	52	KLP2K1	104
GAK-4/0	12	GPC-200	129	GSW-124	28	HS-8512	83, 84, 91	KLP6	104
GAT-3400	133, 135, 143	GPS-3214	127	GSW-125	28	HS-8518	91	KO701	168
GBRX-301	128	GPS-3219	127	GSW-125BP	28	HS-8524	91	KO701C	168
GBT-3502	142, 143	GPS-3220	126	GSW-13	28	HSB-28	22	KO702	168
GBT-500A	142, 143	GPS-3228	126	GSW-14	28	HST-093	165	KO702C	168
GBX-300	128	GPS-3238	126	GSW-15	28	HST-100	165	KO703	168
GBX-TK	17	GPT-70	119	GSW-16	28	HST-101	165	KO704	168
GC-1000	128	GPT-80	119	GSW-17	28	HST-102	165	KO705	168
GC-375	128	GPT-90	119	GSW-18	28	HST-107	165	KO706	168
GC-500	128	GRC-750	129	GSW-19	29	HST-125	165	KO707	168
GCC-120	158	GRT-3500	137	GSW-20	29	HST-1300	22	KO708	168
GCC-220	158	GRX-3224	123	GSW-21	30	HST-187	165	KO709	168
GCC-310	158	GS-355	121	GSW-22	29	HST-250	165	KO710	168
GCC-410	158	GS-359	124	GSW-23	29	HST-375	165	KOF520	103
GCC-510	158	GS-359D	178	GSW-24	30	HST-500	165	KOF540	103
GCC-610	158	GS-360	121	GSW-24BP	30	HST-750	165	KOH14A	103
GCM-221	141, 143	GS-361	121	GSW-25	30	HST-999	165	KOH2540	106
GCM-500	141, 143	GS-365	122	GSW-26	32	HST-AST	165	KOH520A	103
GCP-3400	127	GS-366	123	GSW-31	30	HST-WP	22	KOH540A	103
GCT-3304	133, 135, 143	GS-370	122	GSW-31BP	30	HTP-1010	164	KOM152	106
GCV-3206	133, 134, 143	GS-385	126	GSW-32	30	HWT-0722	166	KOM1732	107
GDC-2W2G	177	GS-386	126	GSW-32BP	30	HWT-1138	166	KOM200	107
GDC-3W2G	177	GS-387	127	GSW-33	31	HWT-1550	166	KOM250	107
GDC-4W2G	177	GS-388	128	GSW-34	31	IS-15	38	KOM300	107
GDC-6C	177	GS-389	178	GSW-35	30	IS-2	38	KOM350	107
GDC-6CM	177	GS-394	122	GSW-39	31	ISR-152	38	KOM400	107
GDC-FAM	177	GS-40	121	GSW-41	31	ITC-RG-6	176	KOM50125	106
				GSW-42	31	ITC-RG-6C	176	KOR14	105
				GSW-45	31			KOR152	105, 110
				GSW-48	31			KOR50	105, 110
				GSW-49	31				

PART #	PG	PART #	PG	PART #	PG	PART #	PG	PART #	PG
KOR520.....	105	M4000.....	73	PGJ-062.....	90	PSB-1600.....	159	SK-632.....	171
KOR75125..	105, 110	M5000.....	68, 73	PGJ-075.....	90	PSB-165.....	158	SK-832.....	171
KOS-1000B.....	107	M6000.....	68, 73	PGJ-100.....	90	PSB-1650.....	158	SK-832WP.....	171
KOS-1250B.....	107	MB-20.....	151	PGK-050.....	90	PSG-100.....	158	SP3500.....	108
KOS-1250DS.....	107	MCS-100W.....	157	PGK-062.....	90	PSG-15.....	158	SP-7.....	113
KOS-1500B.....	107	MCS-20W.....	157	PGK-075.....	90	PSM-1550.....	158	SPD-10L.....	125
KOS-1500DS.....	107	MMS-3101.....	156	PGK-100.....	90	PSR-25.....	160	SPD-438.....	108
KOS-500B.....	107	MMS-3102.....	156	PGK-150.....	90	PSW-100.....	158	SPD-563.....	108
KOS520.....	104	MPS-2080.....	155	PGK-200.....	90	PSW-160.....	159	SPD-688.....	108
KOS5290.....	104	MPS-2080V.....	181	PGK-250.....	90	PSW-1600.....	159	SPD-813.....	108
KOS-750B.....	107	MPS-2100.....	155	PGK-300.....	90	PSW-165.....	158	SPK10.....	108
KOW520.....	105	MPS-2125.....	155	PGK-350.....	90	PSW-1650.....	158	ST40.....	75
KP1000B.....	103-107	MPS-2125V.....	181	PGK-400.....	90	PSW-200J.....	158	TK-100.....	21
KP1250B.....	103-107	MS-150.....	156	PGT-075.....	90	PSW-3650.....	183	TK-1210.....	21
KP1500B.....	103-107	MS-1550.....	156	PGT-100.....	90	PT2000M.....	82	TK-1614.....	21
KP1732B.....	107	MS-1555.....	156	PGT-150.....	90	PTM-25.....	159	TK-175.....	21
KP2000B.....	103-107	MS-1575.....	156	PGT-200.....	90	PTP-25.....	159	TK-1822.....	21
KP2500.....	103, 106, 107	MS-1577.....	156	PGT-250.....	90	PTP-250J.....	159	TK-32.....	21
KP3000.....	103, 106, 107	MS-175.....	156	PGT-300.....	90	PTP-325.....	183	TK-40.....	21
KP3500.....	103, 106, 107	MS-450J.....	156	PGT-350.....	90	PVR-152.....	38	TK-500.....	21
KP4000.....	103, 106, 107	MS-500J.....	156	PGTS-050.....	90	PVR-5125.....	38	TK-806.....	21
KP500B.....	103-107	MS-550.....	156	PGTS-062.....	90	PVS-152.....	38	TK-QC.....	21
KP750B.....	103-107	MS-575.....	156	PGTS-075.....	90	PVS-5125.....	38	TM5.....	91
KPR7520.....	104, 109, 110	MS-950B.....	156	PGTS-100.....	90	PWS-1525.....	160	TRJ-56.....	96
KPR7540.....	103, 109, 110	MS-950BU.....	156	PGTS-150.....	90	RGP-2525.....	94	TRJ-96.....	96
KPS1000.....	109, 112	MS-975B.....	156	PGTS-200.....	90	RGP-2560.....	94	TT-10B.....	129
KPS1250.....	109, 112	MSB-1540.....	160	PGTS-250.....	90	RGP-3825.....	94	TT64202.....	176, 180
KPS1500.....	109	MSG-301.....	156	PGTS-300.....	90	RGP-3860.....	94	UG12.....	71
KPS2000.....	109	MSG-501.....	155	PGTS-350.....	90	RGP-50120.....	94	UG121112.....	71
KPS50.....	103, 104, 109, 110	MSG-501V.....	181	PH20.....	51, 103, 109	RGP-5025.....	94	WCM-10.....	98
KPS500.....	109, 112	MSI-150.....	156	PH39.....	51	RGP-5060.....	94	WRR-100.....	96
KPS750.....	109, 112	MSI-1525.....	156	PH80.....	51	RGP-7530.....	94	WRR-300.....	96
KS752B.....	105, 106, 107, 111-112	MSI-200J.....	156	PL102.....	75	RGP-7560.....	94	WSP-100E.....	97
KSA50.....	104, 109, 110	MSI-50B.....	156	PL102B.....	75	RK-6.....	130	WSP-115.....	97
KSB50B.....	105-107, 111-112	MSI-550.....	156	PL232B.....	75	RKT-21.....	117	WSP-140.....	97
KSN2530.....	107, 111	MSI-950B.....	156	PL235.....	75	RS-152.....	37	WSP-144.....	98
KSN3540.....	107, 111	MSTR-TORCH.....	17,	PL235B.....	75	RS-5125.....	37	WSP144010.....	99
KSS50125.....	112	MSW-1540.....	160	PLT-1525.....	159	RSR-152.....	37	WSP144050.....	99
KSS520.....	109	NP-1.....	108	PLW-1525.....	159	RSR-5125.....	37	WSP144251.....	99
KSS520A.....	109	NPR-1.....	108	PMB-1525.....	159	RST-5030.....	93	WSP144253.....	99
KW52.....	105	NYD-100.....	80	PMC-1525W.....	159	RST-5060.....	93	WSP144254.....	99
LP1701.....	75	NYD-50.....	80	PMW-100.....	159	RST-7530.....	84, 93	WSP-150.....	98
LP1701B.....	72	OX-100.....	14	PPC-1525.....	167	RST-7560.....	84, 93	WSP1502517.....	99
LP1702B.....	72	OX-100B.....	14	PPC-1525UVB.....	167	RST-7830.....	93		
LP1722.....	75	OX-400.....	14	PPC-1538.....	167	RsT-7860.....	93		
LP2150.....	69, 71, 72, 74	OX-800.....	14	PPC-1538UVB.....	167	RTL-103.....	142		
LP2206T.....	69, 71, 74	P208J.....	49	PPC-1550.....	167	RTL-107.....	142		
LP2207T.....	69, 71, 74	P408S.....	49	PPC-1550UVB.....	167	RTL-108.....	142		
LP2208T.....	71, 74	PCC-1525.....	158	PPC-1575.....	167	RTL-200.....	142		
LP3200.....	71, 72	PCC-300.....	158	PPC-1575UVB.....	167	RTP-3830.....	94		
LP3200B.....	69	PCC-300.....	158	PPC-1600.....	167	RTP-5030.....	94		
LP3300.....	71, 74	PCS-100.....	160	PPR-1550.....	167	RTP-7530.....	94		
LP3450.....	69, 74	PCS-1525.....	160	PPR-1575.....	167	RTS-100.....	79		
LP4200.....	69	PCS-1600.....	160	PPR-1600.....	167	RTS-200.....	79		
LP4300.....	71, 72, 74	PCS-300B.....	160	PS-150.....	157	RTS-50B.....	79		
LP4450.....	69, 74	PCS-3600.....	183	PS-150Z.....	157	RTX-100.....	79		
LTB-400.....	164	PDB-110.....	125	PS-150ZJ.....	157	RTX-200.....	79		
LTG-400.....	164	PDB-3110.....	175	PS-1550.....	157	RV5.....	72		
LTR-400.....	164	PDB-66110.....	125, 175	PS-1575.....	157	S-8512.....	83, 84		
LTS-600.....	164	PDC-1525B.....	160	PS-175.....	157	SB-205.....	112		
LTW-400.....	164	PDS-1525B.....	160	PS-175Z.....	157	SB-207.....	112		
M2000.....	73	PDT-110.....	125	PS-175ZJ.....	157	SB-209.....	112		
M3000.....	73	PDT-110LC.....	125	PS-225J.....	157	SB-210.....	112		
		PDT-3110.....	175	PS-250.....	157	SCE-3260.....	129		
		PDTL-3110.....	175	PS-275.....	157	SCE-3262.....	129		
		PE20D.....	50	PS-50.....	157	SDT-10.....	119		
		PE22J.....	50	PS-550.....	157	SDT-3.....	119		
		PEC-31525.....	183	PS-575.....	157	SDT-6.....	119		
		PF65.....	51, 103	PS-75.....	157	SE-398.....	177		
		PGJ-025.....	90	PS-750B.....	157	SE-92.....	121		
		PGJ-037.....	90	PSB-100.....	158	SE-98.....	124		
		PGJ-050.....	90	PSB-160.....	159	SI-25.....	113, 168		



**USA**

PO Box 3241  
Milwaukee, WI 53201-3241  
800.624.4320  
Fax 800.799.3779

[www.gardnerbender.com](http://www.gardnerbender.com)

**CANADA**

6615 Ordan Drive, Units 14-15  
Mississauga, Ontario  
L5T 1X2 Canada  
905.564.5749  
Fax 905.564.0305



Catalog # GAR\_CAT\_002\_0310  
©2010 Gardner Bender™

