

2014



Wire Termination

Tools & Supplies

Stripmaster®
Wire Strippers

Test & Measurement

Networks

IDEAL

Electrical Products

IDEAL, an American Original

We listen, and we deliver products with a purpose.

Entrepreneurial in spirit, grounded in the values of American ingenuity, IDEAL was founded on the basis that every product we make will exceed the value of the price paid for it. Today, we exemplify those values in our products, our customer service and our vision for the future of our business. We are investing in the success and revitalization of American ingenuity and are committed to manufacturing American Value in every product we make.

Today's global economy demands we look at doing business more creatively, more competitively and more efficiently. IDEAL is on the leading edge of product development and design, integrating those ideas through strategic investment, implementation of lean manufacturing and just-in-time inventory. Field-tested and customer influenced design means we are creating some of the most forward thinking tool designs in the industry.



IDEAL is with you every step of the way

From the introduction of the first twist-on wire connector, IDEAL has been a leading force in wire termination and installation technologies. Through ingenuity, proven performance and innovative engineering, IDEAL continues to lead the electrical industry with products that deliver value greater than the price paid for them.



This information is based on 2012 Epicor/Vista data.



TERMINATION TECHNOLOGY

IDEAL is the leader of market share in wire termination. The two nearest competitors combined total less than 25% of market share. For wire termination, IDEAL is industry standard.



WIRE PULLING LUBRICANT

Top market share in lubes belongs to IDEAL. The environmentally safe lubes from IDEAL provide exceptional lubricity for rapid pulls.



FISH TAPE

IDEAL holds the top market share in fish tapes. IDEAL manufactures a variety of fish tapes for all applications, and our durable, impact-resistant cases are the best on the market.



CONDUIT BENDER

IDEAL leads with the majority market share in benders. IDEAL benders are constructed of exceptionally durable materials and reinforced at stress points for extra long life.



WIRE STRIPPER

IDEAL holds the #1 spot in market share of wire strippers. Ergonomically designed in a variety of models for every application, IDEAL manufactures the finest wire strippers on the market.

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NEW PRODUCTS FROM IDEAL

After 98 years of serving the electrical market, we at IDEAL Electric continue to take pride in innovation that delivers unrivaled value, quality and exceptional performance. Engineered specifically for the professional electrician, IDEAL continues to provide new products that deliver durability, on the job efficiency and safety.

Go to www.idealindustries.com/whatsnew/products/ to learn more about our newest products.



SURETRACE™ CIRCUIT TRACERS

CertainCircuit™
After you identify and trip the correct breaker, the transmitter senses the loss of power and sends a different signal back to the receiver to give you confidence at the panel that the right circuit was de-energized.



Energized



De-energized



See Page D-8



InSITE
TECHNOLOGY

INSITE® COMPRESSION CONNECTORS

Featuring a 360° clear site window that simplifies the connector to cable installation.



NJX™ COMPRESSION CONNECTORS

offer a high performing, reliable and economical solution designed for applications that do not require weatherproof connectivity.



TLC™ COMPRESSION CONNECTORS,

our simplest, fastest and lowest total cost solution for installing compression connectors. Designed to save Time, Labor, and Cost!



See Page E-12



VDV II TESTERS

- Three new Voice-Data-Video Verification testers
- New test features including TDR length measurement, Ethernet service detection, PoE solicit and detect with voltage measurement, and more.
- New multi remote and identifier accessory packs
- Visit website for full product details



<http://www.idealindustries.com/products/datacomm>

THERE'S A BETTER WAY TO CUT



BIG KAHUNA™ CABLE CUTTER

Our new series of PowerBlade™ Cable Cutters are engineered to cut cables quickly and efficiently. The Big Kahuna™ is a rock solid PowerBlade™ designed for heavy duty applications involving large diameter cable. The jaw opens up to 3-1/2" and leaves a clean, installation ready cut each and every time. This PowerBlade™ offers superior blade durability that cuts copper and aluminum up to 1250 MCM.



With adjustable torque arms, heavy duty gears and state of the art hardened steel blades, IDEAL PowerBlade™ Cable Cutters offer ease of use and unsurpassed performance. Our new addition, Merlin™, is specifically designed for applications involving stainless steel reinforced aluminum cable with a jaw opening of 3/4" for precision and accuracy. This PowerBlade™ has the ability to cut up to 3/4" Merlin ACSR.

**BIG KAHUNA™ CUTS
COPPER AND ALUMINUM
UP TO 1250MCM**

**3 1/2" MAX JAW
OPENING**



**MERLIN™ CUTS ACSR
CABLE UP TO 3/4"**

**3/4" MAX JAW
OPENING**



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Connectors designed for every application



Based on 2012 data available from Epicor/Vista.



Twister®

Wire Connectors

The industry's premier wire connector. Just three models accommodate the majority of common wiring configurations from 22 through 6 AWG. The ribbed cap provides a secure grip and swept wings offer extra leverage. A patented square-wire spring provides safe, secure connections.

The original twist-on wire connector features a positive-grip design for easy installation. Five color-coded models cover hundreds of wire combinations from 22 through 6 AWG. The fixed square-wire spring provides a secure connection that won't relax over time.

Wire-Nut®

Wire Connectors



Wing-Nut®

Wire Connectors

The next step in IDEAL wire connector innovation. Three models accommodate a wide range of circuit and fixture wiring combinations from 18 through 6 AWG. Built-in, contoured wings provide extra leverage on maximum wire combinations. And the live-action spring expands to accept a broader range of wire shapes and sizes.

Contoured Classic Fin™ design provides a secure grip for extra torque. Three models cover a full range of wire sizes from 22 through 6 AWG. The square-wire spring locks onto conductors for fast, secure connections. The low-profile shape allows easy handling and installation.

B-CAP®

Wire Connectors



WeatherProof® / UnderGround®

Wire Connectors

Twist-on connectors for underground and wet location installations. Covers a wide range of wire sizes from 22 through 6 AWG. Features non-hardening silicone sealant to ensure safe, moisture-free electrical connections. UL Listed and CSA Certified for damp/wet and direct burial applications.

The only aluminum-to-copper twist-on wire connector. Specially formulated compound reduces corrosion build-up on aluminum conductors for better conductivity and cooler connections. UL Listed and CSA Certified for aluminum-to-copper connections.

Twister® Al/Cu

Wire Connectors



Wire Connector Application Guide

Model	RESIDENTIAL								COMMERCIAL							
	Light Switches	Receptacles	Ceiling Fans	Can Lights	Thermostat Controls	HVAC	Smoke/CO Detectors	Garage Door Openers	Door Bells	Multi-Gang Switch Boxes	Security Systems	Intercoms	Recessed Lighting Controls	Illuminated Signage Receptacles	3-Phase Motors	HVAC
Twister®																
340® Lt. Blue	•		•	•				•								
341® Tan	•	•					•	•	•							•
344® Red/Yellow	•	•					•		•			•	•	•	•	•
342® Gray												•	•		•	•
Wire-Nut®																
71B® Gray					•					•	•					
72B® Blue					•	•				•	•					•
73B® Orange			•	•				•		•	•					•
74B® Yellow	•		•	•				•			•	•				
76B® Red	•	•					•		•			•	•	•	•	•
Wing-Nut®																
451® Yellow	•	•	•	•				•			•					
452® Red	•	•					•		•			•	•	•	•	•
454® Blue												•	•	•	•	•
B-CAP®																
B1 Yellow	•		•	•				•								
B2 Red	•	•					•		•			•	•	•	•	•
B4 Blue												•	•	•	•	•
B-Twist™																
BT2™ Red	•	•					•		•			•	•	•	•	•
WingTwist™																
WT51 Yellow	•		•	•				•			•					
WT41 Tan	•	•					•	•	•			•				•
WT52 Red	•	•					•		•			•	•	•	•	•
WT54 Blue												•	•		•	•
WireTwist™																
WT1 Gray					•					•	•					
WT2 Blue					•	•				•	•					•
WT3 Orange			•	•				•		•	•					•
WT4 Yellow	•		•	•				•			•	•				•
WT6 Red	•	•					•		•			•	•	•	•	•

Model	RESIDENTIAL								COMMERCIAL								
	Landscape Lighting	Pool Filters/Controls	Outdoor Power Outlets	Patio/Deck Lighting	Bathroom/Spa Vent Fans	Security Systems	Basement/Garage	Lawn-Sprinkler Controls	Sump/Well Pumps	Landscape Lighting	Security Systems	Exterior Lighting	Street/Parking Lot Lighting	Car Washes	Processing Plants	Traffic Signals	Ejection Pumps
WeatherProof®																	
61® Gray/Orange					•	•		•		•		•	•	•			•
62® Gray/Red		•	•	•			•			•		•	•				•
63® Gray/Dk. Blue		•	•	•			•			•		•	•				•
UnderGround®																	
60® Gray/Blue	•			•	•					•		•		•	•		
64® Gray/Dk. Blue	•				•					•		•		•	•		
66® Gray/Dk. Blue										•		•		•			



Wire Range Chart

Model: Wire Combinations:

Twister®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
340° Lt. Blue	MIN. 2 #22					MAX. 3 #12												
341° Tan	MIN. 3 #22			MAX. 3 #10														
344° Red/Yellow					MIN. 2 #18					MAX. 4 #10								
342° Gray									MIN. 3 #14				MAX. 2 #8 w/ 2 #12					

Wire-Nut®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
71B° Gray (300V)	MIN. 2 #22 Str.		MAX. 2 #16															
72B° Blue (300V)	MIN. 2 #22					MAX. 3 #16												
73B° Orange	MIN. 1 #18 w/ 1 #20			MAX. 2 #14														
74B° Yellow					MIN. 2 #18			MAX. 4 #14 w/ 1 #18										
76B° Red									MIN. 2 #14		MAX. 4 #12							

Wing-Nut®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
451° Yellow					MIN. 2 #18					MAX. 3 #12								
452° Red					MIN. 2 #18										MAX. 4 #10			
454° Blue												MIN. 3 #12		MAX. 1 #6 w/ 2 #8				

B-CAP®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6
B1 Yellow				MIN. 3 #20					MAX. 3 #12								
B2 Red					MIN. 2 #18										MAX. 5 #12		
B4 Blue											MIN. 2 #12			MAX. 2 #6			

B-Twist™	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6
BT2™ Red					MIN. 2 #18										MAX. 2 #8		

WingTwist™	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
WT51 Yellow					MIN. 2 #18					MAX. 3 #12								
WT41 Tan	MIN. 2 #20			MAX. 3 #10														
WT52 Red									MIN. 2 #14					MAX. 5 #12				
WT54 Blue												MIN. 3 #12		MAX. 2 #6				

WireTwist™	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
WT1 Gray (300V)	MIN. 3 #22		MAX. 2 #16															
WT2 Blue (300V)				MIN. 3 #20		MAX. 3 #16												
WT3 Orange					MIN. 2 #18		MAX. 2 #14											
WT4 Yellow					MIN. 2 #18			MAX. 2 #12										
WT6 Red									MIN. 2 #14		MAX. 4 #12							

WeatherProof®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
61° Gray/Orange				MIN. 2 #20				MAX. 2 #14										
62° Gray/Red					MIN. 2 #18										MAX. 3 #10			
63° Gray/Dark Blue										MIN. 3 #14			MAX. 5 #10					

UnderGround®/MudBug®	2 #22	3 #22	2 #20	3 #20	2 #18	2 #16	3 #16	2 #14	3 #14	2 #12	4 #14	3 #12	4 #12	3 #10	5 #12	4 #10	2 #6	
60° Gray/Blue	MIN. 1 #20 w/ 1 #18					MAX. 1 #10 w/ 2 #12												
64° Gray/Dark Blue					MIN. 2 #18 Sol.						MAX. 3 #10							
66° Gray/Dark Blue												MIN. 3 #12		MAX. 2 #6 w/ 1 #10				
60° Yellow	MIN. 1 #20 w/ 1 #18			MAX. 1 #10 w/ 2 #12														
64° Yellow					MIN. 2 #18 Sol.						MAX. 3 #10							

2 #22 3 #22 2 #20 3 #20 2 #18 2 #16 3 #16 2 #14 3 #14 2 #12 4 #14 3 #12 4 #12 3 #10 5 #12 4 #10 2 #6

SECTION **A** WIRE TERMINATION

TWIST-ON WIRE CONNECTORS.....A-2

**WEATHERPROOF® & UNDERGROUND®
WIRE CONNECTORSA-5**

LUMINAIRE DISCONNECTSA-7

**SPLICE LINE® IN-LINE
WIRE CONNECTORSA-7**

PUSH-IN WIRE CONNECTORSA-8

GROUNDING ACCESSORIES.....A-9

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SPICESA-10**

TERMINAL STRIPS.....A-13

CRIMP CONNECTORSA-15

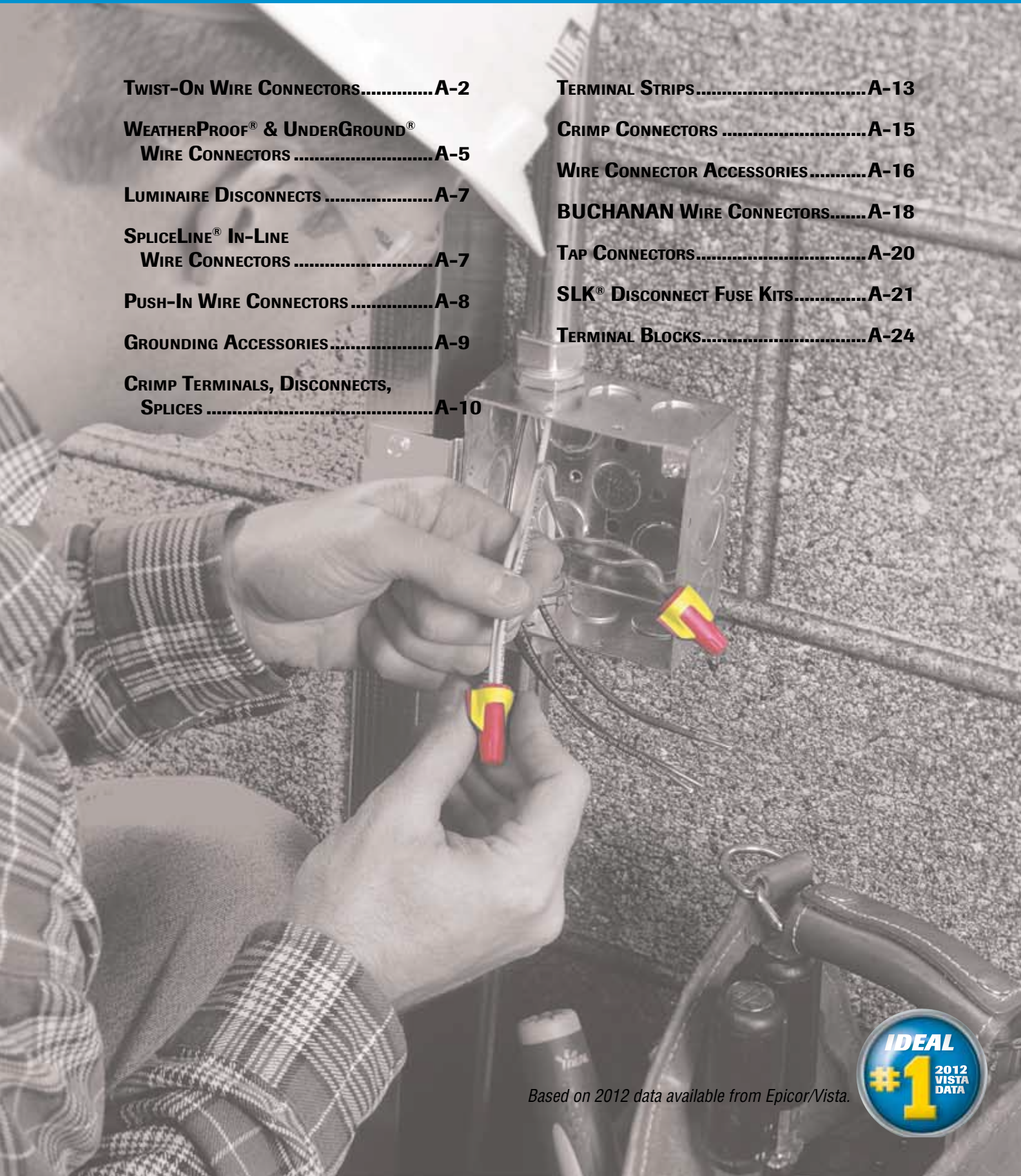
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BUCHANAN WIRE CONNECTORS.....A-18

TAP CONNECTORS.....A-20

SLK® DISCONNECT FUSE KITS.....A-21

TERMINAL BLOCKS.....A-24



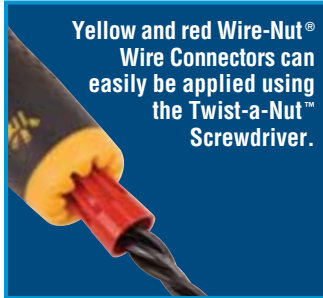
Based on 2012 data available from Epicor/Vista.





WIRE TERMINATION

Wire-Nut® Wire Connectors



Yellow and red Wire-Nut® Wire Connectors can easily be applied using the Twist-a-Nut™ Screwdriver.

- Five color-coded models cover wire sizes from 22 to 6 AWG
- Fixed, square-wire spring creates its own threads – maintains a secure positive grip that will not relax over time
- No pre-twisting required – positive grip design provides fast, easy installation
- Deep skirt helps protect against flash-over
- Reusable for easy circuit changes and additions
- Tough, UL94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA certified to C22.2 #188; comply with Federal Specification W-S-610E



Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
71B®	Gray	300V 22 to 16 AWG Min. 2 #22 – Max. 2 #16	300V ,34mm ² to 1,5mm ² Min. 2-,34mm ² Max. 3-1,5mm ²	Box of 100	30-071
				Carton of 1,000	30-171
				Keg of 25,000 (loose pack)	30-271
				Barrel of 150,000	30-871
72B®	Blue	300V 22 to 14 AWG Min. 2 #22 – Max. 3 #16	300V ,34mm ² to 2,5mm ² Min. 2-,34mm ² Max. 3-1,5mm ²	Box of 100	30-072
				Carton of 1,000	30-172
				Keg of 10,000 (loose pack)	30-272
				Barrel of 85,000	30-872
73B®	Orange	600V* 22 to 14 AWG Min. 1 #18 & 1 #20 Max. 2 #14	600V* ,34mm ² to 2,5mm ² Min. 1-,75mm ² w/1-,50mm ² Max. 4-1,5mm ² w/1-,50mm ²	Box of 100	30-073
				Jar of 300	30-073J
				Bag of 500	30-273
				Carton of 1,000	30-173
74B®	Yellow	600V* 18 to 12 AWG Min. 2 #18 Max. 4 #14 & 1 #18	600V* ,75mm ² to 4,0mm ² Min. 2-,75mm ² Max. 4-2,5mm ² w/1-,75mm ²	Keg of 10,000 (loose pack)	30-673
				Barrel of 50,000	30-873
				Box of 100	30-074
				Jar of 175	30-074J
75B®	Yellow	600V* 18 to 12 AWG Min. 2 #18 Max. 4 #14 & 1 #18	600V* ,75mm ² to 4,0mm ² Min. 2-,75mm ² Max. 4-2,5mm ² w/1-,75mm ²	Bag of 500	30-274
				Carton of 1,000	30-174
				Keg of 5,000 (loose pack)	30-674
				Barrel of 35,000	30-874
76B®	Red	600V* 18 to 6 AWG Min. 2 #14 Max. 4 #12	600V* ,75mm ² to 16,0mm ² Min. 2-2,5mm ² Max. 2-4,0mm ²	Box of 100	30-076
				Jar of 150	30-076J
				Bag of 250	30-276
				Carton of 1,000	30-176
				Barrel of 15,000	30-876

*1,000V maximum in fixtures and signs

High Temperature Wire-Nut® Wire Connectors

All of the same features as the Wire-Nut® Wire Connector, plus:

- Black, thermoplastic shell designed to withstand extreme heat build-up found in high-wattage light fixtures and signs. UL Listed to 150°C (302°F)
- Four models to cover wire ranges from 22 to 12 AWG

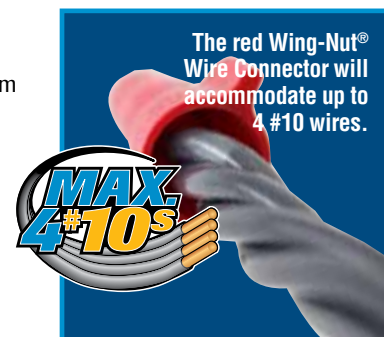





Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
71B®	Black	300V 22 to 16 AWG Min. 2 #22 Str Max. 2 #16	300V ,34mm ² to 1,5mm ² Min. 2-,34mm ² Max. 2-1,5mm ²	Box of 100	30-3627
				Carton of 1,000	30-151
				Keg of 25,000 (loose pack)	30-251
				Barrel of 150,000	30-801
72B®	Black	300V 22 to 14 AWG Min. 2 #22 Max. 3 #16	300V ,34mm ² to 2,5mm ² Min. 2-,34mm ² Max. 3-1,5mm ²	Box of 100	30-3628
				Carton of 1,000	30-152
				Keg of 10,000 (loose pack)	30-252
				Barrel of 85,000	30-802
73B®	Black	600V* 22 to 14 AWG Min. 1 #18 w/1 #20 Max. 2 #14	600V* ,34mm ² to 2,5mm ² Min. 1-,75mm ² w/1-,50mm ² Max. 4-1,5mm ² w/1-,50mm ²	Box of 100	30-3629
				Carton of 1,000	30-153
				Keg of 10,000 (loose pack)	30-253
				Barrel of 50,000	30-803
59B®	Black	600V* 22 to 12 AWG Min. 2 #20 Max. 3 #14	600V* ,34mm ² to 4,0mm ² Min. 2-,5mm ² Max. 3-2,5mm ²	Box of 100	30-059
				Carton of 1,000	30-159
				Keg of 5,000 (loose pack)	30-259
				Barrel of 35,000	30-809

*1,000V maximum in fixtures and signs

Wing-Nut® Wire Connectors

- Three color-coded models cover a full range of wire sizes from 18 to 6 AWG
- Specially designed contoured wings provide a secure grip for extra leverage on maximum wire combinations
- Live-action spring expands to accept wire shape and size with no pre-twisting required
- Square-wire spring threads directly onto conductors for fast, secure connections
- Deep skirt helps protect against flash-over and turned-back strands for maximum dielectric protection
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E




Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
451® 	Yellow	600V* 18 to 10 AWG Min. 2 #18 Max. 3 #12	600V* ,75mm ² to 6,0mm ² Min. 2-.75mm ² Max. 3-4,0mm ²	Box of 100	30-451
				Jar of 225	30-451J
				Jar of 500	30-651J
				Bag of 500	30-651
				Carton of 1,000	30-551
452® 	Red	600V* 18 to 8 AWG Min. 2 #18 Max. 4 #10	600V* ,75mm ² to 10,0mm ² Min. 2-.75mm ² Max. 4-6,0mm ²	Barrel of 35,000	30-851
				Box of 100	30-452
				Jar of 300	30-452J
				Jar of 500	30-652J
				Bag of 500	30-652
454® 	Blue	600V* 14 to 6 AWG Min. 3 #12 Max. 1 #6 & 2 #8	600V* 2,5mm ² to 16,0mm ² Min. 3-4,0mm ² Max. 2-16,0mm ² w/1-4,0mm ²	Carton of 1,000	30-552
				Barrel of 25,000	30-852
				Box of 25	30-454
				Bag of 100	30-654
				Carton of 250	30-554
	Barrel of 10,000	30-854			

*1,000V maximum in fixtures and signs



Greenie® Grounding Wire Connectors

- Designed for making ground connections and bonding non-metallic sheathed cable
- Contoured wings for maximum leverage
- Live-action, square-wire spring provides superior grounding connections
- Tough, UL 94V-2 flame-retardant shell
- UL Listed to 467 and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
92® 	Green	14 to 10 Min. 2 #14 Max. 4 #12	2,5mm ² to 6,0mm ² Min. 2-2,5mm ² Max. 2-4,0mm ² w/1-2,5mm ²	Box of 100	30-092
				Jar of 150	30-092J
				Bag of 500	30-292
				Carton of 1,000	30-192
				Barrel of 25,000	30-992

Greenie® Grounding Connector fully meets the intent of the N.E.C. and specifically aids in compliance with the following:

ARTICLE 250: GROUNDING

- 250-146 Connecting Receptacle Grounding Terminal to Box
- 250-148 Continuity and Attachment of Equipment Grounding Conductors to Boxes
 - (B) Grounding continuity
 - (D) Nonmetallic boxes



**See Page A-10 for more
IDEAL Grounding Products!**

IDEAL® WIRE TERMINATION

Twister® Wire Connectors



Small profile of Twister® LT is perfect for recessed lighting applications.

- Exceptional wire-range capacity – three color-coded models handle wire combinations from as small as 22 AWG to as large as 6 AWG
- Ribbed cap provides a secure grip and fast fingertip starts
- Swept wings offer extra leverage and less effort for large wire combinations
- Hexagonal shape accommodates standard nutdriver for tool installation
- Live-action, square-wire spring locks onto wire for safe, secure connections
- Deep skirt helps protect against flash-over and turned-back strands for maximum dielectric protection
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
340®	Lt. Blue	600V* 22 to 10 AWG Min. 2 #22 Max. 3 #12	600V* ,34mm ² to 4,0mm ² Min. 2-,34mm ² Max. 3-4,0mm ²	Box of 100	30-340
				Jar of 500	30-640J
				Barrel of 35,000	30-840
341®	Tan	600V* 22 to 8 AWG Min. 3 #22 Max. 3 #10	600V* ,34mm ² to 10,0mm ² Min. 3-,34mm ² Max. 3-6,0mm ²	Box of 100	30-341
				Jar of 400	30-441J
				Bag of 500	30-641
				Jar of 750	30-341J
				Carton of 1,000	30-541
342®	Gray	600V* 18 to 6 AWG Min. 3 #14 Max. 2 #8 w/2 #12	600V* ,75mm ² to 10,0mm ² Min. 3-2,5mm ² Max. 2-10,0mm ² w/2-4,0mm ²	Barrel of 25,000	30-841
				Box of 50	30-342
				Bag of 250	30-642
				Barrel of 15,000	30-842

*1,000V maximum in fixtures and signs

Twister® PRO Wire Connectors



The Twister® Pro is a high performance connector with the industry's widest wire range of any red/yellow connector.

- The **widest red/yellow wire range** in the industry; min. 2 #18 to max. 4 #10
- SureGrip™ overmolding provides better grip for improved leverage, more torque and faster connections
- Comfortable swept wings designed to help reduce hand fatigue
- Expanding square-wire spring provides a secure connection every time
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E



Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
344®	Red/Yellow	600V* 22 to 8 AWG Min. 2 #18 Max. 4 #10	600V* ,34mm ² to 10,0mm ² Min. 2-,75mm ² Max. 4,0-6,0mm ²	Box of 50	30-144
				Jar of 250	30-244J
				Jar of 500	30-644J
				Barrel of 20,000	30-944

*1,000V maximum in fixtures and signs

WeatherProof® and UnderGround® Wire Connectors

- Silicone-based sealant protects against moisture and corrosion
- UL Listed to 486D for use in damp/wet locations or direct burial
- Easy to apply, pre-filled twist-on wire connectors
- Handles wire sizes from 22 to 6 AWG copper conductors
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E






WeatherProof® – suitable for interior and exterior electrical connections exposed to rain or damp conditions.



UnderGround® – suitable for use in a wide variety of direct burial and wet location electrical connections.






WeatherProof® Wire Connectors

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
61® 	Gray/Orange	600V* 22 to 14 AWG Min. 2 #20 Max. 2 #14	600V* ,34mm ² to 4,0mm ² Min. 2-,5mm ² Max. 2-2,5mm ²	Card of 25	30-1161
				Jar of 150	30-1261J
				Carton of 1,000	30-1361
62® 	Gray/Red	600V* 18 to 8 AWG Min. 2 #18 Max. 3 #10	600V* ,75mm ² to 10,0mm ² Min. 2-,75mm ² Max. 3-6,0mm ²	Card of 20	30-1162
				Jar of 100	30-1262J
				Carton of 1,000	30-1362
61®/62®	Gray/Orange • Gray/Red			Card of 10 (5 ea.)	30-6162
63® 	Gray/Dr. Blue	600V* 16 to 6 AWG Min. 2 #14 Max. 2 #8 & 1 #10	600V* 1,5mm ² to 16,0mm ² Min. 2-2,5mm ² Max. 2-10,0mm ² w/1-6,0mm ²	Card of 15	30-1163
				Jar of 50	30-1263J
				Carton of 1,000	30-1363

*1,000V maximum fixtures and signs.

UnderGround® Wire Connectors

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
60® 	Gray/Blue	600V* 20 to 10 AWG Min. 1 #20 w/1 #18 Max. 1 #10 w/2 #12	600V* ,5mm ² to 6,0mm ² Min. 1-,5mm ² w/1,75mm ² Max. 1-6,0mm ² w/2-4,0mm ²	Box of 25	30-1160
				Box of 100	30-1260
				Box of 1,000	30-1360
64® 	Gray/Dk. Blue	600V* 18 to 8 AWG Min. 2 #18 Sol. Max. 3 #10	600V* ,75mm ² to 10,0mm ² Min. 2-,75mm ² Sol. Max. 3-6,0mm ²	Box of 50	30-1264
				Box of 1,000	30-1364
60®/64®	Gray/Blue • Gray/Dk. Blue			Card of 10 (5 ea.)	30-6064
66® 	Gray/Dk. Blue	600V* 14 to 6 AWG Min. 3 #12 Max. 2 #6 w/1 #10	600V* 2,5mm ² to 16,0mm ² Min. 3-4,0mm ² Sol. Max. 2-16,0mm ² w/6,0mm ²	Box of 50	30-1066

*1,000V maximum in fixtures and signs



IDEAL® WIRE TERMINATION

mudbug® Utility Wire Connectors



- Connects underground gas tracer lines providing superior protection
- Moisture and corrosion resistant, pre-filled with non-hardening, 100% silicone
- 20 - 8 AWG wire range capacity
- UL Listed to direct burial test standard 486D up to 600V maximum voltage

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity	Cat. No.
60®	Yellow	600V* 20 to 10 AWG Min. 1 #20 w/1 #18 Max. 1 #10 w/2 #12	600V* ,5mm² to 6,0mm² Min. 1-,5mm² w/1 ,75mm² Max. 1-6,0mm² w/2-4,0mm²	Box of 25	30-160Y
				Box of 1,000	30-360Y
64®	Yellow	600V* 18 to 8 AWG Min. 2 #18 Sol. Max. 3 #10	600V* ,75mm² to 10,0mm² Min. 2-,75mm² Sol. Max. 3-6,0mm²	Box of 25	30-164Y
				Box of 1,000	30-364Y

*1,000V maximum in fixtures and signs



Twister® Al/Cu Wire Connectors

- Only aluminum-to-copper twist-on connector specifically designed to guarantee a secure connection while preventing aluminum corrosion
- Specially formulated corrosion-resistant compound penetrates corrosion build-up on aluminum conductors for increased conductivity and cooler connections
- Compact, one-piece design features ribbed cap, swept wings and hexagonal head for easy installation by hand or with standard nutdriver
- Live-action, square-wire spring expands and contracts with aluminum wire
- Deep skirt provides maximum dielectric strength
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- Complies with N.E.C. Section #110-14(b) for aluminum-to-copper connections; UL Listed to 486C and CSA Certified to C22.2 #188; complies with Federal Specification W-S-610E
- Listed to UL467 for grounding and bonding



Model	Color	Wire Combination Ranges	Quantity	Cat. No.
65	Purple	1 #10 Al solid w/1 or 2 #10 Cu solid 1 #10 Al w/1 or 2 #12 Cu 2 #10 Al solid w/1 #12 Cu 1 #10 Al w/1 or 2 #14 Cu 2 #10 Al solid w/1 #14 Cu 2 #12 Al solid w/1 #10 Cu 1 #12 Al solid w/1 or 2 #10 Cu 1 #12 Al stranded w/1 or 2 #10 Cu solid 1 #12 Al w/1 or 2 #12 Cu 2 #12 Al solid w/1 #12 Cu	Card of 2	30-065
			Card of 10	30-765
			Card of 25	30-165
			Box of 100	30-265
			Carton of 1,000	30-365

See website for a complete listing of wire combinations.

600V maximum building wire; 1,000V signs or light fixtures

WARNING:

1. One time use only. Do not reuse connector.
2. Do not use on aluminum to aluminum wire combinations.
3. Wiring must comply with all applicable electrical codes.
4. Contact IDEAL or visit IDEAL website for a complete list of UL Listed wire combinations.





Luminaire Disconnects

Based on 2012 data available from Epicor/Vista.







The PowerPlug® allows safe disconnect of hot and neutral ballast wiring.

- Meets new NEC and CEC code changes for non-residential fluorescent luminaires
- Perfect for OEM new lighting installations or retrofit lighting applications
- Meets UL and CSA finger-probe safety requirements
- Allows safe disconnect of hot and neutral ballast wiring

PowerPlug® Selection Chart

Application	New Installations	Retrofits
For 1-ballast fixtures	102	102, 182
For 2-ballast, dimming and switching fixtures	103	103, 183



Model	Color	Electrical Rating	Wire Style	Line Side	Ballast Side	Quantity	Cat. No.
102 2-wire 	Orange	6 Amps/600 Volts Max.	Solid: Stranded: Stranded Tin-Bonded:	#12 - #18 #12 - #14 (≤19 str.) #12 - #14 (≤19 str.) #16 (≤26 str.) #18 (≤16 str.)		Card of 25	30-372
						Jar of 75	30-382J
						Jar of 150	30-352J
						Box of 1,000	30-102
103 3-Wire 	Orange	6 Amps/600 Volts Max.	Solid Stranded Stranded Tin Bonded	#12 - #18 #12 - #14 (≤19 str.) #12 - #14 (≤19 str.) #16 (≤26 str.) #18 (≤16 str.)	#18 None #18 (≤16 str.)	Card of 20	30-383X
						Jar of 50	30-383XJ
						Jar of 100	30-353XJ
						Box of 1,000	30-103X
182 2-wire 	Orange	3 Amps 120V 1.3 Amps 277V 1 Amps 347V 0.75 Amps 480V 0.60 Amps 600V	Solid	#18		Box of 100	30-082
						Box of 2,500	30-682
183 3-Wire 	Orange	3 Amps 120V 1.3 Amps 277V 1 Amps 347V 0.75 Amps 480V 0.60 Amps 600V	Solid	#18		Box of 1,000 w/6" leads	30-682L*
						Box of 100	30-083
						Box of 2,500	30-683

1,000V maximum fixtures and signs. *8-10 week lead time.


SpliceLine® In-Line Wire Connectors

The SpliceLine® is a crimp-free, push-in wire connector that installs in half the time of a traditional butt splice. Perfect for lengthening a short wire in a box, for pre-fab operation or for surface raceway wiring. SpliceLine® accepts solid and stranded wire, is UL Listed and is made in the U.S.A.

- Crimp-free, push-in butt splice
- Easily passes through 1/2 in. knockouts
- End-to-end connection ideal for pre-fab operations
- Transparent polycarbonate window for visual inspection of connection
- Wide wire range of: 12 - 20 AWG solid & 12 - 16 AWG stranded



FAST FACT:
Perfect for lengthening short wires, the SpliceLine® is 2X faster than traditional butt-splices

Model	Color	Rating	Wire Range	Quantity	Cat. No.
42 	Orange	600V/20A 105°C	Solid: #12 - #20 Stranded: #12 - #16 (≤19 str.) Stranded Tin-Bonded: #14 - #18 (≤19 str.)	Bag of 10	30-1742
				Box of 100	30-1042
				Jar of 300	30-1042J
				Box of 2,500	30-1642



A-7



WIRE TERMINATION

In-Sure™ Push-In Wire Connectors



- No-twist connection reduces repetitive motion fatigue
- Low insertion force for fast and easy connections
- Compact size makes installation easy
- Clear shell gives visual verification of connection
- UL Listed to 486C and CSA Certified to C22.2 #188
- UL 467 Listed for grounding and bonding applications
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)

Specifications

	Model 32 Red 2-Port	Model 33 Orange 3-Port	Model 34 Yellow 4-Port	Model 87 Gray 5-Port	Model 88 Blue 6-Port Stacked	Model 90 Black 8-Port	Model 39 Blue 3-Port
Solid		#20 - #12			#20 - #12		#14 - #10
Stranded		#16 - #12 (≤ 19 Strand) #18 (7 Strand)			#16 - #14 (≤ 19 Strand) #18 (≤ 7 Strand)		#12 - #10 (≤ 19 Strand)
Stranded (Tin Bonded)		#18 - #14 (≤ 19 Strand)			#14 - #12 (≤ 19 Strand) #16 (≤ 26 Strand) #18 (≤ 16 Strand)		#14 - #10 (≤ 19 Strand)



Ordering Information

Model	Color	Ports	Length		Width		Height		Quantity	Cat. No.
			In.	mm	In.	mm	in.	mm		
32 	Red	2	0.78	19.81	0.52	13.21	0.38	9.65	Box of 100	30-1032
									Jar of 300	30-1032J
									Box of 5,000	30-1632
33 	Orange	3	0.78	19.81	0.69	17.53	0.38	9.65	Box of 100	30-1033
									Jar of 250	30-1033J
									Box of 5,000	30-1633
34 	Yellow	4	0.78	19.81	0.82	20.83	0.38	9.65	Box of 100	30-1034
									Jar of 200	30-1034J
									Box of 5,000	30-1634
87 	Gray	5	.355	9.02	.907	23.03	.729	18.52	Jar of 150	30-087J
									Box of 1,000	30-187
									Box of 3,000	30-687
88 	Blue	6 Stacked	.607	15.42	.603	15.32	.729	18.52	Jar of 100	30-088J
									Box of 1,000	30-188
									Box of 2,500	30-688
90 	Black	8	.355	9.02	1.38	35.03	.717	18.21	Jar of 100	30-090J
									Box of 1,000	30-190
									Box of 2,000	30-690
39 	Blue	3	0.78	19.81	.086	21.84	0.45	11.43	Box of 50	30-1039
									Jar of 150	30-1039J
									Box of 2,500	30-1639

COPPER TO COPPER ONLY. Do not use on aluminum. Temperature rating: 105°C (221°F) maximum. 600V maximum building wire, 1000V maximum signs or lighting fixtures

Grounding Accessories



- Solid and stranded pigtail lead wires are convenient for device grounding applications
- Grounding screws offer a unique thread-forming, hole-finding feature plus combination hex, Phillips, slotted and Robertson head
- Safe, fast and efficient for cost-effective grounding jobs
- Ensures compliance with Article 250 of the National Electrical Code

Non-Grounding Pigtails

- 8 in. 12 AWG Stranded Pigtails – White or Black, #10 Fork & Stripped end



Solid Wire Grounding Tails	Quantity/Pkg.	Cat. No.
14 AWG solid, 8 in. tail w/loop & ground screw and stripped end	Box of 50	30-3390
12 AWG solid, 6.5" tail w/loop & ground screw and stripped end	Box of 50	30-3404
12 AWG solid, 6.5" tail w/loop & ground screw and stripped end	Bulk Pack of 1,000	30-3402
12 AWG solid, 8 in. tail w/loop & ground screw and stripped end	Box of 50	30-3392
12 AWG solid, 8 in. tail w/loop & ground screw and stripped end	Plastic Box of 100	30-3399
12 AWG solid, 8 in. tail w/loop & ground screw and stripped end	Bulk Pack of 1,000	30-3496
12 AWG solid, 10 in. tail w/loop & ground screw and stripped end	Bag of 50	30-3410
12 AWG solid, 10 in. tail w/loop & ground screw and stripped end	Bulk Pack of 500	30-3394
12 AWG solid, 12 in. tail w/loop & ground screw and stripped end	Box of 50	30-3498
12 AWG solid, 12 in. tail w/loop & ground screw and stripped end	Bulk Pack of 1,000	30-3396
Stranded Wire Grounding Tails	Quantity/Pkg.	Cat. No.
14 AWG stranded, 8 in. tail w/#10 fork & #10 ring and ground screw	Bag of 25	30-3183
12 AWG stranded, 8 in. tail w/#10 fork and stripped end	Bag of 25	30-3480
12 AWG stranded, 8 in. tail w/#10 fork & #10 ring and ground screw	Bag of 25	30-3184
12 AWG stranded, 8 in. tail w/#10 fork and stripped end	Bulk pack of 1,000	30-3580
12 AWG stranded, 8 in. tail w/#10 ring & ground screw and stripped end	Bulk Pack of 1,000	30-3201
12 AWG stranded, 8 in. tail w/#10 fork & #10 ring and ground screw	Bulk pack of 1,000 (bundle of 50)	30-3284
12 AWG stranded, 8 in. tail w/#10 fork & #10 ring and ground screw	Plastic box of 50	30-3385
12 AWG stranded, 8 in. tail w/#10 fork & #10 ring	Bulk pack of 1,000	30-3285

Stranded Wire Grounding Tails (cont.)	Quantity/Pkg.	Cat. No.
12 AWG stranded, 10 in. tail w/#10 fork & #10 ring and ground screw	Box of 50	30-3310
12 AWG stranded, 10 in. tail w/#10 fork & #10 ring and ground screw	Bulk pack of 500	30-3311
12 AWG stranded, 12 in. tail w/#10 fork & #10 ring and ground screw	Box of 50	30-3412
12 AWG stranded, 12 in. tail w/#10 fork & #10 ring and ground screw	Bulk pack of 1,000	30-3413
Combo Tails	Quantity/Pkg.	Cat. No.
2-wire combo: 12 AWG solid tail, one stripped end, one end w/ground screw; joined to 12 AWG stranded tail at a ring terminal, w/fork terminal on second end	Box of 500	30-3286
2-wire combo: 12 AWG stranded w/#10 ring & ground screw, one stripped-end tail and one #10 fork tail	Bag of 25	30-3287
2-wire combo: 12 AWG stranded w/#10 ring and ground screw and two #10 fork tails	Bag of 25	30-3288
3-wire combo: 12 AWG stranded w/#10 ring & ground screw, one stripped-end tail and two #10 fork tails	Bag of 25	30-3289
Miscellaneous Grounding Products	Quantity/Pkg.	Cat. No.
Ground screw, thread-forming, hole-finding, combination hex, Phillips, slotted and Robertson tip	Jar of 100	30-3594
	Card of 50	30-3194
Non-Grounding Stranded Wire Pigtails	Quantity/Pkg.	Cat. No.
12 AWG stranded, 8 in. tail w/#10 fork and stripped end, white	Bag of 25	30-3470
12 AWG stranded, 8 in. tail w/#10 fork and stripped end, black	Bag of 25	30-3471
12 AWG stranded, 8 in. tail w/#10 fork and stripped end, white	Bulk pack of 1,000	30-3570
12 AWG stranded, 8 in. tail w/#10 fork and stripped end, black	Bulk pack of 1,000	30-3571






WIRE TERMINATION

Crimp Terminals - Rings, Forks, Disconnects and Splices

- Butted seam-construction prevents splitting under maximum pressure
- Internal barrel serrations grip wires tightly to resist pull-out and reduce electrical resistance
- Tin-plated brass construction for corrosion resistance
- Shouldered barrel insulation quickly positions terminal for proper crimping
- Expanded insulation entry accommodates a wide variety of insulation diameters and provides additional insulation support
- Color-coded insulation and wire range stamped on terminal for easy identification
- See product packaging for recommended crimp tools

Vinyl Insulated Ring Terminals

Wire Range	Stud Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5–1,0mm ²) 	6 (3.7mm)	0.157 (4.0mm)	25	83-2121	—	—
	8 (4.3mm)		25	83-2131	—	—
	10 (5.3mm)		25	83-2141	—	—
	1/4 (6.4mm)		25	83-2151	—	—
16 – 14 AWG (1,5–2,5mm ²) 	6 (3.7mm)	0.177 (4.5mm)	25	83-2221	—	—
	8 (4.3mm)		25	83-2231	—	—
	10 (5.3mm)		25	83-2241	1,000	84-2241
	1/4 (6.4mm)		25	83-2251	—	—
12 – 10 AWG (4,0–6,0mm ²) 	8 (4.3mm)	0.248 (6.3mm)	25	83-2331	—	—
	10 (5.3mm)		25	83-2341	1,000	84-2341
	1/4 (6.4mm)		25	83-2351	—	—
	5/16 (8.4mm)		25	83-2361	—	—
	3/8 (10.5mm)	25	83-2371	—	—	

75° C/600 Volts max.




Non-Insulated Ring Terminals



Wire Range	Stud Size In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5–1,0mm ²)	8 (4.3mm)	25	83-0131	—	—
	10 (5.3mm)	25	83-0141	—	—
16 – 14 AWG (1,5–2,5mm ²)	6 (3.7mm)	25	83-0221	—	—
	8 (4.3mm)	25	83-0231	—	—
	10 (5.3mm)	25	83-0241	1,000	84-0241
12 – 10 AWG (4,0–6,0mm ²)	8 (4.3mm)	25	83-0331	—	—
	10 (5.3mm)	25	83-0341	1,000	84-0341
	1/4 (6.4mm)	25	83-0351	—	—
8 AWG (8,0mm ²)	10 (5.3mm)	25	83-0421	500	84-0421
	1/4 (6.4mm)	25	83-0431	—	—
	5/16 (8.4mm)	25	83-0441	—	—
	3/8 (10.5mm)	25	83-0451	—	—
6 AWG (14,0mm ²)	10 (5.3mm)	20	83-0511	—	—
	1/4 (6.4mm)	20	83-0521	—	—
	5/16 (8.4mm)	20	83-0531	—	—
	3/8 (10.5mm)	20	83-0541	—	—
4 AWG (22,0mm ²)	1/4 (6.4mm)	20	83-0611	—	—
	5/16 (8.4mm)	20	83-0621	—	—
	3/8 (10.5mm)	20	83-0631	—	—




105°C/600 Volts max.

Vinyl Insulated Spade Terminals

Wire Range	Stud Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5–1,0mm ²) 	6 (3.7mm)	0.157 (4.0mm)	25	83-7111	1,000	84-7111
	8 (4.3mm)		25	83-7121	—	—
	10 (5.3mm)		25	83-7131	—	—
16 – 14 AWG (1,5–2,5mm ²) 	6 (3.7mm)	0.177 (4.5mm)	25	83-7151	—	—
	8 (4.3mm)		25	83-7161	1,000	84-7161
	10 (5.3mm)		25	83-7171	1,000	84-7171
12 – 10 AWG (4,0–6,0mm ²) 	6 (3.7mm)	0.248 (6.3mm)	25	83-7201	—	—
	8 (4.3mm)		25	83-7211	—	—
	10 (5.3mm)		25	83-7221	500	84-7221
	1/4 (6.4mm)		25	83-7231	—	—

75° C/600 Volts max.

Vinyl Insulated Snap Spade Terminals

Wire Range	Stud Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5–1,0mm ²) 	6 (3.7mm)	0.134 (4.0mm)	25	83-7011	—	—
	8 (4.3mm)		25	83-7021	—	—
	10 (5.3mm)		25	83-7031	—	—
16 – 14 AWG (1,5–2,5mm ²) 	6 (3.7mm)	0.161 (4.5mm)	25	83-7051	—	—
	8 (4.3mm)		25	83-7061	—	—
	10 (5.3mm)		25	83-7071	—	—
12 – 10 AWG (4,0–6,0mm ²) 	8 (4.3mm)	0.248 (6.3mm)	25	83-7081	—	—
	10 (5.3mm)		25	83-7091	—	—
	1/4 (6.4mm)		25	83-7101	—	—

75° C/600 Volts max.



Non-Insulated Spade Terminals



Wire Range	Stud Size In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	6 (3.7mm)	25	83-6111		
	8 (4.3mm)	25	83-6121	—	—
	10 (5.3mm)	25	83-6131	—	—
16 – 14 AWG (1.5-2.5mm ²)	8 (4.3mm)	25	83-6161	—	—
	10 (5.3mm)	25	83-6171	1,000	84-6171
12 – 10 AWG (4.0-6.0mm ²)	8 (4.3mm)	25	83-6211	—	—
	10 (5.3mm)	25	83-6221	—	—
	1/4 (6.4mm)	25	83-6231	—	—

105° C/600 Volts max.

Vinyl Insulated Multi-Stack Disconnects

Wire Range	Tab Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.15 (3.8mm)	25	83-9611
16 – 14 AWG (1.5-2.5mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.185 (4.7mm)	25	83-9621
12 – 10 AWG (4.0-6.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9631

75° C/300 Volts max.

Vinyl Insulated Bullet Disconnects

Wire Range	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	0.150 (3.8mm)	25	83-8001
16 – 14 AWG (1.5-2.5mm ²)	0.185 (4.7mm)	25	83-8011

75° C/300 Volts max.

Vinyl Insulated Male Disconnects

Wire Range	Tab Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.150 (3.8mm)	25	83-9971
16 – 14 AWG (1.5-2.5mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.185 (4.7mm)	25	83-9981
12 – 10 AWG (4.0-6.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9991

75° C/300 Volts max.

*Not UL Listed

Vinyl Insulated Female Disconnects

Wire Range	Tab Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	.110 x .020 (2.8mm x 0.5mm)	0.150 (3.8mm)	25	83-9511	—	—
	.187 x .020 (4.75mm x 0.5mm)	0.150 (3.8mm)	25	83-9541	—	—
	.250 x .032 (6.35mm x 0.8mm)	0.150 (3.8mm)	25	83-9571	—	—
16 – 14 AWG (1.5-2.5mm ²)	.110 x .020 (2.8mm x 0.5mm)	0.185 (4.7mm)	25	83-9521	—	—
	.187 x .020 (4.75mm x 0.5mm)	0.185 (4.7mm)	25	83-9551	—	—
	.250 x .032 (6.35mm x 0.8mm)	0.185 (4.7mm)	25	83-9581	500	84-9581
14 – 12 AWG (2.5-4.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9591	—	—
12 – 10 AWG (4.0-6.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9601	500	84-9601

75° C/300 Volts max.

Non-Insulated Female Disconnects*



Wire Range	Tab Size In.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	.110 x .020 (2.8mm x 0.5mm)	25	83-9411
16 – 14 AWG (1.5-2.5mm ²)	.110 x .020 (2.8mm x 0.5mm)	25	83-9421
22 – 18 AWG (0.5-1.0mm ²)	.187 x .020 (4.75mm x 0.5mm)	25	83-9441
16 – 14 AWG (0.5-1.0mm ²)	.187 x .020 (4.75mm x 0.5mm)	25	83-9451
22 – 18 AWG (0.5-1.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	25	83-9471
16 – 14 AWG (1.5-2.5mm ²)	.250 x .032 (6.35mm x 0.8mm)	25	83-9481
12 – 10 AWG (4.0-6.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	25	83-9501

105° C/300 Volts max.

Nylon Fully-Insulated Male Disconnects

Wire Range	Tab Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0.5-1.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.150 (3.8mm)	25	83-9911
16 – 14 AWG (1.5-2.5mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.185 (4.7mm)	25	83-9921
12 – 10 AWG (4.0-6.0mm ²)	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9931




105° C/300 Volts max.





WIRE TERMINATION

Nylon Fully-Insulated Female Disconnects

Wire Range	Tab Size In.	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²) 	.250 x .032 (6.35mm x 0.8mm)	0.15 (3.8mm)	25	83-9771	1,000	84-9771
16 – 14 AWG (1,5-2,5mm ²) 	.250 x .032 (6.35mm x 0.8mm)	0.185 (4.7mm)	25	83-9781	1,000	84-9781
12 – 10 AWG (4,0-6,0mm ²) 	.250 x .032 (6.35mm x 0.8mm)	0.244 (6.2mm)	25	83-9791	500	84-9791


105° C/300 Volts max.

Vinyl Fully-Insulated Receptacle Disconnects

Wire Range	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²) 	0.150 (3.8mm)	25	83-8101
16 – 14 AWG (1,5-2,5mm ²) 	0.185 (4.7mm)	25	83-8111

75° C/300 Volts max.

Non-Insulated Flag Female Disconnect*

Wire Range	Tab Size In.	Qty.	Cat. No.
16 – 14 AWG (1,5-2,5mm ²) 	.250 x .032 (6.35 x 0.8mm)	25	83-9401

105° C/300 Volts max.

Disconnect Adapter - Male to Female (2-1)*

Tab Size (In.)	Qty.	Cat. No.
.250 x .032 (6.35mm x 0.8mm) 	25	83-9801

105° C/300 Volts max.

Non-Insulated Parallel Splices*

Wire Range	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²)	25	83-9071	—	—
16 – 14 AWG (1,5-2,5mm ²)	25	83-9081	1,000	84-9081
12 – 10 (4,0-6,0mm ²)	25	83-9091	1,000	84-9091

105° C/600 Volts max.




A-12

Non-Insulated Butt Splices*

Wire Range	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²)	25	83-9001	—	—
16 – 14 AWG (1,5-2,5mm ²)	25	83-9011	1,000	84-9011
12 – 10 (4,0-6,0mm ²)	25	83-9021	500	84-9021
8 (8,0mm ²)	25	83-9031	250	84-9031
6 (14,0mm ²)	20	83-9041	—	—
4 (22,0mm ²)	20	83-9051	—	—




105° C/600 Volts max.

Vinyl Insulated Butt Splices

Wire Range	Max. Wire Ins. Dia. In.	Qty.	Cat. No.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²) 	.157 (4.0mm)	25	83-9281	1,000	84-9281
16 – 14 AWG (1,5-2,5mm ²) 	.177 (4.5mm)	25	83-9291	1,000	84-9291
12 – 10 (4,0-6,0mm ²) 	.248 (6.3mm)	25	83-9301	500	84-9301


75° C/600 Volts max.

Vinyl Insulated Parallel Splices

Wire Range	Max. Wire Ins. Dia. In.	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²) 	.157 (4.0mm)	1,000	83-9351
16 – 14 AWG (1,5-2,5mm ²) 	.177 (4.5mm)	1,000	83-9361
12 – 10 (4,0-6,0mm ²) 	.248 (6.3mm)	500	83-9371

75° C/600 Volts max.

Tap Splice Connectors

Wire Range	Color	Qty.	Cat. No.
22 – 18 AWG (0,5-1,0mm ²) 	Red	25	83-3261
16 – 14 AWG (1,5-2,5mm ²) 	Blue	25	83-3271
12 – 10 (4,0-6,0mm ²) 	Yellow	25	83-3281

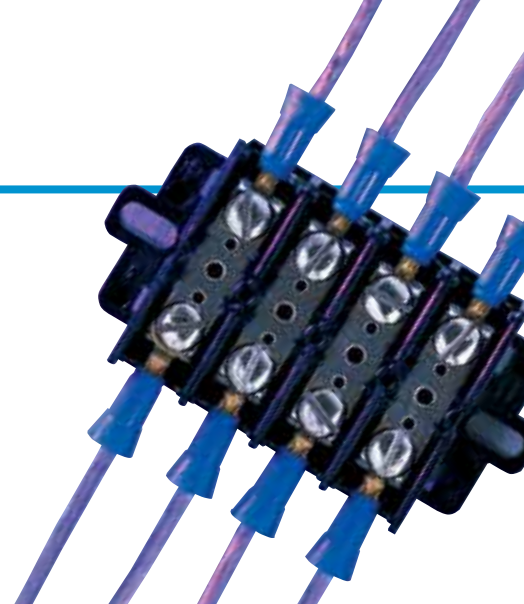
75° C/600 Volts max.

*Not UL Listed



Terminal Strips

- Heavy-duty, corrosion-resistant screws, surface plates and optional hardware
- Accessory hardware provides a variety of termination options
- Available cover helps prevent contact with live terminals
- Rugged polyester thermoplastic base (UL Rated 94V-0)
- Operating temperature rated from 130°C (260°F) to -40°C (-40°F)
- UL Recognized (E82048) and CSA Certified (LR15364)



No. of Poles	Center Spacing	Wire Range (AWG Cu)	Recommended Torque	Terminal Screw Size	Cat. No.
89-200 Series, 30A/600V UL/CSA (Max. electrical rating 30A/250V when used with optional quick connects)					
2	.562 in. (14.28mm)	22 – 10	16 in. - lb.	#8-32 Philslot Zinc-Plated Steel	89-202
3					89-203
4					89-204
6					89-206
8					89-208
10					89-210
12					89-212
89-300 Series, 30A/300V UL/CSA (Max. electrical rating 15A/125V when used with optional quick connects)					
2	.375 in. (9.52mm)	22 – 14	9 in. - lb.	#6-32 Philslot Zinc-Plated Steel	89-302
4					89-304
6					89-306
8					89-308
10					89-310
12					
89-400 Series, 30A/300V UL/CSA					
2	.437 in. (11.10mm)	22 – 12	9 in. - lb.	#6-32 Philslot Zinc-Plated Steel	89-402
4					89-404
6					89-406
8					89-408
10					89-410
12					

No. of Poles	Center Spacing	Wire Range (AWG Cu)	Recommended Torque	Terminal Screw Size	Standard Black Cat. No.	Shorting Block Cat. No.
89-500 Series, 60A/600V UL/CSA (Max. electrical rating 60A/600V achieved only when used with #6 AWG copper wire crimped to ring terminal)						
4	.625 in. (15.88mm)	22 – 6	20 in. - lb.	#10-32 Slotted Nickle-Plated Brass	89-504	89-505
6					89-506	89-507
8					89-508	89-509
12					89-512	89-513

Standard Block



Shorting Block





WIRE TERMINATION

Covers

- Helps prevent contact with live terminals



No. of Circuits	For Use with			
	89-200 Clear Cat. No.	89-300 Clear Cat. No.	89-400 Clear Cat. No.	89-500 Clear Cat. No.
2	89-233	89-334	89-434	—
4	89-235	89-335	89-435	89-514
6	89-236	89-336	89-436	89-516
8	89-237	—	89-437	89-518
10	89-238	89-338	89-438	—
12	89-239	89-339	89-439	89-520

Quick Connects

- Allows fast, flexible circuit changes

For Use with	Terminal Strip Series	Tab Size (Inches)	Qty.	Flat - None Cat. No.	Flat - Flat Cat. No.
	89-300	.187 x .020	10	89-314	89-317
	89-200 & 89-400	.250 x .031	10	89-414	89-417

Jumpers

- Provides easy connection of multiple circuits

For Use with	Center Spacing (In.)	Quantity	Flat Slip-on Cat. No.	Over Barrier Slip-on Cat. No.	Flat 12-Circuit Cat. No.
Terminal Strip Series					
89-200	.562	10	89-229	89-224	—
		100	89-230	—	—
89-300	.375	10	89-323	89-324	—
		100	89-330	—	—
89-400	.437	10	89-423	89-424	—
		100	89-430	—	—
89-500	.625	2	—	—	89-525

Barrier Strips

- Recessed screws and tubular contacts provide added safety and help prevent short circuits
- Tubular contacts connect stripped, un-terminated solid or stranded wire directly to each contact
- Integrated wire protectors prevent twisting and breakage of stranded wire during connection
- Modular 12-circuit design can be cut into smaller sections, or stacked end-to-end
- Rugged nylon construction, UL 94V2
- Operating temperature rated to 105°C (221°F)



Electrical Ratings	Wire Range	No. of Circuits	Torque in.-lb.	Model No.	Cat. No.
20A/300V UL	22 - 12 AWG	12	3.5	PA8DS	89-608
10A/400V CSA	20 - 18 AWG				
30A/300V UL	22 - 10 AWG	12	4.4	PA10DS	89-610
20A/400V CSA	18 - 14 AWG				
35A/300V UL/CUL	22 - 10 AWG	12	7.0	PA12DS	89-612
50A/300V UL/CUL	20 - 8 AWG	12	12.0	PA14DS	89-614

Steel Crimp Connectors



- Designed for making fast, permanent, pressure-type connections
- Long, zinc-plated steel sleeves maximize contact area with conductors
- Will not vibrate loose when securely crimped
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E.

Model	Wire Combination Range	Qty.	Cat. No.
410	600V 18 thru 10 AWG Min. 1 #14 & 1 #18 Max. 2 #10 & 2 #14	Bag of 100	30-410
		Carton of 1,000	30-510
		Keg of 10,000	30-610
411	600V 18 thru 8 AWG Min. 3 #12 Max. 4 #10	Box of 50	30-411
		Carton of 1,000	30-511
412	600V 18 thru 4 AWG Min. 1 #14 & 1 #16 Max. 2 #8 & 1 #6	Box of 50	30-412
		Carton of 1,000	30-512

**IDEAL hand crimp tools U.L. listed for Model 410, 411, 412:
30-425, 30-429, 30-430.**



Wrap-Cap® Insulators

- Provide high dielectric and physical protection for UL Listed, non-insulated pressure-type wire connectors
- Cap and loop design eliminates need for tape
- Unique design completely covers splice – insulates both around and between wires
- Reusable and easy to install
- UL Listed to 486C and CSA Certified for 600V maximum building wiring (1,000V maximum for fixtures and signs); temperature rated at 75°C (167°F) maximum



Model	Description	Qty.	Cat. No.
415	Insulator Model 410 Connectors can also be used on Buchanan 2006S & 2011S Copper Crimps	Box of 50	30-445
		Carton of 1,000	30-515
417	Insulator for Model 411 & 412 Connectors can also be used on Buchanan 2011S Copper Crimps	Box of 25	30-447
		Carton of 1,000	30-517



Pre-Insulated Crimp Connectors

- Three models cover a wide range of wire combinations from 22 AWG stranded through 8 AWG stranded
- Compact design fits easily into tight locations
- Flared skirt protects against turned-back strands
- Beveled opening eases wire entry
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)

Model	Wire Combination Range	Qty.	Cat. No.
48	600V* Min. 2 #22 Max. 1 #14 w/2 #18	1,000	30-245
		10,000	30-645
49	600V* Min. 1 #22 w/1 #18 Max. 1 #12 w/1 #16	1,000	30-249
		10,000	30-649
NC-8	600V* Min. 4 w/#16 Max. 1 #12 w/4 #14	1,000	30-148
		5,000	30-648

*1,000V maximum in fixtures and signs.





WIRE TERMINATION

Set Screw Wire Connectors

- Eliminates need for restripping wire each time connection is disturbed
- Solid brass sleeves in three sizes handle 22 through 10 AWG wires
- Set-screw easily and securely applies maximum compression to conductors to ensure a vibration-resistant splice
- Permits fast visual inspection of splice
- Tough, flame-retardant shell rated at 150°C (302°F)
- UL Listed to 486C and CSA Certified to C22.2 #188 ; comply with Federal Specification W-S-610E

Model	Wire Combination Range	Quantity	Cat. No.
10	300V 22 thru 10 AWG Min. 1 #20 w/1 #22 Max. 2 #14 w/1 #16	Box of 100	30-210
		Carton of 1,000	30-310
11	600V 22 thru 10 AWG Min. 1 #14 w/1 #20 Max. 3 #14 w/2 #18	Box of 100	30-211
		Carton of 1,000	30-311
22	600V 20 thru 10 AWG Min. 1 #16 w/3 #18 Max. 2 #10 w/1 #12	Box of 100	30-222
		Carton of 1,000	30-322



Set Screw Holder



- Convenient tool for holding and tightening set-screw connectors
- Accepts IDEAL Models 11 and 22 set-screw connectors

For Connector Models	Cat. No.
11 & 22	K-2422



Noalox® Anti-Oxidant

- Anti-oxidant compound improves efficiency and service life of aluminum electrical applications
- Suspended zinc particles penetrate and cut aluminum oxide
- Provides additional inner-strand and inner-conductor current paths for improved conductivity and cooler connections
- Carrier material excludes air to minimize further oxidation
- For use with pressure-type wire connectors including lugs, taps, service entrances and split bolts
- Reduces galling and seizing when applied to aluminum conduit joints – promotes good ground continuity



Description	Cat. No.
1/2-oz. Tube	30-024
4-oz. Squeeze bottle	30-026
8-oz. Squeeze bottle	30-030
8-oz. Brush cap	30-031
1-gal. Bucket	30-032
5-gal. Bucket	30-040

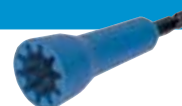


Spin-Twist® Wire Connector Socket



- Speeds installation of IDEAL and BUCHANAN Wire Connectors
- For use with electric corded or cordless drill drivers
- 1/4 in. chuck fits most drills or drive sockets

For Connector Models	Cat. No.
Wire-Nut®, Wing-Nut®, Twister®, B-CAP® & WingTwist™ Wire Connectors	30-902

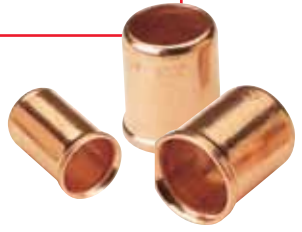




Our **wedge-edge** expanding spring is specially designed for faster pull-up and quick connections. It also accommodates a wide range of wire gauges.



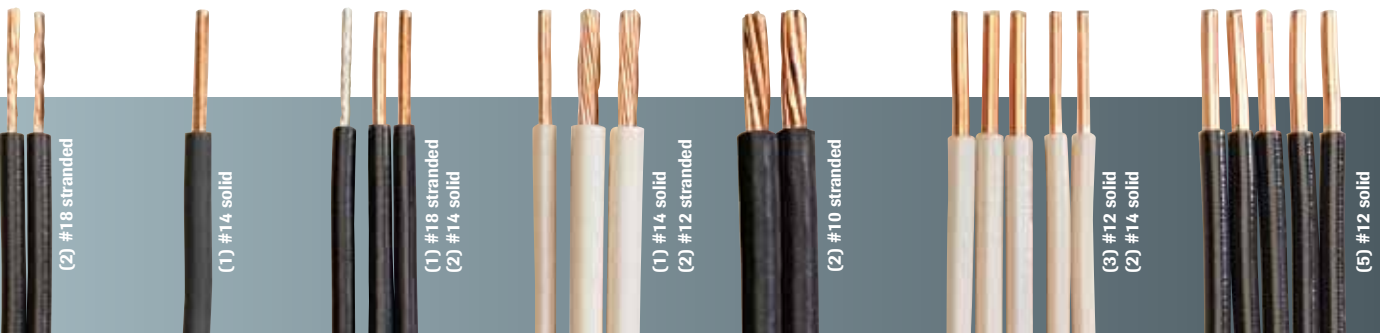
The **BUCHANAN C-24** Crimp Tool has an iron-clad reputation that's up to every job, every time. A patented four-way crimp ensures reliable connections, while the spring-loaded, cam-actuated design fits a wide range of connectors.



The comprehensive line of **BUCHANAN** sectional terminal blocks offers a wide range of block configurations, mounting options and contact styles accommodating wire sizes from 30 AWG to 250 MCM.



The **B2 B-CAP**® Wire Connector is the universal connector that accepts the widest range of wire combinations. Plus, the Classic Fin™ ergonomic design fits easily in tight electrical boxes.






- (2) #18 stranded
- (1) #14 solid
- (1) #18 stranded
(2) #14 solid
- (1) #14 solid
(2) #12 stranded
- (2) #10 stranded
- (3) #12 solid
(2) #14 solid
- (5) #12 solid

B-CAP® Wire Connectors



- Four color-coded models cover a full range of wire sizes from 22 AWG to 6 AWG
- Classic Fin™ design provides secure grip for extra leverage on maximum wire combinations
- Live-action spring expands to accept wire shape and size – no pre-twisting required
- Square-wire spring threads directly onto conductors for fast, secure connections
- Deep skirt protects against flash-over and turned-back strands for maximum dielectric protection
- Easily removed for repeat usage on same size or larger wire combinations
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- Green-B® designed for making ground connections and bonding non-metallic sheathed cable
- UL 486C Listed (Green-B® UL 467 Listed) and CSA 22.2 #188 Certified; comply with Federal Specification –S-610E

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity/Package	Cat. No.
 B1	Yellow	600V* 22 to 10 AWG Min. 3 #20 Max. 3 #12	600V* ,34mm² to 6,0mm² Min. 3-,5mm² Max. 3-4,0mm²	Box of 100	B1-1
				Jar of 250	B1-250JR
				Jar of 500	B1-500JR
				Bag of 500	B1-B
				Barrel of 25,000	B1-SK
 B2	Red	600V* 22 to 8 AWG Min. 2 #18 Max. 5 #12	600V* ,34mm² to 10,0mm² Min. 2-,75mm² Max. 5-4,0mm²	Box of 100	B2-1
				Jar of 350	B2-350JR
				Jar of 500	B2-500JR
				Bag of 500	B2-B
				Barrel of 25,000	B2-SK
 B4	Blue-Gray	600V* 14 to 6 AWG Min. 2 #12 Max. 2 #6	600V* 2,5mm² to 16,0mm² Min. 2-4,0mm² Max. 2-16,0mm²	Box of 25	B4-1
				Carton of 250	B4-B
 BGR	Green	14 to 10 AWG Min. 2 #14 Max. 5 #12	2,5mm² to 6,0mm² Min. 2-2,5mm² Max. 5-4,0mm²	Box of 50	BGR-1
				Carton of 250	BGR-B

*1,000V maximum in fixtures and signs



Wire Connectors




Wire Connector
774A

Cu/Cu
Only



- Wide red/yellow wire range; min. 1 #8 w/2 #10
- Rounded dial-top provides fast fingertip starts
- Square-wire spring provides quick, secure connections
- Comfortable swept-wing design with deep skirt to help protect over-stripped wires
- Tough, UL 94V-2 flame-retardant shell rated at 105°C (221°F)
- UL Listed to 486C and CSA Certified to C22.2 #188; comply with Federal Specification W-S-610E

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity/Package	Cat. No.
 BT2™	Red	600V* 18 to 8 AWG Min. 2 #18 Max. 1 #8 w/2 #10	600V* ,75mm² to 10mm² Min. 2-,75mm² Max. 1-8,0mm² w/2-6,0mm²	Box of 100	BT2-1
				Jar of 500	BT2-500JR
				Barrel of 25,000	BT2-SK

*1,000V maximum in fixtures and signs



Wire Connector
774A

Cu/Cu
Only








WireTwist™ Wire Connectors

- Five color-coded models cover common wire ranges
- Ribbed cap provides positive grip for fast, easy installation
- Fixed, square-wire spring creates secure connections
- Deep skirt protects against flash-over
- Tough, UL 94V-2 flame-retardant shell (105°C/221°F)
- UL 486C Listed and CSA 22.2 #188 Certified






WingTwist™ Wire Connectors

- Five color-coded models cover common construction wire ranges and combinations, including grounding
- Contoured wing design provides maximum torque
- Expanding, square-wire spring creates secure connections
- Deep skirt protects against flash-over
- Tough, UL 94V-2 flame retardant shell (105°C/221°F)
- UL 486C Listed (WGR UL 467 Listed) and CSA C22.2 #188 Certified

WireTwist™ Wire Connectors

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity / Package	Cat. No.
 WT1	Gray	300V 22 to 14 AWG Min. 3 #22 Max. 2 #16	300V ,34mm ² to 2,5mm ² Min. 3-.34mm ² Max. 2-1,5mm ²	Box of 100	WT1-1
				Bag of 500	WT1-B
				Barrel of 50,000	WT1-SK
 WT2	Blue	300V 22 to 14 AWG Min. 3 #20 Max. 3 #16	300V ,34mm ² to 2,5mm ² Min. 3-.50mm ² Max. 3-1,5mm ²	Box of 100	WT2-1
				Bag of 500	WT2-B
				Barrel of 50,000	WT2-SK
 WT3	Orange	600V* 22 to 14 AWG Min. 2 #18 Max. 2 #14	600V* ,34mm ² to 2,5mm ² Min. 2-.75mm ² Max. 2-2,5mm ²	Box of 100	WT3-1
				Bag of 500	WT3-B
				Barrel of 50,000	WT3-SK
 WT4	Yellow	600V* 22 to 10 AWG Min. 2 #18 Max. 2 #12	600V* ,75mm ² to 6,0mm ² Min. 2-.75mm ² Max. 2-4,0mm ²	Box of 100	WT4-1
				Bag of 500	WT4-B
				Barrel of 25,000	WT4-SK
 WT6	Red	600V* 20 to 8 AWG Min. 2 #14 Max. 4 #12	600V* ,50mm ² to 10,0mm ² Min. 2-2,5mm ² Max. 4-4,0mm ²	Box of 100	WT6-1
				Bag of 250	WT6-B
				Barrel of 25,000	WT6-SK

WingTwist™ Wire Connectors

Model	Color	Wire Combination Range	Wire Combination Range (mm)	Quantity / Package	Cat. No.
 WT51	Yellow	600V* 18 to 10 AWG Min. 2 #18 Max. 3 #12	600V* ,75mm ² to 6,0mm ² Min. 2-.75mm ² Max. 3-4,0mm ²	Box of 100	WT51-1
				Bag of 500	WT51-B
				Jar of 500	WT51-500JR
				Barrel of 25,000	WT51-SK
 WT41	Tan	600V* 22 to 10 AWG Min. 2 #20 Max. 3 #10 Solid	600V* ,34mm ² to 6,0mm ² Min. 2-0,5mm ² Max. 3-6,0mm ²	Box of 100	WT41-1
				Bag of 500	WT41-B
				Jar of 500	WT41-500JR
				Barrel of 25,000	WT41-SK
 WT52	Red	600V* 18 to 10 AWG Min. 2 #14 Max. 5 #12	600V* ,75mm ² to 6,0mm ² Min. 2-2,5mm ² Max. 5-4,0mm ²	Box of 100	WT52-1
				Bag of 500	WT52-B
				Jar of 500	WT52-500JR
				Barrel of 25,000	WT52-SK
 WT54	Blue	600V* 14 to 6 AWG Min. 3 #12 Max. 2 #6	600V* 2,5mm ² to 16,0mm ² Min. 3-4,0mm ² Max. 2-16,0mm ²	Box of 50	WT54-1
				Bag of 100	WT54-B
 WGR	Green	14 to 10 AWG Min. 2 #14 Max. 5 #12	2,5mm ² to 6,0mm ² Min. 2-2,5mm ² Max. 5-4,0mm ²	Box of 50	WGR-1
				Bag of 250	WGR-B
				Jar of 500	WGR-500JR
				Barrel of 25,000	WGR-SK

*1,000V maximum in fixtures and signs



Wire Connector
774A

Cu/Cu
Only



LR9706

A-19

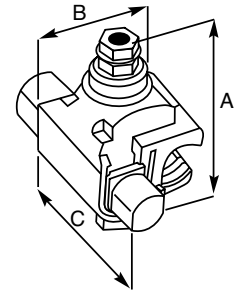
B-TAP® Insulation-Piercing Tap Connectors

- Eliminates split bolts and tape
- Easy two-minute installation requires only box/socket wrench
- Installs on energized systems eliminating costly power shutdowns
- Self-sealing, grease-filled end-cap ensures safe, weather-tight connection
- Unique turbo spacer keeps connector wide open for quick and easy installation
- Torque-regulating nut breaks off when proper tension is reached
- Full-line is 600V dual-rated, 194°F (90°C)



B-Tap® Wire Range Chart
Wire Size

Cat. No.	Main	14	12	10	8	6	4	3	2	1	1/0	2/0	3/0	4/0	250	300	350	400	500	750	
BTC1/0-10	Main: 1/0 - 8																				
	Tap: 2 - 10																				
BTC2/0-14	Main: 2/0 - 4																				
	Tap: 10 - 14																				
BTC4/0-12	Main: 4/0 - 2																				
	Tap: 4/0 - 4																				
BTC4/0-10	Main: 4/0 - 3																				
	Tap: 2 - 10																				
BTC4/0-6	Main: 4/0 - 2																				
	Tap: 2/0 - 6																				
BTC250-4	Main: 250 - 1																				
	Tap: 4/0 - 4																				
BTC350-1/0	Main: 350 - 1/0																				
	Tap: 350 - 1/0																				
BTC500-4	Main: 500 - 2/0																				
	Tap: 4/0 - 4																				
BTC500-1/0	Main: 500 - 4/0																				
	Tap: 350 - 1/0																				
BTC500-14	Main: 750 - 3/0																				
	Tap: 10 - 14																				
BTC750-250	Main: 750 - 250																				
	Tap: 500 - 250																				



Conductor Range		Voltage Rating	Dimensions (Inches)			Socket Size (Inches)	Torque (In. Lbs.)	No. of Bolts	Cat. No.
Run	Tap		A	B	C				
1/0-8	2-10 ¹	600V	3.1	1.8	2.2	1/2	80	1	BTC1/0-10
2/0-4	10-14 ²	600V	3.1	1.8	2.2	1/2	80	1	BTC2/0-14
4/0-2	4/0-4	600V	4.4	2.4	3.2	1/2	160	1	BTC4/0-2
4/0-3	2-10 ³	600V	3.1	1.8	2.2	1/2	125	1	BTC4/0-10
4/0-2	2/0-6	600V	3.5	2.2	2.5	1/2	160	1	BTC4/0-6
250-1	4/0-4	600V	3.5	2.2	2.5	1/2	160	1	BTC250-4
350-1/0	350-1/0	600V	4.5	3	3.9	5/8	330	2	BTC350-1/0
500-2/0	4/0-4	600V	4.5	3	3.9	5/8	330	2	BTC500-4
500-4/0	350-1/0	600V	4.5	3	3.9	5/8	330	2	BTC500-1/0
750-3/0	10-14 ⁴	600V	3.7	2.5	2.2	1/2	80	1	BTC500-14
750-250	500-250	600V	4.7	3.4	4.75	5/8	330	2	BTC750-250

¹ Tap #2 - #10 Cu solid/stranded; #2 - #10 Al stranded

² Tap #10 - #14 Cu solid/stranded; #10 - #14 Al stranded

³ Tap #2 - #10 Cu solid/stranded; #2 - #8 Al stranded

⁴ Tap #10 - #14 Cu solid/stranded; #10 - #12 Al stranded



SLK® Disconnect Fuse Kits

- Waterproof breakaway fuseholder for use in:
 - Roadway & street lighting
 - Parking lot & area lighting
 - Free-standing electric vehicle charging stations
- UL Listed for submersible installations
- Bright orange color for ease of visibility
- Large selection of configurations
- Set screw or crimp terminations available



The IDEAL SLK® Disconnect Fuse Kit is a waterproof breakaway safety device that de-energizes roadway lights, streetlights, parking lot lights, and other freestanding electrical fixtures in the event of a knockdown, or when the fixtures need maintenance. This helps protect first responders, bystanders, and service personnel from potentially life-threatening electrical shock hazards.

IDEAL worked directly with roadway installation electricians, DOT maintenance crews, and specifying engineers to find out what features would really make a difference. The result is an entirely new product that not only performs better but is easier to install and more robust than any other disconnect fuse kit on the market today.

The SLK® is the first Disconnect Fuse Kit listed to UL's ECIS category for special purpose connectors. This new category contains a set of rigorous tests from a host of UL standards, including UL 486D, the standard for submersibility. This means that the SLK® will stand up to the wet conditions often seen in and around pole bases, junction boxes and hand holes.

In addition, the bright orange color of the SLK® makes the product easy to locate in dark junction boxes, in hand holes or in a nighttime knockdown situation, when the connector is often buried amongst dirt, mud and debris.

- Accepts 13/32" x 1-1/2" midget-style fuse (Note: Fuse not included)
- Wire Range: 2-14 AWG (Cu & Al rated)
- Ratings: 30A, 600V, 105°C

Neutral configurations come with white fuseholder and dummy fuse

Paired (hot/neutral) configurations are keyed to prevent reverse polarities

High-visibility orange material (UL 94V-2 flame rated)

Fuse stays on de-energized load side when separated

Ribbed boots provide superior grip

Large, clear markings



Scan QR Code for Demo Video!

Ordering Information

To Determine which Kit to Use:

1. Select the base part number, based on crimp termination (TABLE 1) or set screw termination (TABLE 3), number of wires on line/load side, and wire size.
2. If necessary, modify the base part number according to neutral, dual, paired, or tap (i.e., non-breakaway) configurations. Use TABLE 2 for crimp variations and TABLE 4 for set screw variations.
3. See right for examples.

Note: For fuseholder-only or combination (set screw line side, crimp load side) applications, please see the second column of the table on the next page.

Examples:

1. An in-line fused breakaway kit with crimp terminations, one 10 AWG wire on the line side and one 10 AWG wire on the load side is ordered as a 30-C1616.
2. An in-line non-fused (i.e., neutral) breakaway kit with set screw terminations, one 6 AWG wire on the line side and one 10 AWG wire on the load side is ordered as a 30-S1212N.
3. A Y-tap fused breakaway kit with crimp terminations, two 6 AWG wires on the line side and one 10 AWG wire on the load side is ordered as a 30-C2216.
4. A Dual in-line breakaway (hot/hot ganged together) with crimp terminations, one 10 AWG wire on each line side and one 10 AWG wire on each load side is ordered as a 30-C1616D.
5. A Paired in-line breakaway (hot/neutral ganged together) with set screw terminations, one 6 AWG wire on each line side and one 10 AWG wire on each load side is ordered as a 30-S1212P.

Table 1: Crimp Base Part numbers

Line	Wires	Load													
		1 Wire								2 Wire					
		2 AWG	4 AWG	6 AWG	8 AWG	10 AWG	12 AWG	14 AWG	2 AWG	4 AWG	6 AWG	8 AWG	10 AWG	12 AWG	14 AWG
1 Wire	2 AWG	30-C1212	30-C1212	30-C1216	30-C1216	30-C1216	30-C1216	30-C1216	30-C1216			30-C1222	30-C1222	30-C1226	30-C1226
	4 AWG		30-C1212	30-C1216	30-C1216	30-C1216	30-C1216	30-C1216	30-C1216			30-C1222	30-C1222	30-C1226	30-C1226
	6 AWG			30-C1616	30-C1616	30-C1616	30-C1616	30-C1616	30-C1616			30-C1622	30-C1622	30-C1626	30-C1626
	8 AWG				30-C1616	30-C1616	30-C1616	30-C1616	30-C1616			30-C1622	30-C1626	30-C1626	30-C1626
	10 AWG					30-C1616	30-C1616	30-C1616	30-C1616				30-C1626	30-C1626	30-C1626
	12 AWG						30-C1616	30-C1616	30-C1616					30-C1626	30-C1626
	14 AWG								30-C1616						
2 Wire	2 AWG	30-C2012	30-C2012	30-C2016	30-C2016	30-C2016	30-C2016	30-C2016	30-C2016			30-C2022	30-C2022	30-C2026	30-C2026
	4 AWG		30-C2012	30-C2016	30-C2016	30-C2016	30-C2016	30-C2016	30-C2016			30-C2022	30-C2022	30-C2026	30-C2026
	6 AWG			30-C2216	30-C2216	30-C2216	30-C2216	30-C2216	30-C2216			30-C2222	30-C2222	30-C2226	30-C2226
	8 AWG				30-C2216	30-C2216	30-C2216	30-C2216	30-C2216			30-C2222	30-C2226	30-C2226	30-C2226
	10 AWG					30-C2616	30-C2616	30-C2616	30-C2616				30-C2626	30-C2626	30-C2626
	12 AWG						30-C2616	30-C2616	30-C2616					30-C2626	30-C2626
	14 AWG								30-C2616						

One kit will cover large wire range

Note: Crimp connections on larger gauge wire (#8 and larger) require IDEAL #88-843 Mechanical Indentor and Crimp Tool (pg. B-27).

Table 2: Crimp Variations

Base Part Number (Hot)	Variation (If applicable)			
	Neutral	Dual	Paired	Non-Breakaway
30-C1212	30-C1212N	30-C1212D	30-C1212P	
30-C1216	30-C1216N	30-C1216D	30-C1216P	
30-C1616	30-C1616N	30-C1616D	30-C1616P	
30-C1222	30-C1222N			
30-C1226	30-C1226N			
30-C1622	30-C1622N			
30-C1626	30-C1626N			
30-C2012	30-C2012N			30-C2012T
30-C2016	30-C2016N			30-C2016T
30-C2216	30-C2216N			30-C2216T
30-C2616	30-C2616N			30-C2616T
30-C2022	30-C2022N	30-C2022D	30-C2022P	
30-C2026	30-C2026N	30-C2026D	30-C2026P	
30-C2222	30-C2222N	30-C2222D	30-C2222P	
30-C2226	30-C2226N	30-C2226D	30-C2226P	
30-C2626	30-C2626N	30-C2626D	30-C2626P	



Table 4: Set Screw Variations

Base Part Number	Variation (If applicable)			
	Neutral	Dual	Paired	Non-Breakaway
30-S1212	30-S1212N	30-S1212D	30-S1212P	
30-S1222	30-S1222N			
30-S2212	30-S2212N			30-S2212T
30-S2222	30-S2222N	30-S2222D	30-S2222P	

Table 3: Set Screw Base Part numbers

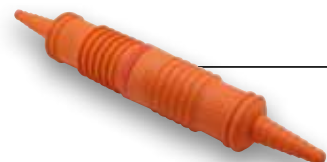
Line	Wires	Load													
		1 Wire								2 Wire					
		2 AWG	4 AWG	6 AWG	8 AWG	10 AWG	12 AWG	14 AWG	2 AWG	4 AWG	6 AWG	8 AWG	10 AWG	12 AWG	14 AWG
1 Wire	2 AWG	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1222	30-S1222	30-S1222	30-S1222	30-S1222	30-S1222
	4 AWG		30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212		30-S1222	30-S1222	30-S1222	30-S1222	30-S1222
	6 AWG			30-S1212	30-S1212	30-S1212	30-S1212	30-S1212	30-S1212			30-S1222	30-S1222	30-S1222	30-S1222
	8 AWG				30-S1212	30-S1212	30-S1212	30-S1212	30-S1212				30-S1222	30-S1222	30-S1222
	10 AWG					30-S1212	30-S1212	30-S1212	30-S1212				30-S1222	30-S1222	30-S1222
	12 AWG						30-S1212	30-S1212	30-S1212					30-S1222	30-S1222
	14 AWG								30-S1212						
2 Wire	2 AWG	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2222	30-S2222	30-S2222	30-S2222	30-S2222	30-S2222
	4 AWG		30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212		30-S2222	30-S2222	30-S2222	30-S2222	30-S2222
	6 AWG			30-S2212	30-S2212	30-S2212	30-S2212	30-S2212	30-S2212			30-S2222	30-S2222	30-S2222	30-S2222
	8 AWG				30-S2212	30-S2212	30-S2212	30-S2212	30-S2212			30-S2222	30-S2222	30-S2222	30-S2222
	10 AWG					30-S2212	30-S2212	30-S2212	30-S2212				30-S2222	30-S2222	30-S2222
	12 AWG						30-S2212	30-S2212	30-S2212					30-S2222	30-S2222
	14 AWG								30-S2212						

Available Part Numbers

Catalog Number	Description
30-S1212	In-Line Breakaway, set screw; fused; 1 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-S1222	In-Line Breakaway, set screw; fused; 1 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-S1212N	In-Line Breakaway, set screw; non-fused; 1 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-S1222N	In-Line Breakaway, set screw; non-fused; 1 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-C1212	In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C1216	In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C1616	In-Line Breakaway, crimp; fused; 1 wire line side, 6-14 AWG; 1 wire load side, 6-14 AWG
30-C1222	In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C1226	In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 2 wire load side, 10-14 AWG
30-C1622	In-Line Breakaway, crimp; fused; 1 wire line side, 6-14 AWG; 2 wire load side, 6-8 AWG
30-C1626	In-Line Breakaway, crimp; fused; 1 wire line side, 6-14 AWG; 2 wire load side, 10-14 AWG
30-C1212N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C1216N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C1616N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 6-14 AWG; 1 wire load side, 6-14 AWG
30-C1222N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C1226N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 2-4 AWG; 2 wire load side, 10-14 AWG
30-C1622N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 6-14 AWG; 2 wire load side, 6-8 AWG
30-C1626N	In-Line Breakaway, crimp; non-fused; 1 wire line side, 6-14 AWG; 2 wire load side, 10-14 AWG
30-S2212	Y-Tap Breakaway, set screw; fused; 2 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-S2222	Y-Tap Breakaway, set screw; fused; 2 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-S2212N	Y-Tap Breakaway, set screw; non-fused; 2 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-S2222N	Y-Tap Breakaway, set screw; non-fused; 2 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-C2012	Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C2016	Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C2216	Y-Tap Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 1 wire load side, 6-14 AWG
30-C2616	Y-Tap Breakaway, crimp; fused; 2 wire line side, 10-14 AWG; 1 wire load side, 6-14 AWG
30-C2022	Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C2026	Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 2 wire load side, 10-14 AWG
30-C2222	Y-Tap Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 2 wire load side, 6-8 AWG
30-C2226	Y-Tap Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 2 wire load side, 10-14 AWG
30-C2626	Y-Tap Breakaway, crimp; fused; 2 wire line side, 10-14 AWG; 2 wire load side, 10-14 AWG
30-C2012N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C2016N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C2216N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 6-8 AWG; 1 wire load side, 6-14 AWG
30-C2616N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 10-14 AWG; 1 wire load side, 6-14 AWG
30-C2022N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C2026N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 2-4 AWG; 2 wire load side, 10-14 AWG
30-C2222N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 6-8 AWG; 2 wire load side, 6-8 AWG
30-C2226N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 6-8 AWG; 2 wire load side, 10-14 AWG
30-C2626N	Y-Tap Breakaway, crimp; non-fused; 2 wire line side, 10-14 AWG; 2 wire load side, 10-14 AWG
30-S2212T	Y-Tap Non-Breakaway, set screw; fused; 2 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-C2012T	Y-Tap Non-Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C2016T	Y-Tap Non-Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C2216T	Y-Tap Non-Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 1 wire load side, 6-14 AWG
30-C2616T	Y-Tap Non-Breakaway, crimp; fused; 2 wire line side, 10-14 AWG; 1 wire load side, 6-14 AWG
30-S1212D	Dual In-Line Breakaway, set screw; fused; 1 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-C1212D	Dual In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C1216D	Dual In-Line Breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C1616D	Dual In-Line Breakaway, crimp; fused; 1 wire line side, 6-14 AWG; 1 wire load side, 6-14 AWG
30-S2222D	Dual Y-Tap Breakaway, set screw; fused; 2 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-C2022D	Dual Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C2026D	Dual Y-Tap Breakaway, crimp; fused; 2 wire line side, 2-4 AWG; 2 wire load side, 10-14 AWG
30-C2222D	Dual Y-Tap Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 2 wire load side, 6-8 AWG
30-C2226D	Dual Y-Tap Breakaway, crimp; fused; 2 wire line side, 6-8 AWG; 2 wire load side, 10-14 AWG
30-C2626D	Dual Y-Tap Breakaway, crimp; fused; 2 wire line side, 10-14 AWG; 2 wire load side, 10-14 AWG
30-S1212P	Paired In-Line Breakaway, set screw; one fused, one non-fused; 1 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-C1212P	Paired In-Line Breakaway, crimp; one fused, one non-fused; 1 wire line side, 2-4 AWG; 1 wire load side, 2-4 AWG
30-C1216P	Paired In-Line Breakaway, crimp; one fused, one non-fused; 1 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-C1616P	Paired In-Line Breakaway, crimp; one fused, one non-fused; 1 wire line side, 6-14 AWG; 1 wire load side, 6-14 AWG

Catalog Number	Description
30-S2222P	Paired Y-Tap Breakaway, set screw; one fused, one non-fused; 2 wire line side, 2-14 AWG; 2 wire load side, 2-14 AWG
30-C2022P	Paired Y-Tap Breakaway, crimp; one fused, one non-fused; 2 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C2026P	Paired Y-Tap Breakaway, crimp; one fused, one non-fused; 2 wire line side, 2-4 AWG; 2 wire load side, 6-8 AWG
30-C2222P	Paired Y-Tap Breakaway, crimp; one fused, one non-fused; 2 wire line side, 6-8 AWG; 2 wire load side, 6-8 AWG
30-C2226P	Paired Y-Tap Breakaway, crimp; one fused, one non-fused; 2 wire line side, 6-8 AWG; 2 wire load side, 10-14 AWG
30-C2626P	Paired Y-Tap Breakaway, crimp; one fused, one non-fused; 2 wire line side, 10-14 AWG; 2 wire load side, 10-14 AWG
30-HS2	Fuseholder only, non-breakaway, set screw; fused; 1 wire line side, 2-14 AWG; 1 wire load side, 2-14 AWG
30-HC2	Fuseholder only, non-breakaway, crimp; fused; 1 wire line side, 2-4 AWG; 1 wire load side, 6-14 AWG
30-HC6	Fuseholder only, non-breakaway, crimp; fused; 1 wire line side, 6-14 AWG; 1 wire load side, 6-14 AWG
30-B2216	Combination Y-Tap Breakaway, fused; 2 wire line side, set screw, 2-14 AWG; 1 wire load side, crimp, 6-14 AWG

Example Configurations



In-Line Fused (Hot)

One wire line, one wire load

In-Line Non-Fused (Neutral)

One wire line, one wire load



Y-Tap Non-Fused (Neutral)

Two wire line, one wire load



Y-Tap Fused (Hot)

Two wire line, one wire load



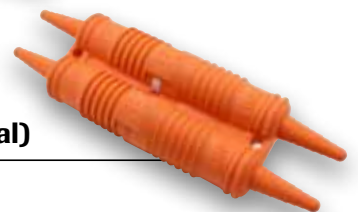
Dual In-Line Fused (Both Hot)

Two wire line, two wire load



Paired In-Line Fused (One Hot, One Neutral)

Two wire line, two wire load



100 Series Terminal Blocks - Miniature (High Density)

These miniature terminal blocks fit on a much smaller channel to save valuable panel space or can be surface mounted directly to the panel. Miniature blocks accept wire as large as 12 AWG.

- No wire crimping required – clamp contacts hold wire from 30 AWG to 12 AWG better than crimp-on terminals
- Saves installation time and cost – tubular clamp contacts supplied with captive screws backed out
- Nylon housing for rugged applications
- Positive stop prevents wire from being inserted too far and prevents screw from being tightened on insulation; easy access contact provides safe, reliable and cost-effective connection
- Quick installation and change – additional sections may be added or removed without removing channel mounting screw
- Matte-finish area for marking directly on block



Catalog Number - 100 Series	125	115	End Section	
			130	120
Mounting Style	Direct Mount (Flat Base)	Channel Mount (Dovetail Base)	Direct Mount (Flat Base)	Channel Mount (Dovetail Base)

Housing Material	Nylon
Maximum Service Temperature	125°C (257°F)
Flammability	UL94V2
Wire Strip Length (in.)	5/16
Torque (in.-lbs.)	6-9
UL Rating	28A @ 300V
Wire Range (AWG) Solid & Stranded	30-12
Pitch (in.)	0.25
Terminals per foot	48

WIRE RANGE: Solid or Stranded

Tubular Clamp

1 #12 AWG, 1 #14 AWG, 1 to 3 #16 AWG, 1 to 5 #18 AWG, 1 to 6 #20 AWG, 1 to 7 #22 AWG

900 Series Terminal Blocks - MEDIUM Duty

This family of polyester blocks is ideal for high temperature applications. The rugged material withstands temperatures up to 302°F (150°C)

- Three contact styles cover broad wire range – accept single wire or combinations from 22 AWG to 8 AWG solid or stranded
- Rated at 15A to 50A per circuit
- Flat base models mount directly to surfaces; dovetail base models mount on standard channel
- Only one end section needed per block assembly
- Readily identifiable circuits - write directly on matte surface of block
- Sections snap-fit with Heavy Duty, Intermediate Heavy Duty and Fuse blocks



Catalog Number	921	0921	924	0924	925	0925	930	0930
Mounting Style	Direct Mount (Flat Base)	Channel Mount (Dovetail Base)	Direct Mount (Flat Base)	Channel Mount (Dovetail Base)	Direct Mount (Flat Base)	Channel Mount (Dovetail Base)	End Section (Direct Mount)	End Section (Channel Mount)
Ampacity	15A		50A		30A		—	—
Contact Type	Strap Screw		Tubular Screw		Tubular Clamp		—	—
Screw Type	6-32 Combo Head		10-32 Combo Head		10-32 Combo Head		—	—
Screw Torque	12 in.-lbs.		8 in.-lbs.		8 in.-lbs.		—	—
Wire Range (AWG)	#14 to #22		#8 to #22		#10 to #22		—	—

Specifications

Center-to-Center Spacing: .375 in.

Voltage Rating: 600 Volt max., Current: 50 Amp max.

WIRE RANGE: Solid or Stranded

Strap Screw – 1 #22 to 1 #14 AWG

Tubular Screw – 1 #8 AWG, 1 #10 AWG, 1 to 3 #12 AWG, 1 to 4 #14 AWG, 1 to 4 #16 AWG, 1 to 5 #18 AWG, 1 to 10 #22 AWG

Tubular Clamp – 1 #10 AWG, 1 or 2 #12 AWG, 1 to 3 #14 AWG, 1 to 4 #16 AWG, 1 to 5 #18 AWG, 1 to 10 #22 AWG

Housing Material	Polyester (gray)
Contact Material	Copper Alloy, Zinc Plated
Screw Material	Steel, Zinc Plated
Maximum Service Temperature	150°C (302°F)
Flammability	UL94V-0 Rated

200 Series Terminal Blocks

- Three contact styles conservatively rated to 35A to 85A
- Only one end section needed per block assembly

Nylon Heavy Duty

This compact design, heavy-duty line accepts single wire or combinations up to 4 AWG, solid or stranded; 600V



- 138 circuits per 6 foot length
- Two-way flat-base models surface mount directly to the panel or snap-on miniature channel; dovetail base models mount on standard channel
- Sections snap-fit with Phenolic Heavy Duty, Intermediate Heavy Duty and Fuse blocks

Specifications

Center-to-Center Spacing: .50 in. CL: 24 circuits per foot.

WIRE RANGE: Solid or Stranded

Strap Screw – 1 #22 to 1 #10 AWG

Tubular Screw – 1 #4 AWG, 1 #6 AWG, 1 or 2 #8 AWG, 1 to 4 #10 AWG, 1 to 5 #12 AWG, 1 to 6 #14 AWG, 1 to 6 #16 AWG, 1 to 8 #18 AWG

Tubular Clamp – 1 #6 AWG, 1 or 2 #8 AWG, 1 to 3 #10 AWG, 1 to 4 #12 AWG, 1 to 4 #14 AWG, 1 to 6 #16 AWG, 1 to 8 #18 AWG

Voltage Rating: Blocks meet 600V creepage and clearance requirements of NEMA, UL and CSA for general industrial control equipment and panelboards. Withstands voltages greatly in excess of IEEE switchgear standards for 750V.

- Readily identifiable circuits – mark directly on painted marking surface or use removable marking strip

Phenolic Heavy Duty

Phenolic heavy duty blocks are ideal for high temperature, high current applications.



- Sturdy block accepts single wire or combinations up to 4 AWG solid or stranded
- 122 circuits per 6 foot length
- Sections snap-fit with Nylon Heavy Duty, Intermediate Heavy Duty and Fuse Blocks

Specifications

Center-to-Center Spacing: .56 in. CL: 20 circuits per foot.

WIRE RANGE: Solid or Stranded

Strap Screw – 1 #18 to 1 #8 AWG

Tubular Screw – 1 #4 AWG, 1 #6 AWG, 1 or 2 #8 AWG, 1 to 4 #10 AWG, 1 to 5 #12 AWG, 1 to 6 #14 AWG, 1 or 6 #16 AWG, 1 to 8 #18 AWG

Tubular Clamp – 1 #6 AWG, 1 or 2 #8 AWG, 1 to 3 #10 AWG, 1 to 4 #12 AWG, 1 to 4 #14 AWG, 1 to 6 #16 AWG, 1 to 8 #18 AWG



Catalog Number	Mounting Style	Ampacity	Contact Type	Screw Type	Wire Range (AWG)	Wire Strip Length	Material	
241	Unpainted Direct Mount (Flat Base)	35A	Strap Screw	10-32 Slotted Binding Head	#22 to #10	—	Nylon	
0241	Painted Channel Mount (Dovetail Base)							
242	Unpainted Direct Mount (Flat Base)	85A	Tubular Screw	1/4-28 Slotted Headless	#18 to #4	1/2 in.		
0242	Painted Channel Mount (Dovetail Base)							
243	Unpainted Direct Mount (Flat Base)	65A	Tubular Clamp	1/4-28 Slotted Headless	#18 to #6	1/2 in.		
0243	Painted Channel Mount (Dovetail Base)							
250	— End-Section (Direct Mount)	—	—	—	—	—		
0250	— End Section (Channel Mount)	—	—	—	—	—		
221	Painted Direct Mount (Flat Base)	35A	Strap Screw	10-32 Slotted Binding Head	#22 to #10	—		Phenolic
0221	Painted Channel Mount (Dovetail Base)							
222	Painted Direct Mount (Flat Base)	85A	Tubular Screw	1/4-28 Slotted Headless	#18 to #4	1/2 in.		
0222	Painted Channel Mount (Dovetail Base)							
223	Painted Direct Mount (Flat Base)	65A	Tubular Clamp	1/4-28 Slotted Headless	#18 to #6	1/2 in.		
0223	Painted Channel Mount (Dovetail Base)							
230	— End-Section (Direct Mount)	—	—	—	—	—		
0230	— End-Section (Channel Mount)	—	—	—	—	—		

	Nylon Heavy Duty	Phenolic Heavy Duty
Housing Material	Nylon, Type 6/6 unfilled	Phenolic, Filled, Flame retardant
Contact Material	Copper / Copper Alloy	Copper / Copper Alloy
Screw Material	Steel Plated	Steel Plated
Maximum Service Temperature	125°C (257°F)	150°C (302°F)
Breakdown Voltage AC, 60 Hz	7000V	7000V
Dielectric Strength (RH40% at sea level)	470-385 V/mil thickness (per ASTM D149)	300V/mil thickness (per ASTM D149)
UL High Voltage Arc Testing (in./min.)	0.1 - .35	.49 - .59
Water Absorption (24 hrs. % weight gain)	1.5%	45% (per ASTM D570)
Flammability	94V-2 (per UL94)	94V-1 (per UL94)
Chemical Resistance	Resistant to aromatic hydrocarbons, strong alkalis	Resistant to acids, alkalis, aliphatic hydrocarbons and ketones (per ASTM D5343)
Radiation Resistance (ergs g⁻¹ C)	8 X 10 ⁷	2 X 10 ⁸ min.

800 Series Nylon Intermediate Heavy Duty Terminal Blocks

The **800 Series** line of 600V blocks is conservatively rated up to 150A for a single 1/0 AWG copper wire.



- Exceptionally compact block accepts single wire or combinations up to 1/0
- 92 circuits per 6 foot length
- Tubular screw contact style accepts AWG sizes from 12 to 1/0, solid or stranded
- Two-way mounting base fits standard channel or mounts directly to flat surfaces
- Only one end section needed per block assembly
- Readily identifiable circuits – write directly on painted marking surface or use removable vinyl marking strip
- Nylon housing for rugged applications, 7/16 -20 slotted headless screws
- Snap-fit with Heavy-Duty Nylon and Phenolic and Fuse Blocks

Specifications

Center-to-Center Spacing: .75 in. CL: 16 circuits per foot.

WIRE RANGE: Solid or Stranded

Tubular Screw – 1 #1/0, 1 #1 AWG, 1 #2 AWG, 1 or 2 #4 AWG, 1 to 3 #6 AWG, 2, 3 or 5 #8 AWG, 1 to 6 #10 AWG, 1 to 7 #12 AWG

400 Series Phenolic Ultra Heavy Duty – 250 KCMIL (MCM) Terminal Blocks

This **Ultra Heavy Duty** line is rated up to 255A with a single 250 MCM conductor.



- Compact block accepts wire sizes up to 2/0 or 250 KCMIL (MCM)
- 57 circuits per 6 foot length
- Tubular screw contact style for maximum electrical rating
- Block mounts directly on flat surface or standard channel
- Only one end section needed per block assembly
- Readily identifiable circuits – write directly on painted marking area or use removable vinyl marking strip
- Hex socket screws allow maximum torque when using large wire sizes
- High current capacity snap-fit sectional blocks do not snap-fit with other block styles

Specifications

Center-to-Center Spacing: 1.19 in. CL: 9 circuits per foot.

WIRE RANGE: Solid or Stranded

Tubular Screw – 1 #2/0, 1 #1/0, 1 #1 AWG, 1 or 2 #2 AWG, 1 to 3 #4 AWG, 1 to 3 #6 AWG, 1 to 4 #8 AWG, 1 to 6 #10 AWG, 2 to 8 #12 AWG

Tubular Screw – 1 #250 KCMIL, 1 #4/0, 1 #3/0, 1 or 2 #2/0, 1 or 2 #1/0, 1 or 2 #1 AWG, 1 to 3 #2 AWG, 1 to 4 #4 AWG, 1 to 5 #6 AWG

Ordering Information - pgs. A-30 & A-31

Catalog Number	Mounting Style	Ampacity	Contact Type	Screw Type	Wire Range (AWG)	Wire Strip Length
824	Painted Two-Way Mounting Base	150A	Tubular Screw	7/16-20 Slotted Headless	12 to 1/0	11/16 in.
830	End-Section	—	—	—	—	—
426	Painted Two-Way Mounting Base	175A	Tubular Screw	1/2-30 Hex Socket	#12-2/0	1 in.
427	Painted Two-Way Mounting Base	255A	Tubular Screw	3/4-16 Hex Socket	#6-250 KCMIL/MCM	1 in.
430	End-Section	—	—	—	—	—
351	Direct Mount (Flat Base)	30A	Strap Screw	10-32 Binding Head	#22 to #8	—
0351	Channel Mount (Dovetail Base)					
358	Direct Mount (Flat Base)	30A	Strap Clamp	8-32 Pan Head w/Clamp	#18 to #8	1/2 in.
0358	Channel Mount (Dovetail Base)					
352	Direct Mount (Flat Base)	30A	Tubular Screw	1/4-28 Set Screw	#18 to #8	1/2 in.
0352	Channel Mount (Dovetail Base)					
330	End-Section (Direct Mount)	—	—	—	—	—
0330	End-Section (Channel Mount)	—	—	—	—	—
Catalog Number	Number of Circuits	Ampacity	Contact Type	Screw Type	Wire Range (AWG)	
B102	2	50A	Strap Screw (Steel)	10-32 Slotted Binding Head	#18 to #8	
B104	4					
B106	6					
B108	8					
B112	12					

300 Series Phenolic Fuse Blocks



- Provide in-line circuit protection for any circuit or group of circuits
- Three contact styles for terminated or unterminated wire are conservatively rated to 30A
- Remove, check and replace fuses safely and quickly – switch-action fuse blocks open circuits before fuse can be removed or installed
- Good circuit density when mounted adjacently – 91 circuits per 6 foot length
- Use in high temperature applications – phenolic housing withstands temperatures up to 302°F (150°C)
- Flat base models for surface mounting, dovetail base models for standard channel
- Only one end section needed per block assembly
- Open or close several circuits simultaneously – holes in puller handles allow use of nylon “ganging” rods
- Readily identifiable circuits – mark directly on white, matte-surface puller assembly, marking tab on block or use removable marking tape
- Sections snap-fit with Heavy Duty and Intermediate Heavy Duty Blocks

Specifications

Center-to-Center Spacing: .75 in. CL: 16 circuits per foot.

Fuse Size: Any 13/32 in. x 1-1/2 in. ferrule-type cartridge fuse up to 30A, indicating or non-indicating, which meets MIL. Spec. F-15160 is recommended.

WIRE RANGE: Solid or Stranded

Tubular Screw – Cat. No. 362 and 0362 – 1 #4 AWG, 1 #6 AWG, 1 or 2 #8 AWG, 1 to 4 #10 AWG, 1 to 5 #12 AWG, 1 to 6 #14 AWG, 1 to 6 #16 AWG, 1 to 8 #18 AWG

100 Series Phenolic One Piece Terminal Blocks



Traditional standard in the heavy industrial, rail transport, utility and traffic control industries. The rugged, one-piece construction finds wide application in dirty and vibration-prone environments.

- Two, four, six, eight and twelve circuit models
- Strap screw contacts accept wire 8 AWG and smaller and are rated to 50 Amps
- Pilot point screws with strap screw contacts speed installation time
- Easily identifiable circuits with use of plain white marking strip
- No assembly required - each block is a single, easily installed unit

Specifications

Center-to-Center Spacing: .63 in. CL

WIRE RANGE: Solid or Stranded

Strap Screw – 1 #18 AWG through 1 #8 AWG

Specification Chart - pgs. A-30 & A-31



	800 Series Nylon	400 Series Phenolic	300 Series Phenolic	100 Series Phenolic
Housing Material	Nylon, Type 6/6 Unfilled	Phenolic, Filled, Flame retardant	Phenolic, Filled, Flame retardant	Phenolic, Filled, Flame retardant
Contact Material	Copper	Copper	Copper Alloy	Copper / Copper Alloy
Screw Material	Steel, Zinc-Plated	Steel Plated	Steel Plated	Steel Plated
Maximum Service Temperature	125°C (257°F)	150°C (302°F)	150°C (302°F)	150°C (302°F)
Breakdown Voltage AC, 60 Hz	8800V	1000V	8400V	—
Dielectric Strength (RH40% at sea level)	470-385V/mil thickness (per ASTM D149)	300V/mil thickness (per ASTM D149)	300V/mil thickness (per ASTM D149)	300V/mil thickness (per ASTM D149)
UL High Voltage Arc Testing (in./min.)	.01 - .35	.49 - .58	.49 - .58	.49 - .58
Water Absorption (24 hrs. % weight gain)	1.5%	0.45% (per ASTM D570)	0.45% (per ASTM D570)	0.45% (per ASTM D570)
Flammability	94V-2	94V-1 (per UL94)	94V-1 (per UL94)	94V-1 (per UL94)
Chemical Resistance	Resistant aromatic hydrocarbons, strong alkalis	Resistant to acids, alkalis, aliphatic hydrocarbons and ketones (per ASTM D5343)	Resistant to acids, alkalis, aliphatic hydrocarbons and ketones (per ASTM D5343)	Resistant to acids, alkalis, aliphatic hydrocarbons and ketones (per ASTM D5343)
Radiation Resistance (ergs g¹ C)	8 X 10 ⁷ min.	2.7 X 10 ⁸ min.	2.7 X 10 ⁷ min.	2.7 X 10 ⁷ min.

Voltage Rating: Blocks meet 600V creepage and clearance requirements of NEMA, UL and CSA for general industrial control equipment and panelboards. Withstands voltages greatly in excess of IEEE switchgear standards for 750V.



Splice Cap Crimp Connectors

- Designed for making fast, permanent, pressure-type connections
- Solid copper sleeves require less crimping pressure
- Resist corrosion in harsh environments
- UL 486C Listed and CSA C22.2 #188 Certified; comply with Federal Specification W-S-61D

Description	Wire Combination Range	Quantity	Cat. No.
 Copper Crimp Connector	600V* 18 to 10 AWG Min. 2 #18 Max. 4 #12	Bag of 100	2006S
		Bag of 1,000	2006SB
 Copper Crimp Connector	600V* 14 to 4 AWG Min. 2 #10 Max. 2 #6	Bag of 50	2011S
		Bag of 500	2011SB

*1,000V maximum in fixtures and signs



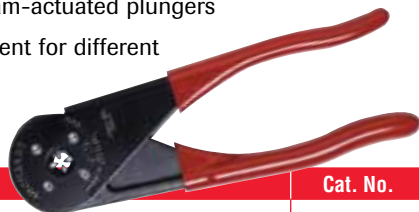
Splice Cap Insulators

- Convenient, safe and fast installation
- Snap-on nylon construction
- Rated at 105°C (221°F) – 600V (1,000V maximum in fixtures and signs)

For Connector Model	Quantity	Cat. No.
 2006S	Box of 100	2007
	Bag of 1,000	2007B
 2011S	Box of 50	2014
	Bag of 500	2014B




Four-Way Crimp Tool

- Patented design ensures even compression and reliable connectors
- Spring-loaded, cam-actuated plungers
- Fingertip adjustment for different connector sizes






Description	Cat. No.
Four-Way Crimp Tool	C-24



Mounting Channels

Mounting Channels	Length	Cat. No.	For use with:
 Miniature Channel	3 ft.	12	Heavy-Duty (200 Series) Miniature (100 Series)
 Steel Channel	6 ft. 3 ft.	60 63	Medium Duty (900 Series) Heavy Duty (200 Series) Intermediate Heavy Duty (800 Series) Ultra Heavy Duty (400 Series) Fuse Blocks (300 Series)
 Aluminum Channel (Pre-punched)	6 ft. 3 ft.	64 67	Medium Duty (900 Series) Heavy Duty (200 Series) Intermediate Heavy Duty (800 Series) Ultra Heavy Duty (400 Series) Fuse Blocks (300 Series)

Channel Clamps

Mounting Channels	Cat. No.	For use with:
 Miniature Clamp	11	High Density Miniature (100 Series) Heavy-Duty (200 Series)
 Universal Clamp	68	High Density Miniature (100 Series) Medium Duty (900 Series) Heavy Duty (200 Series) Intermediate Heavy Duty (800 Series) Ultra Heavy Duty (400 Series) Fuse Blocks (300 Series)
 Screw Clamp	61	High Density Miniature (100 Series) Medium Duty (900 Series) Heavy Duty (200 Series) Intermediate Heavy Duty (800 Series) Ultra Heavy Duty (400 Series) Fuse Blocks (300 Series)

Jumpers

Description	Cat. No.	Available for:
 Jumpers for Tubular Contacts	41	Heavy-Duty Phenolic (200 Series)
	42	Heavy Duty (200 Series)
	70	Medium Duty (900 Series)
	43	Heavy-Duty Phenolic (200 Series)

SECTION **B** TOOLS & SUPPLIES

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Based on 2012 data available from Epicor/Vista.





TOOLS & SUPPLIES

Tuff-Grip™ Pro . . . Industry's Leading Fish Tape!

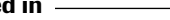
Etched in 12" increments to provide instant conduit length.



Tuff-Cuff™ tape retaining feature keeps tape properly positioned in the opening.



Full-perimeter handle band helps keep dirt and moisture out, prolonging life.



Speed-Grip™ Handle
Large, comfortable ergonomically-designed, grasp from the top or side. Allows for use with gloves.

Available in:

- Blued Steel™
- Stainless Steel
- Zoom™ Jacketed Stainless Steel
- Gold-Fish® Brass Plated Steel Coil
- S-Class® Nylon Jacketed Fiberglass
- Volt-Guard™ 1000V Non-Conductive Fiberglass

Exceptionally Durable Case



Length marked! Now laser etched in 12" increments to provide instant conduit length.

WARNING

Always use approved safety glasses when using this product. Do not use near energized equipment. Electrical shock may occur. Make sure all power is off. Do not use pliers or other tools that may kink, damage, or weaken any round fish tapes such as S-Class®, Nylon or Zoom™. Use only a fish tape puller designed for this purpose. While fish tapes made of fiberglass, nylon or other composite materials are non-conductive, they may have a metal eyelet that is conductive and could be grounded against conduit. Do not use on live electrical circuits. Do not attempt to use fish tape that is fractured or has multiple ends. Keep the fish tape wound in the reel to prevent damage to the tape. Use this product in a safe work position to prevent loss of balance. Never remove the screws from case while fish tape is coiled inside the reel. Failure to follow instructions may result in severe bodily harm or damage to property.

Fish Tape Cases & Handles

Impact Resistant Case

- Exceptionally durable case, takes up to a 20 ft. drop without breaking
- Tape retaining feature keeps tape properly positioned in the opening
- Full-perimeter handle band helps keep dirt and moisture out
- Superior pull-out and rewind characteristics



Rapid-Pak®

- Inner rotating reel with winding knob retrieves tape faster than traditional fish tapes for increased labor savings
- Funneled tape opening reduces kinking and tape breakage
- Reversible, hinged knob for right or left handed rewinds
- Stationary handle for extra durability
- Impact-resistant plastic case



SPEED-GRIP™ Pro Handle

- New vertical grip allows for faster payout and rewind
- Ergonomically designed handle puts less strain on your wrist
- Large hand opening allows for use with gloves
- Attached to the exceptionally durable Tuff-Grip™ Pro Case*



*On select S-Class® and Zoom™ Fish Tape Models.

Thumb Winder™

- Convenient 7 in. size can be stored in tool bag
- Durable, impact resistant ABS case
- Easy-to-use thumb-operated rewind
- Great for datacomm and small-sized conduit applications



Fish Tape Materials

Blued Steel™



- Laser etched in 12" increments to provide instant conduit length
- Unique finish is non-oily and resists rust
- Multiple options in width, length and eyelet for ease of use
- Industry's straightest wire
- Stiffer for long runs
- Highest grade carbon steel
- Tensile strength 1,600 lbs.

Gold-Fish®



- Brass-plated coiled steel resists rust
- No "memory" – hangs straight after being coiled for long periods
- Kink proof
- Excellent for multiple bends

Stainless Steel



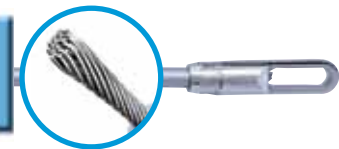
- Laser etched in 12" increments to provide instant conduit length
- Won't rust or corrode in damp locations or humid environments
- Super clean finish prevents marks on walls or carpets
- Great for wet or corrosive work environment
- Smoother pay-out
- Tensile strength 1,600 lbs.

S-Class®



- Non-conductive tape designed for use around live circuits
- Strong S-Class® core for longer life and greater pushing power
- Smooth nylon jacket provides great handling around bends
- Omni-directional pushing
- Pulling strength 500 lbs.

Zoom™



- 19 strands of stainless steel
- Ultra hard nylon jacket adds slipperiness, protects cables and user's hands
- Excellent for corrugated plastic conduit
- 19 strand twisted radial steel core encased in high molecular density outer jacket.
- Excellent for multiple bends or wet/corrosive work environment
- Pulling strength 1,000 lbs.

Volt-Guard



- Non-conductive to 1000V
- Rectilinear profile for superior pushing power
- Designed for use around live circuits
- Pulling strength 350 lbs.

Blued-Steel™ Fish Tapes

- Laser etched in 12" increments to provide instant conduit length
- High column strength for longer runs
- Non-oily finish resists rust



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Thumb-Winder™	Replacement Tapes
Blued Steel™						
25	1/8 in. x .045 in.	7 in.	Formed hook	-	31-012	-
50	1/8 in. x .045 in.	7 in.	Formed hook	-	31-010	-
50	1/8 in. x .060 in.	9 in.	Formed hook	31-033	-	31-004
60	1/8 in. x .060 in.	12 in.	Formed hook	31-055	-	31-035
120	1/8 in. x .060 in.	12 in.	Formed hook	-	-	-
120	1/8 in. x .060 in.	12 in.	Formed hook	31-056	-	31-036
240	1/8 in. x .060 in.	12 in.	Formed hook	-	-	-
240	1/8 in. x .060 in.	12 in.	Formed hook	31-057	-	31-038
50	1/4 in. x .060 in.	12 in.	Formed hook	31-059	-	31-051
100	1/4 in. x .060 in.	12 in.	Formed hook	31-058	-	31-050
200	1/4 in. x .060 in.	None	Formed hook	-	-	31-052
400	1/4 in. x .060 in.	None	Formed hook	-	-	31-2128
15,000	1/4 in. x .060 in.	None	Formed hook	-	-	31-2982

Stainless Steel Fish Tapes

- Laser etched in 12" increments to provide instant conduit length
- Won't rust or corrode in humid environments
- Stainless steel design provides a smooth pay-out



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Replacement Tapes
Stainless Steel					
120	1/8 in. x .060 in.	12 in.	Formed hook	31-066	31-073
240	1/8 in. x .060 in.	12 in.	Formed hook	31-067	31-074



IDEAL is #1 in market share for Fish Tapes!

Based on 2012 data available from Epicor/Vista.

S-Class® Fish Tapes

- Non-conductive tape for use around live circuits
- Structural glass core gives you a more durable fiberglass tape



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Rapid-Pak®	Replacement Tapes
S-Class® Nylon Jacketed Fiberglass						
50	3/16 in. diameter	12 in.	Leader	31-060	31-187	31-150
50	3/16 in. diameter	12 in.	Eyelet	31-062	31-190	31-160
100	3/16 in. diameter	12 in.	Leader	31-061	31-186	31-152
100	3/16 in. diameter	12 in.	Eyelet	31-063	31-189	31-162
200	3/16 in. diameter	16 in.*	Leader	31-064	31-207	31-155
200	3/16 in. diameter	16 in.*	Eyelet	31-065	31-208	31-165

*Traditional handle

Zoom™ Fish Tapes

- Great for hard to navigate conduit with multiple bends
- Nylon jacket protects the stainless steel core while adding to the slipperiness of Zoom™



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Replacement Tapes
Zoom™ Nylon Jacketed Stainless Steel					
50	3/16 in. diameter	12 in.	Eyelet	31-090	31-091
100	3/16 in. diameter	12 in.	Eyelet	31-092	31-093
200	3/16 in. diameter	16 in.*	Eyelet	31-096	31-097

*Traditional handle

Volt-Guard Fish Tapes

- Non-conductive up to 1000V
- Elliptical design gives the Volt-Guard greater pushing power



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Replacement Tapes
Fiberglass Nylon Jacket					
60	.1875 in. x .094 in.	12 in.	Eyelet	31-542	31-552
120	.1875 in. x .094 in.	12 in.	Eyelet	31-544	31-554

Gold-Fish® Fish Tapes

- Ultra-flexible tape for hard-to-navigate areas
- Brass-plated coils resist rust



Length (ft.)	Width & Thickness	Case Diameter	End Type	Tuff-Grip™ Pro	Replacement Tapes
Gold-Fish® Brass Plated Steel Coil					
50	3/16 in. diameter	12 in.	Eyelet	31-144	31-141



TOOLS & SUPPLIES

FISH TAPE ACCESSORIES

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

S-Class® Fiberglass & Zoom™ Fish Tape Field Application Kits

- Crimps on new eyelet or leader in minutes
- Dies can be used with Crimpmaster™ Crimp Tool
- Connection guaranteed to withstand 500 lbs.



Description	Cat. No.
Field Application Kit includes: Crimpmaster™ Crimp Tool frame, die set, S-Class® eyelets (2), S-Class® leaders (2), Zoom™ eyelets (2) & instant adhesive	31-156
Die Set Kit* includes: eyelets (2), leaders (2) & instant adhesive	31-164
Replacement eyelets (4) for S-Class® Fish Tapes	31-158
Replacement eyelets (2) for Zoom™ Fish Tapes	31-094
Replacement leaders (4) for S-Class® Fish Tapes	31-159
Die Set Only	31-166

*For those who already have a Crimpmaster™ Crimp Tool.

Fish Tape Leaders



- Guides fish tape around bends in conduit
- Handles up to six 10 AWG bare wires
- Pulls up to 500 lbs.

Description	Cat. No.
Fish Tape Leader for steel or stainless steel tapes	31-148
Fish Tape Leader for S-Class® Fiberglass Fish Tape	31-159

Fish Tape Swivel Ball

- Swivels to prevent wires from twisting during pull
- Designed for use on 1/8 in. steel or stainless steel tapes
- Eyelet holds up to four 10 AWG bare wires



Description	Cat. No.
Fish Tape Swivel Ball	31-085

Tuff-Grip™ Pro Accessories

Description	Cat. No.
Fish Tape Parts Kit	KB-0173
Kit Includes:	
Fish Tape Case (2 fish tape case halves)	—
(1) Handle	—
(4) Screws	—



Volt-Guard Repair Kit

- Includes two eyelets and adhesive
- Easy to apply



Description	Cat. No.
Volt-Guard Repair Kit	31-541

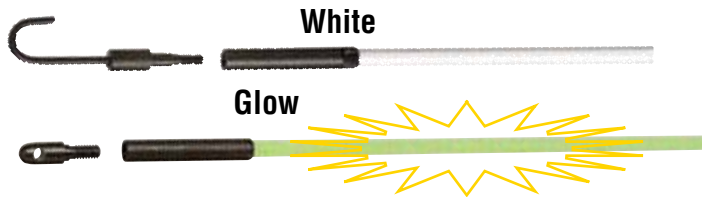


IDEAL is #1 in market share for Fish Tapes!

Based on 2012 data available from Epicor/Vista.

Tuff-Rod™ Fishing Poles

- Strong, lightweight, flexible extendable fiberglass rod kits
- Use to reach and pull wires over suspended ceilings, in cable trays or through interior walls
- Packaged in clear tubes for protection and long-term storage



Tuff-Rod™ Regular Flex

- 1/4 in. white fiberglass
- Extra stiffness for added control when maneuvering wires

Description	Cat. No.
12 ft. kit with fixed bullet nose and threaded J hook (3 ea. 4 ft. sections)	31-611
24 ft. kit with fixed bullet nose and threaded bullet nose (4 ea. 6 ft. sections)	31-612
12 pack of 1/4 in. x 4 ft. Regular Flex Replacement Rods	31-643
12 pack of 1/4 in. x 6 ft. Regular Flex Replacement Rods	31-644

Tuff-Rod™ Extra Flex Glow

- 3/16 in. pale green luminescent fiberglass
- Glow-in-the-dark material for easy use in attics, basements and other dim lit areas

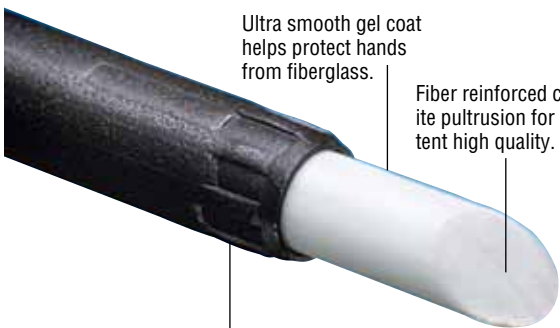
Description	Cat. No.
12 ft. kit with fixed bullet nose and threaded J hook (3 ea. 4 ft. sections)	31-631
30 ft. kit with fixed bullet nose and threaded bullet nose (5 ea. 6 ft. sections)	31-633
12 pack of 3/16 in. x 4 ft. Extra Flex Glow Replacement Rods	31-647
12 pack of 3/16 in. x 6 ft. Extra Flex Glow Replacement Rods	31-648

Accessory Kits

- Includes replacement heads, one threaded bullet nose, one threaded J hook and one threaded wisk



Description	Cat. No.
3/16 in. Accessory kit	31-651
1/4 in. Accessory kit	31-652



Ultra smooth gel coat helps protect hands from fiberglass.

Fiber reinforced composite pultrusion for consistent high quality.

New crimped edge provides Tuff-Rod™ with exceptional "pull-off" strength for a durable, long-lasting fish pole.



Tuff-Rod™ excellent choice for pulling wire where insulation is already installed.



The J Hook aids in re-positioning wires and re-directing pulls.





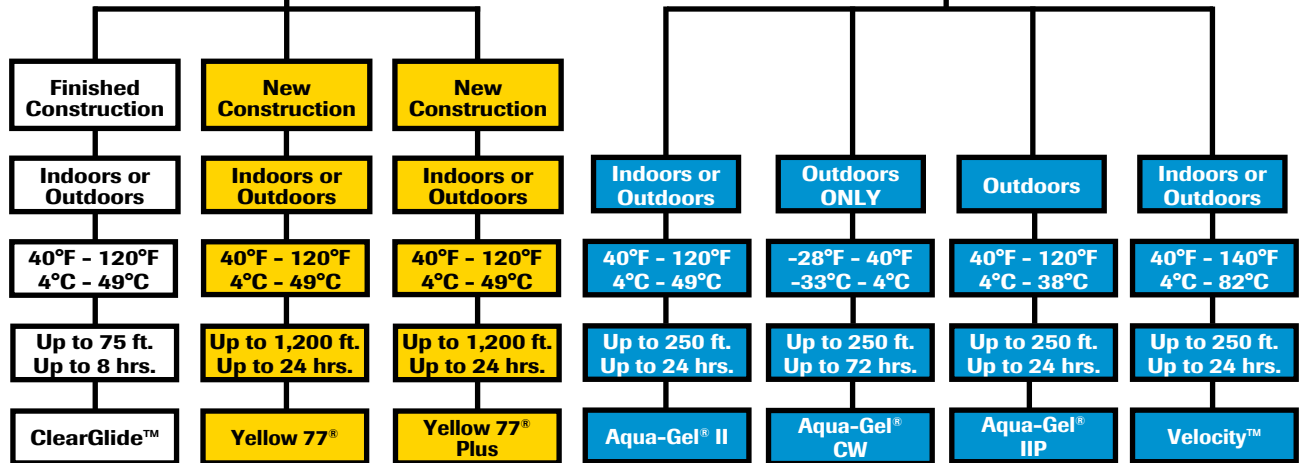
TOOLS & SUPPLIES

Select-a-Lubricant

What Are Your Needs?

Commercial Wire Pulling

Utility Cable Pulling



Wiring Pulling Lubricant Selection Guide



	ClearGlide™ Wire Pulling Lubricant	Yellow 77® Wire Pulling Lubricant	Yellow 77® Plus Wire Pulling Lubricant	Aqua-Gel® II Wire Pulling Lubricant	Aqua-Gel® CW Wire Pulling Lubricant	Aqua-Gel® IIP Wire Pulling Lubricant	Velocity™ Wire Pulling Lubricant
Color	Clear	Yellow	Yellow	Blue	Pink	Blue	Cream
Base	Polymer	Wax	Wax	Polymer	Polymer	Polymer	Polymer
Average Coefficient of Friction*	.23	.17	.16	.19	.19	.19	.16
Safe Storage	32°F - 180°F (0°C - 82°C)	32°F - 130°F (0°C - 54°C)	32°F - 190°F (0°C - 88°C)	32°F - 180°F (0°C - 82°C)	-28°F - 190°F (-33°C - 82°C)	32°F - 180°F (0°C - 82°C)	40°F - 140°F (4°C - 82°C)
Application Temperature Range	40°F - 100°F (4°C - 38°C)	40°F - 100°F (4°C - 38°C)	40°F - 100°F (4°C - 38°C)	40°F - 100°F (4°C - 38°C)	-28°F - 40°F (-33°C - 4°C)	40°F - 100°F (4°C - 38°C)	25°F - 140°F (-3.9°C - 60°C)
COMPATIBILITY (Cable Types):							
Rubber	•	•	•	•	•	•	•
Neoprene	•	•	•	•	•	•	•
Nylon	•	•	•	•	•	•	•
PVC	•	•	•	•	•	•	•
High-density or cross-linked polyethylene	•	•	•	•	•	•	•
Low-density polyethylene	•	•	•	•	•	•	•
Semiconducting jacket	•	•	•	•	•	•	•
Hypalon	•	•	•	•	•	•	•

*Results from NEETRAC, an independent testing laboratory affiliated with The Georgia Institute of Technology.

LUBRICANTS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Yellow 77[®] Plus Wire Pulling Lubricant

- Rapid Glide™ polytetrafluoroethylene additive provides greater lubricity than other wax-based lubricants – great for tough pulls
- Safe to use with all cable types
- Clings to cable throughout long runs, even where moisture is present
- Remains stable in high temperatures – usable from 30°F to 190°F (-1°C to 88°C)
- Dries slowly to a thin, non-conductive film that won't harden in conduit
- Easy to apply by hand or brush
- Creamy texture applies easily and uniformly
- Homogeneous blend requires no mixing
- Won't dry out – surface coat forms to control evaporation
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-qt. Squeeze bottle	31-398
1-gal. Bucket	31-391
5-gal. Bucket	31-395

ClearGlide[®] Wire Pulling Lubricant

- Clear and colorless for quick and easy clean-up – great for indoor and retrofit pulls
- Exceptional lubricity for super-fast pulls
- Polymer-based formula is perfect for all electrical and datacomm applications
- Safe to use with all cable types
- Controlled evaporation rate is ideal for shorter runs
- Remains stable over wide temperature ranges – usable from 30°F to 180°F (-1°C to 82°C)
- Dries to a semi-fluid film that won't clog conduit
- Easy to apply by hand, brush or pump
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-qt. Squeeze bottle	31-388
1-gal. Bucket	31-381
5-gal. Bucket	31-385
55-gal. Drum	31-2143



Yellow 77[®] Wire Pulling Lubricant

- The #1 brand of wire pulling lubricant since 1959 – the perfect general purpose lube
- Wax-based formula provides superior lubricity
- Safe to use with most cable types except low-density polyethylene and semi-conducting jackets
- Clings to cable throughout long pulls, even where moisture is present
- Won't break down or separate after repeated exposure to freezing temperatures
- Dries to a thin, non-conductive film
- Easy to apply by hand or brush
- Creamy texture applies easily and uniformly
- Homogeneous blend requires no mixing
- Won't dry out – surface coat forms to control evaporation
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-qt. Squeeze bottle	31-358
1-gal. Bucket	31-351
5-gal. Bucket	31-355
55-gal. Drum	31-365



TOOLS & SUPPLIES

LUBRICANTS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Aqua-Gel® II Cable Pulling Lubricant

- Polymer-based formula provides maximum tension reduction in high-stress electrical and communication cable-pulling operations
- Compatible with all cable types except composite rubber
- Cleans up easily with soap and water
- Clings to cable throughout long pulls
- Remains stable over wide temperature range – usable from 28°F to 180°F (-2°C to 88°C)
- Dries to a semi-fluid film that won't clog conduit
- Easy to apply by hand, brush or pump
- Environmentally safe – non-toxic, non-flammable and non-corrosive
- For outdoor use only



Description	Cat. No.
1-qt. Squeeze bottle	31-378
1-gal. Bucket	31-371
5-gal. Bucket	31-375
55-gal. Drum	31-3855

Velocity™ Wire Pulling Lubricant

- High cling factor
- Maximum friction reduction
- Specification grade
- Compatible with all popular cable types
- Temperature stable
- Non-combustible residue
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-qt. Squeeze bottle	31-276
1-gal. Bucket	31-277
5-gal. Bucket	31-278

Aqua-Gel® IIP Cable Pulling Lubricant

- Features the same excellent qualities as Aqua-Gel® II Cable Pulling Lubricant with a lower viscosity for easy pouring and pumping
- Pourable formula clings to cable – eliminates hand application for a cleaner and safer job
- Compatible with all cable types
- Cleans up easily with soap and water
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-gal. Jug	31-421
5-gal. Bucket	31-425
55-gal. Drum	31-435

Aqua-Gel® CW Cable Pulling Lubricant

- Features the same excellent qualities as Aqua-Gel® II Cable Pulling Lubricant with a lower temperature range for use outdoors in cold weather
- Polymer-based, cold-weather formula remains stable in storage from -28°F to 190°F (-33°C to 82°C)
- Formulated for exterior use in cold weather conditions
- Cleans up easily with soap and water
- Clings to cable throughout long pulls
- Well-suited for hand or poured applications
- Environmentally safe – non-toxic, non-flammable and non-corrosive



Description	Cat. No.
1-qt. Squeeze bottle	31-298
1-gal. Jug	31-291
5-gal. Bucket	31-295



Recommended Qty. of Lubricant Formula

$$Q = .0015 \times L \times D$$

Q = Quantity of recommended lube in gallons

L = Length of pull in feet

D = Nominal ID of conduit in inches

The formula listed above is used as a guideline on estimating the quantity of lube needed for various jobs. Many factors go into a cable pull, however this formula is just based on length of the pull and diameter of the conduit.

Increase quantities for the following troubles:

- Stiff, heavy cable
- Pulls with several bends
- Rough, old or dirty conduits
- High temperatures
- High percent conduit fill

Noalox® Anti-Oxidant

- Anti-oxidant compound improves efficiency and service life of aluminum electrical applications
- Suspended zinc particles penetrate and cut aluminum oxide
- Provides additional inner-strand and inner-conductor current paths for improved conductivity and cooler connections
- Carrier material excludes air to minimize further oxidation
- For use with pressure-type wire connectors including lugs, taps, service entrances and split-bolts
- Reduces galling and seizing when applied on aluminum conduit joints promoting good ground continuity



Description	Cat. No.
1/2-oz. Tube	30-024
4-oz. Squeeze bottle	30-026
8-oz. Squeeze bottle	30-030
8-oz. Brush cap	30-031
1-gal. Bucket	30-032
5-gal. Bucket	30-040

For a Material Safety Data Sheet on Noalox® and all other products visit us at www.idealindustries.com



Duct Seal

- Seals around junction boxes, flashings and service entrances
- Permanently soft, non-toxic compound can be painted immediately after application
- Won't adversely affect other plastic materials or corrode metals



Description	Cat. No.
1 lb. Block (10/carton)	31-601
5 lb. Block (10/carton)	31-605



Based on 2012 data available from Epicor/Vista.

Conduit Benders

- Exceptional, durable, materials for extra strength
- Reinforced at stress points for longer life
- Markings are raised and cast into the bender body on both sides for easy visibility
- Deeply serrated step helps prevent slippage when applying force
- Grooved internal hook surface helps prevent conduit from slipping
- Flat hook surface provides stable starting point
- Desirable bending system



CONDUIT BENDERS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Ductile Iron

- Withstands a lifetime of heavy use
- Ductile iron material is stronger than malleable iron or aluminum



Ductile Iron Head & Handle Complete

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-026
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-027
1 in. EMT, 3/4 in. Rigid & 3/4 in. IMC	74-028
1-1/4 in. EMT, 1 in. Rigid & 1 in. IMC	74-034

Ductile Iron Head Only

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-001
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-002
1 in. EMT, 3/4 in. Rigid & 3/4 in. IMC	74-003
1-1/4 in. EMT, 1 in. Rigid & 1 in. IMC	74-006

Aluminum

- Lightweight aluminum for easy handling
- Strong enough for every day use



Aluminum Head & Handle Complete

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-046
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-047

Aluminum Head Only

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-031
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-032

Handles For Benders

- Rugged, steel construction for long-term durability
- Baked-on blue enamel finish resists corrosion and enhances visibility
- Convenient bending guide for offset bends



Handles for Ductile Iron

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-019
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-019
1 in. EMT, 3/4 in. Rigid & 3/4 in. IMC	74-020
1-1/4 in. EMT, 1 in. Rigid & 1 in. IMC	74-021

Handles for Aluminum

Conduit Type and Size	Cat. No.
1/2 in. EMT	74-019
3/4 in. EMT, 1/2 in. Rigid & 1/2 in. IMC	74-019
1 in. EMT, 3/4 in. Rigid & 3/4 in. IMC	74-020
1-1/4 in. EMT, 1 in. Rigid & 1 in. IMC	74-021

Pocket Bender Guide

- Convenient pocket-sized reference guide
- Includes simple, concise bending techniques for precision stubs, back-to-back, offset and saddle bends



Description	Cat. No.
Pocket Bender Guide	P-100

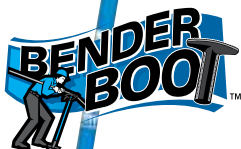
BenderBoot™

- Santoprene® tread and hand grip provides support for saddle and offset bends
- Easy push-on assembly to 1/2 in. and 3/4 in. Bender handles



Description	Cat. No.
BenderBoot™	74-037

Santoprene® is a registered trademark of Exxon Mobil.



The BenderBoot™ patented foot provides stability and leverage while its grooved rubber foot pad helps prevent slippage.

Heavy-Duty Hacksaw

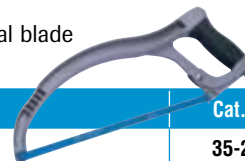
- Use as conventional hacksaw or as jab saw to enlarge holes
- Rugged frame provides lightweight rigidity and exceptional control
- Stores up to nine extra blades
- Blades can be adjusted to 55° angle for flush cutting and tensioned to 25,000 psi
- Includes 12 in. x 24T bi-metal blade



Description	Cat. No.
Heavy-Duty Hacksaw	35-260

Ergonomic Hacksaw

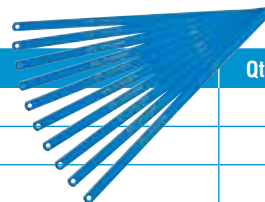
- Angled handle for easier cutting
- Blade can easily be adjusted for flush cutting
- Easy tensioning wing-nut keeps blades tight for straighter cuts
- Cushioned ergonomic grip for performance and comfort
- Includes 12 in. x 24T bi-metal blade



Description	Cat. No.
Ergonomic Hacksaw	35-261

Hacksaw Blades

- Bi-metal blades provide strength, flexibility and longer life



Description	Qty./Pack	Cat. No.
12 in. x 18T Blades	10	35-271
12 in. x 24T Blades	10	35-272
12 in. x 32T Blades	10	35-273
12 in. x 18T Blades	100	35-262
12 in. x 24T Blades	100	35-263
12 in. x 32T Blades	100	35-264

Valu-Line™ Pull-Line

- White with gray tracer for easy identification
- Continuous-fiber polyline great for blowing directly into conduit
- Will not rot or mildew
- Can be left in conduit for future use



Description	Tensile Strength	Cat. No.
Valu-Line™ Pull-Line – 6,500 ft. (bucket)	190 lbs.	31-338

Powr-Fish® Pull-Line

- White with blue tracer for easy identification
- Continuous-fiber polyline great for blowing directly into conduit
- Will not rot or mildew
- Can be left in conduit for future use



Description	Tensile Strength	Cat. No.
Powr-Fish® Pull-Line – 6,500 ft. (bucket)	210 lbs.	31-340
Powr-Fish® Pull-Line – 500 ft. (canister)	210 lbs.	31-348

Powr-Fish® Pull-Line

- White with red tracer for easy identification
- 500 lb. tensile, our highest tensile-rated pull-line
- Continuous-fiber polyline great for blowing directly into conduit
- Will not rot or mildew
- Can be left in conduit for future use



Description	Tensile Strength	Cat. No.
Powr-Fish® Pull-Line – 2,200 ft. (bucket)	500 lbs.	31-344

Pro-Pull™ Rope

- Low-friction polypropylene rope slides easily through conduit
- Non-sliver surface can be handled without gloves
- Will not rot or mildew
- Rugged, lightweight construction



Description	Tensile Strength	Cat. No.
1/4 in. x 250 ft. Reel	1,125 lbs.	31-839
1/4 in. x 600 ft. Reel	1,125 lbs.	31-840
1/4 in. x 1,000 ft. Reel	1,125 lbs.	31-841
3/8 in. x 250 ft. Reel†	2,430 lbs.	31-844
3/8 in. x 600 ft. Reel†	2,430 lbs.	31-845
3/8 in. x 1,200 ft. Reel†	2,430 lbs.	31-846
1/2 in. x 250 ft. Reel†	3,780 lbs.	31-849
1/2 in. x 600 ft. Reel†	3,780 lbs.	31-850
1/2 in. x 1,200 ft. Reel†	3,780 lbs.	31-851
5/8 in. x 600 ft. Reel†	5,580 lbs.	31-853
5/8 in. x 1,200 ft. Reel†	5,580 lbs.	31-854
3/4 in. x 300 ft. Reel†	7,650 lbs.	31-855
3/4 in. x 600 ft. Reel†	7,650 lbs.	31-856
3/4 in. x 1,200 ft. Reel†	7,650 lbs.	31-857

† Eye splice on working end.

3-in-1 Premise MULETAPE®

- Reduces installation time and saves money on premise jobs
- Thread, measure and pull with single product
- Imprinted with sequential footage or meter markings
- Fewer installation steps, significant material and labor savings



THREE functions in ONE

Description	Pulling Strength	Tape Width	Length	Cat. No.
3-in-1 Premise MULETAPE®	400 lb.	1/4 in.	4,500 ft./ bucket	31-314
	1,800 lb.	1/2 in.	1,300 ft./ bucket	31-315

MULETAPE® is a registered trademark of NEPTCO.

Conduit Measuring Tape

- Provides quick and accurate measurement of conduit runs
- Easy-to-read markings in sequential one-foot increments
- 160 lb. tensile strength
- Pulls rope through raceways without stretching
- Dispenser features built-in cutter, handle, non-skid base and adjustable reel tension
- Will not rot or mildew



Description	Cat. No.
Conduit Measuring Tape – 3,000 ft.	31-347

Foam Carriers



- Attach to a suitable line to serve as a piston – clears out water or debris as they travel through conduit
- Durable foam construction for repeated use and long life
- For use with any type of blower or vacuum system

Description	Qty.	Cat. No.
1/2 in. Foam Carrier	5/bag	31-466
3/4 in. Foam Carrier	5/bag	31-467
1 in. Foam Carrier	5/bag	31-468
1-1/4 in. Foam Carrier	3/bag	31-469
1-1/2 in. Foam Carrier	2/bag	31-470
2 in. Foam Carrier	1/bag	31-471
2-1/2 in. Foam Carrier	1/bag	31-322
3 in. Foam Carrier	1/bag	31-323
3-1/2 in. Foam Carrier	1/bag	31-324
4 in. Foam Carrier	1/bag	31-325
5 in. Foam Carrier	1/bag	31-326
6 in. Foam Carrier	1/bag	31-327

Line Packages



- One-piece pull line and foam tip unwind as they move through conduit
- One-piece construction for faster, easier use with no knots or foam carriers to retrieve
- Line tensile strength of 17 lbs.
- For use with any type of blower or vacuum system

Description	Color	Qty.	Cat. No.
Line Package, 1/2 in. x 75 ft.	Red	10/bag	31-472
Line Package, 1/2 in. x 150 ft.	Red	10/bag	31-473
Line Package, 3/4 in. x 200 ft.	Yellow	5/bag	31-475
Line Package, 3/4 in. x 300 ft.	Yellow	5/bag	31-476
Line Package, 3/4 in. x 450 ft.	Yellow	5/bag	31-477
Line Package, 1 in. x 200 ft.	White	5/bag	31-479
Line Package, 1 in. x 300 ft.	White	5/bag	31-480
Line Package, 1 in. x 450 ft.	White	5/bag	31-481





TOOLS & SUPPLIES

Invented and manufactured at our Sycamore, Illinois facility, the T[®]-Stripper Wire Stripper line is the leading brand name in the world.



Based on 2012 data available from Epicor/Vista.

Kinetic[®] Reflex[™] T[®]-Stripper Wire Stripper

Ergonomic handles with Santoprene[®] grip and Thumb Valley[™] make this the premier wire stripper in the market.



- Thumb Valley[™] Protection
- Pocket Locket Locking Hasp
- Shear Cut Bolt Cutters
- Santoprene[®]
- Ergo Handles

Kinetic[®] Super Wire Stripper

The ergonomic design and patented Santoprene[®] grip wicks away perspiration and reduces muscle fatigue. The Thumb Valley[™] guide and precision stripping holes promote the highest accuracy in the industry.



Reflex[™] Super T[®]-Stripper Wire Stripper

The ergonomic design with curved handles reduces wrist fatigue. Features 6/32 and 8/32 self-chasing, bolt cutting holes and a locking pawl for safe storage.



- Thumb Valley[™] Protection
- Pocket Locket Locking Hasp
- Shear Cut Bolt Cutters
- Santoprene[®]
- Curved Handles

Reflex[™] Premium T[®]-Stripper Wire Stripper

Designed for total-comfort and wire stripping. Ergonomic handles fit an electrician's natural grip and reduces hand fatigue. Textured, slip-resistant sleeves cushion thumb and fingers.



- Locking Pawl
- Bolt Cutting
- Extended Textured Comfort
- Ergo Handles

T[®]-Stripper Wire Stripper

The industry standard for almost 50 years. Compact, lightweight and easy to use. Features precision-ground, knife-type blades, built-in looping holes, wire cutters and a convenient plier nose.



- Extended Textured
- Ergo Handles

- Straight Handles

T[®]-Stripper Wire Stripper Selection Guide

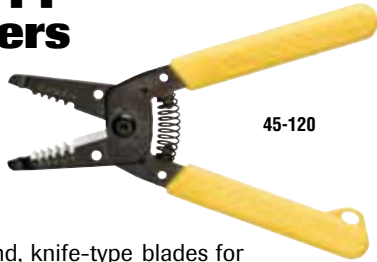
6		10		12		14		16		18		20		22		24		26		28		30		32					
8	10	12	14	16	18	20	22	24	26	28	30	32	32																
																22	24	26	28	30			Solid		#45-100's	#45-400's	#45-600's	#45-700's	#45-900's
																24	26	28	30	32			Stranded		45-125	45-417	—	—	—
				14	16	18	20	22	24														Solid		45-121	45-416	—	45-716	—
				16	18	20	22	24	26														Stranded		45-120	45-415	—	45-715	45-915
		10	12	14	16	18																	Solid		45-120	45-415	—	45-715	45-915
		12	14	16	18	20																	Stranded		45-120	45-415	—	45-715	45-915
	8	10	12	14	16																		Solid		—	—	45-615	—	—
	10	12	14	16	18																		Stranded		—	—	45-615	—	—
6	8	10	12	14																			Solid		45-124	45-418	45-618	45-718	45-918
8	10	12	14	16																			Stranded		45-124	45-418	45-618	45-718	45-918
																							T-Cutter		45-123	—	—	—	—

WIRE STRIPPERS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

T[®]-Stripper Wire Strippers



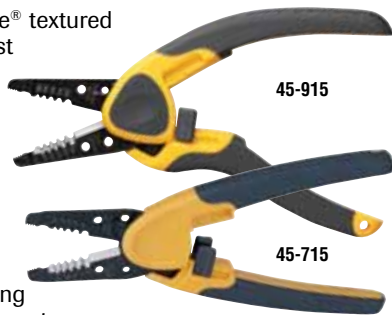
45-120

- Form-ground, knife-type blades for accurate, easy stripping without nicking insulation
- Built-in wire cutter and looping holes
- Convenient plier nose for extra gripping strength
- Laser-etched wire gauge for easy-to-read visibility
- Spring-loaded automatic opening
- Corrosion-resistant, black oxide finish
- Tough steel construction

Description	Solid	Stranded	Cat. No.
T [®] -5 T [®] -Stripper Wire Stripper	10-18	12-20	45-120
T [®] -6 T [®] -Stripper Wire Stripper	14-24	16-26	45-121
T [®] -7 T [®] -Stripper Wire Stripper	22-30	24-32	45-125
T [®] -8 T [®] -Stripper Wire Stripper	6-14	8-16	45-124
T [®] -Stripper Wire Stripper – Metric	0.75-6mm ²		45-120-341
T [®] -Stripper Wire Stripper – Metric	0.5-4mm ²		45-125-341

Kinetic[®] Reflex[™] T[®]-Stripper Wire Strippers

- Non-slip Santoprene[®] textured grips and thumb rest
- Plier nose for holding and twisting wires
- Slide lock for safety and storage
- Thumb and finger valley makes stripping easier and more accurate
- Shear-Cut[™] bolt cutters



45-915

45-715

Description	Solid	Stranded	Cat. No.
Kinetic [®] Reflex [™] T [®] -Stripper Wire Stripper	10-18	12-20	45-915
	6-14	8-16	45-918
Kinetic [®] Super Wire Stripper	10-18	12-20	45-715
	14-24	16-26	45-716
	6-14	8-16	45-718

Santoprene[®] is a registered trademark of Exxon Mobil.

Reflex[™] Super T[®]-Stripper Wire Strippers



45-615

- 6/32 and 8/32 self-chasing screw-cutting holes
- Locking pawl for safe storage
- Ergonomic design for maximum comfort
- Curved handles reduce wrist fatigue
- Sleeves extend to stripping head to cushion thumb and fingers
- Textured sleeves with extra cushioning for added comfort

Description	Solid	Stranded	Cat. No.
Reflex [™] Super T [®] -Stripper Wire Stripper	8-16	10-18	45-615
	8-14	8-16	45-618
Reflex [™] Premium T [®] -Stripper Wire Stripper	10-18	12-20	45-415
	14-24	16-26	45-416
	22-30	24-32	45-417
	6-14	8-16	45-418
Reflex [™] Premium T [®] -Stripper – Metric	0.5mm ² -4.0mm ²		45-425-341

Reflex[™] Super T[®]-Stripper Wire Stripper



45-621

- 6/32 and 8/32 self-chasing screw-cutting holes
- Locking pawl for safe storage
- Ergonomic design for maximum comfort, Curved handles reduce wrist fatigue
- Sleeves extend to stripping head to cushion thumb and fingers
- Textured sleeves with extra cushioning for added comfort

Description	Solid	Stranded	Cat. No.
Reflex [™] Super 12/2 & 14/2 NM Cable T [®] -Stripper Wire Stripper	12-2 and 14-2	—	45-621

T-90™ Wire Strippers



- Patented T-90 bent nose strippers are designed for easy long reach into confined electrical spaces
- Quickly removes jacket with precision cut and straight pull
- Less fatigue with straight pull verses the side twist wrist motion
- Corrosion-resistant, black oxide finish
- Tough steel construction with sheer-type blades
- Contoured, cushion-grip handles for ergonomic comfort

Description	Cat. No.
T-90™ Bent Nose 12-2 NM Stripper, 12-2 Solid & 18 AWG Stranded	45-649

NM Cable Dual-Hole T®-Stripper Wire Stripper



- Stripping holes for stripping two 2 AWG or two 14 AWG wires simultaneously
- Ability to strip both conductor wires of NM cable at one time
- Locking pawl for safe storage

Description	Wire Range	Cat. No.
Premium T®-14 T®-Stripper Wire Stripper	12 or 14 AWG solid	45-247
14/2 NM Cable T®-Stripper Wire Stripper		45-248
12/2 NM Cable T®-Stripper Wire Stripper		45-249

Lil' Ripper Stripper™



- Rips outer jacket of NM cable cleanly and quickly
- Clips outer sheathing to remove excess wire jacket
- V-Notch strips inner wires
- Looping holes loop wire for screw-on connections
- Twist-Assist™ tightens most popular sizes of winged twist-on connectors
- Injection molded elastomer grip provides a comfortable, slip resistant grip
- Strip length measuring scale allows for quick and easy measurements
- Conveniently fits in your pocket

Description	Cat. No.
Lil' Ripper Stripper™	45-025

Cable Ripper

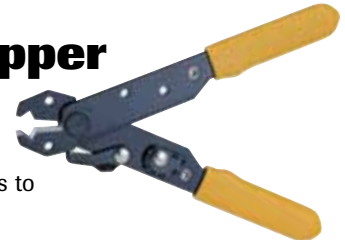
- Slits NM cable wire sheathing before stripping wires
- Quick, clean and easy end or mid-run removal of jacket
- Convenient built-in wire gauge



Description	Cat. No.
Side Entry Cable Ripper	45-118RS

V-Notch Stripper

- Cuts copper or aluminum wire, solid or stranded
- Rotating cam wheel adjusts to strip 10-24 AWG wire
- Looping holes for solid wire
- Locking hasp



Description	Cat. No.
V-Notch Stripper	45-101

7-in-1 Stripper



- Versatile, seven-function tool features precision-ground stripping blades, cushioned grips and plier nose
- Strips 8–16 AWG solid and 10–18 AWG stranded wire
- Crimps bare and insulated terminals for 10–22 AWG wire, RG-59 coax connectors and 7 to 8mm auto ignition connectors
- Cuts unhardened wire, bolts and screws (4-40, 6-32, 8-32, 10-24 and 10-32) and reforms threads
- Cuts stranded, solid, NM wire and U.F. wire to 8 AWG
- Reams and de-burrs conduit
- Gauges and loops wire

Description	Cat. No.
7-in-1 Stripper	45-777

T[®]-Cutter Wire Cutter



- Hardened steel, sheer-type blades
- Spring-loaded automatic opening
- Convenient plier nose for extra gripping strength
- Corrosion-resistant, black oxide finish
- Tough steel construction
- Locking tab keeps spring in place

Description	Wire Range	Cat. No.
T [®] -Cutter Wire Cutter	Up to 1/2 in. O.D. fine-stranded wire and 10 AWG solid wire	45-123

1000V Insulated Wire Stripper



- UL Classified
- High visibility, double insulated handles provide safety, comfort and control



Description	Cat. No.
1000V Insulated Wire Stripper	45-9120

Data T[®]-Cutter Wire Cutter



- Cuts round communication cable and maintains cable geometry for better cable performance
- Cuts multi-pair cable up to .500 in. (12.7mm) and coaxial cable up to RG-9/U
- Suitable for soft cables (not ACSR)
- Steel reinforced center conductors can be trimmed with bolt cutting holes
- Cushioned comfort grip handles
- Locking latch keeps tool closed in pouch

Description	Cat. No.
Data T [®] -Cutter	45-074

Underground Feeder (UF) Cable Stripper



- Self-adjusting stripping blades automatically select proper position
- Strips 12/2 AWG solid to 14/2 AWG Underground Feeder (UF) Cable
- Strips Twin and Earth cable
- Open-throat construction allows unlimited strip length
- Neatly removes outer cable sheath and inner wire sheathing to desired lengths
- Lightweight, ergonomic design reduces user fatigue

Description	Cat. No.
Underground Feeder Cable Stripper	45-235

Combo Tool



- Convenient, four-function tool features precision-ground stripping holes and knife-to-anvil cutting blades
- Crimps bare and insulated terminals
- Strips 8–20 AWG solid and 10–22 AWG stranded wire
- Cuts unhardened bolts (4–40, 6–32, 8–32, 10–24 and 10–32) and reforms threads

Description	Cat. No.
Combo Tool	30-428

Multi-Crimp Strip Tool



- Cuts wire
- Crimps insulated and non-insulated wires
- Cuts bolts
- Strips 10–22 AWG wire

Description	Cat. No.
Multi-Crimp Strip Tool	45-778

Round Cable Slitting and Ringing Tools



- Cuts around cable jacket as well as slits the length of jacket for easy removal
- Use with single or multiple conductor cable up to 1.75 in. O.D.
- Blade adjusts for jacket thicknesses up to .125 in.
- Spare blade in handle base

Description	Cat. No.
Cable Stripper for 1/4 in. to 3/4 in. O.D.	45-128
Cable Stripper for 3/4 in. to 1-1/2 in. O.D.	45-129
Replacement Blades for 45-128 and 45-129 (2/pkg.)	L-7486

Coax Strip and Crimp Tool



- Precision, form-ground stripping holes remove outer jacket and insulation from RG-59 and RG-6 coaxial cable
- Durable blades cut copper-coated steel conductors
- Three crimping nests for crimping F-connectors and ring terminals

Description	Cat. No.
Coax Strip & Crimp Tool	30-433
Coax Strip & Crimp Tool w/ten RG-6 F-Connectors	30-433F

Grip-N-Strip™ End Stripper



- Self-adjusting stripping blades automatically select proper position
- Strips 12 AWG solid to 20 AWG stranded PVC insulated wire
- Strip-length gauge
- Cuts up to 12 AWG solid wire
- Lightweight, ergonomic design reduces user fatigue
- Reinforced fiberglass construction
- Hardened steel blades for extra strength and longer life

Description	Cat. No.
Grip-N-Strip™ End Stripper	45-227

Stripmaster® Wire Strippers



- One-step stripping enhances productivity
- Spring-action motion increases leverage and reduces operator fatigue
- Precision-ground, knife-type blades provide clean, accurate stripping

Description	Cat. No.
Stripmaster® Wire Stripper, 10–22 AWG (Boxed)	45-092
Stripmaster® Wire Stripper, 10–22 AWG (Clamshell)	45-292
Stripmaster® Wire Stripper, Coax RG-6	45-262

See Section C for complete Stripmaster® Wire Stripper line.



LASERedge™ pliers use high carbon, 1080 steel, which provides extra strength and hardness without sacrificing flexibility. It is one of the reasons our tools outperform the competition in

performance and durability. All of our LASERedge tools have laser-hardened blades and teeth, which are more precise and provide better durability for strenuous applications like cutting steel or ACSR.



Blade Design

LASERedge pliers feature “knife-to-anvil” cutting blades for long life. (Ideal for cutting screws, nails, hardened wire and ACSR)

**LASERedge™
Dipped-Grip**





Fish Tape Puller
35-3012



Crimping Die & Fish Tape Puller
30-3430



Fish Tape Puller
35-012

Side-Cutting Pliers

- Drop-forged, high-carbon steel construction withstands toughest applications
- Knife-to-anvil blades never need resharpener
- Cuts hardened wire, bolts and ACSR
- Laser-hardened blades and serrated jaws for long-term durability
- High-leverage design provides 40% more cutting power
- Unique reverse rivet protects smooth action of plier movement



Description (Smart-Grip™ Handles)	Cat. No.
9-1/4 in. New England nose high-leverage w/fish tape puller	35-3012
9-1/4 in. New England nose high-leverage w/crimping die	30-3430
Description (Dipped Handles)	Cat. No.
9-1/4 in. New England nose high-leverage w/fish tape puller	35-012
9-1/4 in. New England nose high-leverage w/crimping die & fish tape puller	30-430



Angled Head
35-029



35-3029

Diagonal-Cutting Pliers

- Drop-forged, high-carbon steel construction withstands toughest applications
- Knife-to-anvil blades never need resharpener
- Laser-hardened blades cut hardened wire, bolts and ACSR
- High-leverage design provides 40% more cutting power
- Models 35-029 and 35-3029 feature a convenient angled head for hard-to-reach areas and rocking out nails



Description (Smart-Grip™ Handles)	Cat. No.
8 in. High-leverage Diagonal	35-3028
8 in. High-leverage Diagonal w/angled head	35-3029
Description (Dipped Handles)	Cat. No.
8 in. High-leverage Diagonal	35-028
8 in. High-leverage Diagonal w/angled head	35-029

Long-Nose Pliers

- Narrow profile head designed for working in tight areas
- Serrated jaws provide secure gripping surface
- Drop-forged, high-carbon steel construction
- Knife-to-anvil blades never need resharpener
- Laser-hardened blades cut hardened wire, bolts and ACSR



Description (Smart-Grip™ Handles)	Cat. No.
8-1/2 in. Long Nose w/Cutter	35-3038
Description (Dipped Handles)	Cat. No.
6 in. Long Nose w/Cutter	35-036
7-3/4 in. Long Nose w/Cutter	35-037
8-1/2 in. Long Nose w/Cutter	35-038
8-1/2 in. w/Cutter & stripping holes for 12 & 14 AWG wire	35-039



w/Smart-Grips™
35-3038

Tongue & Groove Pliers

- Reinforced flange protects against breakage
- Drop-forged, high-carbon steel construction



Description (Smart-Grip™ Handles)	Jaw Opening (Inches)	Cat. No.
10 in. Tongue & Groove Pliers	2	35-3430
Description (Dipped Handles)	Jaw Opening (Inches)	Cat. No.
10 in. Tongue & Groove Pliers	2	35-430
12 in. Tongue & Groove Pliers	2-1/4	35-440



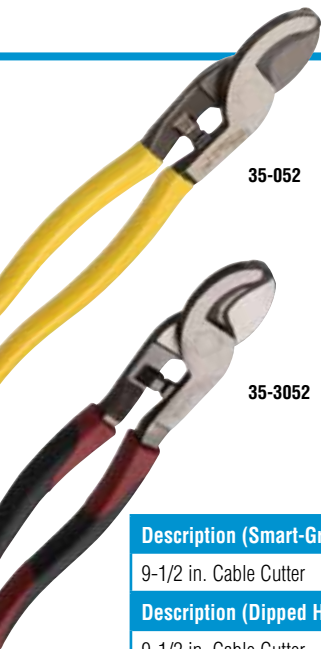
35-3430

IDEAL Grips

LaserEdge™ Dipped Grips
LaserEdge™ Dipped Grips are smooth and easy to wipe clean.

Smart-Grip™ Handles
Smart-Grip™ over-mold provides comfort and control.





Cable Cutters

35-052

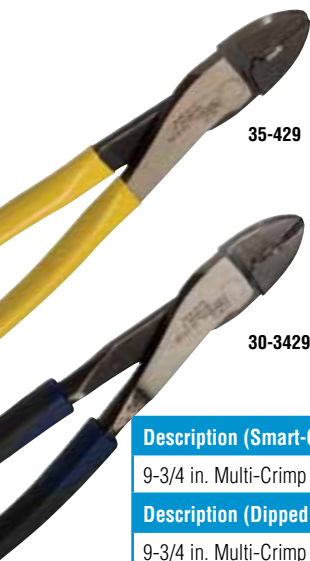
- Drop-forged, high-carbon steel construction
- Precision-ground, hardened cutting edges provide accurate cuts without cable distortion

35-3052

- Designed for maximum leverage with minimum effort
- Cuts 2/0 copper and 4/0 aluminum (not for use on ACSR)



Description (Smart-Grip™ Handles)	Cat. No.
9-1/2 in. Cable Cutter	35-3052
Description (Dipped Handles)	Cat. No.
9-1/2 in. Cable Cutter	35-052



Multi-Crimp Tools

35-429

- Crimps bare or insulated terminals and splices on 10-22 AWG wire
- Knife-to-anvil blades never need sharpening
- Excellent leverage for easy crimping and cutting

30-3429

- Drop-forged, high-carbon steel construction



Description (Smart-Grip™ Handles)	Cat. No.
9-3/4 in. Multi-Crimp Tool	30-3429
Description (Dipped Handles)	Cat. No.
9-3/4 in. Multi-Crimp Tool	30-429

Split-Joint Pliers

- Two position slip joints fit large and small jobs
- Dipped comfort-grip handles for a secure grip
- Flush rivet

35-100



35-102

Description	Cat. No.
6 in. Slip Joint Pliers	35-100
Description (Dipped Handles)	Cat. No.
8 in. Slip Joint Pliers	35-102

Crimp Tool

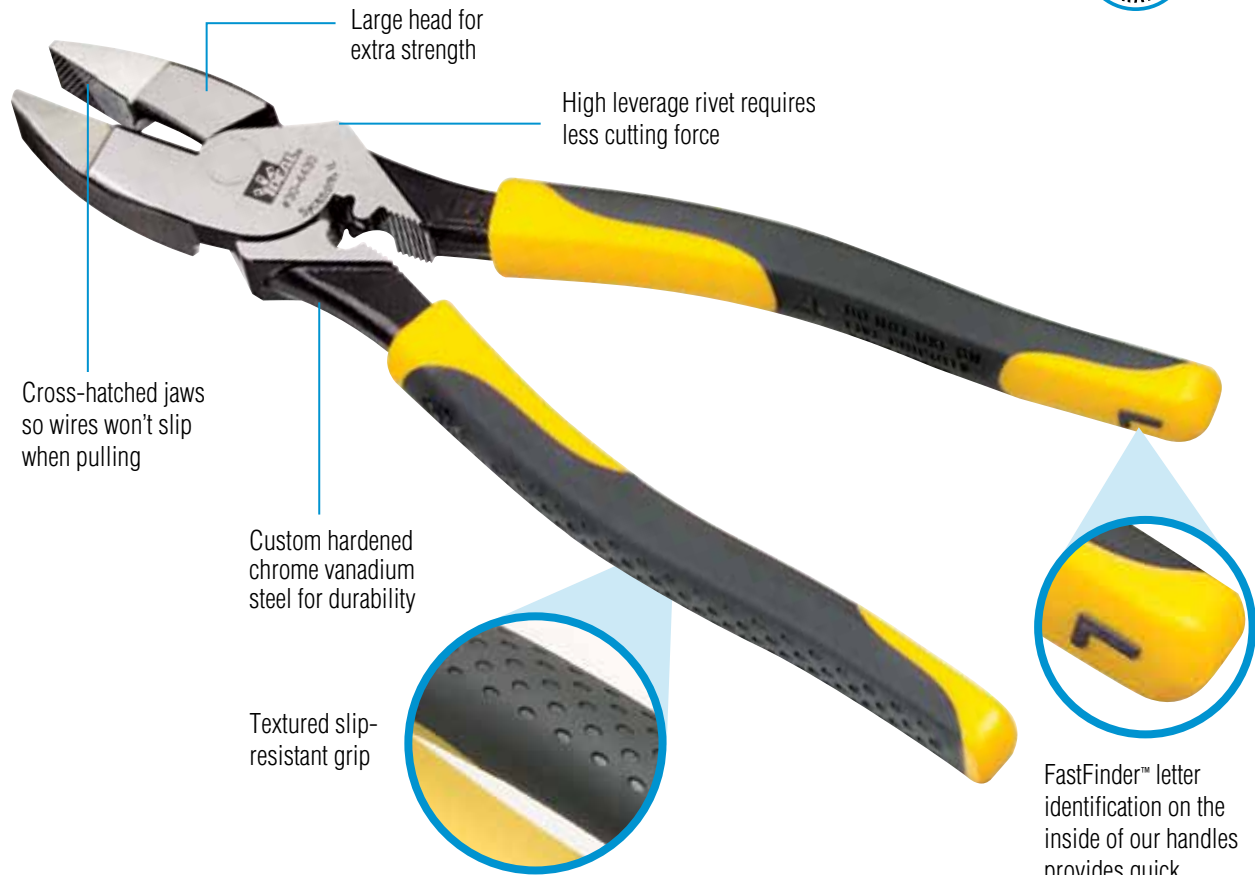
- Crimps all IDEAL crimp sleeves
- Excellent leverage for right-angle, double-indent crimps
- Cuts and twists wire



Description (Smart-Grip™ Handles)	Cat. No.
10-1/4 in. Crimp Tool	30-425



WireMan™ pliers provide professional results for everyday use. These tools are the workhorse of electrical pliers; they are rugged yet precise, providing exceptional durability, easy cutting and a lifetime of quality use.



FastFinder™ letter identification on the inside of our handles provides quick identification, even by touch



Blade Design

WireMan™ pliers feature “knife-to-knife” cutting blades.

**WireMan™
Dipped-Grip**





Side-Cutting Pliers

- Custom chrome vanadium steel for durability
- High leverage pivot requires less cutting force
- Sharp, knife-to-knife blades for easy cutting
- Induction hardened teeth for long life
- Cross-hatched jaws so wires won't slip when pulling



Description (Smart-Grip™ Handles)	Cat. No.
9-1/4 in. Side-Cutting Pliers	35-4012
9-1/4 in. Side-Cutting Pliers w/crimp and fish tape puller	30-4430
Description (Dipped Handles)	Cat. No.
9-1/4 in. Side-Cutting Pliers	35-5012
9-1/4 in. Side-Cutting Pliers w/crimp and fish tape puller	30-5430

Long-Nose Pliers

- Custom chrome vanadium steel for durability
- High leverage pivot requires less cutting force
- Sharp, knife-to-knife blades for easy cutting
- Induction hardened teeth for long life
- Cross-hatched jaws so wires won't slip when pulling



Description (Smart-Grip™ Handles)	Cat. No.
6 in. Long-Nose Pliers	35-4036
8 in. Long-Nose Pliers	35-4038
Description (Dipped Handles)	Cat. No.
6 in. Long-Nose Pliers	35-5036
8 in. Long-Nose Pliers	35-5038



Diagonal Cutting Pliers

- Custom chrome vanadium steel for durability
- High leverage pivot requires less cutting force
- Sharp, knife-to-knife blades for easy cutting
- Induction hardened teeth for long life



Description (Smart-Grip™ Handles)	Cat. No.
8 in. Diagonal-Cutting Pliers	35-4028
8 in. Diagonal-Cutting Pliers w/angled head	35-4029
Description (Dipped Handles)	Cat. No.
8 in. Diagonal-Cutting Pliers	35-5028
8 in. Diagonal-Cutting Pliers w/angled head	35-5029

WireMan™ Dipped Grips
WireMan™ Dipped Grips are textured for comfort and control.

Smart-Grip™ Handles
Smart-Grip™ over-mold provides comfort and control.

Multi-Crimp Tools

- Custom chrome vanadium steel for durability
- High-leverage pivot requires less force
- Cuts, crimps and splices 10 – 22 AWG wire for insulated and non-insulated crimp connectors



Description (Smart-Grip™ Handles)	Cat. No.
9-1/4 in. Multi-Crimp Tool	30-4429
9-1/4 in. Multi-Crimp Tool - Bare Terminals	35-4431
Description (Dipped Handles)	Cat. No.
9-1/4 in. Multi-Crimp Tool	30-5429
9-1/4 in. Multi-Crimp Tool - Bare Terminals	35-5431

Cable Cutters



35-5052

- Custom chrome vanadium steel for durability
- High-leverage pivot requires less force
- Sharp, by-pass blades for easy cutting
- Induction hardened teeth for long life



35-4052

Description (Smart-Grip™ Handles)	Cat. No.
9 in. 2/0 Cable Cutter	35-4052
Description (Dipped Handles)	Cat. No.
9 in. 2/0 Cable Cutter	35-5052

Color-coding and FastFinder™ letter markers on SmartGrip™ handles provide quick tool identification, even by touch!



Smart-Grip™

Our Smart-Grip™ pliers provide the latest innovation in material, comfort design, durability and long life.



Tenite® Grips



- Fits LASERedge™ and WireMan™ Pliers
- Not insulated from electrical shock
- Boil in water to soften for easy installation onto handles

Description	Cat. No.
Replacement grips for 8 in. or 9 in. pliers (one pair)	35-008

Tenite® is a registered trademark of Eastman Chemical Company.

For all your plier needs...



Side-Cutting



Long Nose



Tongue & Groove



Cable Cutter



Diagonal



Crimper



Sir Nickless™ Cutter

TO SEVER AND PROTECT ARMORED CABLE



- Handles all common BX, MCAP®, MC and Flex cables
- Blade cuts armor without damage to internal conductors
- Splices cleanly through casings with only a few turns
- Handle knob stores up to six replacement blades

Description	Qty.	Cat. No.
Rotary Armored Cable Cutter	—	35-782
Replacement blades	5/pack	35-781
	1/pack	35-781-1

MCAP® is a registered trademark of Southwire Company.

BUCHANAN 4-Way Crimp Tool



- Patented design ensures even compression and reliable connections
- Spring-loaded, cam-actuated plungers
- Fingertip adjustment for different connector sizes

Description	Cat. No.
Four-Way Crimp Tool	C-24

Mechanical Indentor and Crimp Tool



- Use with aluminum (6 AWG to 4/0) and copper (8 AWG to 250 KCMIL) wires
- Adjustable crimping nests with clearly marked gauges
- Lightweight and easy to operate
- Rugged cast steel construction for long-term durability
- Connections are UL Listed when using this tool with IDEAL Non-Insulated Terminals (#8 - #4 AWG).

Description	Cat. No.
Mechanical Indentor	88-843

Ratchet Crimp Tool



- Crimps insulated or bare terminals and splices on 10–22 AWG wire
- Ratchet action prevents release prior to crimp connection – helps ensure uniform crimps
- Vinyl-coated handles provide a solid, comfortable grip

Description	Cat. No.
Ratchet Crimp Tool	83-001

Crimp Tool



- Crimps all IDEAL crimp sleeves
- Excellent leverage for right-angle, double-indent crimps
- Cuts and twists wire
- Vinyl-coated handles provide a solid, comfortable grip



Description	Cat. No.
10-1/4 in. Crimp Tool	30-425

IDEAL Wipes™ The Multi-Purpose Towel

- Pre-moistened wipes require no water
- Cleans dirt, grease, lube and grime
- Durable fabric scrubs without tearing
- Infused with natural hand moisturizers and Vitamin E
- Orange citrus scent
- Meets California C.A.R.B. standards



Description	Cat. No.
IDEAL Wipes™, 12 in. x 9 in. (82/can)	38-500

Aviation Tin Snips

- Cuts straight, left and right, with one tool!
- Chrome-molybdenum steel forged blades for greater strength and durability
- Serrated edges provide a stable hold when cutting
- Labor-saving design for easier cutting
- Comfortable non-slip dual durometer grips



Description	Cat. No.
Aviation Tin Snips	35-001

Torpedo Level

- 9 in. aluminum frame with magnetic and V-grooved edges
- Windows provide easy reading of plumb level and 45° mitre in dim lighting
- Three rare earth magnets for strong cling to conduit



Description	Cat. No.
9 in. Torpedo Level	35-205

Adjustable Wrenches



- Narrow profile head reaches into tight spaces
- Tight tolerance on thumbscrew won't loosen or wobble with use
- Extra wide jaw capacity with standard and metric markings
- Forged steel construction
- Tempered and hardened for lifetime service



Description	Jaw Capacity	Cat. No.
6 in. Adjustable Wrench	7/8 in.	35-019
8 in. Adjustable Wrench	1-1/8 in.	35-020
10 in. Adjustable Wrench	1-5/16 in.	35-021

Drop-Forged Hammer



- One-piece drop-forged, tempered-steel polished head and handle
- Long, straight claws simplify removal of electrical fixtures
- Comfortable, perforated anti-vibe grips
- Elongated neck for hitting inside boxes

Description	Cat. No.
18 oz. x 12-1/2 in. Drop-Forged Handled Hammer	35-210

Measuring Tapes



- Measurement marks on both sides of tape
- Blade automatically stays out when extended
- Push button for smooth blade retraction
- Comfortable, shock-resistant rubber grip

Description	Cat. No.
Auto-Lock™ Tape Measure - 25 ft.	35-242
Automatic Blade Lock w/Magnetic-Tip - 30 ft.	35-238

Electric Engraving Tools

- Low-cost, industrial-quality marker quickly and easily engraves metal, glass, stone, ceramics, plastics, hard rubber, wood and many other hard materials
- Unique design reduces bouncing and provides smooth, easy writing
- Operates at 7,200 strokes per minute
- Stroke adjusts to vary depth of mark
- Includes carbide-tipped point for normal markings
- Diamond point available for engraving extra-hard materials (50 to 64 Rockwell, scale C)



Description	Cat. No.
Engraver w/carbide-tipped point & 3-conductor grounded cord & plug — 120V, 60 Hz	11-113
Carbide-Tipped replacement point	11-200
Diamond replacement point	11-201

Hex-Key Sets

- 8650 steel construction
- Dual-durometer, slip-resistant grip



Description	Cat. No.
4 in. handle w/nine 3-in. keys (5/64 in., 7/64 in., 1/8 in., 9/64 in., 5/32 in., 3/6 in., 7/32 in. & 1/4 in.)	35-146
5-1/4 in. handle w/five 5-in. keys (3/16 in., 7/32 in., 1/4 in., 5/16 in. & 3/8 in.)	35-147

Center Punch

- Accurately start drilling holes on steel surfaces
- One-piece construction
- Hardened and tempered for long life



Description	Cat. No.
Center Punch	35-192

Chisels

- Hardened and tempered for long life
- Use Wood Chisel by hand or mallet



Description	Cat. No.
Cold Chisel (for cutting cold metals)	35-187
Wood Chisel	35-189

Utility Knife

- Quick-change retractable blade system — no disassembly required
- Built in pull-line cutter
- Includes three blades in storage compartment



Description	Cat. No.
Utility Knife	35-300
Replacement blades - Universal (5/pack)	35-301

Pocket Knives

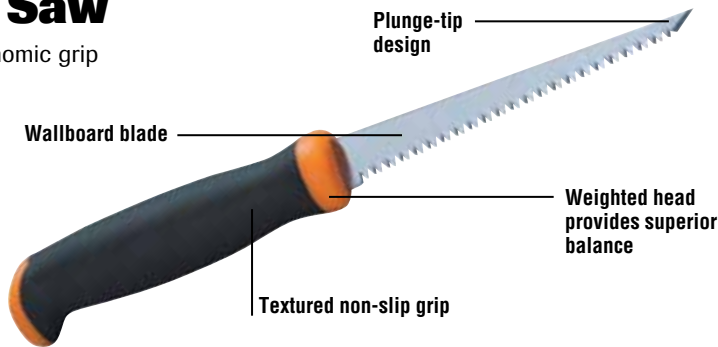


- 2-1/4 in. blade locks in position
- High-carbon stainless steel blade construction for extra strength and durability
- Durable non-slip handle
- Brass liners

Description	Cat. No.
Electrician's Knife w/spearpoint and screwdriver blade	35-285
Hawkbill Knife w/curved blade	35-286
Lineman's Jack Knife w/sheepfoot blade	35-287

Jab Saw

- Ergonomic grip



Description	Cat. No.
Jab Saw	35-275

Folding Saw

- Light-weight, heavy-duty die cast construction
- Ergonomic rubber comfort grip
- Blade safely and conveniently folds down in handle
- Accepts all standard 6 in. recip blades



Description	Cat. No.
Folding Saw	35-274

Ergonomic Hacksaw

- Angled handle for easier cutting
- Blade can easily be adjusted for flush cutting
- Easy tensioning wing-nut keeps blades tight for straighter cuts
- Cushioned ergonomic grip for performance and comfort
- Includes 12 in. x 24T bi-metal blade



Description	Cat. No.
Ergonomic Hacksaw	35-261

Heavy-Duty Hacksaw



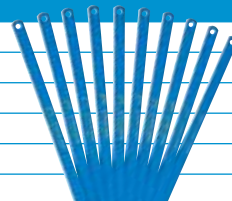
- Cushioned ergonomic grip for performance and comfort
- Rugged frame provides lightweight rigidity and exceptional control
- Stores up to nine extra blades
- Blades can be adjusted to 55° angle for flush cutting and tensioned to 30,000 psi
- Includes 12 in. x 24T bi-metal blade

Description	Cat. No.
Heavy-Duty Hacksaw	35-260

Hacksaw Blades

- Bi-metal blades provide strength, flexibility and longer life

Description	Qty./Pack	Cat. No.
12 in. x 18T Blades	10	35-271
12 in. x 24T Blades	10	35-272
12 in. x 32T Blades	10	35-273
12 in. x 18T Blades	100	35-262
12 in. x 24T Blades	100	35-263
12 in. x 32T Blades	100	35-264



Ratcheting Cable Cutter



- Cuts hard drawn copper up to 400 KCMIL (MCM) and soft copper, aluminum and multiple conductor cable up to 600 KCMIL (MCM)
- Hardened steel blades ensure consistent cuts and long-term durability
- Rounded blade design minimizes cable distortion during cutting
- Quick release mechanism simplifies blade back-out
- Locking mechanism keeps handles closed for easy storage

Description	Cat. No.
400 KCMIL (MCM) Ratcheting Cable Cutter*	35-056
Replacement blade (moveable side only)	35-085

*Max. Jaw Opening - 2 in. Not for cutting steel or ACSR.

Long-Arm Cable Cutters



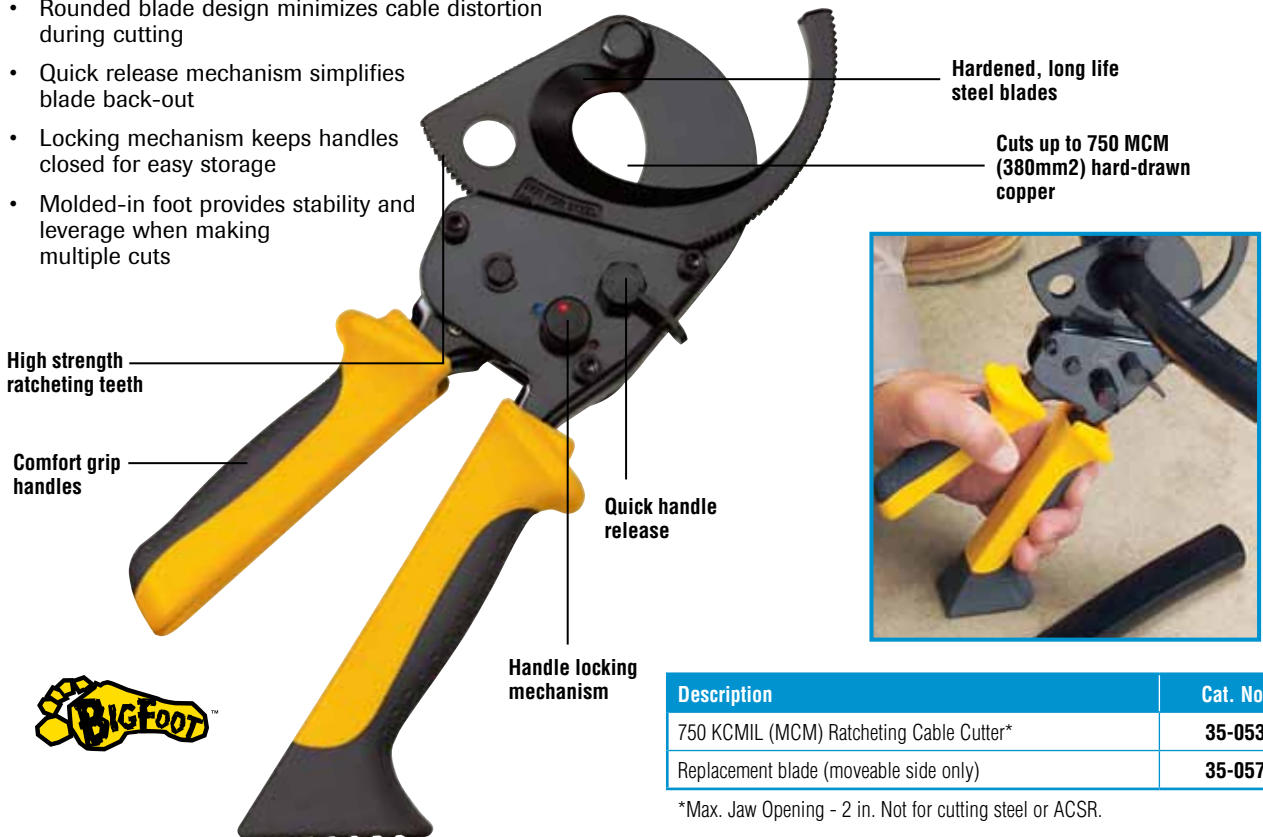
- High strength forged blades for ultimate durability
- Precision-ground jaws make clean cuts with minimal cable distortion
- Replaceable blades
- For copper and aluminum only. Not designed for steel or ACSR.

Description	Length	Cat. No.
250 MCM Long-Arm Cable Cutter	14	35-031
500 MCM Long-Arm Cable Cutter	22	35-032
1000 MCM Long-Arm Cable Cutter	32	35-033
Replacement Head - 250 MCM (for 35-031)	—	35-031B
Replacement Head - 500 MCM (for 35-032)	—	35-032B
Replacement Head - 1000 MCM (for 35-033)	—	35-033B

CAUTION: Comfort-grip handles are not designed to for protection against electrical shock. Do not use on live circuits.

Ratcheting Cable Cutter

- 750 KCMIL Ratcheting Cable Cutter is designed to cut 750 KCMIL (MCM) and smaller hard-drawn copper and aluminum cables
- Hardened steel blades ensure consistent cuts and long-term durability
- Rounded blade design minimizes cable distortion during cutting
- Quick release mechanism simplifies blade back-out
- Locking mechanism keeps handles closed for easy storage
- Molded-in foot provides stability and leverage when making multiple cuts



Hardened, long life steel blades

Cuts up to 750 MCM (380mm²) hard-drawn copper



High strength ratcheting teeth

Comfort grip handles

Quick handle release

Handle locking mechanism



Description	Cat. No.
750 KCMIL (MCM) Ratcheting Cable Cutter*	35-053
Replacement blade (moveable side only)	35-057

*Max. Jaw Opening - 2 in. Not for cutting steel or ACSR.



TOOLS & SUPPLIES

PowerBlade™ Cable Cutters

The new series of IDEAL Cable Cutters are designed to cut cables quickly and efficiently. With adjustable torque arms, heavy-duty gears and proprietary hardened steel blades, they deliver unsurpassed performance, ease-of-use and durability. Compatible with virtually any 12 volt or higher drill so that cutting is as effortless as pulling the drill's trigger. The unique compact design is the perfect tool for fitting into tight spaces. Features an ergonomic design and non-slip grips, helping you cut cable easily and safely.

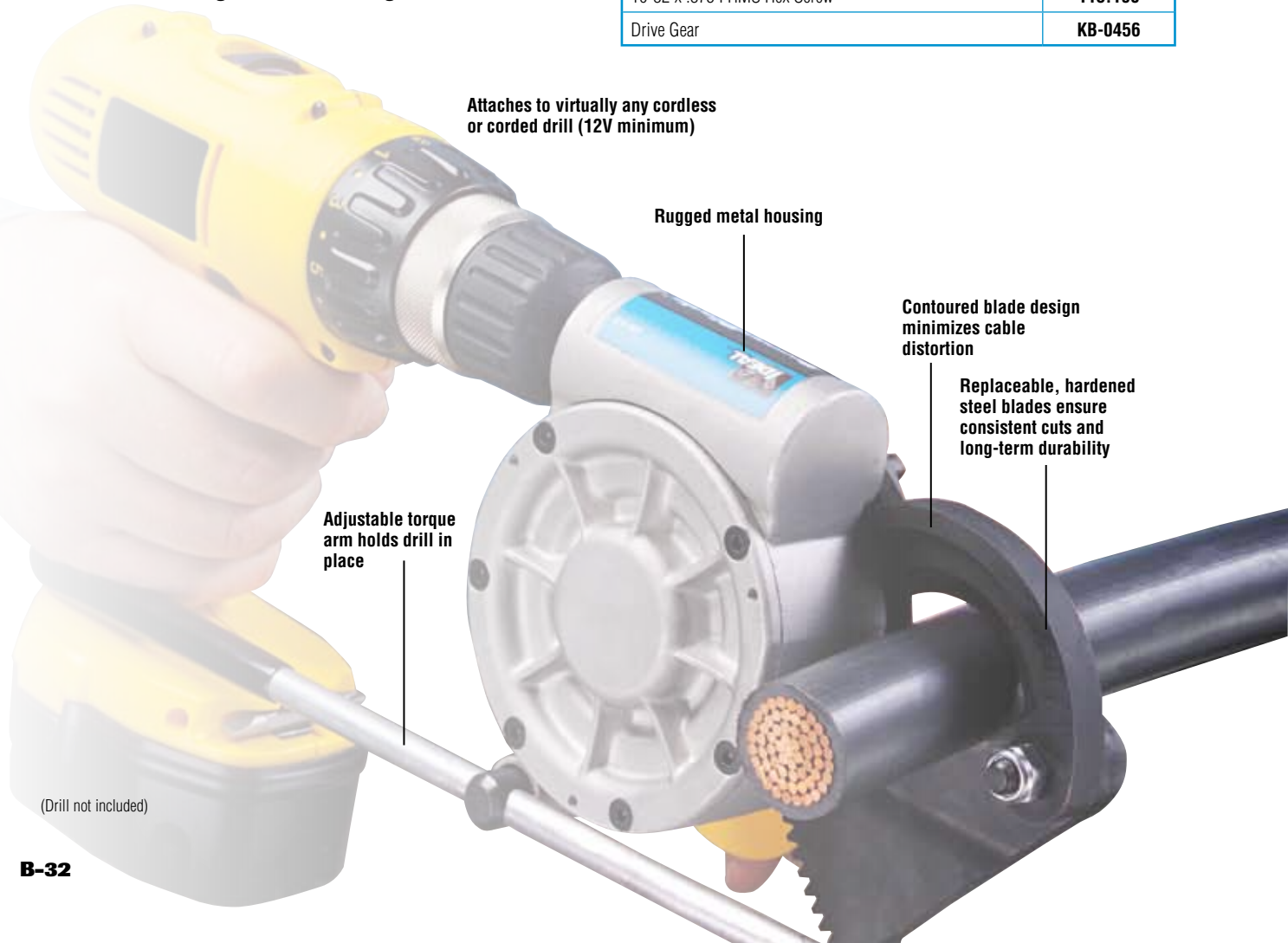
Description	Cat. No.
PowerBlade™ 750 Cable Cutter	35-078
Big Kahuna™ Cable Cutter	35-076
Merlin ACSR Cable Cutter	35-077



Folding handle for storage

Replacement Parts (Gear Box Assembly)	Cat. No.
Gearbox Assembly	H-3400
Drive Gear	KB-0456
.125 Dia. x .625 Roll Pin	281.106
Torque Arm	K-8933
Folding Handle	H-3507
Replacement Parts	Cat. No.
PowerBlade™ Replacement Handle	K-8947R
PowerBlade™ Replacement Blades for 35-078 (pair)	K-8906R
PowerBlade™ Replacement Blades for 35-076 (pair)	KB-0276R
PowerBlade™ Replacement Blades for 35-077 (pair)	KB-0278R
PowerBlade™ Replacement Torque Arm Assembly	K-8909
PowerBlade™ Replacement Carrying Case	K-8926
10-32 x .375 FHMS Hex Screw	113.190
Drive Gear	KB-0456

Attaches to virtually any cordless or corded drill (12V minimum)



Rugged metal housing

Contoured blade design minimizes cable distortion

Replaceable, hardened steel blades ensure consistent cuts and long-term durability

Adjustable torque arm holds drill in place

(Drill not included)

CABLE CUTTERS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE



BIG KAHUNA™ CABLE CUTTER



(Drill not included)

- Extremely versatile and designed for multiple applications
- Jaw opening of 3-1/2 in.
- Cuts copper cable up to 1250 MCM and aluminum cable up to 1250 MCM
- Specially hardened, rounded blades minimize cable distortion for professional quality every time

CUTS COPPER UP TO 1250MCM & ALUMINUM UP TO 1250MCM

3 1/2" MAX JAW OPENING



Merlin™ ACSR CUTTER



(Drill not included)



- Especially designed for reinforced aluminum cable
- Jaw opening of 3/4 in. for precision and accuracy
- Cuts up to Merlin ACSR cable size

CUTS ACSR UP TO 3/4 IN.

3/4" MAX JAW OPENING



PowerBlade™750 CABLE CUTTER



(Drill not included)

- Extremely versatile and designed for multiple applications
- Jaw opening of 1-1/2 in.
- Cuts copper cable up to 750 MCM and aluminum cable up to 1000 MCM
- Specially hardened, rounded blades minimize cable distortion for professional quality every time

1 1/2" MAX JAW OPENING



Screwdrivers

Specialty Screwdrivers



- Top quality screwdrivers designed especially for the professional electrician
- Multi-functional drivers that can tackle all your fastening needs
- Durable tools with lifetime warranties

Cushioned-Grip Screwdrivers



- Cushioned-gripped for comfort and maximum torque
- Tip blasted to improve screw grip
- Nickel Chrome steel shank for maximum strength and durability

Industrial Screwdriver Bits

- Made from rugged S2M tool steel
- All bits are 100% made in the U.S.A.
- Custom heat treated for strength and durability



Mini Cushioned-Grip Screwdrivers

- Tightens small fasteners easily and accurately
- Tip blasted to improve screw grip
- Cushioned-gripped for comfort and maximum torque

Nutdrivers



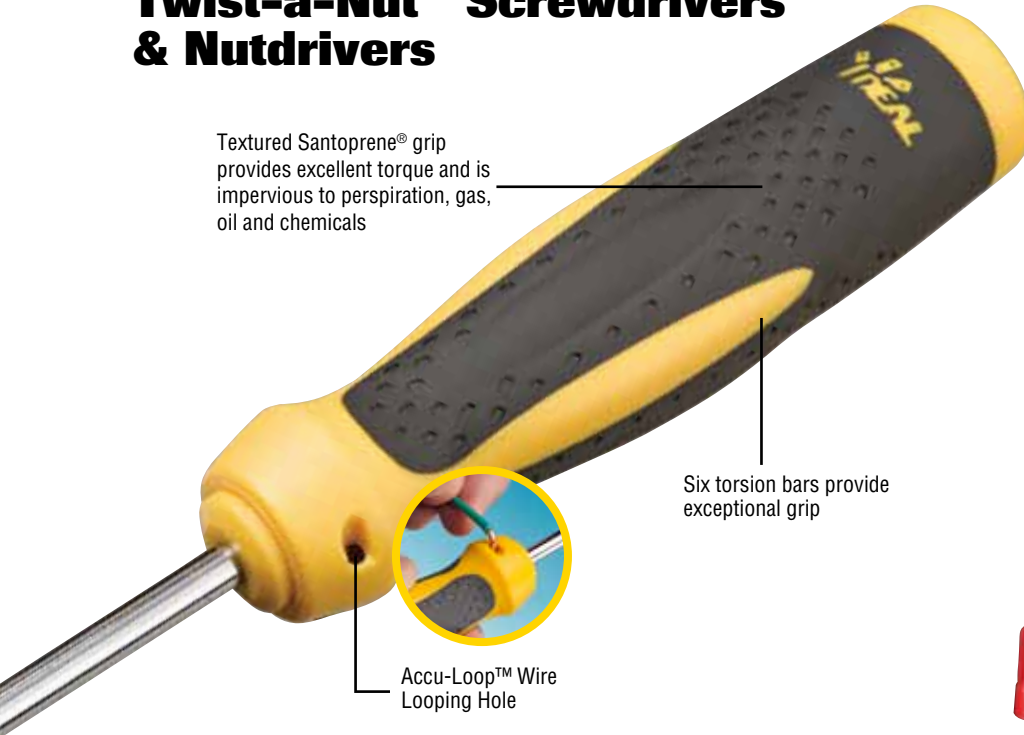
- Hollow shanks handle longer bolts
- Available in long lengths to accommodate extra long bolts
- Cushioned-gripped for comfort and maximum torque

Twist-a-Nut™ Screwdrivers & Nutdrivers



Textured Santoprene® grip provides excellent torque and is impervious to perspiration, gas, oil and chemicals

Patented Wire-Nut® Wire Connector Wrench accepts a wide variety of connectors.



Six torsion bars provide exceptional grip

Accu-Loop™ Wire Looping Hole



21-in-1 Twist-a-Nut™ Screwdriver



- Patented Wire-Nut® Wire Connector Wrench prevents finger fatigue
- Pro-quality, 28 tooth, all metal ratchet can handle 225 lbs. of torque without failure
- Ergonomic, slip-free Santoprene® grip
- Multiple bit storage unit and wire-looping hole in handle
- Bits included: #1 Phillips, #2 Phillips, #3 Phillips, 3/16" Slotted, 1/4" Slotted, 5/16" Slotted, #1 Square, #2 Square, #15 Star, #20 Star, #25 Star, #30 Star, 3/32" Hex, 1/8" Hex, 3/16" Hex, 5/32" Hex, 1/4" Nut, 5/16" Nut and 7/16" Nut

Santoprene® is a registered trademark of Exxon Mobil.

Description	Cat. No.
21-in-1 Twist-a-Nut™ Screwdriver	35-688

Accu-Loop™ Wire Looping Holes make perfect loops every time!



Multiple bit storage unit



(Lifetime warranty excludes bits)



B-35

9-in-1 Ratch-a-Nut™ Screwdriver

- Ratcheting Wire-Nut® Wire Connector Wrench prevents finger fatigue
- Pro-quality screwdriver ratchet mechanism can handle high torque without failure
- Ergonomic, slip-free Santoprene® grip
- Accepts Twist-a-Nut™ replacement bits
- Includes: 1/4 in. and 3/16 in. Slotted, #1 & #2 Phillips, 1/4 in., 5/16 in., 7/16 in. nutdrivers, ratcheting screwdriver end, ratcheting wire connector wrench and wire-looping hole in handle

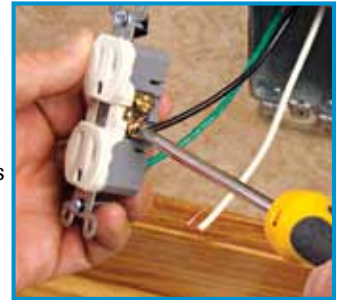






(Lifetime warranty excludes bits)

Description	Cat. No.
9-in-1 Ratch-a-Nut™ Screwdriver 	35-988

Twist-a-Nut™ Pro Electrician's Screwdrivers

- Patented Wire-Nut® Wire Connector Wrench prevents finger fatigue
- Includes wire-looping hole in handle
- Vapor-blasted tip improves screw grip
- Tough, chrome vanadium steel shank



Description	Cat. No.
#2 x 6 in. Square 	30-330
1/4 in. x 4 in. Slotted 	30-331
#2 x 4 in. Phillips 	30-332
1/4 in. x 6 in. Slotted Cabinet Tip 	30-333

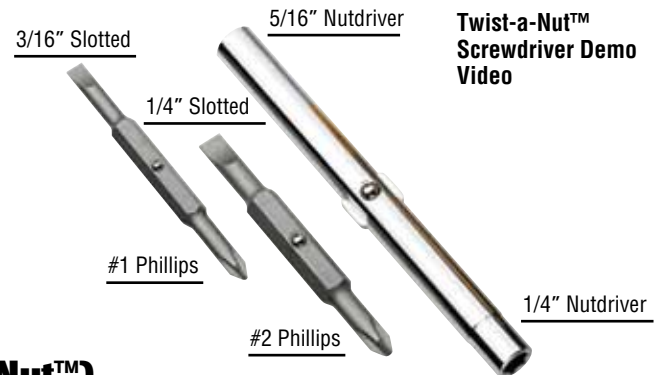
7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver

- Patented Wire-Nut® Wire Connector Wrench in handle prevents finger fatigue
- Includes wire-looping hole in handle
- Includes #1 & #2 Phillips, 1/4 in. & 3/16 in. Slotted, 1/4 in. & 5/16 in. Nutdriver
- Model #35-909 includes #1 & #2 Square Recess in place of #1 & #2 Phillips
- Handle is interchangeable with conduit deburrer head (#35-096) and 6-in-1 Tap Tool (#35-922)








(Lifetime warranty excludes bits)

Description	Cat. No.
7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver 	35-908
7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver with Square tip	35-909



Replacement Tips (for both Ratch-a-Nut™ and Twist-a-Nut™)

Description	Cat. No.
1/4 in. slotted – #2 Phillips 	35-911
3/16 in. slotted – #1 Phillips 	35-912
1/4 in. slotted – #2 Square 	35-913

Description	Cat. No.
3/16 in. slotted – #1 Square 	35-914
#15 & #10 Star 	35-915

6-in-1 Twist-a-Nut™ Tap Tool

- Forms new threads, re-forms burred threads and cleans out obstructions
- Reversible, high-carbon tap with three clearly marked thread sizes on each end
- Handle is interchangeable with 7-in-1 Screwdriver (#35-908) and Conduit Deburrer (#35-083)



(Lifetime warranty excludes taps)

Description	Cat. No.
Twist-a-Nut™ Tapping Tool includes: 6-32, 8-32 & 10-32 on one tapping side, 10-24, 12-24 & 1/4-20 on the other	35-922
Replacement collar and six taps	35-923



3-in-1 Twist-a-Nut™ Tap Tool

- Forms new threads, re-forms burred threads and cleans out obstructions
- Reversible, high-carbon tap with three clearly marked thread sizes on each end
- Handle is interchangeable with 7-in-1 Screwdriver (#35-908) and Conduit Deburrer (#35-083)
- Patented Wire-Nut® Wire Connector wrench in handle helps install twist-on wire connectors



(Lifetime warranty excludes taps)



Description	Cat. No.
3-in-1 Tap Tool includes handle and three taps	35-412

Twist-a-Nut™ Conduit Wiring Kit

- Includes
 - Twist-a-Nut™ Screwdriver (35-908)
 - Twist-a-Nut™ Deburring Head - Square Tip (35-098)
 - Twist-a-Nut™ Tap Tool Shaft (35-923)
 - Three Spare Bits (1/4 in. Slotted & #2 Square, 3/16 in. Slotted & #1 Square, #10 & #15 Star)
 - 8-Pocket Carrying Pouch (35-927)
- Nylon carrying pouch holds all three Twist-a-Nut™ tools plus room for four replacement bits or taps
- Strong easy-slide metal belt clip

Description	Cat. No.
Twist-a-Nut™ Combo Pack	35-926
Twist-a-Nut™ Carrying Pouch only	35-927

Twist-a-Nut™ Conduit Deburring Tools

- Deburrs inside and outside edges of 1/2 in., 3/4 in. and 1 in. thin wall conduit
- Hooded tip tightens EMT fitting set screws without slipping
- Square tip “seats” much more quickly on fitting screws than slotted version
- Head removes and is interchangeable with IDEAL 7-in-1 Twist-a-Nut™ Screwdriver shaft (#35-908)
- Head can be used at low speed setting in drill or cordless screwdriver
- Patented Wire-Nut® Wire Connector Wrench in handle end eases installation of twist-on connectors



(Lifetime warranty excludes bits & blades)

Description	Cat. No.
Conduit Deburring Tool, Slotted tip	35-083
Conduit Deburring Tool - #2 Square tip	35-075
Conduit Deburring Tool - head only, Slotted tip	35-096
Conduit Deburring Tool - head only, #2 Square tip	35-098
Replacement Blades (2/pack)	35-097



(Lifetime warranty excludes bits & taps)



TOOLS & SUPPLIES

6-in-1 Screwdriver/ Nutdriver

- Includes: 5/16 in. Nutdriver, #1 Phillips, #2 Phillips, 9/32 in. Slotted and 3/16 in. Slotted
- Cushioned grip for performance and comfort
- Accu-Loop™ Wire looping holes



Wire-Nut® Wire Connector Wrench in handle

Description	Cat. No.
6-in-1 Screwdriver/Nutdriver	35-905

Replacement Bits (for 6-in-1 Screwdriver)

Description	Cat. No.
#1 Phillips - 3/16 in. Slotted	LA-4123
#2 Phillips - 9/32 in. Slotted	LA-4124

11-in-1 Screwdriver/ Nutdriver

- Includes: 1/4 in. Slotted, #2 Phillips, 3/16 in. Slotted, #1 Phillips, #1 & #2 Square, #15 and #10 Star and 5/16 in. & 1/4 in. Nutdriver
- Cushioned grip for comfort and performance
- Accu-Loop™ Wire looping holes



Wire-Nut® Wire Connector Wrench in handle

Description	Cat. No.
11-in-1 Screwdriver/Nutdriver	35-910

Replacement Bits (for 11-in-1 Screwdriver)

Description	Cat. No.
1/4 in. Slotted - #2 Phillips (2/pack)	35-940
3/16 in. Slotted - #1 Phillips (2/pack)	35-941
#1 & #2 Square (2/pack)	35-942
#15 & #10 Star (2/pack)	35-943

Accu-Loop™ Wire Looping Hole



Cushioned-Grip

5/16" Nutdriver



3/16" Slotted



#1 Phillips



9/32" Slotted



#2 Phillips



(Lifetime warranty excludes bits)

Accu-Loop™ Wire Looping Holes make perfect loops every time!

Accu-Loop™ Wire Looping Hole



Cushioned-Grip

5/16" Nutdriver



#2 Square



#1 Square



#15 Star



#10 Star



1/4" Slotted



#2 Phillips



3/16" Slotted



#1 Phillips



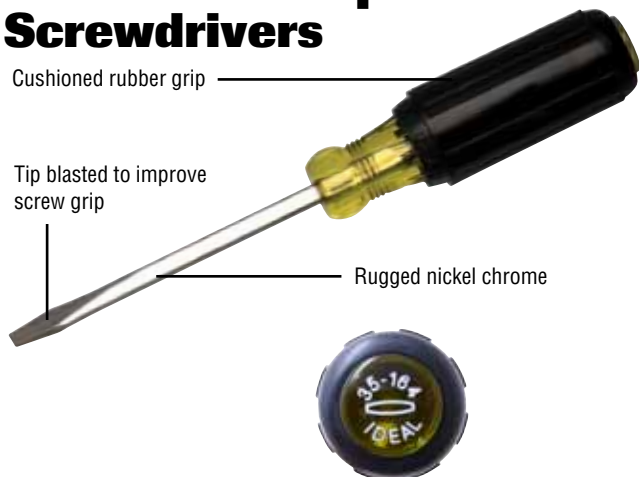
(Lifetime warranty excludes bits)

Cushioned-Grip Screwdrivers

Cushioned rubber grip

Tip blasted to improve screw grip

Rugged nickel chrome



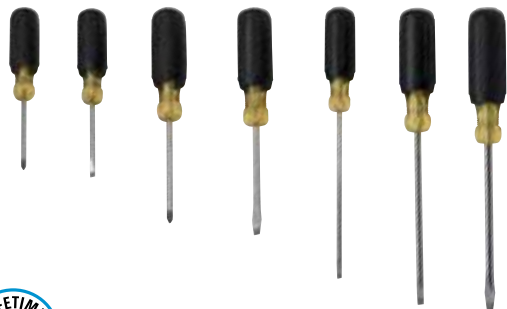
FastFinder™ handle shows tip type on end of handle

5-Piece Screwdriver Set



Description				Cat. No.
5-Piece Screwdriver Set				35-297
35-297 Includes	Blade Length	Handle Length	Overall Length	Cat. No.
Phillips	4 in.	4-5/16 in.	8-5/16 in.	35-194
Heavy-Duty Keystone	4 in.	4-5/16 in.	8-5/16 in.	35-154
Cabinet	6 in.	3-3/4 in.	9-3/4 in.	35-186
Heavy-Duty Cabinet	6 in.	4-5/16 in.	10-5/16 in.	35-151
Heavy-Duty Keystone	6 in.	5-11/32 in.	11-11/32 in.	35-166

7-Piece Screwdriver Set



Description				Cat. No.
7-Piece Screwdriver Set				35-1298
35-1298 Includes	Blade Length	Handle Length	Overall Length	Cat. No.
#1 Phillips	3 in.	3-3/4 in.	6-3/4 in.	35-193
1/4 in. Heavy-Duty Cabinet	4 in.	4-5/16 in.	8-5/16 in.	35-150
#2 Phillips	4 in.	4-5/16 in.	8-5/16 in.	35-194
1/4 in. Heavy-Duty Keystone	4 in.	4-5/16 in.	8-5/16 in.	35-154
3/16 in. Slotted Cabinet	3 in.	3-3/4 in.	6-3/4 in.	35-183
5/16 in. Keystone	6 in.	5-11/32 in.	11-11/32 in.	35-156
3/16 in. Cabinet	6 in.	3-3/4 in.	9-3/4 in.	35-186

8-Piece Screwdriver Set



Description				Cat. No.
8-Piece Screwdriver Set				35-298
35-298 Includes	Blade Length	Handle Length	Overall Length	Cat. No.
#1 Phillips	3 in.	3-3/4 in.	6-3/4 in.	35-193
3/16 in. Slotted	3 in.	3-3/4 in.	6-3/4 in.	35-183
#2 Phillips	4 in.	4-5/16 in.	8-5/16 in.	35-194
1/4 in. Heavy-Duty Keystone	4 in.	4-5/16 in.	8-5/16 in.	35-164
1/4 in. Heavy-Duty Keystone	4 in.	4-5/16 in.	8-5/16 in.	35-154
3/16 in. Cabinet	6 in.	3-3/4 in.	9-3/4 in.	35-186
1/4 in. Heavy-Duty Cabinet	6 in.	4-5/16 in.	10-5/16 in.	35-151
5/16 in. Keystone	6 in.	5-11/32 in.	11-11/32 in.	35-166



Phillips

Phillips



- Vapor-blasted tip prevents plate chipping
- Identification mark on ends
- Nickel Chrome plating for corrosion resistance
- Tough, chrome vanadium steel shank with cushioned-grip handle



Description	Blade Length	Handle Length	Overall Length	Cat. No.
#1 Phillips	3 in.	3-3/4 in.	6-3/4 in.	35-193
#2 Phillips	1-1/2 in.	1-15/16 in.	3-7/16 in.	35-191
#2 Phillips	4 in.	4-5/16 in.	8-5/16 in.	35-194
#2 Phillips	6 in.	4-5/16 in.	10-5/16 in.	35-195
#3 Phillips	6 in.	5-23/64 in.	11-23/64 in.	35-196

Square



- Precise tip for square-recess screws
- Identification mark on ends
- Nickel Chrome plating for corrosion resistance
- Tough, chrome vanadium steel shank with cushioned-grip handle



Description	Blade Length	Handle Length	Overall Length	Cat. No.
#0 Square	4 in.	4-5/16 in.	8-5/16 in.	35-690
#1 Square	4 in.	4-5/16 in.	8-5/16 in.	35-691
#1 Square	8 in.	4-5/16 in.	12-5/16 in.	35-692
#2 Square	4 in.	4-5/16 in.	8-5/16 in.	35-693
#2 Square	8 in.	4-5/16 in.	12-5/16 in.	35-694
#3 Square	4 in.	4-5/16 in.	8-5/16 in.	35-695
#3 Square	8 in.	4-5/16 in.	12-5/16 in.	35-696



Square

Cabinet



- Vapor-blasted tip prevents plate chipping
- Identification mark on ends
- Precision ground tip provides secure fit in screw slot
- Nickel Chrome plating for corrosion resistance
- Tough, vanadium steel shank with cushioned-grip handle



Description	Blade Length	Handle Length	Overall Length	Cat. No.
3/16 in. shank and tip	3 in.	3-3/4 in.	6-3/4 in.	35-183
3/16 in. shank and tip	4 in.	3-3/4 in.	7-3/4 in.	35-184
3/16 in. shank and tip	6 in.	3-3/4 in.	9-3/4 in.	35-186
3/16 in. shank and tip	8 in.	3-3/4 in.	11-3/4 in.	35-188
3/16 in. shank and tip	10 in.	3-3/4 in.	13-3/4 in.	35-190

Heavy-Duty Cabinet



- Large diameter shank for tough applications
- Identification mark on ends
- Vapor-blasted tip prevents plate chipping
- Precision ground tip provides secure fit in screw slot
- Nickel Chrome plating for corrosion resistance
- Tough, chrome vanadium steel shank with cushioned-grip handle



Description	Blade Length	Handle Length	Overall Length	Cat. No.
1/4 in. shank and tip	4 in.	4-5/16 in.	8-3/8 in.	35-150
1/4 in. shank and tip	6 in.	4-5/16 in.	10-3/8 in.	35-151
1/4 in. shank and tip	8 in.	4-5/16 in.	12-3/8 in.	35-152



Keystone

Heavy-Duty Round Shaft Keystone



- Larger shank for heavy-duty applications
- Identification mark on ends
- Vapor-blasted tip prevents plate chipping
- Precision ground tip provides secure fit in screw slot
- Large diameter shank for tough applications
- Tough, chrome vanadium steel shank with cushioned-grip handle



Round Shank	Blade Length	Handle Length	Overall Length	Cat. No.
1/4 in. shank and tip	1-1/2 in.	1-15/16 in.	3-7/16 in.	35-161
1/4 in. shank and tip	4 in.	4-5/16 in.	8-5/16 in.	35-164
5/16 in. shank and tip	6 in.	5-11/32 in.	11-11/32 in.	35-166
3/8 in. shank and tip	8 in.	5-11/32 in.	13-11/32 in.	35-168

Heavy-Duty Square Shaft Keystone



- Larger shank for heavy-duty applications
- Identification mark on ends
- Vapor-blasted tip prevents plate chipping
- Precision ground tip provides secure fit in screw slot
- Square-shank models offer wrench-assisted turning
- Tough, chrome vanadium steel shank with cushioned-grip handle



Square Shank	Blade Length	Handle Length	Overall Length	Cat. No.
1/4 in. shank and tip	4 in.	4-5/16 in.	8-5/16 in.	35-154
5/16 in. shank and tip	6 in.	5-11/32 in.	11-11/32 in.	35-156
3/8 in. shank and tip	8 in.	5-11/32 in.	13-11/32 in.	35-158



Combo

Combo Head™

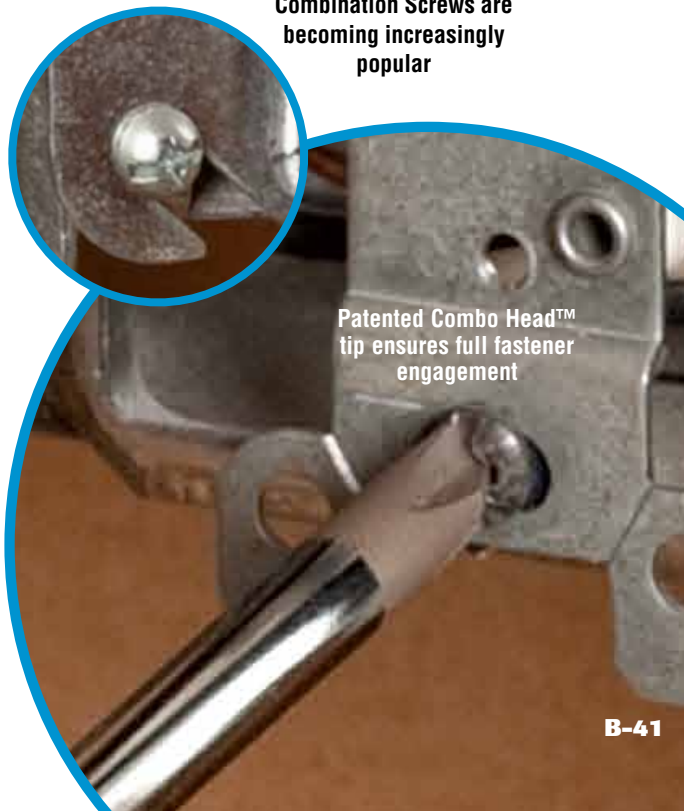


- Designed to accurately and securely fit most Combination Fasteners
- Identification mark on ends
- Patented design
- Cushioned-Grip Cellulose Acetate handle provides maximum comfort and grip



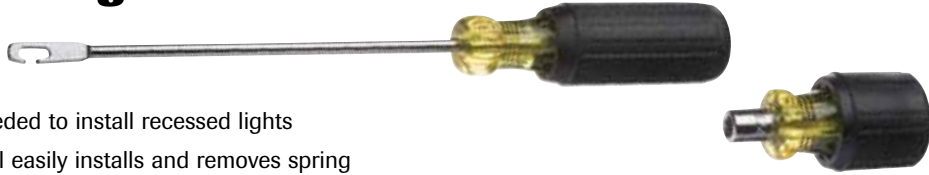
Description	Blade Length	Handle Length	Overall Length	Cat. No.
Combo Head™ Cushioned-Grip Screwdriver	4 in.	4-5/16 in.	8-5/16 in.	35-204

Combination Screws are becoming increasingly popular



Patented Combo Head™ tip ensures full fastener engagement

Recessed Light Kit



- All the tools needed to install recessed lights
- Long spring tool easily installs and removes spring
- Compact Nutdriver is 2-1/4 in. - providing added clearance in recess lighting
- Cushioned-grip handle for added comfort

Description	Cat. No.
Recessed Light Kit	35-698

Quick-Rotating



- Ideal for threading screws in switches, fixtures and anchors
- Identification mark on ends
- One-handed crank action for quick and easy use
- Tip blasted to improve screw grip
- Precision-ground tip provides secure fit in screw slot
- Nickel Chrome plating for corrosion resistance



Description	Blade Length	Handle Length	Overall Length	Cat. No.
Cabinet	5-9/16 in.	3-3/4 in.	9-3/8 in.	35-200
Phillips	5-5/8 in.	4-5/16 in.	9-15/16 in.	35-203

Grip-n-Screw™ Screwdriver



- Holds screw when collar is extended
- Non-magnetic screw-holding screwdriver
- Tough, chrome vanadium steel shank and cushioned-grip handle



Description	Blade Length	Handle Length	Total Length	Cat. No.
3/16 Slotted	5-7/8 in.	3-3/4 in.	9-5/8 in.	35-406
#2 Phillips	6-7/8 in.	4-15/16 in.	11-1/4 in.	35-404

Awl



- Heavy-duty construction for piercing, punching and scribing
- Easy-to-read FastFinder™ handle shows tip type on end of handle
- Cushioned-grip handle

Description	Blade Length	Handle Length	Overall Length	Cat. No.
Awl	3 in.	3-3/4 in.	6-3/4 in.	35-202

Off-Set Screwdriver Set



- 4 in. length
- 1/4 in. x 1/4 in. Slotted tips
- #1 Phillips x #2 Phillips tips
- Designed to tighten fasteners in hard to reach places



Description	Overall Length	Cat. No.
Off-Set Screwdriver Set – 1/4 in. x 1/4 in. Slotted and #1 & #2 Phillips	4 in.	35-219

Quick Change Screwdriver

- Patented Sure-Loc™ Quick Change chuck eliminates debris pick up as well as dropped bits
- Built-in bit storage container in handle holds up to five extra insert bits
- Bits fit all standard multi-bit screwdrivers
- E-Z Spin™ high torque rotating flip cap
- Patented design



(Lifetime warranty excludes bits)

See website for complete listing of bits in blocks.

Description	Blade Length	Handle Length	Overall Length	Cat. No.
Quick Change Screwdriver (Driver only)	3-1/16 in.	4-3/16 in.	7-1/4 in.	35-932
33-Piece Quick Change Screwdriver Set - Quick Change Screwdriver and 32-Piece Tamper-Proof Bit Block	3-1/16 in.	4-3/16 in.	7-1/4 in.	35-933
33-Piece Quick Change Screwdriver Set - Quick Change Screwdriver and 32-Piece Standard Bit Block	3-1/16 in.	4-3/16 in.	7-1/4 in.	35-934
32-Piece Tamper-Proof Bit Block				35-933TP
32-Piece Standard Bit Block				35-933STD

4-Piece Mini Cushioned-Grip Screwdriver Set



SOLD ONLY AS A SET

Description	Blade Length	Handle Length	Overall Length	Cat. No.
Phillips, #0	2-31/32 in.	2-3/4 in.	5-23/32 in.	-
Keystone, 1/16 in.	1-31/32 in.	2-3/4 in.	4-23/32 in.	-
Cabinet, 3/32 in.	2-31/32 in.	2-3/4 in.	5-23/32 in.	-
Cabinet, 1/8 in.	2-31/32 in.	2-3/4 in.	5-23/32 in.	-
4-Piece Set				35-1301

Slim Electronics

- Designed for maximum handling comfort when working in tight areas
- Tough, chrome vanadium steel shank
- Phosphate tip for longer wear life
- Rotating cap for optimum control for precise centering
- Color-coded cap for easy identification



Description	Blade Length	Handle Length	Overall Length	Cat. No.
Cabinet, 3/32 in.	2-1/2 in.	3-9/16 in.	6-1/16 in.	36-240
Cabinet, 3/32 in.	3 in.	3-9/16 in.	6-9/16 in.	36-241
Cabinet, 1/8 in.	4 in.	3-9/16 in.	7-9/16 in.	36-242
Cabinet, 1/8 in.	6 in.	3-9/16 in.	9-9/16 in.	36-243
Cabinet, 5/32 in.	4 in.	3-9/16 in.	7-9/16 in.	36-244
Cabinet, 5/32 in.	6 in.	3-9/16 in.	9-9/16 in.	36-245
Phillips, #0	2-1/2 in.	3-9/16 in.	6-1/16 in.	36-246
7-Piece Set includes one each of 36-240 thru 36-246				36-248
4-Piece Set includes one each of 36-240, -241, -242, & -246				36-249

Nutmaster® Nutdrivers



- Hollow shank accommodates longer bolts
- Easy-to-read FastFinder™ handle shows tip type on end of handle
- Nickel Chrome plated to resist rust and corrosion
- Cushioned grips
- Models 35-292 and 35-295 fit Tan & Blue Twister® Wire Connectors

Cushioned rubber grip

Nicel chrome steel shank



Description	Shank Length	Handle Length	Overall Length	Cat. No.
3/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-290
1/4 in.	3 in.	4-5/16 in.	7-5/16 in.	35-291
5/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-292
11/32 in.	3 in.	4-5/16 in.	7-5/16 in.	35-293

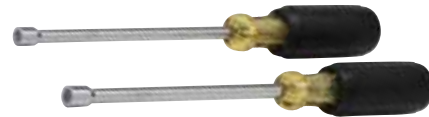
Description	Shank Length	Handle Length	Overall Length	Cat. No.
3/8 in.	3 in.	4-5/16 in.	7-5/16 in.	35-294
7/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-295
1/2 in.	3 in.	4-5/16 in.	7-5/16 in.	35-296

7-Piece Nutdriver Set



Description				Cat. No.
7-Piece Nutdriver Set				35-299
35-299 Includes	Shank Length	Handle Length	Overall Length	Cat. No.
3/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-290
1/4 in.	3 in.	4-5/16 in.	7-5/16 in.	35-291
5/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-292
11/32 in.	3 in.	4-5/16 in.	7-5/16 in.	35-293
3/8 in.	3 in.	4-5/16 in.	7-5/16 in.	35-294
7/16 in.	3 in.	4-5/16 in.	7-5/16 in.	35-295
1/2 in.	3 in.	4-5/16 in.	7-5/16 in.	35-296

2-Piece Hollow-Shaft Nutdriver Set



- Includes 1/4 in. & 5/16 in.
- Long, hollow shank accommodates longer bolts
- Nickel Chrome plated to resist rust and corrosion
- Long shanks useful in deep electrical boxes



Description	Shank Length	Handle Length	Overall Length	Cat. No.
2-Piece Nutdriver Set	5-15/16 in.	4-5/16 in.	10-1/4 in.	35-1302

2-Piece Stubby Nutdriver Set

- Includes 1/4 in. & 5/16 in.
- For use in tight spaces



Description	Blade Length	Handle Length	Overall Length	Cat. No.
2-Piece Nutdriver Set	1-1/2 in.	2-1/8 in.	3-5/8 in.	35-1299

Industrial Screwdriver Bits & Accessories

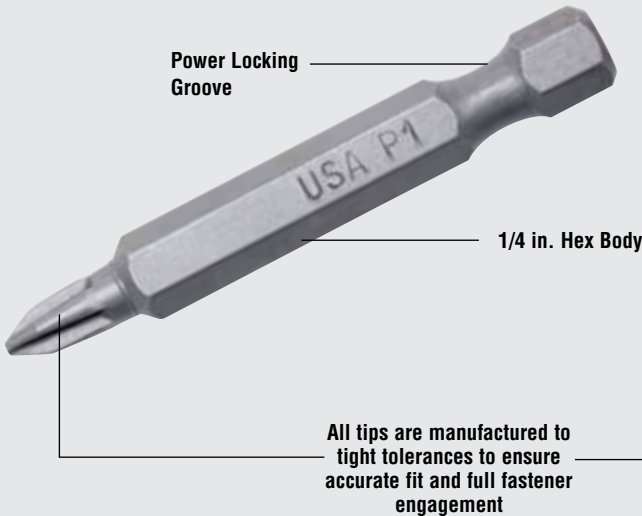


Bits fit all standard multi-bit screwdrivers

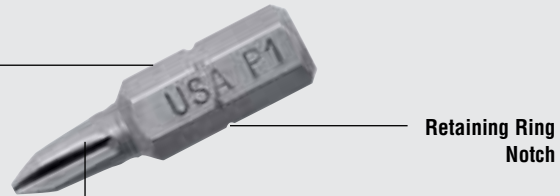
- S2M tool steel, custom heat treated for strength and durability
- All tips are manufactured to tight tolerances to ensure accurate fit and full fastener engagement
- Custom heat treated for strength and durability
- Insert bits have a retaining ring notch
- Power bits have a power locking groove
- 1/4 in. hex body
- Fit all standard multi-bit screwdrivers
- The patented Combo Head™ bit is an IDEAL exclusive



Power Bits



Insert Bits



Designed for precision fit and lasting performance.



Combo Head™

Slotted

Double Ended

Phillips

Square

Torx®

Torx® is a registered trademark of Acument Intellectual Properties, LLC.

Combo Head™

- Patented design tip fits most combination screws



Description	Cat. No.
Combo Drive #2, 1 in. Insert Bit (Carded)	78-0105
Combo Drive #2, 1 in. Insert Bit (Bulk)	78-0105-25
Combo Drive #2, 2 in. Power Bit (Carded)	78-0106
Combo Drive #2, 2 in. Power Bit (Bulk)	78-0106-25

Slotted

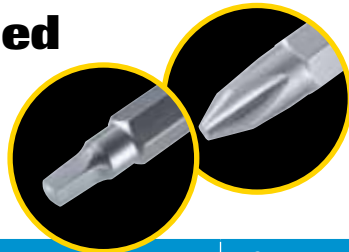
- Insert bits have a retaining ring notch, power bits have a power-locking groove



Description	Cat. No.
Slotted 1/4 in., 1 in. Insert Bit (Carded)	78-0209
Slotted 1/4 in., 2 in. Power Bit (Carded)	78-0210
Slotted 1/8 in., 1 in. Insert Bit (Carded)	78-0211
Slotted 1/8 in., 2 in. Power Bit (Carded)	78-0212
Slotted 3/16 in., 1 in. Insert Bit (Bulk)	78-0213-25
Slotted 3/16 in., 1 in. Insert Bit (Carded)	78-0213
Slotted 3/16 in., 2 in. Power Bit (Bulk)	78-0214-25
Slotted 3/16 in., 2 in. Power Bit (Carded)	78-0214
Slotted 7/32 in., 1 in. Insert Bit (Bulk)	78-0215-25
Slotted 7/32 in., 2 in. Power Bit (Bulk)	78-0216-25

Double Ended

- 2 bits in 1!



Description	Cat. No.
DE Slotted 1/4 in. x #2 Phillips (Carded)	78-0102
DE Slotted 1/4 in. x #2 Phillips (Bulk 25)	78-0102-25
DE Slotted 1/4 in. x #2 Square (Carded)	78-0103
DE Square #2 Square x #2 Phillips (Bulk 25)	78-0104-25

Phillips

- All bits 100% Made in the U.S.A.!



Description	Cat. No.
Phillips #1, 1 in. Insert Bit (Bulk)	78-0200-25
Phillips #1, 1 in. Insert Bit (Carded)	78-0200
Phillips #1, 2 in. Power Bit (Bulk)	78-0201-25
Phillips #1, 2 in. Power Bit (Carded)	78-0201
Phillips #2, 1 in. Insert Bit (Bulk)	78-0202-25
Phillips #2, 1 in. Insert Bit (Carded)	78-0202
Phillips #2, 2 in. Power Bit (Bulk)	78-0203-25
Phillips #2, 2 in. Power Bit (Carded)	78-0203
Phillips #2, 6 in. Power Bit (Carded)	78-0204
Phillips #3, 1 in. Insert Bit (Bulk)	78-0205-25
Phillips #3, 1 in. Insert Bit (Carded)	78-0205
Phillips #3, 2 in. Power Bit (Bulk)	78-0206-25
Phillips #3, 2 in. Power Bit (Carded)	78-0206

Square

- All bits and accessories fit standard multi-bit screwdrivers and power drills



Description	Cat. No.
Square #1, 1 in. Insert Bit (Bulk)	78-0219-25
Square #1, 1 in. Insert Bit (Carded)	78-0219
Square #1, 2 in. Power Bit (Bulk)	78-0220-25
Square #1, 2 in. Power Bit (Carded)	78-0220
Square #2, 1 in. Insert Bit (Bulk)	78-0221-25
Square #2, 1 in. Insert Bit (Carded)	78-0221
Square #2, 2 in. Power Bit (Bulk)	78-0222-25
Square #2, 2 in. Power Bit (Carded)	78-0222
Square #2, 6 in. Power Bit (Carded)	78-0223
Square #3, 1 in. Insert Bit (Bulk)	78-0224-25
Square #3, 1 in. Insert Bit (Carded)	78-0224
Square #3, 2 in. Power Bit (Bulk)	78-0225-25
Square #3, 2 in. Power Bit (Carded)	78-0225

Made in U.S.A.



Torx®

- Manufactured to tight tolerances to ensure accurate fit and full fastener engagement



Description	Cat. No.
Torx® 20, 1 in. Insert Bit (Carded)	78-0226
Torx® 25, 1 in. Insert Bit (Carded)	78-0227
Torx® 27, 1 in. Insert Bit (Carded)	78-0228
Torx® 30, 1 in. Insert Bit (Carded)	78-0229
7 pc. Torx® Bit Set in Holder (Carded)	78-0100

Torx® is a registered trademark of Acument Intellectual Properties, LLC.

Tamper-Proof Torx®

- All bits made from rugged S2M tool steel



Description	Cat. No.
TP Torx® T20, 1 in. Insert Bit (Carded)	78-0230
TP Torx® T25, 1 in. Insert Bit (Carded)	78-0231
TP Torx® T27, 1 in. Insert Bit (Carded)	78-0232
TP Torx® T30, 1 in. Insert Bit (Carded)	78-0233
7 pc. Tamper-Proof Torx® Bit Set in Holder (Carded)	78-0101

Torx® is a registered trademark of Acument Intellectual Properties, LLC.

Magnetic Nut Setter

- Variety of sizes for multiple applications



Description	Cat. No.
Magnetic Nut Setter 1/4 in. (Bulk 10)	78-0111-10
Magnetic Nut Setter 1/4 in. (Carded)	78-0111
Magnetic Nut Setter 3/8 in. (Bulk 10)	78-0113-10
Magnetic Nut Setter 3/8 in. (Carded)	78-0113
Magnetic Nut Setter 5/16 in. (Bulk 10)	78-0114-10
Magnetic Nut Setter 5/16 in. (Carded)	78-0114
Magnetic Nut Setter 3 pk. 1/4 in., 3/8 in., 5/16 in. (Carded)	78-0112



All bits and accessories fit standard multi-bit screwdrivers.

Quick Change Chuck

- Patented Sure-Loc™ tip clicks bit in place without pulling back collar



Description	Cat. No.
Quick Change Chuck 3-3/4 in. (Carded)	78-0207
Quick Change Chuck 6 in. (Bulk 5)	78-0208-5

Magnetic Bit Holder

- Slender extension with powerful magnet to grasp and hold bits



Description	Cat. No.
Magnetic Bit Holder 4 in.	78-0107
Magnetic Bit Holder 6 in.	78-0108

Socket Adapter

- Custom heat treated for strength and durability



Description	Cat. No.
Socket Adapter 1 in. Insert Bit (Bulk 25)	78-0217-25
Socket Adapter 1 in. Insert Bit (Carded)	78-0217
Socket Adapter 2 in. Power Bit (Carded)	78-0218

Insulated Tools

The IDEAL insulated tool line creates a perfect blend of safety, comfort and precision functionality. Each tool features double insulated Santoprene® handles with a soft, easy-to-grip outer surface. In addition to the ergonomic qualities found in our tools, the insulated coating process acts as an 'at-a-glance' safety check. If the orange outer coating reveals any of the inner yellow surface, an electrician will know that this tool needs to be replaced.

Features

- IDEAL pliers and strippers are the **first UL tested and listed** insulated tools available
- Tools are 1000 Volt certified (1000V AC, 1500V DC)
- Meets ASTM F1505-01 and IEC 60 900 standards
- Meets OSHA requirements for insulated tools (29 CFR 1910)

Permanently bonded, double insulated handles for added safety



Santoprene® is a registered trademark of Exxon Mobil.



Our tools are the first to have successfully passed UL classification requirements! Recognized as the undisputed leader in product safety and certification, UL has developed rigorous safety standards for 1000V insulated tools. In order to carry the UL classified mark, tools must be tested by UL to meet these standards.

Only tools that carry the UL Classified mark have passed this stringent certification process. Why accept anything else?



Pliers only



Cutting Jaws

Induction hardened cutting edges for precise cuts and long life.



Impact-Resistant

Designed for the most rugged job site conditions.



Safety Finger Guard

Reduces chance of accidental contact with exposed metal tool parts.

Insulated Screwdrivers & Nutdrivers – More Torque and More Safety

IDEAL insulated screwdrivers and nutdrivers are VDE certified to 1000V AC. Each one is designed to meet ASTM F1505-01, EN, DIN and IEC 60 900 test standards.

Features

- Tempered blades are finished with black oxide and super hardened for maximum quality
- Tools are certified to 1000V (1000V AC, 1500V DC)
- Precision ground tips provide secure fit for less spin-out
- Meets OSHA requirements for insulated tools (29 CFR 1910)



Precision-ground tips provide secure fit for less spin-out



Molded-on insulation provides permanent bonding



Tempered chrome vanadium tool steel blades are super hardened for maximum quality

Warning

Whenever possible, always de-energize lines and equipment prior to working on or around them. 1000V insulated tools are designed only to reduce the chance of injury where the tool may make contact with an energized source. Work around energized circuits should only be done when absolutely necessary and only by qualified technicians. Property damage, personal injury or death may result if the following warnings are not heeded:

- Do not use any insulated tool if the insulation cracks, breaks or becomes damaged in any way. Destroy all dual-layer tools if the inner yellow layer shows through the orange outer layer.
- Do not touch the uninsulated portion of an insulated tool or any conductive object when either might contact an energized source.
- Tools must be kept clean and dry for proper insulating properties.
- Always inspect insulated tools before use.
- Use additional protection by wearing protective clothing and approved eye protection.
- Always use tools that are specifically designed for the task.
- These tools meet UL 22PP, ASTM F1505-01 and IEC 60900 standards for insulated tools.
- Always follow OSHA 1910 S and NFPA 70E safety requirements when doing electrical work.

REGULATIONS

Testing:

- Every 1000V insulated plier we sell is individually tested to ensure no failure when subjected to live current.

UL and VDE Certification:

Listed below are some of the tests we perform in order to pass certification:

- Tools are immersed in water for 24 hours, then tested under current for 3 minutes to ensure no current leakage or sparkover occurs.
- After being stored for 168 hours at -40°C (-40°F), tools are dropped to ensure no damage from impact.
- After being stored for 168 hours at $+70^{\circ}\text{C}$ (158°F), a tensile load is applied to ensure the grip is firmly bonded to the tool.
- Tools are subjected to flame for 10 seconds to ensure no flammability of the insulating material.

OSHA Regulations:

OSHA 1910.335(a)(2)(i) When working near exposed energized conductors or circuit parts, each employee shall use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts.

OSHA 1910.335 (a)(1)(i) Employees working in areas where there are potential electrical hazards shall be provided with, and shall use, electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.

Make sure you are in compliance by providing and using IDEAL insulated tools!



TOOLS & SUPPLIES

Basic Insulated Kit



35-9100

Journeyman Insulated Kit



35-9102

INSULATED TOOL KITS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Description	Cat. No.
Basic Insulated Kit	35-9100
35-9100 Includes	Cat. No.
9 in. Insulated Side Cutter w/Crimp	30-9430
7-1/2 in. Non-Conductive Fuse Puller	34-002
8 in. Insulated Offset Diagonal Cutting Plier	35-9029
8-1/2 in. Insulated Long-Nose Plier	35-9038
2/0 Insulated Cable Cutter	35-9052
1/4 in. x 4 in. Insulated Slotted Screwdriver	35-9150
1/4 in. x 6 in. Insulated Slotted Screwdriver	35-9151
#2 x 4 in. Insulated Phillips Screwdriver	35-9194
Heavy-Duty Soft Case	35-9350
Red Safety Lock w/Key	44-916
Breaker Lockout, Tall & Wide	44-956
Breaker Lockout, Standard & Double	44-957
Insulated T [®] -5 T [®] -Stripper Wire Stripper	45-9120

Description	Cat. No.
Journeyman Insulated Kit	35-9102
35-9102 Includes	Cat. No.
Insulated Linesman's Pliers	30-9430
Insulated Multi-Crimp Tool	30-9429
7-1/2 in. Non-Conductive Fuse Puller	34-002
8 in. Insulated Offset Diagonal Cutting Plier	35-9029
8-1/2 in. Insulated Long-Nose Plier	35-9038
2/0 Insulated Cable Cutter	35-9052
1/4 in. x 4 in. Insulated Slotted Screwdriver	35-9150
1/4 in. x 6 in. Insulated Slotted Screwdriver	35-9151
5/16 in. x 7 in. Insulated Slotted Screwdriver	35-9166
3/8 in. x 8 in. Insulated Slotted Screwdriver	35-9168
#1 x 3-3/16 in. Insulated Phillips Screwdriver	35-9193
#2 x 4 in. Insulated Phillips Screwdriver	35-9194
#3 x 6 in. Insulated Phillips Screwdriver	35-9196
3/16 in. x 5 in. Insulated Nutdriver	35-9290
1/4 in. x 5 in. Insulated Nutdriver	35-9291
5/16 in. x 5 in. Insulated Nutdriver	35-9292
3/8 in. x 5 in. Insulated Nutdriver	35-9294
7/16 in. x 5 in. Insulated Nutdriver	35-9295
1/2 in. x 5 in. Insulated Nutdriver	35-9296
Insulated Knife	35-9340
Heavy-Duty Soft Case	35-9352
10 in. Insulated Tongue & Groove Plier	35-9430
Breaker Lockout, Tall & Wide	44-956
Breaker Lockout, Standard & Double	44-957
Red Safety Lock w/Key	44-916
Insulated T [®] -5 T [®] -Stripper Wire Stripper	45-9120
Volt-Sensor [®] NCV Tester	61-063



B-50

Standard Insulated Kit



35-9101

Description	Cat. No.
Standard Insulated Kit	35-9101
35-9101 Includes	Cat. No.
9 in. Insulated Side Cutter w/Crimp	30-9430
7-1/2 in. Non-Conductive Fuse Puller	34-002
8 in. Insulated Offset Diagonal Cutting Plier	35-9029
8-1/2 in. Insulated Long-Nose Plier	35-9038
2/0 Insulated Cable Cutter	35-9052
1/8 in. x 4 in. Insulated Slotted Screwdriver	35-9149
1/4 in. x 4 in. Insulated Slotted Screwdriver	35-9150
1/4 in. x 6 in. Insulated Slotted Screwdriver	35-9151
5/16 in. x 7 in. Insulated Slotted Screwdriver	35-9166
3/8 in. x 8 in. Insulated Slotted Screwdriver	35-9168
#1 x 3-3/16 in. Insulated Phillips Screwdriver	35-9193
Insulated Knife	35-9340
Heavy-Duty Soft Case	35-9351
10 in. Insulated Tongue & Groove Plier	35-9430
Breaker Lockout, Tall & Wide	44-956
Breaker Lockout, Standard & Double	44-957
Red Safety Lock w/Key	44-916
Insulated T [®] -5 T [®] -Stripper Wire Stripper	45-9120
Volt-Sensor [®] NCV Tester	61-063

Insulated Knife



Description	Cat. No.
Insulated Electrician's Skinning Knife	35-9340

9-Piece Insulated Kit



35-9108

Description	Cat. No.
9-Piece Insulated Kit	35-9108
35-9108 Includes	Cat. No.
9 in. Insulated Side Cutter w/Crimp	30-9430
8 in. Offset Diagonal Cutting Plier	35-9029
8-1/2 in. Long Nose Plier	35-9038
T [®] -5 T [®] -Stripper Wire Stripper	45-9120
Slotted 7/32 in. x 5 in. Screwdriver	35-9147
Slotted 1/4 in. x 4 in. Screwdriver	35-9150
Slotted 1/4 in. x 6 in. Screwdriver	35-9151
Phillips #1 x 3-3/16 in. Screwdriver	35-9193
Phillips #2 x 4 in. Screwdriver	35-9194
Heavy-Duty Soft Case	35-9350

2-Piece Insulated Screwdriver Kit



Description	Cat. No.
2-Piece Insulated Kit	35-9305
35-9305 Includes	Cat. No.
Slotted 1/4 in. x 4 in. Insulated Screwdriver	35-9150
Phillips #2 x 4 in. Insulated Screwdriver	35-9194



TOOLS & SUPPLIES

INSULATED HAND TOOLS

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Insulated Tools



35-9038 30-9429 35-9430 30-9430 35-9052 35-9029 45-9120

Description	Cat. No.
Premium T®-Stripper Wire Stripper	45-9120
8 in. Diagonal Cutting Pliers w/angled head	35-9029
9-1/2 in. High-Leverage Cable Cutter	35-9052
9-1/4 in. Side Cutting Linesman Pliers	30-9430
10 in. Tongue and Groove Pliers	35-9430
9-3/4 in. Multi-Crimp Tool	30-9429
8-1/2 in. Long-Nose Pliers	35-9038

Insulated Screwdrivers



Description	Cat. No.
9-Piece Insulated Screwdriver Kit	35-9103
Kit 35-9103 Includes:	Cat. No.
Phillips #1 x 3-3/16 in. Insulated Screwdriver	35-9193
Phillips #2 x 4 in. Insulated Screwdriver	35-9194
Phillips #3 x 6 in. Insulated Screwdriver	35-9196
Square SQ #0 1/4 in. x 4 in. Insulated Screwdriver	35-9690
Slotted 1/4 in. x 4 in. Insulated Screwdriver	35-9150
Slotted 7/32 in. x 5 in. Insulated Screwdriver	35-9147
Slotted 1/4 in. x 6 in. Insulated Screwdriver	35-9151
Slotted 5/16 in. x 7 in. Insulated Screwdriver	35-9166
Slotted 3/8 in. x 8 in. Insulated Screwdriver	35-9168

Insulated Nutdrivers



Description	Cat. No.
7-Piece Insulated Nutdriver Kit	35-9104
Kit 35-9104 Includes:	Cat. No.
3/16 in. x 5 in. Insulated Nutdriver	35-9290
1/4 in. x 5 in. Insulated Nutdriver	35-9291
5/16 in. x 5 in. Insulated Nutdriver	35-9292
3/8 in. x 5 in. Insulated Nutdriver	35-9294
7/16 in. x 5 in. Insulated Nutdriver	35-9295
1/2 in. x 5 in. Insulated Nutdriver	35-9296
9/16 in. x 5 in. Insulated Nutdriver	35-9297



Additional Screwdrivers (not included in Kits)






Description	Cat. No.
Slotted 3/23 in. x 3 in. Insulated Screwdriver	35-9148
Slotted 1/8 in. x 4 in. Insulated Screwdriver	35-9149
Phillips #0 x 2-3/8 in. Insulated Screwdriver	35-9169
Phillips #1 x 3-1/8 in. Insulated Screwdriver	35-9170
Phillips #3 x 6 in. Phillips Insulated Screwdriver	35-9172
Square #0 x 4 in. Insulated Screwdriver	35-9690
Square #1 x 6 in. Insulated Screwdriver	35-9691
Square #2 x 6 in. Insulated Screwdriver	35-9693
Square #3 x 6 in. Insulated Screwdriver	35-9695

Additional Nutdrivers (not included in Kits)

Description	Cat. No.
11/32 in. x 5 in. Insulated Nutdriver	35-9293
3/8 in. x 5 in. Insulated Nutdriver	35-9294

Safe-T-Grip® Fuse Pullers

- Maximum efficiency and convenience for removing or replacing cartridge-type fuses
- Three sizes handle fuses ranging from 0 to 600A
- Fully insulated, high-dielectric, glass-filled polypropylene construction
- Notched handles provide safe, no-slip grip
- Clearly marked amperage ranges
- Exceed MIL specifications

Description		Cat. No.
Small Puller for 250V, 9/32 in. to 1/2 in. dia. fuses; 5 in. long		34-001
Medium Puller for 0 to 100A/250V & 600V, 1/2 in. to 1 in. dia. fuses; 7-1/2 in. long		34-002
Large Puller for 31 to 600A/250V & 31 to 400A/600V, 3/4 in. to 2-1/2 in. dia. fuses; 11-3/4 in. long		34-003

Fuse Puller Cross Reference

Fuse Size	Current	Voltage	IDEAL	Bussmann	Littlefuse
Ferrule Type	Amps	Volt a.c.			
1/4 x 1-1/4	1/500 to 30	250	34-015	FP-A3	97023
13/32 x 1-1/2	1/10 to 30	250	34-001, 34-015	FP-2	MFP
9/16 x 2	1/10 to 30	250	34-002, 34-012, 34-016	FP-2	LPFP
13/16 x 3	35 to 60	250	34-016, 34-003, 34-012	FP-2	LPFP
Knife Blade	Amps	Volt a.c.			
1 x 5-7/8	70 to 100	250	34-012, 34-002, 34-016	FP-3	LPFP
1-1/2 x 7-1/8	110 to 200	250	34-003	FP-3	LPFP
2 x 8-5/8	225 to 400	250	34-003	FP-4	GFP
2-1/2 x 10-3/8	450 to 600	250	34-003	FP-4	GFP
Ferrule Type	Amps	Volt a.c.			
13/32 x 1-1/2	1/10 to 30	600	34-001, 34-012, 34-016	FP-2	MFP
3/4 x 5	1/10 to 30	600	34-002	FP-2	MFP
1 x 5-1/2	35 to 60	600	34-012, 34-002, 34-016	FP-3	MFP
Knife Blade	Amps	Volt a.c.			
1-1/4 x 7-1/8	70 to 100	600	34-003	FP-3	LPFP
1-3/4 x 9-5/8	110 to 200	600	34-003	FP-4	LPFP
2-1/2 x 11-5/8	225 to 400	600	34-003	FP-4	LPFP
3 x 13-3/8	450 to 600	600	NONE	NONE	NONE

Please visit our website at www.idealindustries.com for more safety products from IDEAL!

- **Insulated Tools**
- **Lockout/Tagout**
- **Fish Tapes**
- **Streetlight Kits**

Fuse Puller & Test Light



- Convenient pocket-sized tool safely pulls cartridge fuses and checks electrical connections
- Test prods fit parallel and tandem slot receptacles
- Built-in resistors limit current flow to eliminate false indication
- For 9/16 in. to 1 in. fuses
- For use on fuses to 100A/250V and 60A/600V
- Test capacity from 100V to 600V AC/DC



Description		Cat. No.
Fuse Puller & Test Light		34-012

Fuse Pullers

- Molded of tough, high-impact nylon for greater strength
- No-slip gripping surface and protective finger stops for added safety

Description		Cat. No.
Small Puller for 0 to 30A/250V, 1/4 in. to 1/2 in. dia. fuses; 5 in. long		34-015
Large Puller for 0 to 100A/250V & 0 to 60A/600V, 9/16 in. to 1 in. dia. fuses; 7-1/4 in. long		34-016

Cases



Description	Cat. No.
Soft Zipper Case for Basic Kit (35-9100 & 35-9108)	35-9350
Soft Zipper Case for Standard Kit (35-9101)	35-9351
Soft Zipper Case for Journeyman Kit (35-9102)	35-9352
Hard Case for Screwdriver Kit (35-9103) & Nutdriver Kit (35-9104)	35-9353

17-Piece Set - #35-809

Set Includes:

- Four LASERedge™ Pliers with Smart-Grip™ Handles (#35-3012 - 9-1/4" Linesman w/fish tape puller, #35-3038 - 8" Long Nose, #35-3430 - 10" Tongue and Groove, #35-3052 - 9-1/2" Cable Cutter)
- #45-915 - Kinetic™ Reflex™ T®-Stripper Wire Stripper
- #35-908 - 7-in-1 Twist-A-Nut™ Screwdriver
- #Five Cushion Grip Screwdrivers (#35-193 - #1 x 3 Phillips, #35-194 - #2 x 4 Phillips, #35-186 - 3/16" x 6 Slotted Cabinet Tip, #35-164 - 1/4" x 4 Slotted round shank, #35-406 - 3/16" x 6 Screw holding slotted)
- #35-286 - Hawkbill Knife
- #35-210 - Electrician's Hammer
- #35-242 - 25' Auto-Lock™ Tape Measure
- #35-205 - Torpedo Level
- #61-086 - Vol-Con® XL Voltage/Continuity Tester
- #35-975 - Tuff-Tote™ Premium Leather Tool Carrier



16 Piece Set - #35-800

Set Includes:

- Five LASERedge™ Pliers with dipped grips (#30-430 - 9-1/4" Linesman w/ crimper, #35-029 - 8" Offset Diagonal, #35-038 - 8" Long Nose, #35-430 - 10" Tongue and Groove, #35-052 - 2/0 Cable Cutter)
- #45-120 - Premium T®-5 T®-Stripper Wire Stripper
- Two Cushion Grip Screwdrivers (#35-194 - #2 x 4 Phillips, #35-164 - 1/4 x 4 Slotted round shank)
- #35-083 - Twist-A-Nut™ Conduit Deburring Tool
- #35-210 - Electrician's Hammer
- #35-242 - 25' Auto-Lock™ Tape Measure
- #35-285 - Electrician's Knife
- #61-086 - Vol-Con® XL Voltage/Continuity Tester
- #61-201 - Replacement battery
- #35-311 - Tuff-Tote™ Leather Tool Pouch
- #35-908 - 7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver



13-Piece Set - #35-790

Set Includes:

- Three LASERedge™ Pliers with Smart-Grip™ handles (#35-3012 - 9-1/4" Linesman w/fish tape puller, #35-3038 - 8" Long Nose, #35-3430 - 10" Tongue and Groove)
- #45-915 - Kinetic™ Reflex™ T®-Stripper Wire Stripper
- Four Cushion Grip Screwdrivers (#35-193 - #1 x 3 Phillips, #35-194 - #2 x 4 Phillips, #35-186 - 3/16" x 4 Slotted Cabinet Tip, #35-164 - 1/4" x 4 Slotted round shank)
- #35-242 - 25' Auto-Lock™ Tape Measure
- #35-286 - Hawkbill Knife
- #34-002 - Medium Size Fuse Puller
- #35-205 - Torpedo Level
- #35-462 - Journeyman Electrician's Tote™



16 Piece Set - #35-808

Set Includes:

- Four LASERedge Pliers with dipped grips (#35-012 - 9-1/4" Linesman w/fish tape puller, #35-038 - 8" Long Nose, #35-430 - 10" Tongue and Groove, #35-012 - 9-1/2" Cable Cutter)
- #45-415 - Reflex™ T®-5 T®-Stripper Wire Stripper
- #30-428 - Combo Crimp/Strip Tool
- Four Cushion Grip Screwdrivers (#35-193 - #1 x 3 Phillips, #35-194 - #2 x 4 Phillips, #35-186 - 3/16" x 6 Slotted Cabinet Tip, #35-164 - 1/4" x 4 Slotted round shank)
- #35-210 - Electrician's Hammer
- #35-242 - 25' Auto-Lock™ Tape Measure
- #34-002 - Pocket Fuse Puller
- #35-286 - Hawkbill knife
- #35-261 - Ergonomic Hacksaw
- #35-427 - 18" Large Mouth Bag



12-Piece Set - #35-805

Set Includes:

- Four LASERedge™ Pliers with dipped grip handles (#35-012 – 9-1/4" Linesman w/fish tape puller, #35-028 – 8" Diagonal, #35-038 – 8" Long Nose, #35-430 – 10" Tongue and Groove)
- #45-120 – Premium T[®]-5 T[®]-Stripper Wire Stripper
- Four Cushion Grip Screwdrivers (#35-193 – #1 x 3 Phillips, #35-194 – #2 x 4 Phillips, #35-186 – 3/16" x 4 Slotted Cabinet Tip, #35-164 – 1/4" x 4 Heavy-Duty Slotted round shank)
- #35-242 – 25' Auto-Lock™ Tape Measure
- #10-466 – Electrician's Leather Tool Pouch
- #10-398 – Web Belt



6 Piece Set - #35-794

Set Includes:

- One LASERedge™ Plier with dipped grip handles (#30-430 – 9-1/4" Linesman w/crimper)
- #45-120 – Premium T[®]-5 T[®]-Stripper Wire Stripper
- #35-908 – 7-in-1 Twist-a-Nut™ Screwdriver
- #35-242 – 25' Auto-Lock™ Tape Measure
- #35-300 – Utility Knife
- #35-505 – Pocket Pal™ Tool Holster



12-Piece Set - #35-5805

Set Includes:

- Four WireMan™ Pliers with dipped grip handles (#35-5012 – 9-1/4" Linesman, #35-5028 – 8" Diagonal, #35-5038 – 8" Long Nose, #35-5430 – 10" Tongue and Groove)
- #45-120 – Premium T[®]-5 T[®]-Stripper Wire Stripper
- Four Cushion Grip Screwdrivers (#35-193 – #1 x 3 Phillips, #35-194 – #2 x 4 Phillips, #35-184 – 3/16" x 4 Slotted Cabinet Tip, #35-164 – 1/4" x 4 Slotted round shank)
- #25' Auto-Lock™ Tape Measure
- #10-466 – Electrician's Leather Tool Pouch
- #10-398 – Web Belt



5 Piece Set - #35-5792

Set Includes:

- One WireMan™ Plier with dipped grip handles (#30-5430 – 9-1/4" Linesman w/crimper)
- #45-120 – T[®]-5 T[®]-Stripper Wire Stripper
- Two Screwdrivers (#35-194 – #2 x 4 Phillips, #35-186 – 3/16" x 4 Slotted Cabinet Tip)
- #35-505 – Pocket Pal™ Tool Holster



4 Piece Set - #35-5799

Set Includes:

- #45-120 – T[®]-5 T[®]-Stripper Wire Stripper
- #35-5012 – WireMan™ 9-1/4" Side-Cutting Pliers
- #35-505 – Pocket Pal™ Tool Holster
- #35-905 – 5-in-1 Screwdriver/Nutdriver



Premium Leather Line

Top of the line tool carriers are handcrafted from heavy, top-grain cowhide and slow tanned in natural oils to enhance the leather's inherent strength. Each bag is hand waxed for lasting protection against stains and moisture and is warranted for life. Available in natural or black leather.



Standard Leather Line

Leather that stands up to the job like no other material, these tool carriers are constructed of top-grain, natural cowhide and tanned for added strength and durability. Color ages to a deep tan over the years.

Fabric Line

Durable, lightweight, portable tool totes in rugged nylon polyester or heavyweight canvas provide the perfect tool storage. Convenient pockets mean easy access; inner compartments keep tools organized and safe when not in use.



Tuff-Tote™ Ultimate Tool Carriers

- 8 in. square tool carrier features 2 divided inside compartments with 6 screwdriver loops each, 1 large center compartment, 4 outside pockets and 8 outside tool loops
- Exclusive leather-wrapped grab handle for carrying comfort
- Removable shoulder strap helps relieve lower back strain
- Unique stand-alone design keeps tools standing upright for easy identification and access
- Rust-resistant, plated-steel hardware and heavy, lock-stitched nylon thread for long-term durability
- Oil and moisture-resistant reinforced bottom



Description	Cat. No.
Premium Leather Carrier w/shoulder strap (shown above)	35-975
Premium Black Leather Carrier w/shoulder strap	35-975BLK
Standard Leather Carrier w/shoulder strap	35-325



Tuff-Tote™ Tool Carrier

- Convenient 6 in. x 8 in. tool carrier with 4 center screwdriver slots, 2 interior compartments, 2 divided outside pockets and 4 outside tool loops
- Exclusive leather grab handle for carrying comfort
- Removable shoulder strap helps relieve lower back strain
- Unique stand-alone design keeps tools standing upright for easy identification and access
- Rust-resistant, plated-steel hardware and heavy, lock-stitched nylon thread for long-term durability
- Oil and moisture-resistant reinforced bottom



Description	Cat. No.
Premium Leather Carrier w/shoulder strap	35-969

Tuff-Tote™ Tool Pouches

- 8-pocket, belt-mounted pouch features large utility compartment with 2 dividers and 6 screwdriver loops, 7 outside pockets, release snaps and tape chain
- Exclusive leather grab handle for carrying comfort
- Removable shoulder strap helps relieve lower back strain
- Rust-resistant, plated-steel hardware and heavy, lock-stitched nylon thread for long-term durability
- Tunnel belt loop accommodates belts up to 2-1/4 in. wide



Description	Cat. No.
Premium Leather Pouch w/shoulder strap (shown above)	35-950
Premium Black Pouch w/shoulder strap	35-950BLK
Standard Leather Pouch w/shoulder strap	35-311



Hip Holster Tool Pouch

- Compact, multi-pocket holster
- Heavy-duty leather construction
- Riveted corners for long life
- Tape measure holder



Description	Cat. No.
6-Pocket Hip Holster, Black	35-784BLK

Ergo Tool Pouches

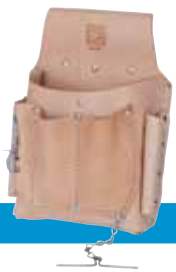
- Compact ergonomic design for versatility and superior comfort
- Large tool holding capacity



Description	Cat. No.
Premium Leather Ergo Pouch	35-966
Premium Black Leather Ergo Pouch	35-966BLK
Standard Natural Leather Ergo Pouch	35-312

Electrician's Tool Pouch

- 7 -pocket tool pouch
- Full length belt tunnel
- Chain tape lanyard



Description	Cat. No.
Electrician's Tool Pouch	10-466

Shoulder Straps



- Nickel-plated hardware for long-term durability and corrosion resistance
- 2-in. wide shoulder pad for added comfort

Description	Cat. No.
Premium Leather Strap	35-965
Standard Leather Strap	35-338
Premium Black Leather Strap	35-965BLK

Belts



35-316



35-995



10-398

- Nickel-plated hardware for long-term durability and corrosion resistance

Description	Cat. No.
Premium Leather Belt - 2 in. x 48 in.	35-995
Standard Leather Belt - 1-3/4 in. x 46 in.	35-316
Web Belt	10-398





TOOLS & SUPPLIES

Supplies Apron

- Two pockets for connectors and fasteners, each 8 in. x 15 in.
- Natural duck construction



Description	Cat. No.
Supplies Apron	35-474

Large Mouth Bags

- Top opens completely for easy access to large tools – reinforced to hold itself open
- Measures 9 in. wide x 12 in. deep with outside and inside pockets for convenient hand tool storage
- Rugged zipper closure helps prevent tool loss
- Removable shoulder strap
- Durable multi-ply construction

Description	Cat. No.
Large Mouth Bag - 13 in. long	35-410
Large Mouth Bag - 16 in. long	35-418
Large Mouth Bag - 18 in. long	35-427



Note: Tools sold separately.

Journeyman Electrician's Tote™ Tool Bag

- Compact and versatile design
- Carry as a hand-tote, shoulder-tote or tool-belt
- Includes removable shoulder strap and belt
- Durable multi-ply construction



Description	Cat. No.
Journeyman Electrician's Tote™	35-462

Pocket Pal™ Tool Holster

- Protects pocket from sharp tools
- Doubles tool carrying capacity
- Can be worn in pocket or on belt



Description	Cat. No.
Pocket Pal™ Tool Holster	35-505

Electrician's Tool Bag

- Spacious and durable design
- Organizes and displays tools for fast access
- Includes removable shoulder strap
- Durable multi-ply construction



Description	Cat. No.
Master Electrician's Tote™	35-441

Mechanic's Tool Bag

- Eight narrow inside pockets designed to hold small tools
- Two side pockets with closeable snaps for large tools or loose items
- Double inside liner and rigid bottom prevent bag distortion
- Durable nylon polyester construction



Note: Tools sold separately.

Description	Cat. No.
Mechanic's Tool Bag	35-535

Zipper Pouches

- Durable, water resistant material
- Heavy duty, self-repairing zippers



Description	Cat. No.
Zipper Pouch, 10-1/2 in. long	35-402
Zipper Pouch, 12-1/2 in. long	35-403

Divider Pouch™ Small Parts Bag

- Designed to provide perfect small parts storage – keeps parts separate and organized
- Six internally divided 5-in. deep pockets
- Convenient drawstring protects contents from spillage
- Convenient handle loop
- Sized to stack in 5-gallon buckets
- Durable nylon polyester construction



Wire connectors sold separately.

Description	Cat. No.
Divider Pouch™ Small Parts Bag	35-655

Step Drill Bits

**Cuts
1/4 in. thick
Steel**

Trust IDEAL step drill bits for precise, repetitive drilling through the toughest materials including brass, carbon steel, cast iron, stainless steel, and more. These tough and reliable tools are constructed with a rugged titanium nitrite exterior coating. Each step is gradually blended to ease stepping through hole sizes; reducing the need to keep changing drill bits, which speeds up the fabrication process. Improved Split-Point tip design eliminates the need for a starter hole or punch and delivers three times faster starts, saving valuable time. The double-fluted design provides balanced cuts and cooler operation.



BEST

Improved Split-Point design for 3x faster starts

Protective titanium nitrite coating

Double-fluted design

Radius-blended, multi-diameter steps

GOOD



Drill Diameter Sizes (In.)	No. of Hole Sizes	Step Increments (In.)	Step Thickness (In.)	Shank Dia. (In.)	Cat. No.
1/8 to 1/2	13	1/32	1/8	1/4	35-511
1/4 to 3/4	9	1/16	1/8	3/8	35-512
1/4 to 7/8	11	1/16	1/16	3/8	35-513
1/2 to 1	8	1/16	1/8	3/8	35-514*
1/4 to 1-1/8	16	1/16	1/16	3/8	35-515
3/16 to 1/2	6	1/16	3/8	1/4	35-516
1/4 to 1-3/8	10	1/32	1/16 to 1/4	3/8	35-517

*Requires pilot holes.

Electrician's Step Bit Kit

- Durable blow-molded case securely holds and protects bits
- Includes four step bits (35-511, 35-513, 35-515 and 35-517)
- Kit provides a solution for every electrical hole size between 1/8 in. and 1-3/8 in.



Description	Cat. No.
Electrician's Step Bit Kit	35-520

Quick Change Step Bits



- Split-Point tip lasts longer and starts faster than competition
- High speed tool steel
- Double-tempered for superior tip life
- Double fluted and blended radius steps for smooth drilling
- 1/4" Quick change shank



Impact Ready!

Drill Diameter Sizes (In.)	No. of Hole Sizes	Step Increments (In.)	Step Thickness (In.)	Shank Dia. (In.)	Cat. No.
1/8 to 1/2	13	1/16	1/8	1/4	35-521
1/4 to 7/8	11		1/16		35-522
1/4 to 1-1/8	16		35-523		
Description					Cat. No.
3-Piece Quick Change Step Bit Kit (35-521, 35-522, 35-523)					35-524

STEP DRILL BITS

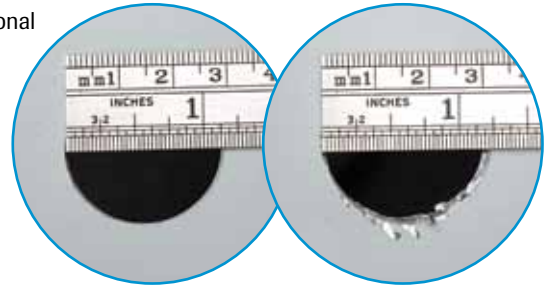
1-800-435-0705 CUSTOMER ASSISTANCE

WWW.IDEALINDUSTRIES.COM



Carbide Tipped Hole Cutters

TKO™ Hole Cutters offer the most efficient and clean cutter replacement for traditional knockouts, by making smooth holes in a fraction of the time at a fraction of the cost. Specifically designed to cut sheet metal, TKO cutters will even cut stainless steel with fine grained, carbide tips. The innovative design includes the exclusive SmoothStart™ replaceable pilot drill, which guides the cutter to the surface, avoiding cutter damage and providing smoother holes. An integral overdrill flange prevents cutter penetration beyond the sheet metal. When it comes to quality, performance and durability, IDEAL is the professional's choice for carbide tipped hole cutters.



IDEAL TKO™

Competitor

IDEAL provides smoother, more precise holes than competitors' (holes cut with 1-1/8 in. cutters)

Hole Size	Conduit & Pipe Size	Cat. No.
3/4 in. (19mm)	—	36-300
7/8 in. (22mm)	1/2 in. (22mm) - push button	36-301
1 in. (25mm)	—	36-302
1-1/8 in. (29mm)	3/4 in. (19mm)	36-303
1-1/4 in. (32mm)	—	36-304
1-3/8 in. (35 mm)	1 in. (25mm)	36-305
1-7/32 in. (30mm)	1-7/32 in. (30mm) - push button	36-313
1-7/16 in. (37mm)	—	36-306
1-1/2 in. (38mm)	—	36-307
1-3/4 in. (44mm)	1-1/4 in. (32mm)	36-308
2 in. (51mm)	1-1/2 in. (38mm)	36-309
2-1/2 in. (64mm)	2 in. (50mm)	36-310
2-7/8 in. (73mm)	2-1/2 in. (64mm)	36-315
3-1/2 (89mm)	3 in. (76mm)	36-316
4 in. (102mm)	3-1/2 in. (89mm)	36-317
4-1/2 in. (114mm)	4 in. (102mm)	36-318

3/8 in. Shank on all hole cutters.

SmoothStart™ Replacement Pilot Drill

Exclusive! SmoothStart™ pilot guides cutter to surface providing smoother holes and avoiding cutter damage.



Description	Cat. No.
SmoothStart™ Replacement Pilot Drill 	36-312

4-Piece Kit

Includes the three most common sizes along with a spare SmoothStart™ pilot bit and a convenient carrying case



Description	Cat. No.
4-Piece Carbide Hole Cutter Kit — Includes SmoothStart™ Replacement Tip, 7/8 in. 1-1/8 in., 1-3/8 in.	36-311

8-Piece Electrician's Kit

Includes six common sizes along with a spare SmoothStart™ pilot bit and a convenient carrying case



Description	Cat. No.
Electrician's Kit — Includes two SmoothStart™ Replacement Tips, 7/8 in. 1-1/8 in., 1-3/8 in., 1-3/4 in., 2 in. and 2-1/2 in.	36-314



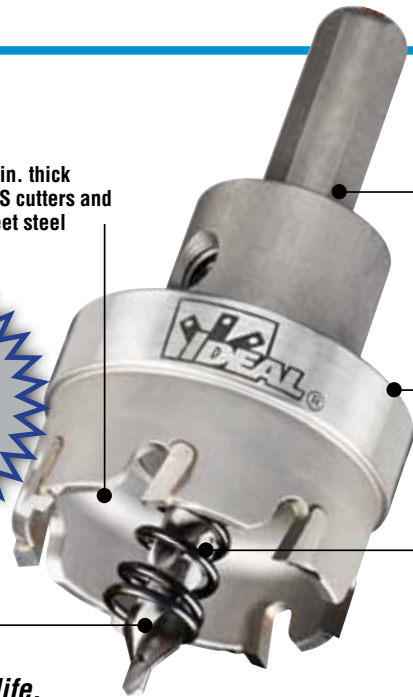
Integrated overdrill flange prevents penetration beyond the sheet metal.



Carbide tips cut up to 1/8 in. thick steel and outperforms HSS cutters and bi-metal hole saws in sheet steel

BEST CHOICE FOR STAINLESS

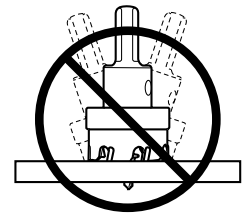
Exclusive SmoothStart™ pilot drill guides cutter



Integral arbor provides smoother, more accurate holes than hole saws or two-piece carbide-tipped cutters

Integrated overdrill flange prevents penetration beyond the sheet metal

Ejection spring effortlessly ejects slug



DO NOT ROCK

Low RPM recommended for longer life.

See how IDEAL TKO can save time...

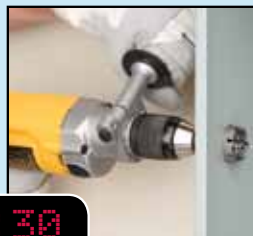
Total time using the IDEAL TKO™
30 Seconds



Chuck Cutter

00:10

Drill hole & store



00:30

Total time using the competitors' knockout tool
More than 6 Minutes



Chuck Step Drill

00:10



Drill Pilot Hole

00:30



Assemble knockout punch & stud pull

02:00



Ratchet

04:20



Slug removed, disassemble & store

06:20

IRONMAN™ Bi-Metal Hole Saws

IRONMAN™ Bi-metal hole saws from IDEAL INDUSTRIES, INC, with re-engineered bi-metal construction, a thick “flex-free” backing plate, and variable sized teeth, will rival the cutting speed and longevity of any in the industry. The bi-metal construction cuts metal, wood and plastics including: mild and stainless steel, nail embedded wood, plywood, and pipe. An extensive list of 50 sizes, effective accessories, and kits are available to meet all your cutting needs. When it comes to quality, performance and durability, IDEAL is the professional’s choice for hole saws.

New improved solid plate design resists flexing of the new hole saw for clean true holes and added durability

Bi-metal construction combines hardened and durable tool steel teeth welded to fatigue resistant body for long and consistent cutting life

Variable sized teeth clear chips away from the work quickly for faster cuts and reduced vibration

Threads fit all standard arbors

1-5/8 in. cutting depth cuts through 2' x 4's on the first cut

Hole Saws

- Thicker, FLEX FREE backing plate for clean true holes and longer tool life
- Improved bi-metal construction for long life and durability
- Variable pitch tooth geometry for fast cutting and reduced vibration
- Cuts all types of machinable metal including stainless steel, wood, nail embedded wood, plastic and fiberboard

Saw Diameter (Inches)	Pipe Tap Size* (Inches)	Pipe Entrance Size* (Inches)	Cat. No.
Use Arbor No. 35-391, 35-392 or 35-393			
9/16	—	—	35-340
5/8	—	—	35-341
11/16	—	—	35-342
3/4	1/2	3/8	35-343
25/32	—	—	35-399
13/16	—	—	35-344
7/8	3/4	1/2	35-345
15/16	—	—	35-346
1	—	—	35-347
1-1/16	—	—	35-348
1-1/8	1	3/4	35-349
1-3/16	—	—	35-350
Use Arbor No. 35-394, 35-536 or 35-537			
1-1/4	—	—	35-351
1-5/16	—	—	35-352
1-3/8	—	1	35-353
1-1/2	1-1/4	—	35-355
1-9/16	—	—	35-356
1-5/8	—	—	35-357
1-1/16	—	—	35-358
1-3/4	1-1/2	1-1/4	35-359
1-13/16	—	—	35-360
1-7/8	—	—	35-361
2	—	1-1/2	35-362
2-1/16	—	—	35-363
2-1/8	—	—	35-364
2-1/4	2	—	35-365
2-5/16	—	—	35-366
2-3/8	—	—	35-367
2-1/2	—	2	35-368
2-9/16	—	—	35-369
2-5/8	2-1/2	—	35-370
2-3/4	—	—	35-371
2-7/8	—	—	35-372
Use Arbor No. 35-394, 35-536, 35-537 or 35-538			
3	—	2-1/2	35-373
3-1/8	—	—	35-374
3-1/4	3	—	35-375
3-3/8	—	—	35-376
3-1/2	—	—	35-377
3-5/8	—	3	35-378
3-3/4	3-1/2	—	35-379
3-7/8	—	—	35-380
4	—	—	35-381
4-1/8	—	3-1/2	35-382
4-1/4	4	—	35-383
4-3/8	—	—	35-384
4-1/2	—	4	35-385
4-3/4	4-1/2	—	35-386
5	—	—	35-387
5-1/2	—	—	35-388
5-3/4	—	—	35-389
6	—	—	35-390

*All pipe sizes listed in the Pipe Tap Size and Pipe Entrance Size columns are standard industry sizes. All pipes are sized by the nominal inside diameter.



B-62

8-Piece Electrician's Hole Saw Kit

- Reliable 8-piece kit in a durable plastic case
- Find electrical sizes for pipe and conduit through 2 in.



Description	Cat. No.
Hole Saw sizes 7/8 in., 1-1/8 in., 1-3/8 in., 1-3/4 in., 2 in. & 2-1/2 in. Also includes arbor models 35-393 & 35-394	35-400

14-Piece Electrician's Hole Saw Kit

- Generous 14-piece kit offers a tremendous selection
- Includes electrical sizes for pipe and conduit through 4 in.
- Sturdy plastic case survives extra wear and tear



Description	Cat. No.
Hole Saw sizes 7/8 in., 1-1/8 in., 1-3/8 in., 1-3/4 in., 2 in., 2-1/2 in., 3 in., 3-5/8 in., 4-1/8 in., 4-1/2 in. Also includes arbor models 35-391, 35-393 & 35-394 and extension bar 35-396.	35-401

19-Piece Electrician's Hole Saw Kit

- For electrical, industrial and all-purpose maintenance needs
- 19-piece kit comes in sturdy durable plastic case
- Plumbing and electrical sizes for pipe and conduit through 4 in.



Description	Cat. No.
Hole Saw sizes 3/4 in., 7/8 in., 1 in., 1-1/8 in., 1-3/8 in., 1-1/2 in., 1-3/4 in., 2 in., 2-1/4 in., 2-1/2 in., 3 in., 3-5/8 in., 4-1/8 in. & 4-1/2 in. Also includes arbor models 35-393, 35-394, pilot drill 35-397 (two pieces) and extension bar 35-396.	35-518

Replacement Pilot Drills for Hole Saw Arbors

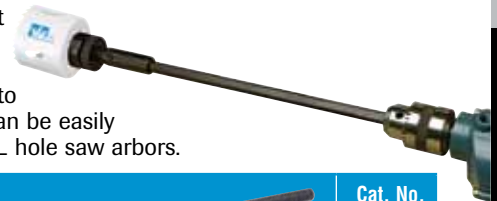
Split point pilot drills start on contact for faster penetration and less walking.



Description	Cat. No.
4-1/2 in. x 1/4 in. – Fits 35-391, 35-393, 35-394 & 35-538 arbors	35-397
3-1/4 in. x 1/4 in. – Fits 35-392, 35-536 & 35-537 arbors	35-398

Arbor Extension

For boring jobs that require a longer reach, arbor extensions add up to 18 in. length and can be easily connected to IDEAL hole saw arbors.



Description	Cat. No.
Extension for 7/16 in. Arbors, 12 in. long	35-396

Hole Saw Arbors

Best Arbor for Tri-Bore Hole Saws!



35-391 35-392 35-393 35-394 35-536 35-537 35-538

Durable steel construction means years of long-lasting performance. Set-screw in body allows easy replacement of the pilot drill. Save valuable time through this versatile design. Instantly change hole saws without tools and without having to remove the arbor from the chuck.

Shank Size	Thread Size	Chuck Size	Fits Hole Saw Sizes	Cat. No.
1/4 in. Round	1/2 - 20 in.	1/4 in.	9/16 - 1-3/16 in.	35-391
3/8 in. Hex	1/2 - 20 in.	3/8 in.	9/16 - 1-3/16 in.	35-392
7/16 in. Hex	1/2 - 20 in.	1/2 in.	9/16 - 1-3/16 in.	35-393
7/16 in. Hex	5/8 - 18 in.	1/2 in.	1-1/4 - 6 in.	35-394
7/16 in. Hex	5/8 - 18 in.	1/2 in.	1-1/4 - 6 in.	35-536
3/8 in. Hex	5/8 - 18 in.	3/8 in.	1-1/4 - 6 in.	35-537
7/16 in. Hex	5/8 - 18 in.	1/2 in.	2 - 6 in.	35-538

Adjustable Can Light Hole Saw

- Cuts drywall and ceiling tile
- Self-sharpening carbide coated cutting blades
- Includes two dust shields to minimize clean up



Drill not included.

Description	Cat. No.
Adjustable Can Light Hole Saw – 10 sizes from 2-1/2 in. to 7 in.	35-598
Adjustable Can Light Hole Saw – 13 sizes from 6-1/4 in. to 10-3/8 in.	35-599

TRI-BORE™

Multi-Purpose Hole Saw



- Massive carbide tips designed to cut wood with nails, cement board, composite enclosures, ceiling tile and more!
- Faster than self-feed bits in wood
- Faster than carbide grit in abrasive materials
- Available in all popular sizes

Carbide Tip Pilot
(Arbors and pilot drills sold separately.)

Carbide teeth for wood with nails, cement board, composite enclosures and other abrasive materials.

Note: Great for adding holes to most precast polymer concrete underground utility vaults.

Rugged construction for extra life

Deep gullets for easy plug removal

Spade Bit & Carbide Pilot

Deep-cup design on Tri-Bore™ Hole Saws require the use of a longer pilot bit.



Cat. No.	Hole Size (in.)	Application
36-367*	Spade Bit	Wood boring
36-368*	Carbide Pilot	Abrasive material boring

*Sold separately.

Tri-Bore™ Hole Saw Arbors

Shank Size	Thread Size	Chuck Size	Fits Hole Saw Sizes	Cat. No.
7/16 in. Hex	5/8 - 18 in.	1/2 in.	1-3/8 in. - 6-7/8 in.	35-394
7/16 in. Hex	5/8 - 18 in.	1/2 in.	1-3/8 in. - 6-7/8 in.	35-536
3/8 in. Hex	5/8 - 18 in.	3/8 in.	1-3/8 in. - 6-7/8 in.	35-537
7/16 in. Hex	5/8 - 18 in.	1/2 in.	1-3/8 in. - 6-7/8 in.	35-538

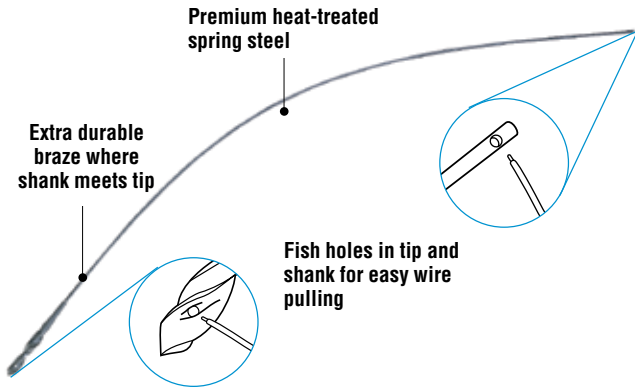
Arbor Extension

Description	Cat. No.
Extension for 7/16 in. Arbors, 12 in. long	35-396

Cat. No.	Hole Size (in.)	Application
36-350	1-3/8	
36-351	2-1/8	1-1/2" Pipe and lock installation
36-352	2-1/4	1-1/2" Pipe with couplings
36-353	2-9/16	2" Pipe
36-354	3	2" Pipe with couplings
36-355	3-3/8	
36-356	3-5/8	3" Pipe
36-357	4	
36-358	4-1/4	3" Pipe with couplings, 4" dryer vent
36-359	4-1/8	
36-360	4-3/8	Capri®, Halo®, Marco, Mini Juno
36-361	4-5/8	4" pipe
36-362	5-3/8	Capri®, Juno®, Lightolier, Prescolite, Progress
36-363	6-1/4	6" Duct
36-364	6-3/8	Capri®, Halo®
36-365	6-5/8	Juno® and Progress
36-366	6-7/8	Capri®, Lightolier, Lithonia, Prescolite, Progress

Available in all recessed lighting sizes!

Flexible Drill Bits



Screw Point Flexible Drill Bits, Type B

Best for WOOD

- Fast and aggressive, self-starting bit
- Ultra-sharp ground threads provide increased pulling power through obstructions
- Designed for easy to tough wood drilling

Description	Shank (in.)	Cat. No.
3/8 in. x 54 in. Screw Point Flexible Bit	3/16	90-082
1/2 in. x 54 in. Screw Point Flexible Bit	3/16	90-085
9/16 in. x 54 in. Screw Point Flexible Bit	3/16	90-088
3/4 in. x 54 in. Screw Point Flexible Bit	1/4	90-091

Serrated Combination Flexible Bits, Type C

Best for light WOOD & light METAL

- Fast and aggressive, self-starting bit
- Ultra-sharp ground threads provide increased pulling power through obstructions
- Designed for easy to tough wood and light metal drilling

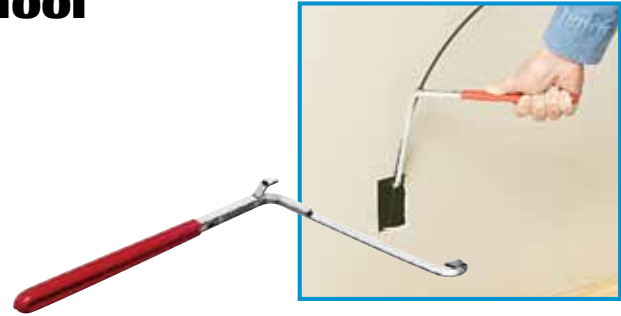
Description	Shank (in.)	Cat. No.
1/4 in. x 54 in. Serrated Combination Flexible Bit	3/16	90-063
3/8 in. x 54 in. Serrated Combination Flexible Bit	3/16	90-067
1/2 in. x 54 in. Serrated Combination Flexible Bit	3/16	90-070
9/16 in. x 54 in. Serrated Combination Flexible Bit	3/16	90-073

Flexible Bit Extension

- Connect to chuck end of shaft to increase the length of the bit

Description	Shank	Cat. No.
3/16 in. x 36 in. Flexible Bit Extension	3/16	90-170
1/4 in. x 36 in. Flexible Bit Extension	1/4	90-173

Flexible Bit Replacement Tool



Description	Cat. No.
Flexible Bit Replacement Tool	90-176

Installer Bits

- Hole in fluted head for pulling wires through walls, ceiling and floors
- Flutes designed for quick chip removal – no clogging or binding
- Premium quality, extra-hard 52-100 carbon bearing steel

Description	Length	Cat. No.
Installer Bit - 1/4 in.	18 in.	35-870
Installer Bit - 3/8 in.	18 in.	35-871
Installer Bit - 1/2 in.	18 in.	35-872

Power Spade Bits

- The most innovative and fastest spade bit
- Smooth and effortless drilling
- Max operating speed 1500 RPM
- Available in a variety of sizes
- Offers less vibration than other bits



36-432

Description	Cat. No.
3/4 in. x 4 in. stubby	36-403
7/8 in. x 4 in. stubby	36-404
1 in. x 4 in. stubby	36-405
1/2 in.	36-413
5/8 in.	36-415
3/4 in.	36-417
7/8 in.	36-419
1 in.	36-421
1-1/8 in.	36-422
1-1/4 in.	36-423
4-pc. Kit with pouch (5/8 in., 3/4 in., 7/8 in., 1 in.)	36-432



BUL-EYE™ Self Feed Wood Boring Bits



WOOD BORING BITS

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Description	Diameter	Entrance Size for Pipe & EMT	Cat.
1 in. Self-Feed Wood Boring Bit	1 in.	1/2 in.	36-250
1-1/8 in. Self-Feed Wood Boring Bit	1-1/8 in.	—	36-251
1-1/4 in. Self-Feed Wood Boring Bit	1-1/4 in.	3/4 in.	36-252
1-3/8 in. Self-Feed Wood Boring Bit	1-3/8 in.	1 in.	36-253
1-1/2 in. Self-Feed Wood Boring Bit	1-1/2 in.	—	36-254
1-3/4 in. Self-Feed Wood Boring Bit	1-3/4 in.	1-1/4 in.	36-255
2 in. Self-Feed Wood Boring Bit	2 in.	1-1/2 in.	36-256
2-1/8 in. Self-Feed Wood Boring Bit	2-1/8 in.	—	36-257
2-1/4 in. Self-Feed Wood Boring Bit	2-1/4 in.	—	36-258
2-9/16 in. Self-Feed Wood Boring Bit	2-9/16 in.	2 in.	36-259
3 in. Self-Feed Wood Boring Bit	3 in.	2-1/2 in.	36-260
3-5/8 in. Self-Feed Wood Boring Bit	3-5/8 in.	3 in.	36-261
4-5/8 in. Self-Feed Wood Boring Bit	4-5/8 in.	4 in.	36-262
5-1/2 in. Extension Bar	—	—	36-273
18 in. Extension Bar	—	—	35-819

Replacement Lead Screws

- Keeps self-feed bits running fast and true
- Easily replaced with hex wrench providing extended drill life and optimum cost-per-hole value

Description	Qty.	Cat. No.
Small replacement lead screws, fits bit sizes 1 in. - 2-9/16 in. 	3/pack	36-271
Small replacement lead screws, fits bit sizes 3 in. - 4-5/8 in. 	3/pack	36-270

Extension Bars

- Cuts into hard-to-reach areas
- Fits IDEAL Auger Bits

Description	Cat. No.
5-1/2 in. Extension Bar 	36-273
18 in. Extension Bar	35-819

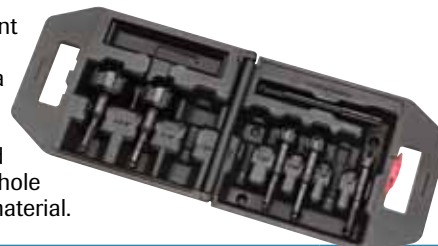
Sharpening File

- Keeps durable bits working like new
- High-grade sharpener hones dulled edges quickly and efficiently

Description	Cat. No.
Sharpening File 	36-272

6-Piece Kit

Includes five different bit sizes, a 5-1/2 in. extension bar, and a convenient carrying case, giving you everything you need for drilling multiple hole sizes in any wood material.



Description	Cat. No.
5-1/2 in. extension bar, 1 in., 1-1/4 in., 1-3/8 in., 2 in., 2-9/16 in. bits	36-266

9-Piece Kit

Includes eight different bit sizes, a 5-1/2 in. extension bar, and a convenient carrying case, giving you everything you need for drilling multiple hole sizes in any wood material.



Description	Cat. No.
5-1/2 in. extension bar, 1 in., 1-1/8 in., 1-1/4 in., 1-3/8 in., 1-1/2 in., 1-3/4 in., 2-1/8 in., 2-9/16 in. bits	36-269

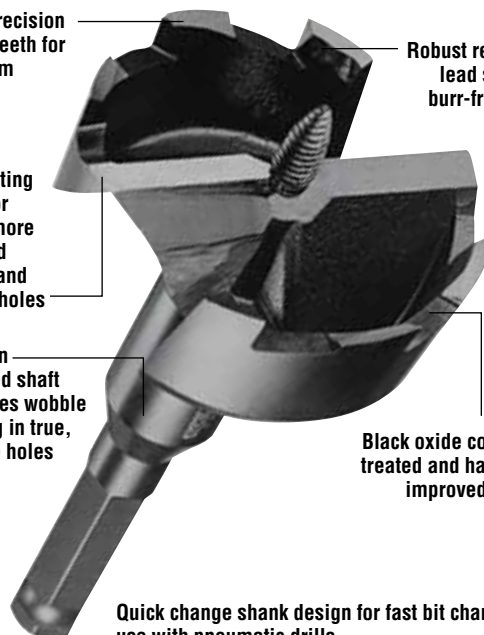
Wider precision ground teeth for maximum control

Robust replaceable lead screw with burr-free threads

Twin cutting edges for faster, more balanced drilling and cleaner holes

Precision machined shaft eliminates wobble resulting in true, accurate holes

Black oxide coated, heat treated and hardened for improved durability



Quick change shank design for fast bit changes and use with pneumatic drills

1-800-435-0705 CUSTOMER ASSISTANCE

Nailbiter™ Premium Ship Auger Bits





- Dual-Helix construction with twin cutting edges for faster and smoother drilling action, even through nail-embedded timbers
- Full body, dual induction heat treatment ensures durability, minimizes warping and delivers long lasting performance
- Heavy-duty lead screw designed for quick gripping power, superior penetration and extra-long life
- Re-sharpenable for extended tool life



Description	Hole Diameter	Overall Length	Twist Length	Cat. No.
5/8 in. Power Ship Auger	5/8 in.	7-1/2 in.	5 in.	35-810
11/16 in. Power Ship Auger	11/16 in.	7-1/2 in.	5 in.	35-811
3/4 in. Power Ship Auger	3/4 in.	7-1/2 in.	5 in.	35-812
13/16 in. Power Ship Auger	13/16 in.	7-1/2 in.	5 in.	35-813
7/8 in. Power Ship Auger	7/8 in.	7-1/2 in.	5 in.	35-814
1 in. Power Ship Auger	1 in.	7-1/2 in.	5 in.	35-815
1-1/8 in. Power Ship Auger	1-1/8 in.	7-1/2 in.	5 in.	35-816
1-1/4 in. Power Ship Auger	1-1/4 in.	7-1/2 in.	5 in.	35-817
Description	Hole Diameter	Overall Length	Twist Length	Cat. No.
1/2 in. Power Ship Auger	1/2 in.	18 in.	15 in.	35-820
5/8 in. Power Ship Auger	5/8 in.	18 in.	15 in.	35-821
11/16 in. Power Ship Auger	11/16 in.	18 in.	15 in.	35-822
3/4 in. Power Ship Auger	3/4 in.	18 in.	15 in.	35-823
13/16 in. Power Ship Auger	13/16 in.	18 in.	15 in.	35-824
7/8 in. Power Ship Auger	7/8 in.	18 in.	15 in.	35-825
15/16 in. Power Ship Auger	15/16 in.	18 in.	15 in.	35-826
1 in. Power Ship Auger	1 in.	18 in.	15 in.	35-827
1-1/8 in. Power Ship Auger	1-1/8 in.	18 in.	15 in.	35-828
1-1/4 in. Power Ship Auger	1-1/4 in.	18 in.	15 in.	35-829

Mini™ Utility Bit Augers

- Designed to fit between wall studs when used with common drills
- Eliminates the need for expensive right angle drills

Bit Length = 4-3/4", Twist = 2-1/2", Shank = 7/16"		Hole Diameter	Cat. No.
5/8 in. Mini™ Auger		5/8 in.	35-862
3/4 in. Mini™ Auger		3/4 in.	35-864
7/8 in. Mini™ Auger		7/8 in.	35-866
1 in. Power Ship Auger		1 in.	35-868

RESI-MASTER™ Heavy-Duty Ship Augers

- 62° cutting angle reinforces the cutting edge and provides greater durability
- Hardened lead screw and cutting edge provide increased wear resistance and extended life
- Secondary relief angle evacuates wood chips quickly and prevents auger from jamming
- Oversized cutting head makes hole larger than body of bit for easy ejection from work piece



Description	Hole Diameter	Overall Length	Twist Length	Cat. No.
5/8 in. RESI-MASTER™ Auger	5/8 in.	7-1/2 in.	5 in.	35-892
11/16 in. RESI-MASTER™ Auger	11/16 in.	7-1/2 in.	5 in.	35-730
3/4 in. RESI-MASTER™ Auger	3/4 in.	7-1/2 in.	5 in.	35-893
13/16 in. RESI-MASTER™ Auger	13/16 in.	7-1/2 in.	5 in.	35-731
7/8 in. RESI-MASTER™ Auger	7/8 in.	7-1/2 in.	5 in.	35-896
15/16 in. RESI-MASTER™ Auger	15/16 in.	7-1/2 in.	5 in.	35-897
1 in. RESI-MASTER™ Auger	1 in.	7-1/2 in.	5 in.	35-898
1-1/8 in. RESI-MASTER™ Auger	1-1/8 in.	7-1/2 in.	5 in.	35-899
1-1/4 in. RESI-MASTER™ Auger	1-1/4 in.	7-1/2 in.	5 in.	35-732
Description	Hole Diameter	Overall Length	Twist Length	Cat. No.
1/2 in. RESI-MASTER™ Auger	1/2 in.	18 in.	15 in.	35-726
5/8 in. RESI-MASTER™ Auger	5/8 in.	18 in.	15 in.	35-971
11/16 in. RESI-MASTER™ Auger	11/16 in.	18 in.	15 in.	35-727
3/4 in. RESI-MASTER™ Auger	3/4 in.	18 in.	15 in.	35-972
13/16 in. RESI-MASTER™ Auger	13/16 in.	18 in.	15 in.	35-728
7/8 in. RESI-MASTER™ Auger	7/8 in.	18 in.	15 in.	35-976
15/16 in. RESI-MASTER™ Auger	15/16 in.	18 in.	15 in.	35-977
1 in. RESI-MASTER™ Auger	1 in.	18 in.	15 in.	35-978
1-1/8 in. RESI-MASTER™ Auger	1-1/8 in.	18 in.	15 in.	35-979
1-1/4 in. RESI-MASTER™ Auger	1-1/4 in.	18 in.	15 in.	35-729

Auger Bit Extension

- Dual locking screws
- Allen wrench included



Auger Bit Extensions, 18"; Six flats to fit drill chuck Description	Cat. No.
Auger Bit Extension - 5/16 in.	35-818
Auger Bit Extension - 7/16 in.	35-819



TOOLS & SUPPLIES



Reciprocating Blades

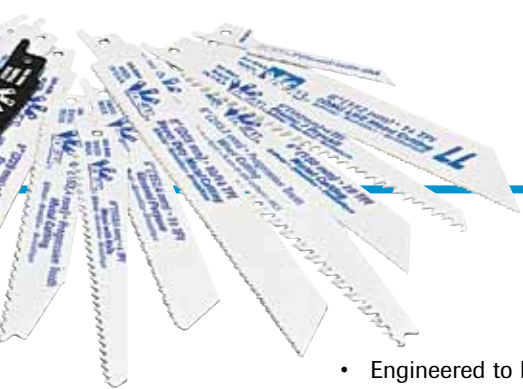
- Bi-metal blades last up to ten times longer than carbon steel blades
- Flexible spring-back provides long blade life
- Super-hard, high speed steel teeth for a sharp, long-lasting cutting edge
- Shatterproof for tough applications
- Fits all reciprocating saws using 1/2 in. universal shank

	L/W/TH (In.)	TPI	Material	Blade Back	Qty.	Application	Cat. No.
Metal Cutting							
	6 x 3/4 x .035	14	Bi-metal	Straight	5	Pipe, structural steel, stainless steel: 3/32" - 1/4", Non-ferrous metal: 3/32" - 3/8"	36-059
	4 x 3/4 x .035	18	Bi-metal	Straight	5	Structural steel, pipe, conduit, stainless steel: 1/16" - 3/16" thick, Non-ferrous metal: 1/16" - 5/16" thick	36-055
	6 x 3/4 x .035	18	Bi-metal	Straight	5	Structural steel, pipe, conduit, stainless steel: 1/16" - 3/16" thick, Non-ferrous metal: 1/16" - 5/16" thick	36-057
	8 x 3/4 x .035	18	Bi-metal	Straight	5	Structural steel, pipe, conduit, stainless steel: 1/16" - 3/16" thick, Non-ferrous metal: 1/16" - 5/16" thick	36-060
	6 x 3/4 x .035	24	Bi-metal	Straight	5	All metal less than 1/8" thick: Tubing conduit, trim	36-058
Heavy-Duty Metal Cutting							
	6 x 3/4 x .050	18	Bi-metal	Straight	2	Heavy-duty blade for cutting structural steel, pipe, conduit, stainless steel: 1/16" to 3/16" thick	36-085
	8 x 3/4 x .050	10/14	Bi-metal	Straight	2	Heavy-duty blade for cutting structural steel, pipe, conduit, stainless steel: 1/8" to 1/2" thick	36-086
	12 x 3/4 x .050	10/14	Bi-metal	Taper	5	Heavy-duty blade for cutting structural steel, pipe, conduit, stainless steel: 1/8" to 1/2" thick	36-087
Wood w/Nails							
	6 x 3/4 x .050	6	Bi-metal	Taper	5	Fast cutting, roughing-in work, nail-embedded wood, remodeling	36-065
	9 x 3/4 x .050	6	Bi-metal	Taper	5	Fast cutting, roughing-in work, nail-embedded wood, remodeling	36-066
	12 x 3/4 x .050	6	Bi-metal	Taper	5	Fast cutting, roughing-in work, nail-embedded wood, remodeling	36-067
Demolition							
	9 x 7/8 x .062	6	Bi-metal	Taper	2	Demolition work in nail-embedded wood, remodeling	36-095
	9 x 7/8 x .062	10	Bi-metal	Taper	2	Demolition work in wood, metal, pipe and fire and rescue	36-096
General Purpose							
	6 x 3/4 x .035	10	Bi-metal	Straight	5	Nail embedded wood, metal and non-ferrous metal composition materials & plastics 1/8" - 1/2"	36-075
Specialty Cutting							
	8 x 3/4 x .050	Grit	Tung. Grit	Straight	2	Iron pipe, fiberglass, reinforced plastics, ceramic tile, stone, slate and brick.	36-090
	3 x 5/16 x .035	18	Bi-metal	Scroll	5	Scroll cutting wood, cast aluminum and non-ferrous metals	36-054
Plaster/Drywall							
	6 x 3/4 x .050	6	Bi-metal	Taper	2	For plaster, drywall, plaster board & lath. Bi-directional cutting	36-088

RECIPROCATING BLADES

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1-800-435-0705 CUSTOMER ASSISTANCE



Long-Life Metal Cutting Reciprocating Blades


- Engineered to be the longest lasting, metal cutting blades available
- Long-life blades perform up to three times as many cuts as similar metal cutting blades
- 8% cobalt cutting edge for extreme durability
- Shatterproof bi-metal design
- Longer life for greater value



Long-Life Blades	L/W/TH (Inches)	TPI	Material	Blade Back	Qty.	Application	Cat. No.
	6 x 3/4 x .035	18	Bi-metal	Straight	5	Long-Life blade for cutting structural steel, pipe, conduit, stainless steel, sheet metal: 1/6" - 3/16" thick	36-043
	8 x 3/4 x .035	18	Bi-metal	Straight	5	Long-Life blade for cutting structural steel, pipe, conduit, stainless steel, sheet metal: 1/6" - 3/16" thick	36-044
	6 x 1 x .042	14	Bi-metal	Straight	5	Long-Life blade for cutting rebar, barstock, angle iron and other heavy gauge metals: 1/8" and thicker	36-046
	12 x 1 x .050	14	Bi-metal	Straight	5	Long-Life blade for cutting rebar, barstock, angle iron and other heavy gauge metals: 1/8" and thicker	36-048

Progressive Tooth Reciprocating Blades

- Specially designed for all purpose cutting
- Cut multiple materials without changing blades
- Tough bi-metal and HCS construction for long life.

Long-Life Blades	L/W/TH (Inches)	Blade Back	Qty.	Application	Cat. No.
	6 x 3/4 x .035	Bi-Metal	5	All metal, non-ferrous metal, sheet metal, pipe and other metal materials	36-056

Portable Band Saw Blades **Selecting the TPI (Teeth Per Inch)**



- Bi-metal construction
- Fit all standard portable band saw machines
- For pipe, tubing and solids
- Cut any machinable metal, including conduit, angle iron, structurals, rebar and stainless steel tubing

L/W/TH (In.)	TPI	Qty./Pack	Cat. No.
44-7/8 x 1/2 x .020	10	3	36-070
44-7/8 x 1/2 x .020	14	3	36-071
44-7/8 x 1/2 x .020	18	3	36-072
44-7/8 x 1/2 x .020	24	3	36-073

An important factor in obtaining a smooth cut is to determine the teeth per inch (TPI).

Use a coarser blade (2 - 3 TPI) for sawing wood and materials up to 8" thick. A finer blade (18 - 32 TPI) should be used for thinner materials under 1/4".

You should know the SFM for various speed settings on your band saw. This is helpful when selecting the proper speed for the materials being cut. (Be sure to check the owner's manual for your band saw.)



TOOLS & SUPPLIES

IDEAL Cable Tie Catalog Numbering System

IT - 2 - S - MH - C - 0

IT	2	S	MH	CC	0
IT = IDEAL Powr-Tie™ Cable Ties	Size Approximate Bundle Diameter for ties	Tensile Strength M = Miniature (18 lbs.) I = Intermediate (40 lbs.) S = Standard (50 lbs.) LH = Light-Heavy Duty (120 lbs.) H = Heavy Duty (175 lbs.) EH = Extra Heavy-Duty (250 lbs.)	Style _ = Standard Tie MH = Mounting ID = Identification MB = Mounting Base LPMB = Low Profile Mounting Base MP = Mounting Pad CCL = Cable Clamp	Qty. Per Package L = 50 C = 100 D = 500 M = 1000	Color _ = Natural 0 = UV Black 8 = Gray 30 = Heat Stabilized Black 35 = Maroon 702 = Halar

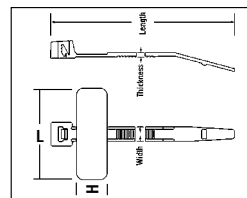
Cable-Tie Installation Tools

- Consistent, positive tension
- Flush cut-off leaves no projections to damage nearby wires or components
- Lightweight economy model for smaller jobs
- Standard and heavy-duty models feature rugged construction with comfortable, cushioned grips

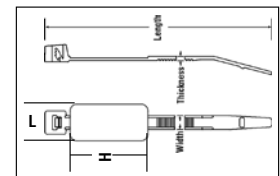
Description		Cat. No.
Economy – use w/standard & heavy-duty ties		41-990
Heavy-Duty – use w/standard & heavy-duty ties		41-995

Identification Ties

- Write-on surface
- Bundle and identify at the same time



IT1MID-C



IT2SID-C & IT4SID-C

Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Pad Size (H X L)	Qty./Bag	Cat. No.
Natural Nylon	4.0 in./102mm	.100 in./2.54mm	.044 in./1.12mm	1/16 - 7/8 in.	18 lbs.	5/16 in. x 1 in.	100	IT1MID-C
Natural Nylon	7.8 in./200mm	.181 in./4.59mm	.055 in./1.40mm	1/16 - 1-7/8 in.	50 lbs.	1-1/8 in. x 1/2 in.	100	IT2SID-C

Clamps

- Use to secure wires, cables, pipes, tubing and fiber optics
- Ultraviolet black nylon clamps available for internal and external use
- Use with #10 mounting screw



Description	Closed Diameter	Center to Center	Width	Thickness	Mounting Hole	Qty./Bag	Cat. No.
Natural Nylon	.125 in./3.18mm	.343 in./8.71mm	3/8 in.	.050 in./1.27mm	.203 in./5.16mm	100	IT125CCL-C
Natural Nylon	.250 in./6.35mm	.421 in./10.69mm	3/8 in.	.050 in./1.27mm	.203 in./5.16mm	100	IT250CCL-C
UV Black Nylon						100	IT250CCL-CO
Natural Nylon	.375 in./9.52mm	.500 in./12.70mm	1/2 in.	.060 in./1.52mm	.203 in./5.16mm	100	IT375CCL2-C
UV Black Nylon						100	IT375CCL2-CO
Natural Nylon	.500 in./12.70mm	.553 in./14.05mm	1/2 in.	.060 in./1.52mm	.203 in./5.16mm	100	IT500CCL2-C
Natural Nylon	.625 in./15.88mm	.625 in./15.88mm	1/2 in.	.060 in./1.52mm	.203 in./5.16mm	100	IT625CCL2-C
Natural Nylon	.750 in./19.05mm	.699 in./17.75mm	1/2 in.	.060 in./1.52mm	.203 in./5.16mm	100	IT750CCL2-C
Natural Nylon	1.000 in./25.40mm	.825 in./20.96mm	1/2 in.	.060 in./1.52mm	.203 in./5.16mm	100	IT1000CCL2-C

Plenum Cable Ties

- UL Listed nylon 6/6 cable ties are suitable for use in Air Handling Spaces (Plenum) in accordance with Section 300-22(C) & (D) of the National Electrical Code and Rules 12-010 (3), (4) and (5) and 12-020 of the Canadian Electrical Code, Part 1



Standard Ties

Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Mil-Spec Reference	Qty./Bag	Cat. No.
Burgundy Nylon	7.5 in./190mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 1-7/8 in.	50 lbs.	MS3367-1-9	100	IT2S-C35
Natural Nylon							100	IT2S-C
Natural Nylon							1000	IT2S-M
UV Black Nylon							100	IT2S-CO
UV Black Nylon							1000	IT2S-MO
Burgundy Nylon	11.2 in./284mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 3-1/16 in.	50 lbs.	MS3367-7-9	100	IT3S-C35
Natural Nylon							100	IT3S-C
Natural Nylon							500	IT3S-D
UV Black Nylon							100	IT3S-CO
UV Black Nylon							500	IT3S-DO
Natural Nylon	14.5 in./368mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 4-1/8 in.	50 lbs.	MS3367-2-9	100	IT4S-C
Natural Nylon							500	IT4S-D
UV Black Nylon							100	IT4S-CO
UV Black Nylon							500	IT4S-DO

Mounting Ties

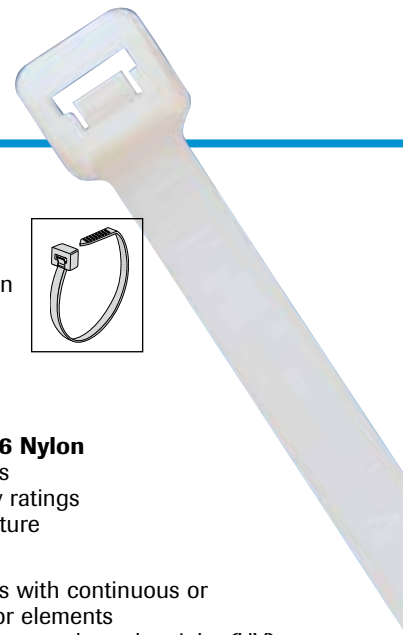
Description	Length	Width	Strap Thickness	Max. Bundle	Tensile Strength	Screw Size	Qty./Bag	Cat. No.
Natural Nylon	8.1 in./206mm	.178 in./4.52mm	.053 in./1.35mm	1/16 - 1-3/4 in.	50 lbs.	No. 10	100	IT2SMH-C
Natural Nylon							1000	IT2SMH-M
UV Black Nylon							100	IT2SMH-CO

Definition of "Air Handling Spaces"

Ducts or plenums used for environmental air and other spaces used for environmental air, such as above hung ceilings or below raised floors. This does not include plenums used for the removal of dust, loose stock or vapor, or ventilation of commercial-type cooking equipment.¹

¹UL 1565 CSA C22.2 4th Edition
UL Listing #E168851

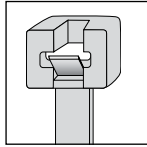




Powr-Tie™ Cable Ties

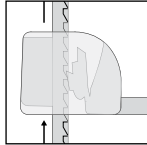
Quality Construction

- One-piece design for added strength
- Superior locking mechanism
- Exceeds industry tensile strength ratings



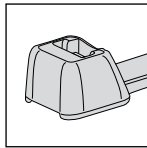
Low Insertion Force

- Tapered thin tip reduces initial friction
- Lowest insertion force with the highest tensile strength
- Reduces installation fatigue



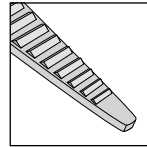
No Burrs or Sharp Edges

- Smooth corners provide added safety
- Rounded edges eliminate insulation damage



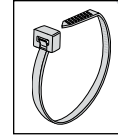
Stepped Tail Gripper

- Tapered tail grip assures positive threading
- Stepped tail allows for easier grabbing and tightening once engaged



Angled Tail

- Provides quicker initial insertion
- Lowers installation costs



Material Selection

- **ROHS Compliant**
- **Natural General Purpose 6/6 Nylon**
 - Suitable for most applications
 - Meets UL 94V-2 flammability ratings
 - 85°C/185°F working temperature
- **UV Black Nylon 6/6**
 - Suitable for most applications with continuous or extended exposure to outdoor elements
 - Weather-resistant grade, able to endure ultraviolet (UV) light
 - Meets UL 94V-2 flammability ratings
 - 85°C/185°F working temperature
- **Heat Stabilized Black Nylon 6/6**
 - Suitable for most applications with continuous or extended exposure to high temperatures
 - Meets UL standards for electrical applications
 - Meets UL 94V-2 flammability ratings
 - 125°C/257°F working temperature

Miniature (18 lb.) Ties Natural & UV Black

Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Mil-Spec Reference	Qty./Bag	Cat. No.
Natural Nylon	4.0 in./102mm	.094 in./2.39mm	.042 in./1.06mm	1/16 - 7/8 in.	18 lbs.	MS3367-4-9	100	IT1M-C
Natural Nylon							1000	IT1M-M
UV Black Nylon							100	IT1M-C0
Natural Nylon	6.1 in./154mm	.094 in./2.39mm	.042 in./1.06mm	1/16 - 3-1/2 in.	18 lbs.	—	100	IT1_5M-C
UV Black Nylon							100	IT1_5M-C0
Natural Nylon	8.1 in./206mm	.094 in./2.39mm	.042 in./1.06mm	1/16 - 2-3/16 in.	18 lbs.	—	100	IT2M-C
Natural Nylon							1000	IT2M-M
UV Black Nylon							100	IT2M-C0

*IM, 1_5M & 2M Series



Intermediate (40 lb.) Ties Natural & UV Black

Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Mil-Spec Reference	Qty./Bag	Cat. No.
Natural Nylon	5.7 in./145mm	.140 in./3.56mm	.049 in./1.24mm	1/16 - 1-7/16 in.	40 lbs.	MS3367-5-9	100	IT1_5I-C
Natural Nylon							1000	IT1_5I-M
UV Black Nylon							100	IT1_5I-C0
UV Black Nylon						MS3367-5-0	1000	IT1_5I-M0
Natural Nylon	8.8 in./224mm	.140 in./3.56mm	.049 in./1.24mm	1/16 - 2-3/8 in.	40 lbs.	MS53367-5-9	100	IT2I-C
Natural Nylon							1000	IT2I-M
UV Black Nylon							100	IT2I-C0
UV Black Nylon						MS53367-5-0	1000	IT2I-M0
Natural Nylon	11.5 in./292mm	.142 in./3.60mm	.055 in./1.40mm	1/16 - 3-3/8 in.	40 lbs.	—	100	IT3I-C
UV Black Nylon							100	IT3I-C0
Natural Nylon	14.5 in./368mm	.142 in./3.60mm	.055 in./1.40mm	1/16 - 4 in.	40 lbs.	—	100	IT4I-C
UV Black Nylon							100	IT4I-C0

*IM, 1_5 & 2I Series



Standard (50 lb.) Ties Natural, UV Black & Heat Stabilized Black

Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Mil-Spec Reference	Qty./Bag	Cat. No.
Natural Nylon	7.5 in./190mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 1-7/8 in.	50 lbs.	MS3367-1-9	100	IT2S-C
Natural Nylon							1000	IT2S-M
UV Black Nylon						MS3367-1-0	100	IT2S-C0
UV Black Nylon							1000	IT2S-M0
Natural Nylon	11.2 in./284mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 3-1/16 in.	50 lbs.	MS3367-7-9	100	IT3S-C
Natural Nylon							500	IT3S-D
UV Black Nylon						MS3367-7-0	100	IT3S-C0
UV Black Nylon							500	IT3S-D0
Natural Nylon	14.5 in./368mm	.178 in./4.52mm	.053 in./1.34mm	1/16 - 4-1/8 in.	50 lbs.	MS3367-2-9	100	IT4S-C
Natural Nylon							500	IT4S-D
UV Black Nylon						MS3367-2-0	100	IT4S-C0
UV Black Nylon							500	IT4S-D0
Natural Nylon	17.0 in./432mm	.190 in./4.82mm	.053 in./1.34mm	1/16 - 4-3/4 in.	50 lbs.	—	100	IT5S-C
UV Black Nylon							100	IT5S-C0

*2S, 3S & 4S Series
 UL Listed Nylon 6/6 cable ties are suitable for use in Air Handling Spaces (Plenums) in accordance with Section 300-22(C) & (D) of the National Electrical Code and Rules 12-010 (3), (4) & (5) and 12-020 of the Canadian Electrical Code, Part 1.



Light Heavy-Duty, Heavy-Duty & Extra Heavy-Duty Ties Natural, UV Black & Heat Stabilized Black

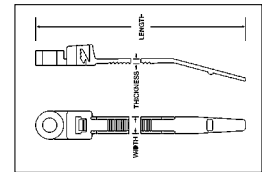
Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Mil-Spec Reference	Qty./Bag	Cat. No.
Natural Nylon	8.7/220.9mm	.300 in./7.62mm	.076 in./1.93mm	2-1/16 in.	120 lbs.	—	100	IT2LH-C
UV Black Nylon							100	IT2LH-C0
Natural Nylon	15.1 in./384mm	.300 in./7.62mm	.075 in./1.90mm	3/16-4-1/16 in.	120 lbs.	MS3367-3-9	50	IT4LH-L
UV Black Nylon						MS3367-3-0	50	IT4LH-L0
Natural Nylon	17.8 in./451mm	.300 in./7.62mm	.075 in./1.90mm	3/16-5-1/4 in.	120 lbs.	—	50	IT5LH-L
UV Black Nylon							50	IT5LH-L0
Natural Nylon	24.2 in./614mm	.300 in./7.62mm	.075 in./1.90mm	3/16-7 in.	120 lbs.	—	50	IT7LH-L
UV Black Nylon							50	IT7LH-L0
Natural Nylon	25.3 in./642mm	.340 in./8.64mm	.090 in./2.29mm	3/16-7-3/16 in.	175 lbs.	MS3367-10-9	50	IT7H-L
UV Black Nylon						MS3367-10-0	50	IT7H-L0
Natural Nylon	37.1 in./942mm	.340 in./8.64mm	.090 in./2.29mm	3/16-11 in.	175 lbs.	MS3367-13-9	50	IT11H-L
UV Black Nylon						MS3367-13-0	50	IT11H-L0
Natural Nylon	47.8 in./1214mm	.340 in./8.64mm	.090 in./2.29mm	3/8-14-1/2 in.	175 lbs.	MS3367-16-9	50	IT14H-L
UV Black Nylon						MS3367-16-0	50	IT14H-L0
UV Black Nylon	22.8 in./579mm	.50 in./12.7mm	.080 in./2.03mm	3/16-6 in.	250 lbs.	—	100	IT6EH-C0

*4LH, 7H, 11H, 14H Series



Mounting Head Ties Natural & UV Black

- Secures and positions wire bundles, cables, hoses, etc. to panels or other surfaces with one fastener to reduce time and cost
- Allows bundling before and after mounting



Description	Length	Width	Thickness	Max. Bundle	Tensile Strength	Screw Size	Qty./Bag	Cat. No.
Natural Nylon	6.0 in./152mm	.140 in./3.55mm	.048 in./1.21mm	1/16 - 1-1/4 in.	30 lbs.	No. 8	100	IT1_5IMH-C
UV Black Nylon							100	IT1_5IMH-C0
Natural Nylon	8.1 in./206mm	.178 in./4.52mm	.053 in./1.35mm	1/16 - 1-3/4 in.	50 lbs.	No. 10	100	IT2SMH-C
UV Black Nylon							1000	IT2SMH-M
Natural Nylon	11.8 in./300mm	.189 in./4.80mm	.050 in./1.27mm	1/16 - 3 in.	50 lbs.	No. 10	100	IT3SMH-C
UV Black Nylon							100	IT3SMH-C0
Natural Nylon	14.5 in./370mm	.189 in./4.80mm	.060 in./1.52mm	1/16 - 4 in.	50 lbs.	No. 10	100	IT4SMH-C
Natural Nylon	15.7 in./398mm	.300 in./7.62mm	.075 in./1.90mm	3/16 - 4-1/16 in.	120 lbs.	1/4 in.	100	IT4LHMH-C
UV Black Nylon							100	IT4LHMH-C0

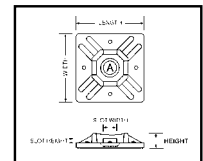
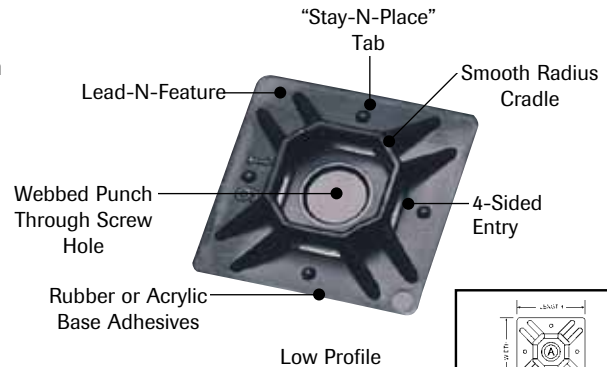
*4LH Series; **2S Series

UL Listed Nylon 6/6 cable ties are suitable for use in air handling spaces in accordance with Section 300-22(C) & (D) of the National Electrical Code.



Mounting Pads

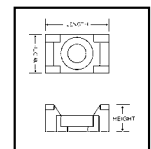
- Patented stay-in-place tab keeps cable ties from sliding down during vertical applications
- Lead-N-Feature allows easy insertion for hard to reach applications
- Four-sided entry slots save time during placement orientation
- Smooth radius cradle eliminates possible damage to cable while providing stable support
- Webbed punch through screw hole allows maximum adhesive surface area, along with easy insertion of mechanical fasteners
- Low Profile is essential in confined spaces
- UL recognized, rubber adhesive positioning device



Description	Width	Height	Slot Height	Slot Width	Screw Size	Qty./Bag	Cat. No.
Natural Nylon	.74 in./19mm	.19 in./4.8mm	.05 in./1.2mm	.20 in./5.1mm	No. 4	100	IT750MP-C
UV Black Nylon						100	IT750MP-C0
Natural Nylon	.99 in./25mm	.20 in./5.0mm	.06 in./1.5mm	.20 in./5.1mm	No. 6	100	IT1000MP-C
UV Black Nylon						100	IT1000MP-C0

Screw Mounting Bases - Standard

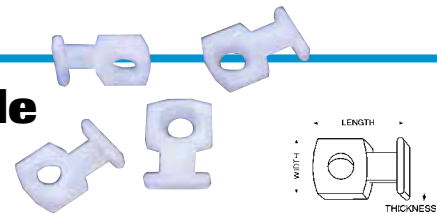
- Deep cradle design provides minimum support for larger bundles and tubing
- Recessed screw hole allows cable ties to easily pass over screw head



Description	Length	Width	Height	Slot Height	Slot Width	Screw Size	Qty./Bag	Cat. No.
Screw Mount Natural Nylon	.590 in./15mm	.370 in./9.40mm	.270 in./6.86mm	.062 in./1.59mm	.190 in./4.83mm	No. 6	100	IT1SMB-C
Screw Mount UV Black Nylon							100	IT1SMB-C0
Screw Mount Natural Nylon	.870 in./22mm	.640 in./16.26mm	.380 in./9.65mm	.125 in./3.18mm	.300 in./7.62mm	1/4 in.	100	IT2SMB-C
Screw Mount UV Black Nylon							100	IT2SMB-C0

Screw Mounting Bases - Low Profile

- Perfect for confined space, control panels or other areas where space is limited



Description	Length	Width	Height	Slot Height	Slot Width	Screw Size	Qty./Bag	Cat. No.
Low Profile Mount	.750 in./19mm	.500 in./12.70mm	.120 in./3.04mm	.062 in./1.57mm	.180 in./4.57mm	No. 8	100	IT1LPMB-C

Cable Tie Bag

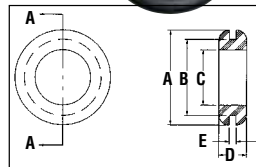
- Keep your cable ties right where you need them, eliminate loss with this convenient easy-to-use bag that clips securely onto your belt
- Includes a bag for 8 in. cable ties and a bag for 11 in. cable ties, easily clip together or used separately
- Elastic cord quickly and easily cinches to keep ties securely in place



Description	Cat. No.
Cable Tie Bag	IT-BAG

Grommets*

- Installs instantly! Flexible PVC grommets side slotted 1/16 in. for quick installation
- Snap into holes in electrical boxes, sheet metal, auto firewalls and more
- Prevents steel and other sharp edge chafing of wire insulation or cording
- Black, PVC, flexible, 60 durometer



Description	A	B	C	D	E	Qty.	Cat. No.
1/2" Grommets	55/64	.69	1/2	.25	1/16	25	774113
3/4" Grommets	15/64	1.0	3/4	.31	1/16	25	774136

*Buchanan branded

Spacer Shims

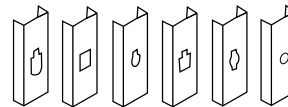
- Eliminates the need to cut platescrews for "GFCI" decorator devices when installing on tile, marble, etc.
- Supports loose outlets
- Prevents broken face plates
- Snaps over #6, #8, #10 screws



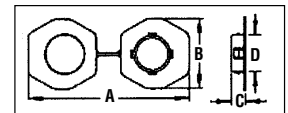
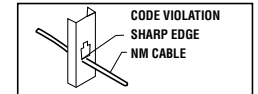
Description	Qty.	Cat. No.
Catepillar	5	772453
Catepillar	500	772451

Universal Metal Stud Bushings

- Non-metallic stud bushing fits all HOLE configurations you are likely to encounter in pre-punched steel studs
- Long pulls of cable slide smoothly through the bushing, make a difficult job easier
- Protects wire without falling out of the hole



Common hole configurations in metal studs.



Description	A	B	C	D	Qty.	Cat. No.
Stud Bushing	5.670	2.50	.505	1.30	25	772271

Flange-Type Plastic Anchor Kits

- Kits include flange-type anchors, slotted/Phillips head screws and masonry bit
- Convenient plastic storage container



Contents	Cat. No.
100 #10-12 x 1 in. Flange-type anchors, 100 #10 x 1-1/4 in. combo-combo-head, sheet-metal screws & 1-1/4 in. masonry bit (carbide-tipped)	90-052

Flexible Tubing*

- Flexible polyethylene cuts easily to desired length
- Splits open for neat "bundling" of wiring jobs
- Snaps shut to create a continuous protective cover




Description	Qty.	Cat. No.
3/8 in. Flexible Tubing	10 ft.	772240
1/2 in. Flexible Tubing	7 ft.	772241
1 in. Flexible Tubing	5 ft.	772242

*Buchanan branded



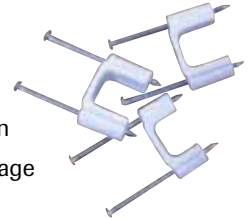
Plastic Insulated Staples

- Use with wider cable such as NM and UF
- Smooth plastic saddle prevents damage to cable
- Zinc-plated nails resist rust and corrosion

Description	Qty./Package	Cat. No.
 1/2 in. Insulated	50/Bag	BPS2-50
	100/Bag	BPS2-1
	225/Jar	BPS2-JRL
	400/Jar	BPS2B-JR
	500/Bag	BPS2-5
	5,000/Bucket	BPS2-5M
3/4 in. Insulated	50/Bag	BPS3-50
	100/Bag	BPS3-1
	200/Jar	BPS3-JRL
	250/Bag	BPS3-2

Plastic Insulated Cable Stacker


- Use with wider cable such as NM and UF
- High-grade carbon steel construction
- Smooth plastic saddle prevents damage to cable
- Zinc-plated nails resist rust and corrosion



Description	Qty./Package	Cat. No.
1/2 in. 2 Cable Stacker	25/Bag	BPS2/2-25
	50/Bag	BPS2/2-50


Carbon Steel Staples

- Use with wider cable such as NM and UF
- High-grade carbon steel construction
- Sharp-point legs drive straight without splitting wood
- Resist rust and corrosion

Description	Qty./Package	Cat. No.
 1/2 in. x 1 in.	100/Box	BCS1-1
	500/Jar	BCS1-JR
	500/Box	BCS1-5
	5,000/Bucket	BCS1-5M
9/16 in. x 1-1/4 in.	100/Box	BCS2-1
	400/Jar	BCS2-JR
	500/Box	BCS2-5
	5,000/Bucket	BCS2-5M

Coaxial Cable Straps

- Use with round cable such as CATV/VCR, RG-5, RG-6 and phone cables or with plastic and metal tubing
- Smooth plastic saddle prevents damage to cable
- Zinc-plated nails resist rust and corrosion

Description	Nail Type	Qty./Package	Cat. No.
 1/4 in. White	Standard	250/Jar	BPCXSW-JR
	Roofing	200/Jar	BPCSRB-JR
1/4 in. Black	Masonry	200/Jar	BPCXMBJR
	Standard	50/Bag	BPS4-50

Plastic Insulated Service Entrance Straps

- Use with service entrance cable and conduit
- Smooth plastic saddle prevents damage to cable
- Zinc-plated nails resist rust and corrosion



Cable Stacker

- Perfect for centering multiple cables on 2 x 4 framing members in compliance with NEC 300.4.(2)
- Use with cable such as NM and UF

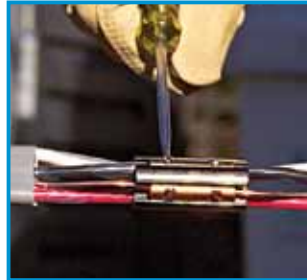


Description	Qty./Package	Cat. No.
Cable Stacker	15	BPSTCKR-15

Description	Qty./Package	Cat. No.
#6 SER & 1/2 in. EMT	50/Bag	BSER6-50
#6 & #8 SEU	50/Bag	BSEU6-50
#2 SER & 3/4 in. EMT	25/Bag	BSER2-25
#2 SEU	25/Bag	BSEU2-25
4/0 SER	5/Bag	BSER4/0-5

Thermo-Shrink® UF Splice Kits

- Direct burial rated
- 14/3 with and without ground thru 8/3 without ground, UF cable range
- Stretcher kit repairs a 7 in. to 10 in. section damaged or destroyed by a trencher
- 600V Maximum, 105°C rating
- Meets the requirements of the 2002 NEC Code 110-14(b) and UL486D



Description	Cat. No.
 UF Splice Kit - 14-8 AWG, Tubing 1.1 in. x 8 in.	46-400
 UF Stretcher Kit* - 14-8 AWG, Tubing 1.1 in. x 18 in.	46-410

*Stretcher kit connector is 11.5 in.

Thermo-Shrink® Copper Butt Splice Kits

- UL Listed
- Provides a fully-insulated butt splice
- 600V Maximum, 105°C rating



Description	Cat. No.
 Butt Splice Kit – Copper 14-8 AWG	46-404
 Butt Splice Kit – Copper 8-2 AWG	46-405

Thermo-Shrink® Al/Cu Splice Kits

- Direct burial rated, underground splice kits
- Heavy-wall heat shrink tubing with adhesive liner provides complete insulation and protection
- Connector can be used for aluminum and/or copper cable
- Meets the requirements of the 2005 NEC Code 110-14(B)
- 600V maximum, 105°C rating

Description	Cat. No.
 Underground Splice Kit – 8 to 4 AWG, Tubing 3/4 in. x 6 in.	46-401
 Underground Splice Kit – 4 AWG to 1/0, Tubing 1.1 in. x 8 in.	46-402
 Underground Splice Kit – 1/0 to 250 KCMIL, Tubing 1-1/2 in. x 12 in.	46-403

Thermo-Shrink® Heat Shrink Kit

Kit includes:

- HEAT ELITE PRO™ Heat Gun
- Eleven sizes of thin-wall heat shrinkable tubing disks (3/64 in. – 1 in.)
- Small deflector
- Premium T®-Cutter Wire Cutter

Description	Cat. No.
Kit includes: 46-203, 45-123, 45-941 & 46-600 through 46-610	46-007





Thermo-Shrink® Thin-Wall Heat Shrinkable Tubing

- Polyolefin material electrically insulates and protects in-line components, disconnect terminals and splices with its high strength and excellent resilience
- Use to bundle wires for very flexible light-duty harnesses
- Highly flame-retardant and flexible; resistant to common fluids and solvents
- Meets UL 486D 125°C VW-1 600V; Material: No PBB's, PBBE's, conforms to ROHS
- 2:1 shrink ratio; Minimum shrink temperature: 70°C; Operating temperature: -55°C to +125°C
- RoHS compliant



Technical Data		
Property	Test Method	Typical Data
Tensile strength	ASTM D 638	14MPa
Elongation at break	ASTM D 638	600%
Elongation after aging at 175°C for 168 hours	UL 224	350%
Flammability	UL 224 VW-1	Pass
Heat shock (250°C/4 hours)	UL 224	No cracking
Cold bend test (-55°C/4 hours)	UL 224	No cracking
Dielectric strength	ASTM D 150	20KV/mm
Volume resistance	ASTM D 876	1014Ω.cm
Copper corrosion	UL 224	Pass
Chemical resistance	UL 224	Pass
Longitudinal shrinkage	UL 224	0±5%
Eccentricity	UL 224	30%

Normal Size (in.)	Expanded I.D. (Min.)	Nominal Recovered I.D. (Max.)	Recovered Wall Thickness +/- 10%	Cable Range AWG*	Length (Pkg.)	Cat. No.
3/64	0.063"/1.6mm	0.024"/0.6mm	0.013"/0.33mm	22-18	4 ft. (Disk)	46-600
1/16	0.079"/2.0mm	0.031"/0.8mm	0.014"/0.36mm	16	4 ft. (Disk)	46-601
3/32	0.122"/3.1mm	0.047"/1.2mm	0.017"/0.44mm	14-12	4 ft. (Disk)	46-602
1/8	0.146"/3.7mm	0.063"/1.6mm	0.017"/0.44mm	24-20	6 in. (Bag)	46-310
					4 ft. (Disk)	46-603
3/16	0.205"/5.2mm	0.094"/2.4mm	0.020"/0.50mm	20-14	1,000 ft. (Spool)	46-312
					6 in. (Bag)	46-313
					4 ft. (Disk)	46-604
1/4	0.268"/6.8mm	0.126"/3.2mm	0.022"/0.56mm	14-8	1,000 ft. (Spool)	46-315
					6 in. (Bag)	46-316
5/16	0.346"/8.8mm	0.157"/4.0mm	0.022"/0.56mm	10-6	4 ft. (Disk)	46-606
					6 in. (Bag)	46-319
3/8	0.421"/10.7mm	0.185"/4.7mm	0.022"/0.56mm	8-4	4 ft. (Disk)	46-607
					200 ft. (Spool)	46-321
1/2	0.539"/13.7mm	0.252"/6.4mm	0.026"/0.65mm	4-1	6 in. (Bag)	46-322
					4 ft. (Disk)	46-608
3/4	0.807"/20.5mm	0.374"/9.5mm	0.027"/0.69mm	2-250 MCM	200 ft. (Spool)	46-324
					6 in. (Bag)	46-325
					4 ft. (Disk)	46-609
1	1.043"/26.5mm	0.500"/12.7mm	0.031"/0.80mm	2/0-500 MCM	200 ft. (Spool)	46-327
					6 in. (Bag)	46-328
					4 ft. (Disk)	46-610
					100 ft. (Spool)	46-330

*Reference only - Consult the wire manufacturer's catalog for specific O.D. of wire and insulation.

Thermo-Shrink® Medium-Wall Heat Shrinkable End Caps

- Creates a watertight seal to protect ends of power and control cords
- Protects against oxidation, ozone, UV radiation, etc.
- Coated with hot melt adhesive to ensure environment seal
- Fits easily over end of cable
- Protect power cables up to 1000V and telecommunication cable
- Recommended for both open air and underground power distribution cables with PVC, lead or XLPE sheaths
- Thermally stabilized cross-linked polyolefin, coated with specially designed hot melt adhesive



Technical Data		
Property	Test Method	Typical Data
Operating Temperature	IEC 216	-55°C to +110°C
Tensile Strength	ASTM D 638	>14 MPa
Elongation at break	ASTM D 638	>400%
Density	ASTM D 792	1.05g/cm ³
Elongation of break after aging	150°C, 168 hrs.	>300%
Dielectric Strength	IEC 243	>15KV/mm
Volume Resistance	IEC 93	1014Ω.cm

Expanded I.D. (Min.)	Recovered I.D. (Max.)	Recovered Wall Thickness +/-10%	Cable Dia. Range*	Length	Cat. No.
0.55"/14mm	0.18"/4.5mm	0.079"/2.0mm	0.20"/5mm - 0.47"/12mm	1.77"/ 45mm	46-381
0.98"/25mm	0.31"/8mm	0.091"/2.3mm	0.39"/10mm - 0.71"/18mm	2.76"/ 70mm	46-382
1.38"/35mm	0.59"/15mm	0.118"/3.0mm	0.67"/17mm - 1.18"/30mm	3.35"/ 85mm	46-383
2.95"/75mm	1.38"/35mm	0.138"/3.5mm	1.77"/45mm - 2.76"/70mm	5.12"/ 130mm	46-384

*Consult the wire manufacturer's catalog for specific O.D. of wire and insulation.

Thermo-Shrink® Heavy-Wall Heat Shrinkable Tubing

- TS-46 irradiated cross-linked polyolefin with 3:1 standard shrink ratio
- Adhesive liner provides complete insulation and protection to electrical splices in above-grade, underground or underwater applications
- Maximum flame retardancy
- Meets UL 486D, CSA C22.2 No. 198.2, ANSI C119.1, Western Underground Guides Nos. 2.4, 2.5, MIL-DTL-23053/15, IEEE 383 Vertical Flame Test, ANSI C37.20.2, ICEA S-19-8 and NEMA insulation thickness requirements
- Continuous operating temperature from -55°C to 110°C
- Rated for 600V, 90°C continuous use
- Shrink temperature of 120°C



Model	Expanded I.D. (Min.) (In.)	Recovered I.D. (Max.) (In.)	Nominal Recovered Wall Thickness (In.)	Cable Range*	Length (In.)	Cat. No.
TS-46-400	.400	.150	.060	12-6 AWG	6	46-343
					9	46-344
					48	46-346
TS-46-750	.750	.240	.090	8-1/0 AWG	6	46-347
					9	46-348
					48	46-350
TS-46-1100	1.100	.350	.120	2-4/0 AWG	6	46-351
					9	46-352
					48	46-354
TS-46-1500	1.500	.470	.160	3/0 AWG-400 KCMIL	9	46-356
					12	46-357
					48	46-358
TS-46-2000	2.000	.630	.160	250-750 KCMIL	9	46-369
					18	46-371
					48	46-372

*Reference only. Consult the wire manufacturer's catalog for specific O.D. of wire and insulation.

Properties	Heavy Wall
Shrink Temperatures	120°C to 250°C (200°C recommended)
Continuous Operating Temperature	-55°C to 110°C
Tensile Strength (PSI)	2,100 PSI min.
Ultimate Elongation	600% min.
Secant Modulus @ 2% Strain	25,000 PSI max.
Specific Gravity	1.20 max.
Heat Aging, 168 hrs. @ 175°C Tensile Strength Elongation	500%
Heat Shock, 4 hrs. @ 225°C	No cracks, flowing or dripping
Flammability	Self-extinguishing
Low Temperature Brittle Point	-55°C
Volume Resistivity	1013ohm-cm min.
Dielectric Strength	500V/mil (20kV/min.)
Corrosive Effect	Non-corrosive
Solvent Resistance 24 hrs. Immersion per MIL-DTL-23053	Good to excellent
Water Absorption	0.5%
Fungus Resistance	No growth
Longitudinal Change, 3 min.	+1%/-10%



All values are typical performance data and are not to be used as design data.

Heat Elite Heat Gun Kit

- Temperature range – 930°F (500°C)
- Two-step switch for heat and air flow adjustments
- Double-insulated power cord
- Ergonomical distribution of weight
- Comfortable non-slip handle for ease of use



Description	Cat. No.
Heat Elite Heat Gun Kit	46-202
46-202 Kit Includes:	Cat. No.
Heat Elite Heat Gun	46-202
Small Deflector	46-941
Wide-Slot Adapter	46-954

HEAT ELITE PRO™ Heat Gun Kit

- Temperature range – 180°F - 1200°F (80 - 650°C)
- Double-insulated power cord
- Ergonomical distribution of weight
- Comfortable non-slip handle for ease of use
- LCD display with memory functions
- Temperature and airflow adjustments
- Stand-by mode to minimize the energy consumption
- Ceramic heating element ensures long-term coil performance



Description	Cat. No.
HEAT ELITE PRO™ Heat Gun Kit	46-203
46-203 Kit Includes:	Cat. No.
Heat Elite Heat Gun	46-203
Small Deflector	46-941
Reduction Adapter	46-950
Wide-Slot Adapter	46-954

Heat Elite Plus LCD Heat Gun Kit

- Temperature range – 180°F - 1020°F (100 - 550°C)
- Two-step switch for heat and air flow adjustments
- Double-insulated power cord
- Ergonomical distribution of weight
- Comfortable non-slip handle for ease of use
- Potentiometer for infinitely temperature adjustment



Description	Cat. No.
Heat Elite Plus LCD Heat Gun Kit	46-204
46-204 Kit Includes:	Cat. No.
Heat Elite Plus LCD Heat Gun	46-204
Small Deflector	46-941
Welding Adapter	46-952
Solder Reflector Adapter	46-953
Overlap Adapter	46-955
Pressure Roller	46-956

Heat Gun Accessories



Description	Cat. No.
Small Deflector, 1-1/4 in. diameter (For use with all Heat Elite Heat Guns)	46-941
Reduction Adapter (For use with 46-203 and 46-204)	46-950
Glass Protection Adapter (For use with all Heat Elite Heat Guns)	46-951
Welding Adapter (For use with 46-203 and 46-204)	46-952
Solder Reflector Adapter (For use with 46-204)	46-953
Wide-Slot Adapter (For use with all Heat Elite Heat Guns)	46-954
Overlap Adapter (For use with 46-203 and 46-204)	46-955
Pressure Roller (For use with 46-204)	46-956

Wire Marker Booklets

- Convenient pocket-size booklets
- Plastic-impregnated cloth construction for long-lasting durability
- Resists abrasion, moisture, dirt and oil
- Perforated 1/4 in. x 1-1/2 in. markers can be separated into half-length sizes
- Non-smear black legend ensures high visibility
- Self-sticking on wire and cable
- For applications above or below ground



Specifications:

Temperature Range: -40°F to 180°F (-40°C to 82°C)
Adhesion: 45 oz./in. width ultimate

Legend Assortments

Legend	Qty.	Cat. No.
0-9	45 Markers each	44-101
A-Z, 0-15, +, -, /	10 Markers each	44-102
1-48	10 Markers each	44-103
46-90	10 Markers each	44-104
1, 2, 3	150 Markers each	44-105
A, B, C	150 Markers each	44-106
A-Z	45 Markers each	44-148***
T1, T2, T3	150 Markers each	44-107
L1, L2, L3	150 Markers each	44-108
1-15	6 Markers each	44-109
16-90	4 Markers each	
A-Z	2 Markers each	
+, -, /, 0	2 Markers each	44-110
1, 2, 3	45 Markers each	
A, B, C	45 Markers each	
T1, T2, T3	30 Markers each	
L1, L2, L3	30 Markers each	
+, -, AC, DC POS, NEG, GND NEUT SPARE, BLANK	45 Markers each 33 Markers each 27 Markers each 21 Markers each	44-111**

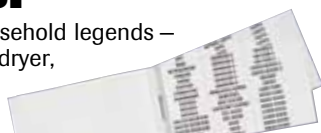
Ten pages per booklet with each page bearing the legend assortment indicated. All booklets (except 44-111) contain 450 wire markers and 450 terminal markers.

**Booklet 44-111 includes 348 wire markers and 348 terminal markers.

***Booklet 44-148 contains 26 pages, one page of 45 markers per letter, 1170 total markers.

Load Center

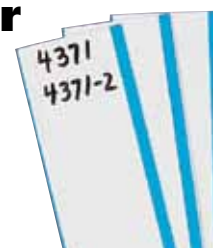
- Contains common household legends – bedroom, living room, dryer, water heater, security system, etc.



Description	Cat. No.
Load Center Wire Marker Booklet	44-154

Write-On Marker Cards

- Use for developing personal identification systems
- Cloth write-on surface
- Accepts most writing instruments



Marker Size	Qty.	Cat. No.
5/8 in. x 1-1/2 in.	14/card	44-753

Wire Marker Dispenser

- Convenient pocket-size case holds ten wire marker rolls
- Dispenser tab holds tapes firmly in place – allows removal of proper tape length without waste
- Flip top for easy access and refill
- Built-in hook for hanging from belt or tool pouch
- High-quality adhesive and 3 mil. thickness provide long-lasting, low-profile application
- Each plastic reel holds Tyvek® tape

Specifications:

Temperature Range: -40°F to 180°F (-40°C to 82°C)
Adhesion: 25 oz./in. width ultimate



Description	Cat. No.
Dispenser w/0-9 legend rolls	42-301
Refill pack with one each of 0-9 legend rolls	42-399

Write-On Marker Booklets*

- Use for developing personal identification systems
- Surface accepts pen, pencil or rubber stamp



Marker Size* (In.)	Markers per page	Pages per book	Cat. No.
1 x 2-1/2	6	10	44-151
1 x 5	3	10	44-152

*Write-on area for 2-1/2 in. markers is 3/4 in. x 1 in. Write-on area for 5 in. markers is 1 in. x 1 in., Adhesion: .25 oz./in. ultimate width

Marking Pen

- Fast-drying, permanent ink will not smear
- Use on write-on marker cards and write-on cable-tie marker plates



Description	Cat. No.
Marking Pen w/black ink	41-697

Multi-Purpose Cable Ties

- General purpose cable tie for every day bundling and cable management
- UL recognized



Size	Thickness X Width (in.)	Color	Tensile Strength (lbs.)	Pkg. Qty.	Cat. No.
Miniature Ties					
4"	.039 x .095	Natural	18	100	B-4-18-9-C
4"	.039 x .095	UV Black	18	100	B-4-18-0-C
Intermediate Ties					
6"	.047 x .142	Natural	40	100	B-6-40-9-C
6"	.047 x .142	Natural	40	1000	B-6-40-9-M
6"	.047 x .142	UV Black	40	100	B-6-40-0-C
Intermediate Ties					
8"	.053 x .178	Burgundy	50	100	B-8-50-35-C
11"	.053 x .178	Burgundy	50	100	B-11-50-35-C
Standard Ties					
8"	.057 x .181	Natural	50	100	B-8-50-9-C
8"	.057 x .181	Natural	50	1000	B-8-50-9-M
8"	.057 x .181	UV Black	50	100	B-8-50-0-C
8"	.057 x .181	UV Black	50	1000	B-8-50-0-M
11"	.057 x .181	Natural	50	100	B-11-50-9-C
11"	.057 x .181	Natural	50	500	B-11-50-9-D
11"	.057 x .181	UV Black	50	100	B-11-50-0-C
11"	.057 x .181	UV Black	50	500	B-11-50-0-D
14"	.057 x .181	Natural	50	100	B-14-50-9-C
14"	.057 x .181	Natural	50	500	B-14-50-9-D
14"	.057 x .181	UV Black	50	100	B-14-50-0-C
14"	.057 x .181	UV Black	50	500	B-14-50-0-D
Heavy-Duty Ties					
14"	.066 x .299	Natural	120	50	B-14-120-9-C
14"	.066 x .299	UV Black	120	50	B-14-120-0-L
24"	.066 x .299	Natural	175	50	B-24-175-9-L
24"	.066 x .299	UV Black	175	50	B-24-175-0-L
36"	.066 x .299	Natural	175	50	B-36-175-9-L
48"	.066 x .299	Natural	175	50	B-48-175-9-L

Size	Thickness X Width (in.)	Color	Tensile Strength (lbs.)	Pkg. Qty.	Cat. No.
Mounting Ties					
8"	.057 x .189	Natural	50	100	B-8-50MT-9-C
8"	.057 x .189	UV Black	50	100	B-8-50MT-0-C
14"	.053 x .178	Natural	50	100	B-14-50MT-9-C
Mounting Pads					
3/4" x 3/4"	.142 Max. Tie Width	Natural	N/A	100	BMP-750-9-C
1" x 1"	.189 Max. Tie Width	Natural	N/A	100	BMP-1000-9-C

Wire Marker Booklets

- Self-sticking on wire and cable
- Perforated 1/4" x 1-1/2" markers
- For applications above or below ground
- Resists abrasion, moisture, dirt and oil
- Non-smear black legend ensures high visibility

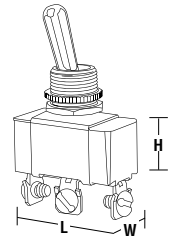


Legend	Qty.	Cat. No.
0-9	45 Markers each	775101
A-Z, 0-15, +, -, /	10 Markers each	775102
1-45	10 Markers each	775103
46-90	10 Markers each	775104

Ten pages per booklet with each page bearing the legend assortment indicated. All booklets contain 450 wire and terminal markers.

Standard & Heavy-Duty Toggle Switches

- Great for power tool and motor control switch applications
- Rugged long-wearing solid brass/nickel-plated bushings
- 1/2 in. diameter mounting hole
- Dielectric Strength: 1500V
- Mechanical Life: 100,000 cycles
- Operating Temperature: 32°F to 185°F (0°C to 85°C)
- DC Rating: Factory tested 100,000 cycles to 21 Amp 14.8 VDC



Product	Description	Poles	Circuitry	Termination Style	No. of Terminals	Rating			Dimensions (L" x W" x H")	Cat. No.					
						Amps 125 VAC	Amps 227 Vac	HP 125-250 VAC							
	Toggle switch with On-Off Face-plate	SPST	On-Off	Screw	2	20	10	3/4	1.13 x .57 x .61	774011					
				Spade						774008					
										774010					
	Toggle Switch		On-Off	Spade						2	20	10	3/4	1.13 x .57 x .61	774093
			(On)-Off	Screw											
															774088BK†
	Toggle Switch w/boot	SPST	On-Off	Spade	2	20	20	3/4	1.18 x .68 x .75	774111BK†					
	Toggle Switch	SPDT	On-On	Screw	3	20	10	3/4	1.13 x .57 x .61	774012					
			On-On	Spade						774100					
			On-Off-On	Screw						774013					
			On-Off-On	Spade						774027					
			On-Off-(On)	Screw						774094					
			(On)-Off-(On)	Screw						774009					
	Heavy-Duty Toggle Switch	DPST	On-Off	Screw	4	20	10	1-1/2	1.30 x .76 x .80	774014					
			On-Off	Spade						774005					
			(On)-Off	Screw						774103					
	Heavy-Duty Toggle Switch	DPDT	On-On	Screw	6	20	10	1-1/2	1.30 x .76 x .80	774015					
			On-Off-On	Screw						774015BK†					
			On-Off-On	Spade						774016					
			(On)-Off-(On)	Screw						774003					
			(On)-Off-(On)	Spade						774000					
	Toggle Switch	3PDT	On-On	Screw	9	15	10*	3/4	1.31 x 1.09 x .80	774089					
			On-Off-On							774089BK†					
										774092					

*250VAC, Dielectric strength: 1000V

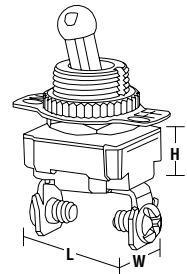
() denotes momentary action



†Bulk Package of 100



Note: All spade terminals are 1/4" (.250).

Medium & Light-Duty Toggle Switches

- Great for household appliances and equipment
- Bat toggle switch, 774007, is ideal for battery-powered equipment including trimmers and lawn mowers
- Wire leads are #18 AWG, 6 in. stripped wire
- 1/2 in. diameter mounting hole

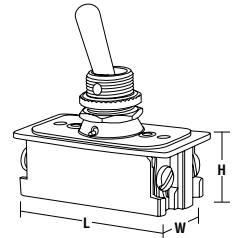



Product	Description	Poles	Circuitry	Termination Style	No. of Terminals	Rating	Dimensions (L" x W" x H")	Cat. No.
	Bat Toggle with On-Off Faceplate	SPST	On-Off	Screw	2	6 Amps 120 VAC, 3 Amps 240 VAC	.69 x .55 x .34	774017
			On-Off	Wire Leads	2	4 Amps 250VAC/DC, 8 Amps 125VAC/DC, 10 Amps 125 VAC, 1/3 HP 125 VAC	.98 x .64 x .62	774018
	Bat Toggle*		On-Term Ground	Spade	1	21 Amps 14 VDC	.69 x .55 x .34	774007
	Short Ball Toggle Switch	SPST	On-Off	Wire Leads	2	6 Amps 125 VAC, 3 Amps 250 VAC	.89 x .47 x .55	774002

 ^{us}  *DC rating not CSA or RU listed.

Extra Heavy-Duty AC/DC Toggle Switches

- The switch that can handle your heavy-duty requirements
- Quick-make/quick-break type switches are ideal for DC voltage applications
- Perfect for industrial motor control, with its sturdy metal construction and stiff actuation force, it will withstand the abuses of virtually any application





Product	Description	Poles	Circuitry	Termination Style	No. of Terminals	Rating			Dimensions (L" x W" x H")	Cat. No.
						Amps 125 VAC	Amps 227 Vac	HP 125-250 VAC		
	Heavy-Duty Toggle Switch	DPST	On-Off	Screw	4	16	8	1	1.75 x .84 x .76	774096
						20	10	1-1/2	2.09 x 1.00 x .90	774097



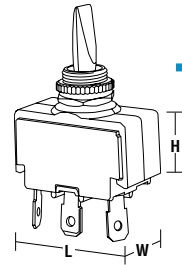
Toggle Switch Accessories




- These neoprene covers are great for outdoor and other environmentally tough conditions. They screw onto toggle switches to protect switches from moisture, dust and dirt.
- Nickel indicator plate fits easily on most toggle switches to identify the On-Off positions

Product	Description	Mounting	Dimensions	Qty./Card	Cat. No.
	Toggle Switch Cover	15/32 - 32 NS-2B	.93 Height x .62 Base Dia.	2	774020
	Push Button Switch Cover (Clear)	3/8 - 27 NS-2B	.59 Height x .60 Base Dia. x .34 I.D.	2	774117

Double Insulated Plastic Toggle Switches

- Great for outdoor, marine/recreational equipment, automotive and weather resistant applications
- Double-insulated with an internal "O" ring design for moisture and dust resistance
- 1/2 in. diameter mounting hole

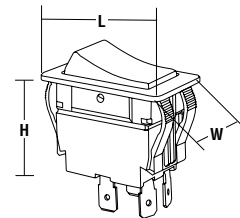





Product	Description	Poles	Circuitry	Termination Style	No. of Terminals	Rating			Dimensions (L" x W" x H")	Cat. No.
						Amps 125 VAC	Amps 250 VAC			
	Double Insulated, Plastic Toggle Switch	SPST	On-Off	Screw	2	20	10	1.37 x .76 x .94		774019
		SPDT	(On)-Off-(On)	Spade	3					774004BK†
		DPDT	(On)-Off-(On)	Spade	6					774006

c  () Denotes momentary action †Bulk Package of 100

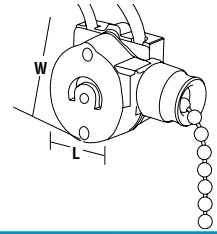
Full-Size Rocker Switches

- For commercial appliances, industrial controls, automotive and marine applications
- Moisture- and dust-resistant
- Suitable for low-voltage DC applications
- Recommended .830 in. x 1.450 in. mounting hole, .125 in. panel thickness
- Operating temperature: 32°F to 185°F (0°C to 85°C)



Product	Description	Poles	Circuitry	Termination Style	No. of Terminals	Rating			Dimensions (L" x W" x H")	Cat. No.
						Amps 125 VAC	Amps 227 Vac	HP 110-250 VAC		
	Black Rocker Switch	SPST	On-Off	Spade	2	20	15	2	1.70 x .97 x 1.09	774045
	Black Rocker Switch	DPDT	On-Off-On	Spade	6	20	15	2	1.70 x .97 x 1.09	774040 774040BK†
	Red Lighted Rocker Switch***	DPST	On-Off	Spade	4	15	10*	3/4**	1.70 x .97 x 1.09	774056

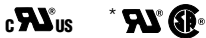
c  ***  **HP 125-250VAC †Bulk package of 100



Lever & Pull Chain Switches

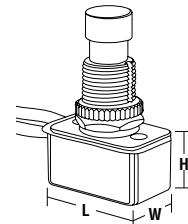
- Use for ceiling fixtures, lamps and fans
- Wire leads are #18 AWG, 6 in. stripped wire
- Push in connectors for #18 AWG wire
- 13/32 in. diameter mounting hole

Product	Description	Pull-Chain Color	Poles	Circuitry	Termination Type	Circuit	Rating			Dimensions (L" x W" x H")	Cat. No.
							Amps 125 VAC	Amps 250 Vac	Amps 125 VL		
	All-Angle Lever Switch*	Nickel	SPST	On-Off	Wire Leads	2 Pos - 2 Wire	6	3	—	1.50 x 1.28 x .50	774035
	Pull Chain	Nickel	SPST	On-Off	Wire Leads	2 Pos - 2 Wire	6	3	3	.92 x .88 x .67	774031
	Pull Chain	Brass	SPST	On-Off	Wire Leads	2 Pos - 2 Wire	6	3	3	.92 x .88 x .67	774032
	3-Speed Pull Chain*	Brass	SPTT	Off-On-On-On	Push-In	4 Pos - 4 Wire	6	3	—	1.43 x 1.25 x .73	774034
	3-Speed Pull Chain	Brass	SPTT	Off-On(A)-On(B)-On(A+B)	Wire Leads	4 Pos - 3 Wire	6	3	—	.87 x 1.05 x .65	774037



Push-Button Switches

- Great for household appliances, lamps and motor controls
- Available in normally open, normally closed and standard On-Off circuitry
- Wire leads are #18 AWG, 6 in. stripped wire
- 1/2 in. diameter mounting hole

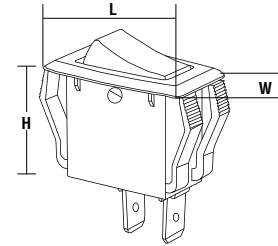


Product	Description	Actuator	Poles	Circuitry	Termination Style	No. of Terminals	Ratings	Dimensions (L" x W" x H")	Cat. No.
	Momentary Contact Push-Button Switch	Black Plastic	SPST NO	(On)-Off	Screw	2	6 Amp 120 VAC, 3 Amp 240 VAC	.88 x .54 x .35	774022
	Maintained Contact Push-Button Switch	Black Plastic	SPST	On-Off	Wire Leads	2	8 Amp 125 VAC/DC, 4 Amp 250 VAC/DC, 10 Amp 125 VAC, 1/3 HP 125	.98 x .64 x .62	774021
	Momentary Contact Push-Button Switch**	Nickel Plated	SPST NO	(On)-Off	Screw	2	15 Amp 125 VAC, 10 Amp 250 VAC	1.38 x .58 x .60	774085

** () Denotes momentary action

Appliance Rocker Switches

- Great for home appliances, computer equipment, automotive and industrial controls
- Appliance Rockers fit standard .55 in. x 1.12 in. panel cut outs
- Miniature Rockers fit .520 in. x .776 in. panel cut outs
- Plain and lighted versions available
- Operating temperature: 32°F to 185°F (0°C to 85°C)

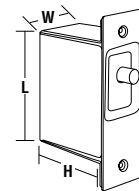


Product	Description	Rocker	Poles	Circuitry	Termination Style	No. of Terminals	Ratings	Dimensions (L" x W" x H")	Cat. No.
	Appliance Rocker Switch	Black	SPST	On-Off	Spade	2	16 Amp 1/3 HP 125 VAC, 10 Amp 1/2 HP 250 VAC	1.24 x .68 x .77	774038
			SPDT	On-On	Spade	3			774049BK†
			SPDT	On-Off-On	Spade	3			774059
									774059BK†
	Appliance Rocker Switch	Red Lighted	SPST	On-Off	Spade	3*	16 Amp 1/3 HP 125 VAC, 10 Amp 1/2 HP 250 VAC	1.24 x .68 x .77	774039

cRU[®] †Bulk Package of 100 *3rd terminal to power lighted rocker

Door & Slide Switches

- Standard slide switch fits 9/16 in. x 7/8 in. opening
- Door switches are great for closets, turning the light on when the door is open and off when it is closed
- Door switch kit comes with metal box, cover plate and mounting hardware

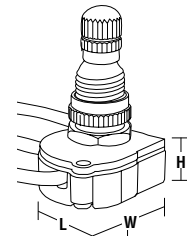


Product	Description	Color	Poles	Circuitry	Termination Style	Ratings	Dimensions (L" x W" x H")	Cat. No.
	AC/DC Door Switch Kit	White Button	SPST	Normally On-(Off)	Wire Leads	10 Amp 1/3 HP 125/250VAC	1.25 x 2.75 x 2.0	774026K
	Door Replacement Switch	White Button	SPST	Normally On-(Off)	Wire Leads	10 Amp 1/3 HP 125/250VAC	1.17 x .69 x .98	774026BK†

RU[®] () cRU[®] () Denotes momentary action †Bulk package of 25

Rotary Switches

- Rotary switches are perfect for household appliances, ceiling fixtures and lamps
- Single or three-position switches available
- #18 AWG, 6 in. stripped wire leads



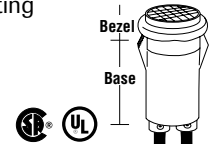
Product	Description	Color	Poles	Circuitry	Termination Style	Ratings	Dimensions (L" x W" x H")	Cat. No.
	Rotary Switch	Brass Plated	SPST	On-Off	Wire Leads	6 Amp 125VAC, 3 Amp 250VAC	.97 x .80 x .39	774061
	3-Way Rotary Switch	Brass Plated	SPTT	Off-On(A)-On(B)-On(A+B)	Wire Leads	6 Amp 125VAC, 3 Amp 250VAC	.86 x 1.03 x .34	774062

Indicator Light Part No. System

Series	Voltage	Color	Mounting Diameter Lens Style	Terminators
77	5 - 14V	1 - Red	1 - 1/2 in. Raised	1 - 6 in. Wire Leads
	6 - 28V	2 - Green	2 - 1/2 in. Flush	2 - .187 in. Spade
	7 - 125V	3 - Amber	3 - 5/16 in. Flush	—
	8 - 250V	4 - Blue	—	—
	—	5 - Clear	—	—

Flush Indicator Lights

- Nylon body with flush transparent polycarbonate lens and stainless steel bezel, 94V-2 flammability rating
- 6 in. wire leads, 1/2 in. mounting diameter
- Lamp voltage is AC/DC
- Operating Temperature: Nylon Body: 140°C
Polycarbonate lens: 135°C



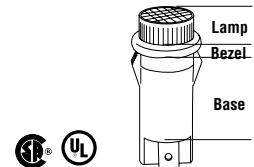
Product	Description	Lens Color	Lamp Voltage	Watts	Amp Rating	Average Life (hrs.)	Lamp Type	Termination Style	Height (Base" x Bezel")	Cat. No.
	Flush Indicator Light	Red	125V	1/3	2mA Max.	25,000	Neon	6" Wire Leads	.91 x .10	777121*
										777121BK†
	Flush Indicator Light	Green	125V	1/3	2mA Max.	15,000	Neon	6" Wire Leads	.91 x .10	777221
										777221BK†
	Flush Indicator Light	Amber	125V	1/3	2mA Max.	25,000	Neon	6" Wire Leads	.91 x .10	777321
										777321BK†

*VDE certified

†Bulk Package of 100

Raised Indicator Lights

- Nylon body with raised transparent polycarbonate lens and stainless steel bezel, 94V-2 flammability rating
- 1/2 in. mounting diameter
- Lamp voltage is AC/DC
- Operating Temperature: Nylon Body: 140°C
Polycarbonate lens: 135°C



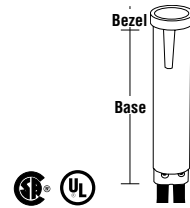
Product	Description	Lens Color	Lamp Voltage	Watts	Amp Rating	Average Life (hrs.)	Lamp Type	Termination Style	Height (Base" x Bezel")	Cat. No.	
	Raised Indicator Light	Red	14V	1.2	.08	50,000	Incandescent	6" Wire Leads	.91 x .10 x .20	775111*	
		Red	28V	1.2	.04	25,000	Incandescent	6" Wire Leads	.91 x .10 x .20	776111*	
		Green	28V	1.2	.04	25,000	Incandescent	6" Wire Leads	.91 x .10 x .20	776211*	
		Amber	28V	1.2	.04	25,000	Incandescent	6" Wire Leads	.91 x .10 x .20	776311*	
		Red	125V	1/3	2mA Max.	25,000	Neon	6" Wire Leads	.91 x .10 x .20	777111*	
		Green	125V	1/3	2mA Max.	15,000	Neon	6" Wire Leads	.91 x .10 x .20	777211*	
		Amber	125V	1/3	2mA Max.	25,000	Neon	6" Wire Leads	.91 x .10 x .20	777311*	
		Red	250V	1/2	2mA Max.	25,000	Neon	6" Wire Leads	.91 x .10 x .20	778111*	
		Green	250V	1/2	2mA Max.	15,000	Neon	6" Wire Leads	.91 x .10 x .20	778211*	
	Raised Indicator Light	Green	28V	1.2	.04	25,000	Incandescent	.187" Spade	1.09 x .10 x .20	776212BK†	
		Amber	28V	1.2	.04	25,000	Incandescent	.187" Spade	1.09 x .10 x .20	776312BK†	
		Red	125V	1/3	2mA Max.	25,000	Neon	.187" Spade	1.09 x .10 x .20	777112	
											776112BK†
		Green	125V	1/3	2mA Max.	15,000	Neon	.187" Spade	1.09 x .10 x .20	777212	
											777212BK†


*VDE certified

†Bulk Package of 100

Miniature Indicator Lights

- Nylon body with flush transparent polycarbonate lens
- 6 in. wire leads
- 5/16 in. mounting diameter
- Lamp voltage is AC/DC

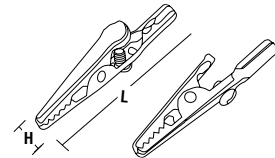





Product	Description	Lens Color	Lamp Voltage	Watts	Amp Rating	Average Life (hrs.)	Lamp Type	Termination Style	Height (Base" x Bezel")	Cat. No.
	Miniature Indicator Light	Red	125V	1/3	2mA Max.	25,000	Neon	6 in. Wire Leads	1.43 x .13	777131
		Green	125V	1/3	2mA Max.	15,000	Neon	6 in. Wire Leads	1.43 x .13	777231
		Amber	125V	1/3	2mA Max.	25,000	Neon	6 in. Wire Leads	1.43 x .13	777331 777331BK†

†Bulk Package of 100

Alligator Clips

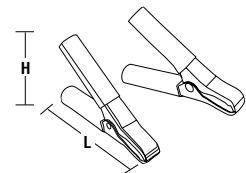
- Great for temporary connections, testing wires and troubleshooting projects
- Spring-loaded, grab-tight jaws make these clips quick and easy-to-use
- For screw and/or crimp connections




Product	Description	Amps	Dimensions (L" x H")	Jaw Opening	Wire Gauge	Qty.	Cat. No.
	Non-Insulated	10	2 x 7/16	5/16 in.	#22 - #14	2	770200L
	Insulated Barrel	10	2-1/2 x 7/16	5/16 in.	#22 - #14	1 Red/1 Black	770204L
	Fully Insulated	10	2-1/2 x 7/16	5/16 in.	#22 - #14	1 Red/1 Black	770205L

Plier-Type Battery Clamps

- Great for battery charging and test equipment
- Insulated grips are color-coded for positive (red) and negative (black) identification
- For crimp or solder connections



Product	Description	Amps	Dimensions (L" x H")	Jaw Opening	Wire Dia.	Qty.	Cat. No.
	Plier-Type Battery Clip, Steel	50	2-7/8 x 2	1-1/8 in.	9/32 in.	1 Red/1 Black	770213L
	Plier-Type Battery Clip, Copper	75	2-7/8 x 2	1-1/8 in.	9/32 in.	1 Red/1 Black	770212L

Basic Lockout/Tagout Kit



- A great selection of the most popular lockout/tagout devices
- Small nylon zipper pouch features belt loops and d-rings for easy attachment to belts, tool pouches, tool carts and more

Description	Cat. No.	
Basic Lockout/Tagout Kit	44-970	
Kit 44-970 Includes:	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts	2	44-810
Universal 277V Breaker Lockout/Single Pole	1	44-809
480/600V Breaker Lockout	1	44-807
Wall Switch Lockout	1	44-789
3/4 in. Red Padlock	1	44-906
1 in. Safety Lockout Hasp	1	44-800
Lockout Tags – Do Not Operate (striped)	5	44-849
Universal Multi-Pole Breaker Lockout	1	44-783
110V Plug Lockout	1	44-818
Zipper Pouch	1	IA-3240

Quantities listed in kit description are for individual pieces, not carded packages.

Starter Lockout/Tagout Kit



- A starter selection of the lockout/tagout devices every electrician/maintenance person needs
- Small nylon zipper pouch features belt loops and d-rings for easy attachment to belts, tool pouches, tool carts and more

Description	Cat. No.	
Starter Lockout/Tagout Kit	44-973	
Kit 44-973 Includes:	Qty.	Cat. No.
Universal 277V Breaker/Single-Pole Lockout	1	44-809
Universal Multi-Pole Lockout	1	44-783
3/4 in. Shackle Red Padlock	1	44-906
1 in. Safety Lockout Hasp	1	44-800
Lockout Tags – Do Not Operate (striped)	2	44-849
110V Plug Lockout	1	44-818
Zipper Pouch	1	IA-3240

Quantities listed in kit description are for individual pieces, not carded packages.

Personal Lockout Pouch Kit

- Easy to carry, zippered pouch holds a worker's personal padlocks and other small devices



B-90

Description	Cat. No.	
Personal Lockout Pouch Kit	44-969	
Kit 44-969 Includes:	Qty.	Cat. No.
1 in. Safety Lockout Hasp	1	44-800
Lockout Tags	12	44-833*
Red Safety Padlocks - Keyed Alike	3	44-916**
Personal Lockout Pouch	1	—

*Masterlock equivalent.

**Keyed alike and master keyed padlocks can be special ordered by contacting IDEAL Customer Service.

Standard Lockout/Tagout Kit



- Excellent selection of lockout/tagout devices, tags and locks for maintenance workers or contractors
- Small nylon zipper pouch features belt loops and d-rings for easy attachment to belts, tool pouches, tool carts and more

Description		Cat. No.
Standard Lockout/Tagout Kit		44-971
Kit 44-971 Includes:	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts	3	44-810
Universal 277V Breaker Lockouts/Single Pole	2	44-809
480/600V Breaker Lockout	1	44-807
Wall Switch Lockout	1	44-789
110V Small Plug Lockout	1	44-818
2 in. Shackle Red Padlocks	2	44-907
1 in. Safety Lockout Hasps	2	44-800
Lockout Tags – Do Not Operate	5	44-848
Lockout Tags – Do Not Operate (striped)	5	44-849
Cleat for 277V Breaker Lockout	1	44-785
Cleat for 480/600V Breaker Lockout	1	44-786
Universal Multi-Pole Breaker Lockouts	2	44-783
Zipper Pouch	1	IA-3240

Quantities listed in kit description are for individual pieces, not carded packages.

Plant Facility Lockout/Tagout Kit



- Ideal for plant facility personnel to keep all lockout/tagout devices in one convenient place
- Polypropylene plastic tool box resists oil and chemicals

Description		Cat. No.
Plant Facility Lockout/Tagout Kit		44-972
Kit 44-972 Includes:	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts	5	44-810
Universal 277V Breaker/Single Pole Lockouts	3	44-809
480/600V Breaker Lockout	1	44-807
Wall Switch Lockouts	2	44-789
110V Plug Lockout	1	44-818
1 in. Safety Lockout Hasps	3	44-800
Red Labeled Lockout	1	44-791
220/550V Plug Lockout	1	44-819
Lockout Tags – Do Not Operate (striped)	10	44-849
Fuse Blockout	1	44-815
Fuse Blockout	1	44-816
Gate Valve Lockout	1	44-824
Cleat for 277V Breaker Lockout	1	44-785
Cleat for 480/600V Breaker Lockout	1	44-786
Universal Multi-Pole Breaker Lockouts	3	44-783
Tool Box*	1	IA-3241

Quantities listed in kit description are for individual pieces, not carded packages.
*Tool box color may vary.

Industrial Lockout/Tagout Kit



- An industrial selection of lockout/tagout devices
- Polypropylene plastic tool box resists oil and chemicals

Description		Cat. No.
Industrial Lockout/Tagout Kit		44-974
Kit 44-974 Includes:	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts	3	44-810
Universal 277V Breaker/Single Pole Lockouts	2	44-809
480/600V Breaker Lockout	1	44-807
Wall Switch Lockout	1	44-789
110V Small Plug Lockout	1	44-818
Ball Valve Lockout	1	44-820
1 in. Safety Lockout Hasps	2	44-800
Red Labeled Lockout	1	44-791
220/550V Plug Lockout	1	44-819
Lockout Tags – Do Not Operate (striped)	10	44-849
Fuse Blockout	1	44-815
Fuse Blockout	1	44-816
Gate Valve Lockout	1	44-824
Cleat for 277V Breaker Lockout	1	44-785
Cleat for 480/600V Breaker Lockout	1	44-786
Red Lockout Padlocks	4	44-916
Universal Multi-Pole Breaker Lockouts	2	44-783
Tool Box*	1	IA-3241

Quantities listed in kit description are for individual pieces, not carded packages.

*Tool Box color may vary.

Job Site Lockout/Tagout Kit



- Perfect kit for an individual worker; padlocks are keyed-alike for added worker convenience
- Excellent selection of lockout/tagout devices, tags and keyed-alike padlocks for most applications

Description		Cat. No.
Job Site Lockout/Tagout Kit		44-979
Kit 44-979 Includes:	Qty.	Cat. No.
Circuit Breaker Lockouts - tall and wide toggles	2	44-956
Circuit Breaker Lockouts - standard single and double toggles	3	44-957
Circuit Breaker Lockout Padlock	1	—
Red Lockout Padlocks	3	44-916**
1 in. Safety Lockout Hasp	1	44-800
Red Labeled Lockout	1	44-791*
Universal Wall Switch Lockout	1	44-772
Lockout Tags - Do Not Operate (striped)	12	44-833*
Tool Box	1	IA-3241*

*Masterlock equivalent.

**Reference part number is keyed-different, keyed-alike and master-keyed products can be special ordered by contacting IDEAL Customer Service.

Group Lock Box



- Helps ensure maximum security for complex work team situations
- Allows up to 13 individuals to personally lock the closed box
- Heavy-duty steel construction resists unauthorized entry and job-site abuse
- Compact 8-3/4 in. x 3-1/2 in. x 6 in. design

Description	Cat. No.
Group Lock Box	44-804

Lock Stations

- Resilient polycarbonate material provides twice the heat resistance and quadruple the impact strength of typical stations
- Lockable cover prevents loss of valuable safety products and innovative hinge holds cover open for easy product selection



Description	Cat. No.
Four-Lock Station Kit four red Safety Padlocks (44-916), 12 Heavy-Duty Lockout Tags and two 1 in. Safety Lockout Hasps (44-800)	44-778*
Ten-Lock Station Kit includes Ten-Lock Station Board (44-805), ten red Safety Padlocks (44-916), 24 Heavy-Duty Lockout Tags and two 1 in. Safety Lockout Hasps (44-800)	44-806

*Not shown.

Lockout/Tagout Training Programs and Compliance Manuals

- Kinds of energy lockout/tagout can control
- Lockout/tagout basics
- OSHA's LO/TO Standard
- The six steps to lockout/tagout
- Removing lockout/tagout devices after a job is complete
- Length: 15:00 minutes



Description	Cat. No.
Lockout/Tagout Training DVD	44-943

Industrial Lockout/Tagout Station



- Large Lockout/Tagout Station can be wall mounted or easily transported
- All metal, lockable cabinets come with two adjustable shelves (extra shelves available)
- Lockout safety tips are conveniently located inside of door for frequent reminders of proper lockout procedures



Description	Cat. No.	
Industrial Lockout/Tagout Station – 16 in. H x 14 in. W x 6 in. D	44-975	
Kit 44-975 Includes:	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts	2	44-810
Universal Single-Pole Breaker Lockouts	2	44-809
Cleat for Universal Single-Pole Lockouts	2	44-785
Universal Multi-Pole Breaker Lockouts	2	44-783
480/600V Breaker Lockout	1	44-807
Cleat for 480/600V Breaker Lockout	1	44-786
Wall Switch Lockout	1	44-789
1 in. Safety Lockout Hasps	3	44-800
Red Safety Padlocks	4	44-916
100V Small Plug Lockout	1	44-818
220/550V Plug Lockout	1	44-819
Lockout Tags – Do Not Operate	10	44-849
Gate Valve Lockout - 1 in. to 2-1/2 in.	1	44-824
Gate Valve Lockout - 2-1/2 in. to 5 in.	1	44-825
Ball Valve Lockout	1	44-820
Pneumatic Lockout	1	44-774
Description	Qty.	Cat. No.
Extra Shelf	1	IA-4990

Please contact your IDEAL Sales Representative today for Lockout/Tagout Training!

Universal 120/277V Breaker Lockouts

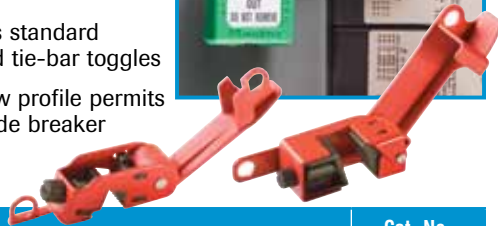
- Use thumbscrew to clamp lockout securely on to switch tongue, then pull cover over thumbscrew and lock in place to prevent clamp from being loosened
- New blade design provides tighter grip with less torque on thumbscrew



Description	Qty.	Cat. No.
Single-Breaker Lockouts 	3	44-809
Cleat for Single-Pole Breaker Lockouts 	3	44-785
Single-Pole Breaker Lockouts	50	44-1809

Circuit Breaker Lockouts

- Attaches securely to breaker with simple thumb turn and clamping handle
- 44-956 is designed for breakers with wide or tall toggles
- 44-957 fits standard height and tie-bar toggles
- The narrow profile permits side-by-side breaker lockout




Description	Cat. No.
Circuit Breaker Lockout, wide & tall toggles 	44-956
Circuit Breaker Lockout, standard toggles 	44-957

Hinged Single-Pole Breaker Lockouts

- Hinged single-pole lockout with locking post design, locks lever in off position to isolate and prevent breaker use
- Ideal for applications where panel closure is preferred
- Please see breaker guide for your application (pg. 99)



Description	Qty.	Cat. No.
Hinged Single-Pole Breaker Lockouts 	3	44-810
Hinged Single-Pole Breaker Lockouts	100	44-1810

Multi-Pole Breaker Lockout

- Works with most major multi-pole breakers with tie-bar type switches including GE, ITE Sylvania, Challenger, Bryant, Westinghouse, Square D (2/3 poles) and General Switch Co.
- Easy to install – thumbscrew secures and locks tie bar in place; no cable ties or tools required
- Please see breaker guide for your application (pg. 99)



Description	Qty.	Cat. No.
Multi-Pole Breaker Lockout 	1	44-783

480/600V Single/Multi-Pole Breaker Lockouts

- Use thumbscrew to clamp lockout securely on to switch tongue, then pull cover over thumbscrew and lock in place to prevent clamp from being loosened
- Blade design provides tighter grip with less torque on thumbscrew

Description	Qty.	Cat. No.
480/600V Single/Multi-Pole Lockout	1	44-807
480/600V Single/Multi-Pole Lockouts	50	44-1807
Cleat for 480/600V Single/Multi-Pole Lockout	1	44-786

Large Breaker Lockout

- Designed to lockout large 480/600V breaker switches up to 2-1/2 in. wide and 7/8 in. thick
- Easy to install – no tools required



Description	Qty.	Cat. No.
Large Breaker Lockout	1	44-823

Plug Lockouts

- Accommodates a variety of electrical plug and cord sizes to prevent accidental connection or disconnection
- Durable plastic body resists wear, chemicals and job-site abuse
- Accommodates cable ties or padlocks (with up to 3/8 in. shackles)



Description	Size	Cat. No.
Plug Lockouts - 100V	2 in. x 2 in. x 3-1/2 in.	44-818
Plug Lockouts - 220/550V	3-1/4 in. x 3-1/4 in. x 7 in.	44-819

Electric Plug Lockout

- Slides over cord prongs and locks in place to prevent cord from being plugged into an outlet
- Cannot be removed without key
- Works on any 2- or 3-prong plug



Description	Cat. No.
Electric Plug Lockout	44-782

Plug Lockouts

- Plug lockout, 44-792 works with high and low voltage plugs up to 3 in. in diameter and 5-1/2 in. in length, up to 1-1/4 in. cord diameter
- Plug lockout, 44-793 works with 110V/220V plugs up to 1-3/4 in. in diameter and 2-1/2 in. in length, up to a 1/2 in. cord diameter



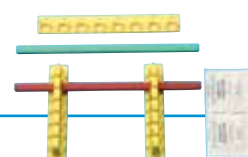
Description	Cat. No.
Plug Lockout - up to 3 in. diameter	44-792
Plug Lockout - 110V/220V	44-793

Oversized Circuit Breaker Lockout System

- Unique Lockout system for oversized 480/600V Circuit Breakers
- System can be permanently installed into an electrical panel putting all lockout items at the point of need
- Easy installation of adhesive mounting rails – no tools required
- Pegs in mounting rails mate with holes in locking arms for security of arm when lock is in place
- Red arms lock off, green arms lock on



Description	Qty.	Cat. No.
Oversized Circuit Breaker System – 480-600 Volt	1	44-822



Circuit Breaker Lockout System

- Covers most 120V - 277V breakers!
- Works on wide range of breakers, including single- and multi-pole configurations
- Makes use of unique lock rail system, providing the following benefits:
 - Allows panel door to be closed even when lockouts are in place
 - Accommodates multiple locks, facilitating group lockout activity without hasps
 - Keeps weight off the breakers, protecting delicate electrical components from damage
 - Positions locks and tags outside the panel, making sure lockout activity is clearly visible to anyone in the area

Technical Information

- Lockout devices constructed of high-impact Isoplast polymers
- Cables are 2 ft. in length
- Lock rails made of durable isoplast polymers with acrylic adhesive backing

Snap-on

For use on Square D NQO and other breakers that have a hole in the switch tongue. Just align pins with hole and snap closed. Pins prevent switch from being thrown.



Clamp-on

For use on breakers that do not have a hole in the switch tongue, including multiple breakers with tie bars. Turn thumb-screw to clamp lockout securely onto switch, then snap the cover closed to prevent thumbwheel from being loosened.



How the System Works



1. Peel liner off bottom of the lock rail, exposing super-bond adhesive. Permanently affix to any location on the panel. No drilling required.



2. Attach the lockout device to the breaker and snap into locked position.



3. Pass plastic key through lock rail and attach lock, preventing key from sliding down cable and opening lockout device.



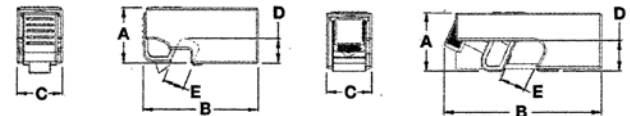
4. For group lockouts, run key through multiple loops in lock rail and apply locks. No hasps required!



5. Lockout device is unlocked by inserting and turning the red plastic key.



Perfect when locking out adjacent breaker lockouts.



Description	Outer Dimensions (In.)			Switch Clearance (In.)	
	A	B	C	D	E
Snap-on	0.90	1.88	0.74	0.40	0.35
Clamp-on	0.95	2.56	0.74	0.35	0.42

Description	Qty.	Cat. No.
Snap-on lockout for Square D NQO and other breakers with a hole in the switch tongue	1	44-768
Clamp-on lockout for breakers without hole in the switch tongue, including multi-pole breakers with tie bars	1	44-764
4 in. Lock Rail with seven lock loops	1	44-769

Wall Switch Lockouts

- Our patent pending universal Wall Switch Lockout locks out both toggle and decora wall switches
- Universal design assures switch is locked on or off. Hinges open for unobstructed normal switch operation
- Standard wall switch lockout fits most wall-mounted single or three-way electrical switches



Description	Qty.	Cat. No.
Universal Wall Switch 	1	44-772
Standard Wall Switch (not shown)	1	44-789

Adjustable Cable Lockout

- Infinitely adjustable safety hasp and cable
- Ideal for multiple circuit breaker panels and side-by-side gate valve lockouts
- Feed the cable end through the points to be locked out, then back through the lockout body. Cinch it tight to remove any slack with the patented locking feature.
- Tough, flexible multi-stranded 6 ft. 1/4 in. dia. steel cable is insulated with a clear vinyl coating
- Tough, lightweight, dielectric thermoplastic body withstands chemicals; performs effectively in extreme conditions
- Up to four workers can apply their personal safety locks
- Complete with high-visibility, re-usable, write-on safety labels (English, French & Spanish). Identify the responsible person, then erase for the next job.




Description	Cat. No.
Adjustable Cable Lockout	44-808

Gate Valve Lockouts

- Unique patent pending rotating design allows for easier installation in confined space applications
- Each size rotates into itself and nests within the next larger size to save space in storage
- Up to four workers can apply their personal safety locks
- Complete with high-visibility permanent safety labels (English, French & Spanish) that can be written on to identify the responsible person, then erased for the next job
- Tough, lightweight, dielectric thermoplastic bodies withstand chemicals and perform effectively in extreme conditions, temperature range: -50°F (-46°C) to +350°F (177°C)



Valve Size	Qty.	Cat. No.
1 in. to 3 in. 	1	44-824
2 in. to 5 in.	1	44-825
Set of five sizes (1 in. to 13 in.)	1	44-817

Cable Lockout

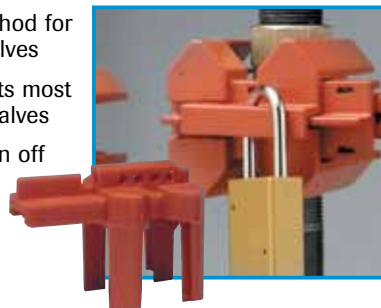
- 44-829 Unique hasp lockout device accepts up to six 9/32 in. padlocks and comes with a 6 ft. plastic-coated steel cable



Description	Cat. No.
Cable Lockout, 6 ft. cable	44-829

Ball Valve Lockout Devices

- Best available method for locking out ball valves
- Patented design fits most major brand ball valves
- Designed to lock in off position only
- Complies with OSHA lockout standard



Valve Size	Max. Shackle Length	Material	Cat. No.
1/2 to 1-1/4 in.	—	Polypropylene	44-846
1-1/4 to 3	—	Polypropylene	44-847
1/4 to 1 (not shown)	9/32 in.	Nylon	44-820
1-1/4 to 3 (not shown)	9/32 in.	Heavy Steel	44-821

Steel Padlocks

- Rustproofed, steel case with nickel-plated shackle withstands abuse and environmental hazards
- Includes two keys
- 1-1/2 in. wide lock with 9/32 in. shackle diameter
- Keyed-alike and Master-Keyed locks available by special order



Bumper Color	3/4 In. Shackle Clearance Cat. No.	2 In. Shackle Clearance Cat. No.
Blue	44-900	44-901
Red	44-906	44-907

Lock Labels

- Easy identification of employees' locks
- Write-on, vinyl labels with peel-off adhesive backing
- Polyester over laminate protects label



Description	Qty.	Cat. No.
Lock Labels	8 labels	44-898

Safety Lockout Padlocks w/Key Retention





- Dedicated safety lockout device reduces confusion with other locks
- Complies with OSHA's "1-key, 1-lock"
- Non-conductive, lightweight body
- Key retention ensures keys do not get lost while not in use and that padlocks are not left untouched
- 1-1/2 in. shackle clearance
- 1-1/2 in. wide lock with 1/4 in. shackle
- Four colors for easy identification
- Keyed-alike, Master-Keyed, 2nd key, additional colors and engraving available by special order

Bumper Color	Cat. No.
Blue	44-912
Black	44-914
Red	44-916
Yellow	44-918



Flash Protection Labels and Signs

National Electric Code 110.16 Flash Protection: *Switchboards, panel boards, industrial control panels and motor control centers*, in other than dwelling occupancies, that are likely to require examination, adjustment, servicing or maintenance while energized, shall be field marked to warn qualified persons of potential electric arc flash hazards. The marking shall be located so as to be clearly visible to qualified persons before examination, adjustment, servicing or maintenance of the equipment.

Description	Type	Size	Qty./Bag	Cat. No.
NEC Arc Flash, Warning 	Self-Sticking Polyester	3-1/2 in. x 5 in.	5	44-892
			100	44-892BK
NEC Arc Flash, Danger 	Self-Sticking Polyester	5 in. x 7 in.	5	44-893
				44-894
NEC Arc Flash, Warning 	Self-Sticking Polyester	4 in. x 6 in.	5	44-895
NEC Arc Flash, Warning 	Self-Sticking Polyester	7 in. x 10 in.	1	44-896

Python™ Adjustable Locking Cable

Python™ Adjustable Locking Cable secures anything within its grasp. The only locking cable that is right length for your application. This patented product holds flexible steel cable tight at any position



- Infinite Locking Positions – Patented lock holds cable tight from 1 ft. (30cm) to 6 ft. (1.8m)
- Application Flexibility – Interchangeable cables
- Keyed Alike Convenience – Rekeyable cylinder
- Cut Resistance – 3/8 in. (10mm), 100% steel braided cable
- Weather Tough – Rust resistant aluminum lock body
- Scratch Resistant – Vinyl cable sleeve and lock body bumper

Other Applications: Bikes, lawn furniture, lawn mowers, job sites, canoes, boats, skis, snowboards, generators, pickup truck cargo, spare tire locks and much more.

Description	Cat. No.
Master Lock Python™ Kit with 6 ft. Cable-keyed different	44-990
Master Lock Python™ Kit with 6 ft. Cable-keyed alike*	44-991
12 ft. (3.7m) x 3/8 in. (10mm) Cable for Python™ Lock*	44-992

*Special order thru Customer Service.

Voltage & Conduit Markers

- Identify junction boxes, switches, circuit breakers, raceways, pipe and fuse boxes
- Non-conductive for user safety
- High-adhesion properties with easy removability
- Vinyl-impregnated cloth construction for long-lasting durability
- Resist abrasion, moisture, dirt and oil
- Non-smear, black legend on bright orange background for high visibility



Large:

2-1/4 in. x 9 in. each w/1-3/4 in. type



Medium:

1-1/8 in. x 4-1/2 in. each w/3/4 in. type

Small:

2-1/4 in. x 1/2 in. each w/5/16 in. type


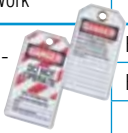
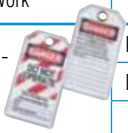
Legend	Large Cat. No. 1/card	Medium Cat. No. 4/card	Small Cat. No. 18/card
120/208V	44-295	44-296	—
277/480V	44-298	44-299	—
120V	—	44-353	—
208V	—	44-355	—
240V	—	44-358	—
277V	—	—	44-410
480V	44-314	44-364	—
DANGER	44-289	—	—
HIGH VOLTAGE	44-292	—	—

Specifications:

Temperature Range: -40°F to 180°F (-40°C to 82°C)
Adhesion: 45 oz./in. width ultimate

Heavy-Duty Lockout Tags

- High-visibility lettering
- Laminated plastic tags have non-fade legends, resist corrosive and harsh environmental conditions grommet
- Vinyl tags are silk screened with a 7/8 in. metal grommet; fastener included
- Exceeds OSHA's 50-lb. pullout requirement
- Matte finish for easy writing surface

Legend	Type	Qty.	Cat. No.
Do Not Operate 	Heavy-Duty Laminated	5/card	44-830
	Heavy-Duty Laminated	100/box	44-1830
	Economy Vinyl	25/bag	44-848
Do Not Operate - Electricians at Work 	Heavy-Duty Laminated	5/card	44-832
	Economy Vinyl	25/bag	44-843
Do Not Operate - (red striped background) 	Heavy-Duty Laminated	5/card	44-833
	Heavy-Duty Laminated	100/box	44-1833
	Economy Vinyl	25/bag	44-849



Bilingual Lockout Tags

- Spanish/English tags provide extra safety and information in bilingual situations
- High-visibility lettering
- Laminated vinyl tags with non-fade legends resist corrosive and harsh environmental conditions
- Write-on tag with 7/8 in. grommet can be padlocked to device to help prevent unauthorized removal

Legend	Qty.	Cat. No.
Do Not Operate (striped) 	5	44-841

Lockout Signs

- Resistant to both chemicals and abrasion – protected graphics for indoor and outdoor use

Legend	Material	Size (In.)	Cat. No.
OSHA Regulation 36 in. clearance 	Self-sticking polyester	3-1/2 x 10	44-877
OSHA Regulation (Bilingual) 36 in. clearance	Self-sticking polyester	7 x 10	44-878
Danger - Breakers Locked Out 	Magnetic	5 x 7	44-890

Safety Signs

- Resistant to both chemicals & abrasion – protected graphics for indoor & outdoor use



Legend	Material	Size (In.)	Cat. No.
Danger – High Voltage	Fiberglass	10 x 14	44-862
Danger – High Voltage	Self-Sticking Polyester	7 x 10	44-863
Danger – High Voltage – Keep Out	Fiberglass	10 x 14	44-880
Danger – High Voltage – Keep Out	Self-Sticking Polyester	7 x 10	44-881
Danger – High Voltage – Spanish	Self-Sticking Polyester	7 x 10	44-865

Safety Lockout Hasps

- Allow up to six workers to lock out a single energy source
- Rustproofed, plated and vinyl-coated
- Labeled hasps feature anodized aluminum alloy construction for long-term durability
- Permanent "Do Not Operate" labels accept pens, pencils and permanent markers

Safety Lockout Hasps

Jaw Diameter	Qty.	Cat. No.
1 in.	3	44-800
1-1/2 in.	2	44-801



Labeled Safety Lockout Hasps

Legend	Color	Qty.	Cat. No.
Do Not Operate	Blue	1	44-790
	Red	1	44-791
	Red	50	44-1791



Non-Detectable Underground Tapes

- For protection, location and identification of underground utility installations
- Formulated to resist degradation from acid and alkali found in soils
- Lead-free pigments and organic lead-free ink



42-103

42-152

Property	Method	Value
Thickness	ASTMD2103	4.0 Mils
Elongation	ASTMD882-75B	500%
Composition	IDEAL Specs.	LDPE
Tensile Strength	ASTMD882	2,750 PSI

Recommended Burial Depth

3 in. Tape – 4 in. to 6 in.

6 in. Tape – less than 12 in.

Legend	Color	Size	Cat. No.
Caution Buried Electric Line Below	Red	3 in. x 1,000 ft.	42-101
	Yellow	3 in. x 1,000 ft.	42-102
Caution Buried Telephone Line Below	Orange	3 in. x 1,000 ft.	42-103
Caution Buried Fiber Optic Line Below	Orange	3 in. x 1,000 ft.	42-104
Caution Buried Electric Line Below	Red	6 in. x 1,000 ft.	42-151
	Yellow	6 in. x 1,000 ft.	42-152

Detectable Underground Tapes

- Solid aluminum foil core tapes for protection, location and identification of underground utility installations
- Meets or exceeds industry standards including the American Public Works Association (APWA) color code
- Formulated to resist degradation from acid and alkali found in soils
- Lead-free pigments and organic lead-free ink

42-251



Property	Method	Value
Thickness	ASTMD2103	5.0 Mils
Elongation	ASTMD882-75B	80%
Composition	IDEAL Specs.	Bottom Layer PE Top layer PET Foil industry standard
Tensile Strength	ASTMD882	35 lbs./in. (15,000 PSI)

Legend	Color	Size	Cat. No.
Caution Buried Electric Line Below	Red	3 in. x 1,000 ft.	42-201
		6 in. x 1,000 ft.	42-251
Caution Buried Fiber Optic Line Below	Orange	6 in. x 1,000 ft.	42-252

Barricade Tapes

- High-visibility safety yellow or red polyethylene construction with bold black letters
- Meets OSHA specifications Section 1010.144 for marking physical hazards

42-052

42-001



Property	Method	Value
Elongation	ASTMD882-75B	≥ 400%
Composition	IDEAL Specs.	LDPE
Tensile Strength	ASTMD882	2,350 PSI TD 1,893 PSI MD

Legend	Color	Size	Thickness	Cat. No.
Caution	Yellow	3 in. x 1,000 ft.	4.0 Mils	42-001
Caution Do Not Enter	Yellow		4.0 Mils	42-002
Caution High Voltage	Yellow		4.0 Mils	42-003
Danger	Red		4.0 Mils	42-051
Danger High Voltage Keep Out	Red		4.0 Mils	42-052

Legend	Color	Size	Thickness	Cat. No.
Caution Do Not Enter	Yellow	3 in. x 1,000 ft.	2.0 Mils	42-012

IDEAL
Standard Breaker Lockouts **EZ Panel Loc™**

Mfg.	Breaker Classification	Breaker Type	# of Poles	1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
Airpax		Airpax	1									
American Switch		C	1									
Bryant		BR	1									
Challenger		C	1									
Challenger	Type C	C	2-3									
Challenger	Same as W DK	CDK										
Challenger		LM	1									
Challenger		NEJ	1-2									
Crouse Hinds		MP	2									
Cutler Hammer		BA	1									
Cutler Hammer		CH	2-3									
Cutler Hammer		CH2	4									
Cutler Hammer		CHB	3									
Cutler Hammer	Quicklag	BAB	1									
Cutler Hammer	Quicklag	BAB	2-3									
Cutler Hammer	BR	BD	1									
Cutler Hammer	BR	BR	1									
Cutler Hammer	BR	BR	2-3									
Cutler Hammer	BR	BRH	1									
Cutler Hammer	BR	BRH	2-3									
Cutler Hammer	BR	BRHH	2									
Cutler Hammer	CH	CH	1									
Cutler Hammer	CH	CH	2-3									
Cutler Hammer	CH	CH2	4									
Cutler Hammer	CH	CHB	1									
Cutler Hammer	CH	CHB	2-3									
Cutler Hammer	K-Frame	CHKD	2-3									
Cutler Hammer	L-Frame	CHLD	2-4									
Cutler Hammer	M-Frame	CHMDL	2-3									
Cutler Hammer	N-Frame	CHND	2-4									
Cutler Hammer	CH	CHP	1									
Cutler Hammer	CH	CHP	2-3									
Cutler Hammer	CH	CHQ	1									
Cutler Hammer	CH	CHQ	2									
Cutler Hammer	CH	CHSW	2-3									
Cutler Hammer	K-Frame	CKD	2-3									
Cutler Hammer	CL	CL	1									
Cutler Hammer	CL	CL	2									
Cutler Hammer	L-Frame	CLD	2-4									
Cutler Hammer	CL	CLR	1-2									
Cutler Hammer	M-Frame	CMDL	2-3									
Cutler Hammer	N-Frame	CND	2-4									
Cutler Hammer	N-Frame	CNDC	2-4									
Cutler Hammer	CH	CSR	1									
Cutler Hammer	K-Frame	DK	2-3									
Cutler Hammer	E125-Frame	E125B										
Cutler Hammer	E125-Frame	E125E										
Cutler Hammer	E125-Frame	E125H										
Cutler Hammer	E125-Frame	E125S										
Cutler Hammer	F-Frame	ED	2-4									
Cutler Hammer	F-Frame	EDC	2-4									
Cutler Hammer	F-Frame	EDH	2-4									
Cutler Hammer	E125-Frame	EFH	1-4									
Cutler Hammer	E125-Frame	EGB	1-4									
Cutler Hammer	E125-Frame	EGE	1-4									
Cutler Hammer	E125-Frame	EGS	1-4									
Cutler Hammer		EHC										
Cutler Hammer	F-Frame	EHD	1-4									
Cutler Hammer	Tri Pac Cur. Lim	FB	2-3									



TOOLS & SUPPLIES

IDEAL Standard Breaker Lockouts

Mfg.	Breaker Classification	Breaker Type	# of Poles	Standard Breaker Lockouts							EZ Panel Loc™	
				1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
Cutler Hammer		FC										
Cutler Hammer	F-Frame	FD	1-4									
Cutler Hammer	F-Frame	FDB	2-4									
Cutler Hammer	F-Frame	FDC	2-4									
Cutler Hammer	F-Frame	FS	2-3									
Cutler Hammer	G-Frame	GB	1-3									
Cutler Hammer	G-Frame	GC	1-3									
Cutler Hammer	Tri Pac Cur. Lim	FB	2-3									
Cutler Hammer		FC										
Cutler Hammer	F-Frame	FD	1-4									
Cutler Hammer	F-Frame	FDB	2-4									
Cutler Hammer	F-Frame	FDC	2-4									
Cutler Hammer	F-Frame	FS	2-3									
Cutler Hammer	G-Frame	GB	1-3									
Cutler Hammer	G-Frame	GC	1-3									
Cutler Hammer	G-Frame	GD	1-3									
Cutler Hammer	G-Frame	GHB	1-3									
Cutler Hammer	G-Frame	GHBGFEP	1									
Cutler Hammer	G-Frame	GHC	1-3									
Cutler Hammer	G-Frame	GHCGFEP	1									
Cutler Hammer	Quicklag	HBAW	1									
Cutler Hammer	Quicklag	HBAW	2-3									
Cutler Hammer	Quicklag	HBAX	1									
Cutler Hammer	Quicklag	HBAX	2-3									
Cutler Hammer		HFD	1-4									
Cutler Hammer	G-Frame	HGHB	1									
Cutler Hammer	G-Frame	HGHC	1									
Cutler Hammer		HJD	2-4									
Cutler Hammer	K-Frame	HKD	2-4									
Cutler Hammer	L-Frame	HLD	2-4									
Cutler Hammer	L-Frame	HMCP	3									
Cutler Hammer	J-Frame	HMCP	3									
Cutler Hammer	K-Frame	HMCP	3									
Cutler Hammer	L-Frame	HMCP	3									
Cutler Hammer	F-Frame	HMCP	3-4									
Cutler Hammer	M-Frame	HMDL	2-3									
Cutler Hammer	M-Frame	HMDLB	2-3									
Cutler Hammer	N-Frame	HND	2-4									
Cutler Hammer	Quicklag Type P	HQP	1									
Cutler Hammer	Quicklag Type P	HQP	2									
Cutler Hammer	J-Frame	JD	2-4									
Cutler Hammer	J-Frame	JDB	2-3									
Cutler Hammer	J-Frame	JDC	2-4									
Cutler Hammer	K-Frame	KD	2-4									
Cutler Hammer	K-Frame	KDB	2-4									
Cutler Hammer	K-Frame	KDC	2-4									
Cutler Hammer	Tri Pac Cur. Lim	LA	2-3									
Cutler Hammer	L-Frame	LD	2-4									
Cutler Hammer	L-Frame	LDB	2-3									
Cutler Hammer	L-Frame	LDC	2-4									
Cutler Hammer		LH	3									
Cutler Hammer		LHB	3									
Cutler Hammer	Type CC	LJ										
Cutler Hammer		MA	2-3									
Cutler Hammer		MC	2-3									
Cutler Hammer	M-Frame	MD	2-3									
Cutler Hammer	M-Frame	MDL	2-3									
Cutler Hammer	M-Frame	MDS	2-3									
Cutler Hammer	Tri Pac Cur. Lim	NB	2-3									

LOCKOUT/TAGOUT

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

IDEAL

Standard Breaker Lockouts

EZ Panel Loc™

Mfg.	Breaker Classification	Breaker Type	# of Poles	1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
Cutler Hammer	N-Frame	ND	2-4									
Cutler Hammer	N-Frame	NDC	2-4									
Cutler Hammer	N-Frame	OPTIM	3									
Cutler Hammer	Tri Pac Cur. Lim	PB	2-3									
Cutler Hammer	Quicklag	QBGF	1									
Cutler Hammer	Quicklag	QBGF	2									
Cutler Hammer	Quicklag	QBGFEP	1									
Cutler Hammer	Quicklag	QBGFEP	2									
Cutler Hammer	Quicklag	QBGF	1									
Cutler Hammer	Quicklag	QBGFEP	1									
Cutler Hammer	Quicklag	QBHW	1									
Cutler Hammer	Quicklag	QBHW	2-3									
Cutler Hammer	Quicklag Type P	QC	1									
Cutler Hammer	Quicklag Type P	QC	2-3									
Cutler Hammer	Quicklag Type P	QCD	1									
Cutler Hammer	Quicklag Type P	QCD	2-3									
Cutler Hammer	Quicklag	QCGF	1									
Cutler Hammer	Quicklag	QCGFEP	1									
Cutler Hammer	Quicklag	QCHGF	1									
Cutler Hammer	Quicklag	QCHGFEP	1									
Cutler Hammer	Quicklag	QCHW	1									
Cutler Hammer	Quicklag	QCHW	2-3									
Cutler Hammer	Quicklag	QHCW	1									
Cutler Hammer	Quicklag	QHCW	2-3									
Cutler Hammer	Quicklag	QHCX	1									
Cutler Hammer	Quicklag	QHCX	2-3									
Cutler Hammer	Quicklag	QHPW	1									
Cutler Hammer	Quicklag	QHPW	2-3									
Cutler Hammer	Quicklag	QHPX	1									
Cutler Hammer	Quicklag	QHPX	2-3									
Cutler Hammer	Ground Fault	QPGF	1									
Cutler Hammer		QPGF	2									
Cutler Hammer	Ground Fault	QPGFEP	1									
Cutler Hammer		QPGFEP	2									
Cutler Hammer	Ground Fault	QPHGF	1									
Cutler Hammer	Ground Fault	QPHGFEP	1									
Cutler Hammer	Quicklag	QPHW	1									
Cutler Hammer	Quicklag	QPHW	2-3									
Fed. Pacific Elec.		BAB	1									
Fed. Pacific Elec.		NA-single	3									
Fed. Pacific Elec.		NA-tie bar	2									
Fed. Pacific Elec.		NB	1									
Fed. Pacific Elec.		NBH GFI	1									
Fed. Pacific Elec.		NE/NEF										
Fed. Pacific Elec.		NEJ										
Fed. Pacific Elec.		NFJ										
Fed. Pacific Elec.		NJL										
Fed. Pacific Elec.		NJL										
Fed. Pacific Elec.		NM										
Fed. Pacific Elec.		NP-single	1									
Frank Adams	FA Quicklag	P	1									
General Electric	Type C	HQC	3									
General Electric	SE150	SED	2-3									
General Electric	SE150	SEH	2-3									
General Electric	SE150	SEL	2-3									
General Electric	SE150	SEP	2-3									
General Electric	SF250	SFH	2-3									
General Electric	SF250	SFL	2-3									
General Electric	SF250	SFP	2-3									
General Electric	Tri Break	TB1										



TOOLS & SUPPLIES

IDEAL Standard Breaker Lockouts

Mfg.	Breaker Classification	Breaker Type	# of Poles	Standard Breaker Lockouts							EZ Panel Loc™	
				1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
General Electric	Tri Break	TB4										
General Electric	Tri Break	TB6										
General Electric	Tri Break	TB8										
General Electric	Mag Break	TBC4										
General Electric	Mag Break	TBC6										
General Electric	Mag Break	TBC8										
General Electric	E150	TE	1-3									
General Electric	E150	TEB	1-3									
General Electric	E150	TED	1-3									
General Electric		TEF	1-3									
General Electric	E150	TEL	3									
General Electric	Mag Break	TEML	3									
General Electric	E150	TEY	1-3									
General Electric	E150	TF	1-3									
General Electric	Mag Break	TFC	3									
General Electric	F225	TFJ	2-3									
General Electric	F225	TFK	2-3									
General Electric	F225	TFL	3									
General Electric	Like TED	THED	1-3									
General Electric	Like TED	THEF										
General Electric	F225	THFK	2-3									
General Electric	Q Line	THHQB	2-3									
General Electric	Q Line	THHQB-A	1									
General Electric	Q Line	THHQB-S	1									
General Electric	Q Line	THHQC	1-3									
General Electric	Q Line	THHQC-A	1									
General Electric	Q Line	THHQC-S	1									
General Electric	Q Line	THHQL	2-3									
General Electric	Q Line	THHQL-A	1									
General Electric	Q Line	THHQL-S	1									
General Electric	J600	THJK4	2-3									
General Electric	J600	THJK6	2-3									
General Electric	K1200	THKM12	2-3									
General Electric	K1200	THKM8	2-3									
General Electric	THLC Current Limiting	THLC1	3									
General Electric	Q Line	THQB	2-3									
General Electric	Q Line	THQB-A	1									
General Electric	Q Line	THQB-S	1									
General Electric	Q Line	THQC	2-3									
General Electric	Q Line	THQC-A	1									
General Electric	Q Line	THQC-AL	2-3									
General Electric	Q Line	THQC-S	1									
General Electric	Q Line	THQD	2-3									
General Electric	Q Line	THQDBL	3									
General Electric	Q Line	THQL	2-3									
General Electric	Q Line	THQL-A	1									
General Electric	Q Line	THQL-S	1									
General Electric		TJ4	3									
General Electric	Mag Break	TJC										
General Electric	TJD432400WL	TJD	2-3									
General Electric	J600	TJJ	2-3									
General Electric	J600	TJK4	2-3									
General Electric	TJK636F000	TJK6	2-3									
General Electric	TJS3604S	TJS										
General Electric	MicroVersaTrip	TK4V	3									
General Electric	Mag Break	TKC	3									
General Electric	TKM4365000	TKM4										
General Electric	K1200	TKM8	2-3									

LOCKOUT/TAGOUT

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Standard Breaker Lockouts

EZ Panel Loc™

Mfg.	Breaker Classification	Breaker Type	# of Poles	1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
General Electric		TKMA8	3									
General Electric	Q Line	TQB	2-3									
General Electric	Q-Line	TQB-A	1									
General Electric	Q-Line	TQB-S	1									
General Electric	Q Line	TQC	2-3									
General Electric		TQC-A	1									
General Electric		TQC-S	1									
General Electric	Q Line	TQD	2-3									
General Electric	Q Line	TQL-A	1									
General Electric	Q Line	TQL-S	1									
Heinemann		LB	1									
Heinemann		LF	1									
Heinemann		LJ	1									
Merlin Gerin	400 Amp series	CJ	3									
Siemens ITE		BL	1									
Siemens ITE		BL	2-3									
Siemens ITE		BL	1									
Siemens ITE		BL	2-3									
Siemens ITE		BLF-GFI	2									
Siemens ITE		BLH	1									
Siemens ITE		BLH	2-3									
Siemens ITE		BQ	1									
Siemens ITE		BQ	2-3									
Siemens ITE		BQCH	1-3									
Siemens ITE		BQD	3									
Siemens ITE		BQD	1-3									
Siemens ITE		BQD6	1-3									
Siemens ITE		BQH	1									
Siemens ITE		BQH	2-3									
Siemens ITE		CED6	2-3									
Siemens ITE		CFD6	2-3									
Siemens ITE		CFD6-ETI	2-3									
Siemens ITE		CJ3										
Siemens ITE		CJD6	2-3									
Siemens ITE		CJD6-ETI	2-3									
Siemens ITE		CLF	2									
Siemens ITE		CMD6	3									
Siemens ITE		CMD6-ETI	3									
Siemens ITE		CND6	3									
Siemens ITE		CPD6	3									
Siemens ITE		CQD	1-3									
Siemens ITE		E2										
Siemens ITE		E4	1									
Siemens ITE		ED2	1-3									
Siemens ITE		ED4	1-3									
Siemens ITE		ED6	1-3									
Siemens ITE		ED6-ETI	3									
Siemens ITE		EE3										
Siemens ITE		EH3										
Siemens ITE		EQP	4									
Siemens ITE		EQT QF										
Siemens ITE	F-Frame	ET										
Siemens ITE		FD6A	2-3									
Siemens ITE		FJ2-B	2-3									
Siemens ITE		FJ3	2									
Siemens ITE		FJ6	2									
Siemens ITE		FXD6A	2-3									
Siemens ITE		FXD6-ETI	2-3									
Siemens ITE		GF	1									
Siemens ITE		HBL	1									
Siemens ITE		HBL	2-3									
Siemens ITE		HBQ	1									
Siemens ITE		HBQ	2-3									
Siemens ITE		HE4										
Siemens ITE		HED4	1-3									



TOOLS & SUPPLIES

IDEAL Standard Breaker Lockouts

Mfg.	Breaker Classification	Breaker Type	# of Poles	Standard Breaker Lockouts							EZ Panel Loc™	
				1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
Siemens ITE		HED6	2-3									
Siemens ITE		HFD6	2-3									
Siemens ITE		HFXD6	2-3									
Siemens ITE		HHED6	2-3									
Siemens ITE		HHFD6	2-3									
Siemens ITE		HHJD6	2-3									
Siemens ITE		HHJXD6	2-3									
Siemens ITE		HJD6	2-3									
Siemens ITE		HJD6-A	2-3									
Siemens ITE		HJXD6	2-3									
Siemens ITE		HJXD6-A	2-3									
Siemens ITE		HMD6	2-3									
Siemens ITE		HMXD6	2-3									
Siemens ITE		HND6	2-3									
Siemens ITE		HNXD6	2-3									
Siemens ITE		HPD6	3									
Siemens ITE		HPXD6	3									
Siemens ITE		HQJ2-H	3									
Siemens ITE		HQP	1									
Siemens ITE		HQP	2-3									
Siemens ITE		HQPP	1									
Siemens ITE		HQPP	2-3									
Siemens ITE		HQPPH	2									
Siemens ITE		HRD6	3									
Siemens ITE		HRXD6	3									
Siemens ITE		JD6-A	2-3									
Siemens ITE		JJ3										
Siemens ITE		JL3	3									
Siemens ITE		JXD2-A	2-3									
Siemens ITE		JXD6-A	2-3									
Siemens ITE		LL3										
Siemens ITE		MD6	2-3									
Siemens ITE		MXD6	2-3									
Siemens ITE		MXD6-ETI	2-3									
Siemens ITE		ND6	2-3									
Siemens ITE		NXD6	2-3									
Siemens ITE		PD6	3									
Siemens ITE		PXD6	3									
Siemens ITE		QJ2	2-3									
Siemens ITE		QJ2-H	2-3									
Siemens ITE		QJH2	2-3									
Siemens ITE		QP	1									
Siemens ITE		QP	2-3									
Siemens ITE		QP1	1									
Siemens ITE		QPH	1									
Siemens ITE		QPH	4									
Siemens ITE		QPH	2-3									
Siemens ITE		QPP	1									
Siemens ITE		QPP	2-3									
Siemens ITE		QPPH	1									
Siemens ITE		QPPH	2-3									
Siemens ITE		RD6	3									
Siemens ITE		RXD6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SCMD6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SCND6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SHMD6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SHND6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SMD6	3									
Siemens ITE	Solid State Trip Ckt. Bkr.	SND6	3									
Simplex		NX	3									
Square D		EDB	1-3									
Square D		EGB	1-3									
Square D		EH4	1-3									
Square D		EHB	1-3									

LOCKOUT/TAGOUT

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Standard Breaker Lockouts											EZ Panel Loc™	
Mfg.	Breaker Classification	Breaker Type	# of Poles	1-Pole Snap-On (w/hole) 44-810	120/277V Clamp On (no hole) 44-809	Cleat for #65396 44-785	480/600V Clamp On (no hole) 44-807	Cleat for #65397 44-786	Oversize 480/660V 44-823	Multi-pole w/ tie bar 44-783	Snap On (SQD QO) 44-768	Clamp On (universal) 44-764
Square D		EHB	2-3									
Square D		EJB	1-3									
Square D		EZ	3									
Square D	100 Amp Frame	FA	1-3									
Square D	100 Amp Frame	FAL	1-3									
Square D	100 Amp Frame	FC	3									
Square D	100 Amp Frame	FCL	2-3									
Square D	FDA 34040	FDA										
Square D	100 Amp Frame	FH	1-3									
Square D	100 Amp Frame	FHL	1-3									
Square D	100 Amp Frame	FHL-DC	3									
Square D	100 Amp Frame	FI	3									
Square D	100 Amp Frame	FIL	3									
Square D	100 Amp Frame	FY	1									
Square D	Mag Gard	GJL	3									
Square D	250 Amp Frame	KA	2-3									
Square D		KAL	2-3									
Square D		KAP										
Square D	250 Amp Frame	KC	2-3									
Square D		KCL	2-3									
Square D	250 Amp Frame	KH	2-3									
Square D		KHL	3									
Square D	250 Amp Frame	KI	2-3									
Square D	250 Amp Frame	KIL	2-3									
Square D	400 Amp Frame	LA	2-3									
Square D		LAL	2-3									
Square D	400 Amp Frame	LH	2-3									
Square D		LHL	3									
Square D		LHP										
Square D		MA	3									
Square D	1000 Amp Frame	MA	2-3									
Square D		MAL	3									
Square D	1000 Amp Frame	MH	2-3									
Square D		MHL	2-3									
Square D		ML-1	3									
Square D		ML-3	3									
Square D	250 Amp Frame	Q1B	2-3									
Square D	250 Amp Frame	Q1L	2-3									
Square D	250 Amp Frame	Q2	2-3									
Square D	250 Amp Frame	Q2H	2-3									
Square D	250 Amp Frame	Q2L	2-3									
Square D	250 Amp Frame	Q2MT	2-3									
Square D	400 Amp Frame	Q4	2-3									
Square D	400 Amp Frame	Q4L	2-3									
Square D	QO	QO	1									
Square D	QO	QO	2-3									
Square D	QO	QOB	1									
Square D	QO	QOB	2-3									
Square D	QO	QOB-H	2									
Square D	QO	QOB-VH	1									
Square D	QO	QOB-VH	2-3									
Square D	QO	QO-H	2									
Square D	Main Circuit Breaker QO	QOM1-VH	2									
Square D	Main Circuit Breaker QO	QOM2-VH	2									
Square D	QO	QO-SWN	2-3									
Square D	DIN Rail Mnt QO	QOU	1									
Square D	DIN Rail Mnt QO	QOU	2-3									
Square D	DIN Rail Mnt QO	QOU w/tie	2-3									
Square D	QO	QO-VH	1									
Square D	QO	QO-VH	2-3									
Square D	DIN Rail Mount	QYU	1									
Square D	2500 Amp Frame	RG	2-4									
Square D	2500 Amp Frame	RJ	2-4									
Square D	2500 Amp Frame	RL	2-4									
Square D		Y1										
Sylvania GTE		QC	2									
Sylvania GTE		Type C	2									
T&B		F Frame	1-3									



TOOLS & SUPPLIES

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Westinghouse		BA	1									
Westinghouse		BA	2-3									
Westinghouse		BA	2-3									
Westinghouse		BA	1									
Westinghouse		BAB	1									
Westinghouse		BR	1									
Westinghouse		BR	2-3									
Westinghouse		BRH	2-3									
Westinghouse		CA										
Westinghouse		DA										
Westinghouse		DK										
Westinghouse		EB	1-3									
Westinghouse		ED										
Westinghouse		EH	1-3									
Westinghouse		EHB	1-3									
Westinghouse		EHD	1-3									
Westinghouse		FA	3									
Westinghouse		FB	2-3									
Westinghouse		FD	1-4									
Westinghouse		FDB	2-4									
Westinghouse		FDC	2-4									
Westinghouse	For Fire Protect.	FP	3									
Westinghouse		GB	1-3									
Westinghouse		GBH	1-3									
Westinghouse		GHB	1-3									
Westinghouse		GR	3									
Westinghouse		HBAX	1									
Westinghouse		HBAW	1									
Westinghouse		HCA	3									
Westinghouse		HFB	1-3									
Westinghouse		HFD	1-4									
Westinghouse		HKD	3									
Westinghouse		HLA										
Westinghouse		HLB										
Westinghouse		HMC										
Westinghouse		HMCP										
Westinghouse		HNC										
Westinghouse		HQNP	3									
Westinghouse		HQP	1									
Westinghouse		JA										
Westinghouse		JD	2-4									
Westinghouse		KA	3									
Westinghouse		KB										
Westinghouse		LA	3									
Westinghouse		LB										
Westinghouse		LBB	3									
Westinghouse		LH										
Westinghouse		MA	2-3									
Westinghouse		MC	2-3									
Westinghouse		MCC	2-3									
Westinghouse		MCPO	3									
Westinghouse		NB										
Westinghouse		P	3									
Westinghouse		QBHW	1									
Westinghouse		QC	1									
Westinghouse	Quicklag C	QC	3									
Westinghouse		QCHQ	1									
Westinghouse		QHCW	1									
Westinghouse		QHCX	1									
Westinghouse		QHPW	1									
Westinghouse		QPHW	1									
Westinghouse		Quicklag P										
Westinghouse		RE										
Westinghouse		RH	3									
Westinghouse		WPHX	1									
Zinsco		HQB	3									
Zinsco		QB	1									
Zinsco		QCB	2									
Zinsco		Type Q	1									
Zinsco		Type T	1									

LOCKOUT/TAGOUT

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How to Select Resurfacer Grade

Small Motor and Pocket Resurfacers

Grade code letters designate the following grade combinations:

- | | |
|------------------------|------------------------|
| A Medium/Finish | G Coarse/Medium |
| B Coarse/Finish | H Medium/Polish |
| D Finish/Polish | |

All Other Resurfacers

Resurfacers for commutators and copper-alloy slip rings are made in five grades:

- X** Extra coarse—very fast cutting, for “hogging” off excessive copper
- C** Coarse—fast cutting
- M** Medium—for general use, high mica, small ridges and burns
- F** Finish—for use after the three grades above, for periodic application and for removing small burns and ridges immediately after their appearance
- P** Polish—very fine grade (220 aggregate grain) for burnish finish

For all resurfacers, specify grade by adding the appropriate letter as a suffix to the catalog number. (Example: 80-475M for medium grade.)

How to Select Resurfacer Size

Size is always written length x width x thickness (working face area x depth of stone). For handle types, the handle is mounted parallel to the first dimension. Always use a resurfacer with the largest face possible (length x width). Thickness should be governed by clearance around commutator or ring.

Commutator Resurfacers

The resurfacer should have a width of approximately 3/4 the length of the commutator bar and as long as will conveniently go between the brush riggings. For periodic application, three or four sizes are generally sufficient. After determining approximate dimensions, select nearest standard size and type.

Slip Ring Resurfacers

When space permits, use a resurfacer about 1 in. wider than the face width of the ring. Length should be at least three times greater than the longest flat spot to bridge over and ensure a true ring.

Small Motor-Type Resurfacer

- Different grades of stone on each end
- 10 in. handle
- For use on small fractional horsepower motors

Size (In.)	Grades	Cat. No.
3/4 x 1/2 x 3/8	A, B, D	80-012*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Tool-Type Resurfacer

- For use in lathe-turning device
- Two resurfacers required for each grinder

Sizes (In.)	Grades	Cat. No.
3/4 x 3/4 x 3	C	80-504*
1 x 1-1/2 x 6-1/2	C, M, F	80-454*
1 x 2 x 8		80-461*
2 x 2 x 8		80-475*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Pencil-Type Resurfacer

- For use on fans, signal motors, auto generators, locomotive headlight motors and other fractional horsepower motors

Size (In.)	Grades	Cat. No.
5/8 x 3/8 x 6	C, M, F, P	80-075*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Tramway-Handle Resurfacer

- Handle shaped to ensure secure grip
- 10-1/2 in. handle permanently mounted at 45° angle



Sizes (In.)	Grades	Cat. No.
2 x 1-1/2 x 2	M, F	80-255*
2 x 2 x 2	C, M, F	80-265*

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

Powr-Polish™ Flexible Abrasive

- Fine-grain, non-dusting abrasive held together by a flexible bond
- Serves as both commutator cleaner and burnisher
- Removes dirt and grease—imparts super-finished surface
- Non-conductive and non-loading

Sizes (In.)	Cat. No.
3/8 x 1/2 x 5	82-001
3/8 x 3/4 x 5	82-002
5/8 x 1 x 5	82-003
1 x 2 x 5	82-004
1 x 4 x 5	82-005
1/8 x 1 x 5	82-006

Please allow 2-3 weeks for delivery.



TOOLS & SUPPLIES

COMMUTATOR MAINTENANCE

WWW.IDEALINDUSTRIES.COM

1-800-435-0705 CUSTOMER ASSISTANCE

Brush Seater & Commutator Cleaner

- Gentle acting abrasive for seating carbon brushes and cleaning commutators and slip rings
- Soft, loosely bound grain produces a scouring effect when held against commutator
- Will not remove or scratch copper
- Self-cleaning
- Available in soft(S), medium(M) and hard(H) grades



Sizes (In.)	Grades	Cat. No.
1/4 x 1/4 x 4-3/4	M, H	23-001*
1/2 x 1/4 x 4-3/4	M, H	23-002*
3/8 x 3/8 x 4-3/4	M	23-003*
1/2 x 3/8 x 4-3/4	M, H	23-004*
1/2 x 1/2 x 4-3/4	M	23-005*
5/8 x 1/2 x 4-3/4	M	23-006*
3/4 x 1/2 x 4-3/4	S, M, H	23-007*
1-1/8 x 5/8 x 4-3/4	S, M, H	23-008*
1/2 x 1 x 4-3/4	S, M	23-027*
1 x 1 x 4-3/4	—	23-035S
2 x 1 x 4-3/4	—	23-036S
3 x 2 x 6	—	23-041S
3 x 2 x 8	—	23-042S

*Add grade letter suffix to Cat. No. Please allow 2-3 weeks for delivery.

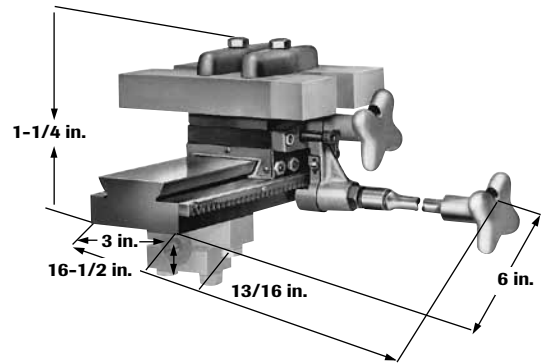
Commutator Smoothie® Resurfacing Tool

- Designed to smooth commutators of auto generators, starting motors and other similar equipment
- 8-1/2 in. plastic handle with a 5/16 in. x 7/8 in. x 11/16 in. resurfacer on each end
- Features one polish-grade and one finish-grade resurfacer
- Bent handle reaches into any motor frame
- Non-conductive for user safety

Description	Cat. No.
Commutator Smoothie® Resurfacing Tool	80-033

Please allow 2-3 weeks for delivery.

Midget Precision Grinder



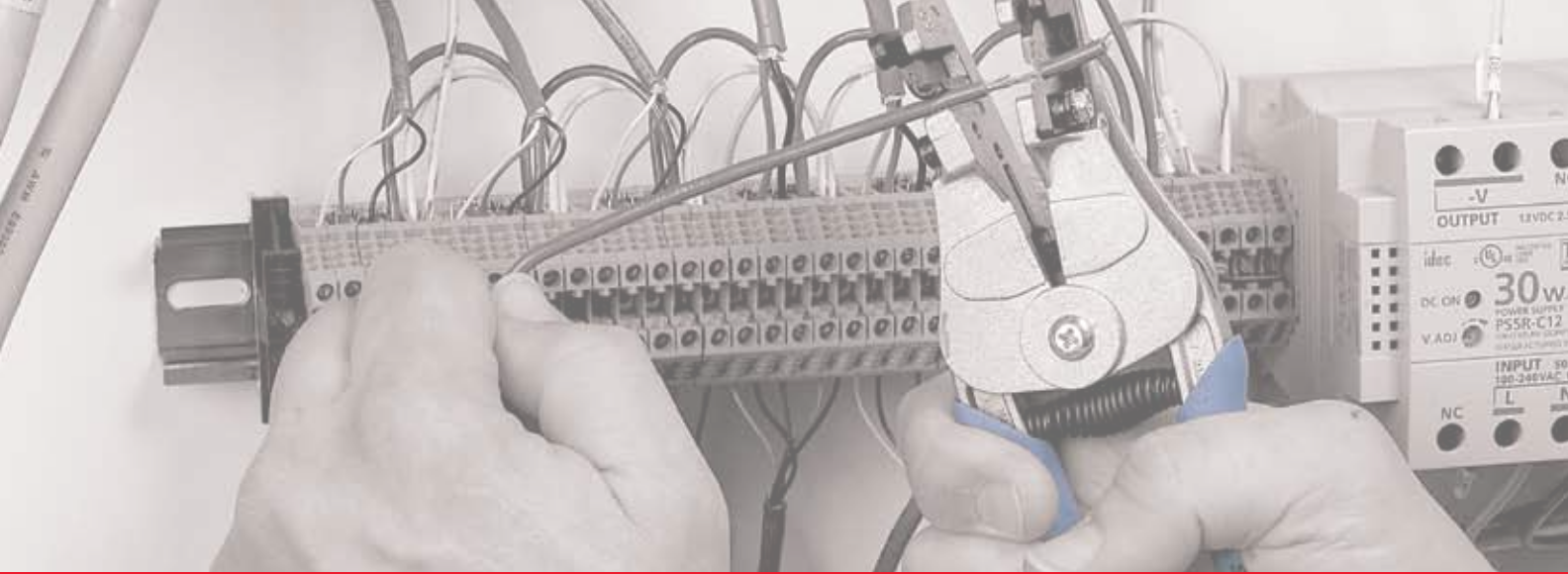
- Right-angle rack and pinion allows for operation in small areas
- 6 in. base – recommended for commutator widths up to 9-1/4 in. (includes extra 1 in. travel obtained by setting resurfacers at slight angle)
- Includes convenient carrying case
- Two tool-type resurfacers required – 80-454 recommended

Description	Cat. No.
Midget Precision Grinder	24-033

Order tool-type resurfacers and brush arm supports separately.

IDEAL INDUSTRIES, INC.
was founded by
J. Walter Becker in 1916
as the **IDEAL Commutator
Dresser Company.**





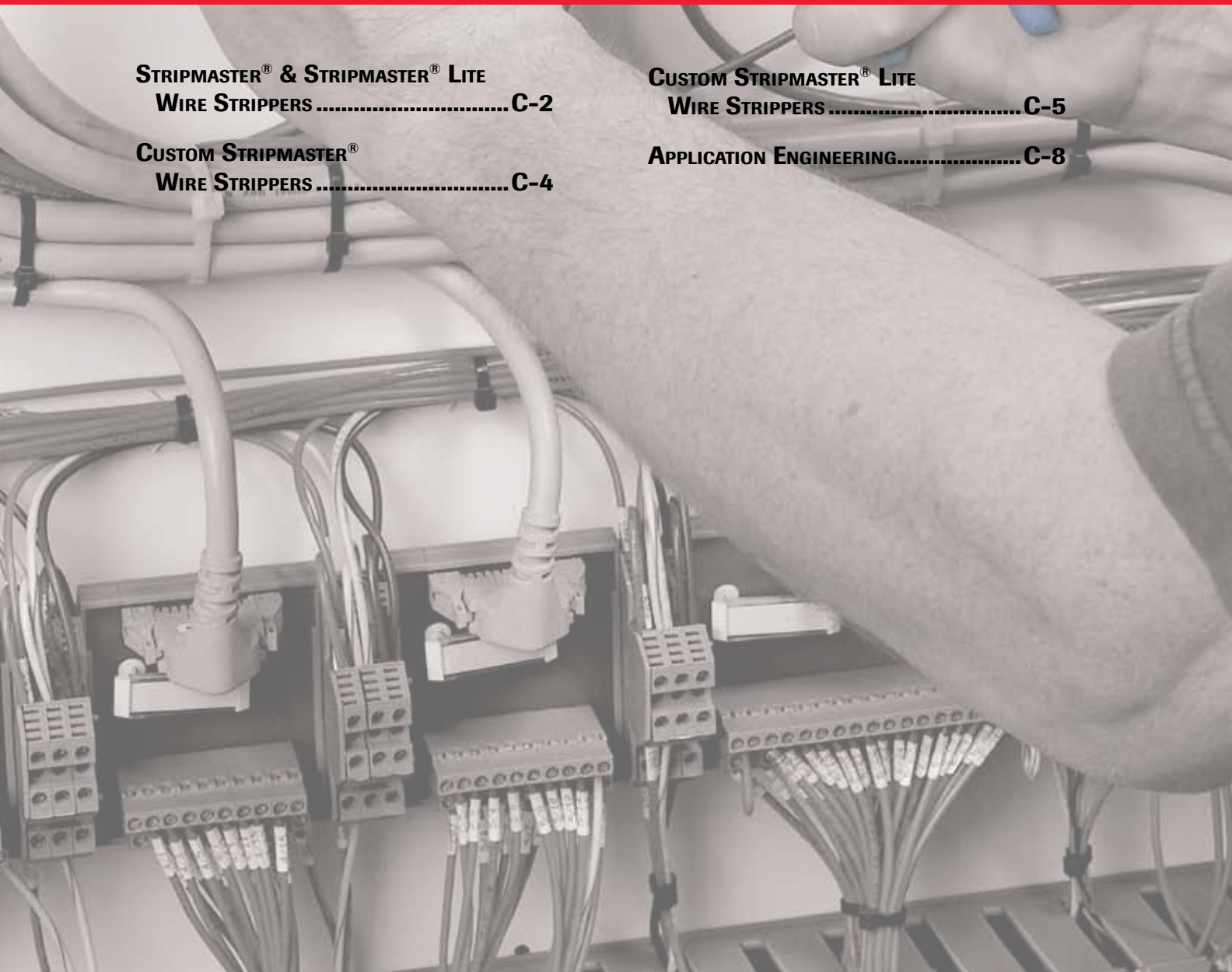
SECTION **C** STRIPMASTER® WIRE STRIPPERS

**STRIPMASTER® & STRIPMASTER® LITE
WIRE STRIPPERS C-2**

**CUSTOM STRIPMASTER®
WIRE STRIPPERS C-4**

**CUSTOM STRIPMASTER® LITE
WIRE STRIPPERS C-5**

APPLICATION ENGINEERING..... C-8



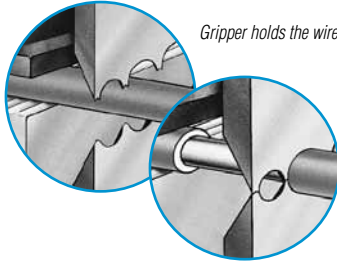


STRIPMASTER® WIRE STRIPPERS

Stripmaster® and Stripmaster® Lite Wire Strippers



- One-step stripping enhances productivity
- Spring-action motion increases leverage and reduces operator fatigue
- Precision-ground, knife-type blades provide clean, accurate stripping
- Sturdy die-cast frame provides long-term durability
- Wire gripper holds wire securely in position
- Stripmaster® Lite designed for smaller hands – 3/4 the size of the standard Stripmaster®



Gripper holds the wire securely in position.

Knife-type stripping blades have form-ground holes which penetrate the insulation like a knife, giving a clean insulation cut.



Stripmaster® Wire Stripper



Stripmaster® Lite Wire Stripper

Stripmaster® Wire Strippers and Knife-Type Blades

Specifications — Stripping Hole Diameter in Inches (mm)												Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.	
Wire Size AWG															
6	8	10	12	14	16	18	20	22	24	26	28	30			
	0.159 (4.0)	.141 (3.6)	.106 (2.7)										45-090* or 45-290**	L-4419	L-5620
		.144 (3.6)	.105 (2.7)	.085 (2.2)	.073 (1.8)	.073 (1.8)							45-091	L-4420	L-5620
		.144 (3.6)	.113 (2.9)	.090 (2.3)	.072 (1.8)	.061 (1.5)	.048 (1.2)	.048 (1.2)					45-092* or 45-292**	L-4421	L-5620
				.090 (2.3)	.072 (1.8)	.061 (1.5)	.039 (1.0)	.039 (1.0)					45-093	L-4422	L-5620
.230 (2.3)	.198 (5.0)												45-096	L-4453	L-4453
					.072 (1.8)	.061 (1.5)	.048 (1.2)	.039 (1.0)	.032 (0.8)	.026 (0.7)			45-097	L-4994	L-5620
							.048 (1.2)	.039 (1.0)	.032 (0.8)	.026 (0.7)	.021 (0.5)	.016 (0.4)	45-098	L-5361	L-5620
	.198 (5.0)	.167 (4.2)			.062 (1.6)	.055 (1.4)							45-099	L-8763	L-5620

*Boxed ** Blister Card Tolerances +001 - .005

Stripmaster® Lite Wire Strippers and Knife-Type Blades

Specifications — Stripping Hole Diameter Inches (mm)										Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size AWG												
12	14	16	18	20	22	24	26	28	30			
		.072 (1.8)	.061 (1.5)	.048 (1.2)	.039 (1.0)					45-671	LB-1001	LB-1421
						.032 (0.8)	.026 (0.7)	.021 (0.5)	.016 (0.4)	45-672	LB-1002	LB-1421
.113 (2.9)	.090 (2.3)	.072 (1.8)	.061 (1.5)	All stranded wire						45-673	LB-1003	LB-1421
.096 (2.4)	.085 (2.2)	.073 (1.9)	.061 (1.5)	12 & 14 Solid Wire, 16 & 18 Stranded Wire						45-674	LB-1004	LB-1421

Tolerances +001 - .005

Stripmaster® Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)														Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²																
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5	2.5	4	6	8	10			
												4.3	5.0	45-090-341	L-4419M	LA-2358
						1.3	1.6	1.9	2.4	3	3.6			45-092-341 or 45-292-341*	L-4421M	LA-2358
0.6	0.7	0.8	0.9	1.0	1.1									45-098-341	L-5361M	LA-2358

*Boxed Tolerances +001 - .005

Stripmaster® Lite Wire Strippers and Knife-Type Blades for Metric Wire

Specifications — Stripping Hole Diameter (mm)									Cat. No.	Replacement Blades (Pair) Cat. No.	Replacement Frame Cat. No.
Wire Size mm ²											
0.05	0.1	0.15	0.22	0.34	0.5	0.75	1	1.5			
				1.0	1.1	1.3	1.6	1.9	45-671-341	LB-1001M	H-2909
0.6	0.7	0.8	0.9						45-672-341	LB-1002M	H-2909

Free Application Engineering Service available. Contact IDEAL INDUSTRIES, INC. for complete information at 1-800-324-9571 or download application at www.idealindustries.com/products/wire-processing.

Coax Stripmaster® Wire Strippers and Blades



Description	Coax Cable Type (RGU)	Repl. Blade Cat. No.	Cat. No.
Coax Stripmaster® for RG-6	RG-6	LB-740	45-262
Coax Stripmaster® for RG-58	RG-58	LB-742	45-264
Coax Stripmaster® for RG-59	RG-59	LB-743	45-265
Coax Stripmaster® for RG-6 QuadShield	RG-6 QuadShield	LA-3953	45-282

Coaxial Cables: two-step strip for termination, jacket and dielectric.

Stripmaster® Wire Strippers with Rectangular Holes



Description	Cat. No.	Replacement Blades (Pair) Cat. No.
For Flat Telephone Cable (.060 in. or 1.52mm)	N/A	LB-1155
For European Flat Lamp Cord	45-089	L-8762
For SP-SPT Lamp Cord	45-095*	L-4452

*Also strips 2- and 3-conductor low-voltage wire used in E.E. and Touchplate remote control wiring system.

Transparent Adjustable Wire Stop Assembly

- Provides uniform stripping length



Optional Accessories	Cat. No.
Transparent Adjustable Wire Stop (for Stripmaster® Wire Strippers)	L-5270
Transparent Adjustable Wire Stop (for Stripmaster® Lite Wire Strippers)	LB-1195
Replacement Moveable Gripper	L-1953

Short Stop Latch

- Protects wire strands by limiting stripping stroke to 5/32 in.
- Retains slug until wire is ready for terminating



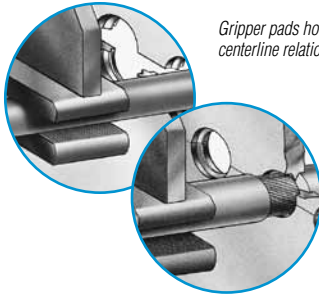
Replacement Frame Assemblies	Cat. No.
For Stripmaster® Wire Strippers	L-5620
For Stripmaster® Lite Wire Strippers	LB-1421



STRIPMASTER® WIRE STRIPPERS

Custom Stripmaster® Wire Strippers

- Strips 30 through 10 AWG solid or stranded wire
- Mil-spec die-type blades allow precision stripping
- Inner cutting hole sized to conductor and counter-bored holes sized to insulation
- Replaceable grippers
- Optional short stop-latch and transparent wire stop
- Cushioned, comfort grip handles
- Engineering service and made-to-order blades available. Contact factory for complete product and blade number listing.



Gripper pads hold the wire securely in a centerline relationship with the blade.

Die-type blades incorporate a counter-bored hole sized to the insulation and an inner cutting hole sized to the conductor. This varies depending on insulation type and thickness.

Custom Stripmaster® Wire Strippers and Die-Type Blades

Specifications – $\frac{\text{Cutting Hole Diameter}}{\text{Counterbore Diameter}}$ in Inches											Stripper Cat. No.	Blade Only Cat. No.	
Wire Size AWG													
10	12	14	16	18	20	22	24	26	28	30			
For MIL16878 Type E (600V)													
.119/.136	.096/.113	.076/.0985									45-176	L-5559	
			.061/.081	.052/.070	.042/.0595	.034/.052	.028/.043	.026/0.39			45-177	L-5560	
								.023/.039	.019/.035	.016/.032	45-178	L-5561	
For MIL16878 Type EE (1000V)													
.119/.144	.096/.125	.076/.104									45-173	L-5562	
			.061/.089		.042/.067	.034/.0595	.028/.055	.023/.0465			45-174	L-5563	
				.052/.0785				.023/.0465	.019/.043	.016/.042	45-175	L-5564	
For Other Misc. Insulations													
.116/.154	.0937/.138	.076/.113									45-170	L-5210	
			.062/.096	.052/.086	.042/.073	.035/.0635	.0292/.0595	.022/.052			45-171	L-5211	
								.024/.043	.020/.040	.016/.037	45-172	L-5436	
Other Thin Insulations													
								Three identical holes		.012/.020	45-179	L-7625	
					Solid Wires			.024/.033	.018/.025	.014/.023	.012/.019	45-169	L-9300

Tolerances: Cutter Dia.: ± .001; Counter-bore Dia.: ± .002. The 45-170 Series is a Custom Stripmaster® Wire Stripper frame without the short stop latch and wire stop.

Custom Stripmaster® Lite Wire Strippers



- Custom Stripmaster® Lite is 3/4's the size of Custom Stripmaster® Wire Stripper and strips 16 through 30 AWG solid or stranded wire
- Custom Stripmaster® Lite requires one-third less hand pressure for each strip actuation
- Engineering Service and made-to-order blades available. Contact factory for complete product and blade number listing.



Custom Stripmaster® Lite Wire Strippers and Die-type Blades

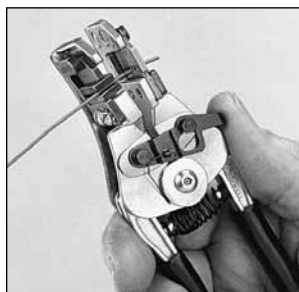
Specifications – Cutting Hole Diameter in Inches								Stripper Cat. No.	Blade Only Cat. No.
Counterbore Diameter									
16	18	20	22	24	26	28	30		
For MIL16878 Type E (600V)									
.061/.081	.052/.070	.042/.0595	.034/.052					45-638	LB-918
		.042/.0595	.034/.052	.028/.043	.023/.039			45-639	LB-919
				.028/.043	.023/.039	.019/.035	.016/.032	45-640	LB-920
For MIL16878 Type EE (1000V)									
.061/.089	.052/.0785	.042/.067	.034/.0595					45-635	LB-915
		.042/.067	.034/.0595	.028/.055	.023/.0465			45-636	LB-916
				.028/.055	.023/.0465	.019/.043	.016/.042	45-637	LB-917
For Other Misc. Insulations									
.062/.096	.052/.086	.042/.073	.034/.0595					45-632	LB-912
		.042/.073	.034/.0595	.0292/.0595	.022/.052			45-633	LB-913
				.024/.033	.018/.025	.020/.040	.016/.037	45-634	LB-914
Other Thin Insulations									
							.012/.020	45-641	LB-921
				.024/.033	.018/.025	.014/.023	.012/.019	45-631	LB-911

Tolerances: Cutter Dia.: ± .001; Counter-bore Dia.: ± .002.

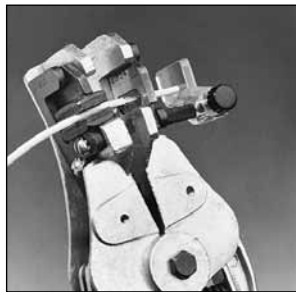
Custom Steel Stripmaster® Wire Strippers and Special Flat-Blades for Ribbon and Multi-Conductor Cable

Description	Blade Gap ("x") vertical height	Blade Only Cat. No.	Frame & Blade Cat. No.
Custom Steel frame only	N/A	N/A	LB-1091
Flat blade for 26 AWG (.40mm dia.) multi-conductor	.022 in.	LB-1151	45-890
Flat blade for 24 AWG (.00mm dia.) multi-conductor	.030 in.	LB-1152	45-891
Flat blade for 22 AWG (.64mm dia.) multi-conductor	.038 in.	LB-1153	45-892
Flat blade for 20 AWG (.00mm dia.) multi-conductor	.050 in.	LB-1154	45-893
Flat blade for 18 AWG (1.02mm dia.) multi-conductor	.060 in.	LB-1155	45-894
Flat blade for 16 AWG (1.29mm dia.) multi-conductor	.075 in.	LB-1156	45-895

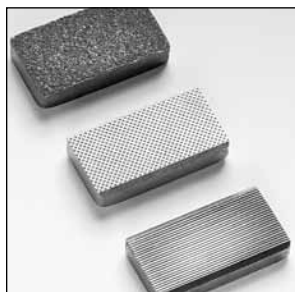
IDEAL® STRIPMASTER® WIRE STRIPPERS



Short stop-latch protects wire strands by limiting the stripping stroke to 5/32 in. and retains the slug until the wire is ready for terminating.



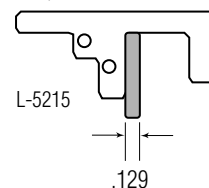
Transparent wire stop provides uniform stripping length.



Gripper pads are available in your choice of either parallel, file or grit-type. File-type pads may be used on hard-to-grip insulations.

Stationary Gripper for Red Handle Units

For 10, 12 & 14 AWG Wire

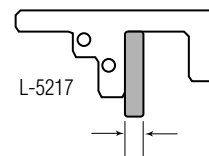


L-5215

.129

Stationary Gripper for Black Handle Units

For 16 thru 30 AWG wire.



L-5217

.156

Replacement Gripper Pads

For Custom Stripmaster® and Custom Steel Stripmaster® Wire Strippers

Surface Type	Gripper Set* Cat. No.	Movable Gripper Cat. No.	Stationary Gripper (Thickness)
Grit**	LB-197	L-5212	L-5215 (.129 in.)
Grit**	LB-198	L-5212	L-5217 (.156 in.)
File	LB-721	LB-718	LB-719 (.129 in.)
File	LB-722†	LB-718	LB-720 (.156 in.)
Parallel	LB-730	LB-727	LB-728 (.129 in.)
Parallel	LB-731	LB-727	LB-729 (.156 in.)

For Custom Stripmaster® Lite Wire Strippers

Surface Type	Gripper Set* Cat. No.	Movable Gripper Cat. No.	Stationary Gripper (Thickness)
Grit*	LB-1188	LB-882	LB-883 (.109 in.)
File	LB-1189	LB-1184	LB-1185 (.109 in.)
Parallel	LB-1190	LB-1186	LB-1187 (.109 in.)

* Gripper Set includes one movable gripper, one stationary gripper.

** Grit pads are standard for most Custom Stripmaster® and Custom Stripmaster® Lite products.

† These are for use on hard-to-grip surfaces.

Gripper pad selection depends on insulation type and user preference.

Note: For 10-14 AWG, use .129 in. stationary gripper. For 16-30 AWG, use .156 in. gripper.

Replacement Frame Assemblies

For Custom Stripmaster® Wire Strippers	Cat. No.
Frame only, 10-14 AWG	L-5616
Frame only, 16-30 AWG	L-5617
Frame only, 10-14 AWG, Wire Stop and Latch	L-5618
Frame only, 16-30 AWG, Wire Stop and Latch	L-5619
Frame only, 10-14 AWG, internal spring (see note)	L-9039
Frame only, 16-30 AWG, internal spring (see note)	L-9038

Note: Frames with internal springs allow additional blade penetration pressure for difficult and multi-layered insulation types.

For Custom Stripmaster® Lite Wire Strippers	Cat. No.
Frame only	LB-895
Frame only, Wire Stop and Latch	LB-896

For Custom Steel Stripmaster® Wire Strippers	Cat. No.
Frame only, 10-14 AWG	LB-1091
Frame only, 16-30 AWG	LB-1092
Frame only, 10-14 AWG, internal spring (see note)	LB-1090
Frame only, 16-30 AWG, internal spring (see note)	LB-1089

Note: Frames with internal springs allow additional blade penetration pressure for difficult and multi-layered insulation types.

Optional Accessories

Short Stop-Latch	Cat. No.
For Custom & Custom Steel Stripmaster® Wire Strippers	L-5269
For Custom Stripmaster® Lite Wire Strippers	LB-1194

Transparent Adjustable Wire Stop Assembly	Cat. No.
For Custom & Custom Steel Stripmaster® Wire Strippers	L-5270
For Custom Stripmaster® Lite Wire Strippers	LB-1195

Wire Stripper MIL-spec reference chart – Contact Industrial Customer Service for lead times.

Wire Specification	Custom Stripmaster®			Custom Stripmaster® Lite		
	Cat. No.	Blade Only Cat. No.	Wire Gauge	Cat. No.	Blade Only Cat. No.	Wire Gauge
MIL-W-81044/4/5/6 MIL-W-5086/1/7	45-170 45-171	L-5210 L-5211	10-14 AWG 16-26 AWG	N/A	N/A	N/A
MIL-W-81044/8/9/10 MIL-W-16878/5 MIL-W-81381/3/4	45-173 45-174 45-175	L-5562 L-5563 L-5564	10-14 AWG 16-26 AWG 26-30 AWG	45-635 45-637 45-637	LB-915 LB-917 LB-917	16-22 AWG 24-30 AWG 24-30 AWG
MIL-W-22759/32/33/44/45/46	45-1987 45-1654	45-1987-1 45-1654-1	16-26 AWG 16-26 AWG	45-2133 45-2132	45-2133-1 45-2132-1	16-24 AWG 16-24 AWG
MIL-81044/11/12/13 MIL-W-22759/34/35/41/42/43	45-1611 45-2500 45-1987 45-178	45-1611-1 45-2500-1 45-1987-1 L-5561	10-14 AWG 10-14 AWG 16-26 AWG 26-30 AWG	45-2133 45-2118 45-640	45-2133-1 45-2118-1 LB-920	16-24 AWG 20-26 AWG 24-30 AWG
Raychem 44A021X, 44/051X MIL-W-16878/4 MIL-W-22759/11/12/22/23	45-176 45-1611 45-177 45-178	L-5559 45-1611-1 L-5560 L-5561	10-14 AWG 10-14 AWG 16-26 AWG 26-30 AWG	45-640	LB-920	24-30 AWG
MIL-W-81044/16/17	45-1611 45-1610	45-1611-1 45-1610-1	10-14 AWG 16-26 AWG	45-2131	45-2131-1	16-24 AWG
MIL-W-81381/1/2//6/7/8/9/10/17/21	45-1609 45-1551 45-178	45-1609-1 45-1551-1 L-5561	10-14 AWG 16-26 AWG 26-30 AWG	45-640	LB-920	24-30 AWG
MIL-W-81381/11/12/13/14/22	45-1608 45-1654 45-178	45-1608-1 45-1654-1 L-5561	10-14 AWG 16-26 AWG 26-30 AWG	45-640	LB-920	24-30 AWG
MIL-W-22759/18/19	45-1608 45-1551	45-1608-1 45-1551-1	10-14 AWG 16-26 AWG	N/A	N/A	N/A
MIL-W-81381/17/21	45-1633	45-1633-1	16-26 AWG	45-2120	45-2120-1	20-26 AWG
MIL-W-81381/18/19/20	45-1609 45-1551	45-1609-1 45-1551-1	10-14 AWG 16-26 AWG	N/A	N/A	N/A
MIL-W-22759/16/17	45-1611 45-1987	45-1611-1 45-1987-1	10-14 AWG 16-26 AWG	45-2133 45-2118	45-2133-1 45-2118-1	16-24 AWG 22-26 AWG
MIL-W-24640/19/22/23/24	45-1957	45-1957-1	14-22 AWG	N/A	N/A	N/A
MIL-W-85485/5/6/7/8	45-1925 45-1924	45-1925-1 45-1924-1	10-14 AWG 16-24 AWG	N/A	N/A	N/A
MIL-W-85485/9/10/11/12 MIL-W-85485/9/10	45-1611 45-1610	45-1611-1 45-1610-1	10-14 AWG 16-24 AWG	45-2131	45-2131-1	16-24 AWG
BMS 1360 Type 1-6, 19-21, 23-27, 33-34	45-2541 45-2543	45-2541-1 45-2543-1	10-14 AWG 16-24 AWG	45-2697	45-2697-1	16-24 AWG
BMS 1360 Type 12-18, 28-32	45-2542 45-2544	45-2542-1 45-2544-1	10-14 AWG 16-24 AWG	N/A	N/A	N/A
BMS 1360 Type 7-12	45-2565 45-2564	45-2565-1 45-2564-1	10-14 AWG 16-26 AWG	N/A	N/A	N/A
MIL-W-22759/80/81/82/91/92	45-2542 45-2544	45-2542-1 45-2544-1	10-14 AWG 16-24 AWG	45-2693 45-2692	45-2693-1 45-2692-1	16-22 AWG 20-26 AWG
MIL-W-22759/83/84/85/86/87/88/89/90	45-2541 45-2543 45-2618	45-2541-1 45-2543-1 45-2618-1	10-14 AWG 16-24 AWG 16-26 AWG	45-2685	45-2685-1	16-24 AWG



STRIPMASTER® WIRE STRIPPERS

FREE Application Engineering Service

Whatever your particular wire or cable preparation challenge, we're ready to assist you with practical solutions. Simply send us at least five feet of your wire or cable and complete the questionnaire below. Copy this form and mail to:

IDEAL INDUSTRIES, INC.
1375 Park Avenue, Sycamore, IL 60178
Attn: Wire Stripping Applications Analysis

We'll quickly recommend a practical stripping or cutting solution designed to meet your needs. Remember, this is a free service that we're eager to provide whenever you need it.

For immediate assistance, call our Industrial Support Line at 800-324-9571 or e-mail industrial@idealindustries.com.

Free Application Engineering Service for Wire Stripping Recommendations

Completion of this information is a request for recommended tools or equipment only and does not place the individual or the company inquiring under any obligation to purchase. This is a free service of IDEAL INDUSTRIES, INC., Sycamore, Illinois.

Please enclose at least **five feet of your wire or cable** and answer the following questions to expedite a reply for your particular application.

1. Method Preference:

- A. Hand Type**
- B. Production Strippers**
 - 1. 45-930 STP Stripping System**
 - 2. 45-950 Stripmaster® Model 950 Wire Stripper**

2. Stripping Tolerance:

- A. Precision**
- B. Non-Precision**

3. Present Method: _____

4. Type of Insulation: _____

Customer Information

Please enclose business card or complete the following:

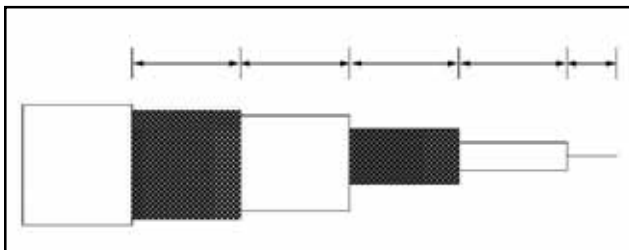
Name _____
 Title _____
 Company _____
 Street _____
 City _____ State _____ Zip _____
 Phone _____ Fax _____
 E-mail _____

5. Wire Gauge: _____

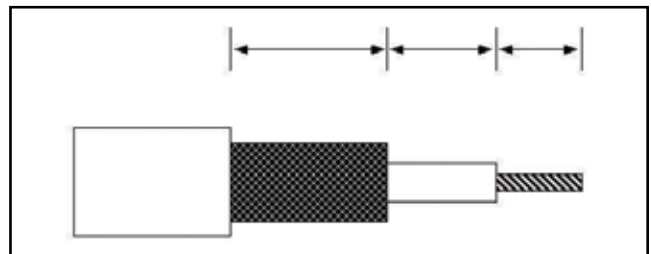
6. MIL-Spec: _____

7. Number of Strips per Day: _____

Triaxial Cable



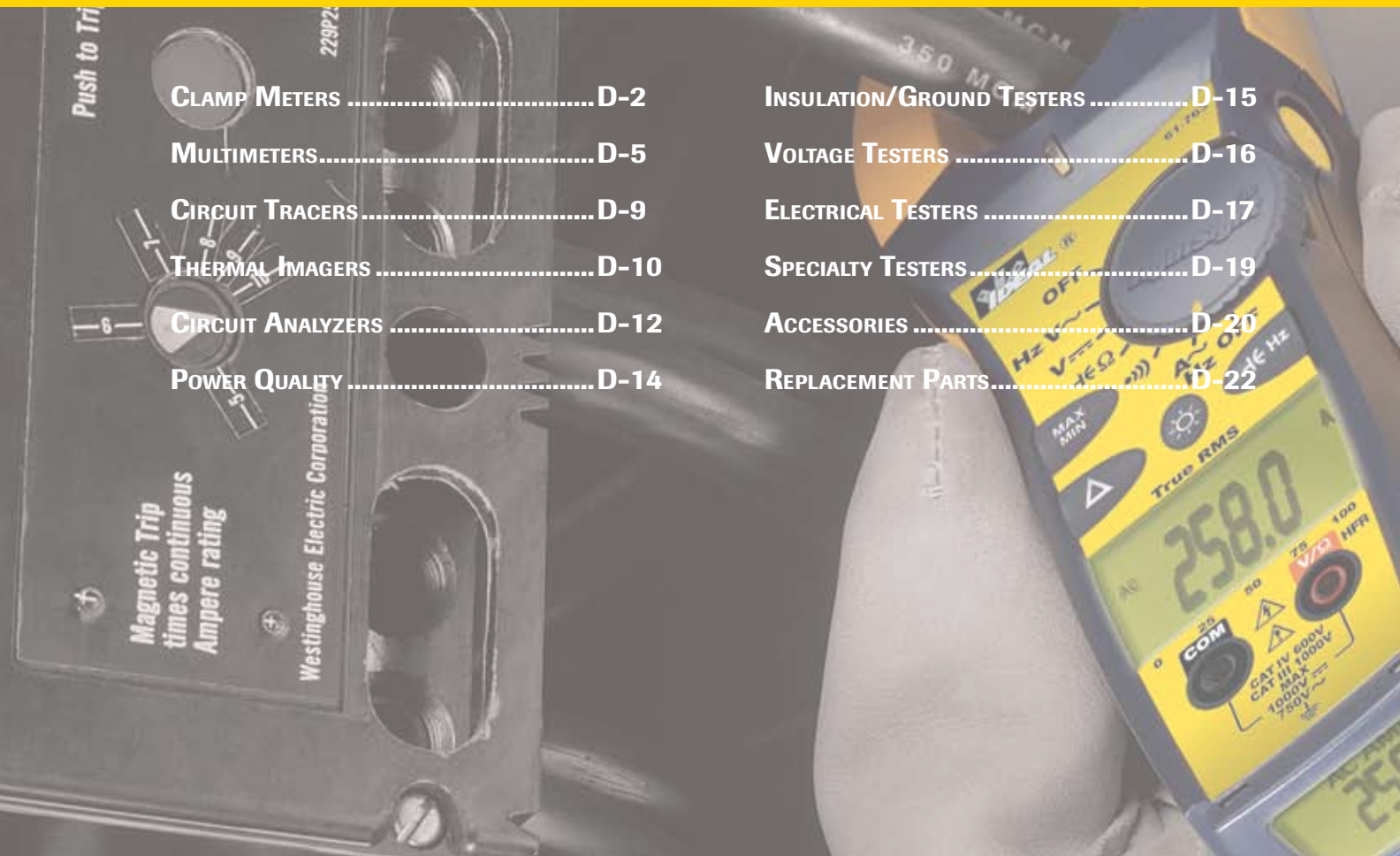
Coax Cable



5. Remarks: _____



SECTION **D** TEST & MEASUREMENT



CLAMP METERS D-2

MULTIMETERS D-5

CIRCUIT TRACERS D-9

THERMAL IMAGERS D-10

CIRCUIT ANALYZERS D-12

POWER QUALITY D-14

INSULATION/GROUND TESTERS D-15

VOLTAGE TESTERS D-16

ELECTRICAL TESTERS D-17

SPECIALTY TESTERS D-19

ACCESSORIES D-20

REPLACEMENT PARTS D-22



TEST & MEASUREMENT

Clamp Meter Selection Guide

CLAMP METER SELECTION GUIDE	700 Series		740 Series		760 Series		770 Series	
	61-702	61-704	61-744	61-746	61-763	61-765	61-773	61-775
MEASUREMENT FUNCTIONS								
AC Voltage	•	•	•	•	•	•	•	•
DC Voltage	•	•	•	•	•	•	•	•
AC Current	•	•	•	•	•	•	•	•
DC Current						•		•
Resistance	•	•	•	•	•	•	•	•
Audible Continuity	•	•	•	•	•	•	•	•
Diode Test	•	•						
Capacitance	•	•			•	•	•	•
Frequency					•	•	•	•
FEATURES								
Display Type (Digital)	D	D	D	D	D	D	D	D
AC Current Capacity	200	200	600	600	660	660	1000	1000
DC Current Capacity						660		1000
True RMS		•		•	•	•	•	•
Auto Ranging	•	•						
Auto/Manual Ranging			•	•	•	•	•	•
Data Hold	•		•	•	•	•	•	•
Max Hold	•	•						
Peak Hold					•	•	•	•
Min/Max					•	•	•	•
DCA Zero					•	•	•	•
Auto Power Off	•	•	•	•	•	•	•	•
Non-Contact Voltage Indication	•	•	•	•				
Harmonics Indicator	•	•						
Vibration Mode	•	•						
Backlight		•			•	•	•	•
Low Battery Indication	•	•	•	•	•	•	•	•
High Voltage Warning	•	•			•	•	•	•
Overload Protection on all Ranges	•	•	•	•	•	•	•	•
Conductor Size – Inches (mm)	1.3" (33)	1.3" (33)	1.5" (38)	1.5" (38)	1.4" (36)	1.4" (36)	2.0" (51)	2.0" (51)
Warranty (years)	2	2	2	2	2	2	2	2
CERTIFICATIONS								
UL 61010 Listed	•	•	•	•	•	•	•	•
Category Safety Rating	III	III	III	III	IV	IV	IV	IV
CE	•	•	•	•	•	•	•	•



TightSight® Clamp Meters 1000 & 660 Amp

- TightSight® bottom display
- Tapered jaws with hook tip
- Measures AC current
- True RMS
- AC/DC Voltage
- Capacitance
- Audible continuity
- Frequency via clamp head or test leads
- Resistance
- High frequency rejection*
- Peak hold
- Max/min hold
- Data hold
- Selectable audible and visual voltage alerts on AC/DC voltage functions
- Selectable auto power off
- Backlit display
- Low battery indicator
- 2-year warranty

*Reads accurately on noisy electrical circuits.



1000A Clamp (61-773)



Exclusive TightSight® Display



660A Clamp (61-763)



Description	Cat. No.
1000AAC Clamp Meter	61-773
1000A AC/DC Clamp Meter	61-775
660AAC Clamp Meter	61-763
660A AC/DC Clamp Meter	61-765

Includes: Carrying Case and Test Leads w/Alligator Clip.

Specifications

	Range & Resolution				Accuracy
	61-773	61-775	61-763	61-765	
AC Current	0.0-999.9A		0.0-660.0A		2.0%
DC Current	—	0.0-999.9A	—	0.0-660.0A	2.0%
AC Voltage	0.0-750.0V				1.0%
DC Voltage	0.0-999.9V				1.0%
Resistance	0.0-999.9Ω				1.5%
Capacitance	0.0-999.9μF				5.0%
Continuity	0.0-999.9Ω				Audible @ <30Ω
Frequency	20.0-400.0Hz				0.5%
Jaw Size	2" (51mm)		1.42" (36mm)		—

IDEAL® TEST & MEASUREMENT

Clamp-Pro™ Clamp Meters 600 Amp (740 Series)

- Measures up to 600AAC
- Non-contact voltage indicator (70V-600VAC)
- Continuity
- Tapered jaws with hook tip
- Auto/manual ranging
- Data hold
- Auto power off
- Low battery indicator
- 2-year warranty

61-744



Compact jaw for use in tight locations.



Description	Cat. No.
600A Clamp Meter w/TRMS	61-746
600A Clamp Meter	61-744

Includes: Carrying Case and Test Leads.

Specifications

	Range & Resolution	Accuracy
AC Current	40.00/400.0/600A	1.7%
AC Voltage	400.0/600 V	1.2%
DC Voltage	400.0/600 V	0.5%
Resistance	400.0/4.000k/ 40.00k 400.0k/4.000M/40.00M Ω	1.0%

Jaw opening is 1.25" (32mm).

4-in-1 Test Tools (700 Series)

- 200AAC current capability
- Non-contact voltage (40-600VAC)
- Vibration mode to verify AC voltage
- Harmonics indicator
- Capacitance
- Max hold
- Continuity
- Low battery indication
- Integral lead storage
- Audible dangerous voltage warning on all ranges
- Auto power off
- Ergonomic hourglass shape
- Compact clamp head
- 2-year warranty

61-704



Description	Cat. No.
4-in-1 Test Tool w/TRMS, Backlight	61-704
4-in-1 Test Tool	61-702


Includes: Carrying Case and Silicone Test Leads.

Specifications

	Range & Resolution	Accuracy
AC Voltage	2000m/200.0/750 V	1.2%
DC Voltage	2000m/200.0/1000 V	0.5%
AC Current	200.0 A	3.0%
Resistance	200.0/200.0k Ω	1.0%
Capacitance	200.0μ F	3.0%

Jaw opening is 1.3" (33mm).

Multimeter Selection Guide

MULTIMETER SELECTION GUIDE	310	340 Series		360	480 Series		490 Series		600
	61-312	61-340	61-342	61-361	61-484	61-486	61-497	61-498	61-605
MEASUREMENT FUNCTIONS									
AC & DC Voltage	•	•	•	•	•	•	•	•	•
AC Current	•	•	•	•	•	•	•	•	
DC Current	•	•	•	•	•	•	•	•	
Resistance	•	•	•	•	•	•	•	•	•
LV Resistance					•	•	•	•	
Audible Continuity	•	•	•	•	•	•	•	•	•
Diode Test	•	•	•	•	•	•	•	•	•
Capacitance	•	•	•	•	•	•	•	•	
Frequency	•	•	•	•	•	•	•	•	
Temperature	•	•	•			•	•	•	
Duty Factor		•	•				•	•	
Battery Test									
Decibels							•	•	
Phase Rotation				•					
FEATURES									
Display Type (Digital or Analog)	D	D	D	D	D	D	D	D	D
True RMS			•	•	•	•	•	•	
Auto/Manual Ranging	•	•	•		•	•	•	•	•
Non-Contact Voltage Detection					•	•			
Data Hold / Auto Hold	D	D	D		D	D	A	A	D
Min/Max		•	•		•	•	•	•	
Min/Max/Avg		•	•		•	•	•	•	
Peak Min/Max					•	•	•	•	
Relative Mode							•	•	
High Speed Analog Bar Graph					•	•	•	•	
Auto Power Off		•	•	•	•	•	•	•	•
Backlight		•	•		•	•	•	•	•
Low Battery Indication		•	•	•	•	•	•	•	•
Dual Display							•	•	•
Overload Protection on all Ranges	•	•	•	•	•	•	•	•	•
Data Logging							•	•	
Data Acquisition							•	•	
Memory Storage & Recall							•	•	
Optical USB Interface							•	•	
ProVision™ II Software							•	•	
Warranty (years)	2	2	2	2	2	2	2	2	2
CERTIFICATIONS									
UL 61010 Listed 	•	•	•	•	•	•	•	•	•
Category Safety Rating	II	III	III	III	IV	IV	IV	IV	II
CE	•	•	•	•	•	•	•	•	•





TEST & MEASUREMENT

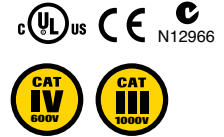
490 Series Industrial-Grade Multimeters

- True RMS
- Data acquisition, data logging & data storage
- Auto detect AC/DC voltage and current w/frequency indication
- High voltage indicator
- Frequency
- Temperature
- High frequency rejection mode*
- Auto selection for resistance/continuity/diode/capacitance
- Auto hold, peak hold

- dBm/dB measurement
- Relative mode
- Min/Max/Avg
- Dual display
- Duty factor
- Auto power off
- Auto sensing backlight
- Low battery indicator
- USB cable and software included
- 2-year warranty

*Reads accurately on noisy electrical circuits.

61-498



Description	Cat. No.
Digital Multimeter, 0.015% DCV Accuracy	61-498
Digital Multimeter, 0.03% DCV Accuracy	61-497

Includes: Carrying Case and Silicone Test Leads.

Accessories

Includes	
Test Leads w/Alligator Clips	TL-497
Magnetic Strap	61-565
USB Cable	61-902
ProVision™ II Software	61-906
K-Type Thermocouple	61-461
Thermocouple Adapter	61-465
Carrying Case	C-230

Specifications

	Range & Resolution		Accuracy	
	61-497	61-498	61-497	61-498
AC Voltage	40.000m/400.00m/ 4.0000/40.000/400.00/1000.0 V	100.000m/1000.00m/ 10.0000/100.000/1000.00V	±0.7%	±0.40%
DC Voltage	40.000m/400.00m/ 4.0000/40.000/400.00/1000.0 V	100.000m/1000.00m/ 10.0000/100.000/1000.00V	±0.03%	±0.015%
AC Current	40.000m/400.00m/10.000 A	10.0000m/100.000m/10.0000A	±0.8%	±0.7%
DC Current	40.000m/400.00m/10.000 A	10.0000m/100.000m/10.0000A	±0.2%	±0.1%
Resistance	400.00/4.0000k/40.000k/400.00k/ 4.0000M/40.000M Ω	1000.00/10.0000k/100.000k/1000.00k 10.0000M/40.000M Ω	0.6%	
Capacitance	4.000n/40.00n/400.0n/4.000μ/ 40.00μ/400.0μ/4.000m/40.00mF		0.9%	
Diode Test	2.000 V	0.400 V - 0.800 V	±1.5%	
Frequency	40.000/400.00/4.0000k/40.000k/400.00k/4.0000M Hz		±0.002%	
Duty Factor	20% - 80%		±0.1%	
Temperature	-328° F to 2192° F (-200° C TO 1200° C)		±1.0% +2° F/1° C	

480 Series Commercial-Grade Multimeters

- True RMS
- Auto AC/DC voltage detect w/low impedance (Auto - VLoZ)
- Capacitance
- Frequency
- Analog bar graph
- Min/max
- Non-contact voltage detection
- Low battery indication
- Auto power off
- 2-year warranty

61-486



Description	Cat. No.
Digital Multimeter w/peak hold, temperature, includes thermocouple	61-486
Digital Multimeter	61-484

Include: Test Leads & Carrying Case.

Specifications

	Range & Resolution		Accuracy	
	61-484	61-486	61-484	61-486
AC Voltage	6.000/60.00/600.0/1000.0 V		1.0%	0.80%
AC mV	600.0 mV		1.5%	1.2%
DC Voltage	6.000/60.00/600.0/1000.0 V		0.1%	0.08%
DC mV	600.0 mV	60.00/600.0 mV		
AC Current	60.00m/600.0m/6.000/10.00A		1.5%	1.2%
DC Current	60.00m/600.0m/6.000/10.00A		1.0%	0.80%
Resistance	600.0/6.000k/60.00k/600.0k/6.000M/40.00M Ω		1.0%	0.80%
Capacitance	1nF to 10mF		0.1%	
Frequency	99.9 to 100.0k Hz		0.1%	
Temperature	-40° F to 752° F (-40° C to 400° C)		1.0%	

361 Contractor-Grade Multimeter

- Phase rotation, capacitance frequency, voltage, current, resistance
- Audible continuity
- Manual ranging
- Rugged construction
- Auto power off
- Low battery indication
- 2-year warranty



Description	Cat. No.
361 Multimeter w/TRMS	61-361

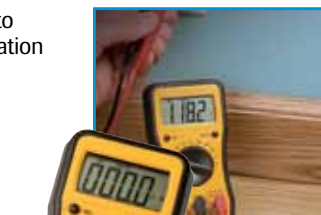
Includes: Test Leads.

Specifications

	Range & Resolution	Accuracy
AC Voltage	200.0m/2000m/200.0/600 V	2.0%
DC Voltage	200.0m/2000m/20.00/200.0/600 V	1.2%
AC Current	2.000 A	3.0%
DC Current	2.000 A	2.5%
Resistance	200.0/2.000k/20.00k/200.0k/20.00M/200.0M Ω	1.0%
Capacitance	20.00 μ /200.0 μ /2.000m/20.00m F	4.0%
Frequency	10.0-100.0k Hz	0.5%
Phase Rotation	80-500V (50-500Hz)	—

312 Residential Meter

- Capacitance, frequency, auto power off, low battery indication
- Audible continuity
- Data hold
- Diode test
- Large numbers displayed
- 2-year warranty



Description	Cat. No.
Resi-Pro™ Meter	61-312

Includes: Test Leads.

Specifications

	61-312	Accuracy
	Range & Resolution	
AC Voltage	4.000/40.00/400.0/300 V	1.2%
DC Voltage	400.0m/4.000/40.00/400.0/300 V	0.5%
Current	400.0 μ /4000 μ /40.00m/400.0m/10.00A AC/DC	1.5%
Resistance	400.0/4.000k/40.00k/400.0k/4.000M/40.00M Ω	1.0%
Capacitance	40.00n/400.0n/4.000 μ /40.00 μ /400.0 μ F	3.0%
Frequency	10.00/100.0/1.000k/10.00k/100.0k/1.000M/10.00M Hz	0.3%
Temperature	-4-1382°F (-20-750°C)	2.5%

340 Series Test-Pro® Multimeters

- Capacitance
- Frequency
- Temperature
- Voltage
- Current
- Resistance
- Audible continuity
- Relative mode
- Backlight
- Min/max
- Data hold
- Low battery indicator
- Auto power off
- 2-year warranty



Description	Cat. No.
Test-Pro® Multimeter w/TRMS	61-342
Test-Pro® Multimeter	61-340

Includes: Test Leads and Thermocouple.



Specifications

	Range & Resolution	Accuracy
AC Voltage	4.000/40.00/400.0/600 V	1.5%
DC Voltage	400.0m/4.000/40.00/400.0/600 V	0.5%
Current	400.0 μ /4000 μ /40.00m/400.0m/4.000/10.00A AC/DC	1.5%
Resistance	400.0/4.000k/40.00k/400.0k/4.000M/40.00M Ω	1.0%
Capacitance	40.00n/400.0n/4.000 μ /40.00 μ /400.0 μ F	3.0%
Frequency	10.000/100.00/1.000k/10.00k/100.0k/1.000M/4.000M Hz	0.3%
Temperature	-4° F to 1382° F (-20° C to 750° C)	3.0%

Pocket Meter

- Convenient pocket size
- Built-in lead storage and test stand
- Audible continuity
- Auto power off
- Test lead storage
- 2-year warranty



Description	Cat. No.
Pocket Meter	61-605

Includes: Test Leads.

Specifications

	Range & Resolution	Accuracy
AC Voltage	200.0m/2.000/20.00/200.0/600 V	4.0%
DC Voltage	200.0m/2.000/20.00/200.0/600 V	2.0%
Resistance	200.0/2.000k/20.00k/200.0k/2.000M/20.00M Ω	3.0%



IDEAL® TEST & MEASUREMENT

SureTrace™ Circuit Tracers

- Receiver display rotates automatically for easy viewing
- Identifies breakers and fuses with CertainCircuit™ detection
- Pinpoints opens and shorts
- Traces wires
- "0-99" display of signal strength
- Audible intensifies in tone/pitch
- Works on energized or de-energized circuits (0 - 600V AC/DC)
- Four modes of sensitivity
- Peak bar graph
- 2-year warranty



61-955

61-957

61-959



⚡ CertainCircuit™

After you identify and trip the correct breaker, the transmitter senses the loss of power and sends a different signal back to the receiver to give you confidence at the panel that the right circuit was de-energized.



Energized



De-energized



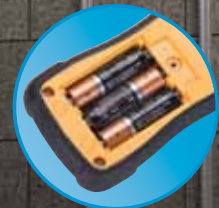
Scan Code or visit www.idealindustries.com to learn more.

CR-959

Cradle for receiver can be used with extension pole for ceilings and flooring.

Transmitter will work on a de-energized circuit and won't affect GFCIs

D-8



AA batteries provide the transmitter and receiver 4x the power.

RC-959 Receiver

RC-955 Receiver

TR-955 Transmitter



Inductive Clamp & Battery Pack



Description	Cat. No.
Receiver with Rotating Display, Inductive Clamp and Battery Pack	61-959
Receiver with Rotating Display	61-957
Receiver with Standard Display	61-955

Accessories

Includes	
Fuse – High-Energy, Fast-acting, 1A/1000V	F-956
Magnetic Strap	61-565
Tracer Test Lead Set (includes 1-6 below)	TL-956
1. Outlet Plug Adapter for Transmitter	TLOP-956
2. Blade Prongs for Lead Adapters (set of 2)	TLBP-956
3. Ground Prong for Lead Adapters (set of 2)	TLGP-956
4. Alligator Clips for Lead Adapters (set of 2)	TLAC-956
5. 3 ft. Lead Adapters for Transmitter (set of 2)	TLA1-956
6. 25 ft. Lead Adapter for Transmitter	TLA2-956
Optional	
Cradle for Receiver*	CR-959

*Threaded for use on standard extension pole.



Exclusive Rotating Display

Revolutionary technology in the receiver rotates the display in 90° increments so that you always receive an upright reading. Even when the receiver is pointing down, you can keep up.



Kit Contents	61-955	61-957	61-959
Transmitter	TR-955	TR-955	TR-955
Receiver	RC-955	RC-959	RC-959
Tracer Test Lead Set	TL-956	TL-956	TL-956
Inductive Clamp			IC-958
Battery Pack & 61-565 Strap			BP-958
Hard Carrying Case	C-955	C-957	C-959
Batteries	■	■	■
Instruction Manual	■	■	■



TEST & MEASUREMENT

HeatSeeker® Thermal Imagers

- Blended thermal/digital image (0-100% & PIP)
- Hottest/coldest temperature cursors instantly display on live screen
- Sequence image recording activated by alarm settings
- Class II laser
- Built-in LED light
- High and low temperature alarms
- Save images with text and voice annotation
- Adjustable emissivity for maximum accuracy
- IP54 rated
- Multi-lingual - nine languages included
- Tripod mountable
- ThermalVision™ PC software included
- Two-year warranty



Description	Cat. No.
HeatSeeker® 320 Thermal Imager – (320 x 240 resolution)	61-848
HeatSeeker® 160 Thermal Imager – (160 x 120 resolution)	61-846
HeatSeeker® Thermal Imager – (47 x 47 resolution)	61-844

Accessories	61-848/ 61-846	61-844
Includes		
Removable Battery	61-846BAT	—
USB Cable	61-844USB	61-844USB
Camera Handle	—	61-844HAN
Carrying Case	61-844CC	61-844CC
Power Supply	61-846PS	61-844PS
ThermalVision™ Software	61-848SW	61-844SW
Optional		
Light Shade	61-844LS	61-844LS
Car Charger	61-846CAR	61-844CAR
Desktop Charger	61-846DT	—
Hard Transport Case	61-846HC	61-846HC

Specifications

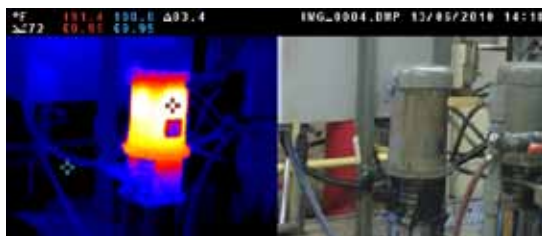
Feature	HeatSeeker® (61-844)	HeatSeeker® 160 (61-846)	HeatSeeker® 320 (61-848)
Temperature Range	14°F to 662°F (-10°C to 350°C)	-4°F to 1652°F (-20°C to 900°C)	14°F to 482°F (-10°C to 250°C)
Temperature Accuracy	±2°C or ±2% of reading		
Emissivity Table	0.2 to 1.0 (adjustable)		
Cursors	Two-movable	Four-movable (with independent emissivity setting)	
Image Storage (2 GB micro SD card)	2000 Images		
Field of View	20° x 20°	10° x 15°	21.4° x 16°
Thermal Sensitivity	< 0.08°C at 30°C		
Focal Plane Array	47 x 47 (2,209 pixels)	160 x 120 (19,200 pixels)	320 x 240 (76,800 Pixels)
Display	3.5" LCD		
Visible Light Camera Resolution	1.0 Megapixels	2.0 Megapixels	
Spectral Range	8µm to 12µm	8µm to 14µm	
Image Control	Eight color palettes (Ironbow, Rainbow, Isotherm, Hot Metal, High Contrast, Rainbow 16, Black Hot and White Hot)		
Focus	Manual		
Battery Life	6 hours	6 hours	4 hours
Power	Internal rechargeable Li-ion battery	Field replaceable, rechargeable Li-ion battery	



Included Accessories:



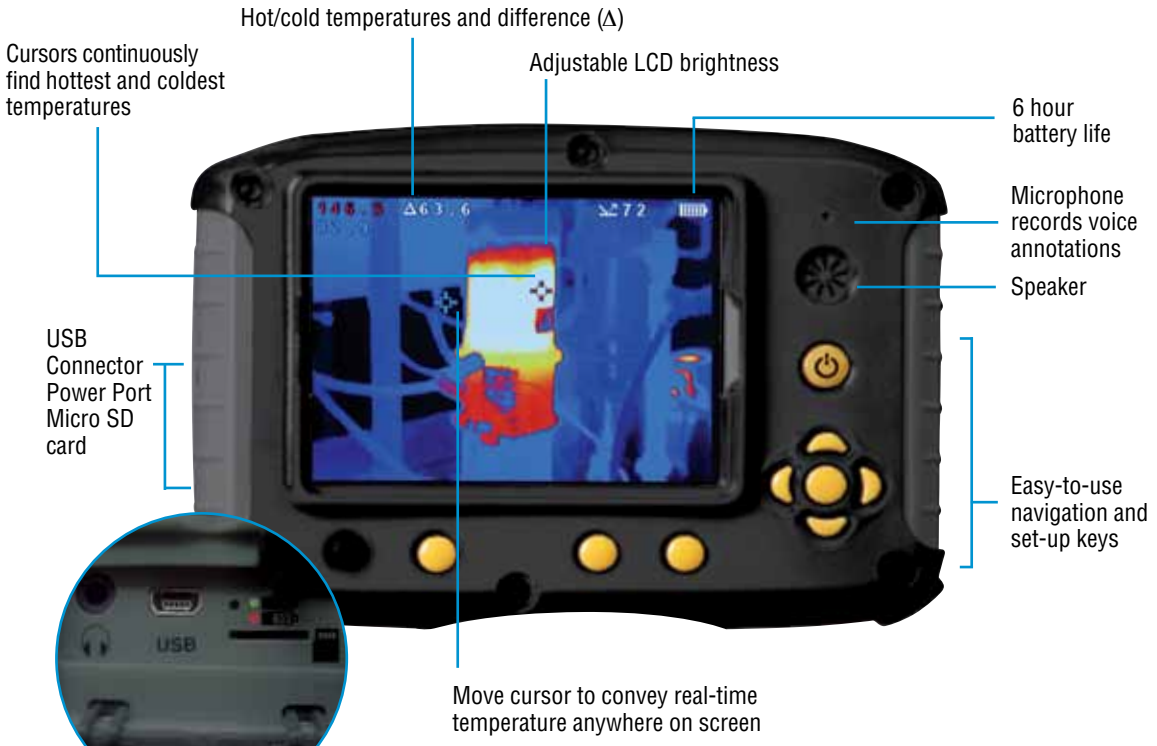
61-846 / 61-848



Pump Motor



Fuse Panel



Side door allows quick access to headphone and USB connections, charging port and removable Micro SD card

ThermalVision™ PC Software Included

Easy-to-use software allows report generation.



Provides Real-time Analysis for:



Electrical Safety



Energy Efficiency



Preventive Maintenance



Building Maintenance



Data Center Thermal Mapping



TEST & MEASUREMENT

SureTest® Circuit Analyzers

- Measures voltage drop under load*
 - Hot and neutral conductor impedances
 - Estimates Load on Line (ELL) up to 15A
 - Tests GFCIs and EPDs for proper operation
 - Super-bright display
 - High accuracies
 - True RMS
 - Line voltage
 - Peak voltage
 - Frequency
 - Ground to neutral voltage
 - Ground impedance
 - Identifies proper wiring in 3-wire receptacles
 - Identifies false (bootleg) grounds
 - Conducts testing without disturbing sensitive loads
 - Verifies isolated grounds (with 61-176 adapter)
 - 2-year warranty
- *12A, 15A, 20A load tests

61-165



61-183



61-175



61-176



61-182



Troubleshoots branch circuit problems with a variety of tests at the receptacle.



AFCI testing with alligator clips on an installed device.

Description	Cat. No.
SureTest® Circuit Analyzer - Tests AFCIs wiring, tests for shared neutrals	61-165
SureTest® Circuit Analyzer	61-164

Accessories

Includes	
Carrying Case	61-179
1' Extension Cord	61-182
Optional	
Ground Continuity Adapter	61-175
Isolated Ground Adapter	61-176
Alligator Clip Adapter	61-183

Specifications

	Range & Resolution	Accuracy
AC Voltage	85.0 - 265.0 VAC	1.0%
Frequency	45.0 - 65.0 Hz	1.0%
Impedance	0.00 - 1.99 Ω	5.0%
Ground-Neutral Voltage	0.0 - 24.0 VAC	2.0%
% Voltage Drop 12A, 15A, 20A load tests	0.1% - 50.0%	5.0%
GFCI Test Current/Time	6.0 - 9.0 mA 0.0 - 6500 mS	2.0%

SureTest® Circuit Analyzer Functions

Voltage Drop

- NEC recommends no more than 5% voltage drop
- Higher voltage drop leads to heat buildup and performance issues
- <108V is a poor level for electronics



Line Voltage

- Specification is 120VAC +/-10% (108 to 132 VAC)
- True RMS ensures accuracy in harmonic environments



Ground-to-neutral Voltage

- Good circuit has 2VAC or less
- Higher reading indicates loaded circuit, harmonic distortion or shared neutral



Ground Impedance

- Ground impedance should be 1Ω or less (0.25Ω or less for sensitive equipment to run properly)



GFCI

- Applies a 6-9mA fault current and measures the trip time
- Applies a 30mA fault current to check for equipment protection



AFCI/GFCI Tester

- Tests AFCIs circuit wiring
- Tests GFCIs for proper operation
- Tests for shared neutrals
- Verifies wiring configuration
- Compact size fits comfortably in pocket
- 1-year warranty



Description	Cat. No.
AFCI/GFCI Circuit Tester	61-059

Accessories

Optional	
1' Cord Adapter	61-177
Alligator Clip Adapter (3-wire)	61-184
Carrying Case with Belt Clip	C-50



Voltage Performance Monitor

- Real-time TRMS voltage, frequency and harmonics monitoring
- Logs voltage, sags, swells and impulses
- Measures %THD and logs periods over 3% (line to neutral)
- Selectable thresholds based on the most accepted international standards, defaults to ITIC*
- Custom programmable event thresholds
- Invertible display, when it is necessary to plug in upside down
- 2-year warranty



Applications

Monitor voltage near sensitive equipment

- **Installation and Service Technicians** – Monitor voltage at point of equipment connection
- **Electricians** – Eliminate guesswork on service calls
- **Building Maintenance Technicians** – Identify voltage caused equipment failures
- **Equipment Manufacturers** – Eliminate unnecessary warranty costs
- **Hospital/IT Maintenance Engineers** – Monitor voltage quality to critical equipment



* Captures events that would affect equipment on branch circuit

Description	Cat. No.
Voltage Performance Monitor	61-830

Accessories

Includes	
Adapters (set of 4)	PA-830
Carrying Case	61-179
Optional	
Alligator Clip Adapters (2-wire)	TL-532A
1 ft. US Extension Cord	61-177
Kit with (1) SureTest® 61-164, (2) VPM 61-830, Soft Case C-2004	61-2003
Kit with (1) SureTest® 61-164, (4) VPM 61-830, Soft Case C-2004	61-2004

Specifications

61-830	
Operating Range	15-265V
Memory	513 Events
Sampling Method	Continuous (128 samples per cycle)
Voltage Accuracy	1%
Impulse Detection	6µs, 4kV
Harmonic Distortion	2%, FFT to 51st

61-179



PA-830

See voltage through the eyes of your equipment

Poor voltage quality increases facility expenses, warranty costs and downtime plus shortens the life of equipment. The IDEAL VPM identifies only those voltage conditions that can damage equipment or cause equipment failure.

IDEAL® TEST & MEASUREMENT

3-Phase Power Analyzer

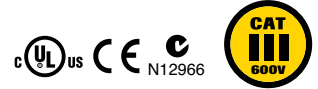
- True RMS
- Single- or three-phase measurements
- Up to one month of recording time
- 4-channels for voltage plus 4-channels for current measurements
- Backlit display
- Programmable trigger-points and start/stop time
- Easy set-up and interactive demo CD
- 2-year warranty

POWER & ENERGY MEASUREMENTS

- Kilowatts (kW)
- Volt-amperes (VA)
- Inductive reactive power (kvarL)
- Capacitive reactive power (kvarC)
- Power factor (PF)
- Frequency
- Kilowatt hours (kWh)

HARMONICS MEASUREMENT

- Total harmonic distortion (% THD)
- Harmonic factorization (FFT) to 51st harmonic



Description	Cat. No.
Power Analyzer Kit	61-807

Accessories

Included	
1000AAC Clamps (set of 3)	61-811
100AAC Neutral Clamp (1)	61-813
Optional	
200/2000/20000AAC Flexible Clamp adapters (set of 3)	61-457

Specifications

	Range & Resolution	Accuracy
AC VOLTAGE	20 to 600 V (phase-neutral) 20 to 866 V (phase-phase)	0.5%
AC CURRENT	10 to 1000A (with supplied clamp adapters)	1.0%
ACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
REACTIVE POWER	866 kW (with supplied clamp adapters)	1.0%
POWER FACTOR	0.5 to 1.0	1.0%



Insulation Testers

- Checks new installations for damaged insulation
- Checks existing installations and motor windings for breakdowns in insulation
- 2-year warranty



61-797

61-795



Description	Cat. No.
Insulation Meter w/PI, DAR, Remote Probe	61-797
Insulation Tester	61-795

Specifications

	Range & Resolution	
	61-795	61-797
Test Voltage	250/500/1000 VDC	50/100/250/500/1000 VDC
Voltage AC/DC	0.1-600.0 V	0.1-600.0 V
Continuity	0.01-20.0 Ω	—
Resistance	0-200.0Ω	—
Insulation Resistance	Up to 4000M Ω	Up to 20G Ω
Earth-Bond Resistance	—	0.01 Ω to 40.00k Ω



Accessories

61-795 Includes:	
Test Leads	TL-795
Carrying Case	C-795
61-797 Includes:	
Test Leads	TL-797
Remote Probe	TL-797RP
Carrying Case	C-230

Ground Resistance Meters

- Auto ranging
- Auto power off
- Hard case included
- 2-year warranty



TL-796

61-796



61-920



Description	Cat. No.
Ground Resistance Clamp Meter	61-920
3-Pole Ground Resistance Tester - includes TL-796 lead set kit	61-796
Earth Resistance Lead Set Kit	TL-796



Specifications

	Range & Resolution	Accuracy	Range & Resolution	Accuracy
	61-920		61-796	
Ground Resistance	0/120/1200 Ω	1.5%	20.00/200.0/2000 Ω	2.0%
Ground Leakage Current	100m/1000m/15/30 A	2.0%	—	—

IDEAL® TEST & MEASUREMENT

Vol-Con® Elite Digital Voltage Testers



- Tests for AC Voltage from 24-600VAC
- Tests for DC Voltage from 6-220VDC
- Visual and audible warning
- Audible continuity
- Non-contact voltage indication (40-600VAC)
- Low impedance to eliminate ghost voltages
- Low battery indicator
- Replaceable silicone test leads
- Integral lead storage
- 2-year warranty

61-092



Accessories

Description	Cat. No.	Includes	
Vol-Con® Elite Digital Voltage Tester w/vibration mode	61-092	Silicone Test Leads	TL-102
Vol-Con® Elite Digital Voltage Tester	61-090	Carrying Case	C-90

Solenoid Voltage Testers



- Extremely rugged and reliable
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety
- 2-year warranty

61-076



Accessories

Description	Cat. No.
Vol-Con® Voltage/Continuity Tester, 5-600V AC/DC	61-076
Vol-Test® Voltage Tester, 100-600V AC/DC	61-065

Includes	
Standard Test Leads	61-070
Resistor-fused Leads*	61-072
Padded Nylon Case	C-90
Leather Case	61-010
Batteries	61-201

*Special, current-limiting resistor in each lead acts as a fuse to open in a short-circuit situation

XL-Series Solenoid Voltage Testers



- Rugged and reliable tester
- Vibrates when voltage is present
- Indicates AC/DC voltage level
- Replaceable leads with shielded probe tips
- Bright, long-life LED's and neon indicator lamp
- Dual voltage indication for backup safety
- Compact size
- 2-year warranty

61-086



Accessories

Description	Cat. No.
Vol-Con® XL Voltage/Continuity Tester, 6-600V AC/DC	61-086
Vol-Test® XL Voltage Tester, 80-600V AC/DC	61-085

Includes	
Standard Test Leads	TL-80
Resistor-fused Leads*	TL-82
Padded Nylon Case	C-90
Leather Case	61-010
Batteries	61-201

*Special, current-limiting resistor in each lead acts as a fuse to open in a short-circuit situation.

Split-Jaw™ Smart Meter

- Measures
 - 0.9-200AAC
 - 1.3-750VAC
 - 2.1-1000VDC
 - 0.0-9999Ω
- Audible continuity
- Data hold
- Integral lead storage
- Replaceable test leads
- Auto power off
- Low battery indication
- 2-year warranty

AUTOMATICALLY
SELECTS THE RIGHT FUNCTION



Specifications

	61-096	
AC Voltage	1.3 - 750 V	1.5%
DC Voltage	1.8 - 1000 V -0.6 - 1000 V	1.0%
AC Current	0.6 - 200.0A	3.0%
Resistance	0 - 2000 Ω	1.0%

*Note: Jaw opening is 0.6 in. (16mm) - up to 1/0 copper cable.

Description	Cat. No.
Split-Jaw™ Smart Meter	61-096

Includes: Test Leads.

Circuit Breaker Finders

- Fully automatic operation
- Positively identifies circuit breakers and fuses without service interruption
- Self calibrating
- Visual and audible indicators
- 2-year warranty



61-534
w/GFCI receptacle tester



Accessories

Optional	
Alligator Clip Adapter (3-wire)	61-184

Description	Cat. No.
Circuit Breaker Finder w/Digital Receiver & GFCI Circuit Tester	61-534
Circuit Breaker Finder w/Analog Receiver	61-532

TL-532A



61-532



Alligator clip adapter allows connections to exposed wiring.



Lighting adapter allows connection to light fixtures.

Specifications

	61-532	61-534
Operating Voltage	100 - 140 VAC	100 - 250 VAC
Operating Frequency	47 - 63 Hz	47 - 63 Hz



TEST & MEASUREMENT

VoltAware™ Non-Contact Voltage Tester

- Indicates presence of voltage from 40-1000VAC
- Visual indication of voltage
- Selectable audible indication of voltage
- Sleek, compact design
- Green LED indicates power on
- Low battery indicator
- Battery replacement (AAA size)
- 2-year warranty



Convenient button turns audible voltage indication on or off.



Description	Cat. No.
VoltAware™ Non-Contact Voltage Tester	61-025

VoltSensor™ Non-Contact Voltage Tester

- Tests for voltage from 40-600VAC
- Audible and visual indication
- Locates breaks along live insulated wires
- Tests for energized circuits
- Battery replacement (LR44/61-201)
- 1-year warranty



Description	Cat. No.
Volt-Sensor™ Non-Contact Voltage Tester	61-063

Continuity Tester

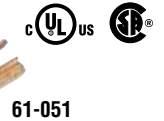
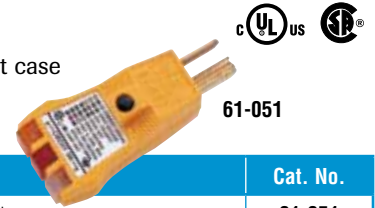
- Checks continuity of dead circuits and ground on conduit systems and identifies wires in multi-wire cables
- Light signal indicates completed circuit
- Bulb-in end can serve as flashlight
- Pocket clip functions as probe
- Removable 4-ft. test lead with alligator clip
- 1-year warranty



Description	Cat. No.
Continuity Tester	61-030

E-Z Check® Circuit Tester

- Tests for correct wiring, open ground, reverse polarity, open hot, open neutral, hot on neutral, hot and ground reversed with open hot, and ground fault interruption in 3-wire, 120VAC circuits
- No-slip ergonomic design maximizes comfort
- Premium neon lamps prevent false readings
- Tough, impact-resistant case
- 2-year warranty



Description	Cat. No.
E-Z Check® Plus GFCI Circuit Tester	61-051
E-Z Check® Circuit Tester	61-035

Receptacle Testers

- Warns against faulty wiring in 3-wire receptacles
- For use on 120VAC circuits
- 1-year warranty

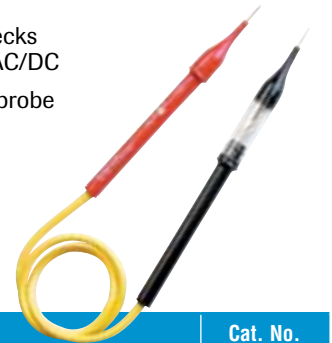
61-501



Description	Cat. No.
GFCI Receptacle Tester	61-501
Receptacle Tester	61-500

Test-Glo™ Circuit Tester

- Industrial-quality tester checks voltage from 80V to 600V AC/DC
- Neon test lamp at front of probe
- Resistors reduce voltage reaching leads
- 24-in. test lead length
- 1-year warranty



Description	Cat. No.
Test-Glo™ Circuit Tester	61-040

Digital Light Meter

- Measures all visible light sources
- Measures LED lighting
- Measures in four ranges up to 20,000 FC or 200,000 Lux
- +/- 3% basic accuracy
- Data hold mode
- Max reading mode
- Auto zero adjustment
- Low battery indication
- Auto power off
- Remote sensor with 59 in. (1.5m) cable
- 2-year warranty



Description	Cat. No.
Digital Light Meter	61-686

Includes Carrying Case.

Infrared Thermometer

- Measurement range: -76°F to 932°F
- Distance to spot ratio: 12:1
- Modes: Ave., Difference, Hi/Lo limits w/alarm, Max, Min, Lock
- Emissivity Range: Adjustable from 0.1 to 1
- Input jack for precision K-type thermocouple
- Backlight
- Auto power off
- Low battery indicator
- 2-year warranty



Description	Cat. No.
Infrared Thermometer	61-685

Includes Carrying Case.

Accessories

Optional	Cat. No.
K-type Thermocouple	61-461

Specifications

	Range & Resolution	Accuracy
Object Temperature	-27 to 932°F (-33 to 500°C)	+/- 2% of reading or +/- 4°F (+/-2°C) whichever is greater

3-Phase/Motor Rotation Tester

- Identifies three-phase sequence
- Indicates motor rotation
- Checks for open phases
- For use up to 600V
- 2-year warranty



Description	Cat. No.
3-Phase/Motor Rotation Tester	61-521

Includes Carrying Case.

3-Phase Sequence Tester

- For use up to 600V
- Color-coded insulators over alligator clips
- Shock resistant housing
- Easy to read
- 2-year warranty



Description	Cat. No.
3-Phase Sequence Tester	61-520

Includes Carrying Case.

IDEAL® TEST & MEASUREMENT

Magnetic Strap

- Frees up hands to help work safely
- Fits 490/480/340 Series Multimeters



Description	Cat. No.
Magnetic Strap	61-565

USB Cable



Description	Cat. No.
Optical USB Cable for 490 Series Meters & Software	61-902

Current Clamp Adapter



Description	Cat. No.
600A AC/DC Clamp Adapter - 2 ft. lead length	61-334

Specifications

61-334	
AC Current	1 – 600 A
DC Current	1 – 600 A
Output Signal	1mV/A
Max Conductor Size	1.125" (28.5cm)



Test Leads



Description	Cat. No.
Premium Test Leads w/alligator clips	TL-100
Silicone Test Leads	TL-102
Test Leads w/large alligator clip	TL-104
Fused Test Leads w/alligator clips, 10A/600V, CAT III - 1000V	TLF-252

Thermocouple

- Measures up to 1500° F (816° C)
- K-type thermocouple plugs into digital multimeter voltage jacks with 61-465 adapter



Description	Cat. No.
Beaded K-type Thermocouple	61-461
Thermocouple Adapter	61-465

Carrying Cases



61-010



C-90



C-290



61-445

Description	Cat. No.
Leather Carrying Case - for use with 61-065, 61-076, 61-085, 61-086	61-010
Small Nylon Carrying Case w/four pockets	61-445

Description	Cat. No.
Nylon Carrying Case - for use with all Vol-Con® and Vol-Test® Voltage Testers	C-90
Nylon Carrying Case - for use with Digital Multimeters	C-290

Carrying Case Selection Guide

	VOLTAGE TESTERS																		
	61-059	61-065	61-076	61-085	61-086	61-090	61-092	61-096	160	340	360	480	490	700	740	760	770	830	
61-179 Nylon Carrying Case									•	•									•
C-50 Nylon Carrying Case	•																		
C-90 Nylon Carrying Case		•	•	•	•	•	•	•							•	•			
C-230 Nylon Carrying Case													•	•					
C-290 Nylon Carrying Case										•	•	•	•						
C-700 Nylon Carrying Case														•	•				
C-760 Nylon Carrying Case																•	•		
C-770 Nylon Carrying Case																	•	•	

Visit our Website for additional Test and Measurement Support!

- Glossary of Terms
- Instruction Manuals
- Product Registration

www.idealindustries.com/products/test_measurement/
or scan the QR code!





Replacement Parts Selection Guide

METER REPLACEMENT PARTS SELECTION GUIDE			090	310	340	360	480	490	600	610	700	740	760	770	790										
			61-096	61-310	61-312	61-340	61-342	61-361	61-484	61-486	61-497	61-498	61-605	61-610	61-614	61-702	61-704	61-744	61-746	61-763	61-765	61-773	61-775	61-795	61-797
FUSES																									
F-1	0.5A (250V)	6.35 x 38mm																							
F-105	1A (600V)	10.3 x 35mm																							
F-310	250mA (250V)	5 x 20mm		•																					
F-312	500mA (250V)	5 x 20mm			•																				
F-314	10A (250V)	5 x 20mm			•																				
F-340	0.5A (500V)	6.35 x 32mm				•	•																		
F-341	10A (1000V)	10 x 38mm				•	•																		
F-497	440mA (1000V)	10 x 35mm						•	•	•	•														
F-498	11A (1000V)	10 x 38mm						•	•	•	•														
F-797	315mA (1000V)	5 x 32mm																							•
LA-3893	2A (600V)	6.35 x 25.4mm					•																		
LA-3898	250mA (500V)	6.35 x 32mm					•																		
BATTERIES																									
61-201	1.5V (LR44)									•															
—	1.5V (AA)										•	•													
—	1.5V (AAA)				•																			•	•
—	9V		•	•	•	•	•	•	•	•								•	•	•	•				
TEST LEADS																									
TL-34	Leads w/pin connectors											•													
TL-56	Test leads												•												
TL-96	Test leads		•																						
TL-100	Test leads w/alligator clips					•	•	•	•	•	•					•	•								
TL-102	Silicone test leads													•	•										
TL-104	Test leads w/large alligator clips																	•	•	•	•				
TL-310	Test leads				•	•																			
TL-795	Test leads																								•
TL-797	Test leads																								•

Safety in the Field

The power demands of today's high-tech world have caused a marked increase in occurrences and levels of transient overvoltages. The International Electrotechnical Commission (IEC) has developed a safety standards model for measurement, control and laboratory use.

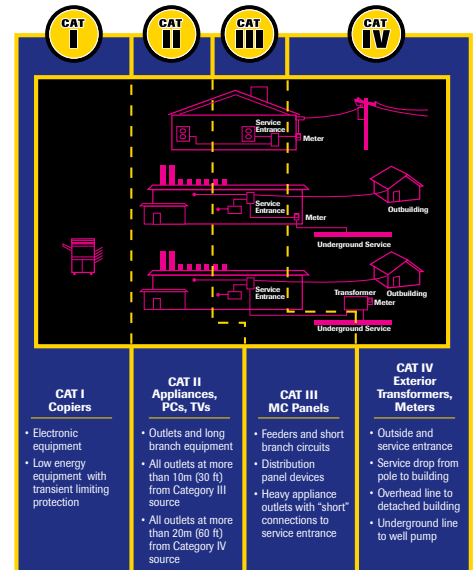
Category I – The signal level for telecommunications, electronic and other low-energy equipment with transient-limiting protection. Peak impulse transient range is 600–4,000 volts with a 30 ohm source.

Category II – The local level for fixed and non-fixed powered devices including appliances, lighting and portable equipment. Outlets located more than 30 feet from CAT III sources and 60 feet from CAT IV sources. Peak impulse transient range is from 600–6,000 volts with a 12 ohm source.

Category III – The distribution level for fixed primary feeders or branch circuits. Circuits that are separated from CAT IV sources by at least one level of transformer isolation. Peak impulse transient range is 600–8,000 volts with a 2 ohm source.

Category IV – The primary supply level for the highest levels of transient overvoltage. Includes the utility service both outside and at the service entrance, service drop from the pole to the building, overhead line to remote buildings, and underground line to a well pump. Peak impulse transient range is 600–12,000 volts with less than a 1 ohm source.

Visit our website for more technical product details, application support, white papers, videos and software!





SECTION **E** DATA COMM/NETWORKS

TESTERS E-2
COMPRESSION TOOLS / CONNECTORS ... E-10
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COAX CONNECTORS E-15
HAND TOOLS E-17

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CUTTERS / SCISSORS..... E-21
SPLITTERS E-22
KITS..... E-23
FIBER OPTIC TOOLS E-27



DATA COMM / NETWORKS

LanTEK® II Series Cable Certifier

- Cabling certification to guarantee system performance with TIA/ISO/BICSI standards up to Category 7A
- Provide certification reports for manufacturer warranty programs or specifier/designer requirements
- Every test stores complete data with fault finding faster than other certifiers
- Certify 10 Gig cabling faster than any other certifier without taking a PC into the field
- Universal test adapters minimize need to replace costly proprietary test leads
- All-day testing with 18 hours of battery life
- Fast-charge batteries in only 5 hours
- On-board storage for over 1500 Cat 6 tests
- Fiber testing modules perform bi-directional, dual wavelength test in less than 10 seconds
- Multimode and single mode fiber options for testing up to 40 Gig
- No need for clumsy mandrels when testing multimode fiber
- Save money with three models to choose from for Cat 6, Cat 6A or Cat 7A (350/500/1000 MHz)



Cat. No.	Description	Cat. No.	LanTEK® II – Add-on Options
33-993	LanTEK® II-1000: ANSI/TIA Cat7A, ISO Class F/F _A certifier w/Cat6A adapters	33-990-FA01	Multimode (850/1300nm) kit with LED light sources for standard multi-mode fiber
33-992	LanTEK® II-500: ANSI/TIA Cat6A, ISO Class E _A certifier w/Cat6A adapters	33-990-FA02	Multimode (850/1300nm) kit with VCSEL/laser light sources for laser optimized fiber
33-991	LanTEK® II-350: ANSI/TIA Cat6, ISO Class E certifier w/Cat6 adapters	33-990-FA03	Single mode (1310/1550nm) kit with laser light sources for single mode fiber
33-993-FA01	LanTEK® II-1000 with MM LED FiberTEK FDX Kit	33-990-FA04	Combination MM/SM kit with LED MM sources and laser SM sources (33-990-FA01 & 33-990-FA03)
33-993-FA02	LanTEK® II-1000 with MM VCSEL/Laser FiberTEK FDX Kit	33-990-FA05	Combination MM/SM kit with VCSEL/laser MM sources and laser SM sources (33-990-FA02 & 33-990-FA03)
33-993-FA03	LanTEK® II-1000 with SM Laser FiberTEK FDX Kit	FDX2-CP-3	Three year Care Plan for FiberTEK FDX, 3 year warranty + annual calibration for FA04 or FA05 kits
33-993-FA04	LanTEK® II-1000 with MM LED & SM Laser FiberTEK FDX Kit	FDX-CP-3	Three year Care Plan for FiberTEK FDX, 3 year warranty + annual calibration for FA01-FA03 kits
33-993-FA05	LanTEK® II-1000 with MM VCSEL & SM Laser FiberTEK FDX Kit	LT2-CP-3	Three year Care Plan for LanTEK® II, 3 year warranty + annual calibration and accessory replacement
		LANTEK10GBKIT	Alien Crosstalk Testing Kit for 10GbE Certification. Compatible with 33-992 and 33-993.

Contents: LanTEK® II display and remote handset, two smart lithium ion batteries, two 110-240V power adapters with US/EU/UK plugs, lockable semi-rigid carrying case, Cat6A F/FTP patch cords, USB cable, DataCENTER data management and reporting software, two headsets, and hanging straps.

Trade-up and CarePlan details, Product video and demo, software and all product information at www.idealindustries.com.



SignalTEK® II Data Cable Performance Tester

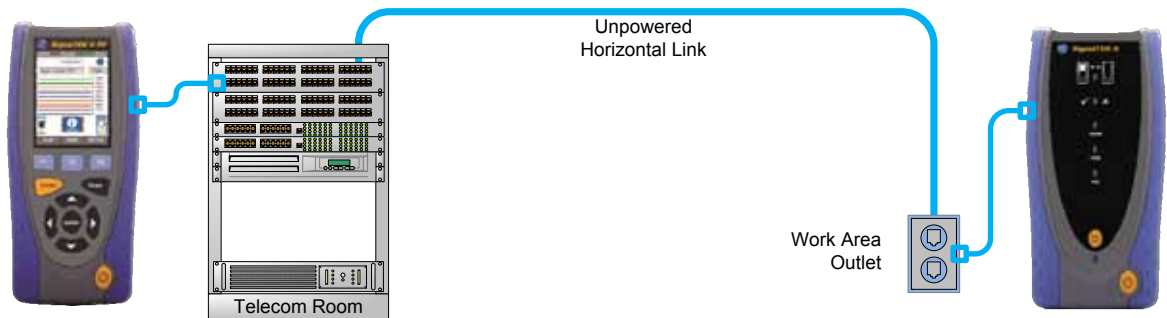
- Guarantee cabling performance with a fast, simple to operate tester that generates full Qualification reports
- Use to test and document installation and performance of data cabling for all IP enabled systems such as networks, CCTV, automation/industrial controls, VoIP, A/V distribution, smart home wiring, etc
- Tests to IEEE 802.3ab standard with real data at full speed
- Cable performance test mode works by sending full-speed data bi-directionally through installed cabling to guarantee operation with 10/100/1000 Ethernet, VoIP, IP CCTV, analog voice and other services.
- Network stress-test mode operates by sending user specified data through the live network, across switches and hubs between the main and remote handsets to ensure the LAN can support operation at sustained data rates
- Stress-test mode lets users calculate network load for VoIP, IP video, IP CCTV and web traffic types
- Copper and copper + fiber models operate in both Cable and Network test modes
- PoE and PoE+ service detection with load testing ensure that even long runs have enough power to operate PoE devices
- Network troubleshooting with Ping, Trace route and Netscan tests
- IPv4 and IPv6 compatible
- Save reports on standard USB thumb drives and open & print with any web browser
- Field replaceable RJ45 jacks eliminate downtime from worn or damaged connectors (order accessory #150058)
- Save and load tester configuration with USB thumb drive to configure multiple testers in seconds



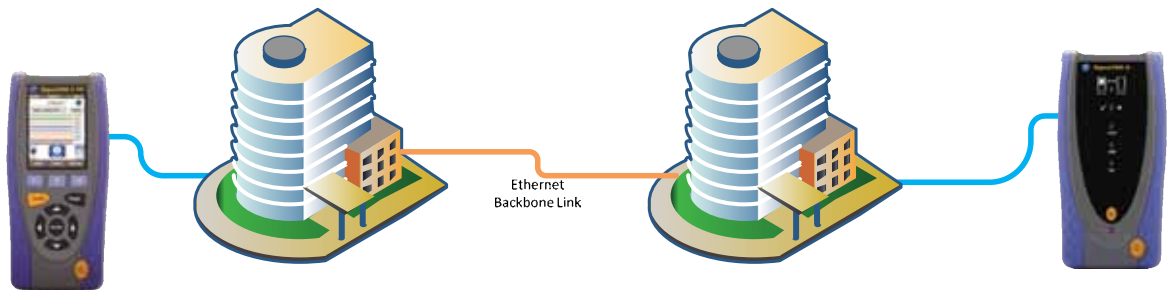
Cat. No.	Description
SignalTEK® II - Operates on copper networks	
R156000	SignalTEK® II – 1 x Near-End unit (copper only), 1 x Remote unit (copper only), 2 x Power module (rechargeable), 2 x Mains PSU/charger, 2 x 30cm RJ45 cable, 1 x Quick reference guide (English), 1 x User manual CD, 1 x Carrying case
SignalTEK® II - Operates on both copper and fiber optic networks	
R156001	SignalTEK® II FO - 1 x Near-End unit (copper and fibre), 1 x Remote unit (copper and fibre), 2 x Power module (rechargeable), 2 x Mains PSU/charger, 2 x 30cm RJ45 cable, 1 x Quick reference guide (English), 1 x User manual CD, 1 x Carrying case
150058	1 x RJ45 insert extraction tool, 10 x Lifejack RJ45 inserts
150054	1 x Active remote No. 1 for wiremap testing reporting. Cannot be used for performance testing.
150050	1 x Active remote set No. 2 – 12 for wiremap testing reporting. Cannot be used for performance testing.
151053	1 x NiMH power module
150055	2 x Patch cables - 30cm, Cat. 5e STP
151051	1 x Power supply with EU/UK/US adaptor
151052	1 x Alkaline battery module
MGKSX1	1 x 1000BASE-SX Fibre kit. Includes 850nm SFP (Small Form factor Pluggable) SX transceiver, LC/LC and LC/SC duplex multimode cables and SC/SC duplex adaptor
MGK LX2	1 x 1000BASE-LX Fibre kit. Includes 1310nm SFP (Small Form factor Pluggable) LX transceiver, LC/LC and LC/SC duplex singlemode cables and SC/SC duplex adaptor
MGKZX3	1 x 1000BASE-ZX Fibre kit. Includes 1550nm SFP (Small Form factor Pluggable) ZX transceiver, LC/LC and LC/SC duplex singlemode cables and SC/SC duplex adaptor
62-164	1 x IDEAL amplifier probe
150056	1 x Optical multimode 2m duplex cable with LC-LC connectors
150057	1 x Optical singlemode 2m duplex cable with LC-LC connectors
150059	1 x Active remote set No. 2 to No. 6
156050	1 x Carry case



SignalTEK® II Application Examples

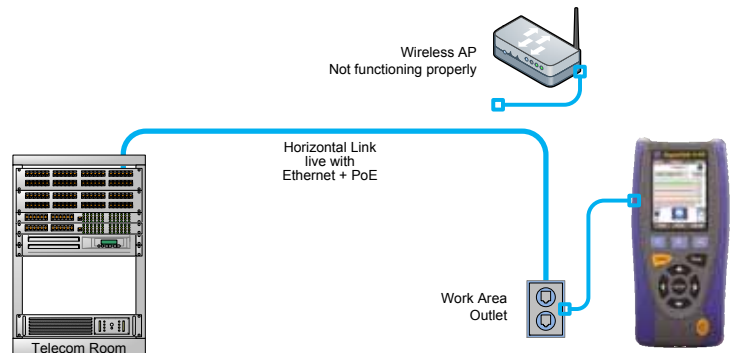


In the data cable test mode, the main and remote handsets are connected both ends end of the cabling after installation to qualify its performance. Data is sent bi-directionally across the link at gigabit speeds to guarantee error-free performance of 10/100/1000 Mb/s Ethernet, voice and other services. Each stored report includes wire map, length and data performance for the link in compliance with the IEEE 802.3ab standard.



In the network stress-test mode the main and remote handsets are connected at different locations in a live network (on the same subnet). The operator configures SignalTEK® II to simulate web, VoIP, IP video or IP CCTV traffic at a data rate from 1 to 1000 Mb/s using its bandwidth calculator. During the test the live traffic is transmitted through the network to guarantee error-free performance of all network components between the two handsets. The SignalTEK® II can be connected to the LAN with either the copper or fiber interface, and the connection between the two handsets can transition between copper and fiber segments of the network (ex. from a copper horizontal link through a fiber backbone to another copper horizontal link). This test can be used to qualify a new network or to simulate the impact of new/upgraded/expanded services on existing networks before the proposed change.

In the troubleshooting mode, the main handset is connected to the LAN to provide information about the port. It will identify whether the port is live with analog or digital telephone voltages, Ethernet or PoE. If Ethernet is detected it will identify the speed as 10, 100 or 1000 Mb/s. If PoE or PoE+ is available, a load will be placed on the line to determine how many watts of power are available at the port, making it easy to determine if a lack of power is causing a device to malfunction. Additionally, SignalTEK® II will obtain an IP address via DHCP and run Ping, TraceRoute and Netscan tests to verify network connectivity. All of this information may be saved to generate a port status report.



LanXPLOER™ Series

With full In-Line and Endpoint test capabilities, LanXPLOER™ PRO tests not only copper cables but also active LAN connections over copper and fiber links. In addition, it liberates the user from cables by allowing most tests to be conducted through a wireless connection offering unparalleled flexibility. With such comprehensive test capability and ease of use, LanXPLOER™ PRO is the perfect tool to meet the needs of professional IT installers and systems administrators in any enterprise, campus or industrial Ethernet environment.

- Network connectivity and diagnostics for 10/100/1000Mb Ethernet
- Options for dual copper ports for in-line testing, fiber optic SFP port and Wi-Fi
- Network mapping to all devices on the network and group into categories
- Save and recall Network Maps to identify changes in the network such as new or missing devices
- List top talkers to identify the source of network slowness
- Power over Ethernet (PoE) testing with load simulation to fully test PoE power supply equipment and in-line testing to measure power consumption of PoE devices
- Full wire map testing with TDR to located cabling faults
- Displays total, average, peak network bandwidth, error generation and packet size distribution
- Monitoring of VoIP calls and quality including RTP Jitter
- Field replaceable RJ-45 jacks eliminate downtime from wear and tear

Features

	LanXPLOER™	LanXPLOER™ PLUS	LanXPLOER™ PRO
Display	Color, 3.5" QVGA	Color, 3.5" QVGA	Color, 3.5" QVGA Touchscreen
Test interfaces	1 x RJ45	1 x RJ45, Wi-Fi	2 x RJ45, Wi-Fi, 1 x SFP
Wiremap with length	✓	✓	✓
PoE and PoE+ tests	✓	✓	✓
Wi-Fi w/ext. antenna		✓	✓
SFP fiber interface			✓
Network detection	✓	✓	✓
Network device mapping	✓	✓	✓
Traffic/Top Ten/Error counting	✓	✓	✓
PC diagnosis			✓
In-line tests			✓
VoIP testing			✓
Test storage	✓	✓	✓
VLAN / 802.1x support	✓	✓	✓
Loopback mode			✓



Ordering Information

Description	Cat. No.
LanXPLOER™ Tester – Soft carrying case, 2 x RJ-45 STP patch cords, 1 smart remote, 6 AAA batteries, printed quick reference guide, manual on CD	R150002
LanXPLOER™ PLUS Premium Kit – Includes tester, soft carrying case, 2 x RJ-45 STP patch cords, 1 smart remote, printed quick reference guide, manual on CD, rechargeable battery pack, AC power supply, inductive cable tracing probe	R150005
LanXPLOER™ PRO Premium Kit – Includes tester, soft carrying case, 2 x RJ-45 STP patch cords, 1 smart remote, printed quick reference guide, manual on CD, rechargeable battery pack, AC power supply, inductive cable tracing probe	R160001
Battery Pack - rechargeable	150053
Remote #1	150054
Remote Kit #2 - #12	150050
RJ-45 Inserts with removal tool	150058
Remote Kit #2 - #6	150059
Power Supply/Battery Charger	150052
Replacement Wi-Fi Antenna (Plus/Pro models only)	150061
1 x 850nm SFP module w/LC-LC and LC/SC jumper	MGKSX1
1 x 1310nm SFP module w/LC-LC and LC/SC jumper	MGKLY2
1 x 1550nm SFP module w/LC-LC and LC/SC jumper	MGKZX3



NavITEK® II Data Cable Verifier and Troubleshooter

Find problems quickly and easily

- Port status – 10/100/1000
- Port ID with CDP/LLDP/EDP
- PoE & PoE+ status (802.3at)
- DHCP/DNS configuration
- Cable testing with TDR fault finder
- Tone generation and port blinking

Support for current and future implementations

- IPv4 & IPv6
- 802.1x port security
- VLAN with complete 4096 range
- Available with fiber interface

User friendly features

- AA or rechargeable battery operation
- Field replaceable RJ45 jacks eliminate downtime from worn/damaged jacks
- Report storage in universal XML format
- USB port for easy data transfer to USB drive and for firmware updates



Ordering Information

Description	Catalog No.
NavITEK® II STANDARD - Basic Kit – 1 x NavITEK® II test unit, 1 x Remote unit No. 1, 4 x AA dry cell batteries (non-rechargeable), 2 x Patch cables - 30cm, Cat. 5e STP, 1 x Manual on CD, 1 x Quick reference guide, 1 x Carrying case	R153000
NavITEK® II PLUS - Basic Kit – Advanced Wiremap Remote Unit #1, (2) Cat 5e STP patch cords, (4) AA Dry Cell Batteries (non-rechargeable), Quick Reference Guide, Manual on CD, Carrying Case	R151000
NavITEK® II PRO - Premium Kit – NavITEK® II PRO Test Unit with Fiber SFP Interface, NiMH rechargeable battery pack, AC power adaptor, (10) LifeJack RJ45 Inserts + Extraction Tool, Advanced Wiremap Remote Unit #1, (2) Cat 5e STP patch cords, (4) AA Dry Cell Batteries (non-rechargeable), Quick Reference Guide, Manual on CD, Carrying Case <i>SFP Fiber Kit modules sold separately</i>	R151002
Accessories	
(1) Alkaline Battery Holder	151052
(1) Remote #1	150054
(1) Remote Kit #2 - 12	150050
(1) Remote Kit #2 - #6	150059
(1) NiMH Rechargeable Battery Pack	101053
(2) 12 in. Cat 5e STP Patch Cables	150055
(1) AC power adaptor (US/UK/EU)	151051
(10) RJ-45 Replaceable LifeJack™ Inserts with (1) Removal Tool	150058
(1) IDEAL Amplifier Probe	62-164
(1) Optical fiber multimode 2m duplex cable, LC/LC connectors	150056
(1) Optical fiber single-mode 2m duplex cable, LC/LC connectors	150057
(1) Carrying Case	151054
1000BASE-SX Fiber Kit, Includes 850nm SFP (Small Form factor Pluggable) SX transceiver and LC/SC duplex multimode cable	MGKSX1
1000BASE-LX Fiber Kit, Includes 1310nm SFP (Small Form factor Pluggable) LX transceiver and LC/SC duplex single-mode cable	MGK LX2
1000BASE-ZX Fiber Kit, Includes 1550nm SFP (Small Form factor Pluggable) ZX transceiver, LC/SC duplex single-mode cable	MGKZX3

Features

	NavITEK® II STANDARD	NavITEK® II PLUS	NavITEK® II PRO
IPv4/IPv6	✓	✓	✓
Wiremap/length with TDR fault finding	✓	✓	✓
PoE/PoE+ detection	✓	✓	✓
Tone generator/Port Blink	✓	✓	✓
Ping/Traceroute test	✓	✓	✓
Port provisioning to 10/100/1000 Mb/s	✓	✓	✓
EDP/CDP/LLDP		✓	✓
VLAN support		✓	✓
Network scan		✓	✓
Traffic utilization bar graph		✓	✓
Results storage/export		✓	✓
802.1x logon			✓
Optical power indication			✓
Loopback mode over copper			✓
Loopback mode over fiber			✓
Endpoint LAN testing over fiber			✓

SecuriTEST® PRO CCTV/Security Tester

SecuriTEST® PRO is the most versatile all-in-one installation and troubleshooting tool for the CCTV professional. CCTV installers often need to carry a variety of testing tools to complete their work. SecuriTEST® PRO combines the most-needed tools in one easy-to-carry package. Since all connections (video/communications/DMM) attach to a single unit, SecuriTEST® PRO eliminates the need to juggle several devices while on a ladder or lift, making working conditions safer and increasing productivity.

- IRE video level and sync tests
- Sound level test through integrated speaker and on screen level indicator
- High capacity lithium ion battery
- Support for additional PTZ protocols
- Carrying case included
- **Seven Essential CCTV Tools** - Combines a CCTV video tester, PTZ camera controller, Digital Multimeter, UTP cable tester, video test pattern generator, PTZ protocol analyzer and camera programmer in a single compact package.
- **Save Time & Money** - Test, aim, focus and program cameras when working alone. Save time by not having to walk back to the control center to verify functionality of each camera.
- **Compact Design** - Combines all the most needed security tools in a lightweight easy-to-carry unit. Sharp, bright 2.5 in. (6.3 cm) color LCD screen with on-screen displays for PTZ control/diagnostics and DMM readouts.
- **PTZ Protocol Analyzer** - Compatible with 20+ PTZ protocols to test and program cameras in the field. Decodes and identifies output from PTZ console to aid in troubleshooting.



Description	Cat. No.
SecuriTEST® PRO CCTV/Security Tester only	33-892
Replacement Lithium Polymer (LiPo) Battery	33-892-BP

VDV PRO Cable Tester

The VDV PRO Cable Tester is an easy-to-use cable testing and verification device that can quickly test all wiring requirements found throughout today's residential and commercial environments.

- Voice - tests 3-pair USOC and 6-position RJ-11/12 jacks for voice cable testing
- Data - tests wire map of shielded and unshielded cable to T568A/B standard
- Video - tests coax cable for opens, shorts and length with F-Connector interface
- Larger backlit LCD screen for better test results readability
- Network link LED blink for visual cable tracing
- Voice testing capability detects RJ-11 (1, 2, or 3 pair)
- Voice test also shows Normal or Reverse for pins 1 through 6
- Length measurement is shown during initial test results for convenience and time savings
- Eight remotes have RJ-45, RJ-11 and Coax F-jacks for increased testing capabilities
- Tests for shield continuity, shorts, opens, miswires, reversals and split pairs with remote connected
- Full dot-matrix LCD display for user convenience to read display results
- One-ended testing for shorts, opens and split pairs (no remote needed)
- Test results displayed in wire map format with message line for shorts and split pairs



Description	Cat. No.
VDV PRO w/one remote and terminator	33-770
VDV PRO w/eight remotes and terminators	33-771
Eight Coax Terminator Kit	33-775



DATA COMM / NETWORKS

IENet® PRO Cable Tester for RJ-45 and M-12 Industrial Ethernet Cable Testing

The IENet® PRO tester makes it a snap to quickly verify wiring integrity and assure proper terminations for diverse types of industrial cabling and provides automatic pin conversion between M-12 and RJ-45 connections.

- Simple selection between Voice, 2 and 4 pair Data, and Coax testing functions. Voice and Video/Security tests via optional adapters
- Tests for opens, shorts, miswires, reversals, split pair (user selectable) and length
- Indicates correct wiremap to T568A/B standards for shielded and unshielded cabling
- Easy-to-read LCD display with "PASS" or "Miswire" indicator for each test
- Identifies presence of voltages on cables
- Tone generator supports four different tones making fault isolation easier
- Network LED blink for visual cable tracing
- Numerical indication for UTP "No Shield" and STP - "Shield" to comply with industrial ethernet PROFINET® requirements

PROFINET® is a registered trademark of PROFIBUS International.

Ordering Information

Description	Cat. No.
IENet® PRO w/single remote	33-772
IENet® PRO w/eight remotes	33-773
Eight Coax Terminator Kit	33-775
IENet® PRO Eight Remote Kit (ID 1-8)	33-776

Large backlit LCD displays user current test mode, test results and all faults for the various types.

Display automatically warns of voltage on lines and shows a PASS or MISWIRE message after each test.

Remote ID number indicated on display, UTP indicated as "No Shield" and STP as "Shield"

Compact ergonomic design puts full-featured industrial Ethernet cable testing in the palm of your hand

A single button push immediately selects between VOICE, 2 and 4 pair DATA and VIDEO testing functions

Integrated RJ-45 (UTP/STP) and shielded M12 interfaces on top of the unit



Detachable remote with RJ-45 and shielded M12 Coax interlaces



MiniTracker™ PRO

- Coax cable mapper and tracer with eight remotes
- LEDs identify remote number, opens and shorts
- Built in Tone Generator
- Includes carrying case with tester and remote storage

Description	Cat. No.
MiniTracker™ PRO	62-1202



Test-Tone-Trace Kit

- Kit includes the VDV (33-856), Amplifier Probe (62-164), carrying case and accessories
- Tests and traces coax, twisted pair and telephone cables



Description	Cat. No.
Test-Tone-Trace Kit	33-866

PRO Amplifier Probe and Tone Generator



Amplifier Probe

- Identifies and traces wire or cables within a group
- Battery low indicator

Tone Generator

- Emits three different types of tones
- Auto-off after three hours of non-use
- F-Connector port for toning & tracing coaxial CATV cabling systems
- Tone can be added in any status

Description	Cat. No.
Amplifier Probe & Tone Generator Kit - includes 62-164, 62-160, Lead Set, Cable Assembly	33-864
Amplifier Probe	62-164
Tone Generator	62-160

TRACETone® Tone Generator & Amplifier Probe

- Test continuity and locate signal of installed wire and cable
- Two selectable tone styles
- Adjustable volume control
- RJ-11 Alligator Clip, RJ-11 Cable Assembly included



Description	Cat. No.
TRACETone® Tester	62-140

VDV MultiMedia Cable Tester

Easy-to-use tester for installers working with voice, data and video applications. One tester for all applications!

- **Voice** – supports 3-pair USOC and 6-position RJ-11/12 jacks for telephone cable testing
- **Data** – supports both shielded and unshielded cable testing to T568A/B (RJ-45)
- **Video** – tests coax cable for opens and shorts with F-connector interface
- Tests for opens, shorts, miswires, reversals and split pairs. Also indicates correct wiremap. Automatic shut off (to prolong battery life) and low battery indicator.
- Easy-to-read LCD display with “PASS or ERROR” indicator after each test
- Tone generator supports four different tones making fault isolation easier
- One remote wiremap and testing unit is stored inside tester – easier to keep all parts together
- Uniquely designed remote accommodates RJ-11, RJ-45 and F-style connectors



Description	Cat. No.
VDV MultiMedia Cable Tester	33-856

LinkMaster® Tester

Tests wiring configurations on UTP/STP cables. Checks for shorts, miswires, reversals and split pairs. Debug feature, automatic shut-off and low battery LED indication.

- Designed to test installed twisted pair wiring
- Tests unshielded and shielded modular plugs
- Main unit and remote allow one person testing



Description	Cat. No.
LinkMaster™ Tester and Remote	62-200



DATA COMM / NETWORKS

OmniSeal™ PRO Compression Tools

The IDEAL OmniSeal™ PRO Compression Tools offer additional features and increased connector compatibility in a smaller, more compact tool designed to meet the demands of the professional installer. (OmniSeal™ PRO requires no accessory attachment to terminate IDEAL branded compression connectors.) Most other manufacturers compression connectors can be terminated with an easy plunger depth adjustment. The simple intuitive design combined with its size and universal connector acceptance makes this the only compression tool needed by professional installers.



- Factory preset to work with IDEAL compression connectors
- Compresses F-type, RCA, BNC and Mini connectors
- Adjustable to fit other manufacturer's connectors – no accessory adapters required

Description	Cat. No.
OmniSeal™ PRO XL Compression Tool 	30-793
OmniSeal™ PRO Compression Tool 	30-603

OmniSeal™ Compression Tool Features



LINEAR X® Compression Tools

- Available in fixed and adjustable versions
- Compresses F/BNC/RCA connectors
- Durable & rugged zinc die-cast body with protective powder coated paint finish
- Linear stroke for consistent compression results & easy operation
- Includes four RTQ™ RG-6 WeatherProof F-Compression Connectors



INCLUDES 4 WeatherProof™ Connectors

Description	Cat. No.
LinearX®1 F-Compression Tool (Fixed) with four RTQ™ F-Connectors 	33-631
LinearX®3 F/BNC/RCA Compression Tool (Adjustable) with four RTQ™ F-Connectors	33-632

Connector & Tool Compatibility Chart

Type	IDEAL Connector	OmniSeal™ Pro XL 30-793	OmniSeal™ Pro 30-603	LinearX®3 33-632	LinearX®1 33-631
F	F 6 RTQ™	✓	✓	✓	✓
	F 6Q RTQ™	✓	✓	✓	✓
	F 6 RTQ™ 90°	✓	✓	✓	—
	F 6 Plenum	✓	✓	✓	✓
	F 59 RTQ™	✓	✓	✓	✓
	F 6 NJX™	✓	✓	✓	✓
	F 6Q NJX™	✓	✓	✓	✓
	F 6/6Q OmniConn™	✓	✓	✓	✓
11F	F 11	✓	✓	—	—
	F 11 Plenum	✓	✓	—	—
BNC	BNC 59	✓	✓	✓	—
	BNC 59 90°	✓	✓	✓	—
	BNC 59 Plenum	✓	✓	✓	—
	BNC 6 RTQ™	✓	✓	✓	—
	BNC 6 RTQ™ Plenum	✓	✓	✓	—
RCA	RCA 59	✓	✓	✓	✓
	RCA 6	✓	✓	✓	✓

✓ No tool adjustment needed. ✓ Tool adjustment needed. — Not compatible.

Compression Connectors



RTQ™ Reg/Tri/Quad & Plenum F-Connectors

- Fits 60% regular, tri-shield and quad shield cables
- Nickel-plated, brass-construction for superior corrosion resistance
- Designed for use in satellite and cable TV installations
- WeatherProof™ for indoor and outdoor use
- Use 30-603, 30-793 or LinearX Compression Tools

RG-11 F-Connectors

- Fits 60% regular RG-11 cable
- Nickel-plated, brass-construction for superior corrosion resistance
- Designed for use in satellite and cable TV installations
- WeatherProof™ for indoor and outdoor use
- Use 30-603 or 30-793 Compression Tools
- Use 45-111, 1/4" x 1/4" RG-11 Coax Stripper



INSITE™ BNC Connectors

- Clear 360° window for confident cable insertions
- Nickel-plated, brass-construction for superior corrosion resistance
- Moisture-inhibiting design
- Use 30-793, 30-603 or 33-632 Compression Tool
- 75 Ohm nominal impedance
- Gold-plated pin contact area
- Available in plenum versions

OmniCONN™ F-Connectors

- Non corrosive nickel plated brass body and polycarbonate bushing
- Delrin/Nylon adapter sleeve and o-ring provide double protection for a watertight seal
- Free spinning hex nut for ease of installation onto all 7/16 ports
- 75 ohm nominal impedance
- Two-piece pre-assembled connectors



NJX™ Connectors

- 75 ohm nominal impedance
- Bandwidth up to 3 GHz
- Compatible with all IDEAL Compression Tools
- Compact body size
- RG-6 and RG-6 Quad versions



TLC™ Connectors

- No compression tool required
- 75 ohm nominal impedance
- Bandwidth up to 3 GHz
- Compact body size
- RG-6 version



DATA COMM / NETWORKS

Type		Image	Series/Model #	Cable Type	Center Conductor	Dielectric Diameter	Jacket Diameter	Order Qty.	Cat. No	
BNC	RG-59		InSITE™ Model #59BNCIS	RG-59	23-18 AWG Solid .023" - .040"	.142" - .148"	.230" - .250"	Card of 4	92-704	
								Card of 15	89-047	
								Jar of 35	89-5047	
								Bulk 1,000	89-1047	
				InSITE™ 90° Model #59BNCRAIS	RG-59	23-18 AWG Solid .023" - .040"	.142" - .148"	.230" - .250"	Card of 5	92-693
								Jar of 20	92-692	
				InSITE™ Model #59PLBNCIS	RG-59 Plenum	23-18 AWG Solid .023" - .040"	.134" - .140"	.193" - .224"	Card of 15	89-049
								Jar of 35	89-5049	
		RG-6		InSITE™ RTQ™ Model #6BNCISRTQ	RG-6 RTQ™ & Plenum 6 RTQ™	23-18 AWG Solid .023" - .040"	.168" - .183"	.226" - .305"	Card of 4	92-705
								Card of 15	89-048	
							Jar of 35	89-5048		
			InSITE™ RTQ™ Model #6PLBNCISRTQ	RG-6 Plenum RTQ™	23-18 AWG Solid .023" - .040"	.158" - .170"	.226" - .268"	Card of 15	89-050	
							Jar of 35	89-5050		
	Any		BNC 75Ω Adapter Model #75BNCFF	75Ω	--	--	--	Card of 5	85-592	
F	RG-6		RTQ™ Model #6FRTQ	RG-6 RTQ™	N/A	.175" - .183"	.260" - .305"	Card of 10	92-651	
								Jar of 50	92-650	
								Jar of 100	92-656	
								Bulk 1,000	92-659	
				InSITE™ RTQ™ 90° Model #6FRAISRTQ	RG-6 RTQ™ & Plenum 6 RTQ™	23-18 AWG Solid .023" - .040"	.168" - .183"	.226" - .305"	Card of 5	92-691
								Jar of 25	92-690	
				NXJ™ Model #6FNJX	RG-6	N/A	.175" - .183"	.254" - .278"	Card of 10	89-040
								Card of 50	89-042	
				TLC™ Model #6FTLC	RG-6	N/A	.175" - .183"	.254" - .278"	Card of 10	85-068
								Card of 50	85-168	
				OmniConn™ Model #6FOC	RG-6	N/A	.175" - .183"	.260" - .280"	Jar of 50	89-044
								Bulk 1,000	89-1544	
				Cable Specific Model #6PLF	RG-6 Plenum	N/A	.165" - .174"	.220" - .250"	Jar of 50	92-660
				RTQ™ Model #6QFRTQ	RG-6 Quad	N/A	.175" - .183"	.270" - .310"	Jar of 50	92-655
				NXJ™ Model #6QFNJX	RG-6 Quad	N/A	.175" - .183"	.275" - .305"	Card of 10	89-041
								Card of 50	89-043	
			OmniConn™ Model #6FOC	RG-6 Quad	N/A	.175" - .183"	.270" - .295"	Jar of 50	89-045	
	RG-59		RTQ™ Model #59FRTQ	RG-59 RTQ™	N/A	.142" - .148"	.230" - .270"	Card of 10	92-611	
							Jar of 50	92-610		
	RG-11		Cable Specific Model #11F	RG-11	18-14 AWG Solid .040" - .066"	.277" - .285"	.390" - .410"	Card of 10	89-211	
								Bulk 500	89-1211	
			Cable Specific Model #11PLF	RG-11 Plenum	18-14 AWG Solid .040" - .066"	.270" - .276"	.340" - .348"	Card of 10	92-212	
	Any		F-81 adapter 3GHz Model #753GFFF	75Ω	--	--	--	Card of 4	85-339	
								Card of 10	85-340	
RCA	RG-59		RTQ™ Model #59RCARTQ	RG-59 RTQ™	20-18 AWG Solid .029" - .040"	.142" - .148"	.230" - .270"	Card of 4	92-572	
								Jar of 35	89-570	
								Card of 4	92-582	
	RG-6		RTQ™ Model #6RCARTQ	RG-6 RTQ™	20-18 AWG Solid .029" - .040"	.175" - .183"	.267" - .305"	Card of 10	89-582	
								Jar of 35	89-580	

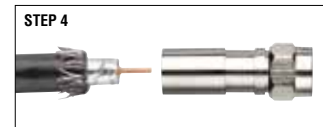
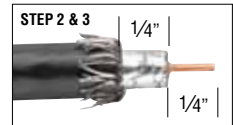
Compression Connector Installation Instructions

Compression F-Connector

1. Use IDEAL Data T[®]-Cutter (45-074) to cut cable to desired length.
2. Use IDEAL Coax Stripper (45-605 or 45-526) to strip coax to proper dimensions.
 - Proper strip length settings will leave 1/4" of center conductor exposed and 1/4" of braiding (shield) exposed.
 - After stripping, make sure tip of center conductor is straight and not bent. Straighten conductor if necessary.
3. Fold back outer layer of braiding (shield) against cable jacket. Keep braid strands as straight and as close to jacket as possible.
 - Note: For Quad Shield cables (with 4 layers: outer braid, outer foil, inner braid, inner foil), first fold back outer braiding. Use 45-074 to score and remove exposed 1/4" of outer foil. Remove outer foil, and fold back inner braiding.



4. Push F connector on to prepared cable until white center dielectric is flush with bottom of the nut of the F connector.
5. Insert connector/cable assembly into the OmniSeal[™] Pro XL compression tool, squeeze handle completely to compress fitting. Remove completed cable assembly.

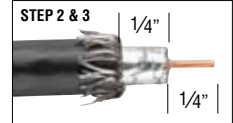


Compression RG-11 F-Connector

1. Use IDEAL Data T[®]-Cutter (45-074) to cut cable to desired length.
2. Use IDEAL Coax Stripper (45-111) to strip RG-11 coax to proper dimensions.
 - Proper strip length settings will leave 1/4" (minimum) of center conductor exposed and 1/4" of braiding (shield) exposed.
 - After stripping, make sure tip of center conductor is straight and not bent. Straighten conductor if necessary. Conductor must be straight to make proper contact with pin contact inside of connector.
3. Fold back outer layer of braiding (shield) against cable jacket. Keep braid strands as straight and as close to jacket as possible.
 - Note: For Quad Shield cables (with 4 layers: outer braid, outer foil, inner braid, inner foil), first fold back outer braiding. Use 45-074 to score and remove exposed 1/4" of outer foil. Remove outer foil, and fold back inner braiding.



4. Measure and mark cable insertion length. Align tip of center conductor with bottom of hex nut fitting of connector. Mark or lightly score cable jacket near base of connector. Connector should be within 1/8" of this mark after it is pushed on to cable. If it is more than 1/8" away from mark, continue rocking and guiding connector on to cable. Approximately 1-1/4" of cable length should be inserted into connector prior to compressing the connector.
5. Insert the connector/cable assembly into OmniSeal[™] Pro XL compression tool (adjust plunger setting if necessary), squeeze handle completely to compress fitting. Remove completed cable assembly.

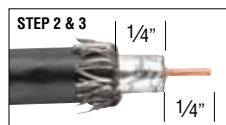
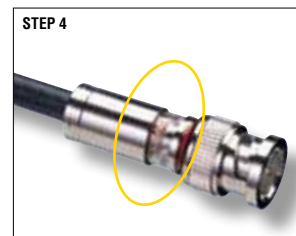


Compression BNC Connector

1. Use IDEAL Data T[®]-Cutter (45-074) to cut cable to desired length.
2. Use an IDEAL coax stripper (45-605 or 45-526) to strip coax to proper dimensions.
 - Proper strip length settings will leave 1/4" (minimum) of center conductor exposed and 1/4" of braiding (shield) exposed.
 - After stripping, make sure tip of center conductor is straight and not bent. Straighten conductor if necessary. Conductor must be straight to make proper contact with pin contact inside of connector.
3. Fold back outer layer of braiding (shield) against cable jacket. Keep braid strands as straight and as close to jacket as possible.
 - Note: For Quad Shield cables (with 4 layers: outer braid, outer foil, inner braid, inner foil), first fold back outer braiding. Use 45-074 to score and remove exposed 1/4" of outer foil. Remove outer foil, and fold back inner braiding.



4. Insert cable into connector until braiding is fully visible in the INSITE[™] window.
5. Insert connector/cable assembly into the OmniSeal[™] Pro XL compression tool, squeeze handle completely to compress fitting. Remove completed cable assembly.





DATA COMM / NETWORKS

Crimpmaster™ Crimp Tools & Die Sets

High quality ratchet-type crimp tool for electricians, contractors and installers who require guaranteed repeatability of good mechanical and electrical connections.

Dies change quickly and easily with a screwdriver. Interchangeable dies provide versatility in a single tool.



Description	Cat. No.
Crimpmaster™ Crimp Frame Tool	30-506

Also available in these kits:

33-400



33-917



30-556
RJ-11 Crimp Tool for two, four or six-position modular plugs
Tool w/die N/A



30-559
RJ-45 Eight-position Crimp Tool for keyed or non-keyed modular plugs
Tool w/die 30-522



30-560
RJ-45 Eight-position Crimp Tool for AMP® RJ-45 modular plugs
Tool w/die 30-521



30-570
RG-6, RG-174, Belden® Type RG-8281 cables (Hex. 0.324 (8.23mm), 0.178 (4.52mm), 0.068 (1.73mm))
Tool w/die N/A



30-573
Cambridge CP-88, CP-89 BNC/TNC coax connectors with RG-58, RG-59/RG-62 AU cables (Hex 0.305 (7.75mm), 0.068 (1.73mm), 0.228 (5.79mm))
Tool w/die 30-481



30-576
RG-174, Mini 59 BNC/TNC Connectors (Hex. 0.178 (4.52mm), 0.128 (3.25mm), 0.068 (1.73mm))



30-577
N-Series and RG-8/11 Connectors (Hex. 0.429 (10.90mm), 0.100 (2.54mm), 0.080 (2.03mm))
Tool w/die 30-482



30-578
RG-59, RG-6, and 8281 50 and 75 OHM cables (Hex, 0.324 (8.23mm), 0.255 (6.48mm), 0.068 (1.73mm), 0.042 (1.07mm))
Tool w/die 30-483



30-581
RG-58, RG-59/62, BNC/TNC Coax Connectors (Hex, 0.255 (6.48mm), 0.213 (5.41mm), 0.068 (1.73mm))
Tool w/die 30-502



30-582
F-type CATV RG-59, RG-6 Connectors (Hex, 0.350 (8.89mm), 0.320 (8.13mm), 0.255 (6.48mm))
Tool w/die 30-503



30-587
RG-58, RG-174 and G-8218 for both 50 and 75 ohm cables (Hex 0.213 (5.41mm), 0.178 (4.52mm), 0.068 (1.73mm), 0.042 (1.07mm))
Tool w/die N/A



30-591
Plenum and Non-Plenum Thinwire Cables RG-58 and 59 (Hex, 0.213 (5.41mm), 0.190 (4.83mm), 0.068 (1.73mm), 0.042 (1.07mm))
Tool w/die N/A



30-593
Mini UHF and BNC/TNC 5 cavity (Hex, 0.052 (1.32mm), 0.068 (1.73mm), 0.100 (2.54mm), 0.213 (5.41mm), 0.255 (6.48mm))
Tool w/die N/A



30-572
16-26 AWG (.131mm² - .128mm²) miniature insulated rings, spade and butt splices
Tool w/die N/A



30-579
22-10 AWG (.324mm² - 5.261mm²) insulated terminals/color coded nests
Tool w/die 30-500



30-580
22-8 AWG (.3mm² - 8mm²) non-insulated terminals
Tool w/die N/A



30-586
22-12 AWG (.324mm² - 3.31mm²) Non Insulated Open Barrel Connectors, Commercial Type
Tool w/die N/A



30-594
Fully Insulated quick disconnect terminals with thinner wire barrels 22-10 AWG (.324mm² - 5.261mm²)
Tool w/die N/A



30-599
30-18 AWG (.205mm² - 2.08mm²) Open Barrel Pins and Sockets
Tool w/die N/A



30-479 (Tool w/die)
For insulated terminals, 22-10 AWG with built-in locator

F-Type Coaxial Connectors



F-Series Connectors utilize threaded couplings and cable conductors as contacts for CATV and other RF applications.

- Available in the three most popular styles, RG-6/6Q/59
- All brass design
- One-piece body design
- Crimp with the Crimpmaster™ 30-503 Crimp Tool

	Connector Type	Cable Type	Termination Type	Qty.	Cat. No.
	F	RG-6	Crimp	Card of 4	84-017
				Card of 10	85-037
				Card of 50	85-017
	F	RG-6 Quad	Crimp	Card of 10	85-057
				Card of 50	85-030
	F	RG-59	Crimp	Card of 4	84-016
				Card of 10	85-036

Push-On F-Connectors RG-6 & RG-59

- No terminator tool required
- All brass nickel-plated construction
- Knurled nut for superior grip
- Designed for indoor use



F-Connector Type	Cable Type	Qty.	Cat. No.
	RG-6	Card of 4	85-065
	RG-6 Quad	Card of 4	85-066
	RG-59	Card of 4	85-067

Twist-On F-Connectors RG-6 & RG-59

- After cable is stripped, simply twist on connector
- No termination tool required
- Available in two styles, RG-6 and RG-59



Connector Type	Cable Type	Qty.	Cat. No.
F	RG-6	Card of 10	85-053
		Card of 50	85-039
F	RG-59	Card of 4	84-018
		Card of 10	85-035

Connector Installation Tools

- Works on compression and hex connectors
- Comfort grip handle aids in installing and removing connectors on coax cable



35-046

Description	Cat. No.
F & BNC Coax Connector Tool - 8 in.	35-046
F & BNC Coax Connector Tool - 12 in.	35-042
F & BNC Coax Connector Tool - 16 in.	35-043

Coax Strip & Crimp Tool

- Precision, form-ground stripping holes remove outer jacket and insulation from RG-59 and RG-6 coaxial cable
- Durable blades cut copper-coated steel conductors
- Three crimping nests for crimping F-connectors and ring terminals
- Cushioned, comfort-grip handles



Description	Cat. No.
Coax Strip & Crimp Tool	30-433
Coax Strip & Crimp Tool Kit w/ten RG-6 F-Connectors	30-433F



DATA COMM / NETWORKS

F-Type Adapters & Terminators

- Nickel-plated brass construction
- For 75Ω applications

	Description	Qty.	Cat. No.
	1GHz Female-to-Female F-Type Coaxial Adapter	Card of 10	85-031
	3GHz F-Splice Adapter, high bandwidth, 0MHz to 3GHz for standard and high definition applications, <0.25dB insertion loss, >25dB return loss	Card of 4	85-339
		Card of 10	85-340
	Female to RCA Male Adapter – converts female F-connectors to male RCA connectors	Card of 2	85-936
	RCA Female-to-Female Adapter	Card of 2	85-937
	Coax Cable F-Terminators - for all open ports on coax wall plates and splitters	Card of 10	85-038
	90° F-Adapter - F-female to F-male coax adapter	Card of 2	85-070
	Long Sleeve Compression F-Connector Port Seals, 1/2 in.	Bag of 100	89-127

BNC Connectors

- Connector construction covers both plenum and non-plenum cable jackets
- Captive gold center contacts provide maximum conductivity and minimal resistance
- Nickel plating resists corrosion, tarnish and ensures signal quality
- Available in both small and bulk quantities to suit a range of application requirements

	Connector Type	Cable Type	Center Conductor	Jacket	Connector Impedance	Qty.	Cat. No.
	BNC Plug	RG-59	20 AWG Solid	Non-Plenum	75 Ohm	Bag of 5	85-502
						Box of 100	86-502
	BNC Plug	RG-6	18 AWG Solid	Non-Plenum	75 Ohm	Bag of 5	85-545
	BNC Adapter	—	Jack to Jack	—	50 Ohm	Bag of 5	85-590
	BNC Twist-on Plug	RG-59	22-23 AWG Solid	Non-Plenum	50 Ohm	Bag of 5	85-480

4-Way Indent Crimp Tool

Crimps solid barrel contacts for RS232 interface connectors. Features four-way indent dies, full cycle ratchet, built-in pin and socket locator and comfort-grip handles.

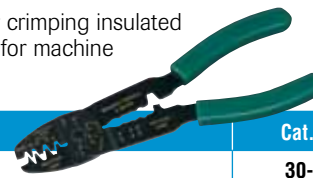
- High-grade steel construction



Description	Cat. No.
20-26 AWG (.519 mm2 - .128 mm2) RS232 D-sub Round Barrel Contacts, Pins or Sockets	35-465

D-Sub/Double-D Service Tool

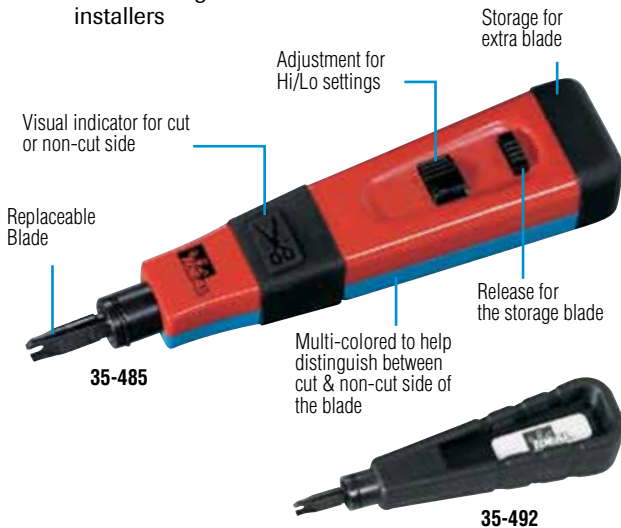
- Exact replacement of the AMP® open-barrel service tool for stamped contacts and D-Sub contacts
- Also crimps Double-D, high density, miniature contacts
- Includes openings for crimping insulated terminals and cutters for machine screws



Description	Cat. No.
D-Sub/Double-D Service Tool	30-426

Punch Down Tools

- Insert and cut cable terminations effortlessly
- Adjustable high/low actuation setting accommodates termination requirements
- Turn-Lock™ Style blade holding design
- Impact-absorbing cushioned grip reduces operator stress for high volume installers



Impact Turn-Lock™ Punch Down Tools	Cat. No.
Punchmaster™ II Punch Down Tool w/full 110 & 66 blades	35-485
Non-Impact Turn-Lock™ Punch Down Tools	Cat. No.
Punch Down Tool w/110 blade	35-492
Economy Punch Down Tool	Cat. No.
Non-impact Tool w/permanent non-cut blade	35-185



Removable Blades*	Cat. No.
110 Turn-Lock™ blade	35-495
66 Turn-Lock™ blade	35-497
110/66 combo blade w/cutting edges	35-407
Krone® blade	35-478
Bix® blade	35-479

*Not applicable for Economy Punch Down tool.
Bix® is a registered trademark of Nortel. Krone® is a registered trademark of Krone, Inc.

Ratchet Telemaster™

- Heavy-duty steel frame
- For paired conductors
- Ratchet version of our Telemaster™ Tool for RJ-45 and RJ-11 modular plugs
- Repeatable crimp action for consistent, high quality connections



Description	Cat. No.
Ratchet Telemaster™	30-696
Replacement Cut & Strip Blade Set for 30-696	LA-4102

Telemaster™ Telephone Tools

- For paired conductors
- Multi-function telephone tool cuts, strips and crimps for easy one-tool application
- Steel frame for long-term durability. (Crimps primary modular plug strain relief only)



Description	Kit Cat. No.	Tool Only Cat. No.
Tool for RJ-11 (1, 2, 3 pair) and RJ-45 (4 pair) Plugs	33-700*	30-496
Tool for RJ-22 (handset) and RJ-11 (1, 2, 3 pair)	N/A	30-499
Replacement Cut and Strip Blade Set for Telemaster™	N/A	LB-1747

*Kit includes 10 each, RJ-45 8P8C, RJ-11 6P6C and RJ-11 6P4C modular plugs.

Data/Voice Crimp Tool Kit

- Compact design is 2/3 the size of traditional crimpers
- Fixed RJ-45 and RJ-11 crimp cavities
- One tool assembly process – cut, strip and crimp connectors on to CAT 3/5e/6 cables
- Black oxide coated steel core with spring loaded handle and locking feature



Description	Cat. No.
Data/Voice Crimp Tool Kit includes ten RJ-11 and ten RJ-45 connectors	33-396



DATA COMM / NETWORKS

Kinetic® Super Wire Stripper/Crimper

- Cuts and strips 22 to 24 AWG
- Crimps IDC Connectors

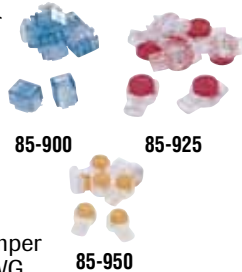


Description	Cat. No.
Kinetic® Super Wire Stripper/Crimper Kit – includes 25 IDC connectors (UR-I, 3-Wire Butt Splice)	33-719

Insulation Displacement Connectors

IDC connectors create fast splice and tap connections on solid copper wires. Designed for low voltage telecommunication cables.

- Moisture-resistant sealant protects wires from corrosion
- Use with solid copper single-conductor wire
- Kinetic Super™ Wire Stripper/Crimper easily cuts and strips 22 to 24 AWG solid wire



Description	Qty.	Cat. No.
UR-I, 3-Wire Butt Splice IDC	25	85-925
UR-I, 2-Wire Butt Splice IDC	100	86-925
UR-I, 3-Wire Butt Splice IDC	1,000	87-925
IDC Connector Combo Pack – includes 10 UR, 10 UY and 5 UB	25	85-960
UY-I, 2-Wire Butt Splice IDC	25	85-950
UB-I, 2-Wire Tap Splice IDC	25	85-900

Strain Relief Boots for Modular Plugs

- Prevents broken connector tabs and snagging while extending connector life
- Minimizes cable bends that can reduce data speed and result in data loss
- Dampens cable movement and vibrations that can result in premature connector failure



Description	Qty.	Cat. No.
Strain Relief Boots for Modular Plugs	25	85-380
15 Strain Relief Boots and 15 8P8C RJ-45 Modular Plugs	15	85-379

CAT 5e Modular Plugs

- Plugs support the latest cable system performance categories when installed in compliance with appropriate standards and methods
- Plugs work with 24 AWG solid or stranded conductors and round or flat cables.

Description	Qty.	Cat. No.
CAT 5e 8-Position 8-Contact, RJ-45	10	85-147
	25	85-346
	50	85-396
	100	86-396
6-Position 6-Contact, RJ-11	25	85-345
6-Position 4-Contact, RJ-11	25	85-344

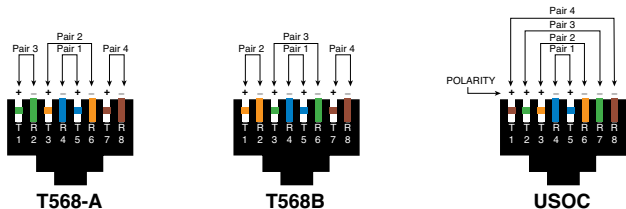
CAT 6 RJ-45 Modular Plugs

- Three-piece design provides easy installation and optimal performance
- Crimps with a standard RJ-45 crimp die
- 50 micron gold contacts, 8-position, 8-contact
- Suitable for solid or stranded conductors – 23 AWG



Description	Qty.	Cat. No.
CAT 6 RJ-45 Modular Plugs	25	85-366

Wiring Configurations for Modular Plugs



UTP/STP/Coaxial Cable Strippers

- Adjustable blades can be set for any depth to help ensure nick-free stripping and slitting of cables



Description	Typical RG Cables	Cat. No.
Coaxial Cable Stripper, up to 1/8 in. (3.2mm) O.D. 	RG-174, RG-187	45-162 (Gray)
Coaxial Cable Stripper, 1/8 in. (3.2mm) to 7/32 in. (5.56mm) O.D. 	Mini Coax RG-58,CB	45-163 (Blue)
Coaxial Cable Stripper, 1/4 in. (6.4mm) to 9/16 in. (14.3mm) O.D. 	RG-11, RG-8	45-164 (Blue)
Cable Stripper, 3/16 in. (4.8mm) to 5/16 in. (8mm) O.D. 	RG-59/6, UTP Cable	45-165 (Black)
UTP/STP Ringer Stripper, one blade 	UTP/STP	45-168 (Black)
Replacement Blade Set* for 45-162, 45-163, 45-165	—	L-9225
Replacement Blade Set* for 45-164	—	L-9226

*A set of blades consists of three straight blades and one round blade.

UTP Cable Stripper

- Strips Cat 3, 5, 5e & 6 cables
- One-step stripping



Description	Cat. No.
UTP Cable Stripper	45-167

Cyclops® Data Cable Stripper

- Fast, easy removal of outer sheath insulations (PVC and Plenum types, UTP & STP)



Description	Cat. No.
Data Cable Stripper for unshielded and shielded twisted pair cable	45-514

PrepPRO® Coax/UTP Cable Stripper

- Auto adjusting blade depth for 6/6Quad/59 coax cable
- 1/4" x 1/4" coax preparation
- Replaceable blade cartridges
- CAT5e/6 jacket stripping
- Spring loaded for consistent cutting force



Description	Cat. No.
PrepPRO® Coax/UTP Cable Stripper	45-605



DATA COMM / NETWORKS

Cable/Satellite/CCTV Coax Stripper

- Designed for fast and easy 1/4" x 1/4" strip lengths
- Blades auto-adjust to different diameter coax cables
- Spinner ring for fast stripping
- Strips RG-6/6 Quad and RG-59 coax cable



Description	Cat. No.
Video Coax Stripper	45-321

Coax Strippers

- Specific adjustments needed for each cable size



Description	Cat. No.	Replacement Cassette
Coax Stripper - 2 Step • For most IDEAL compression connectors and single crimp/twist-on BNC/TNC • Strips 0.250 in. or 6.35mm	45-526	45-524 (Blue)
Coax Stripper - 3 Step • For crimp BNC and TNC connectors • Strips braid 0.240 in. or 6mm and dielectric 0.240 in. or 6mm	45-520	45-522 (Black)
Coax Stripper - 3 Step • For dual crimp BNC/TNC and Thinner BNC conn. • For 735A Belden® cable • Strips braid 0.328 in. or 8.2mm and dielectric 0.109 in. or 2.7mm	45-521	45-523 (Brown)

Belden® is a registered trademark of Belden Technologies, Inc.



45-524 Blue Replacement Cartridge



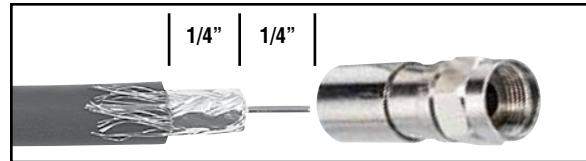
45-522 Black Replacement Cartridge



45-523 Brown Replacement Cartridge

Proper Coax Strip Procedure

1/4 in. x 1/4 in. standard strip.



- Proper strip length settings will leave 1/4" of the center conductor exposed and 1/4" of the braiding (shield) exposed.
- After stripping, make sure the tip of the center conductor is straight and not bent. Straighten the conductor if necessary.

Fold back the outer layer of braiding (shield) against the cable jacket. Keep the braid strands as straight and as close to the jacket as possible.

- Note: For Quad Shield cables (with four layers; outer braid, outer foil, inner braid, inner foil), first fold back the outer braiding. Use the 45-074 to score and remove the exposed 1/4" of outer foil. Remove outer foil and fold back inner braiding.

Coax Stripmaster® Wire Strippers

- Provides precision stripping with easy spring cushion grip
- Knife-type blades feature multiple hole diameters sized for two step removal of outer jacket insulation and center conductor



Description	Coax Cable Type (RGU)	Cat. No.	Repl. Blade Cat. No.
Coax Stripmaster® for RG-6	RG-6	45-262	LB-740
Coax Stripmaster® for RG-59	RG-59	45-265	LB-743
Coax Stripmaster® for RG-6	RG-6 Quad Shield	45-282	LA-3953
Coax Stripmaster® for RG-58	RG-58	45-264	—
Coax Stripmaster® for MediaTwist®	MediaTwist	45-274	—

MediaTwist® is a registered trademark of Belden Technologies, Inc.

RG-11 Coax Stripper

- For use with IDEAL RG-11 compression connectors (89-211, 89-1211), provides 1/4 in. x 1/4 in. strip



Description	Cat. No.
RG-11 Coax Stripper for Compression Connectors	45-111

Round Cable Slitting & Ringing Tool

- Cuts around cable jacket as well as slits the length of jacket for easy removal
- Use with single or multiple conductor cable up to 1.75 in. O.D.
- Blade adjusts for jacket thicknesses up to .125 in.
- Spare blade in handle base



Description	Cat. No.
Round Cable Slitting and Ringing Tool	45-144
Replacement Blades for 45-144 (2/pkg.)	LB-1748

Data T[®]-Cutter

- Cuts round communication cable and maintains cable geometry for better cable performance
- Cuts multi-pair cable up to .500 in. (12.7mm) and coaxial cable up to RG-9/U
- Suitable for soft cables (not ACSR)
- Steel reinforced center conductors can be trimmed with bolt cutting holes
- Locking latch keeps tool closed in pouch



Description	Cat. No.
Data T [®] -Cutter	45-074

Also available in these kits:

33-917



33-622



Electrician's Scissors

- Designed for use in telephone and electrical service applications
- Cut up to 16 AWG solid and 12 AWG stranded wire
- Serrated surface on back blade edge cleans wire
- Stripping notches strip 19 and 23 AWG wire
- Chrome over nickel plating



Description	Cat. No.
Electrician's Scissors w/stripping notches	35-088

Cable Splicing Kit

- Kit designed for use in telephone and electrical service applications
- High carbon steel blade in Splicing Knife remains sharp and cuts easily through many insulation types
- Kit includes Scissors, Splicing Knife and Leather Holder



Description	Cat. No.
Cable Splicing Kit (Scissors, Splicing Knife, Leather Holder)	35-093
Cable Splicing Knife	35-1091

Lever[™] Snips Electrician's Scissors with Stripping Notches

- Ergonomic design gives added leverage
- Spring-action, mechanical advantage increases stripping leverage and reduces operator fatigue
- Double plated for added rust protection
- Extra-deep serrations grip wire better



Description	Cat. No.
Electrician's Scissors with Stripping Notches	35-087



DATA COMM / NETWORKS

2.4 GHz Satellite & Digital TV Splitters

- Designed for easy mounting over cable
- All ports are F female connectors, 75Ω
- Two grounding screws eliminate the need for grounding block
- All ports power pass



Description		Cat. No.
2-Way, 5MHz - 2.4GHz		85-332
3-Way, 5MHz - 2.4GHz		85-333
4-Way, 5MHz - 2.4GHz		85-334

Grounding Block

- Solid zinc alloy, nickel plated and chromate finished
- High Performance beryllium copper contact
- Electrical performance rated 0 - 3 GHz
- Dual grounding holes can accept up to #6 wire



Description	Cat. No.
3 GHz Double Grounding Block	85-311



Use terminators (85-038) on all unused ports for optimal performance.

1 GHz Splitters

- Nickel-plated housing, soldered back
- High-performance impedance - balanced Printed Circuit Board design
- Bandwidth: 5MHz - 1 GHz
Impedance: 75 Ω; Splits signals up to 8 outlets



Description		Cat. No.
High Performance Cable Splitter, 5MHz-1GHz, 2-Way		85-132
High Performance Cable Splitter, 5MHz-1GHz, 3-Way		85-133
High Performance Cable Splitter, 5MHz-1GHz, 4-Way		85-134
Digital Cable Splitter 5MHz-1GHz, 8-Way		85-138

Diplexer 5 MHz - 2.1 GHz

- Combine or split cable/antenna signals with satellite signals
- Use two Diplexers per installation, one to combine and one to split
- High quality PCB design
- Nickel-plated die-cast zinc housing
- Grounding hole for up to 6 AWG wire



Description	Cat. No.
Diplexer, 2.1 GHz, SATV/TV Combiner Splitter - 2 Amp	85-323

Pro Installer Kit – 33-945

- This professional kit includes a selection of tools that are needed by anyone who installs or maintains low-voltage systems.

Kit Includes:

35-427	Large Mouth Bag – 18 in.	35-473	Probe Pic and Spudger
30-603	OmniSeal™ Compression Tool	35-485	Punchmaster™ II 110 Blade only
30-696	Ratchet Telemaster™	35-497	66 Blade only
35-046	F-Connector Tool	35-908	7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver
35-087	Lever™-Snips Electrician's Scissors	35-4038	Long Nose Pliers – 8 in.
35-091	Cable Splicing Knife	45-074	Data T®-Cutter
35-205	Torpedo Level	45-165	UTP/STP Stripper
35-238	Mag-Tape™ Tape Measure	45-526	Coax Stripper – 2-Step
35-275	Jab Saw	62-160	Tone Generator
35-407	110/66 Blade	62-164	Amplifier Probe
35-430	Tongue & Groove Pliers – 10 in.		



Master Series Network Service Kit – 33-706

- Kit allows user to cut, strip, terminate and test data cables. For Cat5e, Cat6 and voice installments.

Kit Includes:

30-696	Ratchet Telemaster™	35-908	7-in-1 Twist-a-Nut™ Screwdriver
35-485	Punchmaster™ II w/110 Blade	33-864	PRO Amplifier Probe & Tone Generator Kit
35-473	Probe Pic and Spudger	45-719	Kinetic Super™ Wire Stripper/Crimper
45-165	UTP/STP Stripper	85-396	8-Position, RJ-45 Modular Plugs, qty. 50
35-093	Electrician's Scissors	35-410	Large Mouth Bag – 13 in.
35-497	66 Blade only		
62-200	LinkMaster™ Tester		



RF Coax Crimp & Compression Kit – 33-410

- This professional kit allows user to crimp or compress F and BNC coax connectors. Multiple die sets give the Crimpaster™ Crimp Tool a wide range of connectors to terminate. For security and cable/satellite installers

Kit Includes:

30-793	OmniSeal™ Pro XL Compression Tool	45-074	Data T®-Cutter
30-503	Ratchet Crimp Tool	30-581	58/59, BNC/TNC Die Set
45-526	2-Step Coax Stripper	30-573	RG-59 Cambridge-type Die Set
45-520	3-Step Coax Stripper	30-576	RG-174, Mini-59 Die Set
45-523	45-521 Replacement Cassette	92-650	RG-6 RTQ™ Compression F-Connector, 50/jar
		35-535	Mechanic's Bag



Low Voltage Starter Kit – 33-920

- This starter kit allows user to terminate jacks and modular plugs as well as coax connectors.

Kit Includes:

30-496	Telemaster™ Telephone Tool	35-497	66 Blade only
30-633	Economy Compression Tool	30-503	Ratchet Crimp Tool
45-321	Cable/Satellite/CCTV Coax Stripper	45-168	UTP/STP Ringer Stripper, one blade
35-492	Punch Down Tool w/110 blade	35-535	Mechanic's Bag
45-074	Data T®-Cutter		





DATA COMM/NETWORKS

Data/Video Kit – 33-917

- Kit includes professional tools to terminate both coax and twisted pair cables. VDV gives user the ability to test terminated cables.

- Kit Includes:

30-522 Crimpmaster™ Crimp Tool for RJ-45 Modular Plugs	35-473 Probe Pic and Spudger
30-793 OmniSeal™ Pro XL Compression Tool	35-485 Punchmaster™ II Punch Down Tool w/110 Blade
33-856 VDV MultiMedia Cable Tester	35-908 Twist-a-Nut™ 7-in-1 Screwdriver
35-046 Coax Connector Tool - F & BNC	45-074 Data T®-Cutter
35-088 Electrician's Scissors w/Stripping Notch	45-165 UTP Stripper
35-407 110/66 Blade Combo Punch Down Blade	45-526 Coax Stripper w/Replaceable Cartridge
35-410 Large Mouth Bag – 13 in.	62-164 Amplifier Probe



Pro XL Compression Hip Kit – 33-793

- Cut, strip and terminate in one handy professional tool kit.

- Kit Includes:

30-793 OmniSeal™ Pro XL Compression Tool	45-074 Data T®-Cutter
45-605 PrepPRO® Coax (59/6/6Q)/UTP Cable Stripper	Pouch with Belt Clip



LinearX® Hip Kit – 33-622

- Cut, strip and terminate F connectors in one handy starter tool kit.

- Kit Includes:

33-631 LinearX®1 Compression Tool	45-074 Data T®-Cutter
45-605 PrepPRO® Coax (59/6/6Q)/UTP Cable Stripper	Pouch with Belt Clip



Service Compression Kit – 33-630

- This service kit includes both F and BNC connectors as well as the professional tools to cut, strip and terminate coax cables. Designed for security and cable/satellite installation.

- Kit Includes:

30-793 OmniSeal™ Pro XL Compression Tool	89-048 BNC RG-59 Compression Connectors, qty. 10
45-074 Data T®-Cutter	92-650 RG-6 RTQ™ Compression Connectors, 50/jar
45-262 Coax Stripmaster® Wire Stripper for RG-6	92-660 RG-6 Plenum Compression Connectors, qty. 10
89-127 Compression F-Connector Port Seals, qty. 5	LA-3953 Replacement Blade for 45-262
89-047 BNC RG-6 Compression Connectors, qty. 10	



Economy Compression Kit – 33-620

- This starter kit includes the tools and connectors to cut, strip and terminate coax cables.

- Kit Includes:

45-074 Data T®-Cutter	92-610 RG-59 RTQ™ Compression Connectors, qty. 10
45-605 PrePRO® Cable Stripper	92-650 RG-6 RTQ™ Compression Connectors, qty. 30



Technician's Service Kit – 33-505

- Kit includes tools to install twisted pair cable on blocks and data jacks.
- Kit Includes:

35-088	Electrician's Scissors w/ Stripping Notches	35-497	66 Blade Only
35-473	Probe Pic & Spudger	35-908	7-in-1 Twist-a-Nut™ Screwdriver/Nutdriver
35-485	Punchmaster™ Punch Down Tool w/110 Blade	45-165	UTP/STP Stripper
		62-205	Nylon case



RJ-45/11 Four, Six & Eight-Position Combination TelCom Termination Kit – 33-704

- This TelCom Kit is designed for the user who will terminate RJ-11 and RJ-45 twisted pair cables.
- Kit Includes:

30-496	Telemaster™ for RJ-11/RJ-45 Plugs
85-344	4-Position, RJ-11 Modular Plugs, qty. 15
85-345	6-Position, RJ-11 Modular Plugs, qty. 15
85-346	8-Position, RJ-45 Modular Plugs, qty. 15



RJ-45 Termination Kit – 33-750

- This kit is suited for the user who will cut and terminate RJ-45 Modular Plugs. The kit includes 50 modular plugs, enough to make 25 separate cables.
- Kit Includes:

30-496	Telemaster™ for RJ-11/RJ-45 Plugs
45-165	UTP/Coax Stripper
85-346	8-Position, RJ-45 Modular Plugs, qty. 50



Telemaster™ Crimp Kit – 33-700

- This kit is the Telemaster™ tool along with 30 modular plugs.
 - Kit Includes:
- | | |
|---------------|--|
| 30-496 | Telemaster Tool for RJ-11 (1, 2, 3 pair) and RJ-45 Plugs |
| 85-346 | RJ-45 8P8C, qty. 10 |
| 86-395 | RJ-11 6P6C, qty. 10 |
| 85-344 | RJ-11 6P4C, qty. 10 |



PRO Network/Telco Installer Kit – 33-506

- This kit gives the user the ability to terminate modular plugs as well as data blocks or jacks.
- Kit Includes:

30-696	Ratchet Telemaster™	35-497	66 Blade only
35-485	Punchmaster™ II 110 Blade only	85-396	8-Position, RJ-45 Modular Plugs, qty. 50
35-473	Probe Pic and Spudger	35-535	Mechanic's Bag
45-165	UTP/STP Stripper		
35-088	Electrician's Scissors w/Stripper Notches		



Crimpmaster™ 10Base-T RJ-45 Crimping Kit – 33-652

- This foam fitted kit includes the Crimpmaster™ Crimp Tool with an 8-position die set as well as 200 RJ-45 Modular Plugs. Kit allows user to cut, strip and terminate twisted pair cables.
- Kit Includes:

30-506	Crimpmaster™ Crimp Tool Frame only	45-074	Data T®-Cutter
30-559	8-Position Die Set for RJ-45 Plugs	45-165	UTP/Coax Stripper
		86-396	8-Position RJ-45 Plugs, qty. 200





DATA COMM / NETWORKS

33-960 Series – Micro OTDRs

Designed with installers in mind, 33-960 Series Micro OTDRs offer excellent performance and ease of use in a truly handheld, lightweight and rugged package. Available as either an 850/1300 nm (multimode) or 850/1300/1310/1550 nm (multimode and single mode) OTDR, they are ideally suited for the installation and troubleshooting of LAN, campus and WAN fiber networks. Both models combine high measurement precision with the user friendliness of one-button operation resulting in accurate characterization of connectors and splices in addition to fast and reliable fault location.

With the MB option, these OTDRs provide clear PASS/FAIL indications. Distance, loss and ORL for each event is reported in a trace summary table making full certification of the link possible. Each OTDR is shipped in a kit containing everything you need to get started on the job, including a ruggedized carrying case, PC software, rechargeable batteries and wall charger.



- **Short Attenuation and Event Dead Zones** – for accurate location and characterization of events
- **Autotest Function** – provides simple one-button operation
- **Fast Data Acquisition** – important for troubleshooting intermittent problems
- **Certifying OTDR Option** – for tier-2 certification
- **Optional Macro Bend detection** – accurately detects macro bends in singlemode fiber

Specifications

Testing	33-960-10	33-960-30
Wavelength [nm]	850, 1300	850, 1300, 1310, 1550
Dynamic Range [dB]	24 / 25	24 / 25 / 29 / 28
Attenuation dead zone [m]	11 / 11	11 / 11 / 11 / 12
Pulse width [ns]	10, 30, 100, 275, 1000, 2500, 10000	
Event dead zone [m]	2.5 worst case	
Launch Conditions (MM)	Class CPR 1 or 2	
Linearity [dB / dB]	± 0.03	
Loss threshold [dB]	0.05	
Loss resolution [dB]	0.01	
Sampling resolution [m]	0.16 to 5	
Sampling points	Up to 30000	
Typical real time refresh [1/sec]	4	
Distance uncertainty [m]	± (0.75 + 0.0025% x distance + sampling resolution)	
Distance range [km]	0.1 to 40	MM: 0.1 to 40 SM: 0.65 to 160
Stable source output power [dBm]	-1.5	MM: -1.5 SM -6.5
Laser Safety	21 CFR 1040.10 and IEC 60825-1:1993+A2:2001 / Class 1M	
Hardware	All Models	
Memory capacity	500 traces	
Data connectivity	USB A and USB B	
Size (HxWxD) [mm]	250 x 125 x 75 (9.8 x 4.9 x 2.9 in.)	
Weight	1 kg (2.2 lbs.)	
Temperature	Operating: -18°C to 50°C, Storage: -40°C to 70°C	
Batteries	2 x Li-Ion	
Power supply (mains)	110 – 230 V AC	
Power supply (unit)	9 - 24 V DC, 12 Watt	
Operating time	8 hours (per Bellcore™ TR-NWT-001138)	
Warranty	1 year	

Kits

33-960-10 MM OTDR Kit	33-960-30 Quad OTDR Kit
MM OTDR with 850/1300nm	Quad OTDR with 850/1300/1310/1550nm
Ruggedized carrying case	Ruggedized carrying case
PC-Software	PC-Software
CD with manual and Quick Reference Guide	CD with manual and Quick Reference Guide
Wall charger	Wall charger
2 Li-Ion rechargeable batteries	2 Li-Ion rechargeable batteries
SC Adapter	1 SC and 1 FC Adapter
33-960-10MB	OTDR Kit with Tier 2 certification option and macro bend detection
33-960-30MB	

Ordering Information

Description	Cat. No.
200x and 400x video probe w/USB port	33-960-VP
Adapter for FC connectors	33-961-10
Adapter for SC connectors	33-961-20
Adapter for ST connectors	33-961-30
Adapter for E2000 connectors	33-961-40
Adapter for DIN 47256 connectors	33-961-50
Adapter for HMS-10/AG connectors	33-961-60
Cleaning Kit	1219-00-1621
Rechargeable battery	33-960-BP
Foldable USB Keyboard	33-960-KB

FiberMASTER™ Fiber Optic Test Kit

Measure fiber optic power in milliwatts (mW) and decibel-milliwatts (dBm) to test and troubleshoot active LANs. Quickly measure cabling loss with the automatic calibration feature that stores reference power from any light source for quick dB loss calculations. Plus, the 1490nm wavelength measurement mode is perfect for troubleshooting emerging Fiber-To-The-Home cabling systems.

- **Fiber Optic Power Meter & Light Source** – Four wavelength power meter for multimode and single mode testing, and 850nm multimode LED light source.
- **Calibration Function** – Stores reference power level for quick dB loss measurements eliminating the need to manually calculate loss.
- **Save Time and Money** – Power meter features 2.5mm universal and FC adapters, light source includes ST®, SC and FC adapters to test the most common interfaces.
- **Ready for FTTx** – 1490nm measurement wavelength for use with nearly all single mode Fiber-To-The-Home applications.
- **Designed for the Field** – Unique “docking” light source and easy three-button operation make this the perfect fiber tester for use in the field.



FiberMASTER™ Kit Includes:

- 33-926 Light source, 850nm LED with ST®, SC and FC adapters
- 33-927 Power meter, 4 wavelength with universal 2.5mm and fixed FC adapter
- 2x FC-SC 62.5um multimode cables
- 1 SC calibration coupler
- Carrying case
- English, Spanish, German, French, Portuguese, Italian and Chinese user's manual

Power Meter Specifications

Wavelength	850, 1300/1310, 1490, 1550nm
Detector	InGaAs
Measurement Range	-60 to +3dBm
Accuracy	±5%
Display Resolution	.01
Connector	Universal 2.5mm w/FC adapter
Power Supply	AAA Alkaline Battery x 3
Operating Time	360 hours
Operating Temp	-10 to +60°C
Storage Temp	-25 to +70°C

Description	Cat. No.
850NM Fiber light source	33-926
Power meter only	33-927
Power meter with 850NM fiber light source (33-926 & 33-927)	33-928
Four wavelength MM/SM light source only	33-929
Power meter with four wavelength MM/SM light source (33-927 & 33-929)	33-931

Light Source Specifications

Wavelength	850, 1300, 1310, 1550nm laser diode
Output Power	-6 to -7 dBm Typical
Stability	.05dB after 15min, 0.1dB over 8 hrs
Connector	2.5mm w/ST®, SC, FC adapters
Power Supply	AAA Alkaline Battery x 3
Operating Time	40 hours
Operating Temp	-10 to +60°C
Storage Temp	-25 to +70°C



33-929





DATA COMM / NETWORKS

Fiber Inspection Microscope



- 100X magnification for viewing multimode connectors
- Includes 2.5mm connector "Universal Adapter" for FC, ST® and SC style connectors
- Oblique illumination provides excellent view of ferrule cleanliness and core condition
- Rugged, rubberized metal housing, precision glass optics and a built-in laser safety filter
- White LED illumination delivers 100,000 hours bulb life
- Optional 200X Conversion Eyepiece threads on for viewing finish/polish of singlemode connectors

Description	Cat. No.
Fiber Inspection Microscope w/carrying case	45-332
1.25mm Connector Adapter	45-334
MTRJ-Style Connector Adapter	45-335
200X Conversion Eyepiece for Singlemode Connectors	45-336

Note: ST® is a registered trademark of AT&T.

Visual Fault Finder

Laser light source used to locate breaks, faulty splices and crimps

- 2.5mm Universal Adapter for all ST®, SC and FC connectors
- Useful over a distance of 5km (3 miles)
- Two AA batteries provide over 30 hours of continuous use
- Slim, pocket-sized tool in rugged solid aluminum body
- Nylon carrying case with belt loop included



Description	Cat. No.
Visual Fault Finder	VFF5

Note: ST® is a registered trademark of AT&T.

Stripmaster® Ribbon Fiber Jacket Stripper

- Removes jacket from Ribbon Fiber without damage to the Kevlar® strength member of the Ribbon Fiber

Description	Cat. No.
Stripmaster® Wire Stripper Frame only	L-5620
Blade-set for use with Corning® Plenum and Riser Ribbon Fiber Cable	LB-1152
Blade-set for use with Corning® "Fanout" Ribbon Cable	LB-1153

Note: Kevlar® is a registered trademark of DuPont. Corning® is a registered trademark of Corning, Inc.

Mini-Lite-Strip™ Optical Fiber Stripper



- Small strip notch engineered and precision-ground to strip 900 micron or 250 micron buffer coatings from 125 micron fiber
- Larger round strip notch machined to remove the 3mm outer jacket
- Strip notches pre-set and locked, no field adjustment necessary

Description	Cat. No.
MiniLite-Strip™ Optical Fiber Stripper	45-352

Lite-Strip™ Optical Fiber Stripper

V-notch blades strip a wide range of outer cable jacket.

Precision-ground, replaceable knife-type blades strip tight buffer tube insulations

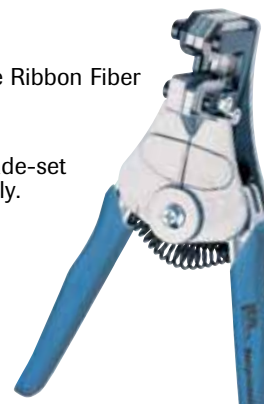
(900µm). Also strips mechanically strippable coatings from 250 microns to 900 microns.



- Replaceable precision-ground blades cleanly strip buffer coatings
- New funneled hole makes cable insertion easier
- Improved spring mounting returns handles to original position after every application
- One-step, 900 micron stripping hole provides broader stripping range
- Extra durable to withstand normal drops without requiring tool realignment
- New gauge color makes fiber and hole identification easier
- Improved comfort-grip handles for an easier, more comfortable stripping process

Description	Fiber Sizes	Cat. No.
Lite-Strip™ Optical Fiber Stripper (900µm/250µm)	125µm, 140µm	45-350
Replacement Blade Set		LB-661

Note: Frame and blade-set sold separately.



DualScribe™ Double - Ended Fiber Optic Scribes

- Three professional quality blade styles to choose from to meet your specific needs – Ruby, Sapphire, Carbide
- Color-coded handles for quick, easy identification
Red – Ruby
Blue – Sapphire
Black – Carbide
- 30° single bevel – DualScribe™ reversible blade doubles tool life
- Soft non-slip grip provides precise control during scribing
- Clear safety cap protects the blades from damage when not in use

Description	Handle Color	Cat. No.
Ruby Blade Fiber Optic Scribe 	Red	45-357
Sapphire Blade Fiber Optic Scribe 	Blue	45-358
Carbide Blade Fiber Optic Scribe 	Black	45-359

Serrated Cutter (For Kevlar®) with Breaker Notch

- Two-Step process significantly increases the life of this rugged tool
- Superior quality high-carbon stainless steel with molybdenum and vanadium provides the super-hard edges needed to stand up to the demands of today's market
- Textured cushioned-grip handles
- Value-priced for contractors, cable assembly houses, fiber installers/technicians and tool kits



Description	Cat. No.
Serrated Cutter w/Breaker Notch (Patent pending)	45-344

Note: Kevlar® is a registered trademark of DuPont.

Split-Tip Fiber Optic Swabs

- Split-tip design cleans fiber easier and more efficiently than other methods
- Tube/handle is pre-loaded with 99% isopropyl alcohol
- A single swab can be used for many cleanings or until the alcohol is gone

Stainless Steel Polishing Fixture for Optical Fiber ST® and SC Type Connectors



Produces polished fiber optic ST® and SC type connectors for optimum connector performance.

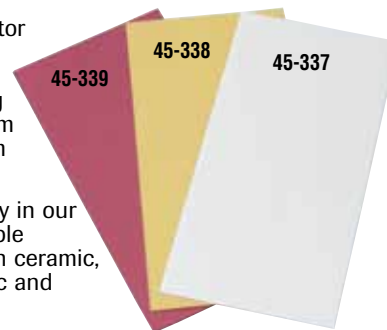
- Precision-machined, stainless-steel disk provides accurate polishing angle for desired end face finish
- Stainless-steel hardness maintains long life and resists uneven wear
- Stepped surface reduces drag and friction for easier polishing

Description	Cat. No.
Polishing Fixture for Optical Fiber ST/ST® Type Connectors	45-341


Note: ST® is a registered trademark of AT&T.

Polishing Films for Fiber Optic Connectors

- For optimum connector polishing results, we recommend a three-step procedure using 0.5µm, 3µm and 12µm 3 in. x 6 in. aluminum oxide polishing films
- Lot-to-lot consistency in our films means repeatable connector finishes on ceramic, stainless steel, plastic and composite ferrules
- A single sheet will typically yield 10 to 20 connectors when using the recommended 3-step procedure



Description	Color	Qty.	Cat. No.
0.5µm, 3" x 5", Aluminum Oxide	Ivory	20 films/sleeve	45-337
3.0µm, 3" x 5", Aluminum Oxide	Lt. Yellow	20 films/sleeve	45-338
12µm, 3" x 5", Aluminum Oxide	Lt. Red	20 films/sleeve	45-339

Description	Qty.	Cat. No.
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Merchandising

Point-of-purchase communication is an important aspect of IDEAL sales strategy. We are committed to helping our distributors move our products off their shelves. To do that, we've developed a variety of exciting, useful ways to increase a store's association with IDEAL and to build repeat customers.

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Rolling Displays



Wall Displays



Floor Displays



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