WIRED TO SERVE®

QUALITY ELECTRICAL PRODUCTS
WAYTEKWIRE.COM

WAYTEK ®

Order Today:
waytekwire.com
sales@waytekwire.com
800-328-2724

2017
CATALOG 229

READY TO DELIVER AND WIRED TO SERVE®

Thousands of parts on-hand with over 99% of in-stock orders shipped same day!*

Can't find the part you need?
Call us and we'll track it down.

At Waytek, we're engineered to do whatever it takes to deliver whatever you need, or as we put it — **Wired To Serve.** Let us be your warehouse, so you can save on inventory costs while accessing a wide variety of electrical components from manufacturers known for premier quality. Our inventory runs deep, and we're always ready to ship the same day* so you can keep your project on track. Count on us for:

> **Real People** — calls are answered by a live customer service representative, with no lengthy automated messages or confusing menus

> **Right Parts** — thousands of electrical components in stock, from a variety of manufacturers and at the prices you need

> **Exceptional Service** — whether you need a quick turn on a quote, or a last-minute order shipped same day,* we realize timeliness is everything

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Visit **waytekwire.com** to view our very latest products.   *In-stock orders placed by 4:30 p.m. CST ship same day.

WAYTEK

2440 Galpin Ct. • PO Box 690
Chanhassen MN 55317
www.waytekwire.com

Quality Policy:
Waytek, Inc. is committed to quality by complying with customer and regulatory requirements. Each Waytek employee is personally responsible for the quality of his or her work and is empowered to initiate action to ensure both quality and continuous improvement within the organization.

QUICK INDEX

All information in this catalog is subject to change without notice. While efforts have been made to ensure the information in this catalog is accurate, Waytek, Inc. does not warrant the accuracy of information included in this catalog.
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INDEX

See pages 152-153 for a complete stock number to page guide.

HAVE YOU HEARD?

In 2016, Apruve conducted an e-commerce study of 40 Electrical Distributors. WAYTEK is ranked in the Top 10!

Apruve's criteria flows into three basic categories, focusing on Business-to-Business (B2B) relations:

User Experience & Usability
Making sure product information is current and valid, and that the website is intuitive and well-organized.

Checkout
Access to any information the customer may need, such as shipping options, invoices, and order history.

B2B Product Needs
Access to related products and volume discount information on product pages.

At Waytek we are always working to improve our website, focusing on our customers' experience. Apruve saw how **WIRED TO SERVE**® we are, now let us show you.

APRUVAL RATING

USER EXPERIENCE AND USABILITY + CHECKOUT + B2B PRODUCT NEEDS

apruve

apruve.com/apruval-rating-report

Our website is ever evolving to give you the information you require. Here are a few updates from 2016 you may have noticed.

PRODUCT SPECIFIC ICONS

Extra Shipping Charge

REACH Compliant

RoHS Compliant

Waytek is going 360°

Starting in 2016 we have been revamping the way we do images of our products and started testing 360° images. Starting in 2017 you will be able to see more and more products from a full 360°.

Spin Product Left or Right

Zoom Command

Auto Spin 360°

Full Screen Option

Registered Web Account Features

CREATE YOUR WAYTEK ACCOUNT

1) QUICK ORDER TOOL
Already know exactly what you need? Place your orders quickly with item stock numbers and quantity.

2) TRACK YOUR ORDERS
Track all your orders, view order history and print invoices.
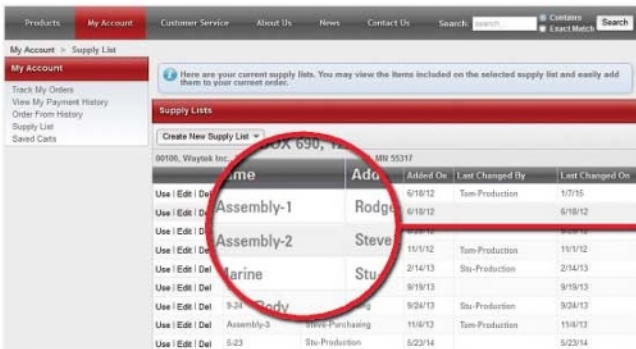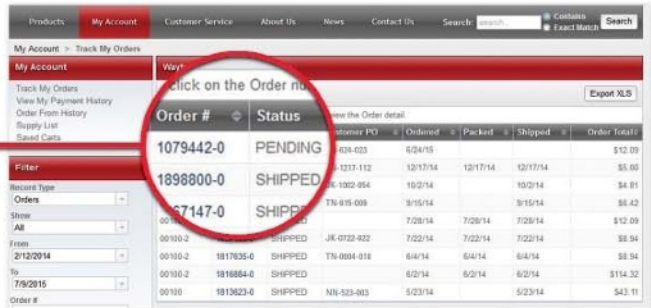
3) CREATE SUPPLY LIST
Save time ordering. Create your Purchase Orders in the Supply List Tool. Add parts and quantities to a supply list, save it, and re-order from it any time.

4) VIEW ORDER HISTORY
Every part ever ordered. Simply add to cart to order again.
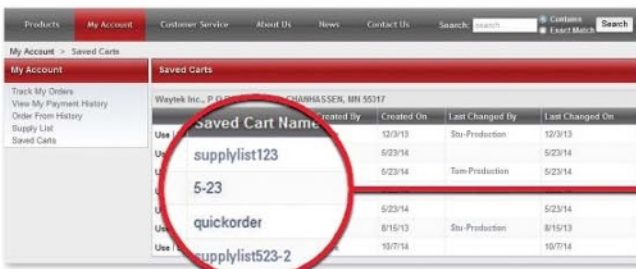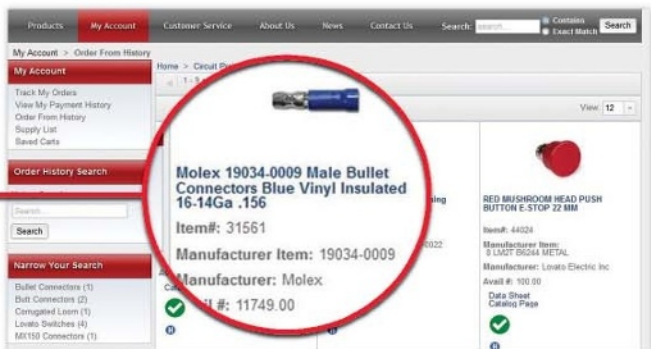
5) SAVE YOUR CART
Need more time with your order? Save your cart and come back to finish the order at a later time.

WE HAVE NO OFF SWITCH!
Access your online account 24/7 @ www.waytekwire.com

Do you need online access for an existing account? **Call 800-328-2724** and our customer service reps will set you up!

MADE IN AMERICA

AUTOMOTIVE CROSS-LINK POLYETHYLENE (XLPE) WIRE

- Single conductor, stranded, bare copper
- Insulated with chemically cross-linked polyethylene
- Smooth surface finish
- Resistant to moisture, grease, oil, gasoline, most acids and solvents
- Superior abrasion resistance

Application
- Use in high temperature areas such as engine compartments

257°F (125°C)
-40°F (-40°C)

SAE J1128-SXL   SAE J1128-GXL   SAE J1128-TXL   **60V**

Drums and half drums available. Call 800-328-2724 for details.

BARREL CONE

19"H Black Barrel Cone
Stock No. 600

- Controls and guides wire at high speed rates for today's modern wire processing systems
- Keeps your wire clean
- Fits standard 24" diameter barrels

Subject to additional shipping charges.

Type	Gauge	Stock No.	Colors Available	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)
SXL Standard wall	18	WX18	0 thru 9, 11, 12, 15, 16	500, 1000, 2500, 5000†	10	16/30	0.107 (2.74)
	16	WX16	0 thru 9, 11, 12, 15, 16	500, 1000, 2000, 5000††	14	19/29	0.119 (3.07)
	14	WX14	0 thru 9, 11, 12, 15	500, 1000, 1500, 5000††	20	19/27	0.138 (3.58)
	12	WX12	0 thru 6, 9	250, 500, 1000, 2500††	29	19/25	0.161 (4.17)
	10	WX10	0, 1, 2, 4, 5, 6, 8, 9	250, 500, 750, 2000††	43	19/23	0.191 (4.95)
	8	WX8	0, 2	250, 500, 2500††	66	19/21	0.232 (5.89)
GXL Thin wall	20	WL20	0 thru 9, 11, 12, 16	500, 1000, 3000, 5000†	7	7/28	0.085 (2.16)
	18	WL18	0 thru 9, 11, 12, 15, 16	500, 1000, 3000, 5000†	9	19/30	0.094 (2.39)
	16	WL16	0 thru 9, 11, 12, 15, 16	500, 1000, 2500, 5000††	12	19/29	0.103 (2.62)
	14	WL14	0 thru 9, 11, 12, 15, 16	500, 1000, 2000, 5000††	18	19/27	0.117 (2.97)
	12	WL12	0 thru 9, 11, 12, 15, 16	250, 500, 1000, 1500, 3000††	27	19/25	0.142 (3.61)
	10	WL10	0 thru 6, 8, 9	250, 500, 1000, 2000††	41	19/23	0.176 (4.47)
	8	WL8	0, 2, 3, 5, 8, 9	250, 500, 1500††	64	19/21	0.217 (5.51)
TXL Extra thin wall	22	WM22	0 thru 9, 11, 12, 15, 16	500, 1000, 3000, 15000††	4	7/30	0.062 (1.57)
	20	WM20	0 thru 9, 11, 12, 15, 16	500, 1000, 3000, 7500††	6	7/28	0.070 (1.77)
	18	WM18	0 thru 9, 11, 12, 15, 16	500, 1000, 3000, 6000†	7	19/30	0.078 (1.98)
	16	WM16	0 thru 9, 11, 12, 15, 16	500, 1000, 2500, 5000†	10	19/29	0.088 (2.24)
	14	WM14	0 thru 9, 11, 12, 16	500, 1000, 2000, 5000††	14	19/27	0.103 (2.62)
	12	WM12	0, 2, 4, 5, 6, 7, 8, 9, 16	250, 500, 1000, 3000††	22	19/25	0.128 (3.23)
	10	WM10	0, 2	250, 500, 1000, 2500††	37	19/23	0.155 (3.94)
	8	WM8	0, 2	250, 500, 1000, 2500††	57	19/21	0.181 (4.85)

NOTES
† These spools are subject to additional shipping charges.
†† These spools ship via truck.

ORDER BY STOCK NO. AND COLOR

WX18 – 0
Type   Color

Final ordering stock number: WX18-0
Specify footage needed and put-up requirements.

COLORS

0 - BLACK	1 - BROWN	2 - RED	3 - ORANGE
4 - YELLOW	5 - GREEN	6 - BLUE	7 - VIOLET
8 - GRAY	9 - WHITE	11 - TAN	12 - PINK
15 - LT. GREEN	16 - LT. BLUE		

CUSTOM WIRE STRIPING
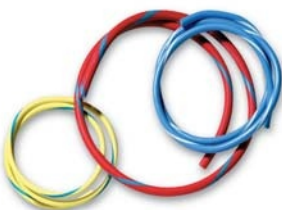
- 22-10 ga in both PVC or cross-linked polyethylene jacketed constructions
- Up to 3 stripes per wire
- 1,000 ft. minimum requirement

Call 800-328-2724 for details.

CUSTOM PRINTING

TAIL LIGHT   TAIL LIGHT

- 20-10 ga wire
- Black print
- Available in English only
- 1,000 ft. minimum requirement

Call 800-328-2724 for details.

AUTOMOTIVE PRIMARY WIRE

- Single conductor, stranded, bare copper
- Jacketed polyvinylchloride (PVC)
- Excellent resistance to oil and flame
- Custom printing or striping available

185°F (85°C)
-40°F (-40°C)

SAE J1128-GPT   60V

Application

- Standard for automotive applications, most widely used general purpose wire in the industry
- Smooth surface ideal for pulling through loom or conduit
- Standard for original equipment and replacement automotive applications

Drum quantities upon request. Call 800-328-2724 for details.

Type	Gauge	Stock No.	Colors Available	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)
GPT Standard Wall	20	WG20	0 thru 9, 11, 12	500, 1000, 3000, 5000†	6	10/30	0.085 (2.13)
	18	WG18	0 thru 9, 11, 12, 15, 16	500, 1000, 3000, 5000†	8	16/30	0.095 (2.41)
	16	WG16	0 thru 9, 11, 12, 15, 16	500, 1000, 2500, 5000†	11	19/29	0.102 (2.59)
	14	WG14	0 thru 9, 11, 12, 15, 16	500, 1000, 2000, 4000††	16	19/27	0.117 (2.97)
	12	WG12	0 thru 9	500, 1000, 1500, 3000††	25	19/25	0.142 (3.61)
	10	WG10	0 thru 9	500, 1000, 2000††	39	19/23	0.174 (4.45)
	8	WG8	0, 2, 3, 5, 9	500, 1500††	62	19/21	0.215 (5.51)

NOTES
† These spools are subject to additional shipping charges.
†† These spools ship via truck.

ORDER BY STOCK NO. AND COLOR
WG20 – 0
Type   Color
Final ordering stock number: WG20-0.
Specify footage needed and put-up requirements.

COLORS
0 - BLACK	1 - BROWN	2 - RED	3 - ORANGE
4 - YELLOW	5 - GREEN	6 - BLUE	7 - VIOLET
8 - GRAY	9 - WHITE	11 - TAN	12 - PINK
15 - LT. GREEN	16 - LT. BLUE		

Automotive GPT Primary Wire 100' Put-Ups   60V

Gauge	Stock No.	Colors Available	Approx. Weight, Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)
18	WG18	0 thru 9, 11, 12, 15, 16	8	16/30	0.095 (2.41)
16	WG16	0 thru 9, 11, 12, 15, 16	11	19/29	0.102 (2.59)
14	WG14	0 thru 9, 11, 12, 15, 16	16	19/27	0.117 (2.97)
12	WG12	0 thru 9, 12	25	19/25	0.142 (3.61)
10	WG10	0 thru 9, 12	39	19/23	0.175 (4.45)
8	WG8	0, 2, 5, 9	62	19/21	0.217 (5.51)

ORDER BY STOCK NO., COLOR AND PUT-UP
WG18 – 0 – 100
Type   Color   Put-Up
Final ordering stock number: WG18-0-100.

COLORS: SEE CHART ABOVE

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

SGR BATTERY CABLE | NEW

- Fully annealed soft-drawn copper
- Multi-stranded bare copper conductor cable
- **Highly flexible** EPDM jacket
- Meets SAE J1127, UL 558 and UL 583

221°F (105°C)
-58°F (-50°C)

SAE J1127-SGR   60V

Gauge	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
6	SGR6	100, 250, 500††	13	260/30	0.318 (8.08)
4	SGR4	100, 250, 500††	17	364/30	0.358 (9.09)
2	SGR2	100, 250††	25	624/30	0.422 (10.72)
1	SGR1	100, 250††	35	767/30	0.503 (12.78)
1/0	SGR0	100, 250††	40	975/30	0.538 (13.67)
2/0	SGR00	100, 250††	46	1,196/30	0.591 (15.01)
3/0	SGR000	100††	65	1,547/30	0.630 (16.00)
4/0	SGR0000	100††	79	1,950/30	0.718 (18.24)

COLORS
0 - ● BLACK   2 - ● RED

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

ORDER BY STOCK NO., COLOR & PUT-UP

SGR6 – 0 – 100
Type Color Put-Up

Final ordering stock number: SGR6-0-100

Specify footage needed and put-up requirements.

SGT BATTERY CABLE |

- PVC insulation
- Multi-stranded bare copper conductor cable
- Resistant to oil, most acids, grease and abrasion

221°F (105°C)
-58°F (-50°C)

SAE J1127-SGT   60V

Gauge	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
6	WB6	100, 250, 500††	13	49/22.5	0.330 (8.38)
4	WB4	100, 250, 500††	18	70/22.5	0.380 (9.65)
2	WB2	100, 250††, 500††	28	133/23	0.450 (11.43)
1	WB1	100, 250††, 500††	31	133/22	0.490 (12.45)
1/0	WB0	100, 250††	46	133/21	0.550 (13.97)
2/0	WB00*	100, 250††, 500††	51	133/20	0.605 (15.37)
3/0	WB000	100††, 200††	66	259/22	0.695 (17.65)
4/0	WB0000	50††, 100††	87	19x108/30	0.706 (17.93)

*176°F (80°C)

COLORS
0 - ● BLACK   2 - ● RED

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

ORDER BY STOCK NO. AND COLOR

WB6 – 0
Type Color

Final ordering stock number: WB6-0

Specify footage needed and put-up requirements.

SGX BATTERY CABLE |

- Cross-link polyethylene
- Multi-stranded bare copper conductor cable
- Resistant to oil, most acids, grease and abrasion

257°F (125°C)
-59°F (-51°C)

SAE J1127-SGX   60V

Gauge	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
6	WZ6	100, 250, 500††	12	133/27	0.316 (8.03)
4	WZ4	100, 250, 500††	18	133/25	0.395 (10.03)
2	WZ2	100, 250††, 500††	27	133/23	0.450 (11.43)
1	WZ1	100, 250††, 500††	32	127/22	0.491 (12.47)
1/0	WZ0	100, 250††, 500††	40	1064/30	0.531 (13.49)
2/0	WZ00	100, 250††, 500††	48	1330/30	0.577 (14.66)
NEW 3/0	WZ000	100, 200††	66	1672/30	0.780 (19.76)

COLORS
0 - ● BLACK   2 - ● RED

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

ORDER BY STOCK NO. AND COLOR

WZ6 – 0
Type Color

Final ordering stock number: WZ6-0

Specify footage needed and put-up requirements.

PARALLEL BATTERY CABLE

- Stranded, bare copper
- Available in PVC or Thermoplastic Elastomer (TPE) insulation
- Flexible stranding for cold and warm weather use
- Insulation color is black with red stripe
- Also called duplex battery cable

221°F (105°C)
-50°F (-46°C)

60V
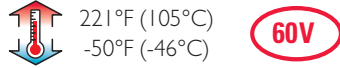
Application

- Extremly flexible duplex battery cable can be used for a variety of applications such as electric tarps, lift gates, spreaders, and any application requiring power to a remote area
- Ideal for booster cable construction

Gauge	Stock No.	Insulation	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
8	WF8-2	TPE	100, 500††	19	30/23	.320 X .700 (.81 X 1.57)
6	WF6-2	TPE	100, 500††	23	259/30	.320 X .650 (.81 X 1.65)
6	WFV6-2*	PVC	100, 500††	21	259/30	.320 X .650 (.81 X 1.65)
4	WF4-2	TPE	100, 500††	36	133/25	.400 X .815 (1.02 X 2.07)
2	WFR2-2	TPE	100††, 500††	58	665/30	.521 X 1.14 (1.32 X 2.90)

NOTES   *176°F (80°C)

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

WELDING CABLE

- Stranded, bare copper
- Class K welding cable
- Flexible stranding
- Dual jacket
- Water resistant Thermoplastic Elastomer (TPE) insulation inner jacket
- Neoprene outer jacket

221°F (105°C)
-55°F (-48°C)

600V
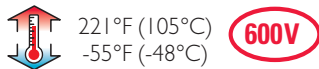
Additional colors and gauge sizes may be available on special order basis. Call 800-328-2724 for details.

Gauge	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
6	WC6*	100, 250, 500††	14	266/30	0.390 (9.91)
4	WC4*	100, 250, 500††	20	420/30	0.440 (11.18)
2	WC2	100, 250††	29	665/30	0.510 (12.95)
1	WC1	100, 250††	36	833/30	0.540 (13.72)
1/0	WC0	100, 250††	40	1045/30	0.610 (15.49)
2/0	WC00	100, 250††	55	1330/30	0.660 (16.76)
3/0	WC000	100††	72	1691/30	0.730 (18.54)
4/0	WC0000	100††	84	2109/30	0.790 (20.07)

COLORS

0 - BLACK	2 - RED	3 - *ORANGE

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

ORDER BY STOCK NO., COLOR & PUT-UP

WC6 – 0 – 100
Type   Color   Put-Up

Final ordering stock number: WC6-0-100

Specify footage needed and put-up requirements.

*Orange jacket is standard in electric vehicles for high voltage identification. Available in 6 and 4 gauge, 100 ft put-ups.

EPDM WELDING CABLE

- Highly flexible annealed 30 (0.010) gauge bare copper conductor, insulated with an EPDM jacket and paper separator
- Durable jacket resists cuts, tears, abrasion, grease, oil, water and flame
- Appropriate for any welding application that requires leads, grounds and stinger/whips
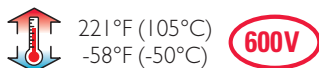
221°F (105°C)
-58°F (-50°C)

600V

Gauge	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs. Per 100'	Typical Stranding	Nominal O.D. in. (mm)
6	WCE6	100, 250, 500††	12	259/.010	0.320 (8.128)
4	WCE4	100, 250, 500††	15	364/.010	0.348 (8.839)
2	WCE2	100, 250††	24	624/.010	0.420 (10.668)
1	WCE1	100, 250††	32	780/.010	0.503 (12.776)
1/0	WCE0	100, 250††	38	988/.010	0.533 (13.538)
2/0	WCE00	100, 250††	47	1235/.010	0.586 (14.884)
3/0	WCE000	100††	57	1539/.010	0.625 (15.875)
4/0	WCE0000	100††	74	2014/.010	0.720 (18.288)

COLORS

0 - BLACK	2 - RED

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

ORDER BY STOCK NO., COLOR & PUT-UP

WCE6 – 0 – 100
Type   Color   Put-Up

Final ordering stock number: WCE6-0-100

Specify footage needed and put-up requirements.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

MADE IN AMERICA

TRAILER CABLE

- Stranded, bare copper
- Black jacketed PVC
- Resistant to oil, gas, moisture and acids

176°F (80°C) -67°F (-55°C)　SAE J1128　60V

Gauge/ Conductors	Stock No.	Conductor Colors	Standard Put-Up – Ft.	Approx. Weight, Lbs Per 100'	Typical Stranding	Nominal O.D. in (mm)
18/7	WT18-7	red, brown, yellow, green, blue, black, white	100, 500†	51	16/30	0.340 (8.64)
16/4	WT16-4	red, brown, yellow, green	100, 500†	9	19/29	0.360 (9.14)
16/4	WTW16-4	black, red, brown, white	100, 500†	9	19/29	0.360 (9.14)
16/6	WT16-6	red, brown, yellow, green, blue, black	100, 500††	14	19/29	0.420 (10.67)
16/6	WTW16-6	red, green, brown, white, black, yellow	100, 500††	14	19/29	0.421 (10.67)
14/4	WT14-4	red, brown, yellow, green	100, 500††	12	19/27	0.400 (10.16)
14/4	WTW14-4	white, brown, yellow, green	100, 500††	12	19/27	0.400 (10.16)
14/4	WTB14-4	black, red, brown, white	100, 500††	12	19/27	0.400 (10.16)
14/6	WT14-6	red, brown, yellow, green, blue, black	100, 500††	18	19/27	0.493 (12.52)
14/6	WTW14-6	red, green, brown, white, black, yellow	100, 500††	18	19/27	0.493 (12.52)
14/7	WT14-7	red, white, black, brown, yellow, green, blue	100, 500††	20	19/27	0.496 (12.60)
12/4	WT12-4	red, white, black, brown	100, 500††	16	19/25	0.453 (11.51)
12/6	WT12-6	red, white, black, brown, yellow, green	100, 500††	25	19/25	0.560 (14.22)
12/6 & 10/1	WT701	12 Ga - red, brown, yellow, blue, black, green 10 Ga - white	100, 500††	31	19/25 19/23	0.600 (15.24)
14/4 & 12/1 & 10/2	WT702	14 Ga - red, brown, yellow, green 12 Ga - blue 10 Ga - black, white	100, 500††	27	19/27 19/25 19/23	0.560 (14.73)

NOTES

†† These spools ship via truck.

4 to 7 conductors

Stock No. WTW14-6

Stock No. WT702 RV Trailer Cable

Call 800-328-2724 for special construction configurations.

ABS TRAILER CABLE

- General purpose trailer cable used for ABS systems
- Standard green jacketed PVC
- Color coding of the conductors is per the table
- Resistant to oil, gas, moisture and acids

176°F (80°C) -58°F (-50°C)　SAE J378　60V

Stock No. WT703 (green jacket)

Gauge/ Conductors	Stock No.	Standard Put-Up – Ft.	Approx. Weight, Lbs Per 100'	Typical Stranding	Nominal O.D. in. (mm)	Conductor Colors
12/4 & 10/2 & 8/1	WT703	100, 500††, & 1000††	42	19/27 19/23 19/21	0.690 (17.27)	12 ga - brown, yellow, green, black 10 ga - blue, red 8 ga - white

NOTES

†† These spools ship via truck.

MULTI-CONDUCTOR MARINE CABLE

- White jacketed PVC
- Tinned copper conductors
- Meets DOT and Coast Guard specifications

600V　UL LISTED 1426 – Tinned Multi-Conductor

Gauge/ Conductors	Stock No.	Typical Stranding	Nominal O.D. (mm)	Approx. Weight Lbs. Per 1000'	Standard Put-Up – Ft.	Conductor Colors
16/2	MC16-2	19/.0117	.310 x .190 (7.87 x 4.83)	40	250, 500, 1000†	black, white
16/3	MC16-3	19/.0117	.430 x .190 (10.92 x 4.83)	72	250, 500, 1000††	black, green, white
14/2	MC14-2	19/.0147	.340 x .200 (8.64 x 5.08)	59	250, 500, 1000††	black, white
14/3	MC14-3	19/.0147	.470 x .200 (11.94 x 5.08)	82	250, 500, 1000††	black, green, white
12/2	MC12-2	19/.0185	.380 x .220 (9.65 x 5.59)	77	250, 500, 1000††	black, white
12/3	MC12-3	19/.0185	.530 x .220 (13.46 x 5.59)	104	250, 500††, 1000††	black, green, white
10/2	MC10-2	19/.0234	.420 x .240 (10.67 x 6.10)	115	250, 500††, 1000††	black, white
10/3	MC10-3	19/.0234	.600 x .240 (15.24 x 6.10)	149	250, 500††, 1000††	black, green, white

2 and 3 conductors available
3 conductors shown

DRY: 221°F (105°C) WET: 167°F (75°C)

SPEAKER CABLE

Clear jacketed PVC

Gray jacketed PVC

- Conductors are marked for polarity

Application
- General audio applications

Type	Gauge/ Conductors	Stock No.	Standard Put-Ups – Ft.	Typical Stranding	Nominal O.D. in. (mm)
Clear Jacket Polarity Marked Conductors	22/2	SC22-2	250, 1000	7/30	.070 x .142 (1.78 x 3.61)
	18/2	SC18-2	250, 1000	16/30	.092 x .190 (2.34 x 4.83)
	16/2	SC16-2	250, 1000	19/29	.104 x .212 (2.64 x 5.38)
	14/2	SC14-2	250, 1000	19/27	.107 x .224 (2.72 x 5.69)
Gray Jacket Polarity Marked	22/2	SCG22-2	250, 1000	7/30	.060 x .120 (1.52 x 3.05)

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

SERVICE CORD

Type SJOOW

Type SOOW

- Stranded, bare copper
- Excellent resistance to abrasion, ozone, sunlight, chemicals and oils
- Inside jacket material: Chlorinated Polyethylene (CPE)
- Approved for submersion in water
- Outer jacket printed with cable identification, wire gauge and number of conductors
- MSHA approved
- UL/CSA Horizontal Flame Test
- Available in 250 ft. put-ups
- Bulk spools available on request

194°F (90°C)
-40°F (-40°C)

Call 800-328-2724 for special construction configurations.

Type	Gauge/Conductors	Stock No.	Conductor Colors	Approx. Weight, Lbs. Per 250' Spool	Current Amps	Typical Stranding	Nominal O.D. in. (mm)
SJOOW 300 Volts Oil Resistant Heavy Duty Outside Insulation Material: Ethylene Propylene (EP)	18/2	SJ18-2	black, white	11	10	16/30	0.280 (7.11)
	18/3	SJ18-3	black, white, green	13	10	16/30	0.300 (7.62)
	16/2	SJ16-2	black, white	13	13	26/30	0.310 (7.87)
	16/3	SJ16-3	black, white, green	17	13	26/30	0.333 (8.46)
	16/4	SJ16-4	black, white, green, red	21	10	26/30	0.360 (9.14)
	14/2	SJ14-2	black, white	17	18	41/30	0.300 (8.64)
	14/3	SJ14-3	black, white, green	23	18	41/30	0.360 (9.14)
	14/4	SJ14-4	black, white, green, red	28	15	41/30	0.400 (10.16)
	12/3	SJ12-3	black, white, green	33	25	65/30	0.430 (10.92)
	12/4	SJ12-4	black, white, green, red	41	20	65/30	0.470 (11.94)
SOOW 600 Volts Oil Resistant Heavy Duty Outside Insulation Material: Ethylene Propylene Diene M-class (EPDM)	18/3	SO18-3	black, white, green	19	10	16/30	0.360 (9.14)
	18/4	SO18-4	black, white, green, red	22	7	16/30	0.390 (9.91)
	16/3	SO16-3	black, white, green	23	13	26/30	0.390 (9.91)
	16/4	SO16-4	black, white, green, red	27	10	26/30	0.420 (10.67)
	16/5	SO16-5	black, white, green, red, orange	42	8	26/30	0.500 (12.70)
	14/3	SO14-3	black, white, green	41	18	41/30	0.520 (13.21)
	14/4	SO14-4	black, white, green, red	48	15	41/30	0.570 (14.48)
	14/5	SO14-5	black, white, green, red, orange	69	12	41/30	0.645 (16.38)
	12/3	SO12-3	black, white, green	55	25	65/30	0.590 (14.99)
	12/4	SO12-4	black, white, green, red	66	20	65/30	0.640 (16.26)
	10/3	SO10-3	black, white, green	71	30	105/30	0.650 (16.51)

PARALLEL BONDED CABLE

- Stranded, bare copper
- Available in 2, 3, and 4 conductor construction
- Color coding of the conductors is per the table below
- Individual wires can be split apart

176°F (80°C)
- 22°F (-30°C)

SAE-GPT   60V

Gauge/Conductors	Stock No.	Typical Stranding	Approx. Weight Lbs. Per 1000'	Standard Put-Up – Ft.	Conductor Colors
18/2	WP18-2	16/30	19	250, 500, 4000††	red, brown
18/2	WPR18-2	16/30	19	250, 500, 4000††	red, black
18/3	WP18-3	16/30	38	250, 500, 1000	brown, yellow, green
18/4	WP18-4	16/30	55	250, 500, 1000	white, brown, yellow, green
16/2	WP16-2	19/29	27	250, 500, 3000††	red, brown
16/2	WPR16-2	19/29	27	250, 500, 3000††	red, black
16/3	WP16-3	19/29	38	250, 500, 2000††	brown, yellow, green
16/4	WP16-4	19/29	55	250, 500, 1000	white, brown, yellow, green
14/2	WP14-2	19/27	34	250, 500, 3000††	red, brown
14/2	WPR14-2	19/27	34	250, 500, 3000††	red, black
14/3	WP14-3	19/27	48	250, 500, 2000††	brown, yellow, green
14/4	WP14-4	19/27	73	250, 500, 1000	white, brown, yellow, green
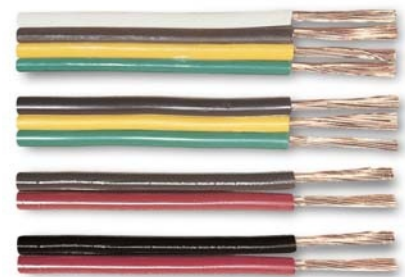
2, 3 or 4 conductor

Application

- Extensively used for wiring trailer lights and many other applications where an economically priced multiple wire configuration is needed

Call 800-328-2724 for special construction configurations.

NOTES

†† *These spools ship via truck.*

Terminals & Connectors
Tools
Clamps & Clips
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Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

MADE IN AMERICA

HOOK UP WIRE - UL TYPE

- Tinned copper is more resistant to corrosion and easier to solder compared to bare copper
- Meets flammability rating VW1
- Waytek is a UL Certified re-spooler of wire

Description	Gauge	Stock No.	Colors Available	Wall Thickness Mils. (mm)	Standard Put-Ups – Ft.	Approx. Weight, Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)
Tinned Copper UL 1015/1230/MTW/AWM 221°F (105°C) 600V UL 1032 194°F (90°C) 1000V CSA TEW 221°F (105°C) 600V 30 Mils PVC	22	WRT22	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 7500†	6	7/30	0.090 (2.29)
	20	WRT20	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 5000†	7	10/30	0.098 (2.49)
	18	WRT18	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 5000†	10	16/30	0.108 (2.74)
	16	WRT16	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 5000†	13	26/30	0.124 (3.15)
	14	WRT14	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 5000†	16	41/30	0.141 (3.58)
Bare Copper UL 1015/1230/MTW/AWM 221°F (105°C) 600V UL 1032 194°F (90°C) 1000V CSA TEW 221°F (105°C) 600V 30 Mils PVC	22	WR22	0 thru 5, 7, 8, 9	30 (0.76)	250, 500, 1000, 2500, 7500†	6	7/30	0.090 (2.29)
	20	WR20	1, 3 thru 7	30 (0.76)	250, 500, 1000, 2500, 5000†	7	10/30	0.098 (2.49)
	18	WR18	0 thru 9	30 (0.76)	250, 500, 1000, 2500, 5000†	10	16/30	0.108 (2.74)
	16	WR16	0 thru 9	30 (0.76)	250, 500, 1000, 2000, 5000††	13	26/30	0.122 (3.10)
	14	WR14	0 thru 9	30 (0.76)	250, 500, 1000, 1500, 5000††	19	41/30	0.135 (3.43)
	12	WR12	0 thru 6, 9	30 (0.76)	250, 500, 1000, 5000††	28	65/30	0.155 (3.94)
	10	WR10	0, 2, 4, 5, 6, 9	30 (0.76)	250, 500, 1000, 2500††	41	105/30	0.178 (4.52)
Tinned Copper UL 1007/1569 221°F (105°C) 300V CSA TR-64 194°F (90°C) 300V 15 Mils PVC	24	WQT24	0 thru 9	15 (0.38)	250, 500, 1000, 2500, 10000†	3	7/32	0.056 (1.42)
	22	WQT22	0 thru 9	15 (0.38)	250, 500, 1000, 2500, 10000†	4	7/30	0.062 (1.57)
	20	WQT20	0 thru 9	15 (0.38)	250, 500, 1000, 2500, 10000†	5	10/30	0.069 (1.75)
	18	WQT18	0 thru 9	15 (0.38)	250, 500, 1000, 2500, 5000††	7	16/30	0.079 (2.01)
Tinned Copper UL 1061 176°F (80°C) 300V CSA IA 176°F (80°C) 300V 221°F (105°C) 600V MIL-W-16878/1 (22 ga only) 9 Mils Semi-rigid PVC	22	WST22	0 thru 9	9 (0.23)	250, 500, 1000, 2500, 10000†	3	7/30	0.050 (1.27)
	18	WST18	0 thru 9	9 (0.23)	250, 500, 1000, 2500, 5000††	6	16/30	0.068 (1.73)
Bare Copper TFFN UL 1408/1316 221°F (105°C) 600V UL 1452 194°F (90°C) 1000V TEWN 221°F (105°C) 600V Gasoline & oil resistant 4 Mils Nylon jacket over 15 Mils PVC	18	WN18★	0 thru 9	19 (0.48)**	500, 1000, 5000†	8	16/30	0.090 (2.29)
	16	WN16★	0 thru 6, 9	19 (0.48)**	500, 1000, 5000†	12	26/30	0.100 (2.54)
Bare Copper UL THHN/THWN/MTW/1316 221°F (105°C) 600V UL 1452 194°F (90°C) 1000V ▲ CSA TWN 75/T90 600V Gasoline & oil resistant **4 mils Nylon jacket over 15 mils PVC *4 mils Nylon jacket over 20 mils PVC	14 ▲	WN14★	0 thru 9	19 (0.48)**	500, 1000, 5000†	17	19/27	0.112 (2.84)
	12 ▲	WN12★	0 thru 5, 9	19 (0.48)**	500, 1000, 5000†	25	19/25	0.132 (3.35)
	10	WN10★	0, 2, 4, 5	24 (0.61)*	500, 1000, 2500†	40	19/23	0.163 (4.14)

NOTES

† These spools are subject to additional shipping charges.
†† These spools ship via truck.
★ Cannot stripe or print

ORDER BY STOCK NO. AND COLOR

WRT22 – 0
Type | Color

Final ordering stock number: WRT22-0
Specify footage needed and put-up requirements.

COLORS

0 - BLACK	1 - BROWN	2 - RED
3 - ORANGE	4 - YELLOW	5 - GREEN
6 - BLUE	7 - VIOLET	8 - GRAY
9 - WHITE		

MARINE UL 1426 TINNED WIRE

- Supplied with an electro-tinned plated copper conductor
- Flame retardant jacketed PVC
- Meets DOT and Coast Guard specifications

600V — LISTED 1426 – Tinned Multi-Conductor

BOAT CABLE 600V 105°C DRY 75°C WET (UL)

DRY: 221°F (105°C)
WET: 167°F (75°C)
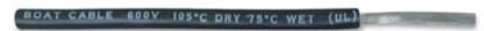
COLORS

0 - BLACK	1 - BROWN	2 - RED
5 - GREEN	9 - WHITE	

Type	Gauge	Stock No.	Typical Stranding	Nominal O.D. in. (mm)	Approx. Weight, Lbs. Per 500' Spool	Colors Available	Standard Put-Ups – Ft.
UL-1426	16	MW16	26/30	.122 (3.10)	1.5	0, 1*, 2, 5, 9	100, 500
	14	MW14	41/30	.138 (3.51)	2	0, 2, 5, 9	100, 500
	12	MW12	65/30	.162 (4.12)	3	0, 2, 5, 9	100, 500
	10	MW10	105/30	.190 (4.83)	4	0, 2, 5, 9	100, 500
	6	MW6	37/30	.340 (8.64)	13	0, 2	100

* Only available in 500' spools *Cannot stripe or print*

NOTES

† These spools are subject to additional shipping charges.
†† These spools ship via truck.

ORDERING INFO

100 Ft. Spool	**500 Ft. Spool**
MW16 – 0 – 100	MW16 – 0
Type Color Spool	Type Color

Sidebar navigation: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

BRAKE CABLE

221°F (105°C)
-22°F (-30°C)

SAE J1128-GPT

60V or less

Call 800-328-2724 for special construction configurations.
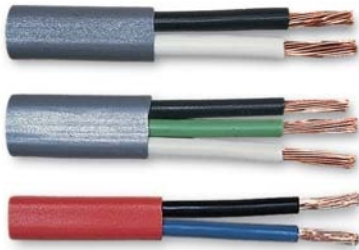
2, 3 or 4 conductor

- Stranded, bare copper
- Flat, jacketed PVC
- Resistant to oil, grease, gasoline and most acids
- Available with 2, 3, and 4 conductors
- Color coded

Application
- Automotive, truck or trailer applications

Gauge/ Conductors	Stock No.	Conductor Colors	Standard Put-Up – Ft.	Approx. Weight Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)
18/2	WD18-2	white, black	250, 500, 2000††	33	16/30	.160 x .255 (4.06 x 6.48)
16/2	WD16-2	white, black	250, 500, 1500††	36	19/29	.168 x .275 (4.27 x 6.99)
16/2	WDRB16-2	red, black	250, 500, 1500††	36	19/29	.168 x .275 (4.27 x 6.99)
16/2	WDB16-2	white, black	250, 500, 1500††	36	19/29	.168 x .275 (4.27 x 6.99)
16/3	WD16-3	white, black, green	250, 500, 1000††	66	19/29	.168 x .380 (4.27 x 9.65)
16/4	WD16-4	white, black, green, red	250, 500, 1000††	77	19/29	.168 x .485 (4.27 x 12.32)
14/2	WD14-2	white, black	250, 500, 1000††	54	19/27	.185 x .310 (4.70 x 7.87)
14/2	WDRB14-2	red, black	250, 500, 1000††	54	19/27	.185 x .310 (4.70 x 7.87)
14/3	WD14-3	white, black, green	250, 500, 1000††	75	19/27	.185 x .425 (4.70 x 10.80)
14/4	WD14-4	white, black, green, red	250, 500, 1000††	92	19/27	.185 x .545 (4.70 x 13.84)
12/2	WD12-2	white, black	250, 500, 1000††	71	19/25	.210 x .360 (5.33 x 9.14)
12/2	WDR12-2*	blue, black	250, 500, 1000††	71	19/25	.210 x .360 (5.33 x 9.14)
12/3	WD12-3	white, black, green	250, 500, 1000††	99	19/25	.210 x .500 (5.33 x 12.70)
12/4	WD12-4	white, black, green, red	100, 250, 500††	140	19/25	.210 x .645 (5.33 x 16.38)
10/2	WD10-2	white, black	250, 500, 1000††	113	19/23	.246 x .432 (6.25 x 10.97)
10/3	WD10-3	white, black, green	100, 250, 500††	144	19/23	.246 x .605 (6.25 x 15.37)
10/4	WD10-4	white, black, green, red	100, 250, 500††	185	19/23	.246 x .776 (6.25 x 19.71)
8/2	WD8-2	white, black	100, 250, 500††	180	19/21	.297 x .530 (7.54 x 13.46)

NOTES

†† These spools ship via truck. Footage of the largest put-up for each item may vary.

* Red Jacket

J1939 CAN-BUS DATA CABLE

257°F (125°C)
-40°F (-40°C)

SAE J1939

300V

- Stranded, bare copper
- Reduces wiring, electronic interference
- Offers high-speed network communication
- Dual jacket insulation: Cross Linked Polyolefin (XLPO), Thermoplastic Polyurethane (TPU)
- Waterproof 125°C TPU jacket
- Abrasion and cut resistant
- Excellent oil and chemical resistance

Type	Gauge/ Conductors	Stock No.	Typical Stranding	Wall Thk.	Standard Put-Up – Ft.	Approx. Weight Lbs. Per 1000'	Nominal O.D. in.	Drain Wire
SAE J1939/15 Unshielded	20/2	CB20-15	19/33	0.029	250, 500	26	0.200	No Drain
	18/2	CB18-15	19x.0092	0.015	250, 500	31	0.230	No Drain
SAE J1939/11 Shielded	20/2	CB20-11	19/33	0.180	250, 500	34	0.285	Drain
	18/2	CB18-11	19x.0092	0.130	250, 500	25	0.335	Drain

MULTI-CONDUCTOR SHIELDED CABLE

- Stranded tinned copper drain wire with aluminum mylar overall shield
- Polyethylene insulation
- UL Type CM
- NEC Article 800
- Excellent EMI/RFI protection

176°F (80°C)
-4°F (-20°C)

UL 300V
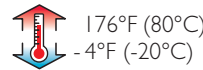
Gauge/ Conductor	Stock No.	Conductor Colors	Standard Put-Ups – Ft.	Approx. Weight Lbs. Per 1000'	Typical Stranding	Nominal O.D. in. (mm)	Nominal Gray PVC Jacket Thickness	AWM Style
22/3	ST22-3	black, red, natural	500, 1000	24	7/29	0.198 (5.02)	0.026"	2093
22/2	ST22-2	black, natural	500, 1000	17	7/25	0.172 (4.37)	0.030"	2092
22/7	ST22-7*	black, red, white, green, brown, blue, orange	500, 1000	23	7/30	0.211 (5.36)	0.026"	2576
20/3	ST20-3	black, red, natural	500, 1000	30	7/25	0.211 (5.36)	0.026"	2093
18/2	ST18-2	black, natural	500, 1000	29	16/23	0.229 (5.82)	0.030"	2092
18/3	ST18-3	black, red, natural	500, 1000	39	16/25	0.232 (5.89)	0.026"	2093

* Unshielded

Application
- Processing equipment & audio

Call 800-328-2724 for special construction configurations.

Side tabs: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

Wire & Cable

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Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Terminals & Connectors
Non-Insulated

RINGS

UL and CSA information may be available upon request.

Butted Seam
Serrated terminal barrel for extra wire grip. Chamfered for easy wire insertion. Tin plated copper material.

Butted Seam

Brazed Seam
This terminal is similar to the butted seam terminal, except the seam in the barrel has been brazed. The brazing allows the terminal to be crimped in any position around the barrel, which helps give extra wire holding strength. Tin plated copper material.

Brazed Seam

Size	Stud Size	Butted Seam Stock No.	Molex No.	Brazed Seam Stock No.	Molex No.	Tool Guide
22-18 Ga	4	30000	19044-0064	30200	19056-0008	
	6+	30001	19044-0084	30201	19056-0037	
	6	30007	19044-0068	30207	19056-0013	
	8+	30002	19044-0086	30202	19056-0039	
	8	30008	19044-0069	30208	19056-0015	
	10	30003	19044-0072	30203	19056-0018	
	1/4	30004	19044-0075	30204	19056-0023	
	5/16	30005	19044-0077	30205	19056-0025	
	3/8	30006	19044-0081	30206	19056-0013	
16-14 Ga	4	31000	19044-0150	31200	19056-0063	
	6+	31001	19044-0152	31201	19056-0065	
	6	31008	19044-0030	31208	19056-0104	
	8+	31009	19044-0154	31209	19056-0068	
	8	31002	19044-0031	31202	19056-0106	Chart A
	10	31003	19044-0326	31203	*	
	1/4	31004	19044-0158	31204	*	
	5/16	31005	19044-0160	31205	19056-0075	
	3/8	31006	19044-0146	31206	19056-0057	
	1/2	----	—	31207	*	
12-10 Ga	6+	32000	19069-0230	32200	19193-0128	
	6	32007	19069-0202	32207	19069-0202	
	8+	32001	19069-0233	32201	19193-0130	
	8	32008	19069-0205	32208	19193-0106	
	10	32002	19069-0209	32202	19193-0109	
	1/4	32003	19069-0219	32203	19193-0116	
	5/16	32004	19069-0223	32204	19193-0120	
	3/8	32005	19069-0241	32205	19193-0137	
	1/2	32006	19069-0192	32206	19193-0094	
8 Ga	8	----	----	33000	19193-0200	
	10	----	----	33001	19193-0202	
	1/4	----	----	33002	19193-0152	
	5/16	----	----	33003	19193-0171	
	3/8	----	----	33004	19193-0167	
	1/2	----	----	33005	19193-0176	
6 Ga	10	----	----	34000	19193-0245	
	1/4	----	----	34001	19193-0248	
	5/16	----	----	34002	19193-0219	
	3/8	----	----	34003	19193-0216	#535 on pg. 56
	1/2	----	----	34004	19193-0226	
4 Ga	10	----	----	35005	19193-0254	
	1/4	----	----	35000	19193-0261	
	5/16	----	----	35001	19193-0267	
	3/8	----	----	35002	19193-0264	
	1/2	----	----	35003	19193-0281	
2 Ga	1/4	----	----	35020	19193-0305	
	5/16	----	----	35021	19193-0309	
	3/8	----	----	35022	19193-0307	
	1/2	----	----	35023	19163-0296	

+ These terminals are offered in a narrow width to be used where space is minimal.
* Sourced by an alternate supplier

Stud Hole Chart for Ring Terminals

Stud holes are shown actual size. Use this chart to determine which terminal to order.

#2	#4	#6	#8	#10	1/4	5/16	3/8	1/2
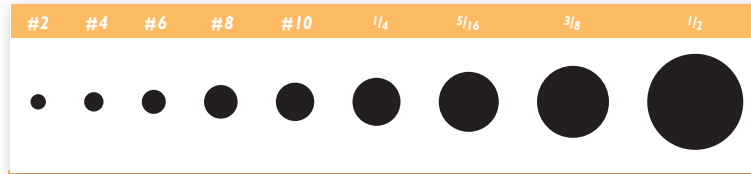
Dielectric Grease
• Prevents corrosion and keeps moisture out of sensitive electrical connections
See page 63

RECOMMENDED CRIMP TOOLS

Non-Insulated 22-10 ga Crimpers
Tool Chart A

Stock No.	Features
569	Master Tool Kit
434	Ratcheting
456	Wire Cutter
457	Heavy Duty Wire Cutter
458	Heavy Duty Wire, Bolt Cutter and Wire Stripper
403	Wire Stripper
522	Works well in small spaces
466	Economical

Insulated 22-10 ga Crimpers
Tool Chart B

Stock No.	Features
569	Master Tool Kit
434	Ratcheting
457	Heavy Duty Wire Cutters
458	Heavy Duty Wire Bolt Cutters and Wire Stripper
403	Wire Stripper
522	Works well in small spaces
513	MIL-Spec & Ratchet
584	Thomas & Betts Ratchet
466	Economical

Heavy Duty
Non-Insulated 22-10 ga Crimpers
Tool Chart C

Stock No.	Features
569	Master Tool Kit
434	Ratcheting
456	Wire Cutter
457	Heavy Duty Wire Cutter
458	Heavy Duty Wire Bolt Cutter and Wire Stripper
522	Works well in small spaces

For details on the tools, go to page 54-57.
Uncontrolled data
Please note that we cannot guarantee that a given tool will perform a satisfactory crimp on a specific terminal due to variables that include terminal material, terminal wall thickness, wire gauge, wire stranding and wire insulation thickness. The user must make the final determination that a crimp is acceptable.

SPADES

- Tin plated copper material

Standard Spade **Flanged Block Spade** **Block Spade** **Snap Spade**

| Wire Ga | Stud Size | Standard Spade | | | | Flanged Block Spade | | Tool Guide |
| | | Butted Seam | | Brazed Seam | | Butted Seam | | |
		Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.	
22-18	6	**30023**	19140-0035	**30223**	19134-0008	**30020**	19117-0016	
22-18	8	**30024**	19140-0036	----	----	**30021**	19117-0018	
22-18	10	**30025**	19140-0037	----	----	----	----	
16-14	6	**31023**	19140-0090	----	----	**31020**	19117-0083	
16-14	8	**31024**	19140-0091	**31224**	19146-0025	**31021**	19117-0084	Chart A
16-14	10	**31025**	19140-0195	**31225**	19146-0035	**31022**	19117-0052	
12-10	6	**32023**	19141-0081	----	----	----	----	
12-10	8	**32024**	19141-0083	----	----	**32021**	19118-0086	
12-10	10	**32025**	19141-0085	**32225**	19147-0096	**32022**	19118-0088	

| Wire Ga | Stud Size | Block Spade | | | | Snap Spade | | Tool Guide |
| | | Butted Seam | | Brazed Seam | | Brazed Seam | | |
		Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.	
22-18	6	**30026**	19140-0031	**30226**	19134-0005	**30253**	*	
22-18	8	**30027**	19140-0033	**30227**	19134-0006	**30254**	*	
22-18	10	**30028**	19140-0034	**30228**	19134-0007	----	----	
16-14	6	**31026**	19128-0021	**31226**	19137-0023	**31253**	*	
16-14	8	**31027**	19128-0023	**31227**	19137-0024	**31254**	*	Chart A
16-14	10	**31028**	19128-0055	**31228**	19196-0037	**31255**	*	
12-10	6	**32026**	19129-0008	**32226**	19147-0086	**32253**	*	
12-10	8	**32027**	19129-0007	**32227**	19147-0088	**32254**	*	
12-10	10	**32028**	19129-0005	**32228**	19147-0090	**32255**	*	

Sourced by an alternate supplier

MALE AND FEMALE DISCONNECTS

Female Disconnects
- Tin plated brass material

| Wire Ga | Tab Size Width & Thickness | Butted Seam | | Tool Guide |
		Stock No.	Molex No.	
26-20	.110 x .020	**30119**	19016-0075	#466 on pg. 56
22-18	.187 x .020	**30016**	19016-0005	
22-18	.250 x .032	**30011**	19019-0009	
16-14	.110 x .020	**31019**	19016-0035	#466 on pg. 56
16-14	.187 x .020	**31016**	19019-0039	
16-14	.250 x .032	**31011**	19019-0111	
12-10	.250 x .032	**32011**	19016-0069	
12-10	.375 x .050	**32012**	*	

Sourced by an alternate supplier

All dimensions in inches.

Male Disconnects
- Zinc plated brass material

| Wire Ga | Tab Size Width & Thickness | Butted Seam | | Tool Guide |
		Stock No.	Molex No.	
22-18	.187 x .020	**30051**	19022-0006	
22-18	.250 x .032	**30010**	19022-0004	
16-14	.187 x .020	**31014**	19022-0022	Chart A
16-14	.250 x .032	**31010**	19022-0119	
12-10	.250 x .032	**32010**	19022-0118	

All dimensions in inches.

BULLET CONNECTORS

Male Bullet Connector
- Tin plated copper material

| Wire Ga | Size | Butted Seam | | Tool Guide |
		Stock No.	Molex No.	
22-18	.156	**30061**	19033-0003	
22-18	.180	**30067**	19033-0001	Chart A
16-14	.156	**31061**	19033-0007	
16-14	.180	**31067**	19033-0005	

All dimensions in inches.

Male Quick Disconnect
Stock No. 37056 (Molex No. 19712-4001)
- PC board mount
- 22-18 wire ga
- Tab size: .110 w × .020 thick

HOOKS AND STAR RINGS

- Star rings feature a serrated opening and are generally used for grounding
- Star blades can pierce many paint surfaces for a better bite to insure a good connection
- Tin plated copper material

Stud size — **Hook**   **Star Ring** — Stud size

| Wire Ga | Stud Size | Hook Butted Seam | | Star Ring Butted Seam | | Tool Guide |
		Stock No.	Molex No.	Stock No.	Molex No.	
22-18	6	----	----	**30086**	19074-0001	
22-18	8	**30041**	*	**30087**	19074-0004	
22-18	10	----	----	**30088**	19074-0007	
16-14	6	**31540**	19171-0007	**31086**	19074-0015	Chart A
16-14	8	**31041**	19170-0009	**31087**	19074-0017	
16-14	10	**31042**	19170-0009	**31088**	19074-0019	
12-10	10	**32042**	19178-0018	----	----	

Sourced by an alternate supplier

PARALLEL CONNECTORS

- Ideal for splicing wire together with only one crimp
- Tin plated copper material

| Wire Ga | Butted Seam | | Brazed Seam | | Tool Guide |
	Stock No.	Molex No.	Stock No.	Molex No.	
22-18	----	----	**30270**	19207-0001	
16-14	**31070**	19208-0001	----	----	Chart A
12-10	**32070**	19208-0002	----	----	
8	----	----	**33070**	19205-0004	#535 on pg. 56
6	----	----	**34070**	19205-0006	
4	----	----	**35030**	19205-0007	
2	----	----	**35031**	19205-0008	
1/0	----	----	**35032**	19205-0009	
2/0	----	----	**35033**	19205-0010	
3/0	----	----	**35034**	19205-0049	
4/0	----	----	**35035**	19205-0050	

NEW

See page 31 for Terminal Blocks.

Typical 2 position 20 amp/ 150 volt unit shown

Typical 8 position 30 amp unit shown

- Block spades and flanged block spades are popular for use with terminal blocks as they are the narrowest styles and fit most terminal blocks
- Snap spades will snap and hold in place for a more secure connection

Tool Guide Charts on page 14.

Side tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

Sidebar navigation:
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- Terminals & Connectors
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- Clamps & Clips
- Tapes & Chemicals
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- Lights & Vehicle Accessories
- Switches & Relays
- Battery Management
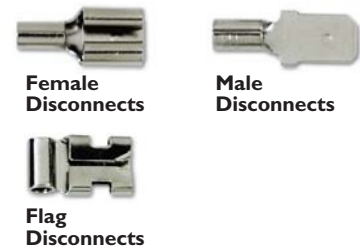- Fuses & Circuit Breakers
- Cable Ties

3M™ HIGH TEMPERATURE TERMINALS

- Nickel plated steel terminals for continuous duty to 900°F (482°C)
- Due to steel construction, heavy duty ratchet crimpers are recommended

Standard Spade

Ring

Block Spade
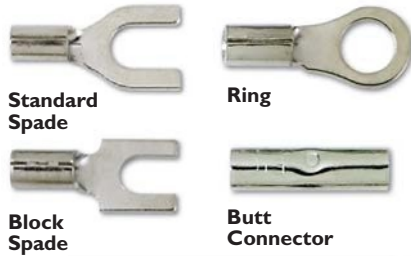
Butt Connector

Type	Wire Ga	Stock No.	Tool Guide
Butt Connector	22-18	30460	Chart C
	16-14	31460	
	12-10	32460	

Type	Wire Ga	Stud Size	Stock No.	Tool Guide
Ring	22-18	4-6	30401	
	22-18	10	30403	
	22-18	1/4	30404	
	16-14	4-6	31401	
	16-14	10	31403	#434 on pg. 56
	16-14	1/4	31404	
	12-10	4-6	32400	
	12-10	10	32402	
	12-10	1/4	32403	
	12-10	3/8	32405	
	8	1/4	33402	
	6	3/8	34403	#535 on pg. 56
	4	3/8	35402	
Spade	22-18	10	30425	
	16-14	10	31425	Chart C
	12-10	10	32425	
Block Spade	22-18	4-6	----	Chart C
	16-14	4-6	31426	

Female Disconnects

Male Disconnects

Flag Disconnects

Type	Wire Ga	Tab Width (in.)	Stock No.	Tool Guide
Female Disconnects	16-14	.187	31416	Chart C
	16-14	.250	31411	
Male Disconnects	16-14	.187	31414	
	16-14	.250	31410	
Flag Disconnects	16-14	.250	31417	#404 on pg. 57 or #428 on pg. 56

MISCELLANEOUS .250 DISCONNECTS

16-14 ga Flag
Stock No. 31017
- Tab width .250 x .032
- See tools 404 on page 57 & 428 on page 56
- Tin plated brass material

Double Male-Female
Stock No. 31051
- Tab width .250 x .032
- Brass material

Double Male-Female
Stock No. 31052
- Tab width .250 x .032
- Brass material

Disconnect Adapter
Stock No. 31056
- 1 - .250" x .032" female tab to 2 - .250" x .032" male tabs
- Brass material

Male Tab
- Tin plated copper material

Stock No.	Stud Size	Tool Guide
37050	6	#535 on pg. 56
37051	8	
37052	10	Chart A

.250 tab size
stud size

STEP-DOWN BUTT CONNECTORS

- Used to connect two different sized wires, internal step down
- Window allows for a sound mechanical crimp
- Tin plated copper material

Wire Ga	Color	Stock No.	Molex No.	Tool Guide
22-18 to 16-14	Red stripe	38054	19215-0013	#569 & #563 on pg. 55
16-14 to 12-10	Blue stripe	38055	19215-0023	
12-10 to 8	Yellow stripe	38056	19215-0037	#404 on pg. 57

- Stripes at both ends indicate which wire size to insert and which crimp die to use, external step down
- Tin plated copper material

Wire Ga	Stripe Color	Stock No.	Tool Guide
24-22 to 20-18	White/Red	38265	----
20-18 to 16-14	Red/Blue	38266	#569 & #563 on pg. 55
16-14 to 12-10	Blue/Yellow	38267	
12-10 to 8	Yellow/Pink	38268	#404 on pg. 57

STANDARD BUTT CONNECTORS

- Tin plated copper material

Wire Ga	Butted Seam Stock No.	Molex No.	Brazed Seam Stock No.	Molex No.	Brazed Seamless Stock No.	Molex No.	Tool Guide
22-18	30060	*	30260	19215-0009	----	----	#569 & #563 on pg. 55
16-14	31060	*	31260	*	----	----	
12-10	32060	*	32260	19215-0028	----	----	
8	----	----	33060	*	----	----	
6	----	----	34060	19215-0040	----	----	
4	----	----	35060	19215-0045	----	----	
2	----	----	----	----	35061	19215-0046	----
1/0	----	----	----	----	35063	19215-0047	
2/0	----	----	----	----	35064	19215-0048	
3/0	----	----	----	----	35065	19205-0012	
4/0	----	----	----	----	35066	19205-0013	

Sourced by an alternate supplier

American Wire Gauge Conversion Chart

American Wire Ga (AWG)	Diameter (in.)	Diameter (mm)	Cross Sectional Area (mm2)
4/0	0.4600	11.68	107.16
3/0	0.4096	10.40	84.97
2/0	0.3648	9.27	67.40
1/0	0.3249	8.25	53.46
1	0.2893	7.35	42.39
2	0.2576	6.54	33.61
3	0.2294	5.83	26.65
4	0.2043	5.19	21.14
5	0.1819	4.62	16.76
6	0.1620	4.11	13.29
7	0.1443	3.67	10.55

American Wire Ga (AWG)	Diameter (in.)	Diameter (mm)	Cross Sectional Area (mm2)
8	0.1285	3.26	8.36
9	0.1144	2.91	6.63
10	0.1019	2.59	5.26
11	0.0907	2.30	4.17
12	0.0808	2.05	3.31
13	0.0720	1.83	2.63
14	0.0641	1.63	2.08
15	0.0571	1.45	1.65
16	0.0508	1.29	1.31
17	0.0453	1.15	1.04
18	0.0403	1.02	0.82

American Wire Ga (AWG)	Diameter (in.)	Diameter (mm)	Cross Sectional Area (mm2)
19	0.0359	0.91	0.65
20	0.0320	0.81	0.52
21	0.0285	0.72	0.41
22	0.0254	0.65	0.33
23	0.0226	0.57	0.26
24	0.0201	0.51	0.20
25	0.0179	0.45	0.16
26	0.0159	0.40	0.13

Tool Guide Charts on page 14.

BUTT CONNECTORS

Standard
• Tin plated copper material

Wire Ga	Butted Vinyl Stock No.	Molex No.	Brazed Nylon Stock No.	Molex No.	Tool Guide
22-18	**30560**	*	**30760**	19202-0013	
16-14	**31560**	*	**31760**	19202-0031	Chart B
12-10	**32560**	*	**32760**	19202-0049	
8	**33560**	*	**33760**	----	#535 on pg. 56
6	**34560**	19154-0045	----	----	
4	**35560**	19154-0048	----	----	

* Sourced by an alternate supplier

3M™ Moisture Resistant
• Nylon insulated with an extra sleeve
• Filled with a silicone material to help keep moisture, dust and other contamination out of the connection
• Crimp on both the wire and insulation
• Tin plated copper material

Wire Ga	Insulation Color	Stock No.	Tool Guide
20-18	Red	**30771**	
16-14	Blue	**31771**	Chart B
12-10	Yellow	**32771**	

3M™ Nylon with Extra Sleeve
• Use where an extra secure connection is required, but moisture protection isn't needed
• Double crimp on both the copper conductor and insulation
• Tin plated copper material

Wire Ga	Insulation Color	Stock No.	Tool Guide
22-18	Red	**30780**	Chart B and #405 on pg. 56
16-14	Blue	**31780**	
12-10	Yellow	**32780**	

Internal Step Down
• Inside diameter adjusted for different wire gauge
• Used to connect two different sized wires
• Vinyl insulation
• Tin plated copper material

Wire Ga	Stripe Color	Insulation Color	Stock No.	Molex No.	Tool Guide
22-18 / 16-14	Red	Blue	**38050**	*	Chart B
16-14 / 12-10	Blue	Yellow	**38051**	*	
12-10 / 8	Yellow	Red	**38052**	19154-0044	—

* Sourced by an alternate supplier

External Step Down
• Both internal and external diameter adjusted for different wire gauge
• Stripes at both ends indicate which wire size to insert and which crimp die to use
• Vinyl insulation
• Tin plated copper material

Wire Ga	Stripe Color	Insulation Color	Stock No.	Tool Guide
26-24 / 22-18	White	Red	**38260**	
20-18 / 16-14	Red	Blue	**38261**	Chart B
16-14 / 12-10	Blue	Yellow	**38262**	
12-10 / 8	Yellow	Pink	**38263**	—

Window Butt Splice Nylon
• Nylon insulated with an extra support sleeve
• Inspection window for viewing correct wire insertion
• Crimp both the wire conductor and insulation for vibration resistance
• Tin plated copper material

Wire Ga	Insulation Color	Stock No.	Molex No.	Tool Guide
20-18	Red	**30781**	19199-0007	
16-14	Blue	**31781**	19199-0009	Chart B
12-10	Yellow	**32781**	19199-0011	

INSULATED RINGS molex®

UL and CSA information may be available upon request.

Vinyl Insulated
Vinyl insulated terminals consist of the standard butted seam non-insulated terminal with a color coded vinyl jacket molded into place. Most vinyl insulated terminals feature funnel entry for easy wire insertion.

Typical Vinyl Insulated

Nylon Insulated with Extra Sleeve
Nylon insulated terminals start as a standard butted seam terminal with a brass sleeve over the barrel and the nylon insulation is molded over this brass barrel. These terminals should be crimped twice, once on the copper conductor in the wire and once on the insulation part of the wire. This second crimp helps provide a stronger connection, can act as a strain relief and is recommended when the terminal is subject to vibration. Tin plated copper material.

Typical Nylon Insulated

Size	Stud Size	Vinyl Insulated Stock No.	Molex No.	Nylon w/Extra Sleeve Stock No.	Molex No.	Tool Guide
22-18 Ga Red Ins	4	**30500**	19054-0032	**30700**	19057-0003	
	6+	**30501**	19054-0052	**30701**	19057-0028	
	6	**30507**	19054-0035	**30707**	19057-0007	
	8+	**30502**	19054-0054	**30702**	19057-0030	
	8	**30508**	19054-0037	**30708**	19057-0009	
	10	**30503**	19054-0039	**30703**	19057-0011	
	1/4	**30504**	19054-0042	**30704**	19057-0015	
	5/16	**30505**	19054-0044	**30705**	19057-0017	
	3/8"	**30506**	19054-0048	**30706**	19057-0007	
16-14 Ga Blue Ins	4	**31500**	19054-0080	**31700**	19057-0052	
	6+	**31501**	19054-0081	**31701**	19057-0054	
	6	**31508**	19054-0108	**31708**	19057-0088	
	8+	**31509**	19070-0292	**31709**	19057-0056	
	8	**31502**	19070-0086	**31702**	19057-0090	Chart B and #405 on pg. 56
	10	**31503**	19054-0019	**31703**	19057-0102	
	1/4	**31504**	19054-0086	**31704**	19057-0060	
	5/16	**31505**	19054-0001	**31705**	19057-0062	
	3/8	**31506**	19054-0075	**31706**	19057-0046	
	1/2	**31507**	*	**31707**	*	
12-10 Ga Yellow Ins	6+	**32500**	19070-0143	**32700**	19073-0130	
	6	**32507**	19070-0019	**32707**	19073-0108	
	8+	**32501**	19070-0145	**32701**	19073-0132	
	8	**32508**	19070-0121	**32708**	19073-0110	
	10	**32502**	19070-0123	**32702**	19073-0113	
	1/4	**32503**	19070-0132	**32703**	19073-0119	
	5/16	**32504**	19070-0155	**32704**	19073-0123	
	3/8	**32505**	19070-0153	**32705**	19073-0139	
	1/2	**32506**	*	**32706**	19073-0101	

+These terminals are offered in a narrow width to be used where space is minimal.
* Sourced by an alternate supplier

Size	Stud Size	Nylon Insulated Only Stock No.	Molex No.	Tool Guide
8 Ga Red Ins	8	**33500**	19067-0003	
	10	**33501**	19067-0006	
	1/4	**33502**	19067-0008	
	5/16	**33503**	19067-0025	
	3/8	**33504**	19067-0022	
	1/2	**33505**	19067-0028	
6 Ga Blue Ins	10	**34500**	19067-0069	
	1/4	**34501**	19067-0071	
	5/16	**34502**	19067-0055	
	3/8	**34503**	19067-0052	#535 on pg. 56
	1/2	**34504**	19067-0061	
4 Ga Yellow Ins	10	**35505**	19067-0081	
	1/4	**35500**	19067-0082	
	5/16	**35501**	19067-0084	
	3/8	**35502**	19067-0078	
	1/2	**35503**	19067-0085	
2 Ga Red Ins.	1/4	**35520**	19067-0096	
	5/16	**35521**	19067-0098	
	3/8	**35522**	19067-0097	
	1/2	**35523**	19067-0090	

Insulation Color Chart

Insulated	Terminal Colors
26-24 ga	Yellow
22-18 ga	Red
16-14 ga	Blue
12-10 ga	Yellow
8 ga	Red
6 ga	Blue
4 ga	Yellow
2 ga	Red

Tool Guide Charts on page 14.

Side Tabs
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Sidebar navigation:
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- Battery Management
- Fuses & Circuit Breakers
- Cable Ties

SPADES

- Tin plated copper material

Block Spade

Snap Spade
- Snaps and holds in place for a more secure connection

Standard Spade

Flanged Block Spade

Wire Ga	Stud Size	Block Spade Vinyl Stock No.	Block Spade Vinyl Molex No.	Block Spade Nylon w/Extra Sleeve Stock No.	Block Spade Nylon w/Extra Sleeve Molex No.	Snap Spade Vinyl Stock No.	Snap Spade Vinyl Molex No.	Snap Spade Nylon Stock No.	Snap Spade Nylon Molex No.	Tool Guide
22-18	6	30526	19130-0005	30110	19137-0005	30553	*	30753	*	
22-18	8	30527	19130-0006	30111	19137-0006	30554	*	30754	*	
22-18	10	30528	19130-0007	30112	19137-0007	30555	*	30755	*	
16-14	6	31526	19130-0044	31125	19137-0022	31553	*	31753	*	
16-14	8	31527	19130-0045	31126	19137-0023	31554	*	31754	*	Chart B
16-14	10	31528	19130-0046	31127	19137-0024	31555	*	31755	*	
12-10	6	32526	19131-0006	32100	19137-0038	32553	*	32753	*	
12-10	8	32527	19131-0004	32101	19137-0040	32554	*	32754	*	
12-10	10	32528	19131-0002	32102	19137-0041	32555	*	32755	*	

* Sourced by an alternate supplier

Wire Ga	Stud Size	Standard Spade Vinyl Stock No.	Standard Spade Vinyl Molex No.	Standard Spade Nylon w/Extra Sleeve Stock No.	Standard Spade Nylon w/Extra Sleeve Molex No.	Flanged Block Spade Vinyl Stock No.	Flanged Block Spade Vinyl Molex No.	Flanged Block Spade Nylon Stock No.	Flanged Block Spade Nylon Molex No.	Tool Guide
22-18	6	30523	19142-0003	30113	19196-0005	30520	19119-0004	30720	19125-0003	
22-18	8	30524	19142-0005	30114	19196-0007	30521	19119-0007	30721	19125-0005	
22-18	10	30525	19142-0007	30115	19196-0009	30522	19119-0010	30722	19125-0007	
16-14	6	31523	19142-0029	31128	19146-0037	31520	19119-0080	31720	19125-0033	
16-14	8	31524	19142-0030	31129	19196-0039	31521	19119-0029	31721	19125-0035	Chart B
16-14	10	31525	19142-0032	31130	19196-0041	31522	19119-0032	31722	19125-0037	
12-10	6	32523	19144-0037	32103	19196-0075	----	----	32720	19125-0074	
12-10	8	32524	19144-0039	32104	19196-0077	32521	19121-0053	32721	19125-0076	
12-10	10	32525	19144-0042	32105	19196-0068	32522	19121-0056	32722	19125-0078	

3M™ SCOTCHLOK™ FEMALE & MALE DISCONNECTS - NYLON INSULATED

- Female - Tin plated brass material
- Male - Tin plated copper material

Stock No. 31550

Stock No. 31518

Used as an in-line connector

Wire Ga	Tab Size Width & Thickness	Male - Nylon Stock No.	Male - Nylon with Extra Sleeve Stock No.	Female - Nylon Stock No.	Female - Nylon with Extra Sleeve Stock No.	Insulation Color	Tool Guide
22-18	.187 x .020	30550	30750	30518	30718	Red	
22-18	.250 x .032	30512	30712	30513	30713	Red	#405 on pg. 56 and #496
16-14	.187 x .020	31550	31750	31518	31718	Blue	
16-14	.250 x .032	31512	31712	31513	31713	Blue	
12-10	.250 x .032	32514	32714	32515	32715	Yellow	

All dimensions in inches.

molex MALE AND FEMALE DISCONNECTS

- Female - Tin plated brass material
- Male - Zinc plated brass material

Typical male

Typical female

Molex Female & Male Disconnects - Vinyl or Nylon Insulated
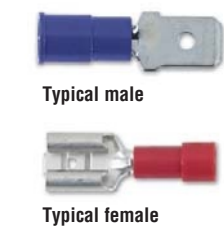
Wire Ga	Tab Size Width & Thickness	Female Vinyl Insulated Stock No.	Female Vinyl Insulated Molex No.	Female Nylon Insulated Stock No.	Female Nylon Insulated Molex No.	Male Vinyl Insulated Stock No.	Male Vinyl Insulated Molex No.	Male Nylon Insulated Stock No.	Male Nylon Insulated Molex No.	Insulation Color	Tool Guide
22-18	.110 x .020	----	----	30715	19019-0001	----	----	----	----	Red	
22-18	.187 x .020	30516	19017-0007	30716	19019-0006	30551	19023-0003	30751	19025-0002	Red	
22-18	.187 x .032	31714	19019-0008	----	----	----	----	----	----	Red	
22-18	.250 x .032	30511	19017-0014	30711	19019-0012	30510	19023-0005	30710	19025-0001	Red	
16-14	.110 x .020	31519	19017-0023	31719	19019-0022	----	----	----	----	Blue	#496
16-14	.187 x .032	----	----	31715	19019-0028	----	----	----	----	Blue	
16-14	.187 x .020	31516	19017-0031	31716	19019-0027	31551	19023-0010	31751	19025-0008	Blue	
16-14	.250 x .032	31511	19017-0037	31711	19019-0031	31510	19023-0012	31710	19025-0007	Blue	
12-10	.250 x .032	32511	19017-0047	32711	19019-0037	32510	*	32710	19025-0005	Yellow	
12-10	.375 x .050	32512	*	----	----	----	----	----	----	Yellow	

* Sourced by an alternate supplier   *All dimensions in inches.*

Stock No. 30714

Hand Tool Stock No. 496
- Crimps 22-10 ga insulated push-on connectors
- Full cycling ensures complete crimps
- Crimp release for operator safety

Stock No. 30745

Molex Female & Male Disconnects - Nylon Fully Insulated

Wire Ga	Tab Size Width & Thickness	Male Nylon with Extra Sleeve	Molex No.	Female Nylon with Extra Sleeve	Molex No.	Insulation Color
22-18	.250 x .032	30714	19001-0001	30717	19002-0001	Red
22-18	.187 x .020	30752	19001-0003	30729	19002-0005	Red
22-18	.187 x .032	----	----	30749	19003-0017	Red
16-14	.250 x .032	30756	19001-0006	30743	19002-0024	Blue
16-14	.187 x .020	30762	19001-0008	30745	19002-0028	Blue
12-10	.250 x .032	30764	19001-0010	30747	19606-0005	Yellow

All dimensions in inches.

PARALLEL CONNECTORS

- Convenient way to splice wire together with only one crimp
- Tin plated copper material

| Wire Ga	Vinyl		Insulation Color	Tool Guide
	Stock No.	Molex No.		
22-18	30570	19206-0002	Red	
16-14	31570	19206-0005	Blue	Chart B
12-10	32570	19206-0010	Yellow	
8	33570	19206-0012	Red	#535 on pg. 56
6	34570	19206-0013	Blue	

PIN TERMINALS

- Used to connect wires to terminal strips on pg. 31 and trailer connectors on pg. 35
- Tin plated copper material

Wire Ga	Pin Dia.	Vinyl Stock No.	Nylon Stock No.	Tool Guide
22-18	0.08	30585	30785	
16-14	0.08	31585	31785	Chart B
12-10	0.11	32585	32785	

MULTI-STUDS

- Securely connects to a variety of stud sizes with oblong stud hole and washered face
- Tin plated copper material
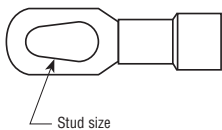
Wire Ga	Stud Size	Vinyl Stock No.	Nylon Stock No.	Tool Guide
22-18	2-4-6	----	30757	
22-18	6-8-10	30558	30758	
16-14	2-4-6	----	31757	Chart B
16-14	6-8-10	31558	31758	
12-10	6-8-10	32558	32758	

Fully Nylon Insulated Female Flag .250" Connector

- Tin plated brass material

Wire Ga	Stock No.	Molex No.	Tool Guide	
22-18	30535	19007-0001	#495	on pg. 56
16-14	31535	19007-0021	#495	
12-10	32535	19007-0040	#428	

BULLET CONNECTORS

Male Bullet Connector
- Tin plated copper material

Male Bullet **Female Bullet**

Wire Ga	Size	Vinyl		Nylon		Nylon w/Extra Sleeve		Insulation Color	Tool Guide
		Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.		
22-18	.156	30561	19034-0005	----	----	30761	19035-0003	Red	Chart B and #404 on pg. 57
22-18	.180	30567	19034-0002	----	----	30767	19035-0001	Red	
16-14	.156	31561	19034-0009	31761	*	31763	19035-0009	Blue	
16-14	.180	31567	19034-0007	----	----	31767	19035-0005	Blue	

* Sourced by an alternate supplier   *All dimensions in inches.*

Female Bullet Connector
- Brass material

Wire Ga	Size	Vinyl		Nylon		Nylon w/Extra Sleeve		Insulation Color	Tool Guide
		Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.		
22-18	.156	----	----	30568	19038-0037	30768	19039-0002	Red	
22-18	.180	----	----	30566	19038-0006	30766	19039-0005	Red	Chart B
16-14	.156	----	----	31568	19038-0009	31768	19039-0007	Blue	
16-14	.180	----	----	31566	19038-0013	31766	19039-0010	Blue	

All dimensions in inches.

HOOKS AND STAR RINGS

- Tin plated copper material

Hook   **Star**

Wire Ga	Stud Size	Hooks				Star Rings				Tool Guide
		Vinyl		Nylon		Vinyl		Nylon		
		Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.	
22-18	6	----	----	----	----	----	----	30786	19076-0001	
22-18	8	30541	*	----	----	----	----	----	----	
22-18	10	----	----	----	----	----	----	30788	19076-0005	
16-14	6	31540	19171-0007	----	----	31586	19075-0013	31786	19076-0013	
16-14	8	31541	19171-0009	31741	19174-0009	31587	19075-0015	31787	19076-0015	Chart B
16-14	10	31542	19171-0012	31742	19174-0011	31588	19075-0017	31788	19076-0017	
12-10	6	32540	19179-0014	32740	19184-0001	----	----	----	----	
12-10	8	----	----	32741	*	----	----	----	----	
12-10	10	32542	19179-0019	32742	19184-0005	----	----	----	----	

* Sourced by an alternate supplier

X & Y CONNECTORS

- Tin plated copper material

3-Way   **4-Way**

Wire Ga	Y - 3 Way Connector				X - 4 Way Connector				Insulation Color	Tool Guide
	Vinyl		Nylon w/Extra Sleeve		Vinyl		Nylon w/Extra Sleeve			
	Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.	Stock No.	Molex No.		
22-18	30590	19204-0004	30790	19204-0009	30591	19204-0003	30791	19204-0008	Red	
16-14	31590	19204-0014	31790	19204-0018	31591	19204-0013	31791	19204-0017	Blue	Chart B
12-10	32590	19204-0026	32790	19204-0030	32591	19204-0025	32791	19204-0029	Yellow	

16-14 ga Insulated Male-Female .250" Connector

Stock No. 31517 Vinyl Insulated
Stock No. 31717 Nylon Insulated with sleeve
- See crimper Stock No. 428 on page 56
- Tin plated copper material

Double Male Clear Insulated .250" Connector

- Tin plated copper material

Stock No.	Molex No.
38021	19163-0178

Tool Guide Charts on page 14.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

PERMA-SEAL™ HEAT SHRINK TERMINALS & CONNECTORS

- Provides a rugged, environmentally sealed connection
- Waterproof adhesive seal, insulates, seals and protects connections from water, salt, corrosion, heat, physical abuse and abrasion
- NiAc insulation material shrinks to 40% faster and at lower heat than competitive products
- Tin plated copper material

Perma-Seal™ Ring Terminals

Stock No. 31803

Stock No. 32803

Stock No. 32809

Wire Ga	Stud Size	Stock No.	Molex No.	Tool Guide
22-18	6	30800	19164-0085	
22-18	8	30801	19164-0086	
22-18	10	30802	19164-0003	
22-18	1/4	30803	19164-0004	
22-18	3/8	30804	19164-0005	
16-14	6	31800	19164-0032	
16-14	8	31801	19164-0033	
16-14	10	31802	19164-0034	
16-14	1/4	31803	19164-0026	
16-14	5/16	31804	19164-0027	
16-14	3/8	31805	19164-0020	
12-10	6	32800	19164-0061	#479 & #480
12-10	8	32801	19164-0062	
12-10	10	32802	19164-0065	
12-10	1/4	32803	19164-0066	
12-10	5/16	32804	19164-0067	
12-10	3/8	32805	19164-0068	
12-10	1/2	32806	19164-0058	
8	10	32807	19164-0080	
8	1/4	32808	19164-0081	
8	5/16	32809	19164-0083	
8	3/8	32810	19164-0082	
8	1/2	32811	19164-0457	

Perma-Seal™ Spades

Stock No. 32820

Wire Ga	Stud Size	Stock No.	Molex No.	Tool Guide
22-18	6	32815	19164-0006	
22-18	8	32816	19164-0007	
22-18	10	32817	19164-0008	
16-14	6	32818	19164-0028	#479 & #480
16-14	8	32819	19164-0029	
16-14	10	32820	19164-0030	
12-10	6	32821	19164-0069	
12-10	8	32822	19164-0070	

Crimper
Stock No. 479
- Gauge: 22-10 AWG
- Color-coded crimp positions
- Use with Molex Perma-Seal Connectors
- Ergonomic soft grip handles for comfortable crimping
- Full cycle ratcheting hand tool ensures complete crimps

Crimper
Stock No. 480
- Gauge: 22-8
- Includes removable die
- Color-coded crimp positions
- Lever to release jaws in mid-cycle
- Ratcheting operation with ergonomic handle to prevent hand fatigue
- Mating feature on tool to prevent mis-alignment and ensure a proper crimp

Perma-Seal™ Female Quick Disconnects NEW

Stock No. 30920 **Stock No. 31820** **Stock No. 32920**

Wire Ga.	Stock No.	Molex No.
22-18	30920	19164-0012
16-14	31820	19164-0047
12-10	32920	19164-0059

Perma-Seal™ Fully Insulated Disconnects
- Female - Tin plated brass material
- Male - Zinc plated brass material

Stock No. 30982 **Stock No. 30981**

Wire Ga	Tab Size	Female Stock No.	Female Molex No.	Male Stock No.	Male Molex No.	Color	Tool Guide
22-18	.250 x .032	30982	19164-0017	30981	19164-0015	Red	#479 & #480
16-14	.250 x .032	31773	19164-0050	31772	19164-0048	Blue	
12-10	.250 x .032	30986	19164-0076	30985	19164-0075	Yellow	

All dimensions in inches.

Perma-Seal™ Bullet Connectors

Stock No. 31915 **Stock No. 31916**

Wire Ga	Size	Female Stock No.	Female Molex No.	Male Stock No.	Male Molex No.	Tool Guide
22-18	.156	30915	19164-0052	30914	19164-0010	
22-18	.180	30917	19164-0053	30916	19164-0009	#479 & #480
16-14	.156	31915	19164-0054	31916	19164-0040	
16-14	.180	31921	19164-0039	31920	19164-0055	

All dimensions in inches.

Perma-Seal™ Butt Connectors

Stock No. 30980 **Stock No. 38059**

Wire Ga	Insulation Color	Stock No.	Molex No.	Tool Guide
22-18	Red	30980	19164-0013	
16-14	Blue	31980	19164-0044	
12-10	Yellow	32980	19164-0056	#479 & #480
8	Red	33980	19164-0079	
Step Down Butt Connectors				
22-18 to 16-14	Blue shrink/Red stripe	38058	19164-0043	
16-14 to 12-10	Yellow shrink/Blue stripe	38059	19164-0077	

SOLDER SPLICE CONNECTORS

- Solder butt and a heat shrink insulator sleeve provides a sealed connection
- Tin plated copper material
- No Crimp

Wire Ga	Adhesive Color	Stock No.	Tool Guide
24-22	Clear	32897	
20-18	Red	32898	Heat Guns
16-14	Blue	32899	
12-10	Yellow	32900	

STEP DOWN HEAT SHRINK BUTT CONNECTORS

Crimp, Solder & Seal

- Crimped for reliability, soldered for strength and conductivity, and sealed for superior durability and protection
- Tin plated copper material

Wire Ga	Stripe Color	Insulation Color	Stock No.	Tool Guide
24-22 to 20-18	White/Red	Red	38255	
20-18 to 16-14	Red/Blue	Blue	38256	Chart B and Heat Guns
16-14 to 12-10	Blue/Yellow	Yellow	38257	
12-10 to 8	Yellow/Pink	Pink	38258	#506, #535 on pg. 56 and Heat Guns

Crimp & Seal

- Crimped for reliability and sealed for protection
- Adhesive-lined polyolefin tubing with window for visual inspection
- Tin plated copper material

Wire Ga	Stripe Color	Insulation Color	Stock No.	Tool Guide
24-22 to 20-18	White/Red	Red	38250	
20-18 to 16-14	Red/Blue	Blue	38251	Chart B and Heat Guns
16-14 to 12-10	Blue/Yellow	Yellow	38252	
12-10 to 8	Yellow/Pink	Pink	38253	#506, #535 on pg. 56 and Heat Guns

HEAT SHRINK COVERED BUTT CONNECTORS

1.5" Clear Heat Shrink Butt Connectors

- Crystal clear for visual inspection
- Color coded window
- Tin plated copper material

Wire Ga	Adhesive Color	Stripes on Connector	Stock No.	Tool Guide
22-18	Clear	Red	30784	Chart B and Heat Guns
16-14	Clear	Blue	30783	
12-10	Clear	Yellow	30782	

Heat Shrink Tubing Over Seamless Non-Insulated Butt Connector

- Polyolefin heat shrink tubing and an adhesive melt liner
- Tin plated copper material

Wire Ga	Insulation Color	Stock No.	Tool Guide
24-22	Green	30770	Chart B and Heat Guns
20-18	Red	30965	
16-14	Blue	31965	
12-10	Yellow	32965	

Heat Shrink Tubing Over Nylon Insulated Butt Connector

- Polyolefin heat shrink tubing and an adhesive melt liner
- Tin plated copper material

Wire Ga	Insulation Color	Stock No.	Tool Guide
20-18	Red	30960	Chart B and Heat Guns
16-14	Blue	31960	
12-10	Yellow	32960	

MULTILINK CONNECTORS

- Crimped for maximum reliability, soldered for strength and conductivity, and sealed for superior durability and protection
- Pre-fluxed, low temperature solder delivers superior current flow and tensile strength
- Translucent, adhesive-lined heat shrink tubing allows for visual inspection and seals against corrosion

Wire Ga	Insulation Color	Stock No.	Tool Guide
20-18	Red	30970	Chart B and Heat Guns
16-14	Blue	31970	
12-10	Yellow	32970	

Crimp   Solder   Seal

Typical Application
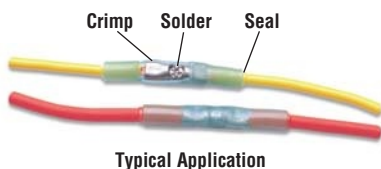
SEALED MULTIPLE WIRE CONNECTORS

- Join two wires to one wire
- Adhesive-lined heat shrink tubing between wires
- Color dash indicates wire gauge

Wire Ga	Insulation Color	Stock No.	Tool Guide
(1) 24-22 (2) 24-22	Clear/White Dashes	30190	
(1) 20-18 (2) 20-18	Clear/Red Dashes	30990	Chart B and Heat Guns
(1) 16-14 (2) 16-14	Clear/Blue Dashes	31990	
(1) 12-10 (2) 12-10	Clear/Yellow Dashes	32990	

Tool Guide Charts on page 14.

Wire & Cable

Terminals & Connectors

Tools

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Heat Shrink Products

Wire Coverings & Protection

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Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

CRYSTAL CLEAR CONNECTORS | NEW

- 45 degree barrel assures that wire is seated properly and being crimped to terminal
- 45 degree barrel angle allows tubing to adhere to it and provides stronger seal
- Long ring terminal provides flush surface for maximum contact allows ring terminal to be stacked
- Color coded stripes identify wire gauge size to be used with connector
- Color coded stripes also indicate/guide where to position crimp nest to install properly
- Brazed seam barrel ensures superior crimp performance
- Serrations in crimp barrel provide strong mechanical termination

Ring Terminals

Stock No.	Wire Ga.	Stud Size	Stripe Color
30909	22-18	6	Red
30910	22-18	8	Red
30911	22-18	10	Red
31927	16-14	6	Blue
31928	16-14	8	Blue
31929	16-14	10	Blue
31930	16-14	1/4	Blue
31931	16-14	3/8	Blue
31932	16-14	5/16	Blue
32930	12-10	8	Yellow
32931	12-10	10	Yellow
32933	12-10	1/4	Yellow
32934	12-10	3/8	Yellow
32935	12-10	5/16	Yellow

Spade Connectors

Stock No.	Wire Ga.	Stud Size	Stripe Color
30935	20-18	6	Red
30936	20-18	10	Red
31933	16-14	6	Blue
31934	16-14	10	Blue
32937	12-10	10	Yellow
32938	12-10	1/4	Yellow

Step Down Butt Connectors

Stock No.	Gauge	Stripe Color
38240	24-22 to 20-18	Green/Red
38241	22-18 to 14-12	Red/Blue
38242	16-14 to 12-10	Blue/Yellow
38243	12-10 to 8	Yellow/Red

Quick Disconnects

Wire Ga.	Tab Size	Female Stock No.	Male Stock No.	Stripe Color
22-18	.250 x .032	30937	30938	Red
16-14	.250 x .032	31917	31914	Blue
12-10	.250 x .032	32916	32917	Yellow

All dimensions in inches.

HEAT SHRINK TERMINALS |

Heat Shrink Ring
- Crimp and seal
- Tin plated copper material

Stud Size	22-18 Ga Stock No.	16-14 Ga Stock No.	12-10 Ga Stock No.	Tool Guide
6	30907	31908	32907	
8	30908	31902	32908	
10	30903	31903	32902	
1/4	30904	31904	32903	Chart B and Heat Guns
5/16	30905	31905	32904	
3/8	30906	31906	32905	
1/2	----	----	32906	

Crimp, Solder & Seal
- Crimped for reliability, soldered for strength and conductivity, sealed for protection
- Tin plated copper material

Stud Size	20-18 Ga Stock No.	16-14 Ga Stock No.	12-10 Ga Stock No.	Tool Guide
10	30953	31953	32953	
1/4	30954	31954	32954	Chart B and Heat Guns
5/16	30955	31955	32955	
3/8	30956	31956	32956	

Heat Shrink Snap Spade
- Crimp and seal
- Tin plated copper material

Stud Size	22-18 Ga Stock No.	16-14 Ga Stock No.	12-10 Ga Stock No.	Tool Guide
6	30923	31923	32923	
8	30924	31924	32924	Chart B and Heat Guns
10	30925	31925	32925	
1/4	----	----	32929	

Heat Shrink Fully Insulated .250" Disconnects
- Provides extra protection against short circuits
- Used as connectors when mated

Female
- Tin plated brass

Wire Ga	Insulation Color	Stock No.	Tool Guide
22-18	Red	30913	Chart B and Heat Guns
16-14	Blue	31913	
12-10	Yellow	32915	

Male
- Tin plated copper

Wire Ga	Insulation Color	Stock No.	Tool Guide
22-18	Red	30912	Chart B and Heat Guns
16-14	Blue	31912	
12-10	Yellow	32914	

Heat Shrink .250" Disconnects

Female
- Tin plated brass

Wire Ga	Insulation Color	Stock No.	Tool Guide
22-18	Red	30919	Chart B and Heat Guns
16-14	Blue	31919	
12-10	Yellow	32919	

Male
- Tin plated copper

Wire Ga	Insulation Color	Stock No.	Tool Guide
22-18	Red	30918	Chart B and Heat Guns
16-14	Blue	31918	
12-10	Yellow	32918	

Tool Guide Charts on page 14.

EYELETS/LUGS

Heavy Duty Tinned Copper Eyelets/Lugs

- Solid electrolytic copper eyelets feature heavier material thickness, larger pads and longer length barrels than standard eyelets
- Electro-tin plated to prevent oxidation and corrosion
- Chamfered barrel entry makes it easy to insert cable

Heavy Duty Tinned Copper

Extra Heavy Duty Tinned Copper

Wire Gauge	Stud Size	Heavy Duty Eyelets Stock No.	Color Codes	Extra Heavy Duty Eyelets Stock No.
8	1/4	36568	Red	----
8	5/16	36569	Red	----
8	3/8	36570	Red	----
6	1/4	36572	Blue	----
6	5/16	36573	Blue	----
6	3/8	36574	Blue	----
4	1/4	36564	Gray	36350
4	5/16	36565	Gray	36351
4	3/8	36566	Pink	36352
1-2	1/4	36514	Pink	36353
1-2	5/16	36515	Pink	36354
1-2	3/8	36516	Pink	36355
1-2	1/2	36517	Pink	36356
1/0	3/8	36524	Black	36357
1/0	1/2	36525	Black	36358
2/0	3/8	36534	Orange	36359
2/0	1/2	36535	Purple	36360
3/0	3/8	36544	Purple	36361
3/0	1/2	36545	Purple	36362
4/0	3/8	36554	Yellow	36363
4/0	1/2	36555	Yellow	36364

Standard Eyelets/Lugs

- Solid electrolytic copper eyelets
- Wire gauge is stamped on the terminal
- Meets UL requirements

Bare Copper **Tinned Copper**

NEW

Wire Gauge	Stud Size	Bare Copper Stock No.	Tinned Copper Stock No.
8	1/4	36081	36481
8	5/16	36082	36482
8	3/8	36083	36483
6	1/4	36071	36471
6	5/16	36072	36472
6	3/8	36073	36473
4	1/4	36061	36461
4	5/16	36062	36462
4	3/8	36063	36463
4	1/2	36066	36465
2	1/4	36065	36400
2	5/16	36001	36401
2	3/8	36002	36402
2	1/2	36003	36403
1	1/4	36010	36410
1	5/16	36011	36411
1	3/8	36012	36412
1	1/2	36013	36413
1/0	1/4	36020	36420
1/0	5/16	36021	36421
1/0	3/8	36022	36422
1/0	1/2	36023	36423
2/0	1/4	36030	36430
2/0	5/16	36031	36431
2/0	3/8	36032	36432
2/0	1/2	36033	36433
3/0	1/4	36041	36441
3/0	3/8	36042	36442
3/0	1/2	36043	36443
4/0	1/4	36051	36451
4/0	3/8	36052	36452
4/0	1/2	36053	36453

45 and 90 Degree Bend Tinned Copper Eyelets

- Solid electrolytic tinned copper eyelets
- Wire gauge is stamped on the terminal
- Meets UL requirements

45 Degree Bend Tinned Copper **90 Degree Bend Tinned Copper**

Wire Gauge	Stud Size	45 Degree Bend Stock No.	90 Degree Bend Stock No.
8	3/8	36883	35883
6	3/8	36873	35873
4	3/8	36863	35863
1	3/8	36812	35812
1	1/2	36813	35813
1/0	3/8	36822	35822
1/0	1/2	36823	35823
2/0	3/8	36832	35832
2/0	1/2	36833	35833
3/0	3/8	36842	35842
3/0	1/2	36843	35843
4/0	3/8	36852	35852
4/0	1/2	36853	35853

CRIMPERS

Eyelet Crimper
Stock No. 497
- Crimps eyelet style copper lug terminals 8-4/0 ga
- Includes 3 separate dies

Heavy Duty Crimper
Stock No. 471
- Ideal for copper eyelets and large terminals
- Adjustable crimping nests, no die changes required
- Clearly marked wire range (8-4/0 ga)
- Easy to operate and may be mounted to a bench (Clamps not included)

STACKABLE BATTERY LUGS

- 36 anti-rotation teeth keep cables separated on terminals
- Connectors of different gauges can be mixed and stacked
- Tin-plated copper lugs offer the best balance of conductivity and durability
- Use with stud batteries; enable multiple battery hookup
- Corrosion resistant
- Use 3/8"-16 closed cap nut to terminate

Gauge	Stock No.
6	36370
4	36371
2	36372
1	36373
1/0	36374
2/0	36375
3/0	36376
4/0	36377

STACKABLE FLAG BATTERY TERMINAL

- 36 Anti-rotation teeth keep cable separated on terminals
- Cast copper - offers best balance of conductivity and durability
- Tin-plated for corrosion resistance
- Enables multiple battery hook-up
- Connectors of different gauges can be mixed
- Use 3/8"-16 closed cap nut to terminate

Gauge	Stock No.
1/0	36378
2/0	36379
3/0	36380

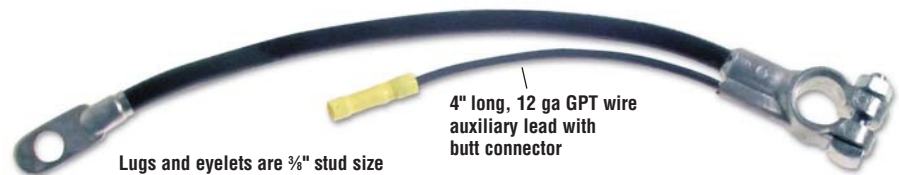## PRE-ASSEMBLED BATTERY CABLES

- Flexible for easy installation and allows maximum current for quick starting
- One-piece solid connection - copper core extends to the end of the plated lug
- Battery cable is PVC insulated and meets SAE standards
- Top post battery cables have a 12 ga GPT wire auxiliary lead with a 12 ga PVC insulated butt connector at the end

4 ga Black Top Post Battery Cables with 12 ga Auxiliary Lead

Stock No.	Length
35965	15"
35966	20"
35967	25"
35968	32"
35969	38"
35971	48"

4" long, 12 ga GPT wire auxiliary lead with butt connector

Lugs and eyelets are ⅜" stud size

All lugs universal polarity

4 ga Red Top Post Battery Cables with 12 ga Auxiliary Lead

Stock No.	Length
35975	15"
35976	20"
35977	25"
35978	32"
35979	38"
35981	48"
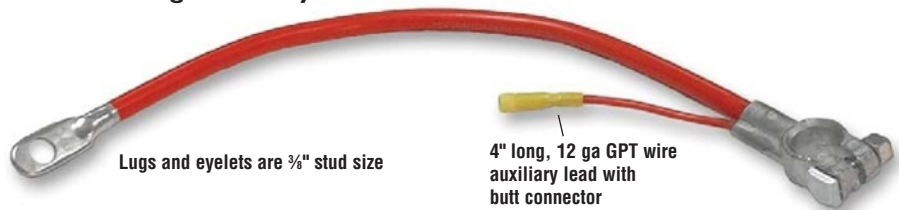
Lugs and eyelets are ⅜" stud size

4" long, 12 ga GPT wire auxiliary lead with butt connector

All lugs universal polarity

4 ga Black Switch-to-Starter Battery Cables

Stock No.	Length
35985	18"
35986	24"
35987	32"
35988	40"
35989	49"

Eyelets are ⅜" stud size

LEAD-FREE BATTERY LUGS

- 3.6 times more conductive than lead lugs
- RoHS Compliant
- High corrosion resistant ultra plating
- Eliminates company liability and cost associated with products containing lead

Stock No.	Type	Material	Size	Fits Post Type
36085	Top Post	Zinc	6-2/0 ga.	Universal
36092	Top Post	Brass, Zinc Plated	⁵⁄₁₆" Stud	Positive
36093	Top Post	Brass, Zinc Plated	⁵⁄₁₆" Stud	Negative
36096	Marine	Zinc	⁵⁄₁₆" Stud	Universal
36097	Marine	Zinc	⅜" Stud	Positive
36098	Marine	Zinc	⁵⁄₁₆" Stud	Negative
36110	Side Post	Zinc	6-2/0 ga.	Universal
36111	Military Ordinance	Zinc	⁵⁄₁₆" Stud	Positive
36112	Military Ordinance	Zinc	⁵⁄₁₆" Stud	Negative
36113	Heavy Duty	Zinc	1-4/0 ga.	Universal

Top Post Lug
Stock No. 36085
- Fits over positive or negative posts on top terminal batteries

Top Post Lug
Stock No. 36092
Stock No. 36093
- Fits over positive or negative post on top terminal batteries

Marine Type Wing-Nut Lug
Stock No. 36096
Stock No. 36097
Stock No. 36098
- Converts top terminal battery posts to accept tubular copper lugs

Side Post Lug
Stock No. 36110
- Fits into positive or negative terminals on side terminal batteries

Military Ordinance Lug
Stock No. 36111
Stock No. 36112
- Fits over positive or negative posts on top terminal batteries
- Extra long bolt allows for additional accessory leads
- Mil Specs: A52425-1 (MS75004-1) and A52425-2 (MS75004-2)

Heavy Duty Lug
Stock No. 36113
- Fits over positive or negative posts on top terminal batteries

CRIMPABLE BATTERY LUGS

 MADE IN AMERICA

- Manufactured from 100% copper
- Tin plated to add conductivity and protection against corrosion
- Polarity marked

Straight Type

Right Angle Type — Typical Single Offset

Left Elbow Type

Right Elbow Type — Typical Double Offset

Wire Ga	Fits Battery Post Type	Straight Stock No.	Right Angle Stock No.	Left Elbow Stock No.	Right Elbow Stock No.
6	Universal	**36300**	----	----	----
4	Universal	**36301**	----	----	----
2	Positive	**36302**	----	----	----
2	Negative	**36303**	----	----	----
1	Positive	**36304**	----	----	----
1	Negative	**36305**	----	----	----
1/0	Positive	**36306**	36320	36332	36342
1/0	Negative	**36307**	36321	36333	36343
2/0	Positive	**36308**	36322	36334	36344
2/0	Negative	**36309**	36323	36335	36345
3/0	Positive	**36310**	36324	36336	36346
3/0	Negative	**36311**	36325	36337	36347
4/0	Positive	**36312**	36326	----	----
4/0	Negative	**36313**	36327	----	----

Product may vary with single or double offset.

CRIMPABLE BATTERY LUG CRIMPING TOOLS

Stock No. 443
- Heavy duty crimping tool
- Crimps battery lugs from 8-4/0 ga

Stock No. 521
- Upgrade kit for Stock No. 443 & 475

Stock No. 475
- Bench mountable version of Stock No. 443
- Crimps battery lugs from 8-4/0 ga

Stock No. 461
- Light duty crimping tool
- Crimps battery lugs from 8-1/0 ga

Stock No. 462
- Economically priced
- Used with a hammer for a quick crimp in maintenance and repair situations
- Handles terminals from 8-4/0 ga

BRASS BATTERY LUGS

Split Flag Type

Straight-In Type

Square Head Bolt

Standard Nut

Shoulder Nut

- Solid brass battery lugs are lead plated for superior conductivity and low electrical resistance
- Used for solder construction only
- Universal type will fit both the positive and negative battery posts
- Furnished with a standard plated nut and square head bolt

Spare Battery Lug Nuts and Bolts
- All 5/16"-18
- Zinc plated

Stock No.	Item
90501	Standard nut
90506	Shoulder nut
90505	1 1/2" bolt
90500	1 1/4" bolt

Stock No.	Type	Wire Ga	Fits Battery Post Type
36202	Straight-in	6	Universal
36201	Straight-in	2-1	Universal
36204	Straight-in	3/0	Universal
36209	Split Flag	1/0-2/0	Universal

LEAD FREE BATTERY LUGS

Stock No. 36225
- Universal lead-free top post battery lug
- Crimpable eyelet terminals included
- Tin plated brass
- 5/16" stud
- 6-4 ga

SOLDER PELLETS

- Battery terminal solder pellets are a fast method for attaching a battery lug to a cable
- Cost efficient method eliminates the need for crimping
- Color coded to industry standard
- Sold in packs of 25

Flux is required.

Flux
Stock No. 36237
2 oz. Bottle

Stock No.	Wire Ga	Color
36230	4	Gray
36231	2	Green
36232	1	Pink
36233	1/0	Black
36234	2/0	Orange
36235	3/0	Purple
36236	4/0	Yellow

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

LEAD BATTERY LUGS

- Color coded for easy identification

Epoxy Coated Top Post Type
Stock No. 36250 - Black
- For 6-1 ga

Epoxy Coated Top Post Type
Stock No. 36251 - Red
- For 6-1 ga

Heavy Duty Top Post Type
Stock No. 36223
- For 2-4/0 ga

Wing Nut Marine Type
Stock No. 36224
- For positive post, 3/8" terminal stud

Stock No. 36221
- For negative post, 5/16" terminal stud
- Brass plated wing nut for marine applications

- Lead alloy battery terminals for a variety of applications

Top Post Type
Stock No. 36220
- For 6-1 ga

Side Post Type
Stock No. 36222
- For 6-1 ga
- 3/8" bolt included

Military Ordinance Type
Stock No. 36114
- For positive post, 3/8" stud
- Low profile 3/4" high
- Long bolts allow additional power connections
- Mil Spec: A52425-1

Military Ordinance Type
Stock No. 36115
- For negative post, 5/16" stud
- Low profile 3/4" high
- Long bolts allow additional power connections
- Mil Spec: A52425-2

EYELET, RING & LUG TERMINAL INSULATOR

NEW

- Post height: .98" / 24.8 mm
- Inside grip diameter: 50"/12.7mm
- Material: PVC
- Can be used with starters, generators, alternators & solenoids

MAXIMUM TEMPERATURE 220°F (105°C)

Gauge	Black Stock No.	Red Stock No.
18-10	23543	23542
8-2	23545	23544
2-2/0	23547	23546

BATTERY TERMINAL DISCONNECTOR

Stock No. 44099
- Top post mount designed for a quick disconnect with a simple turn and removal of the knob
- Helps discourage theft
- Not intended for marine use

24V 125A

BATTERY TERMINAL POST & CLAMP CLEANER

Stock No. 499
- Use to clean battery terminal posts

BATTERY BOOTS

- Use on alternator end of cables or battery posts
- Protects from corrosion and shorting
- Improves product appearance

Alternator Type
Stock No. 23509

Straight-in Type
Stock No. 23500   **Stock No. 23501**

Marine Type
Stock No. 23514   **Stock No. 23513**

Boot Type	Stock No.	Wire Ga	Color	Post Height in. (mm)	Cable Entry in. (mm)
Straight-in	23500	6-4	Black	.74" (18.8mm)	.37" (9.4mm)
	23501	6-4	Red	.74" (18.8mm)	.37" (9.4mm)
	23502	2-1	Black	.74" (18.8mm)	.50" (12.7mm)
	23503	2-1	Red	.74" (18.8mm)	.50" (12.7mm)
	23504	1/0-2/0	Black	.74" (18.8mm)	.625" (15.9mm)
	23505	1/0-2/0	Red	.74" (18.8mm)	.625" (15.9mm)
Marine	23514	6-1/0	Black	1.9" (48.3mm)	.32" (8.1mm)
	23513	6-1/0	Red	1.9" (48.3mm)	.32" (8.1mm)
Alternator	23508	18-10	Black	1.05" (26.7mm)	.23" (5.84mm)
	23509	18-10	Red	1.05" (26.7mm)	.23" (5.84mm)
	23506	8-2	Black	1.05" (26.7mm)	.5" (12.7mm)
	23507	8-2	Red	1.05" (26.7mm)	.5" (12.7mm)
	23516	2-2/0	Black	1.05" (26.7mm)	.7" (17.78mm)
	23517	2-2/0	Red	1.05" (26.7mm)	.7" (17.78mm)
	23520	3/0-4/0	Black	1.05" (26.7mm)	.9" (22.9mm)
	23521	3/0-4/0	Red	1.05" (26.7mm)	.9" (22.9mm)

Sidebar tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

CLIPS | Pictures of clips are not actual size.

Mini-gator Clip
• For miniature work

5A

1 1/4"
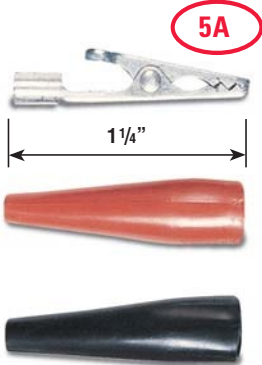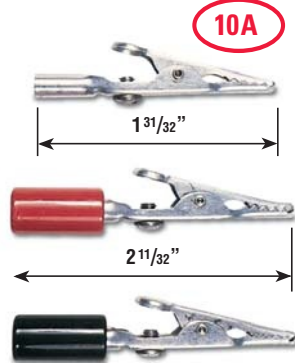
Steel Clip **Stock No. 30BL**
Insulator Red **Stock No. 32R**
Insulator Black **Stock No. 32B**
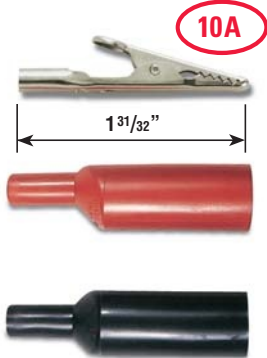
Alligator Clip
• Screw connection

10A

1 31/32"

2 11/32"

Metal Screw Clip **Stock No. 60S**
Metal Screw Clip with insulator handles:
Red **Stock No. 60HSR**
Black **Stock No. 60HSB**

Alligator Clip
• Conventional type

10A

1 31/32"

Metal Clip **Stock No. 60**
Stainless Steel Clip **60SS**
Insulator Red **Stock No. 62R**
Insulator Black **Stock No. 62B**
• Used with clip 60, 60S and 60SS

Alligator Clip with Full-cover insulator
• Assembled

10A

2 11/32"

Metal Clip **Stock No. 60** with full cover insulator
Red **Stock No. 65R**
Black **Stock No. 65B**

TEST CLIP

Red Insulator

Black Insulator

• Used to temporarily hold connections together for testing or soldering

Type	Test Clip Stock No.	Amps	Red Insulator Stock No.	Black Insulator Stock No.	Length of Clip
Pee Wee	45	5	47R	47B	1 17/32
General Purpose	48	10	49R	49B	2
25 Amp	24	25	26R	26B	2 27/32

BATTERY CLAMPS

Miniature Battery Clamp

50A

3 3/16"

• Insulated handles
• Up to 10 ga wire
  Red **Stock No. 46R**
  Black **Stock No. 46B**

Extra Heavy Duty Battery Clamps

500A

6 1/2"

• Nylon insulated handles
• For 6 - 0 ga wire
  Red **Stock No. 54**
  Black **Stock No. 55**

Standard Battery Clamp

200A

6"

• Insulated handles
  Red **Stock No. 41R**
  Black **Stock No. 41B**

Heavy Duty Battery Clamp

450A

7 1/2"

• Insulated handles
• For 4, 6 and 8 ga wire
  Red **Stock No. 45R**
  Black **Stock No. 45B**

Extra Heavy Duty Battery Clamp

600A

6"

• Vinyl clad handles
• For 2 and 4 ga wire
  Red **Stock No. 50**
  Black **Stock No. 51**

Extra Heavy Duty Battery Clamp

800A

Solid copper construction

7"
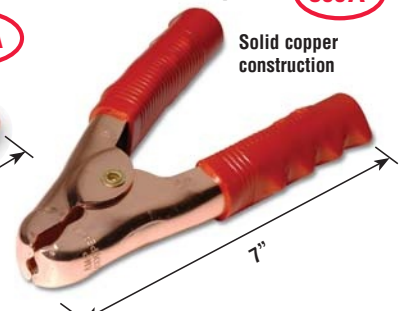
• Insulated handles
• Use with 1/0 and 2/0 wire only
  Red **Stock No. 52**
  Black **Stock No. 53**

.250" PUSH-ONS

3 Circuit Top Tap
Stock No. 37058
• For battery connection
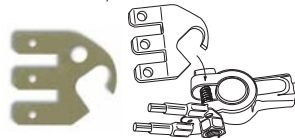
3 Circuit Clip
Stock No. 37059
• For ground or battery connection
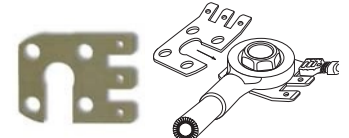
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

BATTERY JUMPER TERMINALS

6-36V

Stock No. 36660   **Stock No. 36661**

- Provides remote mounting for battery connections inside or outside a vehicle
- Allows convenient jump starts and charging when battery is not easily accessible, or when reaching battery becomes dangerous
- Positive terminal can be used individually or in conjunction with negative terminal
- Includes color coded rubber cap, solid brass studs, brass hex nuts and brass lock washers
- Contact studs are $^{13}/_{16}$" dia., $1^1/_8$" long, and grooved to accept standard jumper cables

Stock No.	Description
36660	Post with red cap for positive terminals
36661	Post with black cap for negative terminals

Stock No. 36658   **Stock No. 36659**

12-18V DC 350A

- Brass core battery jumper terminal, also known as jumper bushings
- Accommodates $^1/_{16}$" to $^3/_8$" barrier thickness
- $^3/_8$" nickel plated steel connection post
- Use with $^3/_8$" eyelets and battery lugs
- Heavy duty high strength glass-filled nylon bushing
- Mounts in "Double D" panel punches to prevent rotation

LEAD POST FOR CHARGING AND TESTING

- Used to convert $^3/_8$" stud type terminals to post type terminals
- Standardized battery terminals for ease of use

Stock No. 36270   **Stock No. 36271**   **Stock No. 36272**   **Stock No. 36273**

Stock No.	Description
36270	Side Terminal Positive $^3/_8$" Thread
36271	Side Terminal Negative $^3/_8$" Thread
36272	Side Terminal With Ears $^3/_8$" Thread
36273	Battery Group 31 Stud Post Converts $^3/_8$" stud to post

BRAIDED GROUND STRAP

- Braided ground strap with universal battery terminal
- 1" wide, 2 ga tin-plated cable with $^3/_8$" stud
- Used for a variety of grounding applications

Gauge	Stock No.	Length (In.)	Width (In.)	Stud Size
2	36280	11	1	$^3/_8$
2	36281	14	1	$^3/_8$
2	36282	16	1	$^3/_8$
2	36283	19	1	$^3/_8$

BATTERY BOLT EXTENDERS

- Solid brass bolt extender and plated steel nut are used for power hook-up for direct connections of accessories to battery
- Both top and side post units are available for a variety of applications

Stock No. 36241   **Stock No. 36242**   **Stock No. 36243**   **Stock No. 36244**

Stock No.	Post Mount	Stud Thread
36241	Top	$^5/_{16}$-18
36242	GM Side	$^3/_8$-16
36243	Side Post - Long Bolt	$^3/_8$-24
36244	Side Post - Short Bolt	$^3/_8$-16

BOOSTER CABLES

Parrot Type

E-Z Reach™ Type

- 100% copper conductors
- Twin tangle-free cables with a flexible dual bonded construction
- Clamps and cables are fully insulated and color coded for polarity identification
- Clamps provide easy attachment to top or side terminal batteries

Wire Gauge	Type	Length Ft.	Weight Lbs.	Color	Stock No.
4	E-Z Reach™	12	7	Black / White	10145
4	E-Z Reach™	16	8	Black / White	10146
2	Parrot	20	11	Red / Black	10147
2	Parrot	24	16	Red / Black	10148

BATTERY BOLTS

Stock No. 36249
- Anti-corrosive steel battery bolts with color coded ends replaces standard $^5/_{16}$" battery terminal bolts
- Sold in pairs
- Order lugs separately

BATTERY SAFETY MARKERS

Stock No. 23550
- Adhesive backed plastic markers
- Offers added safety to your application
- Sticks to clean surfaces
- Highly visible

## 8 POINT POWER DISTRIBUTION POST

48VDC 20A

- Connect several wire/cables to a central location
- 3/8" stud, (8) #8-32 connection points carry up to 20 amps each at 12 VDC
- Mounting hole: 2.5"
- Base material: glass-filled nylon

Stock No.	Description
47225	Black Power Post
47226	Red Power Post
47227	Cover

JUNCTION BLOCKS — EATON

- Glass-filled nylon construction
- Nuts and washers not provided
- 3/8" stud - 16 threads

MAXIMUM TEMPERATURE 220°F (105°C)

250A
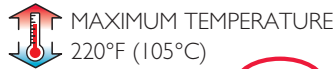
Black **Stock No. 47211**   Red **Stock No. 47210**

Stock No.	Description	Color
47211	Non-Feed Through Junction Block	Black
47213	Non-Feed Through Junction Block	Red
47212	Feed Through Junction Block	Black
47210	Feed Through Junction Block	Red

Heavy Duty Non-Feed through Junction Block

- Longer stud than standard junction block to fit more eyelets
- High torque rating 300 in-lb max
- 1/2" stud - 13 threads, 1.5" long stud

400A

Red **Stock No. 47201**   Black **Stock No. 47200**

JUNCTION BLOCKS NEW

- Type: non-feed through
- Glass-reinforced nylon
- Stud size: 1/4"

48V 165A

Stock No. 47215   **Stock No. 47217**

BATTERY BUSBAR TERMINAL MOUNT

BLUE SEA SYSTEMS

32V 100A

- Tin-plated copper
- Mounting hole: 3/8" (M10) stud
- Screw terminal type: #8-32 screws with captive star lock washer

Stock No.	Description
78248	Positive Red Boot
78249	Negative Black Boot

JUNCTION BLOCK STUDS

- Material: glass-filled nylon

48V 250A

Stock No. 47205   **Stock No. 47202**

Stock No.	Stud Size	Description	Color
47202	5/16-18	1 Stud, Non-Feed Through	Red
47203	5/16-18	1 Stud, Non-Feed Through	Black
47204	5/16-18	1 Stud, Feed Through	Red
47205	5/16-18	1 Stud, Feed Through	Black

BATTERY FEEDER STUDS

- Conducts power through bulkheads or firewalls
- Impact-resistant plastic insulator/mounting bushing is 1 17/64" dia., 5/8" long
- (2) 3/8" stud - 16 thread brass stud terminals, 5/8" long

6-36V

250A

Stock No. 36662   **Stock No. 36663**

ELECTRICAL POWER BUSHING WEATHER PROOF NEW

- High current rating
- 4/0 ga terminal lugs
- Boot & gasket included
- Base material: glass reinforced nylon
- Base material UL Rating: 94 HB
- 1/4" max panel
- 1/2" stud

12VDC 500A

Stock No. 36664   **Stock No. 36665**

Side tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

STUD BUSBARS

Cole Hersee *A Littelfuse Brand*

- Heavy duty busbar terminal blocks
- Hi-amp
- $\frac{3}{8}$"-16 stud size
- Mounting holes take 1/4" screws

Stock No.	Size	Amps
47220	2 x $\frac{3}{8}$"	600
47221	4 x $\frac{3}{8}$"	600
47223	12 x #10-32	250
47224	4 x $\frac{5}{16}$"	250

Stock No. 47221

TERMINAL JUNCTION BOX

Pollak *A Stoneridge Company*

- Convenient way to connect wires between trailer and towing vehicle
- Black ABS Plastic cover and base
- Nuts and washers not provided
- Connects to trailer cable on page 10
- Connects with #10 insulated rings on page 17

Stock No.	Connections
47290	7 Way
47291	10 Way

Stock No. 47290

Stock No. 47291

PASS-THRU DISTRIBUTION BLOCK

NEW

EATON

185°F (85°C)
-40°F (-40°C)

- Gasket is included for ingress protection
- Black or red santoprene cover (rated UL 94V-0) for protection from accidental shorts
- Current carrying studs: Zinc-plated brass
- Black santoprene gasket rated UL 94V-0
- M6 stainless steel mounting studs

200V

Stock No. 47231

Stock No. 47230

TERMINAL BLOCK GANG BUSBAR

BLUE SEA SYSTEMS

150A

- 300V AC or 48V DC maximum voltage
- Continuous rating of 130A AC or 150A DC
- Reinforced polycarbonate base
- Tin-plated copper CDA 110 / UNS 11000 bus material

Stock No.	Blue Sea No.	Gang
78250	2301	10
78251	2302	20
78252	2303	4
78253	2312	20 w/ cover
78259	2107	8

Stock No. 78252

COMMON BUSBAR

BLUE SEA SYSTEMS

48VDC

- Great for limited space applications
- #10-32 stud terminal
- Reinforced polycarbonate base
- Tin-plated copper CDA 110/ UNS11000 bus material

Stock No. 78258

Stock No.	Blue Sea No.	Description	Gang	Amp
78256	2305	Mini Busbar 10-24 Stud	4	100
78258	2104	3/8" - 16 Studs 48V Dc	4	600
78255	2304	Mini Busbar 10-32 Stud	5	100
78259	2107	3/8" - 16 Studs 48V Dc	8	600

Common Busbar Cover

Stock No.	Blue Sea No.	Fits Stock No.
78254	2715	78250 and 78252
78257	2713	78255 and 78256

TERMINAL BLOCK COMMON BUSBAR SOLID BRASS

Cole Hersee *A Littelfuse Brand*

- Solid brass busbar
- Moisture resistant molded thermoplastic insulator base
- Round head screws for attachment of wires

150A

Stock No.	Studs
47240	8-32
47241	10-32

Stock No. 47240

**Stock No. 47241**

TERMINAL BLOCKS | EAT•N

Double Row Terminal Block

- Used for general purpose electronic and electrical work
- Helps eliminate splicing
- High density circuitry can be attained to conserve panel space
- Tin plated brass terminals and zinc plated steel screws
- Molded from UL Rated 94 Thermoplastic
- Dimensions may vary

Typical 2 position 150 volt unit shown

Typical 8 position 30 amp unit shown
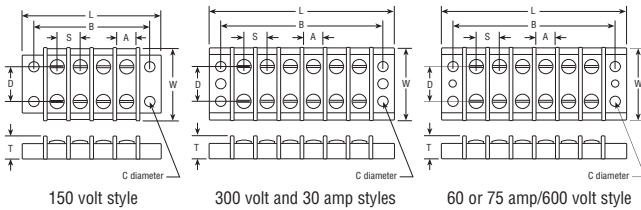
Type	Positions	Stock No.	Typical Dimensions							
			L	W	T	D	S	A	B	C
30 amp rating 150 volt max #6-32 screws 2 mounting holes	2	**47102**	1.40	0.88	0.41	0.31	0.38	0.30	1.12	0.17
	3	**47103**	1.78	0.88	0.41	0.31	0.38	0.30	1.50	0.17
	4	47104	2.16	0.88	0.41	0.31	0.38	0.30	1.88	0.17
	5	**47105**	2.53	0.88	0.41	0.31	0.38	0.30	2.25	0.17
	6	47106	2.90	0.88	0.41	0.31	0.38	0.30	2.62	0.17
	8	47108	3.66	0.88	0.41	0.31	0.38	0.30	3.38	0.17
	10	47110	4.40	0.88	0.41	0.31	0.38	0.30	4.12	0.17
	12	47112	5.16	0.88	0.41	0.31	0.38	0.30	4.88	0.17
30 amp rating 300 volt max #6-32 screws 3 mounting holes	2	47302	1.63	1.12	0.56	0.44	0.44	0.35	1.31	0.17
	3	47303	2.07	1.12	0.56	0.44	0.44	0.35	1.75	0.17
	4	47304	2.51	1.12	0.56	0.44	0.44	0.35	2.18	0.17
	5	47305	2.94	1.12	0.56	0.44	0.44	0.35	2.62	0.17
	6	47306	3.38	1.12	0.56	0.44	0.44	0.35	3.06	0.17
	8	47308	4.25	1.12	0.56	0.44	0.44	0.35	3.93	0.17
	10	47310	5.13	1.12	0.56	0.44	0.44	0.35	4.81	0.17
	12	**47312**	6.00	1.12	0.56	0.44	0.44	0.35	5.68	0.17
30 amp rating 600 volt max #8-32 screws 3 mounting holes	2	47352	2.13	1.33	0.81	0.50	0.56	0.41	1.69	0.21
	3	47353	2.69	1.33	0.81	0.50	0.56	0.41	2.25	0.21
	4	47354	3.25	1.33	0.81	0.50	0.56	0.41	2.81	0.21
	5	**47355**	3.81	1.33	0.81	0.50	0.56	0.41	3.37	0.21
	6	47356	4.37	1.33	0.81	0.50	0.56	0.41	3.94	0.21
	8	47358	5.50	1.33	0.81	0.50	0.56	0.41	5.06	0.21
	10	47360	6.62	1.33	0.81	0.50	0.56	0.41	6.19	0.21
	12	**47362**	7.75	1.33	0.81	0.50	0.56	0.41	7.31	0.21
75 amp UL 60 amp CSA 600 volt max #10-32 screws 3 mounting holes	2	47382	2.51	1.81	0.76	0.63	0.69	0.56	2.06	0.22
	3	47383	3.20	1.81	0.76	0.63	0.69	0.56	2.75	0.22
	4	47384	3.89	1.81	0.76	0.63	0.69	0.56	3.44	0.22
	5	47385	4.58	1.81	0.76	0.63	0.69	0.56	4.13	0.22
	6	47386	5.26	1.81	0.76	0.63	0.69	0.56	4.81	0.22
	8	47388	6.64	1.81	0.76	0.50	0.69	0.56	6.19	0.22

All dimensions in inches.

150 volt style **300 volt and 30 amp styles** **60 or 75 amp/600 volt style**

C diameter

Terminal Block Hardware

Jumper Strip
- Used to bridge adjacent connections

Stock No. 37211 **Stock No. 37214**

Type	For terminal Strip series	Stock No.
Jumper	47102-47112	**37211**
	47302-47312	**37212**
	47352-47362	**37214***

* Ring style not fork type.

Push-On Tabs
- Converts from screw connections

| Type	For terminal Strip series	Flat tab Stock No.	45 Tab Stock No.	Tab Width
Push-on Tab	47102-47112	**37220**	**37221**	.187
	47302-47312	**37250**	**37251**	.250

All dimensions in inches.

TERMINAL STRIPS | molex

- 12 pole
- Modular design allows larger blocks to be easily cut into smaller circuit sizes
- Contacts and screws are recessed within the housing to help prevent short circuits
- Wire protectors prevent stranded wire damage during connection
- Range of pitch spacing, wire ranges and electrical ratings provide design flexibility to choose the block that best fits the requirements

212°F (100°C) Continuous
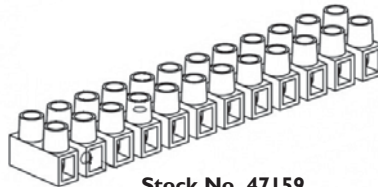
Stock No. 47159 Space Saver

Stock No.	Pitch (P)	Amps	AWG	Volts	Length	Width	Height
47159	.315 (8mm)	20	22-12	300	3.680 (93.47mm)	.72 (18.20mm)	.68 (17.30mm)
47151	.394 (10mm)	27	18-10	300	4.606 (117.00mm)	1.74 (18.80mm)	.76 (19.20mm)
47158	.472 (12mm)	40	20-8	600	5.512 (140.00mm)	1.91 (23.20mm)	.83 (21.20mm)

All dimensions in inches.

STUD-TYPE JUNCTION BLOCK

- #10-24 studs spaced 3/4" apart
- Barriers prevent shorting
- Nuts not included

600V 30A
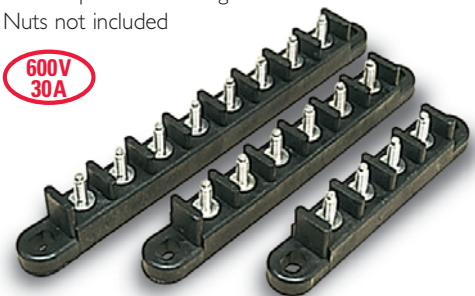
Stock No.	Studs	Overall Length	Mounting Hole Spacing
47214	4	4 1/2	3 3/4
47216	6	6	5 1/4
47218	8	7 1/2	6 3/4

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

CLOSED END CONNECTORS

- Connects wires easily
- Nylon insulation
- Tin-plated copper seamless crimp sleeve
- Can be used with stranded or solid wire

Typical Wire Range* (Two Solid Wires)	Typical Wire Range (Two Stranded Wires)	Stock No.
22-16	22-20	**37024**
16-14	18-16	**37021**
12-10	16-14	**37020**
8	12-10	**37025**

Gauge listed on connector for solid wire.

HEAT SHRINKABLE CLOSED END CONNECTORS

- Heat shrinkable tubing has an active adhesive that seals between multiple wires and eliminates wire pull-out
- Can replace spring connectors in environments where corrosion is a problem

Typical Wire Range	Stock No.
22-14	**37015**
18-10	**37016**

STANDARD SPRING CONNECTORS | molex

- Twists on for a secure connection
- Color-coded to easily match to wire range
- Can be used with stranded or solid wire

Wing lock connector

Typical Wire Range	Stock No.	Color	Molex No.
18-12	**37034**	Yellow	19160-0044
16-10	**37035**	Red	19160-0045
14-8	**37036**	Gray	19160-0046
12-6	**37037**	Blue	19160-0047

Wire range shown for two wires.

Twist lock connector

Typical Wire Range	Stock No.	Color	Molex No.
22-16	**37071**	Gray	19160-0039
22-14	**37072**	Blue	19160-0040
22-14	**37073**	Orange	19160-0041
18-10	**37074**	Yellow	19160-0042
18-10	**37075**	Red	19160-0043

Wire range shown for two wires.

CRIMPING TOOL FOR CLOSED END CONNECTORS

Multiple Crimping Position

Stock No. 477
- Crimps connectors 37024, 37021 and 37020

Stock No. 478
- Crimps connectors 37020 and 37025

3M™ PERFORMANCE PLUS WIRE CONNECTORS

- Large flexible skirt with a rigid top
- Provides extra area of insulation protection
- Maintains flexibility
- Space efficient

Typical Wire Range	Stock No.	Color
2# 22 to 3# 12	**37080**	Orange/Blue
2# 18 to 2# 8	**37081**	Red/Yellow
4# 14 to 2# 6	**37082**	Blue/Gray

3M™ SCOTCHLOK™ T-TAP NYLON INSULATED SELF-STRIPPING FEMALE QUICKSLIDE DISCONNECT

Stock No.	3M No.	T-Tap Type	Wire Range	Color	Operating Temperature	Mating Connector* Nylon Ins. Stock No.	Nylon with Extra Sleeve Stock No.
30572	951K	T-Tap Disconnect	22-18	Red	221°F (105°C)	30512	30712
31572	952K	T-Tap Disconnect	18-14	Blue	221°F (105°C)	31512	31712
32572	953K	T-Tap Disconnect	12	Yellow	221°F (105°C)	32514	32714

The mating connector must be ordered separately.

3M™ SCOTCHLOK™ IDC CONNECTORS FOR ELECTRICAL APPLICATIONS

Stock No.	3M No.	Special Features	Wire Range	Color	Operating Temperature
30563	558	Used for quick connections with no wire stripping	22-18	Red	194°F (90°C)
30562	905	Used for quick connections with no wire stripping	22-18 to 18-14	Red	194°F (90°C)
31562	801	Used for quick connections with no wire stripping	18-14	Blue	194°F (90°C)
31574	564	Used for quick connections with no wire stripping	18-14	White	194°F (90°C)
31573	902	Used for quick connections with no wire stripping	18-14 to 12-10	Brown	194°F (90°C)
32562	903	Used for quick connections with no wire stripping	12-10	Yellow	194°F (90°C)

3M™ SCOTCHLOK™ 804 ELECTRICAL IDC, RUN AND TAP, MOISTURE RESISTANT

Gel Filled

Stock No.	3M No.	Special Features	Wire Range	Color	Operating Temperature
31762	804	Moisture Resistant Applications	18-14	Blue	167°F (75°C)

3M™ SCOTCHLOK™ INSULATED DISPLACEMENT CONNECTOR

Stock No.	3M No.	Special Features	Wire Range	Color	Operating Temperature
37044	UR	Moisture Resistant Seal	26-19	Red	285°F (140°C)
37045	UY	Moisture Resistant Seal	26-22	Yellow	285°F (140°C)
37040	314U	Dry Environment Applications	22-14	Blue	221°F (105°C)
37041	314	Moisture Resistant Seal	22-14	Blue	221°F (105°C)

INSTANT TAP CONNECTORS | Economically Priced.

MADE IN AMERICA

Stock No.	Type	Wire Range	Color
31575	With Stop	22-18	Red
31576	With Stop	18-14	Blue
31577	No Stop	18-14	White

3M™ E-9Y Crimper Tool
Stock No. 429
- Side wire cutter
- Stepped jaws and a long nose provide a near parallel action at the moment of connection
- Use with UR and UY displacement connectors
- Insulated handles

Side tabs
- Wire & Cable
- Terminals & Connectors
- Tools
- Clamps & Clips
- Tapes & Chemicals
- Heat Shrink Products
- Wire Coverings & Protection
- Lights & Vehicle Accessories
- Switches & Relays
- Battery Management
- Fuses & Circuit Breakers
- Cable Ties

HEAVY DUTY CONNECTORS

- Provides power for auxiliary equipment from the battery
- Ideal for heavy-duty power applications on trucks, ag equipment, utility vehicles, winches, light air craft ground equipment, construction equipment and more
- Interchangeable with other trailer connector brands

Pollak® A Stoneridge Company

12-24V 15A

Single Pole

	Stock No.
Socket	37671
Plug	37670

2 Pole

	Stock No.
Socket	37661
Plug	37660

CONNECTORS

- Plastic bodies, PVC caps and split brass contacts
- Available as sets only

Pollak® A Stoneridge Company

12-24V 15A

4-Way shown

	Stock No.
2-Way	37622
4-Way	37642

TRAILER CONNECTOR 7-WAY SPLIT PINS

- Floating pins for ease of alignment and maximum contact
- Ground terminal pin #1 will accept 14-8 ga wire
- All other terminals accept 16-10 ga wire
- Self-grounded to terminal #1
- Recommended mounting hole is 2" diameter
- Die-cast material

Pollak® A Stoneridge Company

	Stock No.
Socket	37668

TRAILER ADAPTER KIT

Stock No. 37682

Pollak® A Stoneridge Company

- Kit includes: cable, mounting bracket, fasteners & socket
- Socket also sold separately (Stock No. 37683)
- 4' harness assembly with 0.500" ¹⁄₂" I.D. convoluted tubing, and 7 wire leads color-coded to RVI standards
- Interlocking connectors seal out moisture, eliminate loose wiring and form weather-tight, non-corrosive assembly

Socket Only
Stock No. 37683

- Terminal pins are tin plated copper alloy providing higher conductivity and less resistance and are silicone sealed at the back of socket to prevent moisture
- High impact nylon solves corrosion problems and eliminates rusting
- Mates with 7-Way Plug Stock No. 37677 (sold separately) on page 35

ISO 7 WAY CONNECTOR PLUG WITH CABLE GUARD

- Meets or exceeds all standards of SAE J560
- Floating pins for ease of alignment and maximum contact
- Accepts widest range of automotive wire gauges from 16-8 ga for ground wire
- High-impact cycolac interior with extended lip for easy removal and replacement
- Solid brass terminal screws
- Polarized ground terminal
- Die-cast material

Pollak® A Stoneridge Company

6-28V 40A

	Stock No.
Socket	37684
Plug	37685

TRAILER CONNECTORS

- Solid brass contacts are aligned to ensure proper contact and minimal voltage drop
- Wiring codes are embossed on the insulator
- Door/cover is spring-loaded and fits over a mating ridge on the socket face to minimize penetration of dirt and moisture
- Housing is constructed from rugged glass-filled plastic
- Split-pin contacts
- 7-Way used for anti-lock braking systems (ABS)

CH Cole Hersee® A Littelfuse® Brand

Plug Stock No. 37662

Stock No. 37650

Socket Stock No. 37663

	Contacts	Stock No.
Socket	7 Way	37650
Plug	13 Way	37662
Socket	13 Way	37663

Application

- Exposed under the rear bumper of a sport utility, Ford style pickup truck, other OEM applications

Pollak®
A Stoneridge Company

MADE IN AMERICA

TRAILER CONNECTORS

4-Way
- Metal die-cast design

12-24V 35A

	Stock No.
Socket	37644
Plug	37645
Plug with Cable Guard	37646

E-Line Series

	Stock No.
Socket	35644
Plug	35645

5-Way
- Chrome plated metal housing

12-24V 15A

	Stock No.
Socket	37654
Plug	37655

6-Way
- Metal die-cast design
- Dust and water resistant

12-24V 35A

	Stock No.
Socket	37664
Plug	37665
Plug with Cable Guard	37666
Boot for Socket	37669

E-Line Series

	Stock No.
Socket	35664
Plug	35665

7-Way
- Heavy duty, metal die-cast design
- Interchangeable with all ATA types

6-28V 40A

	Stock No.
Socket	37674
Plug	37675
Metal Spring for Plug	37678
Rubber Boot for Socket	37679

E-Line Series

	Stock No.
Socket	35674
Plug	35675

7 Way Trailer RV Connector
- Center pins accepts up to 8-gauge wire, vinyl inserts keep out dirt and moisture
- Spring-loaded cover with stainless steel spring

	Stock No.
Socket	37686
Plug	37687

7 Way Trailer Plug with Cable Guard & Seal

NEW

- Weather Beater plug with cable guard
- Internal moisture resistant seal
- Dielectric grease added for extended reliable service and corrosion protection
- Zinc die-cast

Material	Stock No.
Metal	37688
Nylon	37689

6-28V 40A

7-Way
- Black glass-filled nylon housing corrosion resistant

6-28V 40A

	Stock No.
Socket	37672
Plug	37673
Metal Spring for Plug	37678
Rubber Boot for Socket	37679

E-Line Series

	Stock No.
Socket	35672
Plug	35673
No spring available	

RV 7-Way
- High impact plastic housing
- Connects to 7-Terminal Junction Box, Stock No. 47290, on page 30

12-24V 20A-30A Peak

	Stock No.
Socket	37676
Plug	37677

RV Trailer Plug Adapter
Stock No. 37680
- Standard 4 way molded plug end is used for utility or boat trailer connections
- 7 way to 4 way

12-24V 20A-30A Peak

Flat Pins	Stock No.
Plug; 7-Way to 4-Way	37680

NEW

Round Pins	Stock No.
Plug; 7-Way to 4-Way	37690

RV 9-Way
- Heavy duty RV connector
- High impact plastic housing

12-24V 20A-30A Peak

	Stock No.
Socket	37696
Plug	37697

Connector Brackets
- Stock No. 37603 and 37606 fits under trailer tongue, ball or 2 hole frame mount

Stock No. 37601

Stock No. 37606

Stock No. 37602

Stock No. 35601

Bracket For Socket	Silver Stock No.	Black* Stock No.
4-Way #37644	37603	37606
5-Way #37654		
6-Way #37664		
7-Way #37672	37601	----
7-Way #37674		
RV 7-Way #37676	37602	37605
RV 9-Way #37696		

* Features a black epoxy coating to prevent rusting and corrosion

E-Line Series

Brackets For Sockets	Silver Stock No.	Black Stock No.
7-Way #37672	35601	----

MOLDED CONNECTORS | MADE IN AMERICA

12V 24V

12 inch loop with both ends

Female End

Male End

Contacts	Male End GPT 8" Wires Stock No.	Female End GPT 8" Wires Stock No.	Female End GPT 48" Wires Stock No.	Loop GPT 12" Wires Stock No.	Loop GXL 12" Wires Stock No.
1	37119	37129	37109	37009	37139
2	37120	37130	37110	37000	37140
3	37121	37131	37111	37001	37141
4 Flat	37122	37132	37112	37002	37142
4 Square	37153	37163	----	37143	----
5	37154	----	37174	37144	----
6	37155	37165	37175	37145	----

Contacts	Female End	Wire Colors	Male End
1	1	1. blue	1
2	1 2	1. brown 2. red	1 2
3	1 2 3	1. green 2. yellow 3. brown	1 2 3
4 flat	1 2 3 4	1. green 2. yellow 3. brown 4. white	1 2 3 4
4 square	1 2 3 4	1. green 2. brown 3. yellow 4. white	3 4 1 2
5	1 2 3 4 5	1. green 2. blue 3. yellow 4. brown 5. white	3 4 5 1 2
6	1 2 3 4 5 6	1. yellow 2. brown 3. white 4. green 5. blue 6. black	4 5 6 1 2 3

- Molded connectors with color coded wires are available in two configurations:
  - Connector molded on one end only
  - Male connector on one end and female connector on the other end
- 16 ga wire
- Contacts are .180" dia. size
- GPT wire has a PVC jacket
- GXL wire has a cross linked-polyethylene XLPE jacket, which is resistant to grease, oil, gasoline and most acids

SAE J928

Special configurations and wire types may be available. Call 800-328-2724 for details.

WISHBONE MOLDED CONNECTORS |

- 16 ga wire
- Contacts are .180" dia.
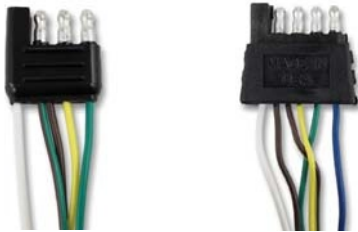
Stock No. 37167

Stock No. 37137

Contacts	Stock No.	Wire/Connectors
4-Way Male	37167	35 Ft. Wishbone Harness 32" Ground
5-Way Male	37137	30 Ft. Wishbone Harness 48" Ground

7-WAY TRAILER CONNECTOR PLUG |

Stock No. 37647
- SAE wiring style
- 6 foot length wire, (length includes non-jacketed)

Side navigation tabs
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

SEALED SPLICE PACK SYSTEM

- Becomes an in-line fuse holder for one to three circuits when used with mini fuses
- Common busbar converts the unit into a convenient splicing system
- Sealed terminals and cap offers a completely weathertight assembly
- Complete assembly requires cable seals, terminals, connector body, cap and any common bars
- Unused pin locations need a cavity plug, and the TPA helps keep the terminals from pulling out
- For a perfect crimp, ratchet tools should be used

- Mounting clips are offered to attach the assembly to your application
- Extended caps are a variation of the popular Splice Pack Cap
- Mini fuses and the busbar system can also be used with these caps
- Caps are designed to accommodate diodes, blade mount circuit breakers, and have special grooves so cable ties can be added to provide additional locking security
- Connector parts are part of the Packard Metri-Pack sealed connector 280 series, on page 41

Standard Cap - Clear Stock No. 38085
Standard Cap - Black Stock No. 38075
Extended Cap - Black Stock No. 38078
Extended Cap - Clear Stock No. 38079

Assembly
Cable Seal (Order from table)
Terminal (Order from table)
TPA Stock No.38077
Common Bar (Order from table)
Body Stock No. 38076

Stock No. 38095
- 3 amps
- Diode packs are used to prevent feedback within circuits or multiple circuits to clamp voltage spikes caused by electrical fields collapsing within coils
- Boards are designed to be plugged into the connector body of the system
- Add either extended cap to create a sealed system
- Cap can be removed for easy serviceability

Common Bar

Gangs	Stock No.
2	38071
3	38072
4	38073
6	38074

Circuit Breakers, Diode and Mini Fuse
- Diode for use only with 38078 and 38079
- Circuit breakers shown on page 135
- Mini fuses shown on page 122

Waytek can special order custom circuit boards. Call 800-328-2724 for details.

Mounting Clips

Straight In Clip Stock No. 38080
- Fits either style cap

90° Clip Stock No. 38081
- Fits either style cap

Tree Mount Clip Stock No. 38082
- Fits either style cap

Offset Clip Stock No. 38084
- Fits extended cap only

Cable Seals   **Cavity Plug Stock No. 39010**
- Cavity plugs required for all unused pin locations

Cable dia. (mm)	GPT wire Ga	SXL wire Ga	Stock No.	Seal Color
(1.70-1.29)	----	----	39004	Red
(2.80-2.03)	18-16	20-18	39000	Green
(3.49-2.81)	14	16	39001	Gray
(4.30-3.45)	----	14	39002	Blue

Diodes
- Mounts in most mini fuse holders
- Works with the extended cap

1 Amp Diode Stock No. 46880
3 Amp Diode Stock No. 46881
6 Amp Diode Stock No. 46882

Terminals
- One terminal for each contact location needed
- Terminals available on reels
- Special tooling needed for use of reels not available from Waytek

Terminal
Cable seal
Terminal shown with cable seal. Order separately.

- Crimping tool must be used to assure a good seal

Wire Ga	Female Terminal Stock No.	Reel Stock No.	Delphi No.	Recommended Tool
18-16	30037	30037R	12077411	464 core/408
14-12	31075	31075R	12129493	474/509
12-10	32035	32035R	12077413	474

See tool descriptions on pages 54-57.

DELPHI WEATHER PACK

- Locking nylon connectors are sealed against moisture, dust and dirt
- Terminals and seals are secured in the connector body with a hinge lock assembly
- Cable seals must be used with mating terminals

- Use the cavity plug for all pin locations not filled with terminals
- Tower half connector body comes with a self lubricating silicone seal to reduce the engagement assembly force
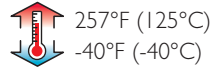
🌡 257°F (125°C)
🌡 -40°F (-40°C)

16V 20A

Male Terminal
Cable Seal
Cable Seal
Receptacle Shroud Half
Plug Tower Half
Cable Seal
Female Terminal

Cable Seals

Cable dia. mm	GPT wire Ga	SXL wire Ga	Seal Color	Stock No.	Delphi No.
1.70-1.29	---	---	Red	**39004**	12015899 15324983*
2.80-2.03	18-16	20-18	Green	**39000**	12015323 15324982*
3.49-2.81	14	16	Gray	**39001**	12010293 15324980*
4.30-3.45	12	14	Blue	**39002**	12015193 15324981*

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.
5. Weather-Pack crimping tool must be used to assure a good seal.
*Replacement part for packard number listed above. Changed from 4% oil to 2% oil.

Connector Bodies

Contacts	Receptacle Shroud Half Stock No.	Delphi No.	Plug Tower Half Stock No.	Delphi No.
1	**38040**	12010996	**38041**	12015791
2	**38042**	12010973	**38043**	12015792
3	**38044**	12010717	**38045**	12015793
4	**38046**	12010974	**38047**	12015797
4-Square	**38086**	12015024	**38087**	12015798
6	**38048**	12010975	**38049**	12015799

All connector bodies are straight (in a row) except 4-Square contact body which is two rows of two.

Cavity Plug
Stock No. 39010
(Packard No. 12010300)

Female terminal for tower half

Male terminal for shroud half

Terminals shown with cable seal. Order separately.

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Recommended Delphi Tools
20-18	**30034**	**30034R**	12089040	**30035**	**30035R**	12089188	**402/440/408**
16-14	**31034**	**31034R**	12124582	**31035**	**31035R**	12124580	**402/440/408**
12	**32038**	**32038R**	12124587	**32039**	**32039R**	12124581	**408/474**

*Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

TYPICAL ASSEMBLY INSTRUCTIONS

These assembly instructions apply to both the Weather Pack and the Metri-Pack connector series.
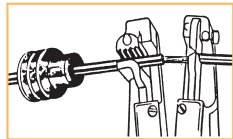
1. Apply seal to cable, before stripping insulation.

2. Align seal with cable insulation.

3. Put terminal in crimping tool, then position wire and seal in place.

4. Crimp and visually inspect for a good crimp before installing in connector body.

Weather Pack Hand Tool
Stock No. 402
- Crimps 20-14 ga wire, terminal and cable seal in one operation
- Ratchet assembly assures a perfect crimp every time

Weather Pack Hand Tool
Stock No. 440
- Similar to the 402 with shorter handles
- Crimps 20-14 ga wire, terminal and cable seal in one operation

Weather Pack Terminal Removal Tool
Stock No. 421
- Removes Weather Pack socket and pin terminals from the connector bodies

Hand Tool
Stock No. 408
- Crimps a variety of terminals and cable seals in separate operations
- Ratchet assembly assures a perfect crimp every time
- For 16-12 ga terminals
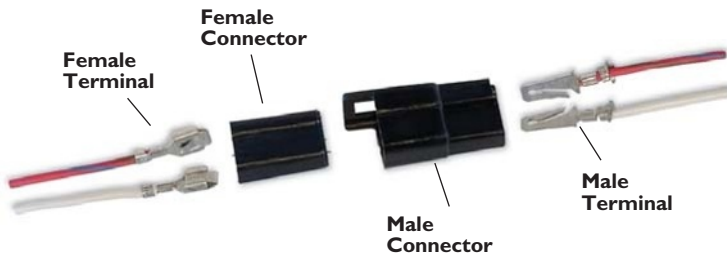
Economically priced Crimper
Stock No. 533
- Economical tool crimps 22-14 ga sealed Metri-Pack 150 and 280 series, and Weather Pack terminals and seals
- Compact parallel jaw design eliminates terminal rocking

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

DELPHI 56 SERIES CONNECTORS

Female Terminal
Female Connector
Male Connector
Male Terminal

Available in one through six contact configurations

- Economically priced
- Locks together for a positive contact
- For heavy duty use in many automotive applications
- Use crimping tool Stock No. 401 or 507 for best results
- Male body half is made with a locking clip, as shown in picture
- Terminals available loose or on reels

49A <3mV/amp

Male

Female

Connector Bodies

Contacts	Male Connector Stock No.	Delphi No.	Color	Female Connector Stock No.	Delphi No.	Color
1	38000	2984528	Black	38001	2977253	Black
2	38002	2984883	Black	38003	2973781	Black
3	38004	2984678	Black	38005	2984378	Black
4	38006	6294544	Black	38007	2977048	Black
5	38010	3138080	Black	38011	2973422	Black
6	38008	2977042	Natural	38009	2977044	Black

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Recommended Delphi Tools
18	30030	30030R	2965481	30031	30031R	2965510	401
16-14	31030	31030R	2971962	31031	31031R	2965867	401
12	32030	32030R	2971859	32031	32031R	2989877	507

Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

Typical reel of terminals available from Waytek

CRIMPING TOOLS

Hand Tool Stock No. 401
- Crimps 18-14 ga male and female terminals
- Ratchet assembly assures a perfect crimp every time

Hand Tool Stock No. 507
- Crimps 20-10 ga male and female terminals in the 56 Series
- Crimps core wings only

METRI-PACK CRIMPING TOOLS

Hand Tool Stock No. 474
- Crimps 12 ga wire, terminal and cable seal in separate operations

Economically priced Crimper Stock No. 533
- Crimps 22-14 ga sealed Metri-Pack 150 and 280 series, and Weather Pack terminals and seals
- Compact parallel jaw design eliminates terminal rocking

Hand Tool Stock No. 509
- Crimps 20-14 ga male and female terminals in the Metri-Pack 150 and 280 series
- Ratchet assembly assures a perfect crimp every time

Universal Metri-Pack Terminal Removal Tool Stock No. 422
- Removes Metri-Pack socket and pin terminals from the connector bodies
- May be used with the 150 series and the 280 series

Side tabs (right margin)
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

DELPHI METRI-PACK 150 SERIES SEALED CONNECTORS

- In-line connectors are ideally suited for space-limited applications
- Use in high demand situations along with low-energy electronic circuits
- TPAs (terminal position assurance) hold the terminals firmly in the connector bodies and act as strain reliefs
- CPAs (Connector Position Assurance) secures mating halves together
- Triple-rib silicone coated cable seals add the confidence of a totally sealed configuration
- Empty cavities must be filled with cavity plugs

16V 14A

Male Terminal   **TPA**   **Male Body**   **Cable Seal**

Cable Seal   **Female Body**   **TPA**   **Female Terminal**

Typical two straight contact configuration
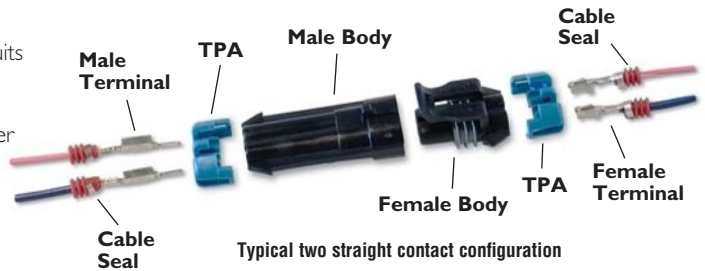
Cable Seals

Cable dia. mm	GPT wire Ga	SXL wire Ga	Seal Color	Stock No.	Delphi No.
2.15-1.60	20-18	22-20	Purple	**39007**	15324985
2.80-2.03	18-16	20-18	Dark Red	**39008**	15324973

NEW

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.
5. Metri-Pack crimping tool must be used to assure a good seal.

Connector Bodies

Contacts	Male Body Stock No.	Delphi No.	Female Body Stock No.	Delphi No.
2	**38200**	12162000	**38201**	12052641
3	**38203**	12129615	**38204**	12110293
4	**38206**	12162102	**38207**	12162144
6	**38209**	12124107	**38210**	12052848
8	**38218**	12047931	**38220**	12047937
10	**38225**	12045808	**38226**	12065425

These connector bodies are straight (in a row) except 6 contact body which is two rows of three.

TPA

Contacts	Stock No.	Delphi No.	Color
2	**38202**	12052634	Blue
3	**38205**	12052845	Natural
4	**38208**	12047948	Black
6	**38211**	12052850	Gray
8	**38223**	15324525	Black
10	**38224**	12124264	Gray

Cavity Plug
Stock No. 39011
(Delphi No. 12059168)

CPA
Stock No. 38230
(Delphi No. 12020833)
- Fits 3-10 contacts

Female

Male

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Recommended Delphi Tool
22-20	**30071**	**30071R**	12077628	**30072**	**30072R**	12084200	**509**
18-16	**31076**	**31076R**	12045773	**31077**	**31077R**	12048074	

NEW

* Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

DELPHI METRI-PACK 150.2 SERIES SEALED CONNECTORS

- Pull to seat connection
- In-line connectors are ideally suited for space-limited applications
- Use in high demand situations along with low-energy electronic circuits

2 Way Female Connector
Stock No. 38231

Female Terminal
Stock No. 31089
- 18-16 ga
- Crimp tools, Stock No. 533 & 509

SEALED ELECTRIC HEADERS

Crimping Tool
Stock No. 508
(Delphi No. 12039500)
- Crimps 22-16 ga

Removal Tool
Stock No. 431
(Delphi No. 12180559)

Contacts	Stock No.	Female Body Delphi No.
18	**38219**	15492546
30	**38221**	15492542

Connector bodies are in rows of three.

Terminal
Stock No. 31091
(Delphi No. 12103881)
- 18-16 ga

The Metri-Pack 150 Series sealed electric header is a rugged system designed for severe underhood environments.
- Offered in 18 or 30 pin configurations
- Ideally suited for critical, low energy electronic applications which require protection from environmental hazards
- Uses pull to seat technology

Stock No. 38219

Stock No. 38221

DELPHI METRI-PACK 280 SERIES SEALED CONNECTORS

Male Terminal
TPA
Female Body
Female Terminal
Male Body
Cable Seal
TPA
Cable Seal
Cable Seal

Typical two straight contact configuration
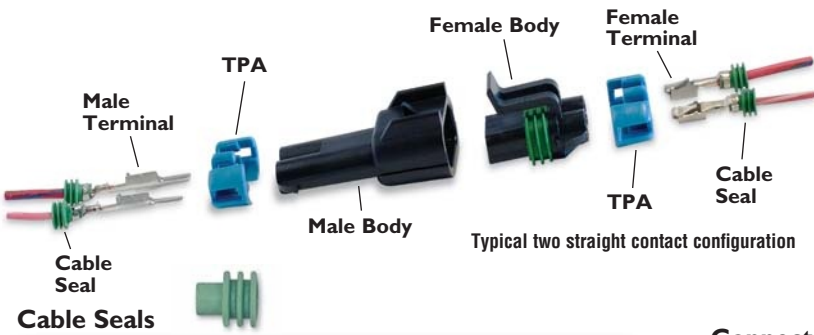
- In-line connectors feature high current and high current density in a small compact design
- Excellent resistance to temperature, chemicals and abrasion
- Works in conjunction with the splice pack components shown on page 37
- May be used in under-hood automotive applications as well as most marine, off-road and agricultural applications

16V 30A

Cable Seals

NEW

Cable Dia. mm	GPT Wire Ga	SXL Wire Ga	Seal Color	Stock No.	Delphi No.
1.70-1.29	---	---	Red	**39004**	12015899 15324983*
2.15-1.60	---	---	Purple	**39007**	15324985
2.80-2.03	18-16	20-18	Green	**39000**	12015323 15324982*
3.49-2.81	14	16	Gray	**39001**	12010293 15324980*
4.30-3.45	12	14	Blue	**39002**	12015193 15324981*

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.
5. Metri-Pack crimping tool must be used to assure a good seal.

* Replacement part for Delphi number listed above. Changed from 4% oil to 2% oil.

Connector Bodies

Contacts	Male Body Stock No.	Delphi No.	Female Body Stock No.	Delphi No.
1	**38060**	12065171	**38061**	12065172
2	**38062**	15300002	**38063**	15300027
3	**38064**	15300003	**38065**	12040977
4	**38067**	12129600	**38057**	12129565
5	**38068**	12186400	**38069**	12084891
6	---	---	**38076**	12059573

All connector bodies are straight (in a row).

Cavity Plug
Stock No. 39010
(Delphi No. 12010300)

Removal Tool
Stock No. 424
(Delphi No. 12094430)

Female terminal for female half
Cable seal
Male terminal for male half
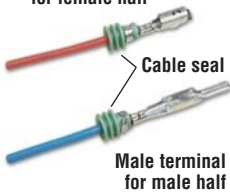
Terminals shown with cable seal. Order separately.

Typical reel of terminals available from Waytek

Terminals

Wire Ga	Male Tanged Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Tanged Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Recommended Delphi Tool
22-20	**30029**	**30029R**	12124977	**30032**	**30032R**	12084201	**464** Core/**408**
18-16	**30036**	**30036R**	12048159	**30037**	**30037R**	12077411	**464** Core/**408**
14-12	**31074**	**31074R**	12129497	**31075**	**31075R**	12129493	**408**/**474**/**509**
12-10	**32034**	**32034R**	12048254	**32035**	**32035R**	12077413	**408**/**474**

*Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

TPA

Contacts	Male Stock No.	Delphi No.	Color	Female Stock No.	Delphi No.	Color
1	**38034**	12065249	Black	**38034**	12065249	Black
2	**38035**	15300014	Blue	**38035**	15300014	Blue
3	**38036**	15300015	Natural	**38037**	12034145	Black
4	**38023**	15324063	Blue	**38022**	15300016	Black
5	**38038**	12084673	Black	**38039**	15324857	Black
6	---	---	---	**38077**	12059195	Blue

METRI-PACK CRIMPING TOOLS

Hand Tool Stock No. 407
- Crimps a variety of unsealed Metri-Pack Terminals
- For 12-10 ga terminals
- Ratchet assembly assures a perfect crimp every time

Hand Tool Stock No. 408
- Crimps a variety of terminals and cable seals in separate operations
- Ratchet assembly assures a perfect crimp every time
- For 16-12 ga terminals

Hand Tool Stock No. 464
- Crimps a variety of terminals in separate operations
- For 20-14 ga terminals
- Crimps core wings on 150 and 280 Metri-Pack series
- Ratchet assembly assures a perfect crimp every time

Economically priced Crimper Stock No. 533
- Economical tool crimps 22-14 ga sealed Metri-Pack 150 and 280 series, and Weather Pack terminals and seals
- Compact parallel jaw design eliminates terminal rocking

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

DELPHI GT 280 CONNECTORS

- Small size suited to fit the shrinking space requirements of today's vehicles and mobile equipment
- Features silver interface platings to meet the SAE J2030 Heavy-Duty Electrical Connector Standard
- CPA capabilities for improved and more robust system design
- Seal retention and protection features help prevent loss or damage to the connector seal

15A <10mV/amp

Male Terminal · Male Body · Cable Seal · Female Body · Female Terminal
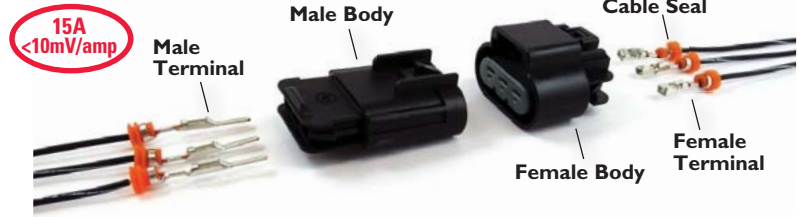
Terminals

Wire Gauge	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.	Delphi No.
22-20	30472	30472R	15304730	30473	34073R	15304718
18-16	30474	30474R	15304731	30475	30475R	15304719
16-12	30476	30476R	15304732	30478	30478R	15304717
12	----	----	----	30477	30477R	15326004

* Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

Connector Bodies

Contacts	Male Tower Half Stock No.	Delphi No.	Female Shroud Half Stock No.	Delphi No.
2	38373	15326678	38372	13518845
3	38375	15326623	38374	15326614
4	38377	15326633	38376	13521459
5	38379	15326647	38378	13521463
6	38381	15326640	38380	13521467
8	38383	15326655	38382	15326654
10	38385	15326661	38384	15326660
12	38387	15326915	38386	15326910
16	38389	15326667	38388	15326666

Cable Seals

Cable Dia. (mm)	Wire Gauge	Seal Color	Stock No.	Delphi No.
1.20-1.90	22-20	Orange	39035	15366065
1.86-2.40	18-16	Yellow	39036	15366066
2.50-3.20	14-12	Tan	39037	15366067
3.40-3.90	10	Purple	39038	12191235

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.

Cavity Plug
Stock No. 39039
(Delphi#: 15305170)

CPA 16-8 Cavity GT 280
Stock No. 39040
(Delphi#: 15317832)

Crimper
Stock No. 395

Removal Tool
Stock No. 396

DELPHI METRI-PACK 480 SERIES SEALED CONNECTORS

- In-line connectors are well suited for the rigorous demands of under-hood vehicle, marine and industrial applications
- Triple-rib silicone coated cable seals add the confidence of a totally sealed configuration
- Empty cavities must be filled with cavity plugs

42A <3mV/amp

257°F (125°C)
-40F° (-40C°)

Male Terminal · Male Body · Cable Seal · Female Body · Female Terminal

Typical two straight contact configuration

TPA
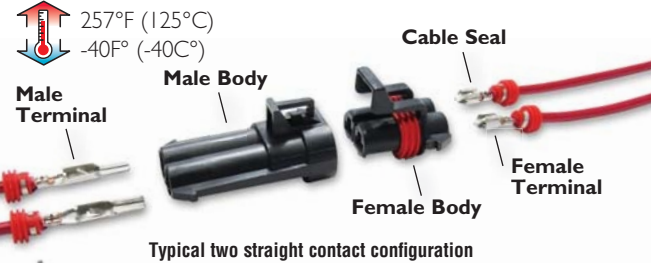
Contacts	Stock No.	Delphi No.	Color
2	38124	12059897	Black
3	38125	12131543	Black

Female · **Male**

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.
16-14	31092**	31092R	12065196	31093	31093R	12048451
12	32092	32092R	12065197	32093	32093R	12052139
10	32094	32094R	12052172	----	----	----

* Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.
** Waytek does not stock crimpers for this part.

Connector Bodies

Contacts	Male Body Stock No.	Delphi No.	Female Body Stock No.	Delphi No.
2	38120	12065863	38121	12052613
3	38122	15344628	38123	12131592

2 contact connector bodies are straight (in a row)
3 contact connector bodies are stacked (in a triangle)

Cable Seal

Cable dia. mm	Wire Ga	Seal Color	Stock No.	Delphi No.
2.85-2.01	18-16	White	39012	12048441
3.75-2.81	14-12	Red	39013	12048442
4.50-3.61	10	Purple	39014	15324990

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.

Cavity Plug
Stock No. 39015
(Delphi No. 12066082)

Crimping Tool
Stock No. 553
(Delphi No. 12071687)
- For 12-10 ga Metri-Pack 480 and 630 terminals only

Removal Tool
Stock No. 424
(Delphi No. 12094430)

DELPHI METRI-PACK 630 SERIES SEALED CONNECTORS

- TPAs (terminal position assurance) hold terminals firmly in connector bodies
- Triple-rib silicone coated cable seals add confidence of a totally sealed configuration
- Empty cavities must be filled with cavity plugs
- All connector bodies are straight (in a row)

Application
- Meets or exceeds requirements for most marine, appliance and industrial control applications
- Suited for applications that require protection from environmental hazards

257°F (125°C)
-40F° (-40C°)

46A <3mV/amp
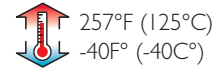
Creating a 2 Way Connector Assembly:

2 Way Connector Bodies

Male Body Stock No.	Delphi No.	Female Body Stock No.	Delphi No.	Female Body Cable Seal Wire Ga
38130*	12034269	38143**	12066681	20-16
38130*	12034269	46010**	12033769	14-12
38130*	12034269	38141**	12085030	10

*Need to order 39020 cable seal separately   ** Pull to seat*

TPA
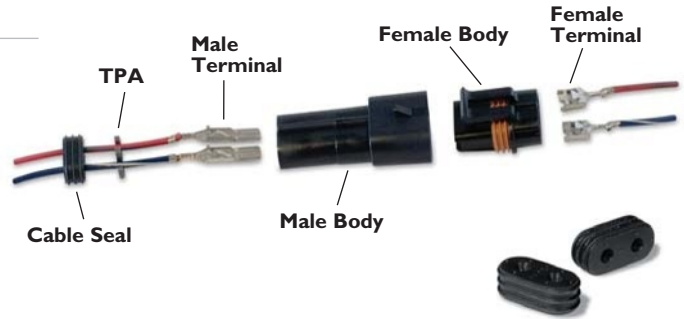
Stock No.	Delphi No.	Color
38137	12034363	Gray

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.
20-18	30084	30084R	12020125	30085**	30085R	12020156
16-14	31084	31084R	12020126	31085**	31085R	12066614
12-10	32084	32084R	12066493	32037**	32037R	12033997

Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.   ** Pull to seat*

TPA **Male Terminal** **Female Body** **Female Terminal**

Cable Seal **Male Body**

Multiple Cable Seal
Stock No. 39020
(Delphi No. 12034364)
- For connector body 38130
- Seal only available in one size
- 8-10 ga

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Female bodies come with multiple Cable Seal. Male body requires one Stock No. 39020. Order separately.

Creating a 3 Way Connector Assembly:

3 Way Connector Bodies

Male Body Stock No.	Delphi No.	Female Body Stock No.	Delphi No.
38132	12124686	38133	12124685
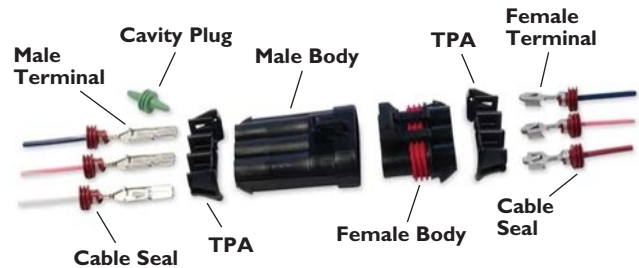
Cable Seals for 3 Way Connectors

Cable dia. mm	Wire Ga	Seal Color	Stock No.	Delphi No.
2.85-2.01	20-16	Dark Red	39016	12052388
3.75-2.81	14-12	Light Gray	39017	12052387
4.50-3.61	10	Blue	39018	12052668

ORDERING NOTES:
1. Select connector body style from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pick cable seal by wire gauge.
4. Cavity plugs are required for all unused pin locations.

TPA

Stock No.	Delphi No.	Color
38135	12045699	Black

Terminals

Wire Ga	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Delphi No.
20-18	30078**	30078R	12064734	30079	30079R	12052457
16-14	31078**	31078R	12064735	31079	31079R	12052455
12	32078	32078R	12064737	32079	32079R	12052456
10	32080	32080R	12064736	32079	32079R	12052456

* Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.
** Waytek does not stock crimpers for this part.

Male Terminal **Cavity Plug** **Male Body** **TPA** **Female Terminal**

Cable Seal **TPA** **Female Body** **Cable Seal**

Cavity Plug
Stock No. 39019
(Delphi No. 12059255)

Removal Tool
Stock No. 424
(Delphi No. 12094430)

Crimping Tool
Stock No. 553
- For 12-10 ga Metri-Pack 480 and 630 terminals only

Sidebar tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

DELPHI GT 150 SERIES CONNECTORS

The GT terminal and connector system was developed with global customer input at every design phase and has a compact package size suited to fit the shrinking space requirements of today's vehicles.

- Rugged and waterproof for off-road applications
- Pump-handle primary locks with integrated Connector Position Assurance (CPA)

- Tangless terminals with stamped serrations
- Secondary lock capabilities including (TPA) Terminal Position Assurance and Primary Lock Reinforcement (PLR) with positive connector seal retention or a Slide Lock Cover (SLC) for unsealed systems
- Female terminals compatible with ISO or SAE blades
- Inline connectors are ideally suited for space limited applications
- Male body for male terminals, female body for female terminals

15A

Connector Bodies

Contacts	Male Stock No.	Delphi No.	Female Stock No.	Delphi No.
2	38322	13510099	38323	13510085
3	38318	13519049	38319	13519047
4	38324	15326820	38325	15326815
5	38326	15326827	38327	15326822
8	38330	15326840	38331	15326835
10	38332	15326847	38333	15326842

Stock No. 38326

Stock No. 38327

TPA

Contacts	Stock No.	Delphi No.
2	38339	15355128
3	38345	15418545
4	38340	15418546
5	38341	15418547
8	38343	15418415
10	38344	15418288

Stock No. 38340

Cavity Plug
Stock No. 38348
(Delphi No. 15305171)

Cable Seal

Gauge	Color	Stock No	Delphi No.
22-20	White	39024	15366021
18-16	Blue	39025	15366060

Tin Plated Terminals

Gauge	Male Stock No.	Delphi No.	Female Stock No.	Delphi No.
22-20	30470	15326268	30471	12191818
18-16	31470	15326269	31471	12191819

J1939 CAN-Bus Terminating Resistor

Contacts	Stock No.	Delphi No.
2	38321	15429045

Typical Male **Typical Female**

Gold Plated Terminals

Gauge	Female Stock No.	Delphi No.
20	31472	15326426
18	31473	15326427

Stock No. 31472

Crimping Tool
Stock No. 400

Terminal Removal Tool
Stock No. 431
- Pull to seat removal terminal

AMPHENOL AHD CONNECTORS | Deutsch HD compatible.

Connector Bodies

Circuits	Plug Stock No.	Housing Style	Deutsch No.	Receptacle Stock No.	Housing Style	Deutsch No.
6-way	38669*	Sealed Locking Ring Military Style	HD16-6-12S-B010	38671*	Sealed Military Style	HD10-6-12P
6-way	38670*	Smooth DiagnosticGrade™	HD16-6-12S	----	----	----
9-way	38672**	Sealed Locking Ring Military Style	HD16-9-96S	----	----	HD16-9-96P
9-way	38674**	Sealed Locking Ring Military Style	HD16-9-1939S	38673	Sealed Military Style	HD-10-9-1939P
9-way	38676**	Smooth DiagnosticGrade™	HD17-9-1939S			

*Use size 12 contacts only **Use size 16 contacts only*

257°F (125°C)
-67F° (-55C°)

1500V 13A

Plug
Stock No. 38670

Receptacle
Stock No. 38671

- Designed as a Deutsch HD series drop-in replacement
- Smooth DiagnosticGrade™ housings are non-sealed for controlled applications
- Sealed military style housings have silicone elastomer seal and are threaded for demanding applications
- Corrosion resistant
- 13 amps for size 16 contacts

Terminals

Contact Size	Wire Range AWG	Pin Terminal Loose Piece Stock No.	Deutsch No.	Socket Terminal Loose Piece Stock No.	Deutsch No.	Material
16	20-16	31108	0460-202-16141	31109	0462-201-16141	Nickel Plated
16	14	31116	0460-215-16141	31117	0462-209-16141	Nickel Plated
12	12-14	31122	0460-204-12141	31123	0462-203-12141	Nickel Plated
12	12-14	31132	0460-220-1231	31131	0462-210-1231	Gold Plated
16	16-20	31134	0460-202-1631	31133	0462-201-1631	Gold Plated

Pin Terminal

Socket Terminal

Circuits	Stock No.	Deutsch No.
6-way	38675	HDC-16-6
9-way	38677	HDC-16-9

Receptacle Cap – Military Style

Hand Ratchet Tool
Stock No. 588
- Ratchet Attachment
Stock No. 610

Tool
Stock No. 619
- Closed barrel terminals

Tool
Stock No. 618
- Crimps 12 ga terminals

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

AMPHENOL ATM CONNECTORS | Deutsch DTM compatible.

- Specifically designed for small AWG applications, while maintaining the strengths of the AT Series ™ product line
- Connector design incorporates an integral latching system that ensures a definitive electrical and mechanical connection
- Thermoplastic housing
- UV resistance
- Sealing system is comprised of an internal and rear silicone, multi-sealing perimeter against environmental ingress
- Copper alloy contacts
- Compatible with other existing standard products industry-wide
- RoHS compliant

1500V 7.5A

257°F (125°C)
-67F° (-55°C)

Connector Bodies

Description	Plugs		Receptacles	
	Stock No.	Deutsch No.	Stock No.	Deutsch No.
2-way	**38620**	DTM-06-2S	**38621**	DTM-04-2P
3-Way	**38622**	DTM-06-3S	**38623**	DTM-04-3P
4-Way	**38624**	DTM-06-4S	**38625**	DTM-04-4P
6-Way	**38626**	DTM-06-6S	**38627**	DTM-04-6P
8-Way	**38628**	DTM-06-8S	**38629**	DTM-04-8P
12-Way	**38630**	DTM-06-12SA	**38631**	DTM-04-12PA

Wedges

Stock No. 38637

Description	Wedge in Plugs		Wedge in Receptacle	
	Stock No.	Deutsch No.	Stock No.	Deutsch No.
2-Way	**38632**	WM-2S	**38633**	WM-2P
3-Way	**38634**	WM-3S	**38635**	WM-3P
4-Way	**38636**	WM-4S	**38637**	WM-4P
6-Way	**38638**	WM-6S	**38639**	WM-6P
8-Way	**38640**	WM-8S	**38641**	WM-8P
12-Way	**38642**	WM-12S	**38643**	WM-12P

Socket Terminals for Plugs

Wire Range AWG	Loose Piece Stock No.	Reel Stock No.	Deutsch No.
22-16	**38645**	**38645R**	1062-20-0122
22-20	**38648**	**38648R**	0462-202-20141

Stock No. 38645

Stock No. 38648

Pin Terminals for Receptacles

Wire Range AWG	Loose Piece Stock No.	Reel Stock No.	Deutsch No.
22-16	**38646**	**38646R**	1060-20-0122
22-20	**38647**	**38647R**	0460-202-20141

Stock No. 38646

Stock No. 38647

Sealing Plug
Stock No. 38649
(Deutsch No. 0413-204-2005)
- Size 20

AMPHENOL ATP CONNECTORS | Deutsch DTP compatible.

- Designed as a Deutsch DTP series plug-in replacement
- Wire to wire connectors withstand high vibration and harsh environments
- Waterproof IP67, silicone elastomer seal

257°F (125°C)
-67F° (-55°C)

1500VAC 25A

Sealing Plug
Stock No. 38491
- Size 16-12

Stock No. 38826

Stock No. 38828

Stock No. 38835

Stock No. 38836

Connector Bodies

Circuits	Plug		Receptacle	
	Stock No.	Deutsch No.	Stock No.	Deutsch No.
2	**38826**	DTP06-2S	**38825**	DTP04-2P
4	**38828**	DTP06-4S	**38827**	DTP04-4P

Wedges

Circuits	Wedge Plug		Wedge Receptacle	
	Stock No.	Deutsch No.	Stock No.	Deutsch No.
2	**38835**	WP-2S	**38837**	WP-2P
4	**38836**	WP-4S	**38838**	WP-4P

Terminals

Wire Range AWG	Barrel Type	Socket Terminal Loose Piece for Plugs		Pin Terminal Loose Piece for Receptacle	
		Stock No.	Deutsch No.	Stock No.	Deutsch No.
14-12	Open	**31121***	1062-12-0166	**31120***	1060-12-0166
14-12	Closed	**31123**	0462-203-12141	**31122**	0460-204-12141

* Crimp using Deutsch tooling, call sales for more information

Solid Contacts

Size	Wire Gauge	Socket	Pin
12	14-12	**31131**	**31132**

Hand Ratchet Tool
Stock No. 588

Ratchet Attachment
Stock No. 610
- For Stock No. 588
- Locator tool
- Works for closed barrel terminals 31122 and 31123
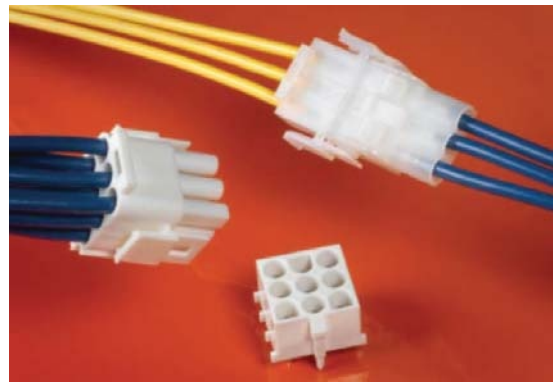
Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management
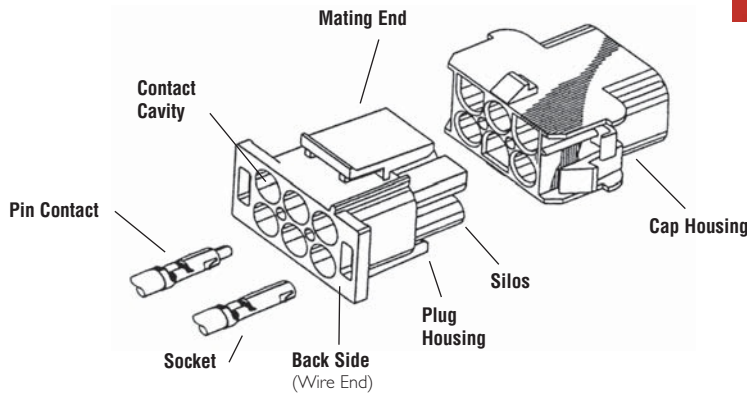
Fuses & Circuit Breakers

Cable Ties

AMPHENOL AT CONNECTORS | Deutsch DT compatible.

- High-performance, cost-effective Deutsch DT Series drop-in replacement
- Amphenol Receptacles must be used with the Amphenol Wedge locks in order to mate properly with Deutsch DT connectors
- Terminals can be interchangeable with Deutsch DT terminals
- Integral latching system ensures definitive electrical and mechanical connection
- Durable thermoplastic housings offer:
  - excellent UV resistance
  - dielectric/mechanical properties
  - RoHS compliance
- Front and rear silicone seal, multi-sealing, perimeter against environmental ingress
- Nickel plated contacts ensure an electrically-reliable connection
- IP69K

Socket Terminal
Wedge in Receptacle
Receptacle
Pin Terminal
Wedge in Plug
Plug

13A

257°F (125°C)
-67F° (-55°C)

3-Way Set

Receptacle with Strain Relief

Plug with Strain Relief

Sealing Plug
Stock No. 38491
(Deutsch No. 114017)
- Size 16-12

Connector Bodies
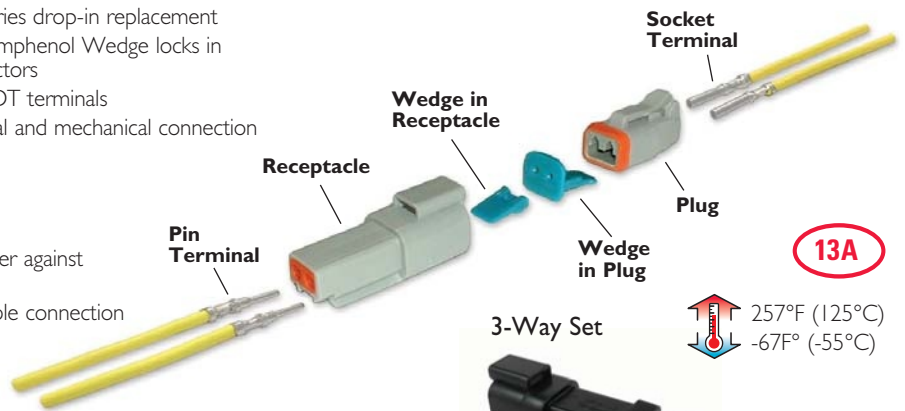
Description	Plugs Stock No.	Deutsch No.	Plugs w/ Strain Relief Stock No.	Receptacles Stock No.	Deutsch No.	Receptacles w/ Strain Relief Stock No.
2-way	38170	DT06-2S	38164	38171	DT04-2P	38169
3-way	38172	DT06-3S	38163	38173	DT04-3P	38168
4-way	38174	DT06-4S	38161	38175	DT04-4P	38167
6-way	38176	DT06-6S	38160	38177	DT04-6P	38166
8-way	38178	DT06-08SA	----	38179	DT04-08PA	----
12-way	38180	DT06-12SA	----	38181	DT04-12PA	----

Wedges

Description	Wedge in Plugs Stock No.	Deutsch No.	Wedge in Receptacle Stock No.	Deutsch No.
2-way	38182	W2S	38183	W2P
3-way	38184	W3S	38185	W3P
4-way	38186	W4S	38187	W4P
6-way	38188	W6S	38189	W6P
8-way	38190	W8S	38191	W8P
12-way	38192	W12S	38193	W12P

Socket Terminals for Plugs

Wire Range AWG	Loose Piece Stock No.	Reel Stock No.	Deutsch No.
16-18	38194	38194R	1062-16-0122
14-16	38196	38196R	1062-14-0122

Pin Terminals for Receptacles

Wire Range AWG	Loose Piece Stock No.	Reel Stock No.	Deutsch No.
16-18	38195	38195R	1060-16-0122
14-16	38197	38197R	1060-14-0122

Solid Contacts

Size	Wire Gauge	Socket	Pin
16	20-16	31133	31134

LIGHTED AMPHENOL AT CONNECTORS |

- Highly visible LED 2 position
- Shows when connector is "on"
- Environmentally sealed for harsh environments
- Plug and play - assembled the same as a standard connector

Stock No. 38364
Stock No. 38368

Stock No.	Volts	Ampehenol Part No.
38364	12	AT06-2S-LED1201
38368	24	AT06-2S-LED2401
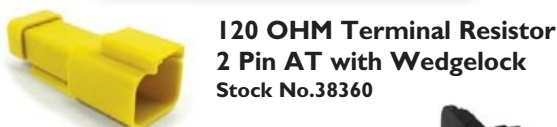
120 OHM Terminal Resistor 2 Pin AT with Wedgelock
Stock No.38360

Wedgelock
Stock No. 38370

Visit www.waytekwire.com for complete tool descriptions

CRIMPERS USED FOR AMPHENOL SERIES |

	Stock No.	Deutsch No.	Features
Crimper	613	----	Crimps Amphenol terminals 16-14 ga 16 contact
Crimper	618	----	For Amphenol AT Series and Deutsch DT Series DTT12-00 Crimps 12 ga terminals
Crimper	634	----	Crimps 20-12 ga terminals
Crimper	635	----	Crimps 22-20 ga solid contacts
Deutsch Removal Tool	550	DT-RT1	For AT/DTV/ATP
Amphenol AT Removal Tool	548	ATRT-100	
Crimper	636	----	Size 20 Amphenol terminals
Crimper	637	----	Crimps wire gauge 20-18
Crimper	619	----	Crimps closed barrel terminals

DELPHI HARSH ENVIRONMENT SERIES (HES) CONNECTION SYSTEM | Deutsch HDP compatible.

Connector Bodies

Receptacle for Male Terminals			Plug for Female Terminals			# of cavities	Terminals Required	Cable Type	Seal Color
Waytek Stock No.	Delphi Stock No.	Deutsch Stock No.	Waytek Stock No.	Delphi Stock No.	Deutsch Stock No.				
38764	13697108	HDP24-24-19PE	38765	13697109	HDP26-24-19SE	19	13 of size 16 6 of size 12	TXL	Blue
38766	13698346	HDP24-24-19PN	38767	13698347	HDP26-24-19SN	19	13 of size 16 6 of size 12	GXL/SXL	Orange
38772	13697102	HDP24-24-21PE	38773	13697103	HDP26-24-21SE	21	17 of size 16 4 of size 12	TXL	Blue
38774	13698340	HDP24-24-21PN	38775	13698341	HDP26-24-21SN	21	17 of size 16 4 of size 12	GXL/SXL	Orange
38780	13697104	HDP24-24-23PE	38781	13697105	HDP26-24-23SE	23	23 of size 16	TXL	Blue
38782	13698342	HDP24-24-23PN	38783	13698343	HDP26-24-2SPN	23	23 of size 16	GXL/SXL	Orange
38788	13697106	HDP24-24-29PE	38789	13697107	HDP26-24-29SE	29	6 of size 20 19 pf size 16 4 of size 12	TXL	Blue
38790	13698344	HDP24-24-29PN	38791	13698345	HDP26-24-29SN	29	6 of size 20 19 pf size 16 4 of size 12	GXL/SXL	Orange
38796	13667925	HDP24-24-31PE	38793	13667935	HDP26-24-31SE	31	31 of size 16	TXL	Blue
38798	13698338	HDP24-24-31PN	38799	13698339	HDP26-24-31SN	31	31 of size 16	GXL/SXL	Orange
38802	13653493	HDP24-24-47PE	38803	13653492	HDP26-24-47SE	47	42 of size 20 5 of size 16	TXL	Blue

ORDERING NOTES:
1. Select receptacle and plug connector from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Pin configuration is on data sheet, located on our website product page.
4. Circuit plugs are required for all unused pin locations.

Circuit Plug
Stock No. 38491

257°F (125°C)
-67F° (-55C°)
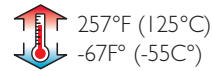
- Rugged construction to withstand harsh environments
- Provide higher current capability, improved sealing, higher terminal retention and a significant cost advantage compared to standard pin-and sleeve systems
- Shell size 24
- IP 67

Terminals

Typical Male

Typical Female

Contact Size	Approx. Wire Gage	Male Terminal Loose Piece			Female Terminal Loose Piece			Insulation Type
		Stock No.	Deutsch Stock No.	Delphi Stock No.	Stock No.	Deutsch Stock No.	Delphi Stock No.	
20	22-20	30432	1060-20-0222	13711542	30428	1062-20-0222	13711546	TXL
20	22-20	30433	1060-20-0122	13654423	30429	1062-20-0122	13654421	GXL/SXL
20	18-16	30434	1060-20-0222	13711544	30430	1062-20-0222	13711548	TXL
20	18-16	30435	1060-20-0122	13663723	30431	1062-20-0122	13663727	GXL/SXL
16	20-18	30454	1060-16-0622	13697408	30448	1062-16-0622	13697141	TXL
16	20-18	30455	1060-16-0622	13663715	30449	1062-16-0622	13663718	GXL/SXL
16	16	30456	1060-16-0622	13697409	30450	1062-16-0622	13697415	TXL
16	16	30457	1060-16-0122	13663716	30451	1062-16-0122	13663719	GXL/SXL
12	16-14	30436	1060-12-0166	13783289	30440	1062-12-0166	13783289	TXL
12	16-14	30437	1060-12-0166	13783266	30441	1062-12-0166	13783290	GXL/SXL
12	12-10	30438	1060-12-0222	13783269	30442	1062-12-0222	13783293	TXL
16	14-12	30458	1060-16-0722	13697410	30452	1062-16-0722	13697416	TXL
16	14-12	30459	1060-16-0122	13663717	30453	1062-14-0122	13663720	GXL/SXL

Contact Size	Max. Current (Amps)
20	18
16	28
12	40

PANEL MOUNT APPLICATION

Panel Mount Hex Nut
Stock No. 38493
- 24 shell size

Panel Mount Seal
Stock No. 38482
- 24 shell size
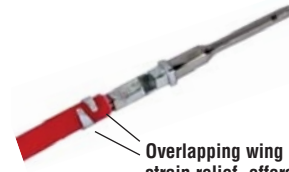
Overlapping wing design increases strain relief, offers longer insulation crimp and larger outside diameter cable range capability.

Higher Performance Terminal

- Higher current carrying capability through superior material
- Stainless steel, nickel plated terminals provide stability and protection to contact interface area
- SAE, DIN, JIS cable ranges
- HES Pin and sleeve terminals can be mixed with any MIL 39029 terminals

Crimp Tool
Stock No. 385
- Includes tool frame, case and the installation tools
- Dies sold separately
20 TXL Die **Stock No. 386**
20 GXL/SXL Die **Stock No. 387**
16 TXL Die **Stock No. 388**
16 GXL/SXL Die **Stock No. 389**
12 TXL Die **Stock No. 390**
12 GXL/SXL Die **Stock No. 391**

molex®

MOLEX MLX™ 2.13 MM CONNECTORS

- Interchangeable, intermateable and intermountable with industry standard connectors such as Mate-N-Lok®*
- Mates with existing wire harnesses, connectors, and printed circuit board (PCB) headers
- Housing material: Nylon 6/6 UL94V-2, natural color
- Pin and socket terminals can be intermixed in the same housing
- Housings will accept any industry compatible terminals

Rated up to **600V**

Assembly

Mating End
Contact Cavity
Pin Contact
Cap Housing
Silos
Socket
Back Side (Wire End)
Plug Housing

Terminals

Socket   Pin

Contacts	Current (max)	Plug Housing Stock No.	Molex No.	Amp No.	Cap Housing Stock No.	Molex No.	Amp No.
1	13.5	**38601**	50-84-1010	1-350867-0	**38651**	50-84-2010	1-350868-0
2	13.5	**38602**	50-84-1020	1-480698-0	**38652**	50-84-2020	1-480699-0
3	13.5	**38603**	50-84-1030	1-480700-0	**38653**	50-84-2030	1-480701-0
4	13.5	**38604**	50-84-1040	1-480702-0	**38654**	50-84-2040	1-480703-0
6	11	**38606**	50-84-1060	1-480704-0	**38656**	50-84-2060	1-480705-0
9	11	**38609**	50-84-1090	1-480706-0	**38659**	50-84-2090	1-480707-0
12	11	**38612**	50-84-1120	1-480708-0	**38662**	50-84-2120	1-480709-0
15	11	**38615**	50-84-1150	1-480710-0	**38665**	50-84-2150	1-480711-0

Wire Ga	Type	Stock No.	Molex No.	Amp Cross
20-14	Socket	**31097**	02-08-1002	350550-1
20-14	Pin	**31098**	02-08-2004	350705-1

Note:
Socket and pin terminals are designed for use with Molex crimping tools (Stock No. 539 & 579) and/or industry compatible crimping tools.

TOOLING

Molex Crimping Tool
Stock No. 579
(Molex No. 64016-0204)
- Crimps 20-14 ga pin and socket terminals

Economy Crimping Tool
Stock No. 539
(Molex No. 63811-1000)
- Crimps 24-14 ga pin and socket terminals

Extraction Tool
Stock No. 578
(Molex No. 11-01-0168)
- For removing pin or socket terminals from connector bodies

Crimp Tool Frame
Stock No. 560
- Use with die set 558 for complete tool assembly

Die Set for MLX™
Stock No. 558
- Crimps 22-14 ga pin and socket terminals

Mate-N-Lok is a registered trademark of Tyco Electronics

molex

MX150™ SEALED CONNECTORS

- Designed primarily for thin-walled SAE automotive style wire
- Environmentally sealed
- Superior performance under submersed water conditions
- Terminal position assurance components and the simple crimp, poke and plug application eliminate the need for time-consuming and costly assembly
- Terminals are simply crimped and poked into the housings
- No additional wire seals, wedge locks or CPA locks are required
- IP6K7 and IP6K9K rated
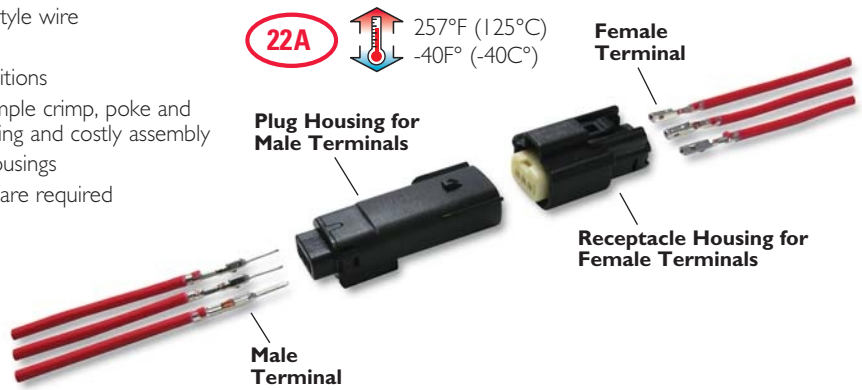
22A 257°F (125°C) -40F° (-40C°)

Plug Housing for Male Terminals

Female Terminal

Receptacle Housing for Female Terminals

Male Terminal

Connector Bodies

Description	Wire Range AWG	Plug Housing for Male Terminals Stock No.	Molex No.	Receptacle Housing for Female Terminals Stock No.	Molex No.
1x3	22-14	**38400**	33481-0301	**38401**	33471-0301
1x4	22-14	**38402**	33481-0401	**38403**	33471-0401
1x6	22-14	**38404**	33481-0601	**38405**	33471-0601
2x2	22-14	**38406**	33482-0401	**38407**	33472-0401
2X3	22-14	**38408**	33482-0601	**38409**	33472-0601
2x4	22-14	**38410**	33482-0801	**38411**	33472-0801
2x6	22-14	**38412**	33482-1201	**38413**	33472-1201
2x8	22-14	**38414**	33482-1601	**38415**	33472-1601
2x10	22-14	**38416**	33482-2001	**38417**	33472-2001

READY TO ORDER:

1. Select connector body style (receptacle or plug) from chart.
2. Select number of terminals needed – one terminal for each contact location.
3. Blank circuit plugs are required for all unused pin locations.
4. MX150 crimping tool must be used to assure a good seal.

Female

Male

Terminals

Wire Range AWG	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Molex No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Molex No.
22	**30094**	**30094R**	33000-1003	**30095**	**30095R**	33012-3003
20	**30096**	**30096R**	33000-1002	**30097**	**30097R**	33012-3002
18	**30096**	**30096R**	33000-1002	**30097**	**30097R**	33012-3002
16	**30096**	**30096R**	33000-1002	**31095**	**31095R**	33012-3001
14	**31094**	**31094R**	33000-1001	**31095**	**31095R**	33012-3001

All terminals are tin-plated copper.
Use with wire that is 1.50 - 2.50 mm O.D.

*Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.

Blank Circuit Plugs

Stock No.	Molex No.	Package
39021	34345-0001	Each

MX150™ Tools

Crimp Tools
- Assures perfect crimp for male and female terminals

Wire Range AWG	Stock No.	Molex No.
22-18 female terminals	**595**	63811-6000
16-14 female terminals	**596**	63811-5900
22-18 male terminals	**597**	63811-2600
16-14 male terminals	**598**	63811-2400

Extraction Tool
Stock No. 488
(Molex No. 63813-1500)
- Extracts terminals from sealed connector assembly

Needle Nose Pliers
Stock No. 494
- Unlocks TPA to release sealed connector assembly

molex

MX150L™ SEALED CONNECTORS

- Waterproof, environmentally sealed interconnection system designed to withstand harsh conditions
- Each housing comes pre-assembled with all components
- No additional wire seals, wedge locks or CPA locks are required

Application

The MX150L is ideal for automotive, marine, off-road, construction, and agricultural equipment, as well as truck, bus and RV applications; and it accommodates a wide range of insulated wire styles from SAE to UL.

- IP67 rated

Male Terminal

Plug Housing for Male Terminals

Receptacle Housing for Female Terminals

Female Terminal

18A

257°F (125°C)
-40F° (-40C°)
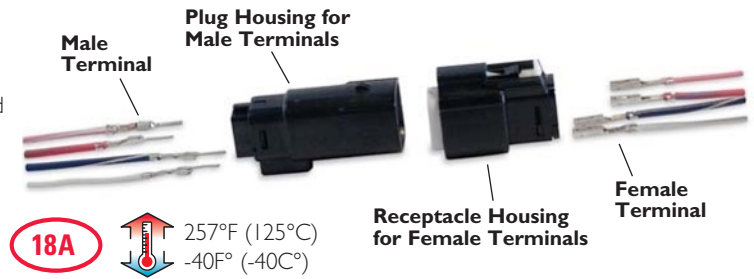
Assembly Instructions

1. Crimp terminal
2. Insert (poke) crimped terminal lead into the housing
3. Place TPA into its final lock position

Call 800-328-2724 to special order other positions - up to 16.

MX150L™ Tools

Hand Crimper Stock No. 487
(Molex No. 63811-4400)
- Crimps 22-14 ga male and female terminals
- Assures a perfect crimp every time

Economy Hand Crimper Stock No. 489
(Molex No. 64016-0035)
- Crimps 22-14 ga male and female terminals

Extraction Tool Stock No. 488
(Molex No. 63813-1500)
- Extracts terminals from sealed connector assembly

Needle Nose Pliers Stock No. 494
- Unlocks TPA to release sealed connector assembly

Connector Bodies

Description	Wire Range AWG	Plug Housing for Male Terminals Stock No.	Molex No.	Receptacle Housing for Female Terminals Stock No.	Molex No.
1x2	22-18	38300	19419-0008	38301	19418-0008
1x2	16-14	38350	19419-0007	38351	19418-0007
2x2	22-18	38302	19419-0005	38303	19418-0005
2x2	16-14	38352	19419-0004	38353	19418-0004
2x3	22-18	38304	19419-0012	38305	19418-0011
2x4	22-18	38306	19419-0001	38307	19418-0001
2x4	16-14	38356	19419-0002	38357	19418-0002

ORDERING NOTES:
1. *Select connector body style (receptacle or plug) from chart.*
2. *Select number of terminals needed – one terminal for each contact location.*
3. *Blank circuit plugs are required for all unused pin locations.*
4. *MX150L™ crimping tool must be used to assure a good seal.*

Female

Male

Terminals

Wire Range AWG	Male Terminal Loose Piece Stock No.	Reel Stock No.*	Molex No.	Female Terminal Loose Piece Stock No.	Reel Stock No.*	Molex No.
22-18	30080	30080R	19417-0024	30081	30081R	19420-0002
16-14	31080	31080R	19417-0011	31081	31081R	19420-0001

* *Terminals available on reels by Stock No. specified in table above. Special tooling needed for use of reels not available from Waytek.*

Panel Mountable Plug Housings

Through Hole Mount

Rear Mount Flange

Gasket

Desc.	Plug Housing Through Hole Mount* Stock No.	Molex No.	Plug Housing Rear Mount Flange* Stock No.	Molex No.	Gasket Stock No.	Molex No.
2x2	38450	19429-0025	----	----	38470	19427-0024
2x3	38451	19429-0028	----	----	38471	19427-0021
2x4	----	----	38462	19429-0011	38472	19427-0022

* *For 22-14 ga wire*

Blank Circuit Plugs

Stock No.	Molex No.	Package
38390	19417-0119	10 Per Strip

molex®

2.5 MM MIZU-P25™ MINI WATERPROOF CONNECTORS

- 2.50 mm pitch
- Water-proof protection
- Integral housing seal
- 3A per circuit
- 94V-0 flammability rating
- User friendly friction locks save space
- Polarizing ribs prevent incorrect terminal insertion
- Secure connection and latch protection
- Provides high pressure and small deflection for high vibration applications
- Ideal for mirror motor harnesses, switches and wipers
- IP67 rated

221°F (105°C)
-40F° (-40C°)

3A
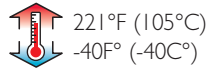
Plug Housing for Male Terminals
Stock No. 38682

Receptacle Housing for Female Terminals
Stock No. 38683

Connector Bodies

Circuits	Wire Ga	Plug Housing for Male Terminals		Receptacle Housing for Female Terminals	
		Stock No.	Molex No.	Stock No.	Molex No.
2	22-20	**38680**	522660211	**38681**	522130211
3	22-20	**38682**	522660311	**38683**	522130311
4	22-20	**38684**	522660417	**38685**	522130417

Extraction Tool
Stock No. 617
(Molex No. 638132700)

Hand Crimp Tool
Stock No. 614
(Molex No. 0638118600)

Terminals

Male   Female

Wire Range AWG	Male Terminal Loose Piece		Female Terminal Loose Piece	
	Stock No.	Molex No.	Stock No.	Molex No.
22-20	**31110**	501478100	**31111**	501488100

MINI FIT JR. CONNECTORS

- 4.20 mm pitch
- Designed for high current/high density wire to wire and wire to board applications
- Fully polarized housings prevent mismating
- Positive locking thumb latch assures connectors are fully mated
- 6/6 nylon housing material
- 94V-2 flammability rating
- 9 amps max per circuit

221°F (105°C)
-40F° (-40C°)

600V
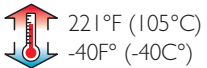
Receptacle Housings
- Mate with plug housings or headers

Stock No. 38702

Circuits	Stock No.	Molex No.
2 dual row	**38700**	39012020
4 dual row	**38701**	39012040
6 dual row	**38702**	39012060
8 dual row	**38703**	39012080
10 dual row	**38704**	39012100

Panel Mount Plug Housings
- Mate with receptacle housings

Stock No. 38712

Circuits	Stock No.	Molex No.
2 dual row	**38710**	39012021
4 dual row	**38711**	39012041
6 dual row	**38712**	39012061
8 dual row	**38713**	39012081

Free Hanging Plug Housings
- Mate with receptacle housings

Stock No. 38722

Circuits	Stock No.	Molex No.
2 dual row	**38720**	39013023
4 dual row	**38721**	39013043
6 dual row	**38722**	39013063
8 dual row	**38723**	39013083

Terminals

Male   Female

Wire Range AWG	Male Terminal Loose Piece		Female Terminal Loose Piece	
	Stock No.	Molex No.	Stock No.	Molex No.
24-18	**31112**	39000041	**31113**	39000039

- Receptacle housings accept female terminals
- Plug housing and headers accept male terminals

Extraction Tool
Stock No. 616
(Molex No. 0011030044)

Hand Crimp Tool
Stock No. 615
(Molex No. 0638190900)

Manufacturers
3M
Amphenol
Anderson Power Products
Blue Sea Systems
Bosch - Tyco
Carling Technologies
Cole Hersee-A Littelfuse Brand
DSG Canusa - Shawcor
Delphi
E-Switch
EATON
Mechanical
Molex
Picker Com Products MP
Picker Components
Pollak
Song Chuan
White-Rodgers Emerson

New Products
12-10GA PERMA-SEAL HEAT SHRINK RING TERMINAL STUD SIZE 5/16
Item#: 32804
Manufacturer Item: 19164-0064
Manufacturer: MOLEX
Avail #: 1688.00
Data Sheet
$0.3487 EACH

Featured Products
CIRCULAR RECEPTACLE CONNECTOR 31 CIRCUITS MOLEX 84511-0005
Item#: 38490
Manufacturer Item: 84511-0005
Manufacturer: MOLEX
Avail #: 55.00

Visit www.waytekwire.com to see more Molex parts.

Side tabs:
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

Terminals & Connectors

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Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

XRC™ CONNECTORS | Deutsch HDP compatible.

- Extra Rugged Circular Connectors from Molex
- Sealed for protection against dust and water
- Offered in two shell sizes: 18 and 24
- Available in 14 or 31 circuits
- Standard and reverse terminal genders allow for custom polarization
- IP 67 rated
- Interchangeable with Deutsch HDP Connectors
- Collar allows for easy gripping

257°F (125°C)
-40F° (-40C°)

13A

Application
- In-line or panel-mount applications
- Needs hex nut and panel mount seal (sold seperately)

Plug Body
Stock No. 38476

Receptacle Body
Stock No. 38486

No Collar

Collar
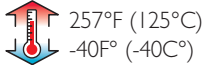
Connector Bodies

Circuits	Shell Size	Plug Stock No.	Molex No.	Deutsch No. Normal Seal	Deutsch No. Extra Thin Seal	Terminal Required	Receptacle Stock No.	Molex No.	Deutsch No. Normal Seal	Deutsch No. Extra Thin Seal	Terminal Required
14	18	38475*	84501-0001	HDP26-18-14PN-L017	HDP26-18-14PE-L017	Pin	38485*	84508-0001	HDP24-18-14SN-L017	HDP24-18-14SE-L017	Socket
14	18	38476*	84507-0012	HDP26-18-14SN-L017	HDP26-18-14SE-L017	Socket	38486*	84502-0008	HDP24-18-14PN-L017	HDP24-18-14PE-L017	Pin

Circuits	Shell Size	Plug Stock No.	Molex No.	Deutsch No. Thin Seal	Deutsch No. Extra Thin Seal	Terminal Required	Receptacle Stock No.	Molex No.	Deutsch No. Thin Seal	Deutsch No. Extra Thin Seal	Terminal Required
31	24	38477	84505-0001	HDP26-24-31PT	HDP26-24-31PE	Pin	38487	84506-0001	HDP24-24-31ST	HDP24-24-31SE	Socket
31	24	38478	84510-0004	HDP26-24-31ST	HDP26-24-31SE	Socket	38488	84511-0004	HDP24-24-31PT	HDP24-24-31PE	Pin
31	24	38479**	84505-0003	HDP26-24-31PT-L017	HDP26-24-31PE-L017	Pin	38489**	84506-0003	HDP24-24-31ST-L017	HDP24-24-31SE-L017	Socket
31	24	38480**	84510-0005	HDP26-24-31ST-L017	HDP26-24-31SE-L017	Socket	38490**	84511-0005	HDP24-24-31PT-L017	HDP24-24-31PE-L017	Pin

* With collar.
** With collar and compatible with backshell.

Pin Terminals

Pin Wire Range AWG	Pin Terminal Stock No.	Reel Stock No.	Molex No.	Deutsch No.	Insulation O.D.	Tool Required Stock No.
18-14	31106	31106R	84524-0012	1060-14-0122	.095-.150	607
18-14	31114	31114R	84590-0022	1060-16-0122	.075-.150	606
18-16	31104	31104R	84524-0004	1060-16-0622	.055-.085	608

All dimensions in inches.

Pin Terminal

Socket Terminals

Socket Wire Range AWG	Socket Terminal Stock No.	Reel Stock No	Molex No.	Deutsch No.	Tool Required Stock No.
18-14	31107	31107R	84525-0025	1062-14-0122	607
18-14	31115	31115R	84525-0017	1062-16-0122	606
18-16	31105	31105R	84525-0009	1062-16-0622	608
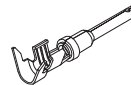
Socket Terminal

Backshell
Stock No. 38494
(Molex No. 84537-0003)
- For 24 shell size housing with collar
- Unique notches on the collar increase strain relief and protection
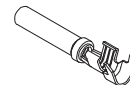
Crimp Tool

Tool Stock No.	Terminals
606	Crimps 31114 and 31115
607	Crimps 31106 and 31107
608	Crimps 31104 and 31105

Sealing Plug
Stock No. 38491
(Deutsch No. 114017)
- Size 16-12

Deutsch Contact Removal Tool
Compatible with:
- Delphi HES Connectors
- Molex XRC™ Connectors
- Amphenol AHD Connectors
- Deutsch HDP Connectors

Stock No.	Contact Size	Wire Gauge	Color
631	12	14-12	Yellow
632	16	18-16	Blue
633	20	24-20	Red

Extraction Tool
Stock No. 609

Stock No. 632

PANEL MOUNT APPLICATION

Panel Mount Hex Nut
Stock No. 38492
- 18 shell size
Stock No. 38493
- 24 shell size

Panel Mount Seal
Stock No. 38481
- 18 shell size
Stock No. 38482
- 24 shell size

MULTIPOLE POWER® CONNECTORS

- Provides a quick disconnect for power distribution systems
- Housings mate together, with same color connector for plug and receptacle
- Protective connector covers for all sizes are available, as shown
- Available in kits (one housing and two contacts), or assemble your own connector by purchasing two contacts and one housing separately

APP Your Best Connection — An IDEAL Company

NEW **600V**

Reducing Bushings

- Optional reducing bushings for SB® series connectors assure proper fit when crimping contacts to smaller cable sizes

Gauge	Stock No.	
		Anderson
From 6 to 8	**37791**	5912
From 6 to 12-10	**37792**	5910
From 6 to 16-14	**37793**	5913
From 1/0 to 1	**37794**	5687
From 1/0 to 6	**37795**	5663
From 1/0 to 10	**37796**	5648
From 2/0 to 1/0	**37797**	5918

Red Connector Covers

50 Series **Stock No. 37701**

175 Series **Stock No. 37711**

350 Series **Stock No. 37721**

- Black available on special order basis

Black Connector Cover

120 Series **Stock No. 37704**

Series Boots

Marked Load

Marked Source

NEW

Series	Marked Load Stock No.	Marked Source Stock No.
50 Series	**37713**	**37714**
175 Series	**37700**	**37710**
Connectors sold seperately		

SB® 50 Series

	Gauge	Stock No.				
		Kit	Housing	Anderson	Contact	Anderson
	6	**37767**	**37809**	992G1	**37742**	5900
	8	**37768**	**37809**	992G1	**37737**	5952
	12-10	**37769**	**37809**	992G1	**37743**	5915
Gray	6	**37708**	**37808**	992	**37742**	5900
	8	**37705**	**37808**	992	**37737**	5952
	12-10	**37709**	**37808**	992	**37743**	5915

50 amps maximum, for 6 gauge wire. 1 7/8" overall length.

SB® 120 Series

	Gauge	Stock No.				
		Kit	Housing	Anderson	Contact	Anderson
Red	4	**37850**	**37810**	6810	**37748**	1319
	6	**37851**	**37810**	6810	**37753**	1319
	2	**37852**	**37810**	6810	**37744**	1319
Gray	4	**37853**	**37811**	6810	**37748**	1319
	6	**37854**	**37811**	6810	**37753**	1319
	2	**37855**	**37811**	6810	**37744**	1319
Blue	4	**37856**	**37812**	6810	**37748**	1319
	6	**37857**	**37812**	6810	**37753**	1319
	2	**37858**	**37812**	6810	**37744**	1319

120 amps maximum, 2 1/2" overall length.

SB® 175 Series

	Gauge	Stock No.				
		Kit	Housing	Anderson	Contact	Anderson
Red	4	**37702**	**37802**	949	**37749**	1384
	2	**37732**	**37802**	949	**37747**	1383
	1/0	**37712**	**37802**	949	**37745**	1382
Gray	4	**37707**	**37807**	940	**37749**	1384
	2	**37738**	**37807**	940	**37747**	1383
	1/0	**37718**	**37807**	940	**37745**	1382
Blue	4	**37706**	**37806**	941	**37749**	1384
	2	**37736**	**37806**	941	**37747**	1383
	1/0	**37716**	**37806**	941	**37745**	1382

175 amps maximum, 3 1/8" overall length.

SB® 350 Series

	Gauge	Stock No.				
		Kit	Housing	Anderson	Contact	Anderson
Red	2/0	**37722**	**37842**	913	**37822**	907
Gray	2/0	**37728**	**37848**	906	**37822**	907
Blue	2/0	**37726**	**37846**	912	**37822**	907

350 amps maximum, for 2/0 gauge wire. 4 1/4" overall length.

POWERPOLE® CONNECTORS

- Each Powerpole® module is a genderless, single-pole connector half, which can be dovetailed
- Can be stacked or used in line
- For a complete system, order one contact with each housing
- 15, 30 and 45 amp sizes use the same housings, but different contacts

APP Your Best Connection — An IDEAL Company

600V

High Current Capacity

Stackable
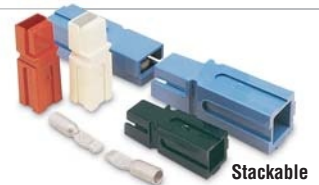
Housing and Contacts

Amp Rating	Housing Color - Stock No.									Contact Stock No.	Anderson	Wire Gauge
	Black	Anderson	Red	Anderson	White	Anderson	Green	Anderson	Blue	Anderson			
15	**37750**	1327G6	**37752**	1327	**37759**	1327G7	**37755**	1327G5	---	----	**37740**	1332	20-16
30	**37750**	1327G6	**37752**	1327	**37759**	1327G7	**37755**	1327G5	----	----	**37741**	1331	16-12
45	**37750**	1327G6	**37752**	1327	**37759**	1327G7	**37755**	1327G5	----	----	**37746***	261G2-LPBK	14-10
75	**37760**	5916G4	**37762**	5916G7	----	----	----	----	**37766**	5916	**37742**	5900	6
120	**37770**	1321G1	**37772**	1321G3	----	----	----	----	**37776**	1321	**37744**	1319	2
180	**37780**	1381G1	**37782**	1381G3	----	----	----	----	**37786**	1381	**37745**	1382	1/0

* U barrel open contact. All other contacts are closed.

Crimping Tools

Stock No. 454
15 and 30 amp series

Stock No. 449
45 amp series

Stock No. 455
75 amp series

Powerpole® Housing Plugs

- Can be mounted in a variety of configurations for modular assemblies
- One housing plug comes with a latch to mate with the other housing plug for a locked connection
- Place a spacer key in an empty contact slot and secure assembly with a retaining pin
- For use with Powerpole connectors 15 to 45 amps

Housing Plug – no latch
Stock No. 37787

Housing Plug – latched
Stock No. 37788

Short Spacer Key
Stock No. 37790

Long Spacer Key
Stock No. 37789

Retaining Pin
Stock No. 37739

Cable Clamp & Hardware Pack
Stock No. 37729

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

COMPARTMENT KITS

Small Slide Rack
Stock No. 22264
- Empty sliding drawer cabinet holds 4 of 22262 compartment boxes
- Dimensions:
  D 11¾ in (298 mm)
  H 11¼ in. (285 mm)
  W 15¼ in. (387 mm)

Small Scoop 24 Compartment Box
Stock No. 22262
- Strong piano hinged steel compartment
- Durable gray powder coat finish
- Dimensions:
  D 9¼ in. (234 mm)
  H 2 in. (50 mm)
  W 13⅜ in. (339 mm)

Large Slide Rack
Stock No. 22263
- Empty sliding drawer cabinet holds 4 of 22261 compartment boxes
- Dimensions:
  D 15¾ in. (400 mm)
  H 15 in. (381 mm)
  W 20 in. (508 mm)

Large Scoop 24 Compartment Box
Stock No. 22261
- Strong piano hinged steel compartment
- Durable gray powder coat finish
- Dimensions:
  D 12 in. (304 mm)
  H 3 in. (76 mm)
  W 18 in. (457 mm)

CLEAR PLASTIC COMPARTMENT BOXES

- High strength, oil resistant, polypropylene material
- Ideal for organizing and storing small parts
- Convenient fixed compartment sizes or adjustable type with dividers to fit your requirements
- Optional steel racks hold up to five boxes for efficient storage

Yellow compartment boxes are available on special order.

Large Plastic Compartment Boxes
- 13⅛" wide x 2⁵⁄₁₆" high x 9" deep (terminals not included)

Stock No.	Compartments	W x D
620	6	2¹⁄₁₆ x 8½
621	12	2¹⁄₁₆ x 4
622	16	3⅛ x 2⅙
623	18	2¹⁄₁₆ x 2¹⁄₁₆ & 2¹⁄₁₆ x 4
624	24	2¹⁄₁₆ x 2¹⁄₁₆
625	Up to 24	Adjustable

Small Plastic Compartment Boxes
- 11" wide x 1¾" high x 6¾" deep

Stock No.	Compartments	W x D
601	6	1¾ x 6¼
602	12	1¾ x 3⅛
603	13	1¾ x 10½, 1¾ x 2⅝ & 1¾ x 1⅜
604	18	1¾ x 1⁹⁄₁₆
605	Up to 18	Adjustable

Steel Rack Units
- Holds up to five plastic compartment boxes
- Removable handle
- Slots on back for wall mounting

For small plastic boxes
Stock No. 611
11¼" wide x 10¾" high x 6¾" deep

For large plastic boxes
Stock No. 612
13½" wide x 13¼" high x 9⅛" deep

Box configuration, total compartments

6   12   13
16   18   24
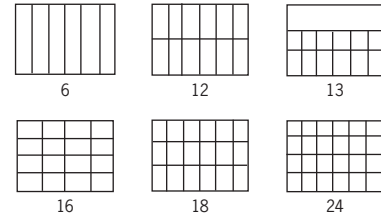
CIRCUIT TESTERS

	Stock No.	Tests
KLEIN TOOLS	505	6-24V AC or DC circuits 36" test leads with alligator clip
KLEIN TOOLS	527	For continuity of circuit with power off 36" test leads with alligator clip Uses AAA battery (not included)

DIGITAL MULTIMETERS

	Stock No.	Ranging
IDEAL	304	660 A True RMS clamps For a variety of industrial and commerical environments 600V
IDEAL	316	Manual ranging 600V

WAYTEK CRIMP TOOL FRAME AND DIES

Master Mobile Crimp Tool Kit
Stock No. 569
- Includes Crimp Tool Frame 560, 7 Die Sets, 561, 562, 563, 564, 565, 566 and 567, plus a high quality carrying case

Build Your Own Customized Crimp Tool Kit!
PARTS SOLD SEPARATELY
- Individual parts are sold separately to suit your specific needs
- Customized kit is much less expensive than multiple individual tools

Tool Frame
Stock No. 560
- Reliable, safe and comfortable to use
- Fast and simple exchange of crimp dies
- Dies sold separately

Carry Case
Stock No. 568
- Empty carrying case for 560 tool frame and 8 dies
- Purchase tool frame and dies separately

Crimp Tool Die Sets

Die Set for MLX™
Stock No. 558
- 22-14 ga open barrel non-insulated terminals

Die Set for 150 & 280 Metri-Pack
Stock No. 559
- 18-10 ga open barrel non-insulated terminals
- Crimps terminal and seal simultaneously

Die Set for Weather Pack
Stock No. 564
- 20–12 ga
- Crimps terminal and seal simultaneously

Die Sets for Insulated Terminals

Stock No. 561
- 26–22 ga and 12–10 ga insulated terminals and splices

Stock No. 562
- 22–14 ga insulated terminals and splices

Die Sets for Non-Insulated Terminals

Stock No. 563
- 22–10 ga non-insulated terminals, lugs and splices

Stock No. 567
- 22–10 ga open barrel non-insulated 1/4" terminals, lugs and splices
- Crimps terminal and seal simultaneously
- 14 ga 56 Series terminals

Die Sets for Heat Shrink Terminals

Stock No. 565
- 22–18 ga and 12–10 ga heat shrink terminals

Stock No. 566
- 22–14 ga heat shrink terminals

WAYTEK STRIPPERS

Self-Adjusting Cut and Strip Tool
- Strips wires from 34-8 ga wire (0.02-10mm) without adjustment
- Replacement cassettes available and quickly changed as needed with ease

Straight Angle Stock No. 555

Right Angle Stock No. 570

Stock No. 555B
- Replacement straight blade cassette is for PVC, THHN, THHW
- Self-adjusting cut and strip tool (555 & 570)

Stock No. 555BV
- Replacement "V" blade cassette is for Teflon
- Self-adjusting cut and strip tool (555 & 570)

Heavy Duty Cable Stripping Tool
Stock No. 556
- Strips cables of all insulation types
- Features two interchangeable cable guides for a cable capacity of 0.18" up to 1.57" (4.5-40mm)
- Three blade positions to provide circular, lengthwise or spiral cuts
- Replacement blade contained inside the tool

Stock No. 556B
- Replacement blade for heavy duty cable stripping tool (556)

Precision Stripping Tool
Stock No 557
- 9-position stripping tool
- Strips jackets of most cables up to 0.43" (11mm) with insulation thickness up to .04"

Stock No. 557B
- Replacement blade for precision stripping tool (557)

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

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Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

HEAVY DUTY CRIMPERS

	Stock No.	Crimps
3M™ TR 490 — Ratcheting	434	22-10 ga insulated and non-insulated terminals
Thomas&Betts WT112M — Plier Type Crimper/Wire Cutter	457	22-10 ga insulated and non-insulated terminals
KLEIN TOOLS J1005 — Journeyman™	522	22-10 ga insulated and non-insulated solderless terminals

	Stock No.	Crimps
Thomas&Betts WT 2000 — Ratcheting Crimper-Cutter-Stripper	458	22-10 ga insulated and non-insulated terminals
Ratcheting	535	8-2 ga insulated and non-insulated terminals
ŒTIKER Battery Lug Crimpers Ergonomic cushioned grips - ratcheting (NEW)	680	1 - 6 ga - open barrel
	681	3/0 & 4/0 ga - diamond
	682	1/0 - 3/0 ga - diamond
	683	1 - 8 ga - diamond

ECONOMICAL CRIMPERS

	Stock No.	Crimps
eclipse All-In-One Crimper-Cutter-Stripper	466	22-10 ga insulated and non-insulated terminals
3M™ TH 440 — Crimper-Cutter-Stripper	403	22-10 ga insulated and non-insulated terminals, and 7-8 mm ignition parts

	Stock No.	Crimps
KLEIN TOOLS	506	Crimps 7-8 mm insulated and non-insulated terminals, lugs & splices. Cuts and strips 22-8 ga solid and 26-10 ga stranded wire
	533	Crimps 22-14 ga Weather Pack terminals and seals. Crimps 22-14 ga sealed Metri-Pack 150 and 280 series terminals
Ratcheting (NEW)	491	26-14 ga insulated terminals

SPECIALTY CRIMPERS

	Stock No.	Crimps
3M™ TR 482 — Ratcheting	405	22-10 ga insulated terminals. Ideal for nylon insulated terminals with extra sleeve. Double crimps both barrel and insulation grip
KLEIN TOOLS T1710 — Ratcheting	513	22-10 ga insulated terminals. Meet or exceed MIL-SPEC pull-out tests
Thomas&Betts ERG-4001 — Ratcheting	584	22-10 ga insulated terminals
Thomas&Betts W111M — Plier Type Crimper/Wire Cutter	456	22-10 ga non-insulated terminals

	Stock No.	Crimps
eclipse Ratcheting, Fully Insulated Flag Crimper	495	Crimps Stock No. 30535 & 31535
	428	Non-insulated flag terminals, open and closed barrel terminals 22-10 ga
	419	24-14 ga U–Barrel terminals
	638	12 ga. closed barrel Amphenol terminals

CUTTERS

	Stock No.	Cuts
Battery Cable Cutter	437	Battery cable up to 2/0 ga
KLEIN TOOLS 63020	526	Anvil cutter for up to 12 ga solid and stranded copper wire. Curved cutter for up to 8 ga solid and stranded copper wire
eclipse Economy Cable Cutter	469	Copper and aluminum cable up to 1 ga
KLEIN TOOLS D228-8	498	Diagonal cutting pliers
Heavy Duty Cutter	438	Up to 250mcm copper cable. Removable blades can be sharpened

	Stock No.	Cuts
KLEIN TOOLS J63050	517	Up to 4/0 ga aluminum, 2/0 ga soft copper cable and 100-pair 24 ga Communications cable
KLEIN TOOLS J248-8	514	High leverage diagonal cutting, design for confined spaces
IDEAL 45-123 Wire Cutter	465	Cuts up to 1/2" stranded wire
KLEIN TOOLS J213-9NE	529	High leverage side cutting design
KLEIN TOOLS	528	Midget diagonal cutting pliers 4.5" long, ideal for close quarters and small cuts

WIRE STRIPPERS

	Stock No.	Strips
IDEAL 45-092	444	22-8 ga wire
eclipse	399	20-10 ga wire
KLEIN TOOLS 11055 Klein-Kurve™	519	Strips and cuts 18-10 ga solid wire 20-12 ga stranded wire
IDEAL 45-418	448	16-8 ga stranded wire
Economy Cable Stripper	436	Up to 4/0 cable

STRIPPERS / CRIMPERS

	Stock No.	Strips / Crimps
eclipse Stripper-Crimper-Cutter	430	Strips 26-10 ga wire Crimps 22-10 ga terminals
eclipse Heavy Duty Stripper-Crimper-Cutter	439	Strips 26-10 ga wire Crimps 22-10 ga insulated terminals and 22-4 ga non-insulated terminals
3M™ TH 450	404	Strips 22-10 ga wire Crimps 22-6 ga insulated and non-insulated terminals and bare flag terminals

See wire and cable products on pages 6-13.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

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Cable Ties

Clamps & Clips

Wire & Cable

Terminals & Connectors

Tools

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Switches & Relays

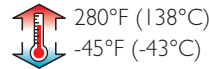Battery Management

Fuses & Circuit Breakers

Cable Ties

ADHESIVE-BACKED CLAMPS

Adhesive-backed clamps are available for a variety of applications.
The $\frac{1}{32}$" thick adhesive tape is designed to stick securely to clean, smooth surfaces.

BLACK ADJUSTABLE ADHESIVE-BACKED WIRE CLAMP

- Adjustable round wire mount
- Black molded nylon material
- Polyethylene foam tape
- $\frac{1}{32}$" thick adhesive
- Adjustable ratchet design

Stock No. 25374

Stock No.	Maximum Wire bundle	Approx. Base Width	Approx. Base Length
25370	.390	0.750	1.000
25371	.490	0.750	1.281
25372	.560	0.750	1.455
25373	.770	1.000	1.660
25374	.940	1.000	1.750

All dimensions in inches.

Stock No. 25335

Stock No. 25337

NATURAL ADHESIVE-BACKED WIRE CLAMP

- Round wire mounts
- Natural molded nylon material
- Polyethylene foam tape
- $\frac{1}{32}$" thick adhesive

Stock No. 25338

Stock No. 25336

Stock No.	Maximum Wire bundle	Approx. Base Width	Approx. Base Length	Approx. Overall Height
25335	.125	0.468	0.515	0.200
25336	.187	0.650	0.650	0.260
25337	.460	0.750	0.750	0.310
25338	.460	1.000	1.000	0.340

All dimensions in inches.

DOUBLE-BACKED PRESS CLIP

- Molded of white nylon 6/6
- High strength polyethylene foam tape
- $\frac{1}{4}$" maximum bundle
- .25" wide

Application
- Quick adhesion for holding wire and cable to any smooth, flat surface

Stock No. 25362

HEAVY DUTY MOUNTING SYSTEM | HellermannTyton

Dual Swivel Saddle Mount
- Reduces abrasion or wear by keeping items separated
- Mount rotates to any angle
- 250 lbs. minimum pull apart force
- Heat stabilized
- Assembly requires two cable ties, one around each bundle
- Works best with the High Impact Resistant Tie, Stock No. 21295, sold separately on page 144

Application
- Hold wires and hoses

Stock No. 21290
(Tyton No. DSWS50HSK2)

Typical Application

Saddle Mounts
- High impact heat stabilized black nylon
- Elevates bundles off mounting surface
  - *Fir Tree Mount:* snaps into a $\frac{1}{2}$" hole and will hold three bundles
  - *Button Head Mount:* uses button head tie (sold on page 146) through the mount and around the bundle; secures up to three bundles

Application
- Hold and protect wires, cables, tubing, conduit, etc.

Fir Tree Mount Stock No. 21291
(Tyton No. S3STM500HIRHSC2)

Button Head Tie Mount Stock No. 21292
(Tyton No. MSBT1200HIRHSH1)

Typical Application

NYLON CLAMPS

White Stock No.	Black Stock No.	Size in.	Typical Dimensions			
			A	B	C	D
Light Duty 3/8" - Width						
25000	25050	1/8	0.125	0.115	0.325	3/8
25001	25051	3/16	0.187	0.172	0.378	3/8
25002	25052	1/4	0.250	0.234	0.409	3/8
25003	25053	5/16	0.312	0.279	0.441	3/8
25004	25054	3/8	0.375	0.359	0.471	3/8
25005	25055	7/16	0.437	0.422	0.519	3/8
25006	25056	1/2	0.500	0.484	0.550	3/8
Heavy Duty 1/2" - Width						
25057	25057	1/8	0.125	0.115	0.360	1/2
25008	25058	3/16	0.187	0.172	0.423	1/2
25009	25059	1/4	0.250	0.234	0.457	1/2
25010	25060	5/16	0.312	0.297	0.498	1/2
25011	25061	3/8	0.375	0.359	0.529	1/2
25012	25062	7/16	0.437	0.422	0.560	1/2
25013	25063	1/2	0.500	0.484	0.592	1/2
25014	25064	9/16	0.563	0.547	0.623	1/2
25015	25065	5/8	0.625	0.609	0.654	1/2
25016	25066	11/16	0.687	0.672	0.752	1/2
25017	25067	3/4	0.750	0.734	0.783	1/2
----	25068	13/16	0.812	0.797	0.814	1/2
25019	25069	7/8	0.875	0.859	0.845	1/2
25020	25070	1	1.000	0.984	0.908	1/2
25021	25071	1 1/8	1.125	1.102	0.970	1/2
25023	25073	1 1/4	1.250	1.227	1.062	1/2
25025	25075	1 1/2	1.500	1.477	1.187	1/2

All dimensions in inches.

Open position — A

Closed position — B

13/64 dia. — D
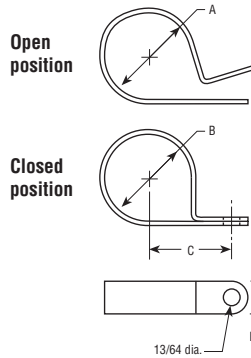
Stock No. 25013

Stock No. 25000

NYLON CABLE CLAMP
- High quality nylon
- Molded in open position for easy assembly
- Beveled inner edges to prevent abrasion

Application
- Secure cable, tubing, wire, fiber optics

185°F (85°C)
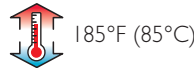
Stock No. 25067

Stock No. 25052

METAL CLAMPS

Nominal Size	E	Stock No.
1/4	0.529	25204
3/8	0.592	25206
1/2	0.654	25208
5/8	0.780	25210
3/4	0.842	25212
7/8	0.889	25214
1	0.951	25216
1 1/8	1.030	25218
1 1/4	1.092	25220
1 1/2	1.217	25224
1 3/4	1.342	25228
2	1.475	25232

All dimensions in inches.

280°F (138°C)
-45°F (-43°C)
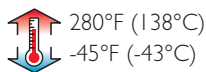
Other widths and materials may be available. Call 800-328-2724 for details.

FULLY CUSHIONED CLAMP

Stock No. 25216

Stock No. 25206

- General purpose EPDM
- Plated steel
- 1/2" wide
- .265 mounting hole diameter

Application
- Hold cable, tubing, wire, etc.

METAL CHASSIS CLAMP

Size (Length)	Stock No.
1.135	25311
1.715	25312
1.600	25313

All dimensions in inches.

- Heat treated spring steel with a black corrosion resistant finish
- Easily snaps in place

Application
- Secure wires, cables and hoses

2-TUBE CUSHIONED CABLE CLAMP

Nominal Size	Stock No.	F	G
1/2	25160	.500	.764
3/4	25161	.750	.889
1	25162	1.000	1.014
1 1/4	25163	1.125	1.159

All dimensions in inches.

Stock No. 25163

280°F (138°C)
-45°F (-43°C)

- Heavy duty
- General purpose EPDM
- Plated steel
- Molded in open position for easy assembly
- 3/4" wide
- .406 mounting hole diameter

Application
- Hold two wire assemblies or tubing

Stock No. 25161

Size — F — G

METAL CABLE CLAMP

Nominal Size	Stock No.
1/4	25400
5/16	25401
3/8	25402
1/2	25403
5/8	25404
3/4	25405
7/8	25406
1	25407

All dimensions in inches.

400°F (204°C)
65°F (18 °C)
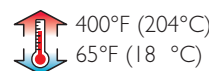
Stock No. 25401

Stock No. 25403

Stock No. 25407

- Heavy duty
- Corrosion resistant steel
- 1/2" wide
- .204" mounting hole diameter

Application
- Hold hoses, heavy cable assemblies and other similar applications

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

Tools

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Cable Ties

Clamps & Clips

METAL CABLE CLAMPS

Stock No. 25606

Stock No. 25808

Stock No. 25712

PARTIALLY CUSHIONED CABLE CLAMP

Plated Steel, Stainless Steel & Aluminum

- Heavy duty
- General purpose EPDM
- Durable cushion helps reduce vibration while protecting your product
- Open position for ease of assembly
- .265 mounting hole diameter ($\frac{1}{2}$" wide clamps)
- .406 mounting hole diameter ($\frac{3}{4}$" wide clamps)

Application

- Hold hydraulic hoses, wire harnesses and cables
- Heavy duty clamping applications

| Nominal Size | $\frac{1}{2}$" wide clamps | | | | | $\frac{3}{4}$" wide clamps | |
	E	Plated Steel Stock No.	Stainless Stock No.	Aluminum Stock No.		E	Plated Steel Stock No.
$\frac{1}{4}$	0.529	25104	25604	25804		0.639	25704
$\frac{3}{8}$	0.592	25106	25606	25806		0.702	25706
$\frac{1}{2}$	0.654	25108	25608	25808		0.764	25708
$\frac{5}{8}$	0.780	25110	25610	25810		0.827	25710
$\frac{3}{4}$	0.842	25112	25612	25812		0.889	25712
$\frac{7}{8}$	0.889	25114	25614	25814		0.952	25714
1	0.951	25116	25616	25816		1.014	25716
$1\frac{1}{8}$	1.030	25118	25618	25818		1.097	25718
$1\frac{1}{4}$	1.092	25120	25620	25820		1.159	25720
$1\frac{1}{2}$	1.217	25124	25624	25824		1.284	25724
$1\frac{3}{4}$	1.342	25128	25628	—		1.409	25728
2	1.475	25132	25632	25832		1.534	25732
$2\frac{1}{2}$	1.750	25140	25640	25840		1.784	25740
3	2.000	25148	25648	25848		2.034	25748

All dimensions in inches.

280°F (138°C)
-45°F (-43°C)

Size

E

Mounting Hole

Width
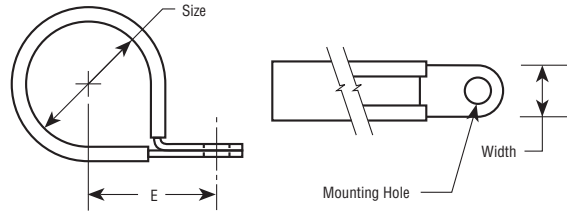
VINYL COATED CUSHIONED CLAMP

See corrugated loom products on page 70.

Stock No. 25510

- Vinyl plastisol cushion is permanently bonded to the zinc plated metal and cannot be removed
- Cushion protects and reduces vibration

Full Clamp

- Fully encloses clamping diameter
- Contour shaped clamping diameter is specially designed for ease of assembly
- .281 mounting hole diameter ($\frac{1}{2}$" wide clamps)
- .406 mounting hole diameter ($\frac{3}{4}$" wide clamps)

Application

- Hold cable assemblies, wire harnesses and hoses

Size

E

Mounting Hole

Width

| Nominal Size | $\frac{1}{2}$" wide clamps | | $\frac{3}{4}$" wide clamps | |
	E	Stock No.	E	Stock No.
$\frac{3}{8}$	0.593	25506	0.718	25556
$\frac{1}{2}$	0.656	25508	0.781	25558
$\frac{5}{8}$	0.718	25510	0.843	25560
$\frac{3}{4}$	0.781	25512	0.906	25562
1	0.906	25516	1.031	25566
$1\frac{1}{4}$	1.031	25520	1.156	25570
$1\frac{1}{2}$	1.156	25524	1.281	25574
2	1.437	25532	1.562	25582
3	1.937	25548	2.062	25598

All dimensions in inches.

180°F (82°C)
-30°F (-34°C)

Half Clamp

- Easy to assemble
- .281 mounting hole diameter

Application

- Hold wires, tubes, conduit and piping

Stock No. 25454

Size

E

Mounting Hole
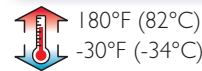
Width

Nominal Size	E	Clamp Width	Stock No.
$\frac{1}{4}$	0.500	$\frac{1}{2}$	25454
$\frac{3}{8}$	0.562	$\frac{5}{8}$	25456
$\frac{1}{2}$	0.687	$\frac{5}{8}$	25458
$\frac{5}{8}$	0.812	$\frac{5}{8}$	25460
$\frac{3}{4}$	0.875	$\frac{5}{8}$	25462
$\frac{7}{8}$	0.968	$\frac{3}{4}$	25464
1	1.062	$\frac{3}{4}$	25466

All dimensions in inches.

180°F (82°C)
-30°F (-34°C)
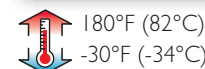
NYLON 6/6 GLASS FILLED SNAPPER HOSE & CABLE CLAMPS | HellermannTyton

221°F (105°C)
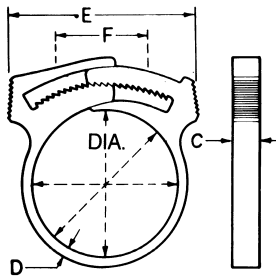
- Glass-filled black nylon can withstand high temperatures
- Adjustable; allows application after the hose is connected
- Quick, ratchet closure provides specific take-up; eliminates excessive tightening
- Closure remains in place when tightened
- Easily reopens with a lateral effort

Application
- Secure hoses
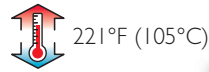
White acetal clamps may be available on special order. Call 800-328-2724 for details.

Stock No.	Size Min. Dia.	Size Max. Dia.	Typical Dimensions C	D	E	F	No. of Teeth
28501-1.25	0.275	0.297	0.150	0.042	0.491	0.408	8
28501-1.5	0.314	0.350	0.147	0.055	0.593	0.414	12
28501-2	0.359	0.403	0.233	0.068	0.679	0.477	12
28501-4	0.413	0.462	0.235	0.067	0.756	0.529	12
28501-6	0.459	0.522	0.235	0.070	0.846	0.578	14
28501-7	0.463	0.558	0.235	0.070	0.981	0.653	18
28501-8	0.524	0.599	0.233	0.070	0.981	0.653	16
28501-10	0.582	0.664	0.235	0.069	1.038	0.682	16
28501-12	0.626	0.716	0.233	0.070	1.172	0.816	18
28501-14	0.717	0.819	0.235	0.068	1.168	0.751	18
28501-16	0.776	0.867	0.234	0.068	1.222	0.795	18
28501-18	0.802	0.940	0.240	0.070	1.418	0.958	22
28501-22	0.948	1.096	0.236	0.071	1.488	0.941	22
28501-24	1.007	1.160	0.295	0.070	1.538	0.973	22
28501-28	1.148	1.325	0.291	0.069	1.647	1.018	26
28501-32	1.245	1.436	0.290	0.069	1.741	1.075	26
28501-60	2.308	2.639	0.294	0.068	2.585	1.463	40

All dimensions in inches.

Assembly Tool for Plastic Hose Clamps
- Mechanical installation
- Reduces operator fatigue and installation time
- Fits all plastic hose clamps from Stock No. 28501-1.25 through 28501-60

Application
- Maintenance tool for assembly and disassembly of plastic hose clamps

Stock No. 451

HOSE CLAMPS | IDEAL

Standard Stock No.	Stainless Steel Stock No.	Size	Nominal Range Min. to Max.
28000	28200	Micro 4	1/4 to 5/8
28001	28201	Micro 5	7/16 to 11/16
28003	28203	Micro 8	7/16 to 1
28008	28208	8	7/16 to 1
28010	28210	10	9/16 to 11/16
28012	28212	12	9/16 to 11/4
28016	28216	16	11/16 to 11/2
28020	28220	20	3/4 to 13/4
28024	28224	24	11/16 to 2
28028	28228	28	15/16 to 21/4
28032	28232	32	19/16 to 21/2
28036	28236	36	113/16 to 23/4
28040	28240	40	21/16 to 3
28044	28244	44	25/16 to 31/4
28048	28248	48	29/16 to 31/2
28056	28256	56	31/16 to 4
28064	28264	64	21/2 to 41/2

All dimensions in inches.

STANDARD HOSE CLAMP
- General purpose
- Closure remains in place when tightened
- Easily reopens with a lateral effort
- 1/2" wide, *Micro Clamp:* 5/16" wide
- *Standard Hose Clamp:* stainless steel band and housing with a plated steel screw
- *Stainless Steel Hose Clamp:* all stainless, including screw; used in highly corrosive areas

Application
- Secure hoses, tubing and fittings

Standard or Stainless Steel

High Strength Stock No.	Extended Range Min. to Max.
28100	11/4 to 25/8
28101	21/8 to 41/8
28102	4 to 61/8
28103	61/8 to 91/8

All dimensions in inches.

HIGH STRENGTH HOSE CLAMP
- All stainless steel construction
- Twice the clamping strength of standard hose clamps
- Extra notches in the band for extended range
- 5/8" wide

Application
- Use in demanding clamping applications

3M™ TAPES

Electrical Tapes

Electrical Tapes	Stock No.	Color	Roll Size	Thickness	Temperature Range	UL Listed
Scotch® Super 33+™ Professional Grade	21007	Black	3/4" x 20'	7 mils	221°F (105°C) 0°F (-18°C)	UL 510
	21009	Black	3/4" x 66'			
Temflex™ 1700 Vinyl Electrical Tape	21011	Black	3/4" x 60'	7 mils	176°F (80°C) 32°F (0°C)	UL 510
Scotch® Super 88 Vinyl Electrical Tape	21008	Black	3/4" x 66'	8.5 mils	221°F (105°C) 0°F (-18°C)	UL 510
Highland™ Vinyl Electrical Tape	21012	Black	3/4" x 66'	7 mils	176°F (80°C) 32°F (0°C)	UL 510
Scotch® Vinyl Electrical Tape 35 Color Coded Professional Grade	20981	Brown	1/2" x 20'	7 mils	221°F (105°C) 0°F (-18°C)	UL 510
	20982	Red				
	20983	Orange				
	20984	Yellow				
	20985	Green				
	20986	Blue				
	20987	Violet				
	20988	Gray				
	20989	White				
	20991	Brown	3/4" x 66'	7 mils	221°F (105°C) 0°F (-18°C)	UL 510
	20992	Red				
	20993	Orange				
	20994	Yellow				
	20995	Green				
	20996	Blue				
	20997	Violet				
	20998	Gray				
	20999	White				

Bonding Tapes

Bonding Tapes	Stock No.	Color	Roll Size	Thickness	Temperature Range	UL Listed
Scotch® Glass Cloth Electrical Tape 27	21013	White	1/2" x 66'	7 mils	266°F (130°C)	----
	21014	White	3/4" x 66'			
VHB™ Tape 4941	20957	White	1" x 108'	45 mils	230°F (110°C) -31°F (-35°C)	----
	20959	Black	3/4" x 108'			

Sealing Tape

Sealing Tape	Stock No.	Color	Roll Size	Thickness	Temperature Range	UL Listed
4412N Extreme Sealing Tape	20922	White	60mm wide x 54'	75 mils	200°F (93°C) -40°F (-40°C)	----

Splicing and Sealing Compounds

Splicing and Sealing Compounds	Stock No.	Color	Roll Size	Thickness	Temperature Range
Linerless Splicing Compound 2242 (Rubber Tape)	20974	Black	3/4" x 15'	30 mils	194°F (90°C)
	20975	Black	1 1/2" x 15'		
Scotch® Electrical Moisture Sealant 06147	20976	Black	2 1/2" x 10'	45 mils	176°F (80°C)
	20977	Black	2 1/2" x 2 1/2" 25 patches per box		

Conspicuity Tape

Conspicuity Tape	Stock No.	Color	Roll Size	Thickness
983 Series	20801	11" long red, 7" long white	2" x 150'	14-18 mils
	20804	6" long red, 6" long white	2" x 150'	14-18 mils
	20805	6" long red, 6" long white	2" x 18" strips	14-18 mils
	20806	7" long white, 11" long red	2" x 150'	10-14 mils
	20810	Yellow	2" x 150'	14-18 mils

Masking Tape

Masking Tape	Stock No.	Color	Roll Size	Thickness	Temperature Range
Scotch® 233+	20904	Green	3/4" x 180'	6.7 mils	250°F (121°C)
	20905	Green	1" x 180'	6.7 mils	250°F (121°C)
	20906	Green	1 1/2" x 180'	6.7 mils	250°F (121°C)
	20907	Green	2" x 180'	6.7 mils	250°F (121°C)

Aluminum Foil Tape

Aluminum Foil Tape	Stock No.	Color	Roll Size	Thickness	Temperature Range
	20958	Gray	2" x 180'	5 mils	300°F (149°C) -65°F (-54°C)

Electricians Tape

Electricians Tape	Stock No.	Color	Roll Size	Thickness	Temperature Range
Scotch® 2000 Bundling Tape	20956	Gray	2" x 150'	6 mils	221°F (105°C)

Packaging Tape

Packaging Tape	Stock No.	Color	Roll Size	Thickness
Scotch® 3750 Premium Box Sealing Tape	20935	Clear	2" x 180' 3" Core	3.2 mils
	20933	Clear	2" x 300' 3" Core	3.1 mils

Sidebar navigation: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

TAPES

Electrical Tape

Electrical Tape	Stock No.	Color	Roll Size	Thickness	Temperature Range	UL Listed
PVC Electrical Tape	21000	Black	3/4" x 60'	7 mils	176°F (80°C) 0°F (-18°C)	----
Premium All-Weather PVC Electrical Tape	21010	Black	3/4" x 66'	8 mils	176°F (80°C) 0°F (-18°C)	----
Rubber Tape	20945	Blue	3/4" x 22'	30 mils	176°F (80°C)	UL 510
Colored Vinyl Electrical Tape	20911	Brown	3/4" x 66'	7 mils	176°F (80°C) 32°F (0°C)	----
	20912	Red				
	20913	Orange				
	20914	Yellow				
	20915	Green				
	20916	Blue				
	20917	Violet				
	20918	Gray				
	20919	White				

Duct Tape

Duct Tape	Stock No.	Color	Roll Size	Temperature Range
Premium				
	20955	Silver	2" x 60 yds	200°F (93°C)
All-Purpose				
	20950	Silver	2" x 60 yds	200°F (93°C)

Cold Shrink Tape

Cold Shrink Tape	Stock No.	Color	Roll Size	Temperature Range
	20970	Black	1" x 10'	212°F (100°C) -40°F (-40°C)
	20971	Black	1" x 30'	

Self Fusing Tape

Self Fusing Tape	Stock No.	Color	Roll Size	Temperature Range
	20890	Black	1" x 20'	500°F (260°C) -85°F (-65°C)
	20892	Red	1" x 20'	
	20893	Orange	1" x 20'	

Masking Tape

Masking Tape	Stock No.	Color	Roll Size
All Purpose	20900	Tan	3/4" x 180' 3" Core
	20901	Tan	1" x 180' 3" Core
	20902	Tan	1½" x 180' 3" Core
	20903	Tan	2" x 180' 3" Core

Strapping Tape

Strapping Tape	Stock No.	Color	Roll Size
	20920	White	3/4" x 180' 3" Core

Package Sealing Tape Dispenser
Stock No. 490
• Handles rolls up to 2" wide, 660' long, 3" core tape not included

CHEMICALS Dynatex®

Dielectric Grease

Dielectric Grease	Stock No.	Size	Temperature Range
	29050	5 oz. Tube	400°F (204°C) -40°F (-40°C)
	29051	1/3 oz. Tube	

Boltlocker™

Boltlocker™	Stock No.	Color	Size	Temperature Range
	29085	Blue	6 ml.	300°F (149°C) -65°F (-54°C)
	29086	Blue	24 ml.	
	29089	Red	6 ml.	
	29090	Red	24 ml.	

Anti-Seize & Lubricating Compound

Anti-Seize & Lubricating Compound	Stock No.	Size	Temperature Range
	29070	8 oz. Brush-top	2000°F (1093°C) -200°F (-129°C)
	29071	16 oz. Brush-top	

Silicone Sealants

Silicone Sealants	Stock No.	Color	Grade	Temperature Range
	29004	Black	Industrial	450°F 232°C) -60°F (-51°C)
	29005	Clear	Industrial	
	29021	Clear	Marine	

Ultra-Seal Corrosion Preventive Sealant

Ultra-Seal Corrosion Preventive Sealant	Stock No.	Size	Temperature Range
	29056	4 oz. Tube	302°F (105°C) -40°F (-40°C)

Lithium Grease

Lithium Grease	Stock No.	Size
	29061	1½ oz. Tub
	29062	16 oz. Tub

3M™ Safety-Walk™ Slip-Resistant Medium Resilient Tapes and Treads

3M™ Safety-Walk™ Slip-Resistant Medium Resilient Tapes and Treads	Stock No.	Size
Adheres to any dry, clean surface	20870	6" Wide 24" Long

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

POLYOLEFIN CPA100 DUAL WALL (3:1 Shrink Ratio)

- Accommodates a variety of shapes and contours
- Internal meltable sealant physically encapsulates connections
- Flame retardant

Application

- Marine, automobile and telecommunications

Internal adhesive melts when shrunk.
Shrinks to 1/3 the original size.

230°F (110°C)   SHRINK TEMPERATURE:
-67°F (-55°C)   248°F (120°C)

Pre-Shrunk   Shrunk

NEW
Available on spools
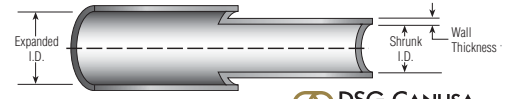
DSG-CANUSA
A SHAWCOR COMPANY

NEW **Spools**

Black Stock No.	Red Stock No.	Spool Size Ft.	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22202M	22452M	1000	1/8	.125	.042	.039
22203M	22453M	1000	3/16	.187	.062	.043
22204H	22454H	500	1/4	.250	.083	.047
22206L	22456L	200	3/8	.375	.125	.055
22208L	22458L	200	1/2	.500	.167	.055
22212C	22462C	100	3/4	.750	.250	.067
22216C	----	100	1	1.000	.333	.074

48 Inch Lengths

Black Stock No.	Red Stock No.	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22202	22452	1/8	.125	.042	.039
22203	22453	3/16	.187	.062	.043
22204	22454	1/4	.250	.083	.047
22206	22456	3/8	.375	.125	.055
22208	22458	1/2	.500	.167	.055
22212	22462	3/4	.750	.250	.067
22216	22466	1	1.000	.333	.074
22224	----	1 1/2	1.500	.500	.120

6 Inch Lengths - Black

Stock No.	Pieces Per bag	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22251	14	1/8	.125	.042	.039
22252	12	3/16	.187	.062	.043
22253	10	1/4	.250	.083	.047
22254	9	3/8	.375	.125	.055
22255	8	1/2	.500	.167	.055
22256	4	3/4	.750	.250	.067
22257	3	1	1.000	.333	.074

1 1/4 Inch Lengths - Black

Stock No. 100 bag	Stock No. 1000 bag	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22542	22562	3/16	.187	.062	.043
22543	22563	1/4	.250	.083	.047
22544	22564	3/8	.375	.125	.055
22545	22565	1/2	.500	.167	.055

Polyolefin Dual Wall Assortment Pack

Black 6 in. Lengths
Stock No. 22260

- Ideal for prototype work, or where a variety of sizes is needed
- Shrinks to 1/3 the original size

Number of Pieces	Size
2	1/8
4	3/16
6	1/4
4	3/8
2	1/2
1	3/4
1	1

All dimensions in inches.

READY TO ORDER:
1. Order the 48" lengths by the number of pieces.
2. Order the 6 inch and 1 1/4 inch lengths by the number of bags.
All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

POLYOLEFIN ADHESIVE LINED CROSS-LINKED (4:1 SHRINK RATIO)

DSG-CANUSA
A SHAWCOR COMPANY

- Shrinks to 1/4 the original size
- Seals and protects against water, moisture and chemicals
- Internal meltable sealant protects the connections
- Approved to all major automotive OEM splice sealing applications

257°F (125°C)   SHRINK TEMPERATURE:
-40°F (-40°C)   257°F (125°C)

48 Inch Lengths

Stock No. Black	Stock No. Clear	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22225	22385	1/4	.236	.055	.053
22226	22386	5/16	.315	.063	.069
22227	22387	1/2	.472	.098	.079
22228	22388	3/4	.708	.146	.102

NEW **Clear Spools**

Stock No.	Spool Size Ft.	Nominal Size	Expanded I.D.	Shrink I.D.	Recovered Wall thk.
22385H	500	1/4	.236	.055	.053
22386H	500	5/16	.315	.063	.069
22387L	200	1/2	.472	.098	.079
22388C	100	3/4	.708	.146	.102

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).
All shipments are subject to dimensional weight charges.

All dimensions in inches.

Black   **Clear**

POLYOLEFIN CPX100 HEAT SHRINK (2:1 SHRINK RATIO)

48 Inch Lengths — DSG-CANUSA (A ShawCor Company)

Black	Red	Clear	White	Nominal Size	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
		Stock No.					
22101	22151	22301	22351	1/16	.063	.031	.017
22102	22152	22302	22352	1/8	.125	.062	.020
22103	22153	22303	22353	3/16	.187	.093	.020
22104	22154	22304	22354	1/4	.250	.125	.025
22106	22156	22306	22356	3/8	.375	.187	.025
22108	22158	22308	22358	1/2	.500	.250	.025
22112	22162	22312	22362	3/4	.750	.375	.030
22116	22166	22316	22366	1	1.000	.500	.035
22124	22174	22324	----	1 1/2	1.500	.750	.040
22132	22182	----	----	2	2.000	1.000	.045

Spools - Black — DSG-CANUSA (A ShawCor Company)

Stock No.	Spool Size Ft.	Nominal Size	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
22430C	100	1/16	.063	.031	.017
22430M	1000				
22431C	100	1/8	.125	.062	.020
22431M	1000				
22433C	100	3/16	.187	.093	.020
22433M	1000				
22434C	100	1/4	.250	.125	.025
22434H	500				
22436C	100	3/8	.375	.187	.025
22436L	200				
22438C	100	1/2	.500	.250	.025
22438L	200				
22442C	100	3/4	.750	.375	.030
22446C	100	1	1.000	.500	.035

6 Inch Lengths - Black

Stock No.	Pieces per Bag	Nominal Size	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
22271	40	1/16	.063	.031	.017
22273	34	1/8	.125	.062	.020
22274	30	3/16	.187	.093	.020
22275	24	1/4	.250	.125	.025
22276	20	3/8	.375	.187	.025
22277	18	1/2	.500	.250	.025
22278	12	3/4	.750	.375	.030
22279	8	1	1.000	.500	.035

1 1/4 Inch Lengths - Black

Stock No. 100 Bag	Stock No. 1000 Bag	Nominal Size	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
22503	22523	3/16	.187	.093	.020
22504	22524	1/4	.250	.125	.025
22505	22525	3/8	.375	.187	.025
22506	22526	1/2	.500	.250	.025

READY TO ORDER:
1. Order the 48" lengths by the number of pieces.
2. Order the spools by the number of feet.
3. Order the 6 inch and 1 1/4 inch lengths by the number of bags.

All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

Pre-Shrunk   Shrunk
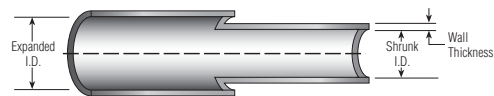
- Shrinks to 1/2 the original size
- Flame retardant
- Colors black, red and white material only meet MIL-1-23053/5 Class 1 specs
- Clear material meets MIL-1-23053/5 Class 2 specs

275°F (135°C)
-67°F (-55°C)
SHRINK TEMPERATURE: 194°F (90°C)

White   **Red**

Clear   **Black**

Polyolefin Assortment Pack
Black 6 in. Lengths

Stock No. 22290
- Shrinks to 1/2 original size
- Ideal for prototype work or where a variety of sizes is needed

Number of Pieces	Size
2	1/16
2	3/32
4	1/8
8	3/16
8	1/4
6	3/8
4	1/2
2	3/4
1	1

All dimensions in inches.

Polyolefin Heat Shrink Kit
Black 6 in. Lengths

Kit Stock No. 22288
- Shrinks to 1/2 original size
- Ideal for prototype work or where a variety of sizes is needed
- Refill kit with assortment pack Stock No. 22290 or bags of 6" pieces shown above

Number of Pieces	Size
36	3/16
24	1/4
12	3/8
6	1/2
4	3/4
4	1

All dimensions in inches.

Compartment case included

Custom Cut Heat Shrink

All sizes and styles of heat shrink tubing can be cut to your length requirements.

Call the 800-328-2724 for details.

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

EXTRA HEAVY DUTY CFW HEAT SHRINK (3:1 Shrink Ratio)

- Shrinks to 1/3 the original size
- Thick adhesive inner wall protects against moisture and contamination
- Submersible and direct burial

230°F (110°C)
-67°F (-55°C)

SHRINK TEMPERATURE:
248°F (120°C)

Heavy duty heat shrink applied to crimpable lug

Available in 12" lengths and 48" lengths

DSG-CANUSA
A SHAWCOR COMPANY

Expanded I.D. / Shrunk I.D. / Wall Thickness
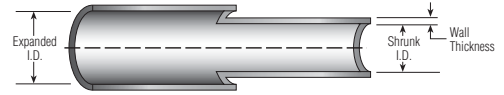
Dual Wall						
Stock No. for 12" Lengths	Stock No. for 48" Lengths	Color	Size Diameter	Approx. Min. Expanded I.D. inch.	Approx. Maximum Recovered	Approx. Typical wall Thickness
22230	22240	black	1/2	.500	.150	.080
22231	22241	red	1/2	.500	.150	.080
22232	22242	black	3/4	.750	.250	.120
22233	22243	red	3/4	.750	.250	.120
22234	22244	black	1.1	1.100	.350	.120
22235	22245	red	1.1	1.100	.350	.120
22236	22246	black	1 1/2	1.500	.470	.140
22237*	22247*	red	1 1/2	1.500	.470	.140

Notes:
All shipments are subject to dimensional weight charges.
* These items are flame retardant

To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).
All dimensions in inches.

Extra Heavy Duty Heat Shrink Kit
Stock No. 22299
Plastic container with 6" lengths of:
- 10 black and 10 red .400 dia.
- 5 black and 5 red .750 dia.
- 2 black and 2 red 1.10 dia
- Shrinks to 1/3 the original size

Dual Wall Refill Packages			
Stock No.	Nominal Size	Pieces per bag	Color
22293	.400	10	Black
22294	.400	10	Red
22295	.750	5	Black
22296	.750	5	Red
22297	1.100	2	Black
22298	1.100	2	Red

All dimensions in inches.

DERAY® HEAT SHRINK (2:1 Shrink Ratio)

DSG-CANUSA
A SHAWCOR COMPANY

- Shrinks to 1/2 the original size
- Semi-rigid polyvinylidene fluoride
- Flame and chemical resistant
- Meets UL requirements and MIL-1-23053/8

Application
- Ideal for high temperature applications

347°F (175°C)
-67°F (-55°C)

SHRINK TEMPERATURE:
347°F (175°C)

Deray® high temperature heat shrink

48" lengths

48" Clear Stock No.	Nominal Size	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
22400	3/64	.046	.023	.010
22402	1/16	.062	.031	.010
22403	3/32	.093	.046	.010
22404	1/8	.125	.062	.010
22406	3/16	.187	.093	.010
22408	1/4	.250	.125	.012
22412	3/8	.375	.187	.012
22416	1/2	.500	.250	.012
22424	3/4	.750	.375	.017

READY TO ORDER:
Order by the number of pieces.
All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

HEAT SHRINKABLE FABRIC TUBING (2:1 Shrink Ratio)

- Shrinks to 1/2 the original size
- Flexible woven polyester and polyolefin fabric
- Abrasion resistant

Application
- Ideal for covering rubber hoses, harnesses and plastic pipes

257°F (125°C)
-40°F (-40°C)

SHRINK TEMPERATURE:
275°F (135°C)

Stock No.	Minimum Expanded I.D.	Maximum Recovered I.D.	Spool Size Ft.
22490	0.472	0.236	100
22491	0.787	0.394	100
22492	1.181	0.591	100
22493	1.575	0.787	100

All dimensions in inches.

PVC CVN HEAT SHRINK (2:1 Shrink Ratio) | DSG-CANUSA *A ShawCor Company*

Black Stock No.	Clear Stock No.	Spool size Ft.	Nominal I.D.	Expanded I.D.	Shrunk I.D.	Recovered Wall thk.
22000M	----	1000	1/8	.125	.062	.020
22001M	----	1000	3/16	.187	.093	.020
22002M	22022M	1000	1/4	.250	.125	.025
22003H	----	500	3/8	.375	.187	.025
22004F	22024F	250	1/2	.500	.250	.025
22007F	----	250	5/8	.625	.313	.025
22005F	----	250	3/4	.750	.375	.030
22008F	----	250	1	1.000	.500	.035
22010C	----	100	1 1/2	1.500	.750	.040

All shipments are subject to dimensional weight charges.

To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.
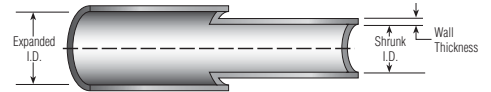
- Shrinks to 1/2 the original size
- Very flexible and forms a smooth, tight insulation
- Resistant to oils, chemicals and fungus
- Highly Flame Retardant
- Store in cool location out of direct sunlight

221°F (105°C)
-22°F (-30°C)

SHRINK TEMPERATURE:
230°F (110°C)

Pre-shrink

Shrunk

3M™ EXTRA HEAVY DUTY HEAT SHRINK ITCSN (3:1 Shrink Ratio)

48 Inch Lengths

Black Stock No.	Nominal I.D.	Expanded I.D.	Shrunk I.D.	Cable O.D. Use Range Max - Min
22031	1/2	.400	.150	.35 - .17
22033	3/4	.800	.200	.65 - .24
22035	1	1.100	.370	.88 - .40

READY TO ORDER:
Order by the number of pieces.
All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

- Cross-linked polyolefin
- Highly split resistant
- Fast shrinking to provide rapid installation
- UV resistant
- Complete environmental protection, resists acids and alkalies

230°F (110°C)
-67°F (-55°C)

SHRINK TEMPERATURE:
250°F (121°C)

3M™ ADHESIVE-LINED POLYOLEFIN EPS-300 HEAT SHRINK (3:1 Shrink Ratio)

48 Inch Lengths

Black Stock No.	Red Stock No.	Nominal I.D.	Expanded I.D.	Shrunk I.D.	Recovered Wall Thickness (Nominal)
22012	----	1/8	.125	.040	.040
22013	----	3/16	.187	.062	.040
22014	22019	1/4	.250	.080	.040
22015	22032	3/8	.375	.120	.055
22016	22034	1/2	.500	.160	.070
22017	22036	3/4	.750	.250	.085
22018	22046	1	1.000	.320	.100

READY TO ORDER:
Order by the number of pieces.
All shipments are subject to dimensional weight charges – see terms and conditions

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

- Thin-wall, flexible tubing offers the advantage of integral adhesive lined construction
- Heat-shrinkable outer wall is selectively cross-linked, while maintaining the high flow and excellent adhesion of the inner sealant liner
- MIL-DTL-23053/4, Class 3
- Flame retardant

230°F (110°C)
-67°F (-55°C)

SHRINK TEMPERATURE:
250°F (121°C)

3M™ EXTRA HEAVY DUTY POLYOLEFIN HEAT SHRINK HDT (3:1 Shrink Ratio)

48 Inch Lengths

Black Stock No.	Red Stock No.	Nominal I.D.	Expanded I.D.	Shrunk I.D.	Recovered Outer Wall Thickness (Nominal)
22039	22040	1/2	.400	.150	.090
22041	22042	3/4	.800	.200	.110
22043	22044	1	1.100	.370	.120

READY TO ORDER:
Order by the number of pieces.
All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

230°F (110°C)
-67°F (-55°C)

SHRINK TEMPERATURE:
250°F (121°C)

- Meets SAE-AMS-DTL-23053/15, Class 1 ABS
- Cross-linked polyolefin
- Flame retardant
- Chemical, abrasion and split resistant
- Easy handling and installation with maximum operating reliability and system protection
- Sealant is heat-activated thermoplastic material that remains soft and flexible over long periods under adverse environmental conditions
- During heating, sealant softens, bonds to underlying surfaces and fills small voids that might be present

Side Navigation
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

3M™ SMS COLOR CODED HEAT SHRINK (4:1 Shrink Ratio)

48 Inch Lengths

Stock No.	Nominal Size	Expanded I.D.	Recovered I.D.	Recovered Wall Thickness	Color Coded
22050	5/16"	.350	.080	.038	Green
22051	1/2"	.450	.105	.043	Red
22052	3/4"	.700	.175	.060	Orange

- Color coded for easy size identification
- Semi-rigid polyolefin
- Provides excellent strain relief
- Functional over wide temperature range
- Puncture resistant
- Resistant to salt water, automotive fluids and corrosive chemicals
- Fire retardant

230°F (110°C) -67°F (-55°C) SHRINK TEMPERATURE 249°F (121°C)

3M™ FP-301 HEAT SHRINK (2:1 SHRINK RATIO)

48 Inch Lengths

Black Stock No.	Red Stock No.	Nominal Size	Expanded I.D.	Recovered I.D.	Recovered Wall Thickness
20233	20246	1/16"	.063	.031	.017
20237	20247	1/8"	.125	.062	.020
20238	20248	3/16"	.187	.093	.020
20239	20249	1/4"	.250	.125	.025
20240	20250	3/8"	.375	.187	.025
20241	20251	1/2"	.500	.250	.025
20242	20252	3/4"	.750	.375	.030
20243	20253	1"	1.000	.500	.035
20244	20254	1-1/2"	1.500	.750	.040
20245	20255	2"	2.000	1.000	.045

Spools - Black

Black Stock No.	Nominal Size.	Spool Size	Expanded I.D.	Recovered I.D.	Recovered Wall Thickness
20256C	1/16"	100	.063	.031	.017
20256M	1/16"	1000	.063	.031	.017
20258C	1/8"	100	.125	.062	.020
20258H	1/8"	500	.125	.062	.020
20260C	3/16"	100	.187	.093	.020
20260F	3/16"	250	.187	.093	.020
20262C	1/4"	100	.250	.125	.025
20262L	1/4"	200	.250	.125	.025
20265C	3/8"	100	.375	.187	.025
20265L	3/8"	200	.375	.187	.025
20266C	1/2"	100	.500	.250	.025
20266L	1/2"	200	.500	.250	.025
20268K	3/4"	50	.750	.375	.030
20268L	3/4"	200	.750	.375	.030
20270K	1"	50	1.000	.500	.035
20270C	1"	100	1.000	.500	.035
20272C	2"	100	2.000	1.000	.045

6 Inch Lengths - Black

Black Stock No.	Nominal Size	Expanded I.D.	Recovered I.D.	Recovered Wall Thickness
20273	1/16"	.063	.031	.017
20274	1/8"	.125	.062	.020
20275	3/16"	.187	.093	.020
20276	1/4"	.250	.125	.025
20277	3/8"	.375	.187	.025
20278	1/2"	.500	.250	.025
20279	3/4"	.750	.375	.030

275°F (135°C) -67°F (-55°C) SHRINK TEMPERATURE 212°F (100°C)

- Outstanding balance of electrical, physical and chemical properties for a variety of industrial and military applications
- Shrinks to 1/2 the original size
- Split-resistant
- Mechanically tough
- Easily marked and resists cold flow
- Designed to withstand elevated temperatures to 572°F (300°C) for short periods
- SAE-AMS-DTL-23053/5, Class 1 Class 2

Application
- Use over cable splices and terminations

READY TO ORDER:
1. Order the 6" and 48" lengths by the number of pieces.
2. Order the spools by the number of feet.
All shipments are subject to dimensional weight charges.

Notes:
To measure I.D., open heat shrink to its rounded state and then measure the inside diameter (do not measure while flat to get I.D.).

All dimensions in inches.

MICROTORCHES AND HEAT GUNS

Hand Held Butane-Powered Microtorch
Stock No. 536

2500°F (1300°C) Maximum

- 2-hour continuous burn time
- Built-in refillable plastic fuel tank
- Includes hot air tip and 1'' dia. heat shrink attachment
- 6.1''H x 3''W x 1.3''D
- Butane not available - shipped dry

Application
- Shrink tubing, solder and terminate specialty connectors

Mini-Trigger Microtorch
Stock No. 541

2500°F (1300°C) Maximum

- Removable base for table-top or hand-held use
- Use to ignite materials, melt plastic, shrink tubing, solder & desolder, terminate specialty terminals, connectors and more
- ''Hands-free'' slide lock allows for continuous use and instant off operation
- 60 minutes continuous run time with a full charge
- Durable self-contained, refillable, plastic fuel tank
- Butane not available - shipped dry

Table-Top Butane Powered Microtorch
Stock No. 540

Flame Temp: 2500°F (1300°C)

- Built-in self-igniting system with safety lock
- Wide, heavy and stable base for bench-top use
- Refillable metal fuel tank
- 60 minute continuous run time with full charge
- Adjustable broad or pinpoint flame
- 5.1''L x 3''W x 3.5''D
- Net weight: 12 oz.
- Butane not available - shipped dry

Application
- Shrink tubing, solder

Industrial Model Heat Gun
Stock No. 501

700°F (371°C)
500°F (260°C)

- Aluminum die-cast construction
- Adjustable air intake controls air flow and temperature
- Heating element easily replaced
- Non-slip rubber base allows precise positioning

Replacement Heat Element Stock No. 502

Shrink Tube Reflector, to 3/4'' O.D tubing **Stock No. 503**

Shrink Tube Reflector, to 2'' O.D tubing **Stock No. 504**

120V 14A

Typical Shrink Tube Reflector

Heat Gun Kit
Stock No. 532

- Economical lightweight and multi-use heat gun
- Includes storage case, heat gun and 4 attachments: reducer, reflector, small spreader and large spreader
- 1200 watts maximum
- Heat element is not replaceable
- Automatic safety shut-off feature when gun gets too hot

Heat Gun Only Stock No. 530

Reflector Stock No. 531

Typical Shrink Tube Reflector

LCD Programmable Heat Gun & Accessories
Stock No. 626

1000°F (540°C)
130°F (50°C)

- Rugged and light-weight ergonomic heat gun prevents operator fatigue
- Programmable digital display of temperature and air flow
- Adjustable heat in 10° increments
- Bench stand and multiple attachments available

Application
- Perfect for production applications requiring consistent application of heat

Proheat Dual Temp Heat Gun
Stock No. 630

- Compact, light weight, and very easy to use
- Dual heat: 500°F (260°C) and 1000°F (540°C)
- 16 cubic feet/minute (CFM) air flow

1 3/8'' Attachment for Shrink Tubing
Stock No. 627

1/2'' Attachment for Shrink Tubing & Connectors
Stock No. 628

Heat Gun Bench Stand
Stock No. 629

Warranty does not cover heat elements and does not apply if the unit has been misused, abused or altered.

Side tabs:
Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

CORRUGATED LOOM

- Convoluted surface protects against abrasion and pinching
- Variety of sizes and types available in split or non-split
- Split loom easily slides over assembly and closes for a permanent installation

More sizes and colors may be available on special order. Call 800-328-2724 for details.

Application
- Used to protect wire, cable, tubing and hoses

Typical assembly with split corrugated loom

Gaylord quantities available upon request.

ORDER BY TYPE, NOMINAL ID, BOX FOOTAGE

LCP – 250 – 500

Type   Nominal ID   Box Footage

Final ordering stock number: LCP-250-500.

Polyethylene
Black
- Split - Type LCP
- Non-split Type NCP

200°F (93°C)
-40°F (-40°C)

Nylon
Black with gray stripe
- Split - Type LCN
- Non-split Type NCN
- Material Certification: Delphi Packard M-2170, ASTM D4066

257°F (125°C)
-40°F (-40°C)

	Nominal I.D. (in.)	Polyethylene Stock No.	Nylon Stock No.	Standard Box Footage
Split	.125	**LCP-125**	LCN-125	100, 500, 2200†, 4000††
	.250	**LCP-250**	LCN-250	100, 500, 3200
	.350	**LCP-350**	LCN-350	100, 500, 1900
	.413	**LCP-413**	LCN-413	100, 500, 1500
	.500	**LCP-500**	LCN-500	100, 250, 1100
	.625	**LCP-625**	LCN-625	100, 250, 800
	.750	**LCP-750**	LCN-750	100, 550
	.875	**LCP-875**	LCN-875	100, 400
	1.000	**LCP-1000**	LCN-1000	100, 300
	1.250	**LCP-1250**	LCN-1250	200
	2.000	**LCP-2000**	LCN-2000	50
Non-Split	.125	----	NCN-125	100, 500, 4000
	.350	**NCP-350**	----	100, 250, 1000
	.500	**NCP-500**	----	100, 250, 600
	.750	**NCP-750**	----	100, 300

ORDERING NOTES:
All shipments are subject to dimensional weight charges
† *For LCP only.*
†† *For LCN only.*

Flame Retardant Polyethylene
Gray
- Split - Type LGR

200°F (93°C)
-40°F (-40°C)

	Nominal I.D. (in.)	Stock No.	Standard Box Footage
Split	.250	**LGR-250**	100, 500, 3200
	.350	**LGR-350**	100, 500, 1900
	.500	**LGR-500**	100, 250, 1100
	.750	**LGR-750**	100, 500

ORDERING NOTES:
All shipments are subject to dimensional weight charges

Flame Retardant Polypropylene
Black with blue stripe
- Split – Type LFB

275°F (135°C)
-40°F (-40°C)

	Nominal I.D. (in.)	Stock No.	Standard Box Footage
Split	.250	**LFB-250**	100, 500, 3200
	.350	**LFB-350**	100, 1300
	.500	**LFB-500**	100, 800
	.750	**LFB-750**	100, 400

ORDERING NOTES:
All shipments are subject to dimensional weight charges

CORRUGATED LOOM FITTINGS

- Increase efficiency of harness assembly
- Improves the appearance of your product
- Black polypropylene material
- Easy installation - simply snap together

Application

- Used to connect breakouts to loom

Tee Fitting Styles May Vary

Stock No. 21137

Stock No. 21141

Stock No. 21110

Rosebud Clip

Outlet

Tee

Tee

Clip

Rosebud Clip

Typical Application

Tee

Stock No.	Conduit Size I.D. (in.)		
	Left	Center	Right
21110	.413	.350	.350
21100	.413 or .500	.413 or .500	.413 or .500
21102	.500	.413	.750
21103	.750	.500	.750
21118	1.000	.625	1.000
21130	.350	.250	.250
21131	.350	.250	.350
21132	.500	.250	.500
21133	.750	.250	.750
21134	.750	.250	.500
21135	.500	.250	.350
21136	1.000	.750	.500
21137	1.000	.750	.750
21138	.350	.350	.250
21139	.250	.350	.250
21140	.500	.350	.500
21141	.500	.350	.350
21142	.500	.350	.250
21143	.500	.250	.250
21144	.750	.350	.750
21145	.750	.350	.500
21146	1.000	1.000	.750
21147	.750	.625	.500
21148	.500	.625	.350
21149	1.000	.350	1.000
21150	1.000	.250	1.000
21151	.750	1.000	.750
21153	.500	.625	.250
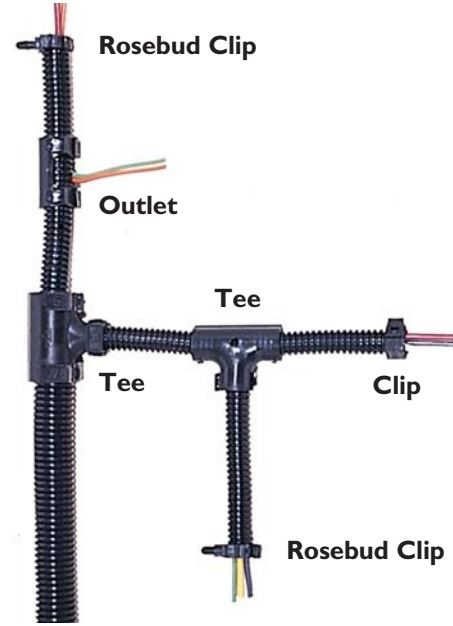
CORRUGATED LOOM TOOLS

Loom/Tubing Cutter
Stock No. 452

- Cuts up to 1¼" tubing
- High carbon Teflon coated blade prevents injury

Replacement blade
Stock No. 453

Loom Insertion Tool

Stock No.	Size
571	.350
572	.500
573	.750
574	1.00
575	1.25

- Used to place wire bundles in split loom wire coverings

Outlet

- Holds loom tight at breakouts

Stock No.	Conduit Size I.D.
21104	.413
21105	.500
21116	.625

Rosebud Clip

- Secures loom end
- Can be used throughout harness
- Provides a quick mount
- Snaps into a ¼" dia. hole up to .150" thick material

Stock No.	Conduit Size I.D.
21108	.350
21109	.413 or .500
21111	.625
21112	.750

Clip

- Secures end of loom piece
- Can be used throughout harness

Stock No.	Conduit Size I.D.
21106	.413
21107	.500

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

ELECTRICAL TUBING

Tubing
- Highly flexible black PVC material
- Resistant to oil, water and corrosion
- UL recognized under component program
- CSA certified for 3/8" to 2" sizes
- VW-1 Flammability

Application
- Ideal for covering wires and fiber optic cables in high vibration areas

158°F (70°C)

Threaded Straight-In Fitting

Threaded Right Angle Fitting

Flexible non-metalic electrical tubing

Fittings
- Nylon material
- Easy assembly

Application
- Suitable for indoor or outdoor use

Threaded Fittings

| | Stock No. | | |
Size	Straight In Type	Right Angle	Thread Size
3/8	27261	27269	1/2 NPT
1/2	27262	27270	1/2 NPT
3/4	27263	27271	3/4 NPT
1	27264	27272	1 NPT

Size	Stock No.	Typical O.D. (in.)	Typical I.D. (in.)	Standard Pack (Ft.)
1/4	27209	.570	.400	100
3/8	27211	.700	.490	100
1/2	27212	.830	.630	100
3/"	27213	1.040	.830	100
1	27214	1.300	1.050	100
1 1/2	27216	1.880	1.590	100

ORDERING NOTES:
All shipments are subject to dimensional weight charges

LIQUID TIGHT CONDUIT

Fittings
- Nylon material
- Easy assembly

Application
- Suitable for indoor or outdoor use

UL
176°F (80°C) dry
140°F (60°C) wet
158°F (70°C) oil resistant

CSA
167°F (75°C)
0°F (-18°C)

Conduit
- Smooth inner surface allows quick feeding of wires
- Non-metallic, gray PVC material
- Meets UL type B ratings
- Use fittings to make liquid tight connection

Application
- Suitable for indoor or outdoor use

Straight-In Fitting

Right Angle Fitting

Liquid tight conduit

| | Stock No. | | |
Size	Straight In type	Right Angle	Thread Size
3/8	27240	27247	1/2 NPT
1/2	27241	27248	1/2 NPT
3/4	27242	27249	3/4 NPT
1	27243	27250	1 NPT

Size	Stock No.	Typical O.D. (in.)	Typical I.D. (in.)	Standard Pack (Ft.)
3/8	27200	.700	.490	100
1/2	27201	.830	.630	100
3/4	27202	1.040	.830	100
1	27203	1.300	1.050	100

ORDERING NOTES:
All shipments are subject to dimensional weight charges

Wire Coverings & Protection

SPIRAL WRAP TUBING

- Breakout wires can easily exit through spiral slit
- Polyethylene offered in natural or UV resistant black
- Polypropylene offered in oil and chemical resistant black
- Right hand cut
- Supplied in 100 ft. spools

Application
- Ideal for use as a wire harness covering

Typical Black Spool

Polypropylene Stock No. Black	Polyethylene Stock No. Natural	Polyethylene Stock No. Black	Nominal O.D. (in.)	Approx. Wall Thickness (in.)	Maximum Bundle Dia. (in.)	Weight per 100 ft. Spool
20033PP	20023	20033	1/8	.032	1/2	1 lb.
20030PP	20020	20030	1/4	.045	3/4	2 lbs.
20034PP	20024	20034	3/8	.052	1	3 lbs.
20031PP	20021	20031	1/2	.062	1 1/4	4 lbs.
20032PP	20022	20032	3/4	.065	2	8 lbs.
20035PP	20025	20035	1	.070	4	12 lbs.

ORDERING NOTES:
All shipments are subject to dimensional weight charges

VINYL TUBING

- Meets MIL-I-63ID specs
- 221°F (105°C)
- -4°F (-20°C)
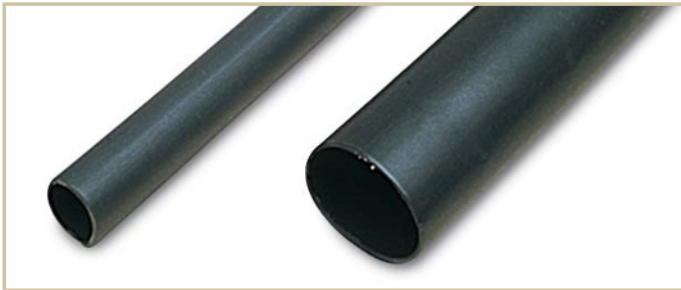
Vinyl tubing is available in black. Clear is available by special order.

Call 800-328-2724 for details.

Black Stock No.	Spool Size (Ft.)	Nominal Size (in.)	Nominal I.D. (in.)	Wall Thickness (in.)
20222F	250	1/8 (#9)	.118	.020
20223C	100	3/16 (#5)	.188	.020
20223M	1000			
20224C	100	1/4	.250	.020
20224M	1000			
20225C	100	5/16	.313	.025
20225H	500			
20226C	100	3/8	.375	.025
20226H	500			
20227C	100	7/16	.438	.025
20227H	500			
20228C	100	1/2	.500	.025
20228H	500			
20229C	100	9/16	.563	.030
20230C	100	5/8	.625	.030
20230F	250			
20232F	250	3/4	.750	.035
20236C	100	1	1.000	.035

ORDERING NOTES:
All shipments are subject to dimensional weight charges

LOOM/TUBING CUTTER

Stock No. 452
- Cuts up to 1 1/4" tubing
- High carbon Teflon coated blade prevents injury

Replacement blade
Stock No. 453

Call Toll Free 1-800-328-2724   email: sales@waytekwire.com   **WIRED TO SERVE®**   73

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

METAL BRAIDED SLEEVING

- Perfect for shielding on harnesses and cables
- Conforms to ASTM-B 33
- Provides electromagnetic interference, radio frequency interference, electrostatic discharge protection
- Complies with CID A-A-59569, formerly Mil Spec QQB-575
- Expands for easy installation
- Cut and abrasion resistant
- Extreme blowout protection
- Tinned copper sleeve for shielding, grounding and decoration

Stock No.	Nominal O.D.	AWG of ends	Spool Size (Ft.)	Weight per 100'
20361C	1/4	36	100	2.2 lbs
20362C	3/8	36	100	3.3 lbs
20363K	1/2	36	50	3.5 lbs
20364K	5/8	36	50	3.6 lbs
20367K	1	36	50	13.2 lbs
20368K	1 1/2	30	50	18.4 lbs
20369K	2 1/4	30	50	23.6 lbs

Melt Point: 449°F (232°C)

ALUMINUM REFLECTIVE SLEEVING

- Meets SAE J2302 specifications
- FMVSS 302 flammability protection
- ASTM E408 emissivity protection
- Passes common fluids, temperature, flammability and aging tests
- Resists humidity, ozone, UV and atmospheric chemicals
- RoHS compliant

Stock No.	Nominal O.D. (in.)	Spool Size (ft.)
20420	3/8	295
20421	1/2	230
20422	5/8	197
20423	3/4	147

392°F (200°C)
-40°F (-40°C)

EXPANDABLE SLEEVING

- Braided polyester yarn material
- Easily slips over wire harness or tubing
- Offered in standard or heavy wall for extra abrasion protection

Application
- Used to bundle wires and protect hoses

257°F (125°C)

Standard Expandable Sleeving - 10 mil thickness

Black Stock No.	Spool SizeFt. (Ft.)	Nominal O.D. (in.)	Recommended Size Range	Weight per 1000 ft.
20301C	100	1/4	1/8 to 7/16	2.5 lbs.
20301M	1000			
20306C	125	3/8	1/4 to 1/2	5 lbs.
20306H	500			
20302C	100	1/2	1/4 to 3/4	8 lbs.
20302H	500			
20303K	50	3/4	1/2 to 1 1/4	12 lbs.
20303F	250			
20304K	50	1 1/4	3/4 to 1 3/4	16 lbs.
20304F	250			
20305K	50	1 3/4	1 1/4 to 2 3/4	27 lbs.
20305L	200			

Heavy Wall Expandable Sleeving - 15 mil thickness

Black Stock No.	Spool Size (Ft.)	Nominal O.D. (in.)	Recommended Size Range	Weight per 100 ft.
20350K	50	5/8	5/16 to 1	1.1 lbs.
20350F	250			
20351K	50	1	1/2 to 1 1/2	1.6 lbs.
20351F	250			
20352K	50	1 1/2	3/4 to 2	2.5 lbs.
20352F	250			
20353K	50	2	1 1/2 to 3	3.4 lbs.
20353L	200			
20354K	50	3	2 to 4	4.2 lbs.

ORDERING NOTES:
All shipments are subject to dimensional weight charges

More colors and custom lengths may be available on special order. Call 800-328-2724 for details.

FLEXO F6 BRAIDED SPLIT SLEEVING

- Flexible and split laterally for easy installation
- Black semi-rigid braided material
- 25% edge overlap completely covers wires, plugs, connectors and splices
- UV resistant
- Cuts easily with hot knife

257°F (125°C)
-94°F (-70°C)

Black Stock No.	Box Size (Ft.)	Size (in.)
20341K	50	.250
20341L	200	
20345K	50	.375
20345P	150	
20342K	50	.500
20342P	150	
20343K	50	.750
20343C	100	
20344K	50	1.000
20344C	100	

ORDERING NOTES:
All shipments are subject to dimensional weight charges

ULTRA HIGH TEMPERATURE FIBERGLASS SLEEVING
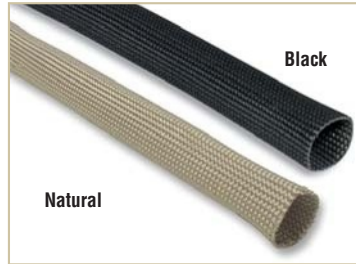
Black

Natural

- 100% woven fiberglass sleeving
- UL recognized to VW-I flame retardant

Application
- Ideal for use on hydraulic lines and electrical insulation

1200°F (648°C)
-94°F (-70°C)

Black Stock No.	Natural Stock No.	Spool Size (Ft.)	Nominal Size (in.)
20404F	----	250	#12
20406F	----	250	#10
20408F	----	250	#8
20400K	20410K	50	1/4 (#2)
20400F	20410F	250	
20401K	20411K	50	3/8
20401F	----	250	
20402K	20412K	50	1/2
20402F	20412F	250	
20403K	20413K	50	3/4
20403C	20413C	100	

ORDERING NOTES:
All shipments are subject to dimensional weight charges

SELF CLOSING SAE BRAIDED SLEEVING

- PET smooth texture
- Economical cost
- Several OEM approvals, Delphi, Volvo, Lear, SAE
- 90 degree overlap
- Black

Melt Point:
347°F (175°C)

Stock No.	Box Size (Ft.)	Size (mm)
20415	1,500	6 to 8 mm
20416	800	11 to 13 mm
20417	500	17 to 19 mm
20418	400	20 to 25 mm

HEAVY DUTY DURA-FLEX

- Protects industrial hoses and cables from harsh environments
- Tightly woven flexible nylon material
- Resistant to chemicals, UV damage, rot, engine chemicals and salt
- Non-expandable but easily slides over any application
- Cuts with scissors

Application
- Ideal for assembly shops and manufacturers of heavy duty equipment and hoses

250°F (121°C)
-108°F (78°C)

Stock No.	Inside Dia.	Length Ft.	Lbs. per 100 ft.
20371	.710	50	2.57
20375	1.250	50	4.49
20378	1.750	50	6.13
20380	2.380	50	8.28

ORDERING NOTES:
All shipments are subject to dimensional weight charges

HOT KNIFE CUTTING TOOL

Handheld Hot Knife
Stock No. 554
- 110 volt operation
- Large knife blade heats quickly and easily cuts and seals most grades of braided sleeving

Stock No 554B
- Hot knife blade only

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Sidebar navigation: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

HEYCO LIQUID TIGHT NYLON CORD GRIPS | HEYCO

Dome Nut Style **Flex Nut Style** **Locking Nut and Seal Ring**

Operating Temperatures:
Static: 239°F (115°C) / -40°F (-40°C)
Dynamic: 212°F (100°C) / -4°F (-20°C)

- NEMA type 6 enclosures (IP 68)
- Flammability rating 94V-2
- Resists salt water, weak acids, gasoline, alcohol, oil, grease, and common solvents
- Use minimum size strain relief that fits your cable
- Use with service cord on page 11

Cable Dia Min - Max	Designed to Fit Thread Size	Mounting Hole Sizes	Dome Nut Stock No.	Dome Nut Heyco No.	Flex Nut Stock No.	Flex Nut Heyco No.	Lock Nut Stock No.	Lock Nut Heyco No.	Seal Ring Stock No.	Seal Ring Heyco No.
.115 - .250	1/4	.540	24589	M4516	24623	3237	24610	M9142	24654	3258
.065 - .210	1/4	.540	24590	M4514	24624	3464	24610	M9142	24654	3258
.181 - .312	3/8	.670	24591	3228	24625	3254	24611	8461	24655	3259
.069 - .187	3/8	.670	24592	3458	24626	3474	24611	8461	24655	3259
.230 - .546	1/2	.875	24593	3200	24627	3266	24612	8463	24656	3260
.170 - .450	1/2	.875	24594	3231	24628	3251	24612	8463	24656	3260
.450 - .709	3/4	1.068	24595	3234	24629	3239	24613	8465	24657	3261
.250 - .485	3/4	1.068	24596	3460	24630	3462	24613	8465	24657	3261
.590 - 1.00	1	1.350	24597	8437	---	---	24614	8467	---	---
.490 - .785	1	1.326	24598	M8439	---	---	24614	8467	---	---

ORDERING NOTES:
Locking nut required when mounted in a clearance hole (not threaded in place).   *All dimensions in inches.*

HUMMEL LIQUID TIGHT NYLON STRAIN RELIEFS

Dome Nut Style **90° Dome Elbow** **Flex Nut Style** **Locking Nut and Seal Ring**

212°F (100°C) / -40°F (-40°C)

- Resistant to most chemicals and solvents
- Flex nut style prevents cable kinking
- Easy installation: push thru cable strain relief and tighten dome nut
- Use minimum size strain relief that fits your cable
- Concentric O-Ring groove in NEMA application with knockouts
- Seal ring guarantees NEMA 4x and 6 specifications (IP68)
- IP69K splash proof rating

Application
- Ideal for control cabinets, marine applications, car washes, hot tubs, instrumentation, underground for direct burial and submersed up to 300 ft.
- Available for ATEX applications

Cable Dia Min - Max	Thread Size NPT	Mounting Hole Sizes	Dome Nut Stock No.	90° Dome Elbow Stock No.	Flex Nut Stock No.	Lock Nut Stock No.	Seal Ring Stock No.
.11 - .26	1/4 (PG 7)	.490	24608	---	24621	24644	24653
.08 - .20	1/4 (PG 7)	.490	24609	---	24622	24644	24653
.16 - .31	3/8	.680	24600	24660	24615	24640	24650
08 - .24	3/8	.680	24601	24661	24616	24640	24650
.24 - .47	1/2	.830	24602	24662	24617	24641	24651
.20 - .35	1/2	.830	24603	24663	24618	24641	24651
.51 - .71	3/4	1.050	24604	24664	24619	24642	24652
.35 - .63	3/4	1.050	24605	24665	24620	24642	24652
.71 - .98	1	1.350	24606	---	---	24643	---
.51 - .79	1	1.350	24607	---	---	24643	---

ORDERING NOTES:
Locking nut required when mounted in a clearance hole (not threaded in place).   *All dimensions in inches.*

HUMMEL LIQUID TIGHT BRASS STRAIN RELIEFS

Dome Nut Stock No. 24702 **Lock Nut** Stock No. 24741 **Flex Nut** Stock No. 24717

Cable Dia. Min - Max	Thread Size NPT	Mounting Hole Sizes	Dome Nut Stock No.	Flex Nut Stock No.	Lock Nut Stock No.
.24 - .47	1/2	.830	24702	24717	24741
.20 - .35	1/2	.830	24703	24718	24741
.51 - .71	3/4	1.050	24704	24719	24742
.35 - .63	3/4	1.050	24705	24720	24742

All dimensions in inches.

- Resistant to saltwater, most acids, alcohol, esters, ketones, ether, gasoline, mineral oil, animal oil, vegetable oil
- Flex nut style prevents cable kinking
- Easy installation: push thru cable strain relief and tighten dome nut
- Use minimum size strain relief that fits your cable
- Concentric O-Ring groove in NEMA application with knockouts
- Seal ring guarantees NEMA 4x and 6 specifications (IP68)
- IP69K splash proof rating

Application
- Ideal for control cabinets, marine applications, car washes, hot tubs, instrumentation, underground for direct burial and submersed up to 300 ft.

RUBBER GROMMETS

- Protects wire, cable and hoses passing through metal plates and panels
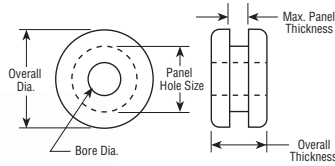
More sizes available on special order. Call 800-328-2724 for details.

Stock No.	Bore Dia.	Panel Hole Size	Maximum Panel Thickness	Overall Diameter	Overall Thickness
24500	3/16	5/16	1/16	1/2	1/4
24501	7/16	9/16	1/16	3/4	1/4
24502	1/8	1/4	1/16	11/32	3/16
24503	1/8	3/8	3/32	1/2	5/16
24504	3/16	9/32	3/32	7/16	7/32
24523	3/16	5/16	1/8	7/16	1/4
24524	3/16	5/16	3/16	7/16	5/16
24505	1/4	7/16	1/16	5/8	3/16
24506	1/4	3/8	1/16	9/16	9/32
24507	1/4	3/8	3/32	1/2	1/4
24508	5/16	9/16	1/16	13/16	5/16
24509	5/16	7/16	1/16	5/8	9/32
24510	5/16	7/16	3/32	5/8	5/16
24511	3/8	5/8	1/16	7/8	5/16
24512	3/8	1/2	1/16	5/8	1/4
24513	7/16	11/16	1/16	15/16	5/16
24514	1/2	13/16	1/16	1 1/16	5/16
24515	1/2	1 1/4	1/16	1 1/2	1/4
24516	1/2	3/4	3/32	7/8	11/32
24517	9/16	13/16	1/16	1 1/16	5/16
24518	5/8	7/8	1/16	1 1/8	5/16
24519	5/8	1 1/4	1/16	1 1/2	1/4
24520	3/4	1 1/16	1/16	1 3/8	3/8
24521	3/4	1 7/16	1/16	1 13/16	3/8
24522	7/8	1 1/4	1/16	1 5/8	7/16

All dimensions in inches.

SNAP BUSHINGS

- Eliminates sharp edges and protects wires and harnesses passing through holes in metal plates and panels
- Resists up to 35 lbs. pull
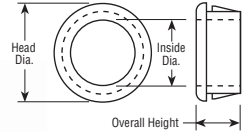
Stock No.	Mounting Hole Dia.	Inside Dia.	Head Dia.	Overall Height	Maximum Panel Thickness
24100	.250	1/8	.312	.312	.062
24101	.375	1/4	.468	.406	.125
24102	.500	3/8	.578	.406	.125
24103	.625	1/2	.718	.406	.125
24104	.750	5/8	.843	.406	.125
24106*	.875	11/16	.953	.453	.125
24105	1.000	3/4	1.125	.453	.125
24107	1.250	15/16	1.359	.453	.125
24108	1.375	1	1.468	.453	.125
24109	1.500	1 5/16	1.609	.453	.125
24110	1.750	1 3/8	1.875	.453	.125
24111	2.000	1 5/8	2.125	.453	.125

* Fits standard 1/2" electrical knockout.   *All dimensions in inches.*

LOCKING HOLE PLUGS

- Used to plug holes in panels or sheet metal
- Black nylon construction

Stock No.	Mounting Hole Dia.	Head Dia.	Overall Height	Maximum Panel Thickness
24401	.250	.312	.312	.062
24403	.375	.468	.406	.125
24405	.500	.578	.406	.125
24407	.625	.718	.406	.125
24409	.750	.922	.406	.125
24411	.875	.016	.453	.125
24412	1.000	.023	.453	.125

All dimensions in inches.

HEYCO LIQUID TIGHT HOLE PLUG

- For use in panels as thin as .020" (0.5 mm) and as thick as .250" (6.4 mm)
- Provides liquid tight closure when used as plugs
- When pierced, functions as a liquid tight bushing that converts raw edged holes to smooth, neat, insulated holes

HEYCO

Stock No.	Mounting Hole Dia.	Cable Dia. Range	Head Dia.	Overall Height
24430	.500	.080 - .200	.920	.320
24431	.625	.130 - .375	1.030	.320
24432	.750	.175 - .400	1.105	.320
24433	.875	.130 - .450	1.280	.320
24434	1.000	.200 - .715	1.430	.320
24435	1.093	.250 - .765	1.530	.320
24436	1.375	.300 - .950	1.800	.670
24437	1.500	.375 - 1.060	1.930	.670

All dimensions in inches.

Side tabs: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

POWER POINTS

Auxiliary power sources and accessories provide a power point for cellular phones, worklights, radios, air compressors, portable televisions, etc. Waytek offers both power points and plug adapters. Designed for use with any 12 volt vehicle including boats, motor homes, cars, trucks, snowmobiles and more.

Dual 2.1A USB Port Output Power Point
Stock No. 11017
- Suitable for tablets, smartphones, and other devices
- 12V enables use in off-road vehicle or motorcycle
- Easy panel mount installation
- Self closing spring cap
- For use in marine, utility vehicles, golf carts and construction vehicles

12V

NEW

Dual USB Port Charger
Stock No. 11018
- 3.15 Amps for faster charging
- Dual USB charging ports
- 10,000 operating cycles per port
- Typical Applications: On/Off-highway equipment, golf carts, lawn and garden equipment, marine, military

12-24V

NEW

Dual USB Power Charger 2 Port
Stock No. 11019
- Output: 2 port USB 5V - 2.4A/2.4A
- Black nylon
- Water proof sealing cap

113°F (45°C)
-4°F (-20°C)

12-24V

NEW

Dual 2.1A USB Charger and 20A Power Receptacle
Stock No. 11014
- LED power indicator light for USB
- Water resistant cover protects against dust and water
- Insulated terminals included

12-24V

Dual USB Power Charger
Stock No. 11013
- USB outlet and charger for automotive applications
- .25" quick disconnect male tabs
- 29 mm mounting hole diameter

140°F (60°C)
32°F (0°C)

12-24V 2.1A
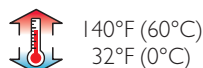
Dash Mount Receptacle Kit
Stock No. 11016
- Designed for under dash use
- Outlet can snap into mounting hole without bracket
- Kit includes adapter, lead wires with splice connector, mounting bracket, and hardware

15A

Power Source
- One piece housing
- Integrated interior contact point
- ¼" push on terminals
- Connects with Metri-Pack 56 Series Stock No. 38003, and female terminals on page 39
- Mounting hole .86" dia.
- Order parts separately
  Housing **Stock No. 11010**
  Cap **Stock No. 11011**

12V 30A

All Weather Power Source
Stock No. 11015
- Compact all-weather power outlet
- Dependable source of power for electrical accessories using a standard adapter plug
- Includes spring loaded flip cover, mounting bracket and 12" power leads

8A

Power Receptacle
Stock No. 11012
- Plastic power source with attached dust cap
- ¼" push on terminals
- Mounting hole 1.09" dia. with max .078" thickness

12V 20A

Marine Grade Receptacle
Stock No. 11020
- Corrosion resistant marine grade materials
- Watertight sealing cap

12V 20A

Male Adapter Plug
Stock No. 11030
- Fits into power points or cigarette lighter
- Includes plug and two solderless terminals

12V 8A

Male Adapter Plug with 8' Cord
Stock No. 11031
- 8' of 20 ga wire
- New or rewiring applications

8A

ROSTRA Precision Controls, Inc.

ROSTRA SENTRY PRO-GRADE BACK-UP CAMERA SYSTEM | NEW

Rostra is a premier manufacturer with years of experience supplying top quality components for commercial and fleet safety equipment. Rostra commercial grade back-up camera systems offer a choice between 5" or 7" monitors with CMOS integrated tailgate handle cameras. The backup camera systems provide vehicles with an added dimension of safety for drivers. Our partnership with Rostra allows us access to all of Rostra's cameras and monitor products, including their line of rear view mirrors with built in monitors.

7" Multi-Input LCD Stand-alone Monitor
Stock No. 93000
• 3 built-in grid line settings (wide, narrow, off)
• Reverse/forward image settings by channel
• Input DC power from 10-30V
• PAL and NTSC display capability
• Thread-together connections for better reliability
• 800 × 480 LCD screen resolution; 500:1 contrast ratio

5" TFT LCD Monitor
Stock No. 93001
• Selectable on-screen grid lines
• Operating voltage: 10-15V
• 700mA power consumption
• 5G Shock resistance
• 15:9 widescreen aspect ratio
• 1400 × 234 screen resolution

Stock No. 93002

Stock No. 93004

Stock No. 93006

Stock No. 93008

HD Backup Cameras
Stock No. 93010
Rostra 12V backup cameras use CMOS color cameras with a ¼" lens to provide high-quality picture for commercial and fleet vehicles. Thread-together connectors provide a weather proof seal.
• Hinge Mount CMOS Color Camera
• 4-pin threaded plug with 41" pigtail harness
• 170 degree peripheral view
• IP 69 water and dust-proof
• Stainless hinge bracket and mounting hardware
• Infrared LEDs for night vision
• Adjustable lens hood
• Stainless steel camera body is an industry exclusive

Mounts

Stock No.	Mount	Info
93002	12V Tab Hinge Mount CMOS Camera	• 4-pin threaded plug with 82" pigtail harness • Selectable parking grid lines • Includes hinge and tab mounts
93004	12V Flat-Mount CMOS Camera	• 4-pin threaded plug with 82" pigtail harness • Flush mounts to flat surface • Selectable parking grid lines
93006	12V License Plate CMOS Camera	• 4-pin threaded plug with 226" pigtail harness • Bracket mounts behind license plate • Selectable parking grid lines
93008	12V Wedge-Shaped CMOS Camera	• 38" pigtail harness • 4-pin threaded plug • Selectable parking grid lines • Mounts to horizontal or vertical surfaces

4-Pin Camera Video Output
Stock No. 93013
• Use to mount Rostra with other camera systems

Extension Harness

Stock No.	Length Ft.
93011	33
93012	66

Side tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

HALOGEN BULBS

Halogen Bulbs

Stock No.	Industry Stock No.	Description	Volts	Watts	Base	Hours	Lumens
47854	H7 55W	HALOGEN BULB	12	55	PX26d	250	1350
47855	H1 55W	HALOGEN BULB	12	65	P14.5s	200	1410
47856	H3 55W	HALOGEN BULB	12	68	PK22s	400	1450
47857	H3 70W	HALOGEN BULB	24	84	PK22s	400	1750
47858	H3 100W	HALOGEN BULB	13.2	85	PK22s	150	1950
47859	H9	HALOGEN BULB	12.8	65	PGJ19-5	200	2000
47860	H11	HALOGEN BULB	12.8	100	P14.5s	100	2500
47861	9003	HALOGEN BULB	12.8	60/55	P43t	150/320	150
47850	9004	HALOGEN BULB	12.8	65/45	P29t	150/320	1200
47851	9005	HALOGEN BULB	12.8	65	P20d	150	1700
47852	9006	HALOGEN BULB	12.8	55	P22d	320	1000
47853	9007	HALOGEN BULB	12.8	65/55	PX29t	150/320	1350/1000
47862	880	HALOGEN BULB	12.8	27	Axial (PGJ13)	300	540

MINIATURE HID BULBS

HID Bulbs

- High intensity bulb for reflection headlight systems in automotive, truck and heavy equipment applications
- 35 watts
- Lamp Style: T3

Stock No.	Industry Stock No.	Description	Volts	Watts	Base	Hours	Lumens
47863	D1S	HID	85	35	PK32d-2	2000	3200
47864	D1R	HID	85	35	PK32d-3	2000	2800
47865	D2S	HID	85	35	PK32d-2	2000	3200
47866	D2R	HID	85	35	PK32d-3	2000	2800
47867	D3S	HID (Zenon)	42	35	PK32d-6	2000	2800
47868	D3R	HID (Zenon)	42	35	PK32d-5	2000	3200

FLASHERS

Flashers are offered in both mechanical and electronic styles, each in two and three pin configurations. The electronic flasher is solid state with no moving parts and will outlast the mechanical flasher many times over.

Stock No. 42011
- 2 pin electronic
- For up to 10, 27 watt, 12 volt lamps

Stock No. 42012
- 3 pin electronic

12V

Stock No. 42022
- 2 pin mechanical
- Replaces both short and long units (536/552 styles)
- For up to 4, 27 watt, 12 volt lamps

Stock No. 42023
- 3 pin mechanical (550 style)

12V

LED Flasher
Stock No. 47972
- Automatically adjusts to LED current
- Rated from 1 to 20 amps
- Comes with grounding wire

12V

Flasher
Stock No. 47973
- 3 pin electronic
- LED and incandescent flasher
- For 300 watt, 12 volt

SAE J945   SAE J590   SAE J1690

12V

AC INLET PORT PLUG

Stock No. 10343
- GCP1 AC Port Plug with 16" molded extension cable
- Advanced charge inlet device offers optimal flexibility and ease of installation
- Mounts to exterior of any vehicle to make charging accessible in a more convenient location
- Use with cordset blade devices Stock No. 11035, 11037 and 10340

125V 13A

UL

BLADE CONNECTING DEVICES

Straight Blade Device (2-Pole 3-Wire Grounding)

Connector Stock No.	Plug Stock No.	Amps	Volts	Pin Config.	NEMA Config.	Color	Grade	Diameter Range
11035	**11034**	15	125		5-15	Yellow	Commercial	.245-.655
11037	**11036**	15	125		5-15	Black-White	Industrial	.245-.700
11041	**11040**	20	125		5-20	Black-White	Industrial	.245-.700

SJOOW and SOOW type service cord can be used with these items.

Standard Straight Blade Device

- 15 amp straight blade configuration is designed for heavy duty requirements
- Variety of NEMA styles in both 125 and 250 volt capacity are available
- Conductor range of #18 thru 10 with solid brass terminal screw
- Fits cord diameters of .300" to .655"
- Wire terminal holes close together for easy insertion of wires
- Dust resistant inlet with a nylon housing both front and back
- All solid brass screws and contacts

Connector Stock No.	Plug Stock No.	Amps	Volts	Pin Config.	NEMA Config.	Dust Resistant Inlet Stock No.
10340	**10341**	15	125		5-15	**10342**

SELF LAMINATING LASER TAGS

- White area for printing and a transparent area used to wrap over the print, forming a laminated tag - polyester material
- Wire marking, for machine tool wire and flat ribbon cable
- Water resistant

Stock No.	Mfr. No.	W	H	L	Labels Per Pkg.
55140	TAG1L-105	1.9"	.75"	3.25"	1000
55141	TAG2L-105	.5"	.5"	1.43"	5000
55142	TAG5L-105	.8"	.5"	1.43"	5000
55143	TAG9L-105	1.0"	.75"	2.25"	1000
55144	TAG26L-105	.5"	.375"	.75"	5000
55145	TAG49L-105	1.0"	.35"	1.0"	2500
55147	TAG51L-105	1.0"	.35"	.75"	5000
55148	TAG52L-105	2.0"	.47"	1.33"	1000
55149	TAG63L-105	1.0"	.5"	1.33"	2500

300°F (149°C)
-40°F (-40°C)
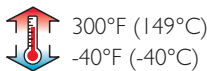
MYLAR MARKERS

- Produced from ultra thin polyester films and laminated with a mylar shield
- Superior markers for tough applications
- Protected from abrasion, solvents, grease, moisture, dirt and fungus
- Aggressive adhesive makes permanent application
- Black legend on a white background

Consecutive Legend

Card Size & Materials	Stock No.	Legend	Markers per Card
Premium Mylar	**53001-33**	1-33	36
Card 2" x 9"	**53034-66**	34-66	36
Marker 1.5" x .25"	**53067-99**	67-99	36
	5300A-Z	A-Z	36

350°F (177°C)
-40°F (-40°C)
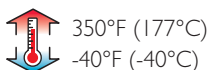
EXTENSION CORDS

Heavy Duty Cords

- Available in various lengths, wire gauges, and either standard orange or weatherproof blue Sun & Sno Cable
- Blue Sun & Sno Cable remains flexible to -58°F (-50°C)
- Meets UL and OSHA requirements

125V

Stock No.	Gauge/ Conductors	Length Ft.	Jacket Type	Jacket Color	Current Amps	Weight Lbs.
10212	14/3	25	SJEW-A	Blue	15	2.5
10213	14/3	50	SJEW-A	Blue	15	5
10208	12/3	50	SJEW-A	Blue	15	7
10227	14/3	25	SJEW-A	Orange	15	2.5
10228	14/3	50	SJEW-A	Orange	15	5

MARKER ROLLS

3M™ ScotchCode™ Dispenser STD
Stock No. 51300

- Wire marker dispensers provide a fast, convenient way to mark wire or cables
- Ten compartments are easily refilled with the replacement rolls
- Filled with rolls numbered 0-9
- Approximately 500 legends per roll

Stock No. 51301
- Empty replacement dispenser, no rolls included.

Replacement Rolls

Stock No.	Legend
51400	0
thru	thru
51409	9
5140A	A
thru	thru
5140Z	Z

3M™ SCOTCHCODE™ WRITE-ON MARKER DISPENSERS

- Wrap the transparent tape over the written portion for a protective cover
- Includes marking pen
  Stock No. 51241

Replacement Roll
Stock No. 51239

Self Laminating

Stock No.	3M Type	Markers Per Roll	Marker Size	Write-on Area
51241	SWD	250	3/4 x 1 3/8	3/4 x 5/16
51239*	SWD-R	250	3/4 x 1 3/8	3/4 x 5/16

Replacement roll only

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Grote
The first name in vehicle safety systems

LED SUPERNOVA® STOP-TAIL-TURN LIGHTS

U.S. 40 Series 10 diode - 4" Round

Red Lens **Stock No. 47920**   Amber Lens **Stock No. 47921**

Bracket **Stock No. 47944**

Grommet **Stock No. 47922**

Pigtail **Stock No. 47923**

U.S. 60 Series - 6.5" Oval

Red Lens **Stock No. 47940**

Amber Lens **Stock No. 47941**

Bracket **Stock No. 47924**

Grommet **Stock No. 47943**

Pigtail **Stock No. 47923**

SUPERNOVA® CLEARANCE / MARKER LED LIGHTS

U.S. 30 Series 2" Round

Red Lens **Stock No. 47910**
Amber Lens **Stock No. 47911**

Bracket **Stock No. 47913**

Grommet **Stock No. 47912**

Pigtail **Stock No. 47908**

U.S. 10 Series 2.5" Round

Red Lens **Stock No. 47905**
Amber Lens **Stock No. 47906**

Bracket **Stock No. 47909**

Grommet **Stock No. 47907**

Pigtail **Stock No. 47908**

U.S. 15 Series 2.5" Rectangle

Red Lens **Stock No. 47935**
Amber Lens **Stock No. 47936**

Bracket **Stock No. 47937**
• Includes a pigtail plug

U.S. 19 Series 3.78" Rectangle

Red Lens **Stock No. 47925**
Amber Lens **Stock No. 47926**

Bracket **Stock No. 47928**

Pigtail **Stock No. 47927**

Thin-Line - 3" Center

Red Lens **Stock No. 47950**
Amber Lens **Stock No. 47951**
• No bracket required

Pigtail **Stock No. 47952**

Sealed Turtleback® II - 6" Rectangle

Red Lens **Stock No. 47960**
Amber Lens **Stock No. 47961**

Pigtail **Stock No. 47962**

ACCESSORIES

Stock No. 47970   **Stock No. 47972**

Item Description	Stock No.	Comments
Adapter Plug	47970	For use with U.S. 40 and 60 Series female pin to male pin lamp termination
LED Flasher	47972	Automatically adjusts to LED current, rated from 1.0 to 20 amp See page 80

Other colors and styles of strobes, warning lights, beacons, and all other Grote lights may be available on special order basis. Call 800-328-2724 for details.

Side tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

LED CLEARANCE/MARKER LIGHTS

All clearance/marker light part numbers can be crossed to many different manufacturers. Call Sales for details.

2.5" Sealed Round
Red Lens **Stock No. 47766**
Amber Lens **Stock No. 47765**
- Complies to FMVSS 108 standards
- .70" deep

14V 60mA — **SAE J592**

2" Sealed Round
Red Lens **Stock No. 47762**
Amber Lens **Stock No. 47763**
- Complies to FMVSS 108 standards
- .68" deep

14V 60mA — **SAE J592**

2.5" Raised Grommet **Stock No. 47707**
2" Flush Mount Grommet **Stock No. 47712**

Pigtail **Stock No. 47708**

Raised
Flush
Pigtail

¾" LED Round Mini Lights
Red Lens **Stock No. 48003**
Amber Lens **Stock No. 48004**
- Grommet for quick mounting
- Meets P2PC requirements
- 100,000 Hour
- 5 year manufacturer warranty
- 2 18 ga wire 6" leads, bullet connector

12V

LED SURFACE MOUNT WARNING & MARKER LIGHTS

- 3 LED lights
- P2PC Combination light 45° mounting
- 3M™ self-adhesive mount design
- ⁷/₁₆" hole cutout
- Sealed moisture proof electronics
- Polycarbonate lens/housing
- 2 male .180 bullet connectors
- 1.6"W × 0.8"H × 0.4"D

SAE J592e — **12.8V 50mA**

Stock No.	Illumination
48006	Red
48007	Amber
48016	Clear

2 PRONG PLUG CONNECTORS - 100' SPOOL

- 100 two prong plugs per spool
- Quickly and easily install a series of indicator light for trailers
- Saves time and money by not having to individually wire each light
- All lights done in 1 step
- Works with: 2.5" sealed round lenses, 2" sealed round lenses, double bulls-eye lenses, 4" rectangular lenses

NEW

Stock No.	Spacing
47716	6"
47717	10"
47718	12"

STICK-ON REFLECTORS

3" Round Reflector
Red **Stock No. 47790**
Amber **Stock No. 47791**
- Adhesive backing protects prism against dirt

4.5" Rectangular Reflector
Red **Stock No. 47792**
Amber **Stock No. 47793**
- Fits narrow rails and tight spaces
- Mountable by adhesive back or 2 #8 screws

3M™ DIAMOND GRADE™ REFLECTORS

- Low profile-not easily knocked off and continue to function when damaged
- Meets and exceeds DOT and SAE-A requirements for reflex-reflectors
- Superior angularity beyond 60°
- Prismatic lenses in a durable transparent synthetic resin
- Pressure sensitive adhesive and clear poly liner

Stock No.	Description	Color
47794	3" Round	Red
47795	3" Round	Amber
47796	2" x 3.5" Rectangle	Red
47797	2" x 3.5" Rectangle	Amber
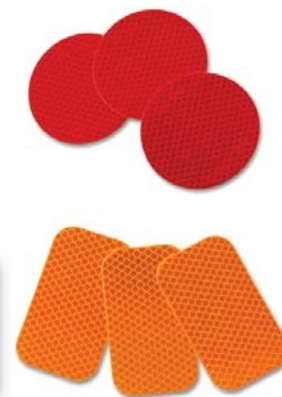
LED STOP-TAIL-TURN LIGHTS

Universal Mount
Stock No. 47764

12.8V

- 3 Stud mount
- Stop-tail:
  16 LEDs .19A
- Back-up:
  20 LEDs .124A
- License:
  4 LEDs .082A
- Pigtail included
- 2.8" deep

4" Sealed Round
Red Lens **Stock No. 47768**
Amber Lens **Stock No. 47767**

12.8V .210/090A

- 10 Super flux LED diodes
- Sonically sealed lens and housing
- Complies to FMVSS 108 standards
- 2" deep

Mounting Accessories for 4" Round Lights
Pigtail **Stock No. 47723**
Grommet **Stock No. 47722**
Bracket **Stock No. 47724**

4" Round Sealed LED Kit
Red Lens **Stock No. 47990**
Amber Lens **Stock No. 47991**

- Impact resistant plastic housing
- Includes light, grommet and pigtail

6" Oval Dual LED Stop-Tail-Turn and Back-Up Light DOT
Stock No. 47939

- 16 LEDs (10 white, 6 red)
- 8.17" x 3.82" oval size
- 100,000 hour rated LED life
- Standard 2-hole flange mount
- Requires 2 pigtail connectors Stock No.47998

6" Oval Dual LED Stop-Tail-Turn and Back-Up Light DOT
Stock No. 47945

- Two-in-one oval LED stop-tail-turn light with integrated back-up lamp
- Leaves more room on vehicles for other controls like lift gates and grab rails
- Requires 2 pigtail connectors Stock No.47998

6.5" Sealed Mid-Trailer Turn Signal
Amber Lens **Stock No. 47772**

14V .210/090A

- Shock-proof mounted bulbs
- 10 Super flux LED diodes
- Complies to FMVSS 108 standards
- 2.96" deep

90° Pigtail
Stock No. 47997
- 3 contact plug for stop-tail-turn LED's
- 9" - 18 ga GPT wire leads

90° Pigtail
Stock No. 47998
- 3 contact plug tin plated brass
- 9" - 18 ga GPT wire leads

6.5" Sealed Oval
Red Lens **Stock No. 47773**
Amber Lens **Stock No. 47771**

14V .210/090A

- 10 Super flux LED diodes
- Sonically sealed lens and housing
- Complies to FMVSS 108 standards
- 1.93" deep

Mounting Accessories for 6.5" Oval Lights
Grommet **Stock No. 47743**
Bracket **Stock No. 47744**
Straight Pigtail **Stock No. 47723**
90° Pigtails **Stock No. 47997** or **Stock No. 47998**

6.5" Oval Sealed LED Kit
Red Lens - 3 contacts, **Stock No. 47983**
Amber Lens - 2 contacts, **Stock No. 47994**

- Impact resistant plastic housing
- Includes light, grommet and pigtail

LED STOP-TAIL-TURN LIGHTS

6" Oval Low Profile Stop-Tail-Turn Lights **NEW**

Red Lens **Stock No. 47780**

Amber Lens **Stock No. 47781**

- 14 LED's
- Polycarbonate Lens
- 3 - 6" Wire Leads

12.8V

4" Round Stop-Tail-Turn Lights **NEW**

Red Lens **Stock No. 47784**

Amber Lens **Stock No. 47785**

- 9 LED's
- Polycarbonate Lens
- PL-3 on 11" Wires

12.8V

6" Oval Stop-Tail-Turn & Back-Up Light Surface Mount **NEW**

Stock No. 47787

- Combines Stop-Tail-Turn Light and Back-Up function in one unit
- 13 LED's - 9 Red - 4 White
- Polycarbonate Lens

12.8V

Low Profile Back-Up Lights Surface Mount **NEW**

- Polycarbonate Lens

USE OF THIS LAMP IN APPLICATIONS OTHER THAN BACK-UP FUNCTION WILL VOID THE WARRANTY

Thin Oval Mounting Grommet **NEW**

Stock No. 47788

- For use with Stock No. 47780, 47781, 47782 & 47787

Stock No.	Size	Milliamps	LED's	Wire Leads
47782	6" - Oval	245	14	3 -6"
47786	4" - Round	130	9	PL-3 on 11" Wires

Adhesive Mounting Tape **NEW** **3M™**

Stock No. 47783

- For use with Stock No. 47780, 47781, 47782 & 47787

INTERIOR & COMPARTMENT LIGHTS

LED Interior Flip Light
Stock No. 48008
12V
- 1 LED
- 100,000 hour rated life
- 2 mounting screws: cut out 3.13"W × 1"H × 1"D
- 2.1"H × 1.15"D

Mini-Chrome Oval Interior LED Courtesy Light
Stock No. 48009
12V
- 7 LEDs
- 3"W × 2"H × 0.625"D
- Stainless steel bezel

Pigtail Stock No. 47708

LED Overhead Dome Light
Stock No. 48010
12V
- 24 LED's
- 100,000 hour rated life
- 450 lumens
- Waterproof
- Polycarbonated lens and housing
- 3 hole surface mount $3/16$" diameter holes
- 5.5" dia., 0.8" depth

3/4" White LED Courtesy Light
Stock No. 48011
12V
- 3 SMD LED's
- 100,000 hour LED life
- Space saving design
- Meets P2PC requirements
- Hole cut out: $3/4$"
- Grommet included for quick mounting
- .75" dia., 0.8" depth

BACK-UP LIGHTS

4" Round White Back-up Light Kit
Stock No. 47747
- Sealed impact resistant plastic housing
- 2 hole flush mounting
- Incandescent bulb
- Includes light, grommet and pigtail

12V

4.25" LED Back-up Light
Stock No. 47984
- 18 diode sealed LED lamp
- DOT/SAE J593c
- Grommet **Stock No. 47722**
- Pigtail **Stock No. 47997**

12V 180mA

LED Interior Courtesy Cargo Light
Stock No. 48012
12V
- 12 extreme-flux LED's
- 100,000 hours
- 185 lumens
- 5.8"W × 2.9"H × 0.7"D
- Surface mount design with 4 hidden screws

Chrome Oval Interior LED Courtesy Light
Stock No. 48013
12V
- 13 LEDs
- 100,000 hour rated life
- 6.4"W × 1.9"H × 0.9"D

Pigtail Stock No. 47708

6" Interior 24 All LED Dual Color Red/White Dome Light
Stock No. 48017
12V
- 3 position White-Off-Red
- 3 hole surface mount, 5.9" diameter
- Polycarbonate lens & housing
- Low LED amp draw
- 2 - 12" 22 ga blunt cut wire leads

5.5" Low Profile Round Interior Courtesy Light
Stock No. 48018
NEW
- Snap on bezel
- 450 Lumen
- Mounting: 3 each $3/16$" dia holes on 5" dia bolt circle
- Dimensions: 5.7" dia × 0.4" deep with bezel
- 2 - 12" 22 ga wires

3" Low Profile Interior Courtesy Light
Stock No. 48014
NEW
12.8V
- 15 LED's
- 250 Milliamps
- 150 Lumen
- 2 - 12" 22 ga wires
- 4 hole screws included

6.5" Oval LED White Back-up Light
Stock No. 47987
- Sealed impact resistant plastic housing
- 24 LED bulbs

Grommet Stock No. 47743
Bracket Stock No. 47744

13.5V .42/.12A

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

INDICATOR LIGHTS

Plastic LED Indicator Light

- Stove pipe lens for wider viewing angle
- For ½" panel hole
- Includes 6" 18 ga wire leads

MADE IN AMERICA

12V

Stock No.	Color
47652	Red
47654	Amber
47655	Green
47656	Blue

Metal LED Indicator Light

- Watertight
- For 5⁄16" panel hole
- Includes 6" 18 ga wire leads

MADE IN AMERICA

12V

Stock No.	Color
47662	Red
47664	Amber
47665	Green
47666	Blue

Pilot Light

Stock No. 47639

- Red ½" dia. faceted lens
- 5⁄16" mounting hole
- Snap out socket for convenient bulb replacement

12V

Call 800-328-2724 for custom orders.

LED FLEXIBLE STRIP INTERIOR LIGHT

- Red LED strip lighting for cabs, compartments, cargo and work spaces
- Space saving low profile design
- Labor saving installation with easy 3M adhesive backing
- 1P68 completely sealed moisture proof electronics to withstand harsh environments and high vibration applications

12.8V DC

Stock No.	LED Color	LEDs	Length	Low Amp Draw
47901	Red	36	24"	710ma
47902	White	36	24"	710ma
47903	Red	54	36"	1110ma
47904	White	69	45"	1110ma

LED ENGINE COMPARTMENT LIGHT

Stock No. 48015

- 3 LED flood beam pattern
- 700 Lumens
- High temp glass lens
- Aluminum housing
- 5.9"W × 2.2"H × 0.9"D
- 2 hole surface
- 2 wire leads

300°F (149°C)

12V 1200mA

24V 570mA

Optional Swivel Mount Bracket
Stock No. 46016

STROBE LIGHTS

Mighty Mini-Strobe

Stock No. 47751

- 70 flashes per minute, 1½ joules
- Threaded screw on lens
- 3 5⁄8"H, 5 1⁄8" dia.
- Includes mounting hardware

12V .25A

Grote — The first name in vehicle safety systems

LED Mighty Mini-Strobe

Stock No. 47947

- 90 flashes per minute
- Longer life than standard strobes
- 3 ¾"H, 6" dia.
- Includes mounting hardware
- Class III

12V .15A

Grote — The first name in vehicle safety systems

Side tabs: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

LED BEACON LIGHTS

Star Halo LED Amber Beacon
Stock No. 47942

12-24V

- Class 1 California Title 13
- Rugged die-cast metal, universal flange base
- Durable polycarbonate, twist on/off lens
- 24 customer selectable flash patterns
- Cigarette plug with on/off switch and pattern select switch
- High/low intensity - manual or automatic
- Extremely low current draw
- Completely encapsulated circuit for increased weather and shock resistance
- 0.6 amps @ 12V, 0.3 amps @ 24V
- Mounting hardware included

Halo Amber & Blue LED Beacon
Stock No. 47966

12-24V

- Tall clear SAE Class 1
- Dual Color Gen IV LED's (four of each color)
- 24 customer selectable flash patterns including rotating patterns
- Extremely low current draw
- Completely encapsulated circuit for increased weather and shock resistance
- 0.7 amps @ 12V, 0.35 amps @ 24V
- Mounting hardware included

Halo Mini Amber LED Beacon
Stock No. 47964

- SAE Class 1 Low Profile
- Durable polycarbonate, twist on/off lens
- 12 customer selectable flash patterns, including steady-on
- Extremely low current draw
- Completely encapsulated circuit for increased weather and shock resistance
- Heavy duty die-cast base
- Cigarette plug with pattern select
- Voltage: 10-16VDC
- Amp Draw: 0.5 amps @ 12VDC
- Mounting hardware included

Mirror Mount Bracket Kit
Stock No. 47967

- Beacon ½" NPT ¾" Post Only
- Works with Stock No. 47942, 47964 and 47966

DOME MINI LED LIGHT BAR

- Extremely low profile
- Super bright M-Tech Plus® LED technology provides superior warning light image
- Durable polycarbonate
- Injection-molded domes are fully gasketed to protect against moisture
- Conformal coated circuitry protects against shock and vibration
- Voltage: 10V - 30VDC
- Amp Draw: 2.3 amps (max)
- Dome Color: Clear or Amber
- Mounting hardware included
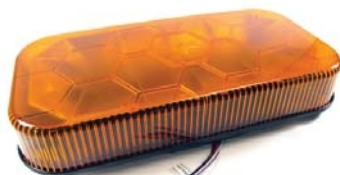
Stock No.	Class
47915	Clear Dome /Amber LED SAE Class 1
47916	Amber Dome /White LED SAE Class 1 Title 13

Stock No. 47915

Stock No. 47916

AMBER LED BEACON STROBE LIGHT

NEW

13A

- Voltage: 10V-16V or 10V-110V DC
- Compact and powerful single LED light output
- 1 Watt STAR Generation - 3 LED
- Twist On-Off Lens
- Fully encapsulate circuitry
- Durable polycarbonate lens and base
- Amber lens w/ White LED
- SAE Class III

Stock No. 47745

UTILITY & WORK LIGHTS

Sealed Beam Tractor Light
Stock No. 47726
- Weather-proof sealed rubber housing
- 4¾" dia., 3" deep
- ³/₈" dia. mounting stud
- GE 4411 bulb, 35 watts
- 37,000 lumen
- PAR 36

12.8V

Square LED Work Light
Stock No. 47955
- 10 LEDs
- 1,750 Lumens
- Shatter proof polycarbonate lens
- Aluminum housing
- Stainless steel mounting bracket and bolt
- 4.7"W × 4.2"H × 3.2"D
- Blunt cut wire leads

Rectangular 6 LED Work Light
Stock No. 47968
- Black aluminum housing
- 2,150 lumens
- 12-36 VDC
- Mounting: 1" long 5/16" dia.
- Bolt with nut lock wash on stainless steel bracket
- 6.2"W × 3.8"H × 1.8"D

Rectangular Heavy Duty LED Work Light
Stock No. 47954
- 10 LEDs
- 1,500 lumens
- 6.3"W × 3.9"H × 1.8"D
- Dual voltage: 12/24 VDC

Trilliant T26 Mini LED Work Lamp
Stock No. 47731
- 1,700 Lumens 10-47V IP69k
- Trilliant mini, mount-anywhere work lamp
- Small size, combined with tough construction allows mounting in places where larger or less rugged lamps cannot fit or survive
- Pigtail included

Grote
The first name in vehicle safety systems

Replacement Pigtail Stock No. 47730

Trilliant LED Whitelight™ PAR 36 Work Lamp with Bracket Mount
Stock No. 47739
- Encapsulant potting for total circuit board protection against moisture and corrosion
- 40,000 hours
- 1,100 Lumens

Grote
The first name in vehicle safety systems

12V-1.4A 24V-7A

Coversion/ Replacement Bulb Stock No. 47738
- Turns any PAR 36 incandescent lamp to LED

LED Mini Flood Lamp
Stock No. 47956
- Polycarbonate lens
- Black powder-coated, die cast aluminum housing
- Stainless steel mounting hardware
- Efficiency: 38.8 lumens per watt
- Light Output: 600 lumens, 9 watt - 350 effective (Effective light measured after 30 minute warm-up)

Grote
The first name in vehicle safety systems

12-36V

122°F (50°C)
22°F (-30°C)

SAE J2139

LICENSE ILLUMINATORS

- Hermetically sealed lamp prevents water intrusion
- Hard-wired with .180 slim-line UBS plug connections for maximum performance
- Indexed, snap-fit mounting to brackets

12V .03A

Gray Stock No. 47776
- LED

Black Stock No. 47775
- LED

Stock No. 47725
- Shock proof Permamold gray housing
- Corrosion proof
- 1⁵/₈"W × 2 ⁵/₈"H × 2"D
- Mounting on 1¾" centers

Lamp and Bracket Kit
Stock No. 47735
- Sonic welded lens with 15,000-hour bulb
- Grommet included
- Can also be used as utility lamp
- 3³/₈" rectangle

Pigtail
Stock No. 47737
Replacement Grommet
Stock No. 47736

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LED HEADLIGHTS

LED Headlight Hi Low Beam

- DOT approved, 2B1 2-lamp headlamp system is legal for all 5" × 7" systems
- LED headlights have color temperature most like natural sunlight
- Headlight uses a hard coated, UV protected, high impact resistant polycarbonate lens that resists cracking and yellowing
- 9V-32V allows this lamp to be used on 12V and 24V electrical systems

Stock No.	Shape
47873	5" X 7" Square
47874	7" Round

Stock No. 47873

H4 Headlight Pigtail 16Ga 3 Blade
Stock No. 47872
- To use with Stock No. 47870. 47876, 47873, 47874

5" x 7" Dual LED Headlight
Stock No. 47870
- Voltage: 12/24 VDC
- Dimensions: 7.9"W × 5.6"H
- Amp draw: 2.66 amps @ 12 VDC 1.64 amps @ 24 VDC
- FMVSS-108 & CMVSS-108 compliant
- Polycarbonate lens and hard coating shell
- Completely sealed electronics

7" Round Dual LED Headlight
Stock No. 47876
- FMVSS-108 and CMVSS-108 compliant
- Auto select 12/24 VDC
- Polycarbonate lens and hard coating shell
- Completely sealed electrodes

LED WORK LIGHTS

LED Rectangular Work Light
Stock No. 47965
- Black aluminum housing
- 1,550 lumens
- 12-36 VDC
- Mounting: 1" long $\frac{5}{16}$" dia. bolt with nut & lock wash on stainless steel bracket
- 6 white LEDs

LED Work Lights
- Dual auto select 12/24 VDC voltage
- Powder coated aluminum housing
- Shatter proof polycarbonate lens
- Stainless steel mounting bolt & bracket
- 1,200 lumens
- 6 LEDs
- 1.56A 12V / 0.73A 24V amp draw
- 2 blunt cut 11" jacketed leads

Stock No.	Dimensions	Shape
47917	4.7" Dia. x 1.6" Deep	Round
47918	5.8" x 3.6" x 1.5"	Rectangle
47919	4.7" x 4.2" x 1.7"	Square

Stock No. 47917

LED Rechargeable Work Light
Stock No. 10117
- Dual purpose spotlight or floodlight, hang from the car using magnet or hook on the end
- Includes charger, no cord
- Floodlight: 60 LED's, 120 lumens, lasts 4hrs
- Spotlight: 6 LED's, 12 lumens, lasts18 hrs
- 35,000+ hour life LEDs
- Chemical, moisture and impact resistant
- 14.3" long

BAYCO
Life Depends on Light

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

UNITY

POST-MOUNT HALOGEN & LED SPOTLIGHTS

100W

12V 7A

Halogen - Chrome Finish

LED - Black Finish

30W

12V 3A

- 6" round high impact ABS plastic
- Chrome or black finish
- Head: 6.25"W × 6.1"H × 4.25"D
- Replaceable 100W H3 bulb Stock No. 47858 with 100 hours lamp life, with a polycarbonate lens that contains U.V. ray inhibitor
- 36" lead wire
- 245,000 candlepower for H3
- 215,000 candlepower/50,000 hours for LED
- Installation kits sold separately based on make, model and year of the vehicle

Replaceable 100W H3 bulb
Stock No. 47858

Halogen - Chrome Finish

Stock No.	Unity Stock No.
48065	330CL
48066	330GM
48067	330V
48075	203030
48076	203031

LED - Chrome Finish

Stock No.	Unity Stock No.
48090	335CL
48091	335GM
48092	335V
48099	201057
48101	203037

Halogen - Black Finish

Stock No.	Unity Stock No.
48069	94014-0002
48070	94015-0002
48071	210030-0002
48072	210031-0002
48077	205050-0002
48079	206010-0002
48080	206011-0002
48081	210010-0002
48083	211010-0002
48084	211011-0002
48085	211030-0002
48086	211031-0002

LED - Black Finish

Stock No.	Unity Stock No.
48064	335GM-0002
48094	94018-0002
48104	206016-0002
48105	206017-0002
48106	210016-0002
48107	210017-0002
48108	211016-0002
48109	211017-0002
48110	210036-0002

ROOF MOUNT SPOTLIGHTS

- 6" round high impact ABS plastic
- Chrome finish
- Head: 6.25"W × 6.1"H × 4.25"D

Stock No.	Unity Stock No.	Bulb	Watts	Candlepower	Hours	Replacement Bulb Stock No.
48068	380	H3	100	245,000	100	47858
48093	385	LED	30	215,000	50,000	----

100W

12V 7A

30W

12V 3A

KITS & REPLACEMENT HANDLE

Installation Kits
Includes:
- Mounting bracket, gasket (when needed), fasteners, trim pieces, drill busings, template and instructions

Stock No.	Unity Stock No.
48150	184
48151	184RH
48152	189
48153	189RH
48154	243
48155	243RH
48156	248
48158	253

Stock No.	Unity Stock No.
48160	254
48161	254RH
48163	256RH
48164	257
48165	257RH
48166	258
48167	258RH

Stock No.	Unity Stock No.
48168	259
48170	261
48171	261RH
48172	5556
48173	5557
48174	263
48175	263RH

Spot Light Lamp Kit
Stock No. 48128
Unity Stock No U-7682

Replacement Handle
Stock No. 48127
Unity Stock No U-6701-0101

Due to the vehicle specific nature of these products, please contact customer service at 800-328-2724 to ensure part accuracy.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

E-SWITCH | NEW

The PV series features an impact resistant metal body and actuator with an IP65 rating, an extended life expectancy, and a clean aesthetic look - including multiple lighting options. The PV Anti-vandal switches combine sleek looks with enhanced durability enabling you to modernize the look of your product, regardless of the environment. Popular applications for anti-vandal switches are outdoor ticket dispensers, marine, emergency vehicles, off-road vehicles, and industrial products.

- These switches are not just for anti-vandal applications as they also work in any harsh environments requiring impact resistance
- E-Switch has switches to meet a wide variety of design needs
- Electrical life: 200,000 cycles
- Certifications available: UL, CDA, RoHS, and Conflict Minerals
- IP65 rating for water and dust resistance

Anti-vandal Switches

48VDC 2A

Panel Cutout Size Requirements:
- PV1 Series - 19mm
- PV2 Series - 16mm
- PV5 Series - 12mm
- PV6 Series - 16mm
- PV9 Series - 28mm

131°F (55°C)
4°F (-20°C)

Stock No.	Circuit	Type	Illumination Color	Contacts	Series
43350	Off - (On)	SPST	----	2	PV1
43351	Off - (On)	SPST	----	2	PV1
43352	Off - (On)	SPST	----	2	PV1
43353	Off - (On)	SPST	----	2	PV1
43354	Off - (On)	SPST	----	2	PV2
43355	Off - (On)	SPST	----	2	PV2
43356	Off - (On)	SPST	----	2	PV2
43357	Off - (On)	SPST	----	2	PV2
43358	Off - (On)	SPST	----	2	PV5
43359	Off - (On)	SPST	----	2	PV5
43360	Off - (On)	SPST	Green	2	PV6
43361	Off - (On)	SPST	Blue	2	PV6
43362	Off - (On)	SPST	Green	2	PV6
43363	Off - (On)	SPST	Blue	2	PV6
43364	On-Off, Off-On	DPST	Blue	10	PV9
43365	On-(On)Off-(On)	DPST	Green	10	PV9
43366	On-(On)Off-(On)	DPST	Blue	10	PV9
43370	Off - (On)	SPST	Red	2	PV6
43371	Off - (On)	SPST	Red	2	PV6

(on) = momentary on

Anti-vandal Switches

250VAC 3A

Stock No.	Circuit	Type	Illumination Color	Contacts	Series
43320	On-(On)	SPDT	Red	5	ULV4
43321	On-On	SPDT	Green	5	ULV4
43322	On-(On)	SPDT	Blue	5	ULV4
43323	On-On	SPDT	Blue	5	ULV4
43324	On-(On)	SPDT	Blue	5	ULV4
43325	On-(On)	SPDT	----	5	ULV4
43326	On-(On)	SPDT	Green	5	ULV4
43327	On-(On)	SPDT	Blue	5	ULV4
43328	On-(On)	SPDT	Blue	5	ULV4
43330	On-On	SPDT	Red	5	ULV7
43331	On-(On)	SPDT	Green	5	ULV7
43332	On-(On)	DPDT	Blue	5	ULV7
43333	On-On	DPDT	Blue	5	ULV7
43334	On-On	SPDT	Blue	5	ULV7
43335	On-(On)	DPDT	Blue	5	ULV7
43336	On-On	DPDT	Blue	5	ULV7
43337	On-(On)	DPDT	Red	5	ULV7
43338	On-(On)	DPDT	Red	5	ULV7
43340	On-On	SPDT	Red	5	ULV8
43341	On-(On)	SPDT	Green	5	ULV8
43342	On-(On)	DPDT	Blue	5	ULV8
43343	On-On	DPDT	Blue	5	ULV8

(on) = momentary on

Rocker Switches

125VAC

- Mechanical life: 50,000 cycles
- Dielectric strength: 1000 VAC for 1 minute

185°F (85°C)
4°F (-20°C)

Stock No.	Circuit	Type	Illumination Color	Amps	Contacts	Series
43300	Off-On	DPST	Black w I/O	20	4	WB2
43301	Off-On	DPST	Black	20	4	WB2
43302	On-Off-On	DPDT	Black	20	4	WB2
43303	Off-On	DPST	Black	20	4	RVW
43304*	Off-On	DPST	Black	20	4	RVW
43305	On-Off-On	DPDT	Black	20	4	RVW
43306	On-On	DPDT	Black	20	4	RVW
43307	Off-On	DPST	Black w I/O	16	4	RBW2
43308	Off-On	DPST	Green	16	4	RBW2
43309*	Off-On	DPST	Red	16	4	RBW2
43310	Off-On	DPST	Red w I/O	16	4	RBW2
43311	Off-On	SPST	Green	15	4	R1996
43312	Off-On	SPST	Red	15	4	R1996
43313	Off-On	SPST	Green	15	4	R1996
43314	On-Off-On	SPDT	Black	15	4	R1996
43315	On-Off-(On)	SPDT	Black	15	4	R1996

* Marked - O/I

(on) = momentary on

Push Button Switches

125VAC 16A

- Electrical life: 6,000 Cycles
- Silver plated brass terminals
- Fits 36.5mm × 13.5mm panel cutout

185°F (85°C)
32°F (0°C)

Stock No.	Circuit	Type	Contacts	Series
43316	On-(On)	SPDT	3	PP1
43317	On-On-(On)	DPDT	6	PP2

(on) = momentary on

CONTURA ROCKER SWITCHES | Carling Technologies®
Innovative Designs. Powerful Solutions.

- Modular design
- Switch bodies and snap-in actuators sold separately
- IP66 - IP68 – complete protection against dust and submersion when used with panel gasket Stock No. 44380 on page 95

185°F (85°C)
-40°F (-40°C)

Upon request we can supply special circuit, identification and terminal combinations. Call 800-328-2724 for minimum quantities and lead times.

Environmentally Sealed

Lighted

Contoured Actuator

Un-lit

CIRCUIT TYPES

SP Single Pole
A switch device that opens, closes or changes connection in a single conductor of an electrical circuit.

DP Double Pole
A switch device that opens, closes or changes connection between two conductors of an electrical circuit.

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

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

TT Triple Throw
A switch that opens, closes or completes a circuit in three positions.

CONTURA SWITCH BODIES | Carling Technologies®
Innovative Designs. Powerful Solutions.

- Select the switch body needed for your application
- Removable actuators in a variety of styles sold separately See page 94
- Easy installation: actuators snap onto switch body
- Lighted switches are incandescent, unless noted

12V 20A

Stock No. 44305

Stock No. 44307

Stock No. 44278

Boot for Contura Switches
Stock No. 44309

Switch Body Less Actuator

Stock No.	Circuit	Type	Contacts	Lighting
44278*	on-off	SPST	**	one light
44301	on-none-off	SPST	2	unlit
44302	(on)-off	SPST	2	unlit
44303	on-off-on	SPDT	3	unlit
44304	(on)-off-(on)	SPDT	3	unlit
44305	on-off	SPST	3	one light
44306	on-off-on	SPDT	4	two lights
44307*	on-none-off	SPST	3	one light
44313*	on-off-on	DPST	7	two red
44321	on-off	DPST	4	unlit
44322	(on)-off	DPST	4	unlit
44323	on-off-on	DPDT	6	unlit
44324	(on)-off-(on)	DPDT	6	unlit
44325	on-off	DPST	5	one light
44326	on-off-on	DPDT	7	two lights
44327	on-on-on	SPTT	6	unlit
44328	on-on-on	SPTT	8	one light
44329	on-none-on	DPDT	6	unlit

ORDERING NOTES:
1. Select switch body style.
2. Select actuator, with any options required.

* Super bright LED
** Includes 4 epoxy sealed 6" 14 ga SXL wire leads
(on) = momentary on

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Tapes & Chemicals

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Switches & Relays

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Battery Management

Fuses & Circuit Breakers

Cable Ties

CONTURA II SWITCH ACTUATORS

- Constructed of thermoplastic polycarbonate
- Offered with either a hard nylon overlay or a "soft-touch" elastomer overlay
- Aesthetic design of raised "bumps" on the top and bottom of the rocker
- Fits the Contura switch bodies on page 93

Carling Technologies®
Innovative Designs, Powerful Solutions.

Contura II Switch Actuator

Gray Stock No.	Black Stock No.	Red Stock No.	Lens Color	Material Type
44336	44351	44356	None	Soft
44337	44352	44357	Red	Soft
44338	44353	----	Amber	Soft
44339	44354	----	Green	Soft
44340	44355	----	2 Red Lenses	Soft
44341	44361	44366	None	Hard
44342	44362	44367	Red	Hard
44343	44363	44368	Amber	Hard
44344	44364	----	Green	Hard
----	44365	44370	2 Red Lenses	Hard
----	44371	----	Blue	Soft
----	44372	----	Blue	Hard

CONTURA III SWITCH ACTUATORS

- Constructed of thermoplastic polycarbonate
- Offered with either a hard nylon overlay or a "soft-touch" elastomer overlay
- Designed with three rows of bars on the top and bottom of the rocker
- Fits the Contura switch bodies on page 93

Carling Technologies®
Innovative Designs, Powerful Solutions.

Contura III Switch Actuator

Stock No.	Color	Lens Color	Material Type
44430	Black	None	Soft
44431	Black	Red	Soft
44432	Black	Amber	Soft
44433	Black	Green	Soft
44434	Black	2 Red Lenses	Soft
44435	Black	None	Hard
44436	Black	Red	Hard
44437	Black	Amber	Hard
44438	Black	Green	Hard
44439	Black	2 Red Lenses	Hard
44440	Black	Blue	Soft
44441	Black	Blue	Hard
44442	Red	None	Soft
44443	Red	None	Hard
44444	Red	Red	Hard

CONTURA IV SWITCH ACTUATORS

- Advanced stylish curve design
- Fits the Contura switch bodies on page 93

Carling Technologies®
Innovative Designs, Powerful Solutions.

Contura IV Switch Actuator

Black Stock No.	Lens Color	Material Type
44390	None	Hard
44394	2 Red Lenses	Hard

Contura Pre-Printed Actuators

- Customize Contura switches with pre-printed actuators
- Offered in a variety of standard automotive and marine markings
- For Contura II, Contura III and Contura IV hard material actuators only
- Custom design services also available

Special order only. Call 800-328-2724 for pricing and minimums.

Actuator Removal Tool
Stock No. 44381

- Used to remove Contura II, Contura III and Contura IV actuators from switch body

Actuator Markings

Symbol	Symbol Meaning	Symbol	Symbol Meaning
	Light		Bilge Pump
	Horn		Bilge Blower
	Anchor Light		

Electrical Connector
Stock No. 44386

- Typically used with a wire harness assembly
- Speeds up installation

.83"

1.45"
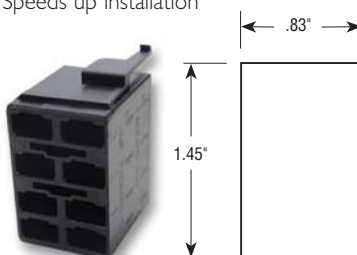
Mounting Hole
- For single switches .830" wide by 1.450" high
- Be sure to test cut a mounting hole in your actual material

Terminals

Wire Gauge	Stock No.	Packard No.	Reel Stock No.	Recommended Packard Tools
20-18	30090	12015869	30090R	408
16-14	31090	12015870	31090R	408
12	32090	12084590	32090R	407

- Special tooling needed for use of reels, not available from Waytek

V-SERIES CONTURA ROTARY SWITCHES

Carling Technologies®
Innovative Designs. Powerful Solutions.

- IP67 water/dust resistant
- Easy install: ¼" quick connect terminals

12V 20A

Stock No.	Circuit	Type	Lighting
44310	on-off	SPST	Unlit
44311	on-off-on	SPDT	LED green red green
44312	on-off	SPST	LED red

Stock No. 44310   **Stock No. 44311**   **Stock No. 44312**

CONTURA ROCKER SWITCH ACCESSORIES

Carling Technologies®
Innovative Designs. Powerful Solutions.

Four panel configuration with one switch shown

Single Mounting Panel
Stock No. 44382
- Used for a single switch mount along with the multiple panel for a consistent look
- 1.34" W × 2.30" H
- Mounting hole: .98" W × 1.90" H
- Be sure to test cut a hole in the actual panel material

Stock No. 44382

Mounting Panel Plug
Stock No. 44385
- Used to plug vacant switch locations
- .96" W × 1.91" H

Mounting Panel End
Stock No. 44387
- 1.19" W × 2.30" H
- End unit reverses to fit either side of the middle unit

Mounting Panel Middle
Stock No. 44388
- Used where multiple switches can be installed with only one hole to cut in your panel
- 1.03" W × 2.30" H
- Mounting hole for two units: 2.03" W × 1.90" H
- Add 1.03" width for each additional unit

Panel Gasket
Stock No. 44380
- Required for sealed panel applications
- Multiple gaskets are needed in some situations depending on the thickness of your panel

End Unit   **Middle Unit**

ROCKER SWITCHES

Illuminated Round Rocker Switches

12V 20A

- Easy to install snap-in mounting nylon frames
- Illuminated actuators are molded in polycarbonate
- 3/16" male tab contacts
- Single Pole, Single Throw (on-off), three contacts

Illuminated Indicator

Color	Stock No.
Amber	44170
Green	44171
Blue	44234
Red	44235

Fully Illuminated
Stock No. 44236

Fat Bat
Stock No. 44237

Clear Boot
Stock No. 44277
Clear boot goes on 44170, 44171, 44234, 44235 and 44236

Female Push-on 3/16"
Stock No. 31715
- 16-14 ga. nylon insulated terminal for Stock No. 44170, 44171, 44234, 44235, 44236 and 44237

Female Push-on 3/16"
Stock No. 31714
- 22-18 ga. nylon insulated terminal for Stock No. 44170, 44171, 44234, 44235, 44236 and 44237

MINIATURE SNAP-IN ROCKER SWITCHES

- Aesthetically pleasing curved rocker
- Available with a black unmarked rocker, or a black rocker with a red visible indicator when switched on
- Mounting hole is .480" by 1.072"
- Single Pole, Single Throw (on-off), two contacts
- Fits standard size cut outs
- ¼" male tab contacts

30V 10A

12V 8A

Black Rocker and Bezel
Stock No. 44238

Black Rocker w/ Red Rocker End and Bezel
Stock No. 44239

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EURO-SR ROCKER SWITCHES

- Slow-make/slow-break contact mechanism
- Available with the complete range of rugged single and two pole illuminated or non-illuminated circuits
- Thermoplastic rocker actuators
- Rocker and bezel are a high-graded nylon supplied with matte finish
- Snap-in mounting with plastic bezel
- ¼" male tabs
- RoHS compliant

250VAC 10A
125VAC 15A
28VDC 15A

Stock No.	Circuit	Type	Lighting
43101	on-off	SPST	Unlit
43102	(on)-off	SPST	Unlit
43103	on-off-on	SPDT	Unlit
43104	(on)-off-(on)	SPDT	Unlit
43105	on-off	SPST	One Red
43106	on-off-on	SPDT	Two Red
43107	on-none-off	SPDT	Two Red
43108	on-off	DPST	Unlit
43109	(on)-off	DPST	Unlit
43110	on-off-on	DPDT	Unlit
43111	(on)-off-(on)	DPDT	Unlit
43112	on-on-on	DPTT	Unlit
43113	on-off	DPST	One Green
43114	on-off-on	DPDT	Two Green
43116	on-none-on	DPDT	Unlit

(on) = momentary on

SVR SEALED ROCKER SWITCHES

- Panel actuator style
- Waterproof and environmentally protected up to IP68
- Assembled switches
- RoHS compliant

12VDC 12A

Stock No.	Circuit	Type	Lighting	Lens
43200	on-none-on	SPST	Unlit	----
43201	(on)-none-on	SPST	Unlit	----
43202	on-off-on	SPDT	Unlit	----
43203	(on)-off-(on)	SPDT	Unlit	----
43204	on-none-on	SPST	Amber LED	Green Top Lens
43205	on-off-on	SPDT	Two Amber LEDs	Green Top Lens Red Bottom Lens
43206	on-none-off	SPDT	Amber LED	Green Top Lens
43207	on-none-on	DPDT	Unlit	----
43208	(on)-none-on	DPST	Unlit	----
43209	on-off-on	DPDT	Unlit	----
43210	(on)-off-(on)	DPDT	Unlit	----
43211	on-on-on	DPTT	Unlit	----
43212	on-none-on	DPDT	Amber LED	Green Top Lens
43213	on-off-on	DPDT	Two Amber LEDs	Green Top Lens Red Bottom Lens
43214	on-on-on	DPTT	Amber LED	Green Top Lens
43215	on-none-on	DPDT	Unlit	----

(on) = momentary on

X SERIES SWITCHES

- Outdoor applications
- LED illumination
- IP56 sealing
- Easy snap-in mounting with plastic bezel
- Frames are nylon and actuators are nylon with glass fiber
- ¼" male tabs
- RoHS complaint

125VDC 16A
14VDC 21A
28VDC 10A

Stock No.	Circuit	Type	Lighting
43230	on-off	SPST	on/off Icon
43231	on-off	SPST	Amber LED
43232	on-on	SPDT	2 Amber LED
43233	on-off-on	SPDT	2 LED
43234	(on)-off-(on)	SPDT	2 LED
43235	on-off	DPST	on/off Icon
43236	on-off	DPST	Unlit
43237	on-on	DPDT	Unlit

(on) = momentary on

BLACK PANEL PLUGS

Stock No.	Series
43240	NGR
43241	Euro-SR
43242	SVR
43243	X

Stock No. 43240

Customize pre-printed switches available for:

- Euro-SR
- SVR
- NGR

Special order only. Call 800-328-2724 for pricing and minimums.

EAT•N

NEW GENERATION ROCKER (NGR) SWITCHES

- Full-sized rocker switches
- Select the body needed for your application
- Removable actuators in a variety of styles sold separately
- Easy installation: actuators snap onto switch body
- High-quality thermoplastic material
- ¼" male tabs
- RoHS compliant

185°F (85°C)
-40°F (-40°C)

250VAC 10A

125VAC 15A

28VDC 15A

Stock No.	Circuit	Type	Lighting
43000	on-off	SPST	Unlit
43001	(on)-off	SPST	Unlit
43002	on-off-on	SPDT	Unlit
43003	(on)-off-(on)	SPDT	Unlit
43004	on-off	SPST	One Light
43005	on-off-on	SPDT	Two Lights
43006	on-none-on-off	SPDT	Amber LED
43007	on-off	DPST	Unlit
43008	(on)-off	DPST	Unlit
43009	on-off-on	DPDT	Unlit
43010	(on)-off-(on)	DPDT	Unlit
43011	on-on-on	DPTT	Unlit
43012	on-off	DPST	One Light
43013	on-off=on	DPDT	Two Lights
43014	on-on-on	DPTT	One Light
43015	on-none-on	DPDT	Unlit

(on) = momentary on

NGR ROCKER ACTUATORS

Stock No.	Color	Lens
43016	Black	None
43017	Black	Red Top Lens
43018	Black	Green Top Lens
43019	Black	Amber Top Lens
43020	Black	Blue Top Lens
43021	Black	White Top Lens
43022	Black	Clear Top Lens
43023	Black	Amber Lens Top & Bottom
43024	Black	Lens Hole on Top
43025	Black	Lens Hole on Bottom
43026	Black	Lens Hole on Top & Bottom

- High-quality thermoplastic material
- Fits the NGR Rocker Switch series
- Lenses are removable and replaceable

REPLACEMENT LENSES FOR NGR SERIES

Stock No.	Color
43027	Red
43028	Green
43029	Amber
43030	Blue
43031	White
43032	Clear

BEZEL GANG MOUNTS

Stock No. 43244   Stock No. 43245

Stock No.	Position	Series
43244	Center	NGR
43245	End	NGR
43246	Center	SVR
43247	End	SVR

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Battery Management

Fuses & Circuit Breakers

Cable Ties

WATERPROOF ROUND PUSH BUTTON SWITCHES

- Body Material: Black Nylon 66
- Actuator Material: Polycarbonate (94-V2)
- Contact ¼" male terminals
- IP65

Round Push Button with Black Actuator

Round Push Button with Red Actuator

Stock No.	Circuit	Type	Current Rating	Contacts	Illumination
44100	on - off	DPST	*G	4	None
44101	on - off	DPST	*H	4	Red LED
44102	(on) - off	SPST	*G	2	None
44103	on - off	SPST	*G	2	None
44104	on - off	SPST	*H	3	Red LED
44105	on - off	SPST	*H	4	Red LED

*G - 20A at 14VDC, 10A at 28VDC, 10A at 125VAC, 6A at 250VAC, 1/2hp at 125/250VAC

*H - 20A at 14VDC   *(on) = momentary on*

WATERPROOF ROUND ROCKER SWITCHES

- Body Material: Black Nylon 66
- Actuator Material: Polycarbonate (94-V2)
- Contacts: ³⁄₁₆" male terminals
- IP65

Stock No. 44115

Stock No. 44116

Stock No. 44122

Stock No.	Circuit	Type	Current Rating	Contacts	Illumination
44115	on - off	SPST	20A at 12VDC	2	None
44116	on - off	SPST	20A at 12VDC	3	Red LED
44122	on - off	DPST	20A at 12VDC	4	Red LED

CAN PROGRAMMABLE SWITCH J1939 TRI-COLOR LEADS

- Programmable multi-color LED rocker switch module, designed to operate within a J1939 Controller Area Network (CAN)
- LED configuration, choose from 8-color palette
- Each LED can be configured with up to four unique system-status colors
- Interchangeable cams create different switch modes

Stock No.	Positions
80155	4
80156	8
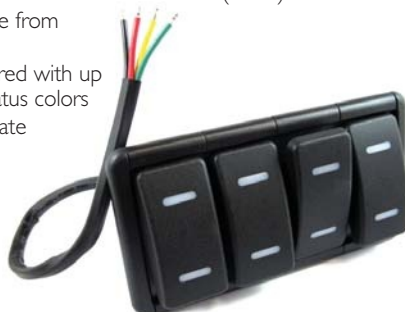
Stock No. 80155

RECTANGLE ROCKER SWITCHES

Rectangle Rocker Switches

- Body Material: Black Nylon 66
- Actuator Material: Black Glass Filled Nylon
- Contact ¼" male terminals
- IP56

Stock No. 44123

Stock No. 44124

Stock No.	Circuit	Type	Current Rating	Contacts	Illumination
44123	on - off	SPST	*A	2	None
44124	on - off	SPST	*B	3	Neon Red Lens

*A - 21A at 14VDC, 20A at 125VAC, 10A at 250VAC; 16A at 125VAC 3/4HP, 10A at 277VAC 3/4HP

*B - 16A at 125VAC 3/4HP

Waterproof Rectangle Rocker Switches

- Body Material: Black Nylon 66
- Actuator Material: Polycarbonate (94-V2)
- IP65

Stock No. 44120

Stock No. 44121

Stock No. 44164

Stock No.	Circuit	Type	Current Rating	Contacts	Illumination
¼" Male Terminal Contacts					
44120	on - off	SPST	25A at 14VDC	3	Red LED
44121	on - off - on	SPDT	25A at 14VDC 15A at 28VDC 16A at 125VAC 10A at 250VAC 16(6)A at 250VAC	3	None
³⁄₁₆" Male Terminal Contacts					
44164	on - off	SPST	20A at 12VDC	3	Blue
44165	on - off	SPST	20A at 12VDC	3	Amber

MOMENTARY CAM FOR HMI CAN SWITCH

- Designed on a simple snap-in platform that allows for easy and inexpensive assemblies and modifications of the switch action

Stock No.	Description
80170	2 Position Momentary
80171	3 Position Stationary
80172	2 Position Stationary
80173	1 Position Momentary
80174	2 Position Stationary & 1 Position Momentary

Stock No. 80171

MOMENTARY PUSH BUTTON SWITCHES

Momentary Start Switch
Stock No. 44047
- Stem ³⁄₄" long, ⁵⁄₈" dia.
- Two #8 screw contacts
- Optional weather and dustproof boot available
- Normally open

6V 25A
12V 15A

Momentary Start Switch
Stock No. 44049
- Stem ⁵⁄₈" long, ⁵⁄₈" dia.
- 70A make /14VDC 20A Break
- Flush silver contact screws in molded insulator
- Normally open

24V 40A

Switch Boots
- Weather and dustproof neoprene rubber
- Can be used for both Momentary Start Switches 44047 and 44049

Black
Stock No. 44053

Red
Stock No. 44054

Momentary Push Button Switch Collar
Stock No. 44055
- Protective collar - safety bezel for use with Momentary Start Switches 44047 and 44049

Momentary Master Push Button Switch
Stock No. 44006
- For controlling apparatus that requires temporary power and manned operation
- Heavy duty momentary push switch with water resistant cover
- Normally open

12V 16A

Compact Momentary Push Button Switch
Stock No. 44005
- Two #6 screw contacts
- Normally open

6V 15A
12V 10A

PVC Coated Momentary Start Switch
Stock No. 44046
- Stem 1¹⁄₁₆" long
- 8" 14 ga wire loop
- PVC coating protects from dust and weather
- Normally open

6V 25A
12V 15A

Door Switch
Stock No. 44007
- Plunger style door switch with self tapping threads
- Includes mating connector
- 18 ga GPT wire, three 8" leads
- Normally closed

14V 10A

Horn button
Stock No. 44003
- Black plastic button, nickel plated housing
- Mounting holes 2¹⁄₈" on center
- Two #6 screw contacts
- Normally open

12V 5A

Marine Extra Heavy Duty
Stock No. 44156
- Normally open, SPST, Off - Momentary On
- On with button depressed, spring return to Off
- Corrosion-resistant brass case
- Plunger button and mounting hardware
- Moisture repellent insulators
- Chrome-plated buttons and face nuts, except where noted
- Two brass screw terminals
- Mounting stem; brass ⁵⁄₈"-32 thread, 1³⁄₈" (34.9mm) long, fits panel up to 1" (25mm) thick
- Silver contacts

12V 35A
24V 20A
36V 10A

Door Switch with Faceplate
Stock No. 44159

12V 5A

Door Switch
Stock No. 44162

12V 10A

Heavy Duty with Protected Button
Stock No. 44155
- Recessed face nut design prevents accidental actuation
- Two 8/32 screw terminals
- Mounting stem; ⁵⁄₈"-32 thread, 2¹⁄₃₂" (16.7mm) long

12V 35A
24V 20A

Stock No.	Circuit	Type	Contacts	Mounting	Notes
44159	Normally closed	SPST	Two screws	Two ⁹⁄₆₄" dia. mounting holes, 1³⁄₈" on center	⁴⁵⁄₆₄" dia. Plated steel case
44162	Normally closed	DPST	Four ¼" blade terminals	⁷⁄₁₆"-20 thread mounting stem, ⁷⁄₁₆" long	Two flats on stem for mounting in double-D hole

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

TOGGLE SWITCHES

Carling Technologies®
Innovative Designs. Powerful Solutions.

- Sealed and unsealed actuators available
- Lighted units available for 12V DC only
- Red = On, Clear = Off
- 1/4'' male blades or #6 screw contacts
- Mounting stem is 15/32'' dia. and fits panels to 1/8'' thick
- Includes face nut

Nylon Toggle

Metal Toggle

Lighted

Nylon Toggle Switches

Stock No.	Circuit	Type	Amp Rating	Contacts 1/4" male blades	Toggle
44200	on-off	SPST	*A	2	Black Nylon
44201	(on)-off	SPST	*B	2	Black Nylon
44202	on-off-on	SPDT	*A	3	Black Nylon
44203	(on)-off-(on)	SPDT	*B	3	Black Nylon
44204	on-off	DPST	*A	4	Black Nylon
44205	on-off-on	DPDT	*A	6	Black Nylon
44206	on-off	SPST	*B	3	Lighted
44207	on-off-on	SPDT	*B	5	Lighted

Metal Toggle Switches

Circuit	Type	Amp Rating	Contacts 1/4" male blades	Stock No.	Screws	Stock No.	Toggle
on-off	SPST	*B	2	**44250**		----	Unsealed Metal
on-off	SPST	*B	2	**44251**	2	**44252**	Sealed Metal
(on)-off	SPST	*B	2	**44254**	2	**44253**	Sealed Metal
(on)-off	SPST	*B	2	**44240**		----	Sealed Metal
on-on	SPDT	*B	3	**44255**	3	**44254**	Sealed Metal
on-off-on	SPDT	*B	3	**44257**	3	**44256**	Sealed Metal
(on)-off-(on)	SPDT	*B	3	**44287**	3	**44258**	Sealed Metal
on-(off)-on	SPDT	*B	3	**44241**		----	Sealed Metal
on-off	DPST	*B	4	**44259**		----	Unsealed Metal
on-off	DPST	*B	4	**44261**	4	**44260**	Sealed Metal
on-on	DPDT	*B	6	**44263**	6	**44262**	Sealed Metal
on-off-on	DPDT	*B	6	**44264**			Unsealed Metal
on-off-on	DPDT	*B	6	**44266**	6	**44265**	Sealed Metal
(on)-off-(on)	DPDT	*B	6	**44270**	6	**44271**	Unsealed Metal
(on)-off-(on)	DPDT	*B	6	**44272**	6	**44273**	Sealed Metal

*A - 20A at 250VAC
*B - 10A at 250VAC, 15A at 125VAC
(on) = momentary on

Toggle Safety Cover

- Prevent accidental actuation
- Spring loaded design with a steel faceplate and plastic cover
- For use with the on-off metal toggles shown here

Stock No.	Color
44218	Red
44230	Yellow
44231	Green
44232	Blue

Call 800-328-2724 about specific switch requirements.

Typical Lighted Toggle

15/32-32 Thread

.63"
.38"
.86"
.44"
1.38"
.75"
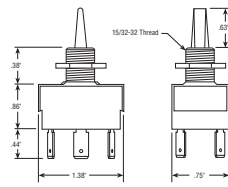
Shown with 1/4" male blades

Typical Metal SPST

15/32-32 Thread

.63"
.47"
.67"
.34"
1.13"
.63"
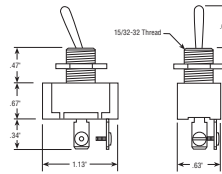
Shown with screw terminals

Typical Metal DPDT

15/32-32 Thread

.69"
.47"
.78"
.44"
1.31"
.75"
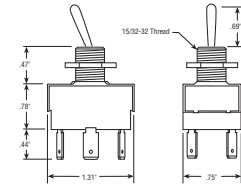
Shown with 1/4" male blades

Dimensions shown are nominal.

TOGGLE ACCESSORIES

- Provides protection from weather and salt spray
- Full boot style fits over switches with 15/32'' dia. mounting stems and standard length handles
- Half boot style allows any handle length to protrude through (round handles only)

Nuts - All 15/32'' Threads

Panel Bushing Seal
Stock No. 44275

Face Plate
Stock No. 44216
- On-Off

Standard Hex Face Nut
Black **Stock No. 44211**
Nickel **Stock No. 44210**

Black Half Toggle Boot
Stock No. 44215

Gray Half Toggle Boot
Stock No. 44282

Dress Face Nut With Knurled Edge
Black **Stock No. 44213**
Nickel **Stock No. 44212**

Full Toggle Boot
Stock No. 44219
- For lighted switches

Full Toggle Boot
Stock No. 44214

REVERSING TOGGLE SWITCHES

Stock No. 44268
- DPDT forward-reverse toggle switch
- Four silver 1/4" quick disconnects
- Mounting stem 15/32" - 32 thread, 15/32" long
- Fits panels up to 9/32"

| 12V 25A | 24V 15A | 36V 10A |

Stock No. 44269
- For reversing control of motors
- DPDT, four #6 screw contacts
- Momentary on-off-momentary on

| 125V 15A | 250V 12A |

SPECIALTY TOGGLE SWITCHES

Lighted Toggle Switch
- Tip of handle is illuminated red in the on position
- ¼" female disconnects
- ¹⁵⁄₃₂" - 32 thread mounting system
- ¹¹⁄₁₆" long handle

12V 25A

Stock No. 44208

Stock No.	Type	Circuit	Terminals
44208	SPST	On-Off	4
44209	SPDT	On-Off-On	5

Sealed Switch
- Material: nickel plated toggle, bushing, ring nut and hex nut
- Black weather resistant plastisol coating
- Neoprene seal between toggle and bushing
- Mounting stem ¹⁵⁄₃₂" dia., ³⁄₈" long
- UL 1015 wire leads

12V 25A

Stock No.	Circuit	Type	Contacts	Coated Wire Leads
44279	on-off-on	SPDT	.156 male bullet connectors	3-16 ga
44280	on-off	SPST	----	2-14 ga
44281	(on)-off-(on)	SPDT	----	3-14 ga

(on) = momentary on

Stock No. 44279
- 3 coated wire leads
- .156" male bullet connectors

HEAVY DUTY TOGGLE SWITCHES

- Designed for use where an extra high amp rating is needed
- Heavy die-cast body
- ¹⁵⁄₃₂" dia. mounting stem
- #8 screw contacts
- Four circuit types

6-24V 50A

Chrome finish
Black Matte
Long handle chrome
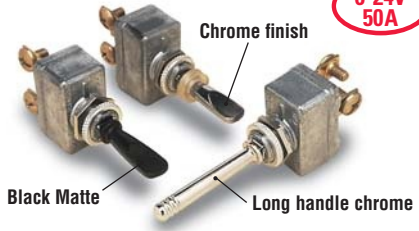
Stock No.	Circuit	Type	Contacts	Handle Type
44222	(on)-off-(on)	SPDT	3 #8 screw	1" Std. Black
44224	on-off	SPST	2 #8 screw	1" Std. Chrome
44225	on-off-on	SPDT	3 #8 screw	1" Std. Chrome
44226	(on)-off-(on)	SPDT	3 #8 screw	1" Std. Chrome

(on) = momentary on

Full Toggle Boot
Stock No. 44276
- For Heavy Duty Switches with 1" handles

HEAVY ACTION TOGGLE SWITCH

Stock No. 44290
- Compact design
- Two #6 screw contacts
- ½" dia. mounting hole
- ¹⁵⁄₃₂" dia. mounting stem
- Use with Recessed Switch Plate Stock No. 44274

Application
- Small appliance, floor maintenance and low current AC/DC market segments

Stock No. 44291

150°F (65.6°C)
0°F (-17.8°C)

250V 3A
125V 6A

Stock No.	Circuit	Type	Toggle	Coated Wire Leads
44290	on-off	SPST	Sealed Metal	----
44291	on-off	SPST	Sealed Metal	2 - 18 ga

Recessed Switch Plate
Stock No. 44274
- Attachment for Toggle Switch Stock No. 44290, sold separately
- Prevents accidental actuation or damage to the switch
- Mounts flush in a 2" dia. hole

PUSH-PULL SWITCHES

Stock No. 44041
- Two position, off-on
- Chrome knob
- Stem ³⁄₈" dia., 1¼" long
- Two #8 screw contacts

Pollak® A Stoneridge Company
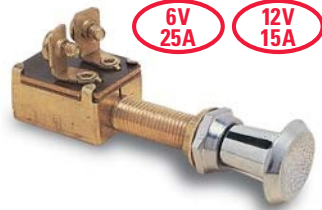
6V 25A **12V 15A**

Stock No. 44045
- Three position, off-on (B, R & A) - On (B, R & H)
- Chrome plated brass knob
- Stem ³⁄₈" dia., 1¼" long
- Three #8 screw contacts

12V 15A

Cole Hersee® A Littelfuse® Brand

EXTRA HEAVY DUTY PUSH-PULL SWITCH

Stock No. 44015
- On-off, two screw contacts
- Chrome plated knob
- Mounting stem ¹⁵⁄₃₂" dia., ⁵⁄₈" long

6-28V AC 75A

Pollak® A Stoneridge Company

LOW PRESSURE SWITCHES

Fingertip Adjustable Pressure Switches

NASON NEW THINKING

- Long life elastomer diaphragm
- High quality snap action
- Visual calibration
- Economical and compact for cost, space and weight savings
- ¼" blade terminals
- SPDT

30VDC 5A

Stock No.	Manufacturing Stock No.	Set Point Range (PSI)
76200	SQ1	2-10
76202	SQ2	6-30
76204	SQ3	20-120

Fixed Pressure Setting – Factory Preset

NASON NEW THINKING

- Circuit transfer at rising set point
- Pneumatic and hydraulic applications
- 18" 18ga UL 3173 wire leads
- NEMA 4, 13
- SPDT

10A

Stock No.	Manufacturing Stock No.	Fixed Set Point (PSI)
76206	LM-2C-10R/WLAT	10
76208	LM-2C-20R/WLAT	20
76210	LM-2C-30R/WLAT	30
76212	LM-2C-40R/WLAT	40
76214	LM-2C-50R/WLAT	50
76216	LM-2C-60R/WLAT	60
76218	LM-2C-70R/WLAT	70
76220	LM-2C-80R/WLAT	80
76224	LM-2C-90R/WLAT	90
76226	LM-2C-100R/WLAT	100
76228	LM-2C-110R/WLAT	110
76230	LM-2C-120R/WLAT	120
76232	LM-2C-130R/WLAT	130
76234	LM-2C-140R/WLAT	140
76236	LM-2C-150R/WLAT	150
76238	LM-2C-160R/WLAT	160
76240	LM-2C-170R/WLAT	170
76242	LM-2C-180R/WLAT	180
76244	LM-2C-190R/WLAT	190
76246	LM-2C-200R/WLAT	200
76248	LM-2C-210R/WLAT	210
76250	LM-2C-220R/WLAT	220
76252	LM-2C-230R/WLAT	230
76254	LM-2C-240R/WLAT	240
76256	LM-2C-250R/WLAT	250
76258	LM-2C-260R/WLAT	260
76260	LM-2C-270R/WLAT	270
76262	LM-2C-280R/WLAT	280
76264	LM-2C-290R/WLAT	290
76266	LM-2C-300R/WLAT	300

TEMPERATURE SWITCHES

NASON NEW THINKING

- Circuit closes at rising set point
- Bi-metal immersion design
- Factory preset temperature
- Direct action contacts
- Available in a wide range of configurations
- Economical and compact for cost, space and weight savings
- SPST, normally open
- 6" 18ga UL 3173 wire leads

3A

Stock No.	Manufacturing Stock No.	Temperature
76301	TT-F3A-50RWL	50°F
76302	TT-F3A-60RWL	60°F
76303	TT-F3A-70RWL	70°F
76305	TT-F3A-90RWL	90°F
76306	TT-F3A-100RWL	100°F
76307	TT-F3A-110RWL	110°F
76308	TT-F3A-120RWL	120°F
76309	TT-F3A-130RWL	130°F
76310	TT-F3A-140RWL	140°F
76311	TT-F3A-150RWL	150°F
76312	TT-F3A-160RWL	160°F
76313	TT-F3A-170RWL	170°F
76314	TT-F3A-180RWL	180°F
76315	TT-F3A-190RWL	190°F
76316	TT-F3A-200RWL	200°F
76317	TT-F3A-210RWL	210°F
76318	TT-F3A-220RWL	220°F
76319	TT-F3A-230RWL	230°F
76320	TT-F3A-240RWL	240°F
76321	TT-F3A-250RWL	250°F
76322	TT-F3A-260RWL	260°F
76323	TT-F3A-270RWL	270°F
76324	TT-F3A-280RWL	280°F
76325	TT-F3A-290RWL	290°F

More Nason products available by special order. Call 800-328-2724 for details.

UNIVERSAL COOLANT LEVEL SENSOR

- Compatible with Ethylene Glycol and Extended Life Coolants
- Discrete outputs reduce interface development time
- Standard 1/4-18 NPT mounting thread size
- Can be mounted in any orientation in plastic or metal reservoirs
- 20 Max PSI
- Applications: heavy truck, passenger vehicle, industrial, construction and marine

NEW

257°F (125°C)
-40°F (-40°C)

Stock No. 76330

BACK-UP ALARMS

- Medium duty
- 3' 18 ga wire lead connections
- Steam cleanable/pressure washable
- Meets State, Federal and U.S. Army Corps of Engineers' requirements

- CE & E-mark Certified for EMC
- Voltage spike and reverse polarity protected
- Compact size for horizontal or vertical mounting in protected areas

Pollak®
A Stoneridge Company

12-24V .3A

SAE J994-Type B

SAE J994-Type C

Pollak®
A Stoneridge Company

Stock No. 48019
- 107db at 4'
- Compact Size: 4"W x 2.5"D x 3"H
- Mounting: 2 slots .5"L x .25"W and 2 slots .75"L x .25"W slots on 3.25" centers

Stock No. 48020
- 97 db at 4'
- Compact Size: 4"W x 1.25"D x 2.5"H
- Mounting: 4 slots .5"L x .25"W slots on 3.25" centers

Data Bus Reverse Alarm Ford Transit DBT-LD-C SPC218
Stock No. 80035
- Alarm Output: +12 volts at 3 amps, set when vehicle is in reverse
- Dimensions: 3.165"L x 1.94"W x 0.798"H
- For use with Stock No. 48020

185°F (85°C)
-40°F (-40°C)

InPOWER
the systems people
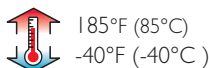
Back-up Alarm Switch
Stock No. 48022
- For vehicles without an automatic back-up switch circuit
- Mount adjacent to reverse switch
- Spring loaded lever permits over-travel
- Normally off

8A

Pollak®
A Stoneridge Company

HORNS

- Offered in the novel fanfare style for 12V and the mini-disc style for 24V
- Compact size for tight mounting conditions
- Mounting bracket

- Corrosion resistant and waterproof
- Electrical contacts are standard ¼" blade terminals
- .3165" dia. hole on fanfare styles

12V

24V

Mini-Disc Horn
Stock No. 48062
- Low pitch (335 Hz)
Stock No. 48063
- High pitch (435 Hz)

Mini-Fanfare Horn
Stock No. 48054
- Low pitch (400 Hz)
Stock No. 48055
- High pitch (500 Hz)

UNIVERSAL 12V DC BUZZER IMPACT-RESISTANT CASE

Stock No. 47630
- Universal Buzzer for hundreds of uses, including door ajar warning, bus driver alert, low air pressure, temperature, and more
- Works with any temperature, pressure, door switch or momentary push button switch
- Electrical contacts are designed for instant response and uninterrupted signal
- Impact-resistant ABS resin case with moisture repellent insulator
- Two screw terminals with lock washers
- $1\frac{7}{32}$" L x $2\frac{1}{2}$" W x $2\frac{17}{32}$" H

CH Cole Hersee®
A Littelfuse® Brand

12V

12VDC

MOMENTARY GROUNDED DOOR JAMB SWITCHES

CH Cole Hersee®
A Littelfuse® Brand

Stock No. 44008
- Normally off grounded momentary door switch
- On-(off) with plunger depressed, spring return to off ground
- Single circuit
- Mounting: $\frac{5}{16}$"-18 thread, stem $\frac{1}{2}$" long
- Plunger: $\frac{7}{16}$" long

Stock No. 44009
- Normally off grounded momentary door jamb switch with rubber foam sleeve
- On-(off) circuit is open with plunger depressed, spring return to ground
- Two circuits grounded simultaneously
- Mounting: $\frac{3}{8}$"-24 thread, stem $\frac{7}{32}$" (5.6 mm) long
- Plunger: $\frac{3}{16}$" (4.8 mm) long self adjusting to $\frac{1}{4}$" (6.4 mm) long

12V 5A

12V 5A

BUZZER & RED LED PILOT LIGHT DUAL ALARM

Stock No. 47631
- Combination buzzer and pilot light
- Gives audible and visible alert
- Rugged design with metal body, red lens and long-life LED
- $1\frac{1}{16}$" diameter mounting stem
- $\frac{17}{32}$" long
- $1\frac{7}{8}$" long x 1" wide x $1\frac{11}{32}$" high body
- Universal application; use with any electrical switch

CH Cole Hersee®
A Littelfuse® Brand

12V DC

CH Cole Hersee Co.
Dual Alarm

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

SOLID STATE DISCONNECT SWITCHES

Solid State Battery Disconnect

- Remotely operate high current circuits
- Battery power shut off
- Replaces under seat battery disconnect switch
- Control circuit reverse battery protection +12V control & ground inputs
- Internal diode protection for inductive load switching
- Dimensions: 5.25L" × 4"W × 2.375"H
- Power lugs: 3/8"-16 brass studs
- Environmentally sealed
- Solid state design

12V

Stock No.	Max Current	Max Inrush	Mating Connector Required
44405	200A	500A @ 1.0 sec	(2) 1/4" female push-on connectors (ex: 30511 pg 20)
44406*	200A	500A @ 1.0 sec	38170 Amphenol 2-pin plug
			38183 Amphenol 2-pin Wedge Receptacle
			38197 Pin Terminal 14-16 Ga
			38195 Pin Terminal 16-18 Ga
44407	300A	500A @ 1.0 sec	(2) 1/4" female push-on connectors
44408*	300A	500A @ 1.0 sec	2-pin Amphenol AT Series Plug (same as 44406)

*Pigtails included

BATTERY DISCONNECT SWITCHES

Stock No. 44033

- Non-fused current interrupt disconnect
- Opens circuit between a battery and the complete electrical load
- Max surge 2000 amps on 20% duty, with 5 seconds on time
- 1/2" brass, tin plated stud
- 8"W × 4.19"H

302°F (105°C)   **50V 400A**
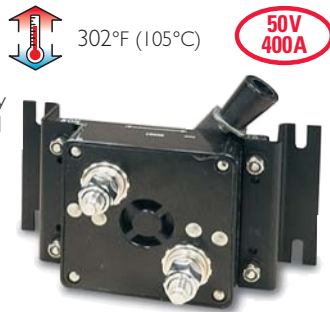
- Cuts off all battery power from the vehicle electrical system
- Protects vehicle from tampering, theft and battery drain

Top Mount-Opens Vertically
Stock No. 44090

Top Mount-Post with Wing Nut
Stock No. 44091

250-750A

Stock No.	Mounting	Dimensions
44090	Top Mount-Opens Vertically	3" W x 4"L x 2" H
44091	Top Mount-Opens Vertically - Post with Wing Nut	3" W x 4"L x 2¼" H
44092	Side Mount - Opens Down	3¾" W x 3¼" L x 1¼" H
44093	Remote Mount - Opens In-Line	3" W x 4" L x 2" H

Solid State DC Contactors

- Compact size and low profile solid state design
- Status LED indicator: steady on when contactor is on and operating normally, flashes when contactor has automatically turned off or detected loss of ground, over-current, under-voltage or over-temperature
- Control Input Voltage: >+8.0VDC to activate, <+4.0VDC to deactivate
- Dimensions: 2.85" × 4.35" × 1.10"
- Control Input utilizes 1/4" male disconnects
- 3/8"-16 stainless steel stud

InPOWER the systems people

+7.5 to 20V

Max Temperature 110°F (43°C)

Stock No.	Max Current Type A Mounting	Max Current Type B Mounting
44401	100A	75A
44402	150A	100A
44403	200A	125A
44404	275A	200A

NEW

Type A Mounting: Aluminum plate 0.125"x16"x16" or larger
Type B Mounting: wood, plastic or air

ELECTRONIC AUXILIARY BATTERY SWITCH (ABS)

- Ideal for charging auxiliary battery and isolating it from vehicle's chassis battery and alternator
- Solid state technology
- Prevents over-current, over temperature and under-voltage
- Higher operational life than diode based battery isolators and mechanical solenoids

InPOWER the systems people

+9.0 to 18V

Amp	Stock No.
100	44410
150	44411
175	44412
200	44413

HIGH AMP REMOTE RELAYS

- Supports remote power switching applications that demand high continuous current passage, large inverter loads, high temp situations
- Designed for harsh weather, high shock and vibration environments
- Ideal for heavy-duty vehicles, construction and ag equipment, trucks, military vehicles and heavy lifting equipment
- High performance in a compact size

CH Cole Hersee A Littelfuse Brand

High Amp Remote HD Relay

Stock No.	Contact Action	Amps	Volts
75515	SPST	300	12
75516	SPST	300	24

- Uses 6 position DTM connector
- Mates with Stock No. 38627 on page 45

Stock No. 75515

IGNITION SWITCHES

Pollak®
A Stoneridge Company

Acc — Off — Ign/Acc — Ign/Start

Four position - Stock No. 44061
- Ignition start switch with die-cast case with keys
- Mounting stem: ³/₄" dia, ³/₄" long
- 14V DC: 8A/30A Inductive Ign

Stock No. 44062
- Keyed with PK-556 keys

Pollak®
A Stoneridge Company

Off — On

Stock No.	Positions	Switch Style	Keyed
44065	2	On-Off Lock Switch	Various
44059	3	On-Off-On Key Switch	PK-556
44064	4	Lock Switch with Lockout Feature	PK-556
44066	2	On-Off Lock Switch	PK-556

Cole Hersee®
A Littelfuse® Brand

Acc — Off — Ign/Acc — Ign/Start

Four position - Stock No. 44179
- Zinc diecast coded tumblerlock
- Mounting stem: ³/₄"-20
- 12V DC: 10A Accessory, 10A Ign, 5A Start

HEAVY DUTY ROTARY REVERSING SWITCH

Cole Hersee®
A Littelfuse® Brand

Stock No. 44035
- DPDT spring return to Off from both On positions
- Allows forward/reverse motion of a motor without the need for a relay
- Heavy Duty component parts: ³/₃₂" thick terminals, silver-laminated contacts
- 10-32 (9.5mm) terminal screws with lockwasher
- Mounting stem ¹/₂"-20 thread

50A

A1 & A2 Off

On Reverse A1 & B1 A2 & B2 — On Forward A1 & B2 A2 & B1

Both positions spring return to OFF position. A1 & A2 circuits must break before another circuit makes.
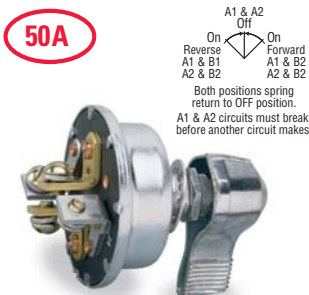
ENGINE START/ENGINE STOP MOMENTARY SWITCHES

- Die-cast housing, with knurled aluminum face nut
- Two screw terminals with lock washers
- Mounting stem ⁷/₈"-24 thread
- Keyed to prevent switch from turning

12V

Cole Hersee®
A Littelfuse® Brand

Stock No. 44157
- With black 'Start' button

Stock No. 44158
- With red 'Stop' button

E-STOP, PUSH BUTTON & SELECTOR SWITCHES

Lovato

- Available in 1-hole, 2-hole and 3-hole enclosures
- Weather resistant, IP65 rated

Control Station Enclosures

Stock No. 44148

Stock No. 44149

Stock No. 44150

Stock No. 44151

- 4-hole and 5-hole enclosures available on special order

Call 800-328-2724 for details.

- Switch operators made of aluminum and zinc alloy
- Contact elements snap onto the mounting adapters of the switch operators and are keyed to ensure proper alignment
- Modular construction with rear locking screws

- Contact elements are stackable depending on control station depth, recommended max stack is 2 control elements deep
- Actuator sealing gasket has a gripping action to hold actuator securely in place once assembled

24V 3A

120VAC 6A

140°F (60°C)
-13°F (-25°C)

Typical finished assembly

Switches Stock No. 44012 & 44013
Use adaptor Stock No. 44023 and contacts Stock No. 44018 or 44019

Selector Switch Actuator, Lever Stock No. 44012

Green Pushbutton Actuator, Spring Return Stock No. 44013

Contact Element Stock No. 44018
- Normally closed

Contact Elements Stock No. 44019
- Normally open

Mounting Adaptor Stock No. 44023

Switches Stock No. 44017 & 44011
Use adaptor Stock No. 44039 and contacts Stock No. 44040 or 44050

Pushbutton Actuator Stock No. 44017

Pushbutton Actuator w/Light Option Stock No. 44011

Contact Element Stock No. 44040
- Normally closed

Contact Elements Stock No. 44050
- Normally open

Mounting Adaptor Stock No. 44039

Red LED Lamp Holder Stock No. 44014
- For Stock No. 44011

EMERGENCY STOP

Emergency Stop Disc Label Stock No. 44038

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

RELAYS

Recommended Wire Sizes For All Relays

| SAE Wire Size Gauge | Permissible Continuous Current (approximate values) | |
	At 77°F (25°C) Amps	At 122°F (50°C) Amps
20	12	8.0
18	16	10.6
16	20	13.3
14	30	19.6
12	34	22.6
10	51	34.0
8	68	45.0
6	91	60.5
4	121	80.0

These values are to be used only as a guide.

- High quality automotive relays available with current carrying capacity of 10 to 100 amps
- Types stocked: power, mini, micro and ISO 280 relays
- All have push-on type terminals, except for power relays which have push-on terminals for coil circuit contacts and screw terminals for power circuit contacts
- SPDT is normally closed
- SPST is normally open

TE Connectivity Power Relays

188°F (85°C)
-40°F (-40°C)

Stock No.	Tyco Part No.	Former Bosch Part No.	Volt Rating	Contact Action	Amp Rating NO	NC	Notes
75551*	V23232D0001X001	0 332 002 150	12	SPST	75	---	Four terminals, dual contact
75552	V23232A0001X003	0 332 002 156	12	SPST	75	---	Four terminals with parallel and series diodes
75561	V23232E0002X007	0 332 002 250	24	SPST	50	---	Four terminals, pre-contact
75563	V23252A0002X014	0 332 002 256	24	SPST	75**	---	Four terminals with parallel and series resistor

* This TYCO/BOSCH relay has a rating stamped on the cover that is based on switching 75 amps for 125,000 cycles. However, this relay can also switch 100 amps for over 100,000 cycles. Contact sales department for complete amp ratings and life cycle information. All power relays are bracket mount.

** Stamped 50 amp, but works up to 75 amp

Stock No. 75552

MINI RELAYS

TE Connectivity Mini Relays

188°F (85°C)
-40°F (-40°C)

Stock No.	Tyco Part No.	Former Bosch Part No.	Volt Rating	Contact Action	Amp Rating* NO	NC	Notes	Suggested Connector
75301	V23234B0001X001	0 332 019 103	12	SPST	50	---	Four terminals, resistor	75280, 75281 or 75282
75302	V23234B1001X004	0 332 019 110	12	SPST	50	---	Four terminals, bracket mount, resistor	75281 or 75282
75311	V23234A0001X032	0 332 209 137	12	SPDT	50	20	Five terminals, resistor	75280, 75281 or 75282
75312	V23234A1001X033	0 332 209 138	12	SPDT	50	20	Five terminals, bracket mount, resistor	75281 or 75282
75325	V23234A0004X055	0 332 209 211	24	SPDT	20	10	Five terminals	75280, 75281 or 75282
75326	V23234A1004X050	0 332 209 203	24	SPDT	20	10	Five terminals, bracket mount	75281 or 75282
75327	V23234A0004X051	0 332 209 204	24	SPDT	20	10	Five terminals, diode	75280, 75281 or 75282
75401*	V23234C1001X005	0 332 019 150	12	SPST	40	---	Five terminals, bracket mount	75281 or 75282
75402*	V23234C0001X006	0 332 019 151	12	SPST	40	---	Five terminals	75280, 75281 or 75282
75403*	V23234C1001X008	0 332 019 155	12	SPST	40	---	Five terminals, bracket mount, diode	75281 or 75282
75411*	V23234A1001X036	0 332 209 150	12	SPDT	40	20	Five terminals, bracket mount	75281 or 75282
75413*	V23234A0001X037	0 332 209 151	12	SPDT	40	20	Five terminals	75280, 75281 or 75282
75414*	V23234A0001X042	0 332 209 159	12	SPDT	40	20	Five terminals, resistor	75280, 75281 or 75282
75415*	V23234A1001X043	0 332 209 161	12	SPDT	40	20	Five terminals, bracket mount, resistor	75281 or 75282

* The TYCO/BOSCH relays have a rating stamped on the cover that is based on switching 30 amps for over 250,000 cycles. However, these relays can also switch 40 amps for over 100,000 cycles. Contact sales department for complete amp ratings and life cycle information.

Stock No. 75312

Stock No. 75413

Song Chuan Mini Relays
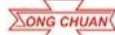
257°F (125°C)

Stock No.	Song Chuan Part No.	Volt Rating	Contact Action	Amp Rating NO	NC	Notes	Suggested Connector
75604	896H-1CH-D1SW-R1 U30	12	SPDT	50	30	Five ¼" terminals, skirted, resistor	75610 or 75612
75680	897-1AH-C-R1 U60	12	SPNO	70	----	Two ⅜" terminals, two ¼" terminals, resistor	75363 or 75364
75681	897-1AH-C1S-R1 U60	12	SPNO	70	----	Two ⅜" terminals, two ¼" terminals, resistor, steel bracket, flux tight	75363 or 75364
75682	897-1AH-C1S-002	12	SPNO	70	----	Two ⅜" terminals, two ¼" terminals	75363
75690	896H-1CH-C1-R1-U45	12	SPDT	50	30	Five terminals, bracket mount, resistor	75281 or 75282
75700	896H-1AH-C	12	SPST	50	----	Four terminals	75280, 75281 or 75282
75701	896H-1AH-C-R1	12	SPST	50		Four terminals, resistor	75280, 75281 or 75282
75705	896H-1CH-C	12	SPDT	50	30	Five terminals	75280, 75281 or 75282
75706	896H-1CH-CR1	12	SPDT	50	30	Five terminals, resistor	75280, 75281 or 75282
75711	896H-1AH-C1S-R1	12	SPST	50		Four terminals, bracket mount, resistor	75281 or 75282
75715	896H-1CH-C1S	12	SPDT	50	30	Five terminals, bracket mount	75281 or 75282
75716	896H-1CH-C1S-R1	12	SPDT	50	30	Five terminals, steel bracket mount, resistor	75281 or 75282

Stock No. 75681

Stock No. 75706

MINI RELAYS

Hella Standard Mini Relays

Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes
75601	12	SPDT	40	20	Five ¼" terminals, skirted, resistor
75602	12	SPDT	40	20	Five terminals, potted, resistor
75605	12	SPDT	40	20	Five ¼" terminals, skirted, resistor with bracket
75360	12	SPST	70	---	Two ⅜" terminals and two ¼" terminals, resistor

Stock No. 75601

-77°F (-25°C)

Stock No. 75602

275°F (125°C)
-40°F (-40°C)

Stock No. 75600
• Mounting bracket for Stock No. 75601

Stock No. 75605

275°F (125°C)
-40°F (-40°C)

Stock No. 75360

185°F (85°C)
-40°F (-40°C)
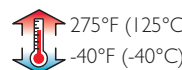
MINI RELAY CONNECTORS

• Heat stabilized thermoplastic connectors for relays
• Terminals (when supplied with connector) are brass, bright tin plated
• Connectors for panel mounting can be stacked together

185°F (85°C)
-40°F (-40°C)
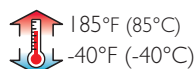
Stock No.	Former Bosch Part No.	Connects To	Mounting	Terminals Required
75280	3 334 485 008	5 pin high capacity/standard	Panel	Four or five ¼" push-ons (31073 or 32074)
75281	3 334 485 007	5 pin high capacity/standard	Harness	Four or five ¼" push-ons (31073 or 32074)
75282	3 334 485 010	5 pin high capacity/standard	PC Board	Included
75285	----	5 pin high capacity/standard	Panel	Five ¼" push-ons (31073 or 32074)
75363	----	4 pin, two ⅜" terminals and two ¼" terminals	Harness	Two of 75362 Two of 31073*
75364	----	4 pin, two ⅜" terminals and two ¼" terminals	PC Board	Two of 75362 Two of 31073*
75610	----	5 pin, weatherproof 3-12 ga and 2-18 ga GXL 12" leads	Harness	Included
75611	----	5 pin	Harness	Five of 31073*
75612	----	5 pin, weatherproof	Harness	Two of 31085 Three of 32037*

Stock No. 75280   **Stock No. 75281**

Stock No. 75282   **Stock No. 75364**

Stock No. 75610
• Same connector body as 75612

Stock No. 75611

Stock No. 75612 (Delphi No. 12077993)

📌 **ORDERING NOTES:**
Terminals must be ordered separately unless shown as included.
Use Crimp Tool Stock No. 419

Terminal Chart

Stock No.	Size	Wire Ga.	Tool Guide
30075	³⁄₁₆"	20-16	#419
31073	¼"	16-14	#419
75362	⅜"	12-10	#428
31085	¼"	16-14	#419
32037	¼"	12-10	#428
32074	¼"	12-10	#407

5 PIN HIGH CURRENT RELAY CONNECTOR (2) ¼" & (3) ⅜"

• Component Type: Relay Connectors
• Terminals Required: Three ⅜", Two ¼"

Stock No. 75284

Terminal Chart

Stock No.	Size	Wire Ga.
31073	¼"·	16-14
75362	⅜"	12-10
32074	¼"	12-10

Individual Components of 75612

Weatherproof Seal Stock No. 39022

Connector Body Stock No. 38139

5 Way Wire Seal Stock No. 39023
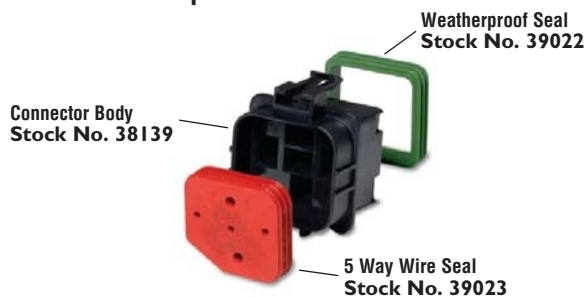
Stock No.	Description	Delphi No.
38139	5 pin connector body	12065662
39022	Weatherproof seal	12065663
39023	5 way wire seal	12077994
Terminals Needed for 75612		
31085	16-14 ga terminal (2 needed)	12066614
32037	12 ga terminal (3 needed)	12033997

Side tabs
Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

PICKER RELAY COMPONENTS

Standard Mini Relay Diagram

4 Terminal SPST

5 Terminal SPDT

5 Terminal SPST

Mini ISO Relay

Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes	Suggested Connector
Four - ¼ inch Nickel Plated Terminals						
75629	12	SPST	50	----	Resistor, Bracket	75280, 75281
75630	12	SPST	50	----	Resistor	75280, 75281
75631	12	SPST	50	----	Bracket	75280, 75281
75632	12	SPST	50	----	----	75280, 75281
75645	12	SPST	80	60	Diode	75284
75660	12	SPST	35	----	Resistor, Sealed Case	----
Five - ¼ inch Nickel Plated Terminals						
75615	12	SPDT	40	30	Resistor, Sealed, Skirted	75610, 75612
75616	12	SPDT	40	30	Resistor, Sealed	75280, 75281
75617	12	SPDT	40	30	Sealed	75280, 75281
75619	12	SPDT	40	30	Sealed, Diode	75284, 75363
75620	12	SPDT	40	30	Sealed, Resistor, Bracket	75284, 75363
75621	12	SPDT	40	30	Sealed, Diode, Bracket	75281, 75281
75622	12	SPDT	50	40	Bracket	75281, 75281
75623	12	SPDT	40	30	Sealed, Plastic Bracket	75281, 75281
75625	12	SPDT	50	40	Resistor, Bracket	75280, 75281
75626	12	SPDT	50	40	Resistor	75280, 75281
75627	12	SPDT	50	40	Bracket	75280, 75281
75628	12	SPDT	50	40	----	75280, 75281
75633	12	SPDT	40	30	Diode, Weather Proof	–
75635	12	SPST	2 x 20	----	Bracket, Sealed	75280, 75281
75636	12	SPST	2 x 20	----	Sealed	75280, 75281
75637	12	SPST	2 x 20	----	Sealed, Diode, Bracket	75280, 75281
75641	24	SPDT	25	20	Bracket	75280, 75281
75642	24	SPDT	25	20	----	75280, 75281
75643	24	SPDT	50	40	Diode	75280, 75281
75644	12	SPDT	80	60	Diode	75280, 75281
75659	12	SPDT	35	25	Resistor, Sealed Case	----
75661	24	SPDT	35	25	Resistor, Sealed Case	----
75668	12	SPDT	30	20	Resistor	75290, 75292
75669	12	SPDT	35	25	----	75290, 75292
Two ¼ inch and Two ⅜ inch Nickel Plated Terminals						
75648	12	SPST	80	----	Resistor, Braket	75363, 75284
75649	12	SPST	80	----	Resistor	75363, 75284
75650	12	SPST	80	----	Metal Bracket	75363, 75284
75665	12	SPST	30	20	Resistor	75290, 75292
Two ¼ inch and Three ⅜ inch Nickel Plated Terminals						
75646	12	SPDT	80	60	Resistor	75284
75647	12	SPDT	80	60	Metal Bracket	75284
75667	12	SPST	30	20	Resistor	75290, 75293
75671	12	SPDT	150	100	----	75284
75672	12	SPDT	150	100	Bracket	75284
75673	24	SPDT	75	50	Bracket	75284
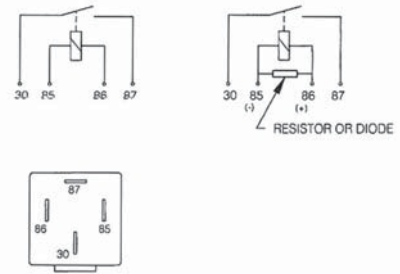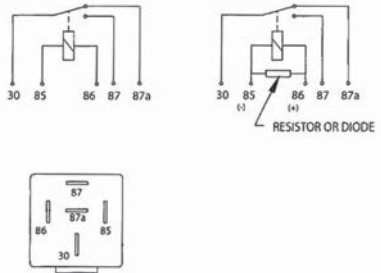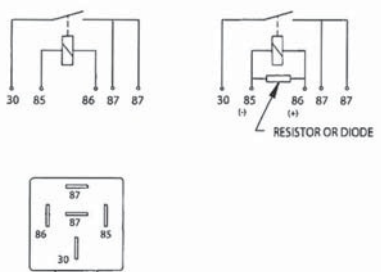
Stock No. 75659 **Stock No. 75660** **Stock No. 75661**

Micro ISO 280 Relay

Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes
75659	12	SPDT	35	25	Sealed, Resistor, 5 Terminals
75660	12	SPST	35	----	Sealed, Resistor, 4 Terminals
75661	24	SPDT	17	12	Sealed, Resistor, 5 Terminals

MICRO RELAYS

TE Connectivity Micro Relays - M3

Stock No.	Tyco Part No.	Former Bosch Part No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes	Suggested Connector
75530	V23374A1601X003	0 332 011 007	12	SPST	30		Four terminals, resistor	75290 or 75292

Call 800-328-2724 for complete amp ratings and life cycle information.

Stock No. 75530

257°F (125°C)

Stock No. 75723

Song Chuan Micro Relays

Stock No.	Song Chuan Part No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes	Suggested Connector
75720	871-1A-S	12	SPST	35	----	Four terminals	75290 or 75292
75721	871-1A-S-R1	12	SPST	35	----	Four terminals, resistor	75290 or 75292
75722	871-1A-C-D1	12	SPST	35	----	Four terminals, diode	75290 or 75292
75723	871-1C-C	12	SPDT	35	20	Five terminals	75290 or 75292
75724	871-1C-C-R1	12	SPDT	35	20	Five terminals, resistor	75290 or 75292
75725	871-1C-C-D1	12	SPDT	35	20	Five terminals diode	75290 or 75292

MICRO RELAY CONNECTORS

- Heat stabilized thermoplastic connectors for relays
- Terminals (when supplied with connector) are brass, bright tin plated
- Connectors for panel mounting can be stacked together

Stock No.	Former Bosch Part No.	Connects To	Mounting	Terminals Required
75290	3 334 485 045	5 Pin Micro Relay	Panel	Three of 30075 & two of 31073
75292	3 334 485 049	5 Pin Micro Relay	PC Board	Included

ORDERING NOTES:
Terminals must be ordered separately unless shown as included.

See terminals on page 107.

Stock No. 75290   **Stock No. 75292**

ISO 280 MINI, MICRO AND ULTRA MICRO RELAYS

- Designed with 2.8mm terminals
- Can use with Rear Terminal Mini Fuse Panels and Power Distribution Relay Connectors on page 123

257°F (125°C)

Size Comparison

ISO 280 Mini Relay   ISO 280 Ultra Micro Relay   ISO 280 Micro Relay

Stock No. 75740

Song Chuan ISO 280 Mini Relay

Stock No.	Song Chuan Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes
75740	898H-1AH-C-R1	12	SPST	50	----	Four terminals, resistor
75745	898H-1CH-C-R1	12	SPDT	50	30	Five terminals, resistor

Stock No. 75730

Song Chuan ISO 280 Micro Relay

Stock No.	Song Chuan Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes
75730	301-1A-C-R1	12	SPST	35	----	Four terminals, resistor
75735	301-1C-C-R1	12	SPDT	35	20	Five terminals, resistor
75738	301-1C-C-R1-U02	24	SPDT	20	15	Five terminals, resistor

Stock No. 75736

Song Chuan ISO 280 Ultra Micro Relay

Stock No.	Song Chuan Stock No.	Volt Rating	Contact Action	Amp Rating NO	Amp Rating NC	Notes
75736	303-1AH-C-R1-401	12	SPST	20	----	Four terminals, resistor
75737	303-1AH-C-R1-U01	24	SPST	20	----	Four terminals, resistor

MINI TACTOR SEALED CONTACTOR

- Small, lightweight and cost effective
- Max operating voltage: 1500 Vdc
- Max continuous current carry; @ 65c: 50A / @ 85c: 25A
- Max operate time: 25ms
- Max release time: 8ms
- Hermetically sealed contactor: ensures make/break switching up to 1200Vdc

185°F (85°C)
-40°F (-40°C)

Stock No.	Volts
77086	12
77087	24

GIGAVAC®

NEW

SOLID STATE TIMER RELAYS / VEHICLE CONTROL MODULES

- Small compact size
- Durable sealed metal case
- Time delay settings can be set with single turn adjustment
- Power outputs provide over current fault shut down protection
- Activating either Input A or Input B sets output
- Wiring connections are standard automotive ¼" push-on terminals

185°F (85°C)
-40°F (-40°C)

InPOWER the systems people
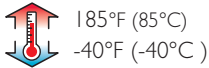
12V 15A

Stock No. 75532

Stock No. 75535

Dual Inputs

- On-Delay - output is reset after input is deactivated
- Off-Delay - out is reset at time delay after the input is deactivated
- One-shot - when either input A or input B is activated, output is set for a time delay, will be timed on regardless of length of input activation

On-Delay Stock No.	Off-Delay Stock No.	One-Shot Stock No.	Time
----	----	85532*	0-5 Seconds
75535	75540*	75545*	0-10 Seconds
75536	75541*	75546*	0-60 Seconds
85500*	85510*	----	0-1 Second
85502	----	85530	1 Second
85504	----	----	4 Seconds
----	85512	85534	5 Seconds
----	85514	----	10 Seconds
----	85516	85536	60 Seconds
----	85518*	----	0-2 Minutes
75537	75542*	75547*	0-3 Minutes
75538	75543*	75548*	0-10 Minutes
75539	75544*	75549*	0-60 Minutes
----	----	85538	2 Minutes
----	85520	----	3 Minutes
85506	85522	----	5 Minutes
85508	----	----	10 Minutes
----	85524	----	15 Minutes
----	85526	85540	20 Minutes
----	----	85542	30 Minutes
----	85528*	----	0-3 Hours
----	----	85544	4 Hours

* Adjustable Relay

Dual Input Relay

- Activating either Input A or Input B sets output

Stock No.	Notes	Volts	Amps
75532	Dual Inputs	12	15

Latching Relays

- Activating either Input A or Input B alternately latches output

Stock No.	Notes	Volts	Amps
75533	Dual Inputs	12	15
75534	Dual Inputs	24	15

Flasher Relays

- When Input is activated, the dual outputs alternately flash at 75 flashes per minute at 50% duty cycle

Stock No.	Notes	Volts	Amps
75550	Input is ground actuated	12	15 (dual)

FORWARD & REVERSE RELAY MODULE

NEW

Stock No. 77010
- Rust and moisture-resistant plastic housing
- 70AMP at 12VDC Intermittent
- 50AMP at 12VDC Continuous
- Intermintent or continuous operation
- IP67

12V

185°F (85°C)
-40°F (-40°C)

Cole Hersee® A Littelfuse® Brand

Cover Stock No. 77011

STANDARD SOLID-STATE RELAY

NEW

Stock No. 77012
- 9V-31V Electronic Solenoid
- No moving parts to wear out
- Can handle over 20 million on-off cycles
- Completely sealed
- 175A intermittent
- 5/16 -18 Stud Terminals

85A

185°F (85°C)
-40°F (-40°C)

Cole Hersee® A Littelfuse® Brand
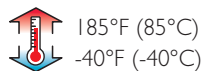
MOTOR REVERSING SOLENOID

Stock No. 77009
- Intermittent Duty
- Use for forward-reverse, up-down, left-right, open-close, in-out, motions and more
- Nylon material
- Resistant to dust, water, splash, oil, anti-freeze and brake fluid
- Max duty cycle: 5 mins on, 5 mins off @ 75A/12V, for 30 secs max on time @ 125A/12V, for 5 secs max on time: 150A/12V
- Contact life cycles rating: 10,000 cycles @ 75A inductive
- 5/16-24 stud size, comes with 4 hex nuts, 4 lock washers

Cole Hersee® A Littelfuse® Brand

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

DC POWER RELAY CONTACTORS

- Continuous Duty Cycle
- Silver Alloy contact material

White Rodgers

Application

- Emergency vehicle accessories, golf cart controls, bus accessories, floor sweepers/scrubbers, handicap lifts, utility winches, marine, forklifts, lawn & garden equipment, diesel engines

Stock No. 75565-75566

Stock No. 75567-75576

Stock No. 75580-75586

Stock No.	Pole Form	Terminal Type	Volt DC	Normally Continuous	Open Inrush	Coil	Model No.	White Rodgers Part No.	Temp Range	Mounting
75565	SPNO	4	12	100	400	Isolated	120-901	120-105751	-20°F to 120°F	Coil terminals up or horizontal
75566	SPNO	4	15	100	400	Isolated	120-902	120-108751	-20°F to 120°F	Coil terminals up or horizontal
75567	SPNO	3	12	100	400	Grounded	124-906	120-106761	-40°F to 150°F	Vertical plane with coil terminals up
75568	SPNO	4	12	100	400	Grounded	124-902	124-105111	-40°F to 150°F	Vertical plane with coil terminals up
75570	SPDT	4	24	100	400	Isolated	124-903	124-114111	-40°F to 150°F	Vertical plane with coil terminals up
75572	SPNO	4	36	100	400	Isolated	124-904	124-117111	-40°F to 150°F	Vertical plane with coil terminals up
75573	SPNO	3	24	100	400	Grounded	124-907	124-114211	-40°F to 150°F	Vertical plane with coil terminals up
75574	SPDT	6	12	200	600	Isolated	124-910	124-305111	-40°F to 150°F	Vertical plane with coil terminals up
75576	SPDT	6	24	200	600	Isolated	124-911	124-314111	-40°F to 150°F	Vertical plane with coil terminals up
75580	SPNO	4	12	200	600	Isolated	586-902	586-105111	-40°F to 150°F	Vertical plane with coil terminals up
75581	SPNO	4	6	200	600	Isolated	586-901	586-102111	-40°F to 150°F	Vertical plane with coil terminals up
75583	SPNO	4	24	200	600	Isolated	586-905	586-114111	-40°F to 150°F	Vertical plane with coil terminals up
75584	SPNO	4	36	200	600	Isolated	586-906	586-117111	-40°F to 150°F	Vertical plane with coil terminals up
75586	SPDT	6	12	200	600	Isolated	586-911	586-305111	-40°F to 150°F	Vertical plane with coil terminals up

SOLENOIDS

- Switch high electrical current when a much lower current is applied to its electromagnet coil
- #10-32 thread and 5/16"-24 thread copper terminals
- Hex nuts and lock washers included
- Insulated solenoids have studs that are electrically isolated from the housing
- Grounded solenoids have one of the studs internally connected to the housing

Cole Hersee
A Littelfuse Brand

Stock No. 77002
Plated steel housing

Stock No. 77023
Typical weatherproof solenoid with plasticized steel housing

Continuous Solenoids

Stock No.	Grounded/ Insulated	Volt	Continuous Current Rating	Make/Break Amp Rating	Housing Type
77000	Grounded	12	85	85/85	Plated Steel
77001	Grounded	24	85	120/65	Plated Steel
77002	Insulated	12	85	85/85	Plated Steel
77003	Insulated	12	85	85/85	Weatherproof Plasticized Steel
77004	Insulated	24	85	120/65	Plated Steel
77025 Latching	Insulated	12	110	85/85	Plated Steel
77005*	Insulated	24	65	65/65	Weatherproof Plasticized Steel
77006	Insulated	12	85/35	85/35	Plated Steel
77007 High Current	Insulated	12	200	200	Plated Steel

* UL Marine & CE/ISO Listed

Intermittent Solenoids

Stock No.	Grounded/ Insulated	Volt	Make/Break Amp Rating	Intermittent Time	Housing Type
77020	Grounded	12	750/100	10 sec. on-20 min off	Steel
77021	Grounded	12	750/100	10 sec. on-20 min. off	Weatherproof Plasticized Steel
77022	Insulated	12	750/100	10 sec. on-20 min. off	Steel
77023	Insulated	12	750/100	10 sec. on-20 min. off	Weatherproof Plasticized Steel
77024	Insulated	24	120/65	10 sec. on-30 min. off	Steel

DC POWER CONTACTORS

- High current capacity
- Enclosed in dust-resistant case
- Four 5/16"-24 studs
- Isolated coil

White Rodgers

122°F (50°C)
-40°F (-40°C)

Stock No.	Volts	Amps	Inrush Amps
Continuous Isolated			
77030	6	80	300
77031	12	80	150
77032	24	50	50
77033	36	50	50
Continuous Wire Ground			
77037	12	80	150
77038	24	50	50

Stock No. 77030

HERMETICALLY SEALED CONTACTOR

- Exceeds IP69K standards
- Silver contacts
- M10 x 1.5 studs
- Gas filled hermetic chamber protects key components
- For rugged environments
- Use with Stock No. 38178

GIGAVAC

390°F (200°C)

Stock No.	Volts	Amp
77060	12	200
77061	24	200
77065	12	400
77066	24	400
77070	12	500
77071	24	500
77075	12	600
77076	24	600
SAE J1171 Contactors		
77078*	12	500
77079*	24	500
77088	12	225
77089*	12	150

* M8 x 1.25 studs

NEW

Stock No. 77060

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

EAT•N

POWER RELAY MODULES

Power Relay Module - Connector Output
Stock No. 46094

- Use with Output Connector Stock No. 46043 (shown below)
- Connect to Packard's Meti-Pack 150 series #38201 (page 40) sold separately
- Capable of switching and protecting high current loads
- Internal circuiting simplifies harnessing (reduces overall cost)
- Designed for high current applications, extreme moisture and high vibration environments
- 2 J-Case Fuses - sold separately

185°F (85°C)
-40°F (-40°C)

Steel Mounting Sleeve

M8 Input Stud

Socket for Output Connector

Removeable Cover over Silicone Sealed 2-J-Case Syle Fuses – sold separately

Sealed 70 Amp Relay Mates with 38201
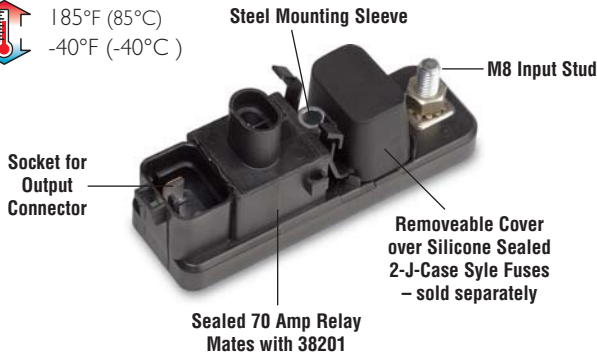
Typical Finished Packard Metri-Pack 800 Output Connector

Packard Metri-Pack 800 Output Connector Components
- For Power Relay Module Stock No. 46094 (shown above)

Female Terminal   **Cable Seal**   **TPA**   **Output Connector**

Part	Stock No.	Delphi No.	Color
Female Terminal 8-10 gauge	33009	12092445	n/a
Cable Seal 8-10 gauge	39009	12129381	Red
TPA	38033	----	Black
Output Connector	46043	----	Black
CPA	75796	----	Black

Crimper
Stock No. 500 (Delphi No. 15370042)
- Crimps sealed, 8 ga, female terminals

See J Case fuses on page 134.

Power Relay Module - Stud Output
Stock No. 46095
- 2 output studs

185°F (85°C)
-40°F (-40°C)

Removable cover offers weather tight enclosure for fuse position

Fuse Position for J-case Style Fuses – sold separately

Steel Mounting Sleeve

M8 Input Stud

2 M6 Output Studs
- 1-switched
- 1-non-switched

Silicone Sealed

Sealed 70 Amp Relay Mates with 38201
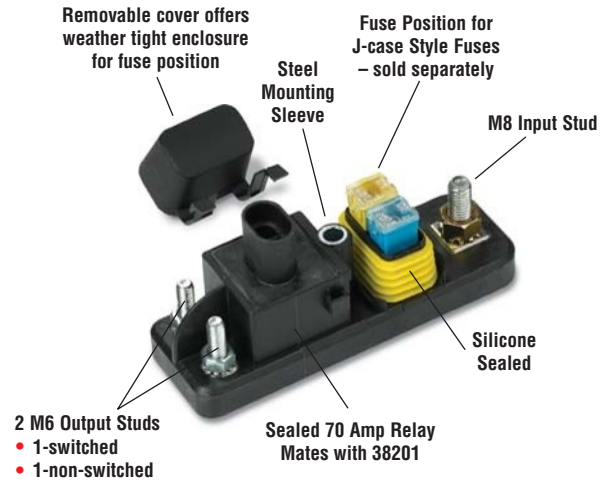
Power Fuse Module - without Relay
Stock No. 46096
- Holds two J-Case cartridge style fuses – each a separate circuit

185°F (85°C)
-40°F (-40°C)

Fuse Position for J-case Style Fuses – sold separately

Steel Mounting Sleeve

M8 Input Stud

2 M6 Output Studs
- 1-switched
- 1-non-switched

Silicone Sealed

Removable cover offers weather tight enclosure for fuse position

60 AMP POWER DISTRIBUTION MODULE

Stock No. 80121

- Innovative, fully user-programmable power distribution module
- Eliminates potential for current draw related problems
- Connect to auxiliary circuits, aftermarket devices and accessories like driving lights, computers and more
- 60 amps max; programmable circuit limits are as follows: 3/10A, 2/15A and 1/20A
- IP68 rated for harsh environments
- 2" H x 3" W x 0.9" D, very compact, about the size of a business card
- Never chase a blown fuse again! If a circuit is shorted or interrupted, simply key off and then on again, all circuits reset.

12VDC

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

MASTER DISCONNECT SWITCHES

Sealed battery disconnect switches available in two styles: key operated and lever operated. For 6-36 volt and 180 amps continuous or 1,000 amps in-rush. One piece die-cast housing is 2⅝" dia. and 4⅜" long. Mounting stem is ¾" dia. and ½" long. Instructions included.

Pollak®
A Stoneridge Company

Lever Operated
Stock No. 44030
- SPST off-(on) for battery circuit only
- Does not disconnect alternator or generator
- ⅜'' stud terminals

Lever Operated
Stock No. 44031
- DPST off-(on) for battery and alternator or generator circuit
- Breaks alternator circuit (max of 20 amps) prior to disconnecting battery
- ⅜'' and #10-32 stud terminals

Key Operated
Stock No. 44029
- SPST off-(on) for battery circuit only
- Does not disconnect alternator or generator
- Includes indexing post to prevent rotation
- ⅜" stud terminals

Face Plate
- For master disconnect switches with on-off designation
- Polished aluminum with black letters

Stock No. 44032
- For Lever Operated Switches 44030 & 44031

Stock No. 44034
- For Key Operated Switch 44029
- Includes alignment hole

MASTER BATTERY DISCONNECTS

- Heavy-duty case designs for surface, panel or floor trim mount
- Stainless steel hardware and tin-plated copper studs
- Ignition protections to SAE J1171 and ISO 8846 for installation in a battery box or on vehicles carrying hazardous loads
- Internal components protected from harsh weather environments: IP69K ingress protection

Stock No.	Description	Amp	Voltage
44056	Panel Switch	300	32
44057	Lock Panel Switch	500	2 Pole 12v and 24v
44058	Panel Lock Out Switch	300	32

Front

Back

Stock No. 44056

Stock No. 44057

Stock No. 44058

CH Cole Hersee®
A Littelfuse® Brand

BATTERY MANAGEMENT TOOLS

Extra Heavy Duty Battery Isolator Switch with Removable Handle
Stock No. 44080
- Panel mount
- SPST (on-off) for battery circuit only
- Maximum load is 2500 amps for 5 seconds at 12 volts DC, 250 amps continuous
- ⅜" studs, slotted ¼" mounting holes on 4" centers
- Includes cover and chain

185°F (85°C)
-13°F (-25°C)
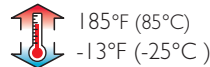
Battery Isolator Switch with Detachable Key
Stock No. 44075
- Stop-key single circuit
- Maximum load is 500 amps for 5 seconds at 12 volts DC, 100 amps continuous
- Spare key and Splash Proof Cover available

Spare Key Stock No. 44077

185°F (85°C)
-13°F (-25°C)
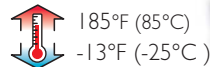
Waterproof Cover Stock No. 44078

Switch Stock No. 44075

Battery Selector/Master Disconnect Switch
Stock No. 44043
- Allows use of the first, second or both batteries simultaneously
- Provides back-up starting power in an emergency
- Gives a reliable shutdown of power during maintenance
- Helps protect against electrical fires, when the vehicle is not in use and minimizes battery drain
- 500A intermittent, 310A continuous

6-36V

CH Cole Hersee®
A Littelfuse® Brand

Battery Master Disconnect Switch With Lockout
CH Cole Hersee®
A Littelfuse® Brand
Stock No. 44076
- Protects vehicles against tampering, theft and battery drain
- Protects from hazards during vehicle servicing, and can be locked-out or tagged-out
- Provides an effective emergency power cutoff
- Waterproof and dust proof to IP67 (immersible)
- Fits standard Master Disconnect mounting pattern

12VDC 300A

Emergency Stop Switch
Stock No. 44037
- Heavy duty strike off switch
- Twist to connect, push to disconnect

24V 250A

185°F (85°C)
-13°F (-25°C)

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties
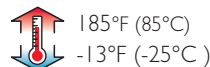
m-SERIES BATTERY SWITCHES

- Ignition protected – safe for installation in gas engine compartments
- Case design allows surface or rear panel mounting
- Isolating cover with snap-on sections protects rear contacts

300A

Stock No. 78406

Stock No.	Mfr. Part No.	Volts	Description
78405	6006	48	On-Off
78406	6007	32	4 Position Selector
78407	6011	32	Dual Circuit Plus, DPST

e-SERIES BATTERY SWITCHES

- Make-before-break contact design allows switching between battery banks without power interruption
- Ignition protected – safe for installation in gas engine compartments
- Case design allows surface or rear panel mounting

350A

Stock No. 78400

Stock No.	Mfr. Part No.	Volts	Description
78400	5511E	48	Dual Circuit Plus, DPST
78401	9001E	32	4 Position Selector
78402	9003E	48	2 Position Selector

BLUE SEA SYSTEMS

HD-SERIES HEAVY DUTY BATTERY SWITCHES

- Ignition protected – safe for installation in gas engine compartments
- Case design allows surface or rear panel mounting
- Accepts two 4/0 AWG (95mm²) battery cables

32VDC

Stock No. 78403

Stock No.	Mfr. Part No.	Amps	Description
78403	3000	600	On-Off
78404	3002	500	4 Position Selector

BATTERY SEPARATORS & INTERCONNECTS

- Designed for use in multi-battery applications as a solenoid priority system
- Allows multiple batteries to be charged from one charging source or alternator
- Prioritized charging, charges primary battery and then remaining batteries
- Uni-directional: charge two batteries from one power source
- Bi-directional: charge two batteries from two sources
- Interconnect/controller: can be used as a uni-directional or bi-directional separator, or low voltage disconnect (LVD), where the solenoid opens when battery voltage drops too low, or an Isolator/Interconnect, which provides isolated charging of two batteries from one source
- Isolates batteries when fully charged
- Protection circuitry absorbs coil generated voltage spikes

EAT•N

Stock No. 80001

- Prevents charging system overload
- Start assist feature parallels batteries for added power during start
- Universally suited for mounting on tow vehicles
- ⁵⁄₁₆" × 24 studs

185°F (85°C)
-40°F (-40°C)

SAE J1455   **SAE J1113**

Stock No.	Mfr. Part No.	Description	Volts	Amps
80000	1314	Battery separator uni-directional with auxiliary start	12	100
80001	1314-200	Battery separator uni-directional with auxiliary start	12	200
80002	1315	Battery separator bi-directional with auxiliary start	12	100
80003	1315-200	Battery separator bi-directional with auxiliary start	12	200
80004	3104	Interconnect/Controller	12	300

BATTERY DISCONNECTS WITH LOCKOUT

GIGAVAC

- Fiber composite housing and hermetic seal prevent corrosion inside and out
- Sealed IP69
- Lock-out/tag-out meets OSHA requirements
- Can be mounted in virtually any environment and can be placed near vehicle batteries
- Ideal for heavy truck, military, construction, material handling and off road vehicles

185°F (85°C)
-67°F (-55°C)

Stock No. 77084

Stock No.	Amp	Volts	Action
77080	300	32	SPST
77082	500	32	DPST
77084	200	32	SPST

NEW

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

MULTI-BATTERY ISOLATORS

60-50V DC

EAT·N
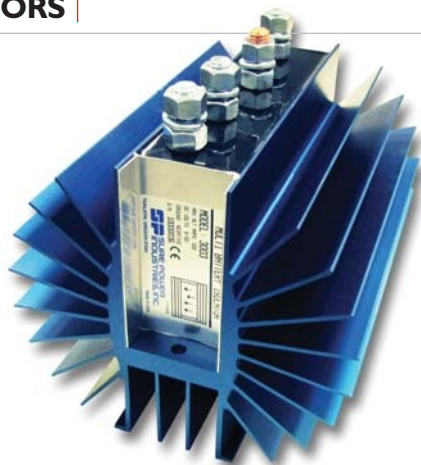
Stock No. 80047

Stock No. 80062

Stock No. 80069

- Eliminate battery drain when 2 or more battery banks are in a charging system
- Allows each battery to charge according to its own needs
- Vehicle and marine Installation instructions available online
- Fully solid state

Battery Isolator Plug Connector Kit
Stock No. 80093
(Sure Power No. 144-CD)
- For CS Series Alternators

Stock No.	Mfr. Part No.	Amps	Number of Studs	Stud Size in. (mm)	Mounting Holes in.	Dimensions in.
80045	122	25	3	6 mm	2 holes at .210"	2.375"L x 1.75"W x 1.75"H
80046	702	70	3	6 mm	4 holes at .210"	6.5"L x 3.25"W x 3.26"H
80047	703	70	4	6 mm	4 holes at .210"	3.25"L x 4.5"W x 3.26"H
80050	952	95	3	6 mm	4 holes at .210"	4"L x 4.5"W x 3.26"H
80051	1202	120	3	8 mm	6 holes at .210"	6.5"L x 4.5"W x 3.26"H
80053	2002	200	3	M8 x 1.25"	6 holes at .210"	7.47"L x 4.16"W x 2.5"H
80061	3002	300	3	1/2"	2 holes at .313"	9"L x 7.68"W x 8.35"H
80062	3003	300	4	1/2"	2 holes at .313"	9"L x 7.68"W x 8.24"H
80066*	9523A	95	4	6 mm	4 holes at .21"	4"L x 4.5"W x 3.26"H
80067*	12023A	120	3	8 mm	6 holes at .21"	6.5"L x 4.5"W x 3.26"H
80068*	12033A	120	5	1 – 6 mm / 4 – 8 mm	6 holes at .21"	6.5"L x 4.5"W x 3.26"H
80069*	13023A	130	4	3 – 8 mm / 1 – 6 mm	6 holes at .21"	6.5"L x 4.5"W x 3.26"H
80070*	13033A	130	5	4 – 8 mm / 1 – 6 mm	6 holes at .21"	6.5"L x 4.5"W x 3.26"H
80071*	16023A	160	4	3 – 8 mm / 1 – 6 mm	8 holes at .21"	9"L x 4.5"W x 3.26"H
80079	702R	70	4	6 mm	4 holes at .21"	3.25"L x 4.5"W x 3.26"H
80083	1602	160	3	8 mm	8 holes at .21"	9"L x 4.5"W x 3.26"H
80089	702P	70	3	6 mm	8 holes at .21"	3.25"L x 4.5"W x 3.26"H

* Includes Plug Connector Kit Stock No. 80093

BATTERY ISOLATOR SCHEMATIC
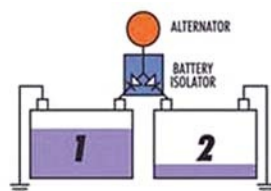
A Battery Isolator acts as a check valve (through two diode legs), one on each line. Both batteries receive current from the alternator and the voltage will equalize throughout the system while the alternator is in operation.
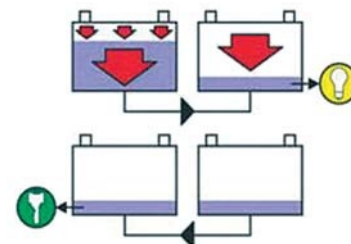
Accessories connected to battery #2 rob power from battery #1, your starting battery, leaving you with two dead batteries when you least expect it.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

BATTERY ISOLATORS

12-36V DC

- Designed for vehicles and equipment with multiple batteries – one for starting the engine and another for powering accessories
- Prevents a battery with a higher charge from draining into a battery with a lower charge
- Allows both batteries to be charged simultaneously from one source
- For use in 12-36V DC negative ground systems
- Electronic components are embedded for protection from contamination and vibration
- Integral heat sink provides efficient heat dissipation

3-Stud Battery Isolator

Stock No.	Mfr. Part No.	Amps	Number of Studs	Stud Size in. (mm)	Mounting Holes in. (mm)	Dimensions in. (mm)
77053	48090	90	3	1/4"	2 holes at 9/32"	6 1/4"L x 3 1/4" W x 2 3/16" H
77054	48120	140	3	5/16"	4 holes at 9/32"	6 1/4"L x 4 3/16" W x 3 11/32" H
77056	48122	140	4	3 - 5/16" 1 - #10	4 holes at 9/32"	6 1/4"L x 4 3/16" W x 3 11/32" H

SMART BATTERY ISOLATORS

Cole Hersee A Littelfuse Brand

- Smaller, lighter and less heat generated than standard battery isolators
- Works with all alternator types
- Reduces charging system workload by not connecting auxiliary battery until primary battery is charged to 13.2V
- Allows bi-directional charging from alternator or from shore/campground charging components
- LED status indicator
- Optional start assist – connect to a momentary switch that will allow the auxiliary battery to assist the starting battery
- 5/16" x 24 studs

185°F (85°C)
-40°F (-40°C)

9-16V

SAE J1455   **SAE J1113**

Stock No.	Mfr. Part No.	Amps
77050	48525	85
77051	48530	200

Stock No. 77050

TRUE SINE WAVE INVERTERS

EAT•N

- For DC to AC power
- Provides clean, reliable AC power in commercial truck, ag equipment and other on and off-road vehicles
- Powers all electrical loads including sleep apnea machines, tools, motors and more
- Meets SAE environmental and EMC standards
- When shore power is available, a built-in 20-amp relay automatically transfers to incoming AC utility power to minimize battery discharge and provide seamless integration; eliminates need for transfer switch
- Optional 12V battery charger with three user selectable charging profiles constant current, constant voltage and float mode
- Adjustable low voltage disconnect
- Remote mount user interface control panel
- Surge current of twice the rated output
- Battery over-voltage, under-voltage protection
- Short circuit, ground fault and automatic overload protection
- Over temperature shutdown
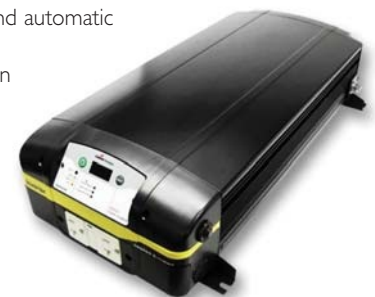
Stock No. 80135

Stock No.	Mfr. Part No.	Watts	Battery Charger	AC Output Voltage	Input Voltage
80135	12-110-1000	1000	None	115	12
80140	12-110-1000-B4	1000	40 amp	115	12
80142	12-110-1800	1800	None	115	12
80144	12-110-1800-B4	1800	40 amp	115	12

EQUALIZERS

EAT•N

Stock No. 80109

Stock No. 80105

185°F (85°C) (at full current, derated
-40°F (-40°C) at higher temperatures)

SAE J1455   SAE J1113

- Maintains battery balance or "equalization" in a dual voltage battery system
- Thermal overload shutdown
- Short circuit and over current protected
- Reverse polarity protected
- Over/low voltage protection
- Low standby current drain

- Maintains battery balance while pulling loads from the batteries
- Optional output voltage shift terminal is available to aid in optimizing charging systems and serve as an ignition pin
- LED status indicator is provided to denote when the unit is producing current

Stock No.	Mfr. Part No.	Description	Voltage Input	Voltage Output	Output Amps	Stud Size mm
80104	21060E00	Equalizer	24	12	60	3 – 8 mm
80105	21080E00	Equalizer	24	12	80	3 – 8 mm
80106	2110E00	Equalizer	24	12	100	3 – 8 mm
80109	12040E10	Equalizer	12	24	40	3 – 8 mm

CONVERTERS

EAT•N

Stock No. 80119

Stock No. 80116

185°F (85°C) (at full current, derated
-40°F (-40°C) at higher temperatures)

SAE J1455   SAE J1113

- Adjusts the input voltage in order to support dual voltage requirements
- Thermal overload shutdown
- Short circuit and over current protected
- Reverse polarity protected
- Over/low voltage protection

- Low standby current drain
- Loss of ground protected
- Shock and vibration resistant models available
- Environmentally protected and splash-proof sealed models available
- Other input and output configurations available

Stock No.	Mfr. Part No.	Description	Voltage Input	Voltage Output	Output Amps	Stud Size mm
80108	21030C10	Converter	24	12	30	3 – 8 mm
80111	1201040	Converter	12	24	10	
80116	71030I	Converter	72	12	30	3 – 8 mm
80117	41020C10	Converter	36	48	20	
80119	12040C10	Converter	12	24	40	3 – 8 mm

TRAIL CHARGER

EAT•N

Stock No. 80123

185°F (85°C)
-40°F (-40°C)

- Designed to counteract lost voltage over long runs of wire by stepping up the voltage at the end of a trailer
- Allows the lift gate to be charged at a full 14 volts
- Automatically adjusts voltage to optimize the charge, specifically when batteries require higher voltage at lower temperatures

Stock No.	Mfr. Part No.	Description	Voltage Input	Voltage Output	Output Amps	Stud Size in. (mm)
80123	41102	Converter	9-16	14	10	1/4" x 28
80126	11020C11	Voltage Converter/ Trail Charger	12	14	20	1/4" x 28

LGBC SERIES 20 LIFTGATE TRAILER BATTERY CHARGER

NEW

- The LGBC series keeps liftgate batteries optimally charged in environments where liftgates are frequently used
- Liftgate batteries with long cable runs from the tractor, are subject to significant voltage drop
- Dimensions: 143 x 192 x 60mm
- Ingress rating: IP67 and IP69K

Littelfuse
Expertise Applied | Answers Delivered

9.5-16V

185°F (85°C)
-40°F (-40°C)

Stock No.	Amps
80127	20
80128	35

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

ELECTRONIC MODULES

Cole Hersee Flexmods™
Electronic Low Voltage Disconnect
Stock No. 75525
(Mfr.Part No. 48610)

- Preserves battery charge and protects battery banks by automatically disconnecting loads when battery voltage drops to a critical level

12V or 24V

Use with Amphenol AT Series
- 8 pin connector, Stock No. 38178 - AT06-08SA
- Wedge, Stock No. 38190
- 18-16 awg, Stock No. 38194
- 16-14 awg, Stock No. 38196

Low Voltage Disconnect Switch with Shut-Off Timer

- Continuously monitors voltage level of a 12 volt power input
- If voltage >13.25 - power switch turns on
- If voltage drops < 12.8 - time delay is started
- If voltage remains < 12.8 until the timer expires
  - power switch turns off
- If voltage drops <11.8 with the timer running
  - power switch turns off
- Microprocessor controller and solid state output with over-current shutdown
- Standard automotive relay pin format
- Compact size with panel-mount bracket
- Durable metal case
- ¼" male tab contacts

185°F (85°C)
-40°F (-40°C)

Stock No. 80030   **Stock No. 80031**

Stock No.	Time Delay Value	Max Current
80030	0-60 minutes adjustable	15 amps
80031	5 minutes fixed	20 amps

LOW BATTERY SWITCH

Stock No. 80029

EAT•N

- Disconnects predetermined loads from the starting battery bank to ensure sufficient power for starting
- Automatically reconnects loads if vehicle is started or battery is recharged
- Prevents loads from disconnecting during starting
- Start signal input override to prevent the loads from disconnecting during starting
- Manual override for connecting or disconnecting during emergencies
- Audible or visual alarm output activates 1 minute before disconnect
- ¼" male tab contacts, ¼" studs
- Thermally protected
- Low standby current

SAE J1455   **SAE J1113**

185°F (85°C)
-40°F (-40°C)
(at 20-amp load)

Stock No.	Mfr. Part No.	Description	Operating Voltage	Amps
80029	130512	Low Battery Switch	12V	20

m-LVD LOW VOLTAGE DISCONNNECT

Stock No. 78008
(Blue Sea No. 7635)

BLUE SEA SYSTEMS

- Senses low battery voltage and automatically disconnects devices to save power for starting or to preserve battery life
- Ideal for any single battery boat or vehicle that wants to avoid getting stranded with a dead battery
- Status light in both m-LVD and remote control switch provides visual warning of low voltage state prior to disconnect
- Remote control switch functions:
  - *Disconnect Voltage Adjustment* - Sets desired disconnect voltage
  - *Override* - Temporarily delays circuit disconnect for 10 minutes
  - *OFF* - Temporarily disconnects circuits until voltage rises
  - *Override or OFF* - Silences alarm (optional alarm required)
- Case design allows surface, front panel, or rear panel mounting
- Rear insulating cover protects rear contacts
- Waterproof rated IP67 for temporary immersion
- 12V DC nominal voltage
- Amperage Operating Current: 95mA Connected or 4mA Open

BLUE SEA SYSTEMS

P12 BATTERY CHARGER

- Rugged finned aluminum case dissipates heat to help keep the battery charger electronics cool
- Universal line voltage 90-265V AC, 45-65 Hz for use anywhere, and is compatible with low voltage power sources
- AC over and under voltage shut down and automatic restart
- Large bright full graphic control screen with user interface
- Plain-language text in English, French, Italian, German and Spanish
- Intuitive diagnostic screens provide a broad range of easily understood fault communications and operating history
- Output for three 12 Volt battery banks
- Prefloat stage prevents over charging by individually moving each battery out of the absorption charging stage, so batteries near full charge do not receive the high constant voltages necessary for other batteries still in the absorption stage

12V

Stock No.	Mfr. Part No.	Amps
78052	7522	40

Stock No. 78052

AUTOMATIC CHARGING RELAYS

Stock No. 78000

- Start Isolation (SI) protects sensitive electronics by temporarily isolating house loads from the engine circuit during engine cranking
- Compact design allows for three mounting styles: surface, rear, or panel mount
- Senses charging on two battery banks
- Waterproof - rated IP67 for temporary immersion

Stock No.	Mfr. Part No.	Amps	Description
78000	7601	65	M-Series
78002	7610	120	ARC Dual Sensing
78003	7611	120	Battery Link
78004	7622	500	Manual Control

ADD-A-BATTERY KITS

Stock No. 78006

- Adding a second battery to the electrical system prevents the unintended discharge of the engine start battery
- Simple way to control the charging and battery switching of two battery banks

Stock No.	Mfr. Part No.	Amps	For Stock No.
78005	7649003	65	78407 & 78000
78006	7650003	120	78400 & 78002

REMOTE BATTERY SWITCH WITH MANUAL CONTROL

- 12V DC 500A ML-RBS
- Manual override knob provides an added level of safety allowing control with or without power and offering LOCKED OFF capability for servicing
- LED output to remotely indicate switch state - requires optional LED
- Silver alloy contacts provide high reliability for switching live loads
- Bi-stable coil function
- 10.1V to 16.5V DC control circuit voltage
- Amperage rating of 500A Continuous and 700A for up to 5 minutes
- Cranking rating:
  10 seconds @ 2500A,
  1 minute @ 1100A
- 4/0 cable size to meet ratings
- 300A live current switching
- 100,000 cycle endurance

Stock No. 78010
(Blue Sea No. 2146)
- Sold separately when ordering 78007B

140°F (60°C)
-4°F (-20°C)

Stock No. 78007
(Blue Sea No. 7700)

ML SERIES LINK BUS

- Use as a paralleling device for the ML-Series battery switches
- Tin-plated copper for maximum conductivity and corrosion resistance
- 500 Amps continuous rating
- Can be used with Stock No. 78007

Stock No. 78009

Remote Battery Switch Stock No. 78007

Remote Battery Switch Stock No. 78007

Remote Battery Switch Stock No. 78007

Panel Labels Stock No. 78102 (See page 132)

Link Bus Stock No. 78009

Typical Installation

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management
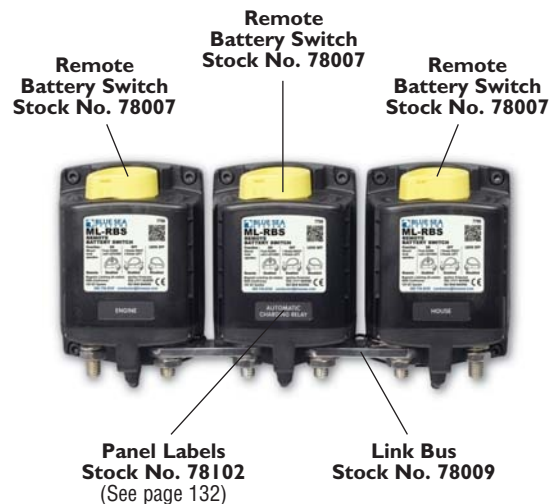
Fuses & Circuit Breakers

Cable Ties

FUSE HOLDERS

Micro2 Fuse Holders

Micro2 Fuse Holders	Volts/Amps	Stock No.	Description
	15A	**46488**	16 ga Red Wire 5" Leads
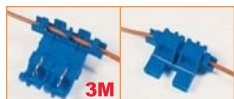
MINI® Fuse Holders

MINI® Fuse Holders	Volts/Amps	Stock No.	Description
	32V 20A	**46036**	Easy Crimp For 22-16 ga Wire
	32V 20A	**46487**	16 ga Black GXL Wire 4" Leads
(NEW)	32V 20A	**46489**	14 ga GXL Wires 4.78" Leads
	12V 20A	**46277**	14 ga Orange UL1015 Wire 6" Leads
	32V 20A	**46486**	12 ga Orange GXL Wire 4" wire Leads

ATO/ATC® Fuse Holders

ATO/ATC® Fuse Holders	Volts/Amps	Stock No.	Description
3M	32V 20A	**46031**	Self Stripping For 18-14 ga Wire
	32V 10A	**46229**	18 ga Tinned UL1015 Red Wire 4" Leads
Cover sold separately	32V 20A	**46447**	16 ga Black GPT Wires 4" Leads
(NEW)	24V 15A	**46054**	Red LED Lights When Blown Fuse 4" 16 ga Red GXL Wire
	32V 20A	**46449**	16 ga Black GXL Wires, 4" Leads
	32V 30A	**46239**	14 ga Tinned UL1015 Wire 4" Yellow Leads
(NEW)	32V 20A	**46459**	14 ga Black Wire Stackable
	32V 30A	**46460**	10 ga Orange Wire Stackable
	32V 30A	**46032**	12 ga GPT Wire 8" Leads

ATO/ATC® Fuse Holders - cont.

ATO/ATC® Fuse Holders - cont.	Volts/Amps	Stock No.	Description
30 amp fuse included	30A	**46046**	12 ga Orange GPT Wire 11" Loop
	32V 30A	**46278**	12 ga Red UL1015 Wire 4" Leads
	32V 30A	**46292**	12 ga Orange GXL Wire 4" Leads
	32V 30A	**46448**	12 ga Orange GPT Wires 4" Leads
		46019	Cover for Stock No. 46448
	32V 30A	**46238**	10 ga Tinned UL1015 Red Wire 12" Loop
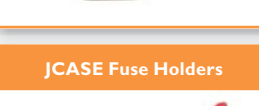
MAXI Fuse Holders

MAXI Fuse Holders	Volts/Amps	Stock No.	Description
(NEW)	80A	**46048**	8 ga Red Wire 12" Loop
	32V 60A	**46049**	6 ga Tinned UL1015 Black Wire, 5" Leads
	32V 60A	**46022**	6 ga Tinned UL1015 Red Wire, 5" Leads
	32V 60A	**46024**	6 ga Bare Red STX Wire, 5" Leads
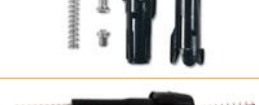
JCASE Fuse Holders

JCASE Fuse Holders	Volts/Amps	Stock No.	Description
	58V 60A	**46150**	8 ga Red GXL Wire 4" Leads

AGC Style Fuse Holders

AGC Style Fuse Holders	Volts/Amps	Stock No.	Description
	32V 30A	**46003**	Accepts 18-12 ga Wire (box of 100)
		46003-L	Accepts 18-12 ga Wire (loose piece)
	32V 30A	**46004**	Waterproof Accepts 18-12 ga Wire
		46005	Additional fuse clips available separately
	32V 20A	**46000**	14 ga Red GPT Wire 8" Loop (complete assembly)
		46009	Rivet
		46014	Body
		46015	Spring
	250V 20A	**46002**	14 ga Red UL1015 Wire 18" Loop

Sidebar tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

FUSE HOLDERS

Circuit Taps		Volts/Amps	Stock No.	Description
Micro2 Fuse		20A	**46177**	16 ga Red UL1015 Wire 5" Leads with Butt Connector
MINI® Fuse		32V 30A Max Combined	**46044**	16 ga UL1015 Red Wire with Butt Connector
Low Profile MINI® Fuse		32V 30A Max Combined	**46068**	16 ga Wire with Butt Connector
ATO/ATC® Fuse		32V 30A Max Combined	**46045**	16 ga Red Wire with Butt Connector

Fuse Holder Assemblies		Volts/Amps	Stock No.	Description
MINI® Fuses		16V 30A	**46041**	12 ga Orange GXL Wire 10" Wire Leads
			38063	Body
			46058	Cap
			31075	12 ga Terminals
			39002	Cable Seal
			38035	TPA Clip
ATO/ATC® Fuses		32V 30A	**46033**	12 ga GPT Wire 8" Leads
			46047	12 ga GXL Wire 9" Leads
			46010	Body with Seals
			46034	Cap
			32037	12 ga Terminals
			407	Crimper

MICRO2 FUSES

- New standard for vehicle circuit protection
- Sub-miniature design
- Space saving - allows more fuses to fit in a smaller space
- Used as a replacement fuse in new vehicles
- Color coded for easy identification

257°F (125°C)
-40°F (-40°C)

32V

Amps	Stock No.	Color
5	**46116**	Tan
7.5	**46117**	Brown
10	**46118**	Red
15	**46119**	Blue
20	**46126**	Yellow
25	**46127**	Clear
30	**46128**	Green

MICRO2 FUSE BLOCK **NEW**

- Alternative for smaller installations
- Replace traditional glass tube fuse blocks
- Clear, plastic cover

221°F (105°C)
-40°F (-40°C)

Poles	Stock No.	Amps
4	**47060**	30
6	**47061**	45
8	**47062**	60
10	**47063**	90

32V

MICRO3 FUSES

- 3 terminals and 2 fuse elements with a common center terminal
- Space saving with sub-miniature design
- Meets the need for more circuits to be protected while utilizing less space
- High temperature tolerance in adverse environments

257°F (125°C)
-40°F (-40°C)

32V

Amps	Stock No.	Color
5	**46121**	Tan
7.5	**46122**	Brown
10	**46123**	Red
15	**46124**	Blue

LOW PROFILE MINI® ATM FUSES

- Similar performance characteristics as standard mini fuses
- Low overall height allows for space and weight savings
- Typically used as a replacement fuse in new vehicles

257°F (125°C)
-40°F (-40°C)

58V

Amps	Stock No.	Housing Color
5	**46293**	Tan
7.5	**46294**	Brown
10	**46295**	Red
15	**46296**	Blue
20	**46297**	Yellow
25	**46298**	Clear
30	**46299**	Green

Side tabs: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

MINI® AUTOMOTIVE ATM FUSES

- Smaller than the standard automotive blade fuses, permitting more fuses in the same space
- Color coded for amperage

SAE J2077 **32V**

Amps	Stock No.	Color
2	**46250**	⚪ Gray
3	**46251**	🟣 Violet
4	**46252**	🩷 Pink
5	**46253**	Tan
7.5	**46254**	🟤 Brown
10	**46255**	🔴 Red
15	**46256**	🔵 Blue
20	**46257**	🟡 Yellow
25	**46258**	⚪ Clear
30	**46259**	🟢 Green

SERIES 15310 60-POSITION RTMR RELAY & FUSE PANEL

Stock No. 46348

- Accepts ATM (mini) blade fuses, circuit breakers as well as other components such as relays, diodes, flashers, etc. with 2.8 mm blades on 8.1 mm centerline spacing
- Mounting #10-32
- Housing and cover black thermoplastic
- 30A max per terminal 12/24VDC

🌡️ 260°F (126°C) -40°F (-40°C) (rating on PDM only)

EAT•N

Wire Ga.	Tin Plated Female Terminal Stock No.	Cable Seal Stock No.
20-16	**30098**	**39027**
14-12	**30099**	**39028**

	Stock No.
Cavity Plug	**39029**

Cable Diameter	Cable Seal Color	Stock No.
2.40-1.60 mm	Brown	**39030**
2.90-2.00 mm	Red	**39031**
3.80-2.80 mm	Gray	**39017**
4.50-3.60 mm	Blue	**39018**

MINI® FUSE THAT LIGHTS WHEN IT BLOWS

- Indicator light on the top of the fuse glows brightly if the fuse is blown
- Eliminates guess work and speeds the replacement of the blown fuse
- Color coded for amperage
- Snaps into place without special tools
- Provides easy identification of blown fuses in hard-to-reach locations

Amps	Stock No.	Color
3	**46260**	🟣 Violet
5	**46261**	Tan
7.5	**46262**	🟤 Brown
10	**46263**	🔴 Red
15	**46264**	🔵 Blue
20	**46265**	🟡 Yellow
25	**46266**	⚪ Clear
30	**46267**	🟢 Green

MINI® Fuse Clip
Stock No. 37062
- 3/16" push on blade

12V

MINI® Tapper Fuse Tap
Stock No. 37065
- Taps into power at the fuse block
- 3/16" push-on

RFRM RELAY & FUSE PANEL

- UL-Rated 94V0 thermoplastic, plated copper busbar, silicone rubber gasket, EPDM - internal tether
- Nominal 12VDC and 24VDC systems, 100A per busbar, 200A max
- IP66 (with use of cover and seal)

🌡️ 185°F (85°C) -40°F (-40°C)

EAT•N

Dual Busbars 10-32 inserts
Stock No. 46354

No Busbars
Stock No. 46357

Extra Cover
Stock No. 46359

Wire Ga.	Terminals Stock No.	Cable Seals Stock No.
18-16 ga	**30037**	**39000**
14-12 ga	**31075**	**39001**
12-10 ga	**32035**	**39002**

MINI® FUSE BLOCKS

- Space saving design
- Uses 1/4" push-on terminals
- Input terminal: #10-32 threaded studs
- Uses mini blade fuses (not included)
- Recommended input wire size: 6-4 ga, output wire size: 16-12 ga
- Clear insulating cover design for water and dust proof
- 1.4" high

32V 30A/circuit 100A max

Stock No.	No. of Fuses	A inches	B inches
45605	4	4.38	1.88
45606	6	3.75	2.48
45607	10	3.75	3.74

ATM/MINI® FUSE BLOCK **NEW**

- Alternative for smaller installations
- Replace traditional glass tube fuse blocks
- Clear, splash proof plastic cover

🌡️ 221°F (105°C) -40°F (-40°C)

32V

Poles	Stock No.	Amps
4	**47055**	30
6	**47056**	45
8	**47057**	60
10	**47058**	90

REAR TERMINAL MINI® FUSE PANEL

- Weather tight enclosure with cover
- Housing is made from 94 VO Thermoplastic; #10-32 input studs are made of bright nickel plated brass
- 30A max output per contact
- IP 66-IEC 529 rated
- Accepts wire sizes 22-12 ga
- Use terminals and seals from chart and crimp with tools listed
- Standard height cover fits fuses
- Taller cover fits fuses and circuit breakers
- Use tangless terminals listed below

257°F (125°C)
-40°F (-40°C)

EAT·N
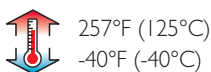
Stock No.	Description
46077	with standard cover
46343	5 - 280 Bussed Micro Relays with 10 Bussed Fuses, nuts assembled, with tall cover
46344	3 - 280 MINI® or 5 - 280 Micro Relays, 10 Fuses, with tall cover
46345	3 - 280 MINI® Relays or 5 - 280 Micro Relays, 10 Bussed Fuses, nuts assembled, with tall cover
46346	3 - Bussed 280 MINI® or 5 - 280 Micro Relays & 10 Fuses, nuts assembled, with tall cover
46347	3 - 280 MINI® relays & 10 MINI® fuses or MINI® circuit breakers, with tall cover

Stock No. 46344

Wire Gauge	Tin Plated Tangless Female Terminal Stock No.	Reel Stock No.	Delphi No.	Stock No.	Cable Seal Color	Delphi No.	Tool Guide
22-20	30068	30068R	12110846	39004	Red	12015899 15324983*	408
18-16	30069	30069R	12110847	39000	Green	12015323 15324982*	408
16-14	31068	31068R	12129409	39001	Gray	12010293 15324980*	474
14-12	31069	31069R	12110845	39002	Blue	12015193 15324981*	474

Replacement part for Delphi number listed above. Changed from 4% oil to 2% oil.

Stud End Cap for Input Stud RTMR
Stock No. 23519
(Eaton's Bussmann No. B066-7008)
- Silicone Material

Cavity Plug
Stock No. 39010
(Delphi No. 12010300)
- Cavity plugs are required for all unused pin locations

Mounting Bracket
Stock No. 46085
- Shown with optional tall cover and two brackets
- Order two brackets per fuse panel

Short Cover w/ Vent
Stock No. 46088

Tall Cover
Stock No. 46087

MINI® POWER DISTRIBUTION MODULE

- PDM's interlock to allow for component "add-ons" and system growth
- Made of "rugged" thermoplastic
- IP66/67, waterproof to IP67, with gasket
- Accomodates MINI® fuse and ISO 280 footprint relays and other components

Littelfuse
Expertise Applied | Answers Delivered

60 Way MINI® Power Distribution Center
- 30A max per circuit

250A

Description	Stock No.
Base	45990
Cover	45991
Gasket	45992
10 Contact TPA	45993*
Complete Kit w/AssurLatch™	45989 NEW
Complete Kit	45999

Must buy quantity of 6 for 60 way

18 Way MINI® Power Distribution Center
- 30A max per circuit

100A

Description	Stock No.
Base	45995
Cover	45994
Rubber Seal	45996
6 Contact TPA	45997*
Metal Bracket	45998

Must buy quantity of 3 for 18 way

POWER DISTRIBUTION RELAY CONNECTOR

- Space saving design, lightweight
- Power distribution modules for 2.8 mm footprint components
- Holds MINI® fuses, MINI® circuits breakers and ISO 280 micro relays
- Uses tanged terminals

120A max

257°F (125°C)
-40°F (-40°C)

Typical Power Distribution Relay Connector. Fuse and relay sold separately.
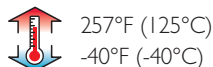
Connectors

Description	Stock No.
Black	75784
Gray	75785
Green	75786
Blue	75787
Yellow	75788
Red	75789
Orange	75790
Brown	75791

Stock No. 75786

VEC Output Connector CPA
Stock No. 75795

TPA
Stock No. 75798

Clear Short Cover
Stock No. 38088
Fits fuses. Cover only.

Clear Tall Cover
Stock No. 38089
Fits fuses, circuit breakers and relays.

Metal Side Bracket
Stock No. 38090
Bracket only.

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Fuses & Circuit Breakers

ATOF/ATC® AUTOMOTIVE FUSES

Type ATOF/ATC® Fuses

- Standard ¼" blade type
- Nylon material to standardize with MINI® and MAXI styles
- Higher chemical and heat resistance than ATO® material

32V

SAE J1284

Amps	Stock No.	Color
1	47001	● Black
2	47002	● Gray
3	47003	● Violet
4	47004	● Pink
5	47005	● Tan
7.5	47007	● Brown
10	47010	● Red
15	47015	● Blue
20	47020	● Yellow
25	47025	○ Clear
30	47030	● Green
35	47035	● Blue/Green
40	47040	● Amber

Fuse Clip
Stock No. 37061
- ¼" push-on terminal
- Use to tap off on side of ¼" blade fuse

ATOF/ATC® Fuse That Lights When It Blows

12V

- Indicator light on the top of the fuse glows brightly if the fuse is blown
- Eliminates guess work and speeds the replacement of the blown fuse

Glass fuses that glow when blown may be available on special order. Call 800-328-2724 for details.

Amps	Stock No.	Color
3	46280	● Violet
5	46281	● Tan
7.5	46282	● Brown
10	46283	● Red
15	46284	● Blue
20	46285	● Yellow
25	46286	○ Clear
30	46287	● Green

Tripuller/Fuse Puller
Stock No. 580
- Allows for easy fuse removal and replacement
- Extracts Glass, Ceramic, ATOF and MINI® style fuses from various fuse blocks

HEAVY DUTY ATOF/ATC® FUSE BLOCKS

12V

- Clear, durable dust cover with fastening nut
- ¼" male push-on terminals
- Recommended for supplemental accessory power requirements

Stock No.	No. of Fuses	Maximum Load
46080	4	60 amps
46081	6	90 amps
46082	8	120 amps
46083	10	150 amps
46084	12	180 amps

COMPACT ATOF/ATC® FUSE BLOCKS

32V

- Base material: Black Nylon PA66
- ¼" push-on terminals
- Cover material: PA12

Stock No. 47090

Stock No. 47089

Number of Fuses	Fuse Block Stock No.	Fuse Cover Stock No.	Maximum Load (amps)
4	47085	47086	20A/circuit, 80A Total
6	47087	47088	20A/circuit, 100A Total
8	47089	47090	20A/circuit, 135A Total

LIGHTWEIGHT FUSE PANELS

- Suggested for accessory use only
- Use with standard ATOF/ATC® fuses or blade type circuit breakers
- Maximum current for all circuits is 95 amps
- Recessed fuse contacts help prevent shorting of circuits
- Available with optional common ground terminals

¼" push-on terminal

Input lead fits on a #10-32 stud

With ground terminals Fuses sold separately

Circuits	Without Ground Terminals Stock No.	With Ground Terminals Stock No.
6	46050	46060
8	46051	46061
10	46052	46062
12	46053	46063

ATOF/ATC® FUSE BLOCK

NEW

- Alternative for smaller installations
- Replace traditional glass tube fuse blocks
- Clear, plastic cover

221°F (105°C)
-40°F (-40°C)

32V

Poles	Stock No.	Amps
4	47050	30
6	47051	45
8	47052	60
10	47053	90

REAR TERMINAL ATOF/ATC® FUSE PANEL

- Power distribution system mounts rear wiring with 20 or 24 positions
- Black thermoplastic material
- Splash resistant cover included
- Order terminals for output circuits separately

200A · 257°F (125°C) / -40°F (-40°C)

EAT·N
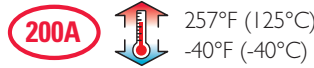
Double Bus - 20 Position
Stock No. 46074
- Double stud split input power bus for 14 and 6 output circuits
- Two ¼" stud size inputs
- Comes with short cover
- Optional tall cover Stock No. 46086

Triple Bus - 24 Position
Stock No. 46075
- Triple stud split input power bus for 12, 4 and 8 output circuits
- Two ¼'' stud size inputs, disconnect terminals on middle bus
- Comes with tall cover

Item Description	Stock No.	Delphi No.
Output Terminal for wire ga. 16-14	31037	12020321
Output Terminal for wire ga. 12	32036	12020400

Other sizes available on a special order basis. Call 800-328-2724 for details.

Stock No. 46074 (Fuses sold separately)

Stock No. 46075

Optional Tall Cover Stock No. 46086
- For use with circuit breakers

Hand Tool
Stock No. 507
- Crimps terminals 31037, 32036

Removal Tool
Stock No. 424
(Delphi No. 12094430)

BLADE TYPE HOLDERS | All holders shown are for the standard ATOF/ATC® fuses.

Stock No. 47070
- Complete assembly for ATOF® or ATC® type blade fuses
- Units slide together to gang for multiple combinations
- Includes 12 ga GPT wire, 8" leads
- Mounting holes for #10 screws are 3 1/8" apart
- Individual components available (see table below)

4 Gang Fuse Block

Item Description	Stock No.	Delphi No.	Recommended Delphi Tool
Body	47080	12004943	----
Terminal Busbar	32029	12004568	----
12 ga Terminal	32036	12020400	407
16-14 ga Terminal	31037	12020321	401
20-18 ga Terminal	30038	12020334	401

Terminals can be purchased on reels:

Item Description	Stock No.	Delphi No.
12 ga Terminals on reel	32036R	12020400
16-14 ga Terminals on reel	31037R	12020321
20-18 ga Terminals on reel	30038R	12020334

Removal Tool
Stock No. 424
(Delphi No. 12094430)

Special tooling needed for use of reels not provided by Waytek.

ST BLADE FUSE BLOCK

- 6 or 12 circuits and cover
- Cover satisfies ABYC/USCG requirements for insulation, push button latch providing easy access to fuses, storage for two spare fuses
- Label recesses that accept Blue Sea Systems small format labels for circuit identification
- Accepts ATO® and ATC® fuses (sold separately)
- Tin-plated copper buses and fuse clips
- Maximum amperage: 100A per block, 30A per circuit

BLUE SEA SYSTEMS

32VDC

Stock No.	Blue Sea Part No.	Description
78152	5025	6 Circuits w/ Negative Bus
78153	5026	12 Circuits w/ Negative Bus
78154	5028	6 Circuits
78155	5029	12 Circuits
78156*	5035	6 Circuits
78163**	5032	12 Circuits w/ Negative Bus

Stock No. 78155

* fuse slots in single row
** fuses and negative bus are on a split bus

Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

MAXI AUTOMOTIVE FUSES

- Used where a high amperage circuit is required from 20-80 amps
- Color coded for amperage

SAE JI888 **32V**

Amps	Stock No.	Color
20	**46240**	Yellow
25	**46226**	Grey
30	**46241**	Green
35	**46227**	Brown
40	**46242**	Orange
50	**46243**	Red
60	**46244**	Blue
70	**46245**	Tan
80	**46246**	Clear

LED MAXI AUTOMOTIVE FUSES

- Indicator light glows when the fuse is blown, saving time to troubleshoot an open circuit
- Color coded for amperage

32V

Amps	Stock No.	Color
20	**46232**	Yellow
30	**46233**	Green
40	**46234**	Orange
50	**46235**	Red
60	**46247**	Blue
70	**46248**	Tan
80	**46249**	Clear

MAXI AUTOMOTIVE FUSE HOLDERS

Fuse Holder w/Black Tinned Wire
Stock No. 46049

Fuse Holder w/Red Tinned Wire
Stock No. 46022

Fuse Holder w/Red Bare Wire
Stock No. 46024

32V 60A

- Body: Polycarbonate
- Contacts: Brass
- Splashproof Cap: TPV - Thermoplastic Vulcanizate (thermoplastic elastomer)
- 6 ga Tinned UL1015, 5 inches wire leads
- STX Bare Copper Wire **Stock No. 46224**

MAXI Fuse Block Holder & Cover
Holder **Stock No. 46011**
Cover **Stock No. 46012**

32V 60A

- Provides an efficient installation method for MAXI Fuse applications
- Cover sold separately

MAXI FUSE BLOCK

Stock No. 78150
(Blue Sea No. 5006)

- Snap-on terminal cover insulates all conductive parts, satisfying ABYC/USCG requirements
- Accepts wire sizes 18-4 AWG from sides or bottom
- Reinforced polycarbonate base
- #10 mounting screws
- Fuses sold separately

BLUE SEA SYSTEMS

32VDC

MAXI Blade Fuse Puller
Stock No. 581

- Designed for easy removal and replacement of MAXI blade style fuses

Fuse Assortment Kit
Stock No. 22269

- Our most popular ATOF/ATC,® MINI® and MAXI Fuses in a convenient kit
- Great for repair jobs when a variety of fuses are needed

Fuse Assortment Kit Includes:

Type	Amps	# of Pieces
MAXI Fuses	30	5
	40	5
	50	5
	60	5
MINI® Fuses	5	20
	10	20
	15	20
	20	20
ATOF/ ATC® Fuses	5	20
	10	20
	15	20
	20	20

ATC® Fuse Assortment Kit
Stock No. 22270

- Includes 42 fuses and fuse tester

ATC® Fuse Assortment Kit Includes:

Amps	# of Pieces
5	7
10	7
15	7
20	7
25	7
30	7

MIDI® HIGH AMP FUSES

- Time delay characteristics
- Bolt-on space saving fuse for high current application

32V Interrupting Rating 1000A at 32 V

Amps	Stock No.
30	**46380**
40	**46381**
50	**46382**
60	**46383**
70	**46384**
80	**46385**
100	**46386**
125	**46387**
150	**46388**
175	**46379**
200	**46389**

MIDI® HIGH AMP FUSE HOLDER

Stock No. 46008
- Black glass-filled thermoplastic construction with black cover for protection
- M5 threaded studs with hex nuts
- Holders click together at base
- ¼" mounting hole

32V 200A

MIDI® AMI/MEGA® AMG SEALED FUSE BLOCK

- Sealed and ignition protected for 30-200A MIDI® fuses
- Provides high amperage cable protection for 100-500A circuits - MEGA® Fuses
- Waterproof/sealed fuse compartment
- Drop in replacement for existing non-sealed competitive solutions

- Ignition protected to SAE J1171 and ISO 8846 for installation on vehicles carrying hazardous payloads or for installation inside battery compartments
- Storage space for spare fuse and attachment screw
- IP66/IP6K9K
- M8 stud

Littelfuse®
Expertise Applied | Answers Delivered

60VDC 500A

**Stock No. 46353
Accepts AMI® or MIDI® Fuses**

**Stock No. 46352
Accepts MEGA® or AMG Fuses**

MIDI® INLINE FUSE HOLDER

Stock No. 46312
- Designed for use with bolt down MIDI® style fuses
- Install directly inline with battery cable, no mounting required
- Can be used with heat shrink tubing for applications requiring more splash resistance
- Curved design of the cover aids in preventing of tube-splitting during application
- Made of UL 94V-0 glass-filled nylon
- M5 stud

257°F (125°C)
-40°F (-40°C)

Littelfuse®
Expertise Applied | Answers Delivered

32V 200A

POWER DISTRIBUTION MODULE

Stock No. 45975
- Provides main battery shutdown from a remote location
- Four unswitched 24-hour 1A-40A ATO® fuse locations
- Ideal for low-amp circuits
- Water and dust resistant
- Tin-plated copper studs
- 3 MIDI® fuse locations 30-200A

Littelfuse®
Expertise Applied | Answers Delivered

12VDC 300A

221°F (105°C)
-58°F (-50°C)

AMI/MIDI® SAFETY FUSE BLOCK

Stock No. 78157
(Blue Sea No. 7720)
- Ignition protected for installation aboard gasoline or diesel powered boats
- Sealed cover protects fuses from the harsh marine environment
- Insulating cover satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in any direction
- Maximum amperage: 200A with 2/0 cable
- Fuses sold separately
- M8 stud

BLUE SEA SYSTEMS

32VDC 200A

SAFETYHUB FUSE BLOCKS

- Consolidates up to seven fused circuits.
- Sealed cover protects fuses from the harsh marine environment
- Integrated connector plugs eliminate loose wires and provide a secure, waterproof connection
- Ignition protected fusing meets Coast Guard and ABYC requirements for installation
- Fuses sold separately

BLUE SEA SYSTEMS

36V 280A

Stock No. 78151

Stock No. 78158

Stock No.	Blue Sea Part No.	Series	Circuits	Fuses	Current Rating
78158	7725	100	7	3 – MIDI®	120 amp max per circuit
				4 – ATOF/ATC®	20 amp max per circuit
78151	7748	150	10	4 – MIDI®/AMI®	170 amp max per circuit
				6 – ATO/ATC®	20 amp max per circuit

SERIES LMG BOLT-IN FUSE HOLDER

- Used for main branch primary fusing
- Accepts multiple industry standard AMG fuses
- Using a common busbar, the LMG requires just one input connection to power all fuses
- UL rated 300 amps
- Cover and busbar included

185°F (85°C)
-40°F (-40°C)

Stock No.	Positions
46013	2
46029	3
46030	5

MIDI® HIGH AMP FUSE BLOCKS

- Efficient power distribution for under-hood applications
- Used for main branch, primary fusing
- Compact size, high amp capabilities
- Use up to 6 MIDI® or AMI fuses per assembly
- One input module and bus bar needed per complete assembly

EATON

185°F (85°C)
-40°F (-40°C)

400A max per assembly

Assembly Tips:
- Input module should be located in center of assembly
- Use higher current fuses closest to input module

Typical Assembly:

Fuse Module

Input Module

Busbar

MIDI® Fuse Sold separately
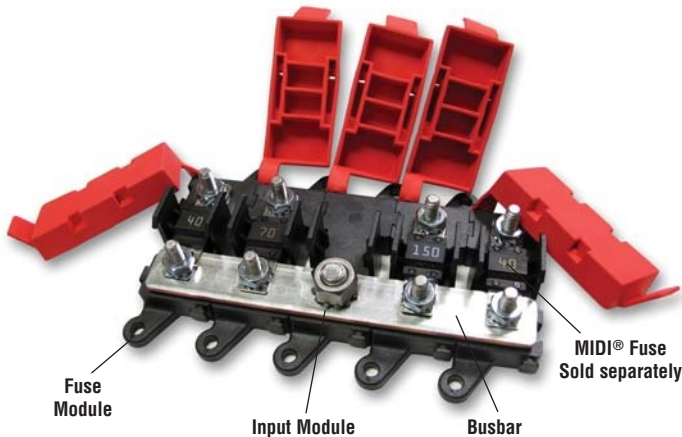
Fuse Module
Stock No 46390
- #10-24 stainless steel studs and cover
- Cover material: red EPDM santoprene
- Module material: UL-rated 94VO thermoplastic

Input Module
Stock No 46391
- $5/16$"-18 stainless steel stud and keps nut
- 1 - input module required for each assembly

Busbars

Stock No.	Number of Positions
46392	2
46393	3
46394	4
46395	5
46396	6
46397	7

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

PDM-AMI FUSE HOLDER | NEW

EAT•N

- Sealed bolt-in fuse holder
- Used for main branch primary fusing and accepts multiple (two, three or four) industry standard AMI fuses
- Using a common input bus bar, requires just one input connection to power all fuses
- Provides efficient power distribution suitable for many batter box and "under the hood"
- Applications including marine, construction, agriculture, heavy trucking, bus and specialty vehicle markets
- IP6K9K rating, some of the highest protection from dust, water splash and pressure spray available
- Features heavy duty housing, silicone gaskets, tin plated copper bus bars, M8 cable, input/output studs and stainless steel compression limiters in the mounting feet
- Designed for high current power distribution, supports fuses up to 200A per channel

Positions	Stock No.
2	46322
3	46323
4	46324

FLEX MIDI® FUSE HOLDER | NEW

Stock No. 45610
- Wire entry from virtually any point, enabled by flexible cover, aids in quick and easy installation

257°F (125°C)
-40°F (-40°C)

32V 200A

Littelfuse®
Expertise Applied | Answers Delivered

Flex MIDI® Busbar
- For use with stock no. 45610

Positions	Stock No.
2	45611
3	45612

PDM MIDI® FUSE HOLDER MDB SERIES | NEW

- Internally bussed allowing for high current power distribution
- AssureLatch™ yellow positive-sealing latches keeps cover securely in place
- Innovative cable seals provide a tight seal for power cables in a variety of diameters
- Sealed to IP67 and IP69K for maximum flexibility in mounting location
- Great for construction, agricultural and high amperage vehicles

185°F (85°C)
-40°F (-40°C)

6-58VDC 200A

Positions	Stock No.
2	46327
3	46328

CH Cole Hersee
A Littelfuse® Brand

ANN AND ANL LIMITER FUSES |

- Protects charging systems in battery operated applications
- Rugged and reliable
- High amperage ratings in a compact size, just $7/8$" × $3 1/16$"
- Ideal for heavy-duty applications
- Clear window provides open-fuse indication

ANN Fuses **80V DC / 125V AC**

ANN Fuses	
Amps	Stock No.
10	46161
35	46162
40	46163
50	46164
60	46167
80	46168
90	46169
100	46180
125	46181
150	46182
175	46187
200	46183
225	46197
250	46184
300	46185
325	46188
350	46189
400	46186
500	46200
600	46206
700	46208
800	46209

ANL Fuses **80V DC / 32V AC**

ANL Fuses	
Amps	Stock No.
35	46211
40	46212
50	46213
60	46190
80	46214
100	46191
150	46192
175	46193
200	46194
225	46159
250	46195
300	46196
325	46216
350	46217
400	46218
500	46219
600	46221
675	46222
750	46223

ANN and ANL Fuse Holder **80V DC / 125V AC / 800A**
Stock No. 46097
- Furnished with lock nuts
- Molded thermoplastic base
- Two countersunk mounting holes on 1" centers for #10 flat head screws

ANN and ANL Fuse Holder **12V DC / 300A**
Stock No. 45602
- Accepts $5/16$" (M8) Ring Terminal
- UL Rated 94HB

ANN and ANL Cover and Boot Kit
Stock No. 45601

Heavy Duty ANN and ANL Fuse Holder **80V DC / 125V AC / 800A**
Stock No. 46224
- Furnished with lock nuts
- Solid core construction
- Two countersunk mounting holes on 1" centers for #10 flat head screws
- $5/16$" stud

ANL Fuse Block with Insulating Cover
- Accepts $5/16$" (M8) ring terminals
- 2/0 AWG maximum cable size
- Fuse sold separately **32V**

Stock No. 78159

Stock No.	Blue Sea Part No.	Amps
78159	5005	35 amp to 300 amp
78160	5503	35 amp to 750 amp

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Fuses & Circuit Breakers

AMG HIGH AMP FUSES

- Ideal for battery and alternator cables or other heavy gauge cables requiring ultra-high current protection
- Bolt down design
- Mounting holes .34" dia. spaced 2" apart

180°F (82°C)
-25°F (-32°C)

32V

SAE J1171
SAE J1625
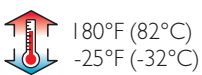
NEW | NEW

Amps	Fuse Stock No.	With Rivit Stock No.	Transparent Housing Stock No.
100	46270	47042	45000
125	46271	47043	45001
150	46272	47044	45002
175	46273	---	45003
200	46274	47046	45004
225	46275	47048	45005
250	46276	---	45006
300	46279	---	45007
400	46290	---	45008*
500	46291	---	45009*

* No transparent housing

AMG HIGH AMP FUSE HOLDERS

Stock No. 46039
- High amp mountable fuse holder
- Comes with black rubber cover for protection
- Cables can be attached from the front, side or the back
- Nuts included, $5/16$" thread size
- $1/4$" mounting hole

32VDC 300A

Stock No. 46038
- Convenient mounting for high amp fuse
- Black glass filled thermoplastic construction with black cover for protection
- Includes nuts and washers, M8 thread size
- $1/4$" mounting hole

32VDC 500A

MEGA®/AMG FUSE BLOCK

Stock No. 78161
(Blue Sea No. 5001)

BLUE SEA SYSTEMS

- Insulating cover satisfies ABYC/USCG insulation requirements
- Insulating cover breakouts allow wire access in three directions
- UL 94-V0 base resists high heat
- Fuses sold separately
- M8 stud

32VDC 300A

MEGA®/AMG SAFETY FUSE BLOCK

Stock No. 78162
(Blue Sea No. 7721)

BLUE SEA SYSTEMS

- Ignition protected for installation aboard gasoline or diesel powered boats
- Sealed cover protects fuses from the harsh marine environment
- Insulating cover satisfies ABYC/USCG insulation requirements
- Cover breakouts allow wire access in any direction
- M8 terminal stud/screw size
- Fuses sold separately

32VDC 300A

SEALED HPDB MEGA® FUSE HOLDER | NEW

Stock No. 46319
- Max Voltage: 48 Vdc
- Max Input current: 600A
- Max Current per circuit: 300A
- Separate fuse compartment provides a seal that protects the fuses
- Dimensions: 129 x 125 x 45mm
- Ingress Protection: IP67, IP69K

Littelfuse® Expertise Applied | Answers Delivered

48VDC 600A

221°F (105°C)
-58°F (-50°C)

FLEX MEGA® FUSE HOLDER | NEW

Stock No. 45616
- Fuse Type: MEGA® - Flex Series
- Mounting Method: Bolt Down
- Flexible Cover

Littelfuse® Expertise Applied | Answers Delivered

32V 500A

257°F (125°C)
-40°F (-40°C)

Wire & Cable
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Clamps & Clips
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Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

ZCASE MEGA STARTER FUSE | 🔴 NEW

- Operating temperature: -40 to 125C
- Terminal: Tin plated copper
- Voltage Rating: 32V DC
- Interrupting Rating: 2000A @ 32V VDC
- Full family (40-600A) available upon request

257°F (125°C)
-40°F (-40°C)

32V 2000A

Amps	Stock No.
125	45590
150	45591
175	45592
200	45593
225	45594
250	45595

ZCASE Battery Terminal
Stock No. 45596

Assembly Instructions

1. Place the battery terminal on the stud & bus bar assembly. For 2 positions bolt the two pieces together
2. Place ZCASE fused to the battery
3. Mount the assembly to the battery
4. Attach cables with ring terminals over the top of the fuses onto the studs
5. Thread nuts and lock washers to the top of the studs and torque to 12+/-2 Nm

ZCASE Busbar & Stud Assembly

Assembly Instructions

1. Place the battery terminal on the stud & bus bar assembly. For 2 positions bolt the two pieces together
2. Place ZCASE fused to the battery
3. Mount the assembly to the battery
4. Attach cables with ring terminals over the top of the fuses onto the studs
5. Thread nuts and lock washers to the top of the studs and torque to 12+/-2 Nm

Positions	Stock No.
2	45598
3	45597

(M8 Nuts Not Included)

Typical ZCASE Assembly

MARINE RATED BATTERY FUSES (MRBF)

58V

EAT•N

- High amp circuit protection in small component
- Space saving
- Use for main or auxiliary circuits
- Marine rated SAE J1117

Amps	Stock No.
30	45551
40	45552
50	45553
60	45554
75	45556
80	45557
90	45558
100	45559
125	45560
150	45561
175	45562
200	45563
225	45564
250	45565
300	45566

MARINE RATED BATTERY FUSE (MRBF) HOLDERS & COVERS

EAT•N

- Mounting bars/holders for MRBF
- ¼-20 stud size
- 2-stud mounting bars must have 2 fuses

# of Fuses	⅜" Mounting Hole Stock No.	½" Mounting Hole Stock No.	Red Cover Stock No.	Black Cover Stock No.
1	45567	45568	45571	45573
	45575*			
2	45569	45570	45572	45574

* M8 stud size

One Fuse - Mounting Bar/Holders

Two Fuses - Mounting Bar/Holder

12V-42V
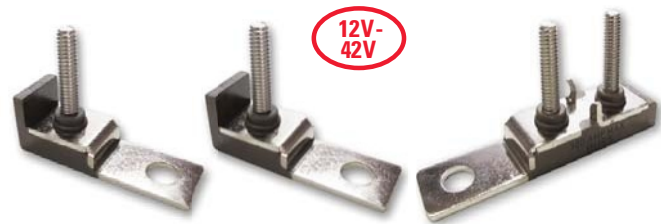
Stock No. 45568   **Stock No. 45575**   **Stock No. 45569**

One Fuse - Covers

Stock No. 45571

Stock No. 45573

Two Fuses - Covers

Stock No. 45572

Stock No. 45574

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

PANEL MOUNT FUSE HOLDERS

• For AGC type fuses, 1/4" dia. by 1 1/4" long

Mounting Holes
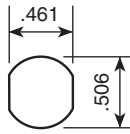
Stock No. 46018
• 1/4" push-on terminals
• Threaded mount

250V 20A

.461
.506
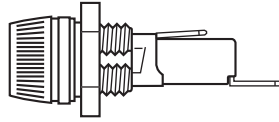
Stock No. 46023
• 3/16" push-on terminals
• Threaded mount

250V 15A

.461
.506
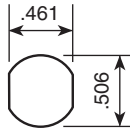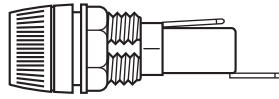
Stock No. 46017
• 1/4" push-on terminals
• Push mount

250V 20A

.500
.560
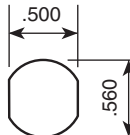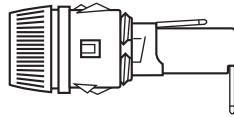
DC POWER DISTRIBUTION PANEL

• Will withstand the water exposures normally encountered in above deck applications: salt spray, rain, hose washdowns, momentary immersions
• ON-OFF contura switches
• ON indicating LEDs embedded in switches
• Each switch is fused with 15 amp AGC fuse
• 12V or 24V DC nominal Voltage
• 45A cumulative panel rating

BLUE SEA SYSTEMS

12VDC 20A   **24VDC 15A**

Stock No. 78101
• 3.75" H × 5.25" W × 3.00" D

Stock No. 78100
• 7.50" H × 5.25" W × 3.00" D

Stock No.	Blue Sea Part No.	Description
78100	8053	6 Position
78101	8262	4 Position

Basic DC Panel Label Set
Stock No. 78102
(Blue Sea No. 8030)

• Labels for switch panels Stock No. 78100 & 78101
• 30 Labels
• 1.438" L × 0.438" H
• See waytekwire.com for label descriptions

REPLACEMENT TYPE II BREAKER FOR GLASS FUSES

• Fits in holders which accommodate 1/4" dia. by 1 1/4" long glass fuses
• Remains open until the trouble is corrected or the power is turned off
• Direct replacement for most OEM applications
• Doesn't reset until the overload is removed or power is turned off

12V

Amps	Stock No.
10	46710
15	46715
20	46720
30	46730
40	46740

FUSE CLIPS

Stock No. 37060
• For use with 1/4" dia. glass fuses
• Convenient to use in a fuse block when another circuit is required
• 1/4" push-on male blade

Stock No. 37063
• Full circle fuse clip for attaching an extra circuit to a 1/4" dia. fuse
• Thin metal helps not to distort fuse holder terminals

BREAK APART FUSE BLOCKS

• Low cost option to fuse your product
• Supplied in standard length of 12 poles
• Snaps apart for the number of circuits you require

EAT•N

Stock No. 47065
• For AGC type fuses 1/4" dia. by 1 1/4" long
• #6 screw terminal
• Mounting holes .146" dia. on 5/8" spacing

300V 30A

#6 Screw Terminals

FUSE TESTER

Stock No. 447
• Tests and removes
   – blade (ATC,® ATOF,® ATM and MAX)
   – glass (1 1/4", 1" and 5mm × 20mm)
• Simply slide the removable probe to appropriate fuse length to test fuse in fuse block
• If fuse is good, a green light turns on
• If there is no light, the fuse is blown
• Continuity tester or for fuses in circuit

24V

GLASS AND CERAMIC FUSES

AGA Fast Acting
¼" x ⅝" Glass Fuses

125VAC 1-5A
32VAC 7.5-30A

Amps	Stock No.
1	45371
2	45373
3	45375
5	45379
6	45381
7.5	45383
10	45389
15	45391
20	45393
25	45395
30	45397

AGU Fast Acting
1³⁄₃₂" x 1½"

600VAC

Amps	Stock No.
15	45417
20	45419
25	45421
30	45423
35	45425
40	45427
50	45429

AGW Fast Acting
¼" x ⅞" Glass Fuses

32VAC

Amps	Stock No.
1	45449
2	45451
3	45453
4	45455
5	45457
7.5	45459
10	45461
15	45463
20	45465
25	45467
30	45469

AGX Fast Acting
¼" x 1" Glass Fuses

250VAC ⅛-1A
125VAC 5-10A
32VAC 30A

Amps	Volts	Stock No.
⅛	250	45489
¼	250	45491
½	250	45493
1	250	45495
2	250	45497
3	250	45499
5	250	45501
7	250	45503
10	250	45505
15	32	45507
20	32	45509
25	32	45511
30	32	45513

Type AGC
• ¼" dia. by 1¼" long

Amps	Volts	Stock No.
¹⁄₁₀	250	46131
¼	250	46132
½	250	46133
1	250	46101
2	250	46102
3	250	46103
4	250	46104
5	250	46105
7½	250	46137
8	250	46108
10	250	46110
15	32	46115
20	32	46120*
25	32	46125
30	32	46130
40	32	46140
50	32	46139

* same as SFE 20

SFE Fast Acting
Glass Fuses

32VAC

Amps	Volts	Stock No.
4	32	45533
6	32	45535
7.5	32	45537
9	32	45539
14	32	45541
20	32	45543
30	32	45545

Type MDA
• ¼" dia. by 1¼" long, time delay

Amps	Volts	Stock No.
1	250	46151
2	250	46152
3	250	46153
5	250	46155
10	250	46160
15	250	46165

Tripuller/Fuse Puller
Stock No. 580
• Allows for easy fuse removal and replacement
• Extracts glass or ceramic, ATO® and MINI® style fuses from fuse blocks

T-TRON™ CLASS T FUSE
CURRENT LIMITING FAST ACTING

• Small, space-saving fuses provide a high degree of current limitation on short-circuits for excellent component protection
• Commonly applied in electric heat circuits, load center, disconnect switches, and meters
• Small size of the JJN Class T fuses permits installation in panelboards and control centers for system upgrading when existing circuit breakers cannot safely interrupt larger available short-circuit currents
• High speed of response for semiconductor protection

E·T·N

Stock No.	Amp
45585	225
45586	250
45587	300
45588	350
45589	400

Stock No. 45588

CLASS T FUSE HOLDER

• Cover (sold separately) protects conductive areas from accidental shorts and complies with ABYC & USCG requirements
• ⅜" stud
• Accepts battery lugs and eyelets up to 4/0 gauge
• Glass filled nylon base material
• Stainless steel connection bolts

12V 400A

Holder
Stock No. 45584

Cover
Stock No. 45583

Side tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | **Fuses & Circuit Breakers** | Cable Ties

Cole Hersee®
A Littelfuse® Brand

LOW PROFILE JCASE CARTRIDGE STYLE FUSES

Amps	Stock No.	Color
20	**46300**	Blue
25	**46305**	White
30	**46301**	Pink
40	**46302**	Green
50	**46303**	Red
60	**46304**	Yellow

• Lower overall height allows for space and weight savings

257°F (125°C)
-40°F (-40°C)

58V

JCASE CARTRIDGE STYLE FUSES

Amps	Stock No.	Color
20	**46590**	Blue
25	**46595**	White
30	**46591**	Pink
40	**46592**	Green
50	**46593**	Red
60	**46594**	Yellow

32V

JCASE

In-Line JCASE Fuse Holder With Cover
Stock No. 46150
• For use with low-profile JCASE fuses or standard JCASE fuses
• 8 gauge GXL wire, 4" leads
• Standard thru-hole mounting

58V 60A

257°F (125°C)
-40°F (-40°C)

JCASE Fuse Puller
Stock No. 582
• Designed for easy removal and replacement of JCASE style fuses

PAL® CARTRIDGE STYLE FUSES

• Color coded for amperage
• Other styles available by special order

📞 *Call 800-328-2724 for details.*

PAL® Female Terminal

PAL® 13/16 Bent Male Terminal

PAL® Mini Female Terminal

32V
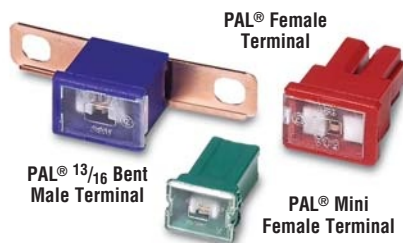
Type	Amps	Stock No.	Color	Termination Style
PAL® 13/16 Bent Male Terminal	30	**46570**	Pink	Bolts Into Fuse Block 13/16" Bolt Terminal
	40	**46571**	Green	Bolts Into Fuse Block 13/16" Bolt Terminal
	50	**46572**	Red	Bolts Into Fuse Block 13/16" Bolt Terminal
	60	**46573**	Yellow	Bolts Into Fuse Block 13/16" Bolt Terminal
	70	**46574**	Brown	Bolts Into Fuse Block 13/16" Bolt Terminal
	80	**46575**	Black	Bolts Into Fuse Block 13/16" Bolt Terminal
	100	**46576**	Blue	Bolts Into Fuse Block 13/16" Bolt Terminal
	120	**46577**	Gray	Bolts Into Fuse Block 13/16" Bolt Terminal
PAL® Female Terminal	20	**46580**	Light Blue	Female Termination
	30	**46581**	Pink	Female Termination
	40	**46582**	Green	Female Termination
	50	**46583**	Red	Female Termination
	60	**46584**	Yellow	Female Termination
PAL® Mini Female Terminal	30	**46585**	Pink	Female Mini Termination
	40	**46586**	Green	Female Mini Termination

2 + 2 FUSE HOLDER FOR MINI® AND JCASE FUSES

• Compact holder houses two JCASE® cartridge fuses and two MINI® bladed fuses
• Holder is gasket-sealed to protect fuses from moisture and contamination
• Fuses are internally bussed to a single main power stud, one input powers four fused circuits

32VDC 2-60A

Fuse Holder
Stock No. 46089

MINI® Fuse

Wire Gauge	Tin Plated Female Terminal Stock No.
18-16	**30037**
14-12	**31075**
12-10	**32035**

JCASE

Wire Gauge	Tin Plated Male Terminal Stock No.
14-16	**32062**
12-10	**32064**

Cable Seals

Cable Diameter	Color	Stock No.
1.70 - 1.29 mm	Dark Red	**39004**
2.80 - 2.03 mm	Green	**39000**
3.49 - 2.81 mm	Gray	**39001**
4.30 - 3.45 mm	Blue	**39002**

Cable Seals

Cable Diameter	Color	Stock No.
2.40-1.60 mm	Brown	**39030**
2.90-2.00 mm	Dark Red	**39031**
3.80-2.80 mm	Gray	**39032**
4.50-3.60 mm	Blue	**39018**

	Stock No.
Cavity Plug	**39010**

Crimp Tool
Stock No. 385

MCASE FUSES

• MCASE is a cartridge style fuse with female terminals for 2.8mm male terminals
• Miniaturized footprint for optimal usage of space
• Time delayed fuse

32VDC

Amps	Stock No.	Color
15	**46360**	Gray
20	**46361**	Blue
25	**46362**	White
30	**46363**	Pink
40	**46364**	Green

EAT•N

SHORT STOP CIRCUIT BREAKERS

Non-cycling Type II

- For applications where the unit resets only when the power is removed
- Kep nuts included

SAE J553 **12V**

Non-Cycling Type II Breakers	
Amps	No Bracket w/ Nuts Stock No.
6	46806
8	46808
10	46810
15	46815
20	46820
25	46825
30	46830
40	46840
50	46850

Manual Reset Type III

- For applications where the breaker has to be manually reset with the push of a button
- Plastic housing
- 10-32 stud terminals

SAE J553 **24V**

← Reset button

Manual Reset Type III Breakers	
Amps	Right angle Bracket w/ Nuts Stock No.
10	46375
15	46370
20	46371
30	46373
40	46376
50	46374

Circuit Breaker Boot

Red Boot **Stock No. 23540**

Yellow Boot **Stock No. 23541**

- Insulates your circuit breakers from shorting out
- Red is typically used for power leads, while yellow is for marine applications
- Fits breakers with or without mounting brackets

Circuit Breaker Brackets

- Breakers snap in place
- Use with metal circuit breakers without brackets

Six gang shown

Circuit Breaker Bracket	
Gangs	Stock No.
2	46462
3	46463
4	46464
6	46466
8	46468

Circuit Breaker Buss Bars

- Busbar assemblies for circuit breakers
- Gang the breaker for your particular circuit application
- Brass tin plated

Four gang shown

Circuit Breaker Bus Bar	
Gangs	Stock No.
2	46562
3	46563
4	46564
6	46566
8	46568

Standard Automotive Type I

- Automatic reset circuit breakers for many 12V DC applications are available in your choice of metal or plastic housings
- 10-32 stud terminals
- IP 66 rated (plastic only)

SAE J1171 *SAE J553* **12V**

Metal Housings

No mounting bracket	In-line mounting bracket	Right angle mounting bracket

Standard Automotive Type I Breaker – Metal Housings			
Amps	No Bracket w/ Nuts Stock No.	In-line Bracket w/ Nuts Stock No.	Right angle Bracket w/ Nuts Stock No.
10	46410	46510	46310
15	46415	46515	46315
20	46420	46520	46320
25	46425	46525	46325
30	46430	46530	46330
40	46440	46540	46340
50	46450	46550	46350

Plastic Housings

No mounting bracket	In-line mounting bracket	Right angle mounting bracket

Standard Automotive Type I Breaker – Plastic Housings			
Amps	No Bracket w/ Nuts Stock No.	In-line Bracket w/ Nuts Stock No.	Right angle Bracket w/ Nuts Stock No.
10	46411	46511	46311
15	46416	46516	46316
20	46421	46521	46321
25	46426	46526	46326
30	46431	46531	46331
40	46441	46541	46341
50	46451	46551	46351

7-Breaker Junction Box

Stock No. 46560

- Works with standard Type I and Type II metal circuit breakers without brackets
- Height: 2.55"

Includes:

- 4 hex screws
- 4 hole plugs
- 14 keps nuts
- 2 wire grommets
- Junction box

Hole Plug

8.08"
8.68"

3.18"
3.75"

Two Grommets

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

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CIRCUIT BREAKERS

RESET METHODS

Type I Automatic Reset
Breaker keeps cycling on and off until the overload is removed

Type II Modified Reset or Non Cycling
Breaker doesn't reset until the overload is removed or power is turned off

Type III Manual Reset
Breaker must be manually reset, trip indication shown on body

Type III Switchable
Similar to manual reset with a manual trip

PANEL MOUNT CIRCUIT BREAKERS

57 Series – Low Profile

125-250VAC 32VDC

• Push to reset
• Type III circuit breaker
• Interrupt Capacity:
  - 1000A @ 125 VAC, 200 A @ 250 VAC
• Reset Time: within 60 seconds
• 1/4" quick connect tabs

Stock No. 46498

Amps	Stock No.
10	46496
15	46497
20	46498
30	46499

58 Series – Standard Profile

125-250VAC 32VDC

• Push to reset
• Type III circuit breaker
• Interrupt Capacity:
  - 1000A @ 125 VAC, 200 A @ 250 VAC
• Reset Time: within 60 seconds
• #10 stud

**Clear M11 Boot
For 57 & 58 Series
Stock No. 46504**

Stock No. 46501

Amps	Stock No.
30	46501
40	46502
50	46503

CLB CIRCUIT BREAKER BLOCK

• Works with 16 Series Panel Mount, 1/4" only
• Uses Snap-in-Place CLB resettable circuit breaker
• Tin-plated copper busses and screw terminals
• Clear insulating cover with square format label recesses, satisfies ABYC/USCG insulation requirements
• Maximum 32A per circuit, and 40A per jumped circuit group

BLUE SEA SYSTEMS

32VDC 140°F (60°C) 14°F (-10°C)

Stock No.	Blue Sea Part No.	Description
78301	5050	6 Position
78302	5051	12 Position
78303	5052	6 Position with Ground
78304	5054	12 Position with Ground

Stock No. 78301

ST CLB Circuit Breaker Block Jumper

Stock No. 78300
(Blue Sea No. 5049)
• For use with Stock No. 78301, 78302, 78303 and 78304

MID-RANGE CIRCUIT BREAKERS

• Panel mount design available in two styles: automatic reset or switchable with manual trip push button
• Manual trip feature allows opening of the circuit path without disconnection from the power source
• Single pole thermal type
• 10-32 stud nuts included
• IP 66, ABYC E11

SAE J553 **SAE J1171** **32V**

EATON

**Automatic Reset
Stock No. 46952**

**Manual Trip Push Button
Stock No. 46972**

1.57"

Panel Mount

Amps	Automatic Reset Stock No.	Switchable w/Manual Trip Push Button Stock No.
10	46950	46970
15	46951	46971
20	46952	46972
25	46953	46973
30	46954	46974
35	46955	46975
40	46956	46976
50	46957	46977

SERIES 16 PANEL MOUNT CIRCUIT BREAKERS

- Body Material: UL Rated 94 V-0 thermoset plastic housing
- Termination: 1/4" quick disconnects
- Single Pole Thermal Type Breakers
- Ignition proof
- IP67

180°F (80°C)
-25°F (-32°C)

SAE J553 SAE J1625 **50V**

Panel Mount
- Termination: 1/4"-28 threaded studs

Stock No. 46895

Stock No.	Amp	Contact Size	Mechanical Products Part No.
46895	5	1/4"	1600-037-050-15
46896	10	1/4"	1600-037-100-15
46897	15	1/4"	1600-037-150-15
46898	20	1/4"	1600-037-200-15
46899	25	1/4"	1600-037-250-15
46900	30	1/4"	1600-037-300-15
46901	40	#10-32	1648-009-040-15
46902	50	#10-32	1648-009-050-15
46903	60	#10-32	1648-009-060-15
46904	70	#10-32	1648-009-070-15

Clear Silicone Rubber Boot
Stock No. 46909
- Size 7/16" 28

Snap In Panel Mount
- Termination: 1/4" quick disconnects

Stock No. 46631

Stock No.	Amp	Contact Size	Mechanical Products Part No.
46631	5	1/4"	1600-255-050-00
46632	10	1/4"	1600-255-100-00
46633	15	1/4"	1600-255-150-00
46634	20	1/4"	1600-255-200-00
46635	25	1/4"	1600-255-250-00
46636	30	1/4"	1600-255-300-00

IGNITION PROOF PANEL MOUNT CIRCUIT BREAKERS

- Designed for the harshest of environments
- Weatherproof and ignition proof characteristics are especially well suited to application in marine, heavy equipment, trucks, buses and battery chargers
- Double break design to achieve increased short-circuit interruption capability
- Push-to-reset actuator is trip-free, ensuring it cannot be forced to continuously maintain closed circuit if an overload condition exists
- American Boat and Yacht Council (ABYC) rated

SAE J553 SAE J1428 **32V**

Stock No. 46456

Stock No.	Amp	Mechanical Products Part No.
46458	10	1800-E1-1-2E-0100-12
46457	15	1800-E1-1-2E-0150-12
46452	20	1800-E1-1-2E-0200-12
46453	30	1800-E1-1-2E-0300-12
46454	40	1800-E1-1-2E-0400-12
46455	50	1810-E1-3T-0500-13
46456	60	1810-E1-3T-0600-13

SWITCHABLE CIRCUIT BREAKERS

- Mechanical Products Series 24 circuit breaker switch
- Ideal for applications that require an "on/off" circuit breaker switch and circuit protection in small enclosures
- Economically designed with superior performance
- UL 1077 recognized circuit breaker
- 1 or 2 pole switchable push-to-reset circuit breaker
- Trip-free
- Snap-in panel mount

250V AC 50V DC

Stock No. 46432   **Stock No. 46400**

Stock No.	Amp	Poles	Mechanical Products Part No.
46398	5	1	2410-100-159-0500
46399	10	1	2410-100-159-1000
46400*	15	1	2410-400-159-1500
46432	20	2	2420-100-159-2000
46434	30	2	2420-400-159-3000

* Comes with clear cover

Side tabs
Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · **Fuses & Circuit Breakers** · Cable Ties

Sidebar tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | **Fuses & Circuit Breakers** | Cable Ties

HI-AMP CIRCUIT BREAKERS

- Available in surface mount or panel mount design
- Surface mount design comes in four styles: automatic reset, manual reset, Series 185 and Series 285 switchable with a manual trip feature
- Series 185 switchable and manual reset styles feature a black reset lever for indication of a tripped condition
- Series 285 switchable style features a unique yellow lever for easier indication of a tripped circuit
- Plastic housing is approved for engine compartments or marine bilge area applications

- Typically used for auxiliary and accessory circuits on trucks, buses, recreational vehicles, marine, and construction equipment
- Single pole thermal type breakers and automatic breakers are rated up to 30V DC
- ¼"-28 studs and surface mount style have rubber boots for insulating the ends
- Series 285 switchable style stud placement increases between stud and breaker body for easier terminal installation

180°F (82°C)   -25°F (-32°C)   **SAE J1171**   **SAE J1625**   MAX. INTERRUPT RATING   **30V 3000A**

Panel Mount

30V
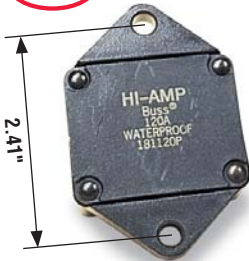
Series 181
Automatic Reset Style

Series 285
Switchable with a
Manual Trip Push Button

Flange Panel Mount Gasket
Stock No. 23539

Surface Mount

30V   **48V**   **48V**   **48V**

Series 181
Automatic Reset Style

Series 184
Manual Reset Style

.345"
Series 185
Switchable with a
Manual Trip Push Button

.472"
Series 285
Switchable with a
Manual Trip Push Button

2.41"

Amps	Automatic Reset Stock No. Bussmann Series 181	Switchable Manual Trip Push Button Stock No Bussmann Series 285
50	46910	46940
60	46911	46941
80	46913	46942
100	46915	46943
120	46917	46944
150	46919	46945

Amps	Automatic Reset Stock No. Bussmann Series 181	Manual Reset Stock No. Bussmann Series 184	Switchable Manual Trip Push Button Stock No. Bussmann Series 185	Switchable Manual Trip Push Button Stock No. Bussmann Series 285
50	46930	46920	46980	46689
60	46931	46921	46981	46690
80	46933	46923	46983	46691
100	46935	46925	46985	46692
120	46937	46927	46987	46693
150	46939	46929	46989	46694

MARINE RATED CIRCUIT BREAKERS

- Typically used in DC power systems
- Can be used as a main on/off switch
- External ignition protected and weather-proof
- Single pole thermal type breakers
- ⁵⁄₁₆"-18 threaded stud nuts included

SAE J1171   **48V**

Panel Mount   ### Surface Mount

2.75"

Amps	Panel Mount Stock No.	Surface Mount Stock No.
50	46890	46870
60	46891	46871
100	46892	46872
120	46893	46873
150	46894	46874
200	46889	46875

⁵⁄₁₆"-18 Threaded Stud
Nuts Included

See Marine Rated Battery Fuses (MRBF) on page 131.

Fuses & Circuit Breakers

CARLING TECHNOLOGIES A-SERIES CIRCUIT BREAKERS

- Compact, temperature stable and designed for precision operation
- Hydraulic magnetic circuit breaker
- UL recognized

Carling Technologies
Innovative Designs, Powerful Solutions.

Stock No. 48800

Stock No.	Amp	Description
48800	10	8/32 screw terminal, white toggle with 6/32 threaded inserts
48810	15	10/32 screw terminal, black toggle with 6/32 threaded inserts
48825	20	8/32 screw terminal, white toggle with 6/32 threaded inserts

LIGHTED THERMAL CIRCUIT BREAKER

- Mechanical Products Series 24 circuit breaker switch
- Ideal for applications that require an "on/off" circuit breaker switch and circuit protection in small enclosures
- UL 1077 recognized circuit breaker
- Switchable, trip-free circuit breaker/switch
- 2 pole protected device
- Green, red or amber incandescent lighted actuator
- Snap-in mount .85 x 1.99 inch panel cut out
- Printed on/off
- ¼" quick disconnect terminals

UL **12V**

Stock No. 46435 **Stock No. 46442** **Stock No. 46490**

Stock No.	Amp	Color	Mfg Part No.
46435	5	Green	2420-302-111-0500
46436	10	Green	2420-302-111-1000
46437	15	Green	2420-302-111-1500
46438	20	Green	2420-302-111-2000
46439	30	Green	2420-302-111-3000
46442	5	Red	2420-302-121-0500
46443	10	Red	2420-302-121-1000
46444	15	Red	2420-302-121-1500
46445	20	Red	2420-302-121-2000
46446	30	Red	2420-302-121-3000
46490	5	Amber	2420-302-131-0500
46491	10	Amber	2420-302-131-1000
46492	15	Amber	2420-302-131-1500
46493	20	Amber	2420-302-131-2000
46494	30	Amber	2420-302-131-3000

MECHANICAL PRODUCTS SERIES 17 CIRCUIT BREAKERS

- Heavy duty design; conforms to Mil-STD-202 for corrosion, humidity and shock protection, Mil-STD-204 for vibration protection
- New easy access termination
- Diagonally or side by side positioned
- ¼" or ⅜" diameter studs
- Interrupt capacity SAE J1625, ABYC-E11
- IP67 dust and waterproof rated
- Ignition protected

MP **SAE J1625** **SAE J1171** **48VDC**

Diagonally Positioned **Side by Side Positioned**

Surface Mount
Diagonally Positioned Termination

Amps	Manual Reset Stock No. ¼" Studs	Manual Reset Stock No. ⅜" Studs	Automatic Reset Stock No. ¼" Studs	Automatic Reset Stock No. ⅜" Studs	Push to Trip Reset Stock No. ¼" Studs	Push to Trip Reset Stock No. ⅜" Studs
50	----	----	----	----	48880	48900
60	48961	48981	48921	48941	48881	48901
80	48963	48983	48923	48943	48883	48903
100	48965	48985	48925	48945	48885	48905
120	48966	48986	48926	48946	48886	48906
150	48967	48987	48927	48947	48887	48907
175	48968	48988	48928	48948	48888	48908
200	48969	48989	48929	48949	48889	48909
225	----	49081	----	49031	----	----
250	----	49082	----	49032	----	----
275	----	----	----	49033	----	----
300	----	----	----	49034	----	----

Surface Mount
Side by Side Positioned Termination

Amps	Manual Reset Stock No. ¼" Studs	Manual Reset Stock No. ⅜" Studs	Automatic Reset Stock No. ¼" Studs	Automatic Reset Stock No. ⅜" Studs	Push to Trip Reset Stock No. ¼" Studs	Push to Trip Reset Stock No. ⅜" Studs
50	----	----	----	----	48890	48910
60	48971	48991	48931	48951	48891	48911
80	48973	48993	48933	48953	48893	48913
100	47975	48995	48935	48955	48895	48915
120	48976	48996	48936	48956	48896	48916
150	48977	48997	48937	48957	48897	48917
175	48978	48998	48938	48958	48898	48918
200	48979	48999	48939	48959	48899	48919

Mechanical Products Series 17 LED Lighted tripID™
Stock No. 46912

- Visual aid in finding open circuit breaker
- Quick visual tripID™ via red LED of open circuit
- No additional wiring or tools needed
- Can be installed on many hi-amp circuit breakers (non-MP) in the field
- Can be used in harsh applications

12VDC 24VDC

Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

MECHANICAL PRODUCTS SERIES 19 CIRCUIT BREAKERS

NEW

omp

- Can be used in harsh applications rated at 12 & 24 VDC
- Superior moisture sealing for use in harsh water environments
- Quick panel mount installation
- Superior ingress protection
- Robust high temperature thermoplastic case
- ¼ - 28 plated brass terminal studs with stainless steel sems nuts
- UL Recognized - UL 1077
- IP67 - water immersion up to 1m
- IP69K - high temperature water pressure

12VDC **24VDC** **SAE J1625** **SAE J1171**

Type 1 Auto Reset
Stock No. 48874

Type 3 Manual Reset
Stock No. 48858

Type 1 Auto Reset w/ Red LED
Stock No. 48865

Type 3 Manual Reset w/ Red LED
Stock No. 48850

Amps	Type 1 Auto Reset	Type 1 Auto Reset w/ Red LED	Type 3 Manual Reset	Type 3 Manual Reset w/ Red LED
50	48879	48870	48861	48851
60	48878	48869	48860	48850
70	48877	48868	48859	48849
80	48876	48867	48858	48848
90	----	----	48857	48847
105	48875	48866	48856	48846
120	48874	48865	48855	48845
150	48873	48864	48854	48844
175	48872	48863	48853	48843
200	48871	48862	48852	48842

CIRCUIT BREAKERS

ATM Fuse Circuit Breakers

Automatic Reset Type I
- Designed to fit in place of a mini fuse
- Gray plastic housing with a gold cover
- Marked with capacity data
- Works with 46077 and cover 46087 on page 123

Non-cycling Type II
- Designed to fit in place of a mini fuse
- Gray plastic housing with a black cover
- Marked with capacity data
- Works with 46077 and cover 46087 on page 123

14V **SAE J553**

Amps	Stock No.
5	46759
7.5	46760
10	46761
15	46762
20	46763
25	46764
30	46765

14V **SAE J553**

Amps	Stock No.
5	46859
7.5	46860
10	46861
15	46862
20	46863
25	46864
30	46865

ATM Fuse Circuit Breakers

Type III

EATON

- 280 type footprint
- Material: UL-Rated 94V0 thermoplastic housing
- Marking: Standard marking includes amp/voltage ratings, part number, and date code
- Termination: Compatible with 280 Type fuse blocks

Amps	Stock No.	Color
5	46799	Tan
7.5	46800	Brown
10	46801	Red
15	46802	Blue
20	46803	Yellow
25	46804	White
30	46805	Green

185°F (55°C) / -40°F (-40°C)

SAE J553 **28VDC**

SOLID STATE POLYSWITCH

- 2.8 mm terminals
- Latches on first trip
- PTC resistance switching action
- Constant wattage power dissipation when tripped
- Solid state construction
- Probe points
- Bright color coded housing
- Low thermal rating
- Automotive and heavy truck circuits
- Resettable

Stock No.	Amp	Color
46851	10	Red
46852	15	Blue
46853	20	Yellow
46854	25	White
46855	30	Green

12V

METRI-PACK 280 STYLE 68 OHM RESISTOR

- Unique design ensures a solid electrical and mechanical connection to the internal components
- Thermoplastic housing
- Brushed aluminum cover
- 2.8mm blades on 8.1mm centerline spacing

260°F (125°C) / -40°F (-40°C) **12V-24V**

Stock No. 46883

CIRCUIT BREAKERS

ATC® Circuit Breakers

EAT•N

- Both types marked with capacity data
- Works with fuse panels 46050 - 46063
- Works with fuse block 46074 and cover 46086
- Not for use with Fuse Holders 46032 and 47070

14V

Gray plastic housing with gold cover

24V

Gray plastic housing with silver cover

Automatic Reset Type I

Amps	Stock No.
10	46751
15	46752
20	46753
25	46754
30	46755

Manual Reset Type III

Amps	Stock No.
5	46746
7.5	46747
10	46741
15	46742
20	46743
25	46744
30	46745

ATC/ATO® Circuit Breakers

- ATOF/ATC® size case
- For use with fuse holders 46032 and 47070
- Works with fuse block 46074 and cover 46086
- Not for use with fuse panels 46050 - 46063

14V **SAE J553**

24V

Automatic Reset Type I

Amps	Stock No.
5	46770
10	46771
15	46772
20	46773
25	46774
30	46775

Manual Reset Type III

Amps	Stock No.
10	46781
15	46782
20	46783
25	46784
30	46785

UCB Circuit Breaker

Non-cycling Type II Blade Type

- Use in place of the ATOF® and ATC® type fuses
- Blades can be snapped off to fit three different lengths: .30", .50" or .75"
- Breakers remain open until the trouble on the line is corrected, or the power is turned off

12V

.30"
.50"
.75"
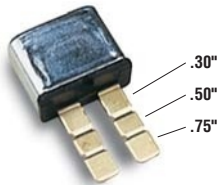
Amps	Stock No.
10	46610
15	46615
20	46620
25	46625
30	46630

Low Profile ATC® Circuit Breakers

Manual Reset Type III

- Color-coded and marked to show amperage

28V **SAE J553** **SAE J1284**

EAT•N

Amps	Stock No.	Color
5	46791	Tan
6	46792	Green
7.5	46793	Brown
10	46794	Red
15	46795	Blue
20	46796	Yellow
25	46797	White
30	46798	Lt. Green

MAXI Circuit Breakers

- Interchangeable with Maxi automotive fuses
- MAXI size case

24V **SAE J553**

Automatic Reset Type I

Amps	Stock No.
20	46673
30	46675
40	46677
50	46678

Manual Reset Type III

Amps	Stock No.
20	46683
30	46685
40	46687
50	46688

MAXI Long ATC® Blade Mount Type Circuit Breakers

- Standard 1/4" blade matches standard ATO/ATC® fuses
- MAXI size case

12V **SAE J553**

24V

Automatic Reset Type I

Amps	Stock No.
10	46642
15	46643
20	46644
25	46645
30	46646

Manual Reset Type III

Amps	Stock No.
10	46652
15	46653
20	46654
25	46655
30	46656

Sidebar tabs: Wire & Cable | Terminals & Connectors | Tools | Clamps & Clips | Tapes & Chemicals | Heat Shrink Products | Wire Coverings & Protection | Lights & Vehicle Accessories | Switches & Relays | Battery Management | Fuses & Circuit Breakers | Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Cable Ties

ALL-NYLON STANDARD AND MOUNTING TIES

Some nylon cable ties can be combined for the best price.

- Secure hoses, wires, tubing, etc.
- Most ties meet UL requirements
- Nylon 6/6 material

185°F (85°C)
-40°F (-40°C)

Call 800-328-2724 for details.
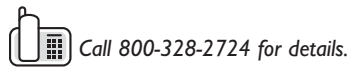
Type	Natural Stock No.	Black Stock No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Min.	Max	Tensile Strength	Screw Size	Standard Package Qty.
Standard	21021C	21041C	4	.095	.062	.75	18 lbs.		100
	21021M	21041M	4	.095	.062	.75	18 lbs.		1000
	21022C	21042C	6.1	.095	.062	1.5	18 lbs.		100
	21022M	21042M	6.1	.095	.062	1.5	18 lbs.		1000
	21018C	21019C	8.1	.095	.062	2	18 lbs.		100
	21018M	21019M	8.1	.095	.062	2	18 lbs.		1000
	21023C	21043C	5.8	.140	.062	1.25	40 lbs.		100
	21023M	21043M	5.8	.140	.062	1.25	40 lbs.		1000
	21073C	21093C	8.9	.140	.062	2	40 lbs.		100
	21073M	21093M	8.9	.140	.062	2	40 lbs.		1000
	21074C	21094C	11	.140	.062	3	40 lbs.		100
	21074M	21094M	11	.140	.062	3	40 lbs.		1000
	21075C	21095C	14.5	.140	.062	4	40 lbs.		100
	21024C	21044C	7.6	.180	.062	1.75	50 lbs.		100
	21024M	21044M	7.6	.180	.062	1.75	50 lbs.		1000
	21025C	21045C	11	.180	.062	3	50 lbs.		100
	21026C	21046C	14.5	.180	.062	4	50 lbs.		100
Heavy Duty	21570	21590	8.75	.300	.187	2	120 lbs.		100
	21027	21047	14.5	.300	.187	4	120 lbs.		100
	21017	21016	24.5	.302	.187	7	120 lbs.		50
	21003	21004	30	.302	.187	9	120 lbs.		50
Extra Heavy Duty	21076	21096	15	.350	1	4	175 lbs.		25
	21072	21092	25	.340	1	7	175 lbs.		50
	21578	21598	36	.340	1	11	175 lbs.		50
	21579	21599	48.5	.340	6	14.5	175 lbs.		50
Standard Mounting	21030C	21050C	4.25	.100	.062	.75	18 lbs.	#4	100
	21030M	21050M	4.25	.100	.062	.75	18 lbs.	#4	1000
	21031C	21051C	6	.138	.062	1.25	30 lbs.	#8	100
	21031M	21051M	6	.138	.062	1.25	30 lbs.	#8	1000
	21032C	21052C	8	.177	.062	1.75	50 lbs.	#10	100
	21032M	21052M	8	.180	.062	1.75	50 lbs.	#10	1000
	21033C	21053C	11	.180	.062	3	50 lbs.	#10	100
	21034C	21054C	14.5	.180	.062	4	50 lbs.	#10	100
Heavy Duty Mounting	21545	21555	14	.300	.187	4	120 lbs.	1/4	100

All dimensions in inches.

Thomas&Betts

TY-RAP® CABLE TIES

- Stainless steel insert (with steel grip) molded in the head for an infinitely adjustable and durable tie, with no notches
- Less stress in the tie body, resulting in less chance of breakage

- Engineered for labor savings and high performance
- Standard black ties are UV resistant nylon 6/6

185°F (85°C)
-40°F (-40°C)

(UL) (CSA)
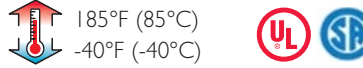
Type	Tie Color	Stock No. Bulk Qty. 1000	Ty-Rap Part No.	Stock No. Qty. 100	Ty-Rap Part No.	Approx. Length	Bundle Dia. Max.	Military Standard No.	Width	Tensile Strength
Standard	Natural	21621	TY23M	21721	TY523M	3.62	.625	MS3367-4	.090	18 lbs.
	Black	21641	TY23MX	21741	TY523MX	3.62	.625	MS3367-4	.090	18 lbs.
	Natural	21618	TY232M	21718	TY5232M	8.00	2.000	----	.090	18 lbs.
	Black	21619	TY232MX	21719	TY5232MX	8.00	2.000	----	.090	18 lbs.
	Natural	21616	TY234M	21716	TY5234M	14.00	4.000	----	.090	18 lbs.
	Black	21617	TY234MX	21717	TY5234MX	14.00	4.000	----	.090	18 lbs.
	Natural	21614	TY24M	21714	TY524M	5.50	1.125	MS3367-5	.140	40 lbs.
	Black	21615	TY24MX	21715	TY524MX	5.50	1.125	MS3367-5	.140	40 lbs.
	Natural	21673	TY242M	21773	TY5242M	8.19	2.000	----	.140	40 lbs.
	Black	21693	TY242MX	21793	TY5242MX	8.19	2.000	----	.140	40 lbs.
	Natural	21674	TY26M	21774	TY526M	11.10	3.000	----	.140	40 lbs.
	Black	21694	TY26MX	21794	TY526MX	11.10	3.000	----	.140	40 lbs.
	Natural	21675	TY244M	21775	TY5244M	14.50	4.000	----	.140	40 lbs.
	Black	21695	TY244MX	21795	TY5244MX	14.50	4.000	----	.140	40 lbs.
	Natural	21624	TY25M	21724	TY525M	7.31	1.750	MS3367-1	.190	50 lbs.
	Black	21644	TY25MX	21744	TY525MX	7.31	1.750	MS3367-1	.190	50 lbs.
	Natural	21625	TY253M	21725	TY5253M	11.40	3.000	MS3367-7	.190	50 lbs.
	Black	21645	TY253MX	21745	TY5253MX	11.40	3.000	MS3367-7	.190	50 lbs.
	Natural	21626	TY28M	21726	TY528M	14.20	4.000	MS3367-2	.190	50 lbs.
	Black	21646	TY28MX	21746	TY528MX	14.20	4.000	MS3367-2	.190	50 lbs.

Type	Tie Color	Stock No. Bulk Qty. 500	Ty-Rap Part No.	Stock No. Qty. 50	Ty-Rap Part No.	Approx. Length	Bundle Dia. Max.	Military Standard No.	Width	Tensile Strength
Heavy Duty	Natural	21670	TY272M-500	----	----	8.00	2.000	----	.270	120 lbs.
	Black	21690	TY272MX-500	21790	TY272MX-50	8.00	2.000	----	.270	120 lbs.
	Natural	21671	TY27M-500	21771	TY27M-50	13.40	3.500	MS3367-3	.270	120 lbs.
	Black	21691	TY27MX-500	21791	TY27MX	13.40	3.500	MS3367-3	.270	120 lbs.
	Natural	21627	TY275M-500	----	----	18.00	5.000	----	.270	120 lbs.
	Black	21647	TY275MX-500	21747	TY275MX-50	18.00	5.000	----	.270	120 lbs.
	Black	21651	TY29MX-500	21749	TY29MX-50	30.00	9.000	MS3367-6	.270	120 lbs.

All dimensions in inches.

TY-GRIP™ FASTENERS

- Handy, easy to use and release
- Used for temporary applications where continuous changes are anticipated

220°F (104°C)
-40°F (-40°C)
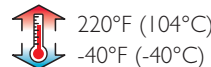
Type	Color	Stock No.	Ty-Grip Part No.	Approx. Length	Bundle Dia. Max.	Tensile Strength	Package Qty.
Loop Ties	Black	21430	FO200-40-0	9.0	2.0	40 lbs.	10
	Black	21436	FO350-50-0	13.0	3.5	50 lbs.	10

All dimensions in inches.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

HellermannTyton NYLON CABLE TIES

- Bundle and secure wire and cable
- UL 94 V-2
- Nylon 6/6 material

185°F (85°C)
-40°F (-40°C)

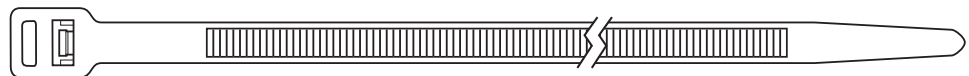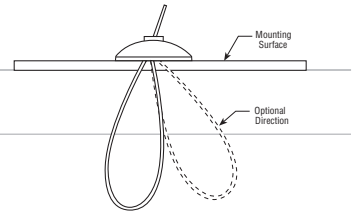| Type	Natural Stock No.	HellermannTyton Natural Part No.	Black Stock No.	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
Standard 18 pound	**21921**	T18R9C	**21941**	T18R0C	4	.100	.86	18 lbs.	100
	21821	T18R9M	21841	T18R0M	4	.100	.86	18 lbs.	1000
	21922	T18I9C	**21942**	T18I0C	5.5	.100	1.38	18 lbs.	100
	21822	T18I9M	21842	T18I0M	5.5	.100	1.38	18 lbs.	1000
	21918	T18L9C	**21919**	T18L0C	8	.100	2.17	18 lbs.	100
	21818	T18L9M	21819	T18L0M	8	.100	2.17	18 lbs.	1000
30 pound	**21923**	T30R9C	**21943**	T30R0C	5.8	.140	1.38	30 lbs.	100
	21823	T30R9M	21843	T30R0M	5.8	.140	1.38	30 lbs.	1000
	21915	T30XL9C	**21916**	T30XL0C	14	.140	4.13	30 lbs.	100
	21815	T30XL9M	21816	T30XL0M	14	.140	4.13	30 lbs.	1000
40 pound	**21973**	T40R9C	**21993**	T40R0C	8.3	.160	2.16	40 lbs.	100
	21873	T40R9M	21893	T40R0M	8.3	.160	2.16	40 lbs.	1000
	21974	T40I9C	**21994**	T40I0C	11.6	.160	3.15	40 lbs.	100
	21874	T40I9M	21894	T40I0M	11.6	.160	3.15	40 lbs.	1000
	21975	T40L9C	**21995**	T40L0C	14.6	.160	4.13	40 lbs.	100
	21875	T40L9M	21895	T40L0M	14.6	.160	4.13	40 lbs.	1000
50 pound	**21924**	T50R9C	**21944**	T50R0C	8	.180	1.97	50 lbs.	100
	21926	T50L9C	21946	T50L0C	15.35	.180	4.3	50 lbs.	100
120 pound	**21970**	T120S9K	**21990**	T120S0K	8.9	.300	2.2	120 lbs.	50
	21971	T120I9K	21991	T120I0K	11.8	.300	3.2	120 lbs.	50
	21927	T120R9K	**21947**	T120R0K	15.2	.300	4.1	120 lbs.	50
	21929	T120L9K	21949	T120L0K	30	.300	8.85	120 lbs.	50
175 pound	**21976**	T150R9X	**21996**	T150R0X	15.4	.350	4.1	175 lbs.	25
	21977	T150M9X	21997	T150M0X	21	.350	5.9	175 lbs.	25
	21978	T150L9X	**21998**	T150L0X	32.3	.350	9.6	175 lbs.	25
	21979	T150XL9X	21999	T150XL0X	43	.350	13	175 lbs.	25

All dimensions in inches.

HellermannTyton HEAVY DUTY HIGH IMPACT RESISTANT CABLE TIE

- Extra heavy duty, polyamide 6.6 high impact heat stabilized resin
- High resistance against UV rays
- Rounded edges minimize stress on wire bundles
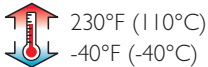
230°F (110°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21295	Black	T255SOHIRX2	9	.490	.5 - 2.16	250 lbs.	25

All dimensions in inches.

HellermannTyton WIDE STRAP HEAVY DUTY CABLE TIES

- Made from high impact, heat stabilized, UV resistant nylon 6/6
- Wide strap minimizes pinching on soft bundles
- Low profile head provides compact bundling
- Thinner strap provides increased flexibility for improved ergonomics
- UL 94 HB
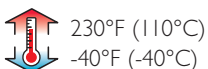
230°F (110°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21902	Black	111-12302	15.1	.500	4.125	120 lbs.	300

All dimensions in inches.

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

HellermannTyton

HellermannTyton NYLON SPECIALTY CABLE TIES

Fir Tree Push Mount Cable Ties
- Heat stabilized nylon 6/6
- Push mount end for .25"-.26" mounting hole
- Panel Thickness .05"-.2"
- UL 94 V-2
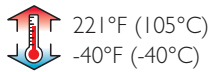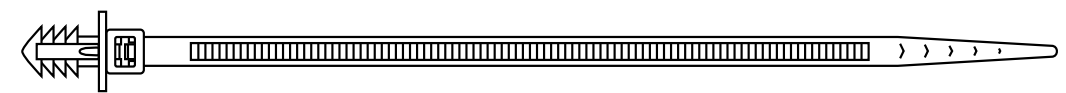
Application
- Used on sheet metal, wood and cast iron

221°F (105°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21286	Black	T50RTM250HSC2	8.27	.180	2.0	50 lbs.	100

All dimensions in inches.

Push Mount Cable Ties
- Mounts into a panel or other sheet metal
- UL 94 V-2

Application
- Ideal for holding harnesses and conduit

185°F (85°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Natural Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Mounting Hole Dia.	Max. Panel Thickness	Package Quantity
21281	Natural	T30RSF9C2	6.23	.130	1.25	30 lbs.	.19-.22	.04-.09	100
21282	Natural	T50RSF9C2	8.3	.180	1.75	50 lbs.	.25-.28	.04-.14	100

All dimensions in inches.
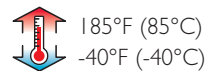
Releasable Cable Ties
- Used for repeated open and close
- UL 94 V-2
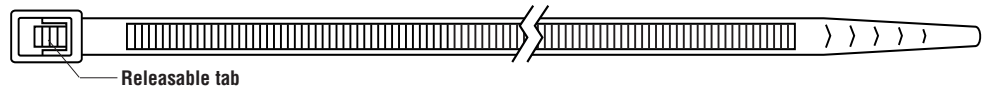
Application
- Used for prototype work where wires will be added, or when a tie is needed for a temporary application

— Releasable tab

185°F (85°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21275	Black	RT40R0C	8.5	.160	2	40 lbs.	100
21276	Black	RT50S0C	6.5	.180	1.38	50 lbs.	100
21278	Black	REL50L0C	9.8	.300	2.8	50 lbs.	100

All dimensions in inches.

Heavy Duty Releaseable Cable Ties
- UV resistant nylon
- Buckle feature allows the end of the tie to be tucked away
- UL 94 V-2

Application
- Used for jobs where extra strength is required

185°F (85°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21080	Black	T250S0X	9.1	.490	2	250 lbs.	25
21081	Black	T250R0X	20.3	.490	4.9	250 lbs.	25
21082	Black	T250M0X	22.3	.490	5.9	250 lbs.	25
21083	Black	T250I0X	28.7	.490	8	250 lbs.	25
21084	Black	T250L0X	34.7	.490	10	250 lbs.	25
21085	Black	T250XL0X	40.6	.490	12	250 lbs.	25

All dimensions in inches.

Stud Mount Cable Ties
- High impact UV resistant nylon
- Mounts on a 1/4-20 threaded stud
- Simply push tie into stud for a secure grip
- UL 94 HB
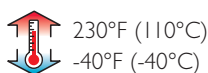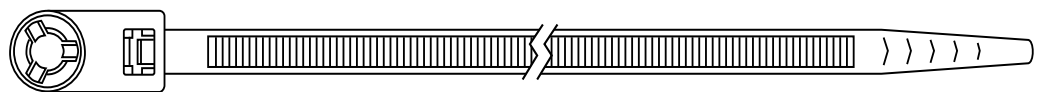
Application
- Excellent for high vibration applications in automotive and outdoor use

230°F (110°C)
-40°F (-40°C)

Stock No.	Color	HellermannTyton Black Part No.	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Package Quantity
21284	Black	T120RSM0HIRK2	16	.300	4	120 lbs.	50

All dimensions in inches.

Side tabs: Wire & Cable · Terminals & Connectors · Tools · Clamps & Clips · Tapes & Chemicals · Heat Shrink Products · Wire Coverings & Protection · Lights & Vehicle Accessories · Switches & Relays · Battery Management · Fuses & Circuit Breakers · Cable Ties

Wire & Cable
Terminals & Connectors
Tools
Clamps & Clips
Tapes & Chemicals
Heat Shrink Products
Wire Coverings & Protection
Lights & Vehicle Accessories
Switches & Relays
Battery Management
Fuses & Circuit Breakers
Cable Ties

Cable Ties

ALL NYLON SPECIALTY CABLE TIES

Clamp Ties

185°F (85°C)
-40°F (-40°C)
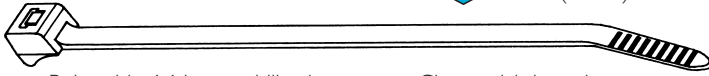
- Polyamide 6.6 heat stabilized
- Uniquely designed heads allow for complete circular mount of 360°
- Clamps tightly on hoses and other circular parts

Application
- Soft rubber hose

Nylon Stock No.	Color	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Standard Package
21267	Black	4	.100	.50	20 lbs.	100
21268	Black	8	.190	1.77	60 lbs.	100

All dimensions in inches.

Button Head Ties

Mounting Surface

Optional Direction

221°F (105°C)
-40°F (-40°C)
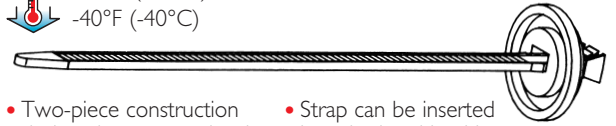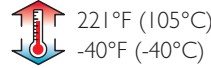
- Two-piece construction designed to mount the tie on a panel or structural framework
- UL 94 HB
- Strap can be inserted into the head in either direction to speed installation
- High impact, heat stabilized material

Stock No.	Color	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Standard Package
21087	Black	9.63	.220	2.62	105 lbs.	50

All dimensions in inches.

SPECIALTY CABLE TIES

Some nylon cable ties can be combined for the best price.

Nylon Beaded Ties
- Tie head can be locked between any two beads to allow for multiple lengths
- Easily unlocks and can be reused
- UL 94 V-2
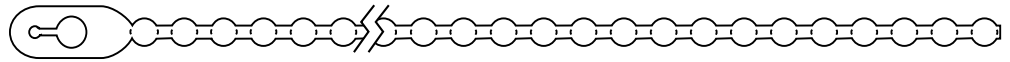
Stock No. Natural	Stock No. Black	Length	Tensile Strength	Standard Package
21228	21229	10	35 lbs.	1000

All dimensions in inches.

PLENUM CABLE TIES

Low Smoke and Flame Halar® Material

- Distinct red color where low smoke and flame are a concern in air handling spaces
- NEC approved for use in plenum spaces
- UL 94 V-0

Application
- Areas that require a low smoke density if burning occurs

300°F (149°C)
-104°F (-76°C)
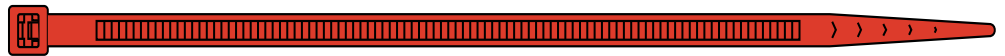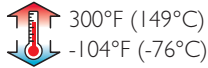
Halar Stock No.	Approx. Length	Approx. Width	Bundle Dia. Max.	Approx. Tensile Strength	Standard Package
21261	4	.100	0.87	14 lbs.	100
21262	8	.180	1.75	40 lbs.	100

All dimensions in inches.

JARS OF ALL NYLON TIES

Stock No. Black	Jar contents		
	Qty.	Length	Lbs.
21451	200	4	18 lbs.
	100	5.6	30 lbs.
	200	7.5	50 lbs.
21453	300	4	18 lbs.
	300	7.5	30 lbs.
	50	11	50 lbs.

All dimensions in inches.

- Convenient way to store and use a variety of ties
- UL recognized and Mil-spec approved

CABLE TIE TIPS

- *Restraining devices are locking. (They should remain secure for the expected service life of the product.)*
- *The end of the tie wrap is cut (1) off not greater than one tie wrap thickness and is reasonably square to the face of the tie wrap.*
- *Restraining devices do not move.*
- *Restraining devices do not cause noticeable indentation or distortion of the wires of the assembly.*
- *Spacing of restraining devices is uniform.*
- *Spacing (S) of restraining devices from the rearmost connector accessory or between each other is 3 diameters of the wire bundle or 10 cm [4 in] whichever is less.*
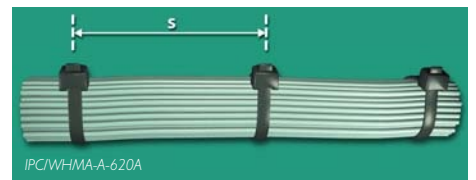
IPC/WHMA-A-620A

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WAYTEK | Order Online: www.waytekwire.com | 24 Hour FAX: 1-800-858-0319

NYLON COLORED CABLE TIES

- Variety of standard and neon colors available
- Can be used for identification and marking or to match product colors

Colored Tie Kits
- Contains 1000 ties, 100 each of the following colors: black, brown, red, orange, yellow, green, blue, purple, gray and white

Kit with 4'' ties **Stock No. 21509**

Kit with 7¹/₂'' ties **Stock No. 21529**

Stock No.	Color	Length	Width	Bundle Dia. Min.	Bundle Dia. Max.	Tensile Strength	Standard Package
21501	Brown	4	.100	.062	.750	18 lbs.	100
21502	Red	4	.100	.062	.750	18 lbs.	100
21503	Orange	4	.100	.062	.750	18 lbs.	100
21504	Yellow	4	.100	.062	.750	18 lbs.	100
21505	Green	4	.100	.062	.750	18 lbs.	100
21506	Blue	4	.100	.062	.750	18 lbs.	100
21507	Purple	4	.100	.062	.750	18 lbs.	100
21508	Gray	4	.100	.062	.750	18 lbs.	100
21512	Neon Pink	4	.100	.062	.750	18 lbs.	100
21513	Neon Orange	4	.100	.062	.750	18 lbs.	100
21514	Neon Yellow	4	.100	.062	.750	18 lbs.	100
21515	Neon Green	4	.100	.062	.750	18 lbs.	100
21521	Brown	7.5	.187	.062	1.750	50 lbs.	100
21522	Red	7.5	.187	.062	1.750	50 lbs.	100
21523	Orange	7.5	.187	.062	1.750	50 lbs.	100
21524	Yellow	7.5	.187	.062	1.750	50 lbs.	100
21525	Green	7.5	.187	.062	1.750	50 lbs.	100
21526	Blue	7.5	.187	.062	1.750	50 lbs.	100
21527	Purple	7.5	.187	.062	1.750	50 lbs.	100
21528	Gray	7.5	.187	.062	1.750	50 lbs.	100
21532	Neon Pink	7.5	.187	.062	1.750	50 lbs.	100
21533	Neon Orange	7.5	.187	.062	1.750	50 lbs.	100
21534	Neon Yellow	7.5	.187	.062	1.750	50 lbs.	100
21535	Neon Green	7.5	.187	.062	1.750	50 lbs.	100

All dimensions in inches.

LOW PROFILE NYLON TIES

- Reduced head height compared to standard designs
- Design eliminates cuts or abrasions to wires, cables, hoses, products and users

Applications
- Wire harnesses, confined spaces, safety equipment and control panels

Stock No.	Color	Length	Width	Bundle Dia. Min.	Bundle Dia. Max.	Tensile Strength	Standard Package
21248	Natural	7.5	.178	.375	1.875	50 lbs.	100
21249	Black	7.5	.178	.375	1.875	50 lbs.	100
21259	Black	14	.300	.562	3.500	120 lbs.	100

Notes:
Ties are shipped in the standard packaging only.

All dimensions in inches.

ALL NYLON IDENTIFICATION TIES

Some nylon cable ties can be combined for the best price.

- Combines the ease of using a cable tie with the permanent identification of your product

Stock No.	Color	Approx. Length	Approx. Width	Approx. Bundle Dia. Max.	Tensile Strength	Writing Area	Standard Package
21065	Natural	8	.18	1.75	50 lbs.	1 x 7/16	100
21068	Natural	15.25	.18	4	50 lbs.	2 1/8 x 1/2	100
21066	Natural	4	.10	.75	18 lbs.	1 x 5/16	100
21067	Natural	4.125	.10	.75	18 lbs.	13/16 x 5/16	200

Identification Plates
- Can be attached with any standard size tie
- Manufactured of natural nylon
- .015" thick

.195 Dia.

Stock No.	W x L
52301	.75 x 1.50

All dimensions in inches.

All dimensions in inches.

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

Fuses & Circuit Breakers

Cable Ties

Cable Ties

STAINLESS STEEL TIES

- 304 stainless steel
- Locking ball design for quick installation
- Rounded edges and a smooth surface result in low insertion forces
- Non-magnetic
- UV resistant
- Fireproof

Applications
- Harsh environments

Stock No.	Approx. Length	Approx. Width	Bundle Dia. Max.	Approx. Tensile Strength	Standard Package
21400	7.9	.180	2	150 lbs.	100
21401	14.2	.180	4	150 lbs.	100
21402	20.4	.180	6	150 lbs.	100
21403	26.8	.180	8	150 lbs.	100
21404	7.9	.310	2	250 lbs.	50
21405	14.3	.310	4	250 lbs.	50
21406	20.5	.310	6	250 lbs.	50
21408	33	.310	9.8	250 lbs.	50

All dimensions in inches.

Stainless Steel Tie Gun
Stock No. 423
- Ergonomically designed tool comes with foam grips
- Works with all of the stainless steel ties shown

RECLOSABLE FASTENERS

3M™ reclosable fastening systems replace conventional fastening methods to add greater convenience and easier accessibility while saving steps and costs in the production process.

Fast, easy open-and-close action makes these products ideal for dozens of applications where hooks, latches, snaps, zippers, dials, screws, bolts and other fastening methods once prevailed.

3M™ Hook and Loop Fasteners
- Saves production costs
- Pressure sensitive woven strips with general purpose adhesive backing
- Stiff hook strip presses together with pliable loop strip
- More convenient and easier to use than conventional latches, snaps, and screws
- For high-strength fastening, Stock No. 92001 can mate with Dual Lock Stock No. 92002

Additional styles and sizes may be available on special order. Call 800-328-2724 for details.

Application
- Used in electronics, transportation, sporting goods and manufacturing industries
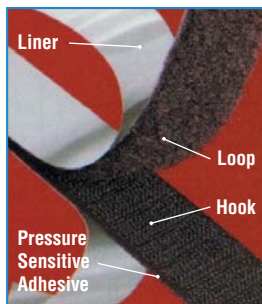
Bulk Rolls

Stock No.	Type	Color	Size
92000	Hook	Black	1"x50 yd roll
92001	Loop	Black	1"x50 yd roll

Mini-Packs

Stock No.	Type	Color	Size
92004	Hook & Loop	Black	1"x4.9 yd roll
92005	Hook & Loop	White	1"x4.9 yd roll

3M™ Dual Lock™ Reclosable Fastener
- Offered in pressure sensitive adhesive plastic strips or non-adhesive rounds
- Saves production costs
- More convenient and easier to use than conventional latches, snaps, and screws
- Can mate to itself
- 5 times more holding power than hook & loop

Additional styles and sizes may be available on special order. Call 800-328-2724 for details.

Application
- Used in electronics, transportation, sporting goods and manufacturing industries
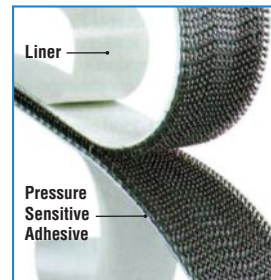
Bulk Rolls

Stock No.	Stems per inch	Color	Size
92002	170	Black	1"x50 yd roll
92003	400	Black	1"x50 yd roll
92011	170	Black	2"x50 yd roll
92010	400	Black	2"x50 yd roll

Mini-Packs

Stock No.	Stems per inch	Color	Size
92006	170 & 400	Black	1"x4.9 yd roll

DualLock Rounds

Rounds

Stock No.	Stems per inch	Color	Size
92008	400	Black	13/16" diameter

WAYTEK   Order Online: www.waytekwire.com   24 Hour FAX: 1-800-858-0319

MOUNTING BASES

Screw and Adhesive Mount Bases

- Popular method to secure wires, hoses, cables, etc.
- 4 way can be used as a 2 way
- Order cable ties separately

Typical 4 way

Typical Base style

Typical Mounting Bases

Style	Nylon White Stock No.	Nylon Black Stock No.	Mounting Type	Screw Size	Approx. Size	Maximum Tie Width
4 way	21040	----	Adhesive	6	.99 x .99 x .2	.200
	21240	----	Adhesive/Screw	---	3/4 x 3/4 x 3/16	.135
	21241	21244	Adhesive/Screw	4	3/4 x 3/4 x 5/32	.140
	21242	21245	Adhesive/Screw	8	1 1/8 x 1 1/8 x 3/16	.180
	21243	21246	Adhesive/Screw	8	1 1/2 x 1 1/2 x 1/4	.350
Base	21251	----	Screw	10	5/8 x 7/8 x 3/8	.310
	21252	----	Screw	.25	5/8 x 7/8 x 3/8	.310

All dimensions in inches.

Push Nylon Mount Base

Stock No. 21253
- Mounts in a 1/4" hole in material up to 7/64" thick
- Accepts .190" maximum width tie

Stock No. 21254
- Fits a 1/4" diameter hole
- Features concentric circle barbs for extra holding strength
- For ties up to 3/8" wide

FIR TREE MOUNT AND CABLE TIE ASSEMBLIES | HellermannTyton

Stock No.	HellermannTyton Part No.	Tensile Strength	Length (L)	Max. Bundle	Mounting Hole	Panel Thickness	Mount Length (L2)	Mount Length (L3)	Mount Width (W3)	Mount Height (H2)
21371	150-77940	30 lbs.	5.8	1.38	.252-.280	.028-.193	.460	.50	.200	.295
21372	156-00157	50 lbs.	8	1.75	.252-.280	.028-.193	.460	.540	.200	.295
21373	156-00057	30 lbs.	5.8	1.38	.256-.276	.031-.276	.460	.750	.200	.500
21374	111-85871	50 lbs.	8	1.75	.256-.276	.031-.276	.460	.750	.200	.500

All dimensions in inches.

- Provides a secure grip in a mounting hole
- Protects against dirt and other impurities
- Slides along the strap of the tie for proper orientation
- Low insertion force and high extraction force
- Comes pre-assembled with black cable tie
- Polyamide 6.6 heat stabilized (PA66HS) / Polyamide 6.6 high impact modified, heat stabilizied, UV resistant (PA66HIRHS)

CABLE HARNESS MOUNTS | HellermannTyton

- Use either tape or cable tie to mount onto harness, then push into a hole on the panel
- .31" of movement on either side of center to allow for alignment adjustments

Fir Tree Push Mount
Stock No. 21204
(HellermannTyton No. 151-02901)

.24"(6mm) .63" (16mm) Movement 2.13" (54mm) .55" (14mm)
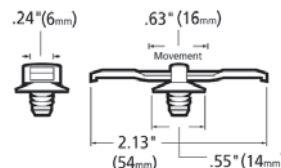
Cable Ties

EDGE CLIPS | HellermannTyton

- Designed to route bundles by securing them to the edge of a plastic or metal sheet without the need for a mounting hole
- Easy to secure
- High extraction force due to the integrated metal clamp that holds the edge clip in place
- UV resistant, heat stabilized
- Comes pre-assembled with a 50 lb. tensile strength black cable tie

221°F (105°C)
-40°F (-40°C)
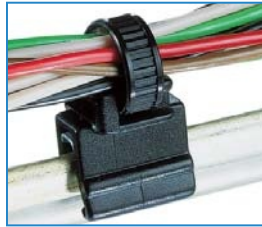
Stock No. 21301 Shown
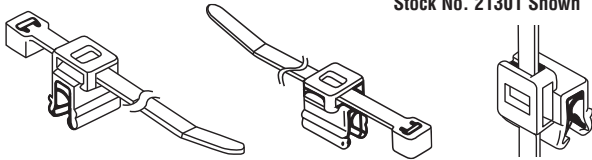
Stock No. 21301   **Stock No. 21302**   **Stock No. 21303**

Stock No.	HellermannTyton Part No.	Tensile Strength	Approx. Length	Approx. Max Bundle	Approx. Panel Thickness	Description
21301	156-00539	50 lbs.	8	1.8	.039-.117	Wire bundle runs parallel to edge
21302*	156-00861	50 lbs.	7.9	1.8	.039-.117	Wire bundle runs perpendicular to edge
21303	156-00864	50 lbs.	8	1.8	.039-.117	Side mounted tie; wire bundle runs parallel

ORDERING NOTE: All dimensions in inches.
*Attached cable tie is outside serrated to reduce bundle chafing.

AXIAL OVAL MOUNT | HellermannTyton

- Accepts ties from .18" to .50" wide
- Mount hole designed to fit a $5/16$" bolt

Stock No. 21260
(HellermannTyton No. SAM83HIRHS1)

Application
- Stand off bundles from frame rails and cross members to prevent them from rubbing and chafing

WIRE RETAINER for Harness Boards | HellermannTyton

- Stand-off wire and cable bundles for easier cable tie applications
- Maximum bundle .83"
- 1.22" W x 2.12" H

Stock No. 21470
(HellermannTyton No. HH-20)

Application
- Harness board assemblies

CABLE TIE ANCHOR MOUNT | HellermannTyton

- 4-way entry allows cable tie to secure bundles running parallel or perpendicular
- Quick installation - secures with a single screw

Stock No. 21375

Nylon Black Stock No.	HellermannTyton Part No.	Mounting Type	Screw Size	Approx. Size	Maximum Tie Width
21375	CTAM20C2	Screw	#10	0.8 x 0.4 x 0.2	.200"
21376	CTAM10C2	Screw	#8	0.8 x 0.4 x 0.2	.200"

All dimensions in inches.

HI TORQUE HEAVY DUTY MOUNT |

Stock No. 21294   HellermannTyton
- High impact heat stabilized UV resistant nylon
- Metal insert allows added security
- $3/8$" mounting hole (insert)
- Accepts up to $1/2$" width cable tie
- Works best with the Super Tie, Stock No. 21295, sold separately

Application
- Mount wire harnesses, cable assemblies and hoses
- Designed for use with power-assisted impact wrenches

Typical Application

DUAL CLAMP TIES |

- High impact heat stabilized nylon material
- Ensures parallel spacing between cables and hoses; keeps them from rubbing against each other and deteriorating

Application
- Used in many cars, trucks and trailers where high tensile strength and flexibility is needed

Black Stock No.	Nominal Length	Nominal Width	Bundle Dia. Max. ea. Side	Tensile Strength	Stud Size	Standard Package
21088	13	.500	1.3	150 lbs.	$1/4$	50
21089	19.2	.500	2.3	150 lbs.	$1/4$	50

All dimensions in inches.

CABLE TIE MOUNTS | HellermannTyton

- Heat stabilized UV resistant nylon 6/6
- Accepts all standard ties up to $1/2$" wide

Application
- Small tab contained inside the mounting hole temporarily engages threads, allowing assemblers to pre-install the mount on a stud before securing with a washer and nut (not included)

Stock No. 21255
(HellermannTyton No. HDM190HIRH4)
#10 mounting hole

Stock No. 21256
(HellermannTyton No. HDM250HIRH4)
$1/4$" mounting hole

Stock No. 21257
(HellermannTyton No. HDM3120HIRH4)
$5/16$" mounting hole

CABLE FASTENING SYSTEM | Thomas&Betts

- 4-way mounting system
- Mounts easily to existing studs
- Accepts ties up to .30"
- Does not work with the Super Tie Stock No. 21295

Stock No.	Thomas & Betts Part No.	Stud Size
21296	XMNY-375-0-D	$3/8$
21297	XMNY-500-0-D	$1/2$
21298	XMNY-625-0-D	$5/8$
21299	XMNY-750-0-D	$3/4$

CABLE TIE TOOLS

Thomas&Betts

Stock No. 538

(Thomas & Betts No. ERG50)

- Ergonomically designed cable tie tensioning tool reduces hand and wrist fatigue while securing and cutting your cable ties
- Weighs only 8 1/2 ounces and has an adjustable handle span that results in less stress and strain with repeated use
- Quick tension adjustment at the front of the tool
- 360 degree head rotation eliminates using the tool in awkward positions and assures increased efficiency
- For 18-50 lb. ties, including Ty-Raps® and all nylon ties

See page 143 for Thomas & Betts cable ties.

HellermannTyton

Stock No. 423

(HellermannTyton No. MK9SST)

- Ergonomically designed tool comes with foam grips
- Works with stainless steel ties

HellermannTyton

Stock No. 415

(HellermannTyton No. 110-70083 EVO7)

- Tension/Lock/Cut Technology delivers a "true" flush cut for a safer installation with no protrusions to damage neighboring components
- Advanced operating system of the TLC technology provides operational reliability and durability resulting in fewer repairs and extended lifespan; eases wear and tear on tool components
- Standard grip
- Tension lock-in mechanism eliminates operator ability to change tension setting for critical applications
- Can be used to fasten all variations of HellermannTyton's 8-50 lb. cable ties selected as suitable for any application or situation

Kit Stock No. 415K

(HellermannTyton No. 110-70106)

- Includes replacement blade and screw for nose piece

HellermannTyton

Stock No. 432
EVO®9

- Tensile Strength: 50-250 lbs.
- Impact-resistant housing and durable components for extended life
- Ergonomic, comfortable design
- Easy-to-adjust tension knob offers 33 different settings for precise, repeatable applications
- Precise, clean cuts
- Design requires minimal hand force to engage trigger and cut, reducing hand and wrist strain

See pages 144-145 for HellermannTyton cable ties.

Stock No. 410

- Easy to use economy tool for most standard size ties
- Adjustable tension and cutoff with one quick stroke
- For 18-50 lb. ties

Stock No. 411

- Lightweight and economically priced plastic tool for tensioning and cutoff of most standard size ties
- For 18-50 lb. ties

Stock No. 412

- Heavy duty tool for any size tie
- Especially useful on the heavy duty and extra heavy duty ties
- Tensions and cuts ties
- For 125-175 lb. ties

Wire & Cable

Terminals & Connectors

Tools

Clamps & Clips

Tapes & Chemicals

Heat Shrink Products

Wire Coverings & Protection

Lights & Vehicle Accessories

Switches & Relays

Battery Management

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