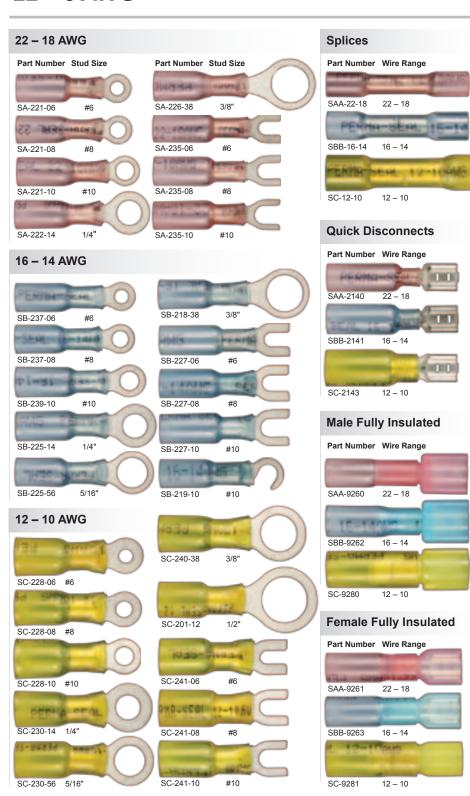


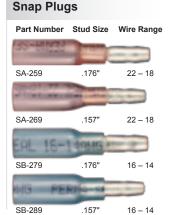
Heat-Seal Terminals and Splices



22 – 8 AWG



Step Down Butts Part Number Step Size SBA-631 16 – 14 to 22 – 18 SCB-646 12 – 10 to 16 – 14



Snap Plug Receptacles Part Number Stud Size Wire Range SBRA-8156N .157" 22 – 18 SBRA-8180N .176" 22 – 18 SBRB-8156N .157" 16 – 14 SBRB-8180N .176" 16 – 14

22-10 AWG terminals and splices sold in packages of 100

10 piece bubble packs also available. To order, append -10 to the part number. Example: SA-222-06-10

Call for bulk quantities

Premium Clear Color Heat-Seal Terminals and Splices

Clear Color Heat Seal Terminals and Splices provide a rugged, environmentally-sealed connection for wire sizes 8 to 22 AWG.

Insulates, seals, and protects electrical connections from abuse, abrasion, water, salt, and corrosive compounds.



-55°C TO 125°C



8 AWG Splice



8 AWG terminals and splices sold in packages of 5

Packages of 100 available

Parts shown approximately actual size

Features

- Heat shrinkable at low temperature
- Shrinks 40% faster than nylon or polyolefin tubing
- Long-lasting, moisture-proof connections
- · Withstands water, salt, corrosion, condensation, and heat
- Heat stable. Splices remain supple and impact resistant
- Tough and durable. Resists vibration cuts and abrasions
- Smaller and lighter than most comparable wire splices
- Provides a reliable, impermeable seal on 1:1, 2:1, or 2:2 splices
- Easy to install using standard tools

Product Characteristics

Properly installed, heat seal splices and terminals exceed all pertinent UL, CSA, and MIL Specification requirements. Typical properties of the installed splice and for the shrink tubing alone are shown below.

Typical Properties of Installed Connectors

Temperature rating Dielectric strength Voltage drop Insulation resistance Shrink temperature

Tensile (pull test) value

Less than equal length of wire 106 Megohms

90°C

Greater than Mil-T-7928 and UL No. 486

-55°C to 125°C

Typical Properties of Shrink Tubing

Tensile strenath 6000 psi minimum Ultimate elongation 175% +0-10% Longitudinal change Specific gravity 1.1 maximum Heat shock No dripping, flowing, (4 hours at 225°C) or cracking

After Heat Aging 168 Hours at 150°C

Tensile strength Ultimate elongation Dielectric strength Low temperature flexibility (4 hours at -40°C)

70% of original 100% minimum 500volts/mil minimum No cracking

Hot melt adhesive liner for reliable, impermeable moisture barrier.

Funnel entry opening makes wire insertion quick and easy.

Color-coded tubing for easy selection of the correct part size.

High-strength seamless barrel will not open under stress or wire pull and can be crimped from any side.

> Transparent sleeve for visual confirmation of proper wire insertion and crimp locations.

Tough, abrasion resistant, heat-shrink sleeve withstands the most rugged environments and demanding applications.

Applications

- Automotive
- Transportation
- Commercial vehicles
- Marine equipment
- Fountains, pools, spas
- Aerospace
- Defense
- Industrial
- Construction
- Renewable energy



Heat-Seal Terminal Service Kits available See page 67

Heat-Seal Terminals and Splices



Premium Clear Heat Seal Shrink Connectors



Take the Guesswork Out of Crimping!

Clear Heat Seal Shrink Connectors are designed to provide optimal visual assurance of proper terminal installation and offer visual inspection of the wire condition over the life of the termination.

 -55°C to 105°C (-67°F to 221°F)





Rated for 600V

Clear Adhesive Lined Heat Shrink Tubing

- Transparent waterproof insulation allows inspection and visual verification of wire placement and condition
- Crystal clear adhesive ensures a waterproof seal and exceptional optical clarity

Windowed Butt Connectors

- Window allows installer to see that the wire is properly seated and crimped
- Center stop prevents over-insertion
- Seamless barrel ensures superior crimp performance
- Color stripes guide crimp placement and indicate industry standard wire size

45° Ring Terminals

- 45° angled barrel design assures that wire is ideally seated and crimped, and provides for better tubing adherence and seal
- Longer neck allows ring terminals to stack tightly without tubing interference for maximum contact
- Brazed seam barrel for superior crimp performance
- Serrations in crimp barrel provide a strong mechanical grip on the wire
- Color stripe guides crimp placement and indicates industry standard wire size



-55°C TO 105°C



Butts, Rings, Spades, and Quick Slides

22 - 8 AWG

Butt Connectors - Window with Wire Stop, Seamless Barrel

Part Number	Wire Gauge	Stripe
OB-22-18	22-18 AWG	Red
OB-16-14	16-14 AWG	Blue
OB-12-10	12-10 AWG	Yellow

Step-Down Connectors - Window with Wire Stop, Seamless Barrel

Part Number	Wire Gauge	Stripe
OSB-18-24	22-18 AWG to 24-22 AWG	White / Red
OSB-14-22	16-14 AWG to 22-18 AWG	Red / Blue
OSB-10-16	12-10 AWG to 16-14 AWG	Blue / Yellow
OSB-8-12	8 AWG to 12-10 AWG	Yellow / Red

Ring Terminals - Long Neck, Brazed Seam

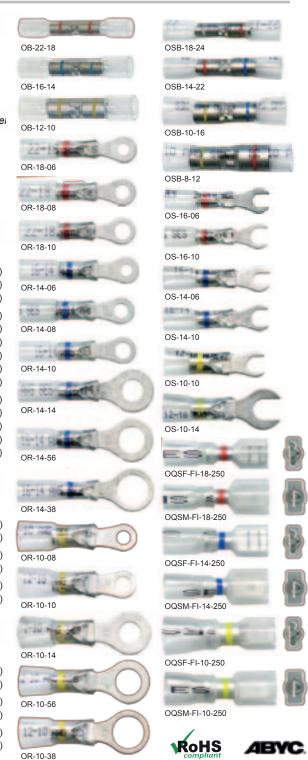
Part Number	Wire Gauge	Stripe	Stud Size	Thickness
OR-18-06	22-18 AWG	Red	#6	.032" (.80mm)
OR-18-08	22-18 AWG	Red	#8	.032" (.80mm)
OR-18-10	22-18 AWG	Red	#10	.032" (.80mm)
OR-14-06	16-14 AWG	Blue	#6	.032" (.80mm)
OR-14-08	16-14 AWG	Blue	#8	.032" (.80mm)
OR-14-10	16-14 AWG	Blue	#10	.032" (.80mm)
OR-14-14	16-14 AWG	Blue	1/4"	.032" (.80mm)
OR-14-56	16-14 AWG	Blue	5/16"	.032" (.80mm)
OR-14-38	16-14 AWG	Blue	3/8"	.032" (.80mm)
OR-10-8	12-10 AWG	Yellow	#8	.040" (1.0mm)
OR-10-10	12-10 AWG	Yellow	#10	.040" (1.0mm)
OR-10-14	12-10 AWG	Yellow	1/4"	.040" (1.0mm)
OR-10-56	12-10 AWG	Yellow	5/16"	.040" (1.0mm)
OR-10-38	12-10 AWG	Yellow	3/8"	.040" (1.0mm)

Spade Terminals - Long Neck, Brazed Seam

Part Number	Wire Gauge	Stripe	Stud Size	Thickness
OS-16-06	22-18 AWG	Red	#6	.032" (.80mm)
OS-16-10	22-18 AWG	Red	#8 to #10	.032" (.80mm)
OS-14-06	16-14 AWG	Blue	#6	.032" (.80mm)
OS-14-10	16-14 AWG	Blue	#8 to #10	.032" (.80mm)
OS-10-10	12-10 AWG	Yellow	#8 to #10	.032" (.80mm)
OS-10-14	12-10 AWG	Yellow	1/4"	.032" (.80mm)

Slide Connectors - Long Neck, Butted Seam, Grip

Part Number	Wire Gauge	Stripe	Gender	Tab Size	Thickness
OQSF-FI-18-250	22-18 AWG	Red	Female	.250"	.032" (.80mm)
OQSM-FI-18-250	22-18 AWG	Red	Male	.250"	.032" (.80mm)
OQSF-FI-14-250	16-14 AWG	Blue	Female	.250"	.032" (.80mm)
OQSM-FI-14-250	16-14 AWG	Blue	Male	.250"	.032" (.80mm)
OQSF-FI-10-250	12-10 AWG	Yellow	Female	.250"	.032" (.80mm)
OQSM-FI-10-250	12-10 AWG	Yellow	Male	.250"	.032" (.80mm)



Crimp and Solder, Closed End and Inline Heat Seal Butts, Crimp Tools

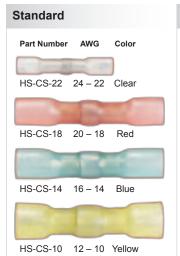
Crimp and Solder Heat Seal Butts

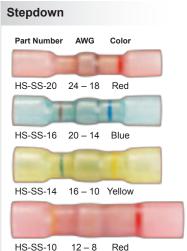
Connectors sold in packages of 100 For 10 pack, append -10 to part number

The Multilink™ Heat Shrink Connector's low temperature solder alloy ring delivers a precise amount of flux and solder to the connection during the heat-shrink process. Protects connection from corrosion, contaminants, and current leakage.

- Seamless connector with inspection window and indicators for crimp and window location
- Wire-stop prevents over insertion
- Pre-measured low-temp solder alloy with flux
- Translucent adhesive-lined polyolefin tubing is color-coded with wire gauge imprint



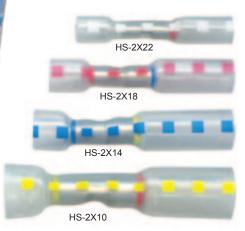


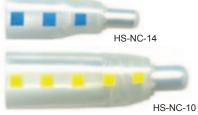


Parts shown approximately actual size

Heat Seal Closed End and Inline Butt Connectors

HydraLink™ Heat Shrink Connectors have an active adhesive that seals and secures multiple wires, eliminating pull out. The Closed End Connector accepts up to four wires and is an excellent wire nut replacement. Closed ends can replace spring connectors in environments where corrosion is a problem. The In-Line Butt Connector splices multiple wires, shrinking and sealing for superior durability and protection. Color dashes indicate wire gauge.





Sealed Closed End Connector

Part Number	Connector Wire Range	Dash Color	
HS-NC-14	22 – 14 AWG	Blue	
HS-NC-10	18 – 10 AWG	Yellow	

Red

STR 22 SOL 20	1 2 3 1 2 3	• • • • •	:	•	• • • •	:	•		• •	1		C	on	ne	C-14
STR	2	:	•		•	•		:	•				ca	Pa	city
20 SOL	1 2 3	•	:	•	• • •	:	•	• • •	•	:	:	٠			
18 STR	1 2	:	•	٠	•	٠	۰	:	•	•	٠		•		
18 SOL	1 2	•	•	٠	•	:	۰	٠	•	:	:	۰	•	•	
16 STR	1 2	٠	•	٠	۰	٠		۰		•			•		•
16 SOL	1 2	۰	•		•	٠	٠	۰		Г					
14 STR	1 2	•			•			۰							
		1	2 22 TR	3	1	2 22 501	3	1	2 3 20 TR	1	2 20 OL	3	1 2 18 STR	1 2 18 SOL	1 2 16 STR

18 1 STR 2	::			H	IS-	NC	-10
18 1 SOL 2	::-	::-		C	on	ne	ctor
16 ¹ STR ²	:::	:::	:::	(Ca _l	pa	city
16 1 SOL 2	:::	:::	:::	:::			
14 1 STR 2		: • •	: • •	: • •	• •		
14 1 SOL 2	• • •	:::	: .	: • •	•	::	
12 ① STR 2		• • •	• •	• •	•	•	•
12 ¹ SOL ₂	• • •	• • •	• •	• •	•		П
10 ¹ SOL ²	•		•				П
	1 2 (3) 18 STR	1 2 3 18 SOL	1 2 3 16 STR	1 2 3 16 SOL	1 2 14 STR	1 2 14 SOL	1 2 12 STR

A dot at an intersection shows that the connector accepts the size, type, and quantity combination indicated. Example: An HS-NC-10 connector will take one 12 AWG and three 18 AWG stranded wires

Red (8 AWG)

Sealed In-	-Line B	utt Conr	nector	SMALI	_ END	LARGE END				
Part Number	AWG	Dash	Stripe	Accepts	Use Insulated Crimp Die	Stripe	Accepts	Use Insulated Crimp Die		
HS-2X22	24 - 22	White	White	One 24 – 22 AWG	White (24 - 22 AWG)	Red	Two 24 – 22 AWG	Red (20 - 18 AWG)		
HS-2X18	20 - 18	Red	Red	One 20 - 18 AWG	Red (20 – 18 AWG)	Blue	Two 20 - 18 AWG	Blue (16 - 14 AWG)		
HS-2X14	16 – 14	Blue	Blue	One 16 - 14 AWG	Blue (16 – 14 AWG)	Yellow	Two 16 - 14 AWG	Yellow (12 - 10 AWG)		

Yellow (12 – 10 AWG)

12 - 10

Yellow

Yellow

One 12 – 10 AWG

HS-2X10

Two 12 - 10 AWG

EK50ML Micro Crimping Tool

The battery powered **EK50ML Micro Crimping Tool** combines the benefits of manual crimping tools with the convenience of battery-powered hydraulic tools. This lightweight tool delivers 3,400 pounds of crimping force and crimps 65 percent faster with 90 percent less hand force compared to ratcheting tools, ideal for high volume, time critical jobs.

The EK50ML crimps 28 – 4 AWG wire using a patented trigger which holds the work in the jaws of the tool before crimping. Powered by a compact 10.8V Lithium-lon battery, the EK50ML Micro Crimping Tool can perform 250 crimps to 10 AWG wire on a single charge. The tool monitors amp draw for each crimp and provides a visual alert if a crimp does not complete a full cycle.

- Includes 2 die sets to crimp 22-10 AWG heat shrink terminals and nylon insulated terminals; other die sets sold separately
- \bullet Crimps three times faster with 90% less force using one finger
- Reduces hand force from 53 pounds to 6 pounds
- 65% faster crimping than ratcheting tools (1.2 vs 3.5 seconds)
- When crimping is complete, simply release the trigger to open the jaws for the next crimp
- Overmolded tacky grip for maximum comfort and security
- Multifunction LED for maintenance display and data transfer via optional interface and USB adapter
- LED work light for use in dark areas
- LED battery level indicator monitors charge
- Weighs just 2.2 lbs with battery
- 12mm Jaw



Crimps 22-10 AWG heat shrink terminals



Crimps 22-10 AWG nylon insulated terminals





Part Number

EK50ML



Molex® ServiceGrade™ Ratchet Hand Crimper

Ratchet Hand Crimper crimps heat shrink terminals 22 to 10 AWG (rings, /s, hooks, 3 and 4 ways, and splices).

- Full cycling ensures complete crimps
- Small handle spread is ideal for all users
- Crimp release for operator safety

Part Number



Ilsco® Compound Action Crimper

Compound Action Controlled Crimper is specifically designed for heat shrink style terminals. Elliptical nest for crimping insulated terminals.

- Wire range 22 to 10 AWG
- Weight: 12.4 oz. Length: 9 1/8"



Nylon Insulated Terminals

With tin plated brass support sleeve

Nylon Insulated Rings, Snap Spades, Butt Connectors

Made from pure electrolytic copper, Nylon Insulated Terminals are typically thicker and stronger than competitive heavy-duty terminals.

Open end design for fast inspection. Annealed and tin plated for best conductivity and protection from corrosion.

> Sturdy gussets reinforce tongue, deep V-notches improve wire grip

Beveled chamfer eases wire entry, eliminates strand turnback

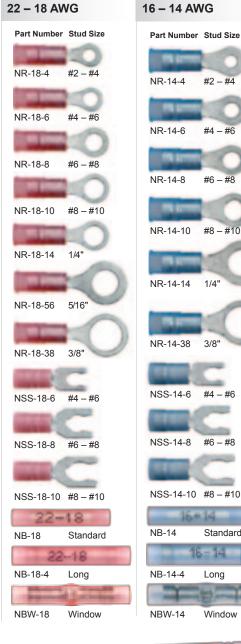
Plated brass support sleeve extends beyond the inner barrel for extra strength and strain relief

Molded nylon sleeve extends beyond the metal support sleeve to ensure complete insulation between wire and terminal

Standards

- Exceeds MIL-T-7928 corrosion standards (Method 101 of MIL-STD-202 for 100 hours)
- Withstands and exceeds required millivolt-drop readings after vibration testing per MIL-T-7928
- Exceeds tensile performance specifications compared to UL and Military standards and maximum wire strength data (ASTM designation B-58)

Sold in packages of 100 25 piece bubble packs and bulk quantities also available





#2 - #4

#6 -

#8 - #10

1/4'

#4

#6 - #8

Standard

16-14

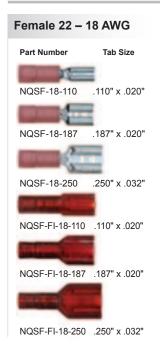
Long

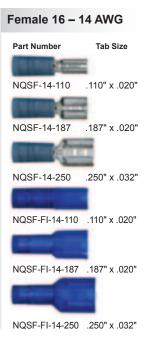


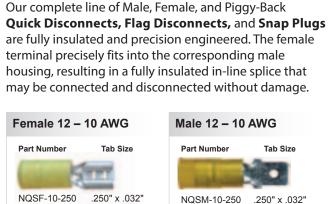
Window

NBW-10

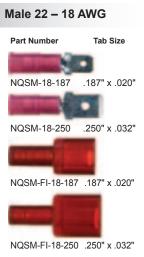
Nylon Insulated Quick Disconnects, Flags, Snap Plugs

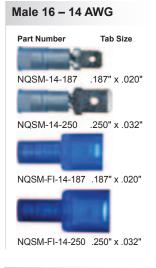


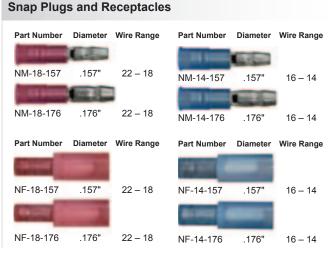






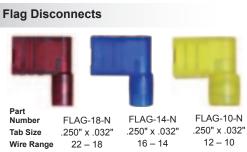












Parts shown approximately actual size

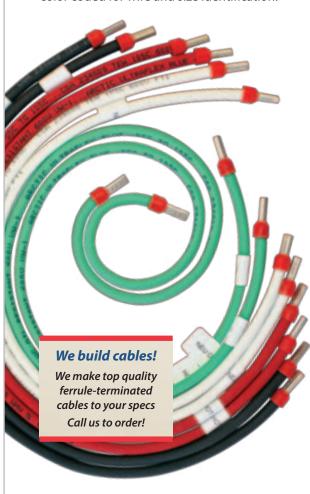
Plated Copper Ferrules Weather Pack Locking Connectors



Sold individually

Tin Plated Copper Ferrules

Ferrules stabilize stripped conductor ends, allowing wires to be repeatedly connected and disconnected without damage to the individual stranding. Insulated ferrules are color coded for wire and size identification.



Ferrule Crimp Tools

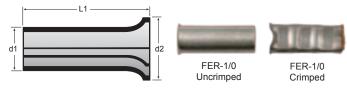


Insulated W	ire Fer	rules			So	Sold in bags of 100		
Part Number FER-20INS FER-18INS FER-16INS FER-12INS FER-10INS FER-8INS FER-6INS FER-6INS	20 18 16 14 12 10 8 6 2	mm2 0.75 1.0 1.5 2.5 4.0 6.0 10.0 16.0 35.0	Color white red black blue gray yellow red blue	d1 1.2 1.4 1.7 2.2 2.8 3.5 4.5 5.8 8.3	d2 2.8 3.0 3.5 4.2 4.8 6.3 7.6 8.8 12.4	L1 14 14 14 15 18 20 22 22 30	8 8 8 8 10 12 12 12 16	
$ \begin{array}{c c} \downarrow & & L1 \\ \hline d1 & & \\ \uparrow & & L2 \end{array} $			→	ER-INS10	-	FER-IN Crimp		

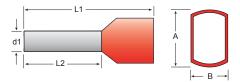
					_
Part Number	AWG	mm2	d1	d2	L1
FER-8	8	10.0	4.5	5.8	12
FER-6	6	16.0	5.8	7.5	12
FER-4	4	25.0	7.3	9.5	15
FER-2	2	35.0	8.3	11.0	18
FER-1/0	1/0	50.0	10.3	13.0	32
FER-2/0	2/0	70.0	12.5	15.0	32
FER-3/0	3/0	95.0	14.5	17.0	32
FER-4/0	4/0	120.0	17.2	19.0	32
FER-250	250 MCM	150.0	19.5	21.0	32
FER-500	500 MCM	240.0	23.0	25.0	40

Uninsulated Wire Ferrules

Twin Wire Ferrules



				Total in angle of the			
Part Number	AWG	mm2	Color	d1	A/B	L1	L2
FER-22TWIN	2x22	0.5	white	1.4	5.0/3.0	15	8
FER-20TWIN	2x20	0.75	gray	1.7	5.5/3.0	15	8
FER-18TWIN	2x18	1.0	red	2.0	5.8/3.2	15	8
FER-16TWIN	2x16	1.5	black	2.2	6.5-3.6	16	8
FER-14TWIN	2x14	2.5	blue	2.8	8.0/4.5	19	10
FER-12TWIN	2x12	4.0	gray	3.5	9.0/5.2	22	12
FER-10TWIN	2x10	6.0	yellow	4.5	11.4/6.2	23	12
FER-6TWIN	2x6	16.0	blue	8.3	17.2/9.5	29	16



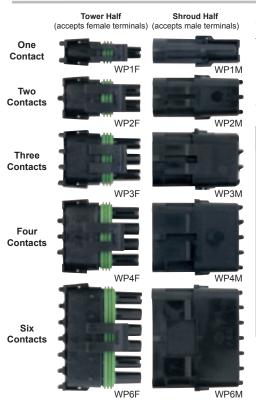
Call for more ferrule sizes and styles



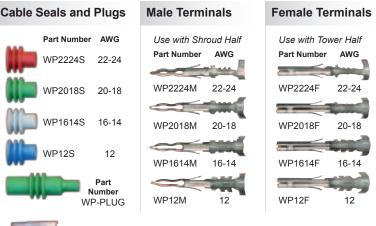
Sold in bags of 100

Ferrules Service Kits available — page 68

Weather Pack Locking Connectors



Weather Pack Locking Connectors seal out moisture and dirt. These one to six contact nylon connectors are rated -40°C to 125°C (-40°F to 257°F), up to 16 volts DC and 20 amps. Hinge lock assembly. Self-lubricating silicone body seal reduces engagement force. Silicone cable seals must be used with the tinned brass terminals, cavity plugs fill unused pin locations. Terminals and seals sold in quantities of 100.





Weather Pack Service Kit available on page 68



40°F TO 257°F

Wired Weather Pack Pigtails

Four Contacts

Save labor, time and tool costs with Arctic Ultraflex Blue® wired Weather Pack Pigtails.

Quality Weather Pack connectors are securely crimped and sealed in ready-to-use male-to-female configurations of one to six contacts. 18, 16, 14, and 12 wire gauge. 12" overall length.

Custom lengths available



One Contact	
Part Number	AW
WP18-1	18
WP16-1	16
WP14-1	14
WP12-1	12



Two Contacts

AWG

18

16

14

Part Number

WP18-2

WP16-2

WP14-2



WP18-3

WP16-3

WP14-3







Six Contacts

Part Number AWG Part Number Part Number AWG WP18-4 WP18-6 18 18 18 16 WP16-4 16 WP16-6 16 14 WP14-4 14 WP14-6 14 WP12-4 WP12-6

WP12-2 WP12-3 Weather Pack Tools

Crimp Tool crimps and seals 20 to 14 gauge terminals in one operation. Ratchet assembly assures a perfect crimp. Part Number WP402

Economy Crimp Tool crimps 20 to 12 gauges in two steps, one for terminal and one for seal.

Part Number WP-CRIMP

Pin Extraction Tool removes male or female terminals.

> Part Number WP-EXTRACT