

KATCO
SERVICE PARTS INC.



CATALOG



DEAR KATCO CUSTOMER:

IT IS OUR PLEASURE TO SUPPLY YOU WITH SERVICE AND PARTS. TO BETTER MEET YOUR NEEDS, KATCO HAS PUT TOGETHER A CATALOG HIGHLIGHTING OUR PRODUCTS AND SERVICES. WE UNDERSTAND YOUR NEED TO PURCHASE QUALITY PARTS AND SERVICES AT COMPETITIVE PRICES. WE HOPE THIS CATALOG WILL HELP YOU CREATE INNOVATIVE SOLUTIONS FOR YOUR PARTS AND SERVICES REQUIREMENTS.

THIS CATALOG HIGHLIGHTS POPULAR PARTS AND ALLOWS THEM TO BE EASILY IDENTIFIED. IF YOU NEED SOMETHING THAT IS NOT FEATURED IN OUR CATALOG, PLEASE GIVE US A CALL AT (502) 241-0118. WE HAVE CUSTOMER SERVICE REPRESENTATIVES WHO ARE EAGER TO ASSIST YOU.

KATCO HAS BEEN IN OPERATION OVER TEN YEARS STRONG. OUR SERVICE TEAM HAS OVER 50 YEARS EXPERIENCE. OUR CUSTOMERS HAVE COME TO APPRECIATE OUR DEDICATION TO SERVICE AND QUALITY. WE WOULD LIKE TO OFFER YOU AN OPPORTUNITY TO EXPERIENCE WHAT OUR CUSTOMERS RECOGNIZE AS "A NEW STANDARD OF SERVICE."

WE PRIDE OURSELVES AS A FAMILY OPERATED BUSINESS AND LOOK FORWARD TO WELCOMING YOU AS PART OF OUR KATCO FAMILY.

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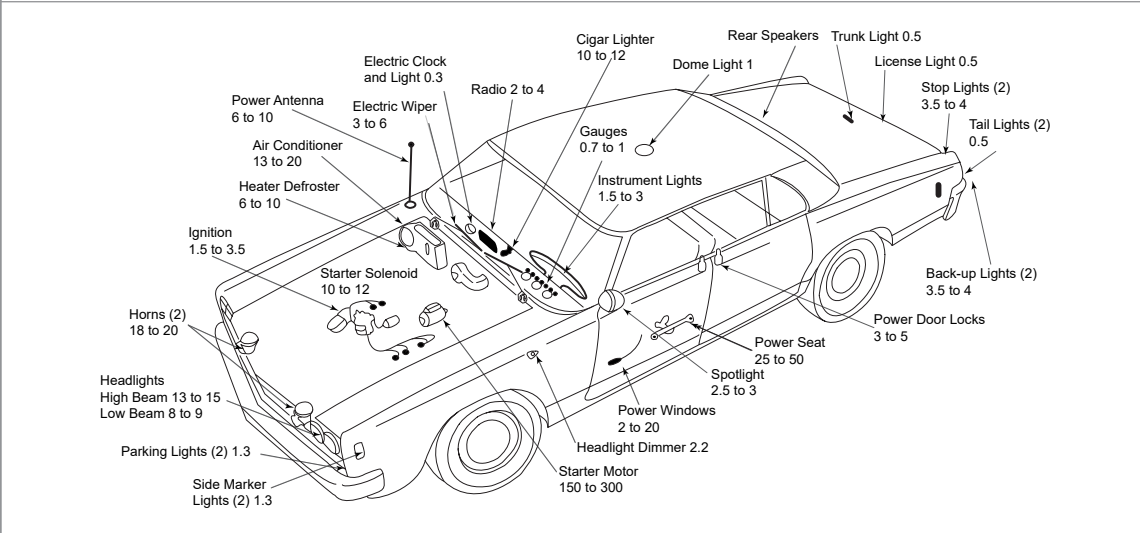


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Primary Wiring Amperage Guide: Amperage based on typical 12 volt system.



Wire Gauge Chart

Metric (mm ²)	SAE AWG (gauge)	Ohms per 1000-ft	Metric (mm ²)	SAE AWG (gauge)	Ohms per 1000-ft
0.5	20	10.0	13.0	6	0.4
0.8	18	6.9	19.0	4	0.3
1.0	16	4.7	32.0	2	0.2
2.0	14	2.8	40.0	1	0.14
3.0	12	1.8	50.0	0	0.11
5.0	10	1.1	62.0	00	0.09
8.0	8	0.7			

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Plastic Spool

Primary Wire

- Single conductor copper stranded polyvinyl chloride (PVC) insulated primary wire is standard for original equipment and replacement automotive applications.
- Smooth surface makes it ideal for pulling through loom or conduit.
- Rated for 12 volts, insulation operates optimally between the temperatures of -34°C to 90°C (-29°F to 194°F).
- Highly resistant to grease, oil and acids.
- Meets or exceeds S.A.E. specification J1128, Ford M1L56A and Chrysler MS 3450.
- Available in Red, White, Green, Brown, Yellow, Orange, Blue, Black, Grey, Purple.
- 500' and 1000' rolls are also available

10 Gauge*

Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
10GPT	100'	4	3¾"

* Only available in: red, white, blue, green, black, yellow and brown.

8 Gauge*

Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
8GPT	100'	7	6½"

* Only available in: red, white and black.

Specification Guide

S.A.E. Size	Conductor Stranding	Wall Mils	Nominal O.D.
20 ga.	7/28	23	.085"
18 ga.	16/30	23	.093"
16 ga.	19/29	23	.105"
14 ga.	19/27	23	.118"
12 ga.	19/25	26	.143"
10 ga.	19/23	31	.176"
8 ga.	19/21	37	.217"





Plastic Spool



Plastic Spool

Cross Link, GXL Wire

- Type GXL; medium thickness wall, special purpose automotive wire is insulated with chemically cross-linked polyethylene.
- Withstands prolonged temperatures of up to 125°C (257°F) without melting or fusing.
- Insulation has a smooth surface and is available in bright colors.
- Operates optimally between the extreme temperatures of -40°C to 125°C (-40°F to 257°F).
- Resistant to moisture and most solvents.
- Meets or exceeds S.A.E. specification J1128, Ford ESB-M1L85-B and Chrysler MS-8900.
- Available in Red, White, Green, Brown, Yellow, Orange, Blue, Black, Grey, Purple.
- 500' and 1000' rolls are also available

18 Gauge			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
18GXL	100'	1½	3¾"
18GXL	500'	3	3¾"
18GXL	1000'	6	3¾"

16 Gauge			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
16GXL	100'	2	3¾"
16GXL	500'	4	3¾"
16GXL	1000'	8	3¾"

14 Gauge			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
14GXL	100'	2	3¾"
14GXL	500'	4	3¾"
14GXL	1000'	8	3¾"

12 Gauge			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
12GXL	100'	3	3¾"
12GXL	500'	6	3¾"
12GXL	1000'	12	3¾"

10 Gauge*			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
10GXL	100'	5	3¾"
10GXL	500'	10	3¾"
10GXL	1000'	20	3¾"

* Only available in red, white & black.

8 Gauge*			
Part No.	Length/ Reel	Lbs. per Spool	Spool Diameter
8GXL	100'	7	3¾"
8GXL	500'	14	3¾"
8GXL	1000'	28	3¾"

Specification Guide			
S.A.E. Size	Conductor Stranding	Wall Mils	Nominal O.D.
18 ga.	16/30	23	.094"
16 ga.	19/29	23	.105"
14 ga.	19/27	23	.119"
12 ga.	19/25	26	.145"
10 ga.	19/23	31	.181"

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General Purpose-Parallel Wire

- Parallel primary wire is constructed of two, three, or four standard-wall Polyvinyl Chloride (PVC) insulated primary wires that are extruded together side by side.
- Each conductor is color coded for identification purposes.
- Parallel wires are built to stay together under operating conditions, although they can be easily separated on the end of the run for termination or final connection.
- Parallel wire is stocked in 14 gauge through 18 gauge in 2, 3 or 4 conductor.
- S.A.E. specification J1128.
- 500' and 1000' rolls are also available



2 Conductor:
Brown/or Black-Red



3 Conductor:
Brown-Yellow-Green



4 Conductor:
White-Brown-Yellow-Green

14 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-2B	100'	4	6½"

14 Gauge / 3 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-3B	100'	5	6½"

14 Gauge / 4 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-4B	100'	7½	6½"





Plastic Spool

Duplex Brake Cable

- Duplex brake cable is made with two polyvinyl chloride (PVC) insulated general purpose primary wires laid parallel and covered with a high quality 30 mil polyvinyl chloride jacket.
- Internal wire is rated for 12V DC and meets S.A.E. J1128 specifications.
- The jacket provides a compact cable and protects the insulated conductors against weather and acid effects.
- Color code: black and white with gray outer jacket.
- Sizes 12 and 10 gauge are recommended for electric brake wire.
- 500' and 1000' rolls are also available



18 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
18-2D	100'	3½	6½"
18-2D	250'	9	6½"
18-2D	500'	18	6½"
18-2D	1000'	36	6½"

12 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
12-2D	100'	7	6½"
12-2D	250'	14	6½"
12-2D	500'	28	6½"
12-2D	1000'	56	6½"

16 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
16-2D	100'	4	6½"
16-2D	250'	10	6½"
16-2D	500'	20	6½"
16-2D	1000'	40	6½"

10 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
10-2D	100'	10½	6½"
10-2D	250'	26	6½"
10-2D	500'	53	6½"
10-2D	1000'	106*	6½"

*Total Weight

14 Gauge / 2 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-2D	100'	5	6½"
14-2D	250'	13	6½"
14-2D	500'	26	6½"
14-2D	1000'	52	6½"

Specification Guide

S.A.E. Size	Conductor Stranding	Wall Mils	Nominal O.D.
18-2	16/30	23	.158 x .244
16-2	19/29	23	.170 x .270
14-2	19/27	23	.182 x .320
12-2	19/25	26	.212 x .358
10-2	19/23	31	.255 x .423

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Wooden Spool



Green ABS Cable
Wooden Spool

Trailer Cable

- Manufactured with a polyvinyl chloride (PVC) over-all jacket outside and general purpose primary wire inside.
- The single conductors are stranded copper, and each conductor is color-coded for identification purposes.
- Very tough cable with resistance to cracking, abrasion, oil, grease, acid and weather.
- Temperature rating: -40°C to 85°C (-40°F to 185°).
- Choose 7 Conductor cable (4-12 Ga./2-10 Ga./1-8 Ga.) for ABS applications.
- 500' and 1000' rolls are also available



7 Conductor (7/14 Ga.)

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-7N	100'	35	15"

7 Conductor (7/14 Ga.)

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-7T	100'	30	15"

16 Gauge / 4 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
16-4T	100'	11	8½"

14 Gauge / 4 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-4T	100'	14½	8½"

7 Conductor (4-12 Ga./2-10 Ga./1-8 Ga.)

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-7ABS	100'	40	15"

16 Gauge / 6 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
16-6T	100'	14½	8½"

14 Gauge / 6 Conductor

Part No.	Reel Size	Lbs. per Spool	Spool Diameter
14-6T	100'	21	8½"

Specification Guide

Gauge/ Conductor	Conductor Stranding	Outer Jacket	Approx. Diameter
16-4	19/.0112" BC	Black	.360"
16-6	19/.0112" BC	Black	.140"
14-4	19/.0140" BC	Black	.410"
14-6	19/.0140" BC	Black	.470"
12-6	19/.0177" BC	Black	.545"
3 #12, 4 #14	19/.0177" BC, 19/.0140" BC	Black	.500"
1 #10-6 #12	19/.0281" BC, 19/.0223" BC	Black	.600"
4 #12, 2 #10, 1 #8	19/.0281" BC, 19/.0223" BC, 19/.0177" BC	Black or Lime Green	.648"

Powering ABS

As of March 1998, all trucks and trailers were required by government law to be equipped with an Anti-lock Braking System (ABS). Through the Maintenance Council, the trucking industry developed recommended voltage requirements for ABS, which includes an 8 gauge ground, 10 gauge stop light and auxiliary wire. The lime green cable above meets these specifications which ensures constant power to your anti-lock braking system. While not mandated, the green jacket allows for easy identification. ABS cable that meets the mandated requirements is also offered in black.



COLOR CODE:

4 Conductor:
Yellow, Red, Green, Brown

6 Conductor:
Yellow, Blue, Black

7 Conductor:
No. 97701 and 97705
#12 White, Brown, Blue;
#14 Black, Yellow,
Red, Green

No. 97771 and 97775
#10 White,
#12 Blue, Brown, Green,
Red, Yellow, Black

No. 97721 and 97725
#12 Brown, Black, Yellow,
Green;
#10 Red, Blue;
#8 White w/black jacket



18/2 Ripcord

- Parallel wire suitable for alarm systems or light extension cords.
- Insulation coded for easy identification Type SPT-1.
- Plastic insulation $\frac{1}{32}$ " thick.
- Rated 300 volts.

Part No.	Gauge/ Conductors	Outside Diameter	Standard Spool Size	Approx. Lbs. per Spool	Color
18-2LC	18-2	.115 x .230	250'	6	White
18-2LC	18-2	.115 x .230	250'	6	Black
18-2LC	18-2	.115 x .230	250'	6	Brown



Parallel Booster Cable

- Twin extruded booster cable rated to 50V DC.
- Exceptionally flexible, even in sub-zero temperatures.

Part No.	Gauge	Standard Spool Size	Approx. Lbs. per Spool	Color
6-2B	6	100'	34	Orange/Black





We recommend using dual wall adhesive shrink tubing for protection against corrosion.

1. Choose heat shrink ratio and grade that is desired.
2. Identify desired gauge of battery cable and corresponding nominal OD from specification chart.
3. Choose the appropriate "inside diameter as supplied" heat shrink based on "inside diameter after recovery".
4. Be sure that "inside diameter after recovery" is slightly smaller than outside diameter of battery cable.

Dimension Chart

Gauge	Stranding	Outside Diameter
6	49/.0226"	.301"
4	133/.0171"	.356"
2	133/.0220"	.420"
1	133/.0242"	.455"
1/0	7x19/.0274"	.525"
2/0	7x37/.0226"	.580"
3/0	7x37/.0253"	.655"
4/0	19x110/.0100"	.706"

Suggested Ampacity for Battery Cable

Gauge	10-ft	20-ft	30-ft	40-ft	50-ft	60-ft	80-ft	100-ft
6	200	100	50	50	50	36	36-24	24-20
4		200-150	100	100	50	50	50	36
2			200-150	150	100	100	50	50
1				200	150	100	100	50
1/0					200	150	100	100
2/0						200	150	100
3/0							200	150
4/0								200





Welding Cable

- A highly flexible neoprene jacket surrounds fully annealed rope-stranded bare copper.
- Used as a battery cable alternative because of its flexibility.
- Heavy-duty welding cable is resistant to flame, oil, abrasion, tar and grease.
- Temperature range is -50°C to 105°C (-58°F to 221°F).
- Rated at 600 volts with a paper separator.
- Meets or exceeds ASTM-B-172 specifications and conforms to ICEA/NEMA welding cable requirements.
- The extremely flexible nature of this product makes it perfect for tight battery applications.
- 25' coils are sold per each (i.e. 25' = 1).
- Red and black available in all gauges. Please specify color



25' Coil Size

Part No.	Gauge	Lbs. per Coil*
SF6	6	3½
SF4	4	5
SF2	2	6½
SF1	1	9
SF1/0	1/0	11
SF2/0	2/0	13
SF3/0	3/0	16
SF4/0	4/0	20

* weight is approximate

100' Spool Size

Part No.	Gauge	Lbs. per Spool*	Spool Diameter
SF6	6	13	8½"
SF4	4	18	8½"
SF2	2	26	8½"
SF1	1	39	15"
SF1/0	1/0	47	15"
SF2/0	2/0	56	15"
SF3/0	3/0	68	15"
SF4/0	4/0	85	15"

* weight is approximate

500' Spool Size

Part No.	Gauge	Lbs. per Spool*	Spool Diameter
SF6	6	69	15"
SF4	4	94	15"
SF2	2	136	15"
SF1	1	177	15"
SF1/0	1/0	217	15"
SF2/0	2/0	131	15"
SF3/0	3/0	317	15"
SF4/0	4/0	400	15"

* weight is approximate

Dimension Chart

Gauge	Stranding	Nominal Diameter
6	7x38/.0100"	.320"
4	7x56/.0100"	.375"
2	7x92/.0100"	.440"
1	7x112/.0100"	.515"
1/0	19x54/.0100"	.550"
2/0	19x66/.0100"	.590"
3/0	19x85/.0100"	.660"
4/0	19x108/.0100"	.725"

Suggested Ampacity for Welding Cable

Gauge	50-ft	75-ft	100-ft	125-ft	150-ft	175-ft	200-ft	225-ft	250-ft	300-ft	350-ft
4	100	100									
3	150										
2	200	150	100	100							
1	250/300	200	150		100						
1/0	350	250	200	150		100	100				
2/0	400/450	300	250	200	150			100	100		
3/0	500	350/400	300	250	200	150	150			100	
4/0	550/600	450/500	350/400	300	250	200	200	150	150		100

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Speaker Wire

- Use this wire for clear sound reproduction and optimal audio output.
- Sizes available are 18-2, 16-2, 14-2 and 12-2.
- Positive identification with one tinned copper wire and one bare copper wire, with a clear PVC-coated jacket.
- 500' and 1000' rolls are also available

18/2 Wire Size		
Part No.	Spool Size	Weight
18-2SW	100'	2

16/2 Wire Size		
Part No.	Spool Size	Weight
16-2SW	100'	3

14/2 Wire Size		
Part No.	Spool Size	Weight
14-2SW	100'	3





Type SJOOW Power Cord

- UL recognized, CSA listed, OSHA acceptable.
- The black neoprene insulation is rated to 300 volts and is resistant to oil, acid, impact, abrasion, sunlight, flame and high temperature.
- Operates optimally between temperatures of -40°C to 90°C (-35°F to 194°F).
- Designed for use with portable tools, small motors and power extensions.
- Passes MSHA flame test (P136-MSHA).



COLOR CODE:

- 2 Conductor:**
Black, White
- 3 Conductor:**
Black, White, Green
- 4 Conductor:**
Black, White,
Green, Red

Part No.	Gauge/ Conductors	Outside Diameter	Standard Spool Size	Approx. Lbs. per Spool
18-2SJOW	18-2	.280	250'	11
18-3SJOW	18-3	.300	250'	14
18-4SJOW	18-4	.325	250'	17
16-2SJOW	16-2	.305	250'	13
16-3SJOW	16-3	.325	250'	18
16-4SJOW	16-4	.350	250'	21
14-2SJOW	14-2	.335	250'	17
14-3SJOW	14-3	.360	250'	22
14-4SJOW	14-4	.390	250'	28



Type SOOW Power Cord

- UL recognized, OSHA acceptable, CSA listed.
- The black neoprene insulation is rated to 600 volts and is resistant to oil, acid, impact, abrasion, sunlight, flame, and high temperature.
- Operates optimally between the temperatures -40°C to 90°C (-35°F to 194°F).
- Maintains flexibility.
- Designed for use with industrial equipment, heavy tools, battery chargers, portable lights, and power extensions.
- Passes MSHA flame test (P-136-MSHA).



COLOR CODE:

- 2 Conductor:**
Black, White
- 3 Conductor:**
Black, White, Green
- 4 Conductor:**
Black, White,
Green, Red

Part No.	Gauge/ Conductors	Outside Diameter	Standard Spool Size	Approx. Lbs. per Spool
16-2SOOW	16-2	.376	250'	20
16-3SOOW	16-3	.395	250'	24
16-4SOOW	16-4	.425	250'	29
14-2SOOW	14-2	.509	250'	35
14-3SOOW	14-3	.534	250'	43
14-4SOOW	14-4	.576	250'	52
12-2SOOW	12-2	.583	250'	47
12-3SOOW	12-3	.609	250'	57
12-4SOOW	12-4	.660	250'	71

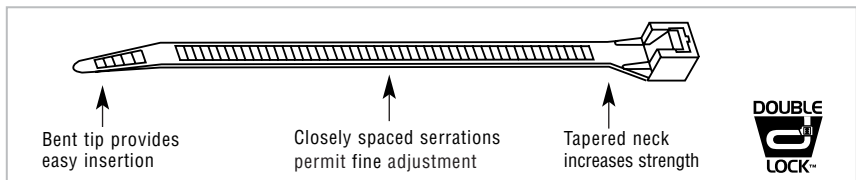
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Standard Self-locking Cable Ties

- Provide up to 50% more tensile strength and 15% larger bundle diameters than competitive product.
- Positive-locking teeth, closely and evenly spaced on both sides of the body, provide increased strength and permit fine adjustment for any bundling need.
- Raised ridges on the cable ties' bent tips are designed to provide a secure grip while requiring minimal effort to close.
- The patented, one-piece, injection-molded construction eliminates failure due to parts working loose or breaking off.
- Smooth, rounded edges make the ties easy to handle and install without cutting hands.
- Self-locking cable ties are recognized under the Component Program of Underwriters laboratories Inc. and meet UL94V-2 Flammability Classification.
- Operating temperature: -40°C to 85°C (-40°F to 185°F).



Melting point:
265°C (509°F)

Brittleness
temperature:
-112°C (-169°F)
at 2% water

Natural Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.	Pkg. Qty.
TR418	4"	.100"	18 lbs.	$\frac{13}{16}$ "	100
TR620	6"	.140"	20 lbs.	$1\frac{1}{8}$ "	100
TR850	8"	.170"	50 lbs.	2"	100
TR1150	11"	.170"	50 lbs.	3"	100
TR1450	14"	.170"	50 lbs.	4"	100

UV-resistant Black Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.	Pkg. Qty.
TR418B	4"	.100"	18 lbs.	$\frac{13}{16}$ "	100
TR620B	6"	.140"	20 lbs.	$1\frac{1}{8}$ "	100
TR850B	8"	.170"	50 lbs.	2"	100
TR1150B	11"	.170"	50 lbs.	3"	100
TR1450B	14"	.170"	50 lbs.	4"	100

Heavy-duty Cable Ties

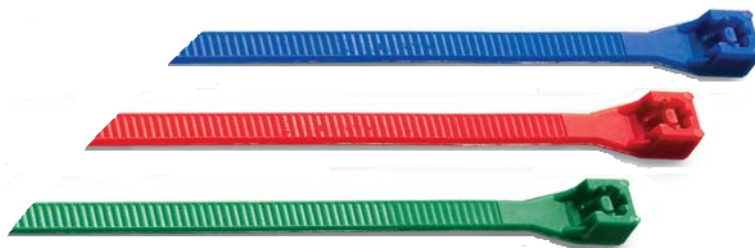
- One piece construction offers added strength and durability.
- Manufactured from Nylon 6/6 material and meets UL94-V2 Flammability Classification.
- Operating temperature: -40°C to 85°C (-40°F to 185°F).

Natural Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.
TR8120	8"	.295"	120 lbs.	2"
TR14120	14½"	.295"	120 lbs.	4"
TR24120	24"	.295"	175 lbs.	9"
TR36120	36"	.295"	175 lbs.	11"

UV-resistant Black Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.
TR8120B	8"	.295"	120 lbs.	2"
TR14120B	14½"	.295"	120 lbs.	4"
TR24175B	24"	.295"	175 lbs.	9"
TR36175B	36"	.295"	175 lbs.	11"



Standard Colored Cable Ties

- Use 8" colored ties for wire bundle identification.
- Self-locking cable ties are recognized under the Component Program of Underwriters laboratories Inc. and meet UL94V-2 Flammability Classification.
- Operating temperature: -40°C to 85°C (-40°F to 185°F).



Red

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850R	8"	.170"	75 lbs.	2"



Yellow

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850Y	8"	.170"	75 lbs.	2"



Green

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850G	8"	.170"	75 lbs.	2"



Blue

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850BL	8"	.170"	75 lbs.	2"



Purple

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850PU	8"	.170"	75 lbs.	2"



Orange

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Maximum Bundle Diameter
TR850OR	8"	.170"	75 lbs.	2"

ALSO AVAILABLE IN GREY (TR850GR), FLOURESCENT PINK (TR850FP), FLOURESCENT BLUE (TR850FB), BROWN (TR850BR), & WHITE (TR850W)

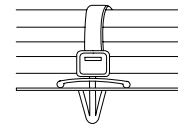
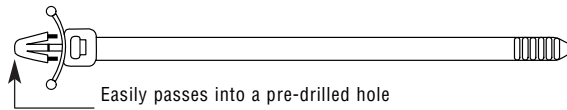
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Push-mount Ties

- Push-mount cable ties snap quickly into a 1/4" hole to attach a bundle to another surface.
- The mount portion is easily passed into a pre-drilled hole and locks into place.
- All ties are made with durable 6/6 nylon.
- Recognized under the Underwriters Laboratories Inc.
- For use at temperatures not exceeding 85°C (185°F).
- Meets UL94V-2 Flammability Classification.



Natural Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.
TRPM850	8"	.190"	50 lbs.	1 1/4"

UV-resistant Black Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Dia.
TRPM850B	8"	.190"	50 lbs.	1 1/4"

Cable Tie Tools

- Strong tools at competitive prices.
- Tension control allows adjustment for a range of lightweight through 75 lbs. tension setting.



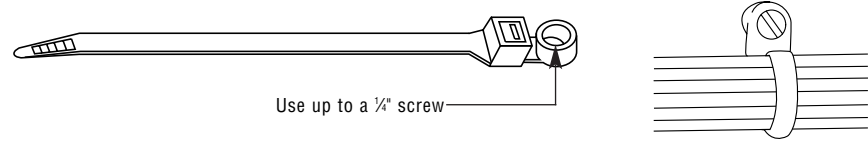
Part No.	Description
T-100	Standard Cable Tie Tool





Mounting Ties

- Mounting tab cable ties have a molded-in screw hole for securing bundles of wire on virtually any surface that has or can accept a drilled hole.
- Up to a ¼" screw size can be used, or a comparable rivet size.
- All mounting tab cable ties use durable 6/6 nylon.
- Recognized under the Underwriters Laboratories Inc.
- For use at temperatures not exceeding 85°C (185°F).
- Meets UL94V-2 Flammability Classification.



Standard Natural Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Bundle Dia.	Screw Size
TRH620	6½"	.170"	50 lbs.	1¼"	10
TRH850	8"	.170"	50 lbs.	2¾"	10
TRH1150	11"	.170"	50 lbs.	3"	10

Standard UV-resistant Black Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Bundle Dia.	Screw Size
TRH620B	7"	.170"	50 lbs.	1¼"	10
TRH850B	8"	.170"	50 lbs.	2"	10
TRH1150B	11"	.170"	50 lbs.	3"	10

Heavy-duty Natural Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Bundle Dia.	Screw Size
TRH14120	14"	.295"	120 lbs.	4"	¼"

Heavy-duty UV-resistant Black Nylon

Part No.	Approx. Length	Approx. Width	Loop Tensile Strength	Max. Bundle Dia.	Screw Size
TRH14120B	14"	.295"	120 lbs.	4"	¼"





Screw Mount Bases

- Low profile for use where height is limited.
- The counter-sunk hole ensures that the screw or rivet will not interfere with your cable tie.
- Meets UL94V-2 Flammability Classification.
- For use at temperatures not exceeding 85°C (185°F).
- Recognized under the Component Program of Underwriters Laboratories Inc.
- The 2-way and 4-way entry screw mount bases can be used on all self-locking ties up to 14" and 75 lb. tensile strength.
- Bases made with durable 6/6 nylon.

4-way Entry

Part No.	Base Dimension	Screw Hole Size	Color
TRMP	1½" x 1½"	#10	Natural
TRMPB	1½" x 1½"	#10	Black



Adhesive Bases

- Bases can be attached to a clean and dry surface of metal, plastic, glass, paper and painted surfaces.
- A screw or rivet is recommended for extra holding strength against outdoor elements.
- Bases made with durable 6/6 nylon with acrylic adhesive. Adhesive has a higher melting point.
- The counter-sunk hole for the screw or rivet will not interfere with the cable ties.
- Meets UL94V-2 Flammability Classification.
- The 4-way adhesive bases can be used on all self-locking ties up to 14" and 75 lb. tensile strength.

Mini 4-way Entry

Part No.	Base Dimen.	Color
TRMPS	¾" x ¾"	Natural
TRMPB	¾" x ¾"	Black





Nylon Cable Clamps

- Nylon 6/6 clamps are tough, resilient, lightweight and resistant to aging and most chemicals.
- Mounting hole is $\frac{1}{4}$ " diameter.
- Meets UL flammability, classification UL 94V-2.
- Recognized under the Component Program of Underwriters Laboratories Inc.

Black		
Part No.	Sugg. Clamping Diameter	Sugg. Clamping Diameter
6B18B	$\frac{1}{8}$ "	$\frac{9}{16}$ "
6B14B	$\frac{1}{4}$ "	$\frac{3}{4}$ "
6B516B	$\frac{5}{16}$ "	$\frac{7}{8}$ "
6B38B	$\frac{3}{8}$ "	1"
6B12B	$\frac{1}{2}$ "	1 $\frac{1}{2}$ "
6B58B	$\frac{5}{8}$ "	2"
6B34B	$\frac{3}{4}$ "	3"
6B1B	1"	4"



Body Clips

- Made from heat-treated spring steel with a black corrosion-resistant finish.
- Snap in place and securely hold wires, cables and hoses.

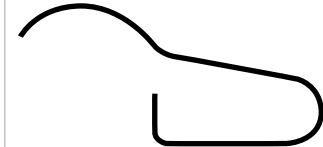
small body clip



medium body clip



large body clip



Plain Tongue	
Part No.	Size
AV1341	small
AV1340	medium
AV3758	large





Expandable Sleeving

- This polyethylene terephthalate is an ideal cover for outboard motor cables, marine hoses, trailer chains and harness assemblies.
- Operating temperature: -75°C to 125°C (-103°F to 257°F).
- Manufactured to meet UL, CSA and FMVSS 302 requirements.
- To cut expandable sleeving, see professional heat tool below.
- I.D. size is measured at relaxed state.
- Expands to 2 times original size.

Part No.	Size I.D.	Foot per Box	Lbs. per Box	Part No.	Size I.D.	Foot per Box	Lbs. per Box
PTNO.13	1/8"	225	1/2	PTNO.34	3/4"	75	1 1/2
PTNO.25	1/4"	200	1/2	PTNO1.25	1 1/4"	50	1
PTNO.38	3/8"	125	1	PTNO1.50	1 1/2"	40	1
PTNO.50	1/2"	100	1	PTNO1.75	1 3/4"	30	1 1/2



Slit Loom (High Rise Ridge)

- Convoluted slit loom has become one of the most popular conduits for holding groups of wires in position and protecting them against abrasion or crushing.
- Contains a slit for easy insertion of wires over a long run.
- Loom slit remains closed or overlaps when bent or twisted.
- Quality control throughout its extrusion allows uniform thickness for entire run length.
- All slit loom marked by an asterisk (*) can be shipped LTL FREIGHT ONLY.
- Temperature range: -40°C to 93°C (-40°F to 200°F).

Material - Polyethylene
Standard Color - Black
Operating Range - -40°C to 93°C -40°F to 200°F

1/4" I.D.			3/8" I.D.			1/2" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box
PLS14	100	2 1/2	PLS38	100	3	PLS12	100	3 1/2
	250	6		250	7 1/2		250	8
	3200	27		1900	29		1100	29
	25000	168*		15000	161*		8500	187*
5/8" I.D.			3/4" I.D.			1" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box
PLS58	100	4	PLS34	50	3 1/4	PLS1	75	8
	250	9 1/2		150	9		300	22
	800	27		550	23		2250	146*
	5500	154*		4200	155*			
1 1/4" I.D.			1 1/2" I.D.			2" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box	Part No.	Foot per Box	Approx. Lbs. per Box
PLS114	250	24	PLS112	150	12	PLS2	100	8



High Temperature Slit Loom (High Rise Ridge)

- Originally developed for ambulance and fire equipment manufacturers where operation in a high heat environment is critical, but it is also used in many other industries where a high heat environment exists.
- High temperature loom is distinctly marked with a grey stripe running the entire length.
- Temperature range: -40°C to 149°C (-40°F to 300°F).
- All convoluted loom marked by an asterisk (*) can be shipped LTL FREIGHT ONLY.

Material - High Temperature Heat Stabilized Nylon
Standard Color - Black with Grey Stripe
Operating Range - -40°C to 149°C -40°F to 300°F

¼" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS14	100	2½
	250	6
	3200	29
	28000	178*

⅜" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS38	100	3
	250	7½
	1900	27
	15000	168*

½" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS12	100	3½
	250	8
	1100	27
	8500	188*

⅝" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS58	100	4
	250	9½
	800	21
	5500	166*

¾" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS34	50	3¼
	150	9
	550	28
	4200	155*

1" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS1	75	3½
	300	8
	2250	142*

1¼" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS114	250	24

1½" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS112	150	12

2" I.D.		
Part No.	Foot per Box	Approx. Lbs. per Box
NLS2	100	8





Vinyl-coated Steel Clamps									
Part No.	Size Closed I.D.	Mounting Lines O.D.		SAE Size	Part No.	Size Closed I.D.	Mounting Lines O.D.		SAE Size
		Min.	Max.				Min.	Max.	
RBC14*	¼"	⅜"	¼"	004	RBC1*	1"	⅝"	1"	016
RBC38*	⅜"	½"	⅜"	006	RBC114*	1¼"	1⅝"	1¼"	020
RBC12*	½"	⅝"	½"	008	RBC112	1½"	1⅞"	1½"	024
RBC58*	⅝"	⅞"	⅝"	010	RBC2	2"	1⅞"	2"	032
RBC34*	¾"	1"	¾"	012	RBC212	2½"	2⅞"	2½"	040

* Min qty: 100; all others min qty:10

Liquid Tight Strain Relief Cord Connectors

- Standard dome nut for strain relief, or flex nut type which includes the strain relief to help prevent cable kinking.
- Designed with vibration-proof protection up to 70psi.
- Internationally approved to UL, CSA, VDE and SVE specifications.
- Operating temp: -30°C to 100°C (-22°F to 212°F).
- Seal meets IP68 requirements and is suitable for NEMA 4 and 6 connectors.
- Manufactured from nylon material with TPE gland seal to help resist dust, salt water, weak acids, weak alkalis, alcohol, ester, ketone, ether, benzene, gas, mineral, animal and vegetable oils.



NPT Style Hub Standard Type				
Part No.	Standard Size	Diameter Range	Max Hole Clearance	Overall Length
DC2638	⅜"	.157"-.314"	.675"	1.692"
DC2612	½"	.236"-.472"	.825"	1.734"
DC2634	¾"	.511"-.708"	1.050"	1.969"
DC2601	1"	.709"-1.024"	1.303"	2.283"



NPT Style Hub Flex Type				
Part No.	Standard Size	Diameter Range	Max Hole Clearance	Overall Length
DC2738	⅜"	.157"-.314"	.561"	3.282"
DC2712	½"	.236"-.472"	.825"	4.135"
DC2734	¾"	.511"-.708"	1.050"	5.333"



NPT Style Locking Nuts			
Part No.	Standard Size	Description	Mates With
DC2639	⅜"	Locking Nut	2638
DC2613	½"	Locking Nut	2612
DC2635	¾"	Locking Nut	2634
DC2602	1"	Locking Nut	2601





PG Style Hub Standard Type

Part No.	Standard Size (PG#)	Diameter Range	Max Hole Clearance	Overall Length
DC2650	3/8" (9)	.181"-.312"	.599"	1.300"
DC2653	1/2" (13.5)	.170"-.450"	.804"	1.530"
DC2656	3/4" (21)	.450"-.705"	1.115"	1.870"
DC2659	1" (29)	.590"-.990"	1.470"	2.230"

Spiral-cut Loom



- A spiral cut in this loom allows wires to stay in place, or be pulled out if needed.
- Made of low density polyethylene.
- Temperature rating: -35°C to 73°C (-30°F to 165°F).

Black

Part No.	Size I.D.	Foot per Box	Lbs. per Box
SW14B	1/4"	100	2
SW12B	1/2"	100	4
SW34B	3/4"	50	8
SW1B	1"	50	10



Single-wall Polyolefin 2-1 Shrink Tube - Flexible

- 2-1 tubing is a very flexible, flame retardant, heat shrinkable polyolefin tubing.
- Meets all the requirements of military/specification MIL-1-23053/5 class 1 and class 3.
- Shrink temperature is 100°C (212°F) with an indefinite storage life.
- Operating temperature range is -55°C to 125°C (-67°F to 257°F) and up to 200°C (392°F) for a short time.

4-ft Sticks

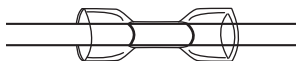
Color		Nominal Size	Inside Dia. As Supplied Minimum	Inside Dia. After Recovery Maximum	Wall Thickness After Recovery Nominal
red	black				
ST221-18R	ST221-18B	1/8"	.125"	.062"	.020"
ST221-316R	ST221-316B	3/16"	.187"	.093"	.020"
ST221-14R	ST221-14B	1/4"	.250"	.125"	.025"
ST221-38R	ST221-38B	3/8"	.375"	.187"	.025"
ST221-12R	ST221-12B	1/2"	.500"	.250"	.025"
ST221-34R	ST221-34B	3/4"	.750"	.375"	.035"
ST221-1R	ST221-1B	1"	1.000"	.500"	.039"
ST221-112R	ST221-112B	1 1/2"	1.500"	.750"	.039"

1.



Place appropriate style and size shrink tube just past area to be sealed.

2.



Make necessary connections and pull shrink tube over area to be sealed.

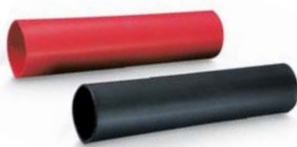
3.



Apply heat from an approved heat source approximately 6" from shrink tube in a 360° fashion until shrink tube is tightly condensed.

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Dual Wall 3-1 Shrink Tube - Semi Rigid

- Heat-shrinkable polyolefin tubing is flexible and flame retardant.
- A thick wall modified polyimide adhesive melts and flows, encapsulating and sealing components contained within.
- 3 to 1 tubing complies with the requirements of MIL-25053/4.
- Class 3 shrink temperature is 100°C (212°F). Operating temperature range is -45°C to 125°C (-49°F to 257°F).

4-ft Sticks

Color		Nominal Size	Inside Dia. As Supplied Minimum	Inside Dia. After Recovery Maximum	Wall Thickness After Recovery Nominal
red	black				
ST750-316R	ST750-316B	1/8"	.125"	.032"	.038"
ST750-14R	ST750-14B	1/4"	.250"	.078"	.047"
ST750-38R	ST750-38B	3/8"	.354"	.118"	.051"
ST750-12R	ST750-12B	1/2"	.500"	.157"	.055"
ST750-34R	ST750-34B	3/4"	.750"	.315"	.065"
ST750-1R	ST750-1B	1"	1.000"	.400"	.075"
ST750-112R	ST750-112B	1 1/2"	1.500"	.598"	.083"



Triple Wall 3-1 Shrink Tube - Rigid (Extra Thick)

- Triple wall adhesive lined polyolefin tubing will deliver the ultimate protection for battery cables.
- When heat is applied it will bond permanently to your cable and give it not only a professional look, but also professional performance.
- Operating temperature: -55°C to 110°C (-67°F to 230°F) and shrink temperature: 120°C (248°F).

Polyolefin (6" Pieces)

Color		Wire Gauge	Inside Dia. As Supplied Minimum	Inside Dia. After Recovery Maximum
red	black			
ST700-34R	ST700-34B	8 to 1	.750"	.220"
ST700-1R	ST700-1B	2 to 4/0	1.1"	.375"



Clear 3-1 Shrink Tube - Semi Rigid

- Heat-shrinkable polyolefin tubing is flexible and flame retardant.
- A thick wall modified polyimide adhesive which melts and flows, encapsulating and sealing components contained within.
- 3-1 tubing complies with the requirements of MIL-25053/4.
- Shrink temperature is 110°C (230°F). Operating temperature range is -45°C to 125°C (-49°F to 257°F).
- Allows for easy viewing of connected area.
- Initially cloudy; turns clear when heat is applied.

4-ft Sticks

Part No.	Nominal Size	Inside Dia. As Supplied	Inside Dia. After Recovery
ST750-14C	1/4"	.250"	.078"
ST750-38C	3/8"	.354"	.118"
ST750-12C	1/2"	.500"	.157"
ST750-34C	3/4"	.750"	.315"



3M Scotch™ Super 33+ (7 MIL)

- Primary electrical insulation for all wire and cable splices rated up to 600 volts and for fixture and wire splices up to 1000 volts.
- Applies at -18°C (0°F) and has an operating range up to 105°C (220°F).
- Flame retardant, and resists UV rays, abrasion, moisture, alkalis, acids, hot and cold weather.
- Meets requirements of ASTM D-3005, Type I, UL 510, HHI-595C and CSA 22.2.

Part No.	Size	Description
3M33+	¾" x 66-ft	Single roll



Liquid Tape

- Liquid coating used to insulate and protect electrical splices and connections.
- Waterproof coating will not unravel or deteriorate like tape.
- 4 oz. container includes brush-on applicator.

Part No.	Description	Color
DY49412	Liquid Tape	black





Vinyl Electrical Tape (7 MIL)

- Vinyl electrical tape is a tough 7 mil tape with excellent adhesive ability.
- UL rated, control no. 362K.
- Temperature rating: 80°C (176°F).

Part No.	Size	Description
3M1700	¾" x 60-ft	Single Roll



Color Coding Tape

- Premium grade 7 MIL, flame-retardant, weather-resistant tape.
- Use to **identify** motor leads, piping systems, marking areas, insulating splices, terminations and harnessing.
- Resists abrasion, UV rays, moisture, alkalis, solvents and many acids.
- Each color is individually cello packed.
- **This vinyl tape is for color coding only, not electrical applications.**

Part No.	Size	Color	Quantity
3M1700R	¾" x 60-ft	Red	Single Roll
3M1700W	¾" x 60-ft	White	Single Roll
3M1700B	¾" x 60-ft	Blue	Single Roll
3M1700G	¾" x 60-ft	Green	Single Roll

ALSO AVAILABLE IN PURPLE AND YELLOW



Amalgamating (Cold Shrink) Tape

- Originally developed for power and distribution cables but also used for bundling, underground wiring, repairing hose, pipe leaks etc.
- Excellent for moisture sealing in electrical installations, industrial and marine applications.
- Ideal for covering cable lugs, splices and termination.



When the tape is applied with a high degree of stretch (2 to 3 times for stretch) within two to three minutes, it has already begun to amalgamate. Within four hours, it will be a solid mass of rubber.

NOTE: The tape is NOT resistant to hydrocarbon type solvents, oils and greases.

Part No.	Size	Description
CST-130	1" x 30-ft	Single roll





SPECIFICATIONS

Band:
Micro: $\frac{5}{16}$ " stainless steel

Standard: $\frac{1}{2}$ " stainless steel

Housing:
Stainless Steel

Screw:
Micro: $\frac{1}{4}$ " Hex head - carbon steel
Standard: $\frac{5}{16}$ " Hex head - carbon steel

Standard Hose Clamps

- Full line of hose clamps is headed up by this standard multi-purpose clamp.
- Versatile enough to be used in a number of general clamping applications.
- Stainless steel band to resist corrosion.

Part No.	Diameter Range	SAE Size	Weight per 100 pcs.	Part No.	Diameter Range	SAE Size	Weight per 100 pcs.
HC4	$\frac{7}{32}$ " - $\frac{5}{16}$ "	004	2 lbs.	HC28	$1\frac{1}{16}$ " - $2\frac{1}{4}$ "	028	6 lbs.
HC6	$\frac{7}{16}$ " - $2\frac{25}{32}$ "	006	2 lbs.	HC32	$1\frac{1}{16}$ " - $2\frac{1}{2}$ "	032	7 lbs.
HC8	$\frac{1}{2}$ " - $2\frac{29}{32}$ "	008	4 lbs.	HC36	$1\frac{13}{16}$ " - $2\frac{3}{4}$ "	036	7 lbs.
HC10	$\frac{9}{16}$ " - $1\frac{1}{16}$ "	010	4 lbs.	HC40	$2\frac{1}{16}$ " - 3 "	040	8 lbs.
HC12	$1\frac{1}{16}$ " - $1\frac{1}{4}$ "	012	5 lbs.	HC44	$2\frac{5}{16}$ " - $3\frac{1}{4}$ "	044	8 lbs.
HC16	$1\frac{3}{16}$ " - $1\frac{1}{2}$ "	016	5 lbs.	HC48	$2\frac{9}{16}$ " - $3\frac{1}{2}$ "	048	8 lbs.
HC20	$1\frac{3}{16}$ " - $1\frac{3}{4}$ "	020	5 lbs.	HC52	$2\frac{13}{16}$ " - $3\frac{3}{4}$ "	052	8 lbs.
HC24	$1\frac{1}{16}$ " - 2 "	024	6 lbs.	HC56	$3\frac{1}{16}$ " - 4 "	056	10 lbs.



SPECIFICATIONS

Band:
 $\frac{5}{16}$ " stainless steel

Housing:
Stainless Steel

Screw:
Standard: $\frac{5}{16}$ " Hex head

Hex head:
Stainless Steel

Constant Torque Clamps

- Provides automatic adjustments for constant torque on expanding and contracting hoses.
- Housing is riveted to saddle at four points providing added strength.
- Shield protects soft hoses from damage or shear.
- Torque rated to 40-70 in./lbs.

Part No.	Diameter Range	SAE size
HCT10	$\frac{9}{16}$ " - $1\frac{1}{16}$ "	10
HCT12	$1\frac{1}{16}$ " - $1\frac{1}{4}$ "	12
HCT16	$1\frac{3}{16}$ " - $1\frac{1}{2}$ "	16
HCT20	$1\frac{3}{16}$ " - $1\frac{3}{4}$ "	20
HCT24	$1\frac{1}{16}$ " - 2 "	24
HCT28	$1\frac{1}{16}$ " - $2\frac{1}{4}$ "	28
HCT32	$1\frac{1}{16}$ " - $2\frac{1}{2}$ "	32
HCT36	$1\frac{13}{16}$ " - $2\frac{3}{4}$ "	36
HCT40	$2\frac{1}{16}$ " - 3 "	40
HCT44	$2\frac{5}{16}$ " - $3\frac{1}{4}$ "	44
HCT48	$2\frac{9}{16}$ " - $3\frac{1}{2}$ "	48



SPECIFICATIONS

Band:
 $\frac{1}{2}$ " stainless steel

Housing:
Stainless Steel

Screw:
 $\frac{5}{16}$ " Hex head - carbon steel

Shielded Hose Clamps

- Designed for use on silicone and other soft hose material.
- Features an inner stainless steel band to prevent material from protruding through the notches in the outer band.
- One-piece inner liner is double welded preventing separation.

Part No.	Diameter Range	SAE Size	Weight per 100 pcs.	Part No.	Diameter Range	SAE Size	Weight per 100 pcs.
HCS6	$\frac{7}{16}$ " - $2\frac{25}{32}$ "	006	5 lbs.	HCS20	$1\frac{1}{16}$ " - $1\frac{1}{4}$ "	020	6 lbs.
HCS8	$\frac{1}{2}$ " - $2\frac{29}{32}$ "	008	5 lbs.	HCS24	$1\frac{1}{16}$ " - 2 "	024	7 lbs.
HCS10	$\frac{9}{16}$ " - $1\frac{1}{16}$ "	010	6 lbs.	HCS28	$1\frac{1}{16}$ " - $2\frac{1}{4}$ "	028	7 lbs.
HCS12	$1\frac{1}{16}$ " - $1\frac{1}{4}$ "	012	6 lbs.	HCS32	$1\frac{1}{16}$ " - $2\frac{1}{2}$ "	032	8 lbs.
HCS16	$1\frac{3}{16}$ " - $1\frac{1}{2}$ "	016	6 lbs.				

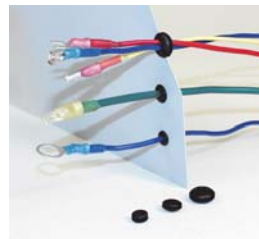
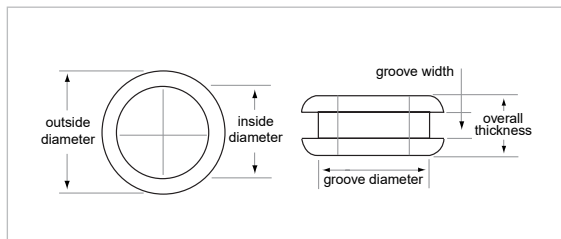
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Rubber Grommets

- Protect wires from chafing against drilled holes.
- Grommets are organized by groove width. Select specific groove width and locate other pertinent dimensions below.
- PLEASE NOTE: Groove diameter is the size of hole needed to snap a grommet into for the best fit.
- Material is styrene butadiene rubber and is black in color.



1/16" Groove Width				
Part No.	Inside Dia.	Groove Dia.	Outside Dia.	Overall Thickness
G3021	1/8"	1/4"	11/32"	3/16"
G3081	3/16"	5/16"	7/16"	3/16"
G3127	1/4"	3/8"	9/16"	1/4"
G3008	5/16"	7/16"	9/16"	3/16"
G3065	5/16"	9/16"	13/16"	5/16"
G3007	3/8"	1/2"	5/8"	1/4"
G3076	3/8"	5/8"	7/8"	5/16"
G8042	7/16"	9/16"	3/4"	1/4"
G3077	7/16"	11/16"	15/16"	5/16"
G3078	1/2"	13/16"	1 1/16"	5/16"
G3082	9/16"	13/16"	1 1/16"	5/16"
G3048	5/8"	7/8"	1 1/8"	5/16"
G3069	3/4"	7/8"	1 1/8"	9/32"
G3031	3/4"	1 1/16"	1 3/8"	3/8"
G3071	7/8"	1 1/4"	1 5/8"	7/16"
G3072	1"	1 3/8"	1 3/4"	7/16"
G3073	1 1/2"	1 3/4"	2 1/8"	7/16"
G3145	2 1/8"	2 1/2"	2 7/8"	7/16"

1/4" Groove Width				
Part No.	Inside Dia.	Groove Dia.	Outside Dia.	Overall Thickness
G3116	3/4"	1 1/16"	1 3/8"	9/16"
G3119	1"	1 3/8"	1 3/4"	5/8"
G3061	1 1/2"	1 3/4"	2"	1/2"

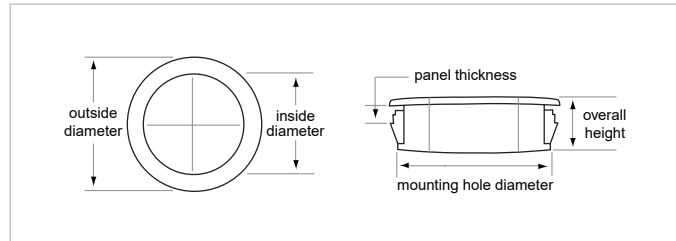
3/16" Groove Width				
Part No.	Inside Dia.	Groove Dia.	Outside Dia.	Overall Thickness
G3146	3/16"	5/16"	7/16"	1/4"
G3166	1/4"	3/8"	1/2"	9/32"
G3017	3/8"	17/32"	3/4"	1/2"
G3279	3/8"	5/8"	7/8"	3/8"
G3025	1/2"	3/4"	1"	1/2"
G3152	5/8"	7/8"	1 1/8"	3/8"
G3156	1 1/16"	1"	1 5/8"	7/16"
G3157	3/4"	1 1/16"	1 3/8"	7/16"
G3160	7/8"	1 1/4"	1 5/8"	1/2"
G3161	1"	1 3/8"	1 3/4"	1/2"
G3163	1 1/2"	1 3/4"	2 1/8"	1/2"
G3345	2 1/8"	2 1/2"	2 7/8"	7/16"

3/8" Groove Width				
Part No.	Inside Dia.	Groove Dia.	Outside Dia.	Overall Thickness
G3127	1/4"	7/16"	5/8"	5/16"
G3130	3/8"	5/8"	7/8"	7/16"
G3132	1/2"	13/16"	1 1/16"	7/16"
G3188	7/8"	1 1/4"	1 5/8"	9/16"
G3139	1"	1 3/8"	1 3/4"	9/16"
G3141	1 1/2"	1 3/4"	2 1/8"	9/16"



Nylon Grommets

- Eliminates wire abrasion caused by metal panel cutouts.
- Manufactured from Type 6/6 nylon with a temperature rating of 105°C (221°F).



Standard Grommets

Part No.	Mounting Hole Dia.	Inside Dia.	Outside Dia.	Overall Height	Panel Thickness
HY2010	.375"	1/4"	15/32"	13/32"	1/8"
HY2043	.437"	5/16"	17/32"	13/32"	1/8"
HY2053	.500"	3/8"	37/64"	13/32"	1/8"
HY2066	.562"	7/16"	21/32"	13/32"	1/8"
HY2073	.625"	1/2"	23/32"	13/32"	1/8"
HY2086	.687"	9/16"	25/32"	13/32"	1/8"
HY2840	.750"	5/8"	27/32"	13/32"	1/8"
HY2126	.875"	11/16"	61/64"	29/64"	1/8"
HY2140	1.000"	3/4"	1 1/8"	29/64"	1/8"
HY2163	1.093"	7/8"	1 1/32"	29/64"	1/8"
HY2210	1.375"	1	1 15/32"	29/64"	1/8"



Universal Grommets

Part No.	Mounting Hole Dia.	Inside Dia.	Outside Dia.	Overall Height	Panel Thickness
HY2089	.750"	1/2"	55/64"	25/64"	1/8"

Flexible Grommeting

- Protects and insulates wires and cables from chafing against sharp chassis edges.
- Serrated design is ideal for irregular shaped panel holes.
- Fits 1/8", 3/16" and 1/4" chassis thicknesses.
- Molded of durable 6/6 nylon.
- ASTM D-4066 flammability classification 94V-2.
- Temperature index: 125°C (257°F).
- Standard 100-ft rolls.



Black

Part No.	Maximum Chassis Thickness
DC5086	.125"
DC5090	.187"
DC5094	.250"

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Standard Crimp Terminals

- Manufactured of pure electrolytic copper (brass for push-on terminals) properly tempered; when crimping, the copper in the terminal barrel flows into and around the wire strands.
- The unique flowing ability of the copper terminals results in a fused connection of maximum strength and conductivity.
- Serration inside the barrels of small terminals (22-10 ga) provide additional gripping power.
- Terminals are electro bright tin plated for maximum corrosion prevention.

**Insulation
Color Code**










22-18 & 8 gauge



16-14 & 6 gauge



12-10 & 4 gauge

		
non-insulated	high temperature	vinyl-insulated butted seam barrel
		
vinyl-insulated funnel entry	nylon-insulated reinforced w/brass sleeve	clear nylon-insulated brazed barrel
	<p>! SPECIALNOTE !</p> <p>Non-insulated terminals are the most economical, and are used where special performance or insulation characteristics are not necessary. Insulated terminals are used where an insulated barrel is necessary and/or desirable. Industry standard color coding of insulation indicates proper wire gauge.</p>	
shrink tube performance terminals		



Strip Length: 1/8"

Insulation Temperature: 105°C (221°F)

Voltage: 600V maximum, building wire; 1000V maximum, signs and fixtures.

Tools: Follow mfg. crimping instructions (one crimp only).

Caution: Appropriate electrical codes must be followed in all electrical work.

Power must be off prior to installation and removal of wire connectors.






Notice: Sellers and manufacturers only obligation shall be to replace such quantity of the product proved to be defective. Neither seller or manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product.

KATCO SERVICE PARTS INC.




Non-insulated Terminals

- These non-insulated terminal series is the most economical terminal available.
- Use these terminals when special performance or installation characteristics are not needed.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

		
ring terminals 22-2 gauge	spade terminals 22-10 gauge	flanged spade terminals 22-10 gauge
		
push-on terminals 22-10 gauge	butt connectors 22-10 gauge	parallel connectors 22-4 gauge

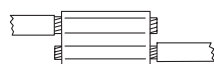
INFO BUTTED SEAM (type 1) one piece design with the barrel rolled and the edges butted together **OR** BRAZED SEAM (type 2) brazed seam will not open during crimp application

TIN PLATING tin-plated copper offers added resistance to corrosion




Using a flanged spade or locking spade terminal can help reduce incidental disconnect.

INFO **PROPER WIRE INSERTION FOR PARALLEL CONNECTORS:**



Each connector holds two wires.

	Ring Terminals min. 100 pcs. (22-10 ga)*									
	Gauge	Stud Size								Stock
		4	6	8	10	1/4"	5/16"	3/8"	1/2"	
	22-18	A320-04	A320-06	A321-08	A321-10	A321-14	A321-56	—	—	.030
	16-14	B323-04	B323-06	B337-08	B339-10	B325-14	B325-56	B318-38	—	.030
	12-10	—	C336-06	C336-08	C328-10	C330-14	C330-56	C340-38	C301-12	.040
	8*	—	—	D350-08	D350-10	D350-14	D351-56	D351-38	D352-12	.050
	6*	—	—	—	E360-10	E360-14	E360-56	E357-38	E358-12	.050
	4*	—	—	—	—	F366-14	F366-56	F366-38	F366-12	.050
	2*	—	—	—	—	G375-14	G375-56	G375-38	G375-12	.050

* 8 ga min. 50 pcs., 6-2 ga min. 25 pcs.

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DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	¼"	.266	.250	¾"	.391	.375
6	.146	.138	10	.198	.190	⅝"	.328	.312	1½"	.516	.500

STUD SIZE







	Spade Terminals min. 100 pcs.											
	Gauge	Stud Size								Stock		
		4	6	8	10	¼"	⅝"	¾"	½"			
		22-18	—	A335-06	A335-08	A335-10	—	—	—		—	.030
		16-14	—	B327-06	B327-08	B327-10	—	—	—		—	.030
12-10	—	—	C341-08	C341-10	—	—	—	—	.040			

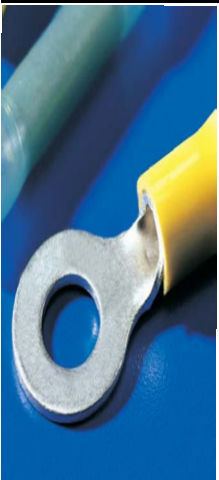
	Flanged Spade Terminals min. 100 pcs.										
	Gauge	Stud Size									
		4	6	8	10	1/4"	5/16"	3/8"	1/2"	Stock	
		22-18	—	A315-06	A315-08	A315-10	—	—	—	—	.030
		16-14	—	B316-06	B316-08	B316-10	—	—	—	—	.030
12-10	—	—	—	—	—	—	—	—	.040		



		Parallel Connectors min. 25 pcs.									
		Wire Range									
1#22 to 1#22, 20, 18, 16		1#22 to 1#14 1#20 to 1#14		1#18 to 1#12, 10 1#16 to 1#14, 12, 10		1#18 to 1#8 1#16 to 1#8		1#14 to 1#6 1#12 to 1#8, 6		1#12 to 1#4 1#10 to 1#4	
1#20 to 1#20, 18, 16		1#18 to 1#16, 14		1#14 to 1#14, 12, 10		1#14 to 1#8		1#10 to 1#10, 8, 6		1#8 to 1#6	
1#18 to 1#18		1#16 to 1#16		1#12 to 1#12		1#12 to 1#10		1#8 to 1#8			
Part No.	Stock	Part No.	Stock	Part No.	Stock	Part No.	Stock	Part No.	Stock	Part No.	Stock
AS302	.030	BS304	.030	CS303	.040	—	.050	—	.050	—	.075



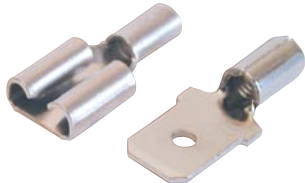

		Push-on Terminals min. 100 pcs.			
		Inside Width			
		0.187" (stock .020)		0.250" (stock .032)	
	female	22-18	AA1187	22-18	AA1140
		16-14	BB1138	16-14	BB1141
		12-10	—	12-10	C1143
	flag	22-18	—	22-18	—
		16-14	BB1171-032	16-14	BB1159
		12-10	—	12-10	—
	male	22-18	AMCT-17	22-18	AMCT-1
		16-14	BMCT-17	16-14	MCT-1
		12-10	—	12-10	CMCT-1

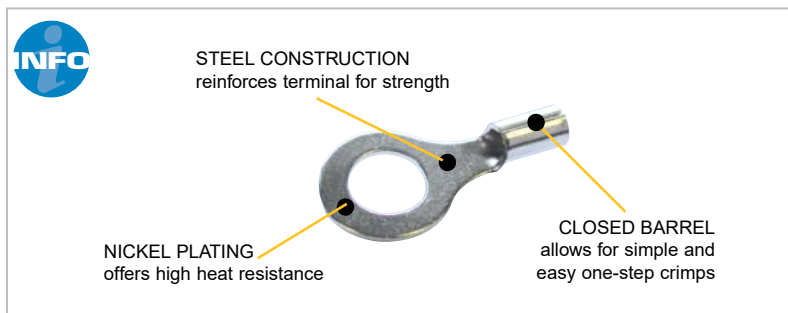
		Butt Connectors min. 100 pcs.		
		Gauge	Brazed Barrel	Solid Barrel
				Stock
		22-18	AS-345	.030
		16-14	BS-331	.030
		12-10	CS-346	.040



High Temperature Terminals

- This series is ideal for use in high temperature applications like motors, ovens or other applications where terminals can melt.
- Constructed of steel plated nickel.
- Rated for continuous operating temperature of 482°C (900°F), intermittent rating of 649°C (1200°F).

 <p>ring terminals 22-10 gauge</p>	 <p>spade terminals 22-10 gauge</p>	 <p>push-on terminals 16-14 gauge</p>
 <p>butt connectors 22-10 gauge</p>	<p>INFO</p> <p>A flag (right angle) is used when there is a space constraint, and a standard straight push-on is too large. They are available in insulated and non-insulated versions. See page 62 for insulated flag terminals.</p>	





DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	1/4"	.266	.250	3/8"	.391	.375
6	.146	.138	10	.198	.190	5/16"	.328	.312	1/2"	.516	.500

STUD SIZE



	Ring Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	1/4"	5/16"	3/8"	1/2"	
	22-18	—	AS120-06	—	AS133-10	AS122-14	—	—	—	.030
	16-14	—	BS123-06	—	BS137-10	BS125-14	—	—	—	.030
	12-10	—	CS128-06	—	CS128-10	CS130-14	—	CS140-38	—	.040

	Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	1/4"	5/16"	3/8"	1/2"	
	22-18	—	—	—	AS139-10	—	—	—	—	.030
	16-14	—	—	—	BS127-10	—	—	—	—	.030
	12-10	—	—	—	CS141-10	—	—	—	—	.040

	Butt Connectors min. 100 pcs.		
	Gauge	Butted Seam	Stock
	22-18	AS145	.030
	16-14	BS131	.030
	12-10	CS146	.040



Vinyl-insulated Butted Seam Barrel Terminals

- This series is the most economical insulated terminal available.
- The PVC insulation sleeve is securely fastened to the butted seam barrel.
- The insulation has a flared entry for easier wire insertion.
- Industry standard color-coding indicates wire range.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**











22-18 & 8 gauge



16-14 & 6 gauge



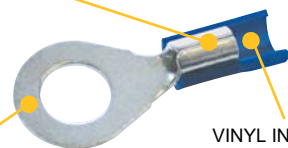
12-10 & 4 gauge

 <p>ring terminals 22-4 gauge</p>	 <p>spade terminals 22-10 gauge</p>	 <p>flanged spade terminals 22-10 gauge</p>
 <p>locking spade terminals 22-10 gauge</p>	 <p>push-on terminals 22-10 gauge</p>	 <p>bullet connectors 22-14 gauge</p>
 <p>butt connectors 22-4 gauge</p>	 <p>X and Y connectors 16-14 gauge</p>	



BUTTED SEAM
one piece design with the barrel
rolled and edges butted together

TIN PLATING
offers added
resistance to corrosion



VINYL INSULATION
provides basic protection and
stress relief at crimp point

Using a flanged
spade or locking
spade terminal
can help reduce
incidental
disconnect.

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DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	¼"	.266	.250	¾"	.391	.375
6	.146	.138	10	.198	.190	⅝"	.328	.312	1"	.516	.500


STUD SIZE




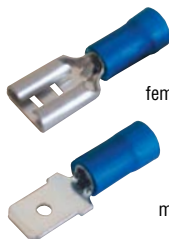

	Ring Terminals min. 100 pcs. (22-10 ga)									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1"	
	22-18	A220-04	A220-06	A221-08	A221-10	A222-14	A222-56	—	—	.030
	16-14	B223-04	B223-06	B237-08	B239-10	B225-14	B225-56	B218-38	—	.030
	12-10	—	C228-06	C228-08	C228-10	C228-14	C230-56	C240-38	C201-12	.040
	8*	—	—	—	D350-10	D350-14	D351-56	D351-38	D352-12	.050
	6*	—	—	—	E360-10	E360-14	E351-56	E357-38	E358-12	.060
	4*	—	—	—	—	F366-14	F366-56	F366-38	F366-12	.075

* 8 ga min. 50 pcs., 6-4 ga min. 25 pcs.

	Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1"	
	22-18	—	A235-06	A235-08	A235-10	—	—	—	—	.030
	16-14	—	B224-06	B227-08	B227-10	—	—	—	—	.030
	12-10	—	C241-06	C241-08	C241-10	—	—	—	—	.040

	Flanged Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1"	
	22-18	—	A215-06	A215-08	A215-10	—	—	—	—	.030
	16-14	—	B216-06	B216-08	B216-10	—	—	—	—	.030
	12-10	—	403065	403085	403105	—	—	—	—	.040

	Locking Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1"	
	22-18	—	AA2190-06	AA2191-08	AA2191-10	—	—	—	—	.030
	16-14	—	BB2193-06	BB2194-08	BB2195-10	—	—	—	—	.030
	12-10	—	CC2196-06	CC2197-08	CC2198-10	—	—	—	—	.040

		Push-on Terminals min. 100 pcs.			
		Gauge	Inside Width Standard		
			0.110" (stock 0.20)	0.187" (stock .020)	0.250" (stock .032)
female	22-18	AA2131	AA2137	AA2140	
	16-14	BB2132	BB2138	BB2141	
	12-10	—	—	C2143	
male	22-18	431185	AMCT27	AMCT2	
	16-14	432115	MCT57	MCT2	
	12-10	—	—	CMCT2	
		Inside Width Fully Insulated			
		22-18	—	AA5266	AA2261
		16-14	—	BB5268	BB2263
female	12-10	—	—	C2265	

Vinyl-insulated Butted Seam Barrel Terminals

continued

Insulation
Color Code




22-18 & 8 gauge






16-14 & 6 gauge




12-10 & 4 gauge

 piggy-back	Push-on Terminals min. 100 pcs.			
	Inside Width Standard			Gauge
	0.110" (stock .020)	0.187" (stock .020)	0.250" (stock .032)	
	22-18	—	—	AA2301
16-14	—	—	—	BB2302
12-10	—	—	—	C2303


 male  female  female		Bullet Connectors min. 100 pcs.		
		Gauge	Inside Width	
			0.156" (stock .020)	0.180" (stock .030)
	22-18	M	A269	A259
	16-14	M	B289	B279
	22-18	F	BRA2156	—
	16-14	F	BRB2156	BRB2180
	3-way std.*	F	449005	—

* 3-way std. min. 10 pcs.

M = male, F = female

	Butt Connectors min. 100 pcs.		
	Gauge	Butted Seam	Stock
	22-18	A245	.030
	16-14	B231	.030
	12-10	C246	.040
	8*	D654	.050
	6*	E662	.050
	4*	F664	.075

* 8, 6, 4 ga min. 25 pcs.

	X and Y Connectors min. 25 pcs.			
	Gauge	X style	Y style	Stud Size
	16-14	B2X	B2Y	8
				.030




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Vinyl-insulated Funnel Entry Terminals

- The PVC insulation sleeve is securely fastened to the barrel.
- The funnel entry is formed into the inside of the insulation to allow for easier wire insertion.
- Industry standard color-coding indicates wire range.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**

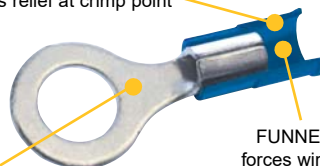
 22-18 & 8 gauge  16-14 & 6 gauge  12-10 & 4 gauge

 <p>ring terminals 22-10 gauge</p>	 <p>spade terminals 22-10 gauge</p>	 <p>narrow block spade terminals 22-10 gauge</p>
 <p>push-on terminals 22-10 gauge</p>	 <p>bullet connectors 16-14 gauge</p>	 <p>butt connectors 22-10 gauge</p>
 <p>pin terminals 22-10 gauge</p>	<p>INFO</p> <p>Using a ratchet tool provides a uniform and secure crimp. It can also help alleviate hand stress.</p>	



VINYL INSULATION provides basic protection and stress relief at crimp point

TIN PLATING offers added resistance to corrosion



FUNNEL ENTRY forces wire strands into the barrel

Using a flanged spade or locking spade terminal can help reduce incidental disconnect.

KATCO SERVICE PARTS INC.



Vinyl-insulated Funnel Entry Terminals

continued

Insulation
Color Code




22-18 & 8 gauge





16-14 & 6 gauge





12-10 & 4 gauge

	Ring Terminals min. 100 pcs.								
	Gauge	Stud Size							
		4	6	8	10	1/4"	5/16"	3/8"	1/2"
	22-18	A220-04	A220-06	A221-08	A221-10	A222-14	A222-56	—	—
	16-14	B223-04	B223-06	B231-08	B239-10	B225-14	B225-56	—	—
	12-10	—	—	C230-08	C228-10	C230-14	C230-56	C240-38	C201-12
									.030
									.030
									.040

	Spade Terminals min. 100 pcs.								
	Gauge	Stud Size							
		4	6	8	10	1/4"	5/16"	3/8"	1/2"
	22-18	—	A238-06	A234-08	A234-10	—	—	—	—
	16-14	—	B224-06	—	B227-10	—	—	—	—
	12-10	—	—	—	C241-10	—	—	—	—
									.030
									.030
									.040

	Push-on Terminals min. 100 pcs.	
	Gauge	Inside Width Standard
		0.187" (stock .020)
	female	22-18
		16-14
		12-10
	male	22-18
		16-14
		12-10
		AA2140
		BB2141
		C2143
		AMCT2
		MCT2
		CMCT2

	Male Bullet Connector min. 100 pcs.		
	Gauge	Diameter	
		.156" (stock .020)	.180" (stock .030)
	16-14	B279	B289

	Butt Connectors min. 100 pcs.		
	Gauge	Diameter	
		Butted Seam	Stock
	22-18	ASN345	.030
	16-14	BSN331	.030
	12-10	CSN346	.040

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Nylon-insulated, Brass Sleeve Terminals

- This double crimp series utilizes securely molded nylon insulation onto a brass sleeve for wire strain relief and is flared for easy wire insertion.
- Use this series where resistance to accidental pull-out and high vibration is necessary or desired.
- Industry standard color-coding indicates wire range.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**










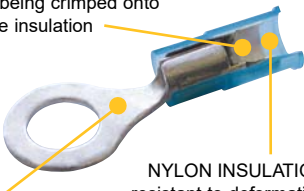
22-18 & 8 gauge





16-14 & 6 gauge



12-10 & 4 gauge

 <p>ring terminals 22-10 gauge</p>	 <p>spade terminals 22-10 gauge</p>	 <p>3 narrow block spade terminals 22-10 gauge</p>
 <p>flanged spade terminals 22-10 gauge</p>	 <p>push-on terminals 26-10 gauge</p>	 <p>bullet connectors 22-14 gauge</p>
 <p>pin terminals 22-10 gauge</p>	<div data-bbox="777 1136 852 1213" data-label="Image"> </div> <p>BRASS SLEEVE provides vibration resistance by being crimped onto wire insulation</p> <p>TIN PLATING offers added resistance to corrosion</p> <p>NYLON INSULATION resistant to deformation and cracking</p> 	

	Ring Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1½"	
22-18		A520-04	A520-06	A521-08	A521-10	A522-14	A522-56	A526-38	—	.030
16-14		B523-04	B523-06	B537-08	B539-10	B525-14	B525-56	B518-38	—	.030
12-10		—	C536-06	C528-08	C528-10	C530-14	C530-56	C540-38	C501-12	.040

	Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1½"	
22-18		—	A526-06	A535-08	A535-10	—	—	—	—	.030
16-14		—	B524-06	B527-08	B527-10	—	—	—	—	.030
12-10		—	C536-06	C541-08	C541-10	—	—	—	—	.040


KATCO SERVICE PARTS INC.


DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	1/4"	.266	.250	3/8"	.391	.375
6	.146	.138	10	.198	.190	5/16"	.328	.312	1/2"	.516	.500


STUD SIZE



	Flanged Spade Terminals min. 100 pcs.								
	Gauge	Stud Size							
		4	6	8	10	1/4"	5/16"	3/8"	1/2"
	22-18	—	A515-06	A515-08	A515-10	—	—	—	.030
	16-14	—	B516-06	B516-08	B516-10	—	—	—	.030
	12-10	—	C517-06	C517-08	C517-10	—	—	—	.040

	Push-on Terminals min. 100 pcs.			
	Gauge	Inside Width Standard		
		0.110" (stock .020)	0.187" (stock .020)	0.250" (stock .032)
female	22-18	AA8131	AA8137	AA8140
	16-14	BB8132	BB8138	BB8141
	12-10	—	—	—
male	22-18	—	AMCT57	AMCT5
	16-14	—	MCT57	MCT5
	12-10	—	—	CMCT5

	Inside Width Fully Insulated			
	Gauge	Inside Width Fully Insulated		
		0.110" (stock .020)	0.187" (stock .020)	0.250" (stock .032)
female	22-18	—	AA5267	AA5261
	16-14	—	BB5269	BB2263
	12-10	—	—	—
male	22-18	—	AA5266	AA5260
	16-14	—	BB5269	BB2262
	12-10	—	—	—

	Male Bullet Connectors min. 100 pcs.			
	Gauge	Diameter		Stock
		0.156"	0.180"	
	22-18	A569	A559	.030
	16-14	B589	B579	.030



Clear Nylon-insulated Brazed Barrel Terminals

- The nylon insulation is molded onto the brazed seam barrel.
- The funnel entry is formed into the inside of the insulation for easier wire insertion.
- The brazed seam will not separate under pressure or operating stress.
- The clear nylon allows for easy inspection of connection, and is resistant to deformation.
- Industry standard color-coding indicates wire range.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**










22-18 & 8 gauge



16-14 & 6 gauge



12-10 & 4 gauge

 <p>ring terminals 22-10 gauge</p>	 <p>spade terminals 22-10 gauge</p>	 <p>narrow block spade terminals 22-10 gauge</p>
 <p>flanged spade terminals 22-10 gauge</p>	 <p>push-on terminals 26-10 gauge</p>	 <p>bullet connectors & receptacles 22-14 gauge</p>
 <p>butt connectors 22-10 gauge</p>	<div data-bbox="630 1186 711 1270"> <p>INFO</p> </div> <div data-bbox="755 1207 917 1270"> <p>BRAZED SEAM will not open during crimp application</p> </div> <div data-bbox="673 1386 868 1459"> <p>TIN PLATING offers added resistance to corrosion</p> </div> <div data-bbox="787 1218 1088 1396"> </div> <div data-bbox="925 1375 1193 1459"> <p>NYLON FUNNEL INSULATION resistant to deformation and cracking and forces wire strands into the barrel</p> </div> <div data-bbox="1242 1270 1388 1407"> <p>Using a flanged spade or locking spade terminal can help reduce incidental disconnect.</p> </div>	

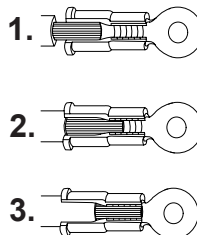
KATCO SERVICE PARTS INC.



INSTALLATION PROCEDURE:

Funnel Barrel Feature provides an excellent electrical and mechanical connection:

1. Funnel design guides wire into position.
2. No wire strand hang-up as the wire is inserted, giving a fast, positive installation.





DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	1/4"	.266	.250	3/8"	.391	.375
6	.146	.138	10	.198	.190	5/16"	.328	.312	1/2"	.516	.500


STUD SIZE



	Ring Terminals min. 100 pcs.											
	Gauge	Stud Size								Stock		
		4	6	8	10	¼"	⅝"	¾"	½"			
		22-18	—	A520-06	A521-08	A521-10	A522-14	A522-56	A526-38		—	.030
		16-14	—	B537-06	B537-08	B539-10	B525-14	B525-56	B518-38		—	.030
12-10	—	C528-06	C528-08	C528-10	C530-14	C530-56	C540-38	C501-12	.040			

	Spade Terminals min. 100 pcs.									
	Gauge	Stud Size								
		4	6	8	10	¼"	⅝"	⅜"	½"	Stock
		22-18	—	A534-06	—	A535-10	—	—	—	—
16-14	—	B524-06	—	B527-10	—	—	—	—	.030	
12-10	—	C541-06	—	C541-10	—	—	—	—	.040	

	Piggy-back Push-on Terminals min. 100 pcs.								
	Inside Width Fully Insulated								
	Gauge	.250" (stock .032)							
	22-18	AA8301							
	16-14	BB8302							

	Push-on Terminal Adapters min. 100 pcs.								
	Inside Width								
	Gauge	.250"							
	No. 8 Stud	0191630070							



Shrink Tube Terminals

- Shrink tube terminals help to eliminate most of the failures that occur at the point of termination by offering a more complete seal with the wire.
- These terminals combine heat shrink tubing with terminal insulation to seal out corrosion, water and air.

**Insulation
Color Code**



22-18 & 8 gauge

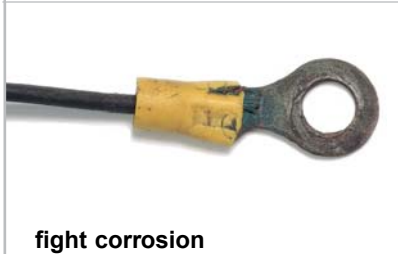


16-14 gauge

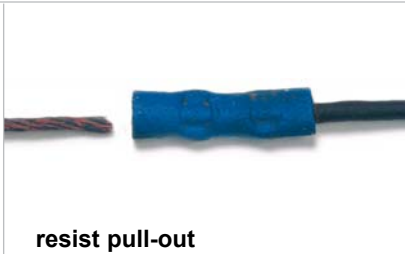


12-10 gauge

Defend against corrosion, pull-out and downtime with shrink tube terminals.



fight corrosion



resist pull-out



reduce downtime

Three different styles are offered:

Shrink Tube Terminal

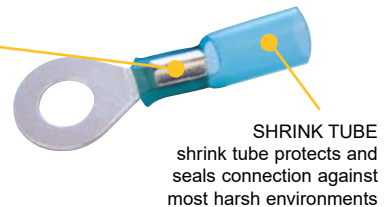
Crimped

- Mechanically sound
- Seamless Butt Connector
- Brazed seam - Ring & Spades

Sealed

- Durable insulation
- Watertight connection
- Color-coded with wire gauge imprint

CRIMPABLE
crimp enables a secure
mechanical connection



SHRINK TUBE
shrink tube protects and
seals connection against
most harsh environments

Solder Sleeve, Shrink Tube Terminal

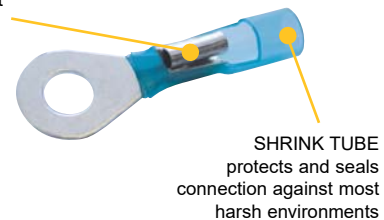
Soldered

- Superior strength
- Better conductivity

Sealed

- Durable insulation
- Watertight connection
- Color-coded with wire gauge imprint

SOLDER
supports superior current
flow and tensile strength



SHRINK TUBE
protects and seals
connection against most
harsh environments

Performance Terminal

Crimped

- Mechanically sound
- Easy installation

Soldered

- Additional strength
- Better conductivity

Sealed

- Durable insulation
- Watertight connection

SOLDER
solder supports superior
current flow and
tensile strength

CRIMPABLE
crimp enables a secure
mechanical connection



SHRINK TUBE
shrink tube protects and
seals connection against
most harsh environments

KATCO
SERVICE PARTS INC.



- The shrink tube is adhesive-lined and color-coded to industry standard wire range.
- The translucent, gauge-printed shrink tube allows for visual inspection of the connection, and has a greater pull strength when compared to vinyl or nylon.
- These terminals protect against corrosion and are waterproof.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**



20-18 & 8 gauge



16-14 gauge



12-10 gauge



ring terminals
20-8 gauge



multi stud ring terminals
20-14 gauge



spade terminals
20-10 gauge



push-on terminals
20-10 gauge



piggy-back push-on terminals
22-14 gauge



push-on terminal adapters



bullet & receptacle terminals
16-14 gauge



butt connectors
24-8 gauge



step-down butt connectors
20-8 gauge



Y connectors
20-10 gauge

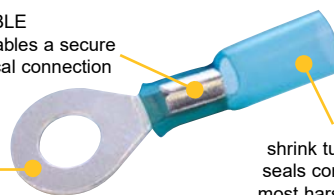


sealed connectors
for multiple wires



CRIMPABLE
crimp enables a secure
mechanical connection

TIN PLATING
offers added
resistance to corrosion



SHRINK TUBE
shrink tube protects and
seals connection against
most harsh environments

KATCO 
SERVICE PARTS INC.





DIMENSION CHART


Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.	Stud Size	Hole Dia.	Stud Dia.
4	.120	.112	8	.173	.164	¼"	.266	.250	¾"	.391	.375
6	.146	.138	10	.198	.190	⅝"	.328	.312	1½"	.516	.500


STUD SIZE



	Ring Terminals min. 10 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1½"	
	20-18	—	SA221-06	SA221-08	SA221-10	SA222-14	SA222-56	SA226-38	—	.030
	16-14	—	SB237-06	SB237-08	SB239-10	SB225-14	SB225-56	SB218-38	—	.030
	12-10	—	SC228-06	SC228-08	SC228-10	—	—	—	—	.040
	8	—	—	—	—	—	—	—	—	.050

	Multi Stud Ring Terminals min. 10 pcs.		
	Gauge	Stud Size	Stock
		6, 8, & 10	
	16-14	SB239-06-8-10	.030
	12-10	SC228-06-8-10	.030

	Spade Terminals min. 10 pcs.									
	Gauge	Stud Size								Stock
		4	6	8	10	¼"	⅝"	¾"	1½"	
	20-18	—	SA235-06	SA235-08	SA235-10	—	—	—	—	.030
	16-14	—	SB227-06	SB227-08	SB227-10	—	—	—	—	.030
	12-10	—	SC241-06	SC241-08	SC268-10	SC268-14	—	—	—	.040

	Push-on Terminals min. 10 pcs.	
	Gauge	Inside Width Fully Insulated
		.250" (stock .032)
	female	20-18 SAA9261
		16-14 SBB9263
		12-10 SC9261
	male	20-18 SAA9260
		16-14 SBB9262
		12-10 SC9260



Shrink Tube Terminals

continued

Insulation
Color Code




20-18 & 8 gauge




16-14 gauge





12-10 gauge


 female male	Bullet & Receptacle Terminals min. 10 pcs.			
	Gauge	Inside Width Standard		
		.156"	.176"	Stock
	16-14	F SBRB8156	SBRB8180	.030
	16-14	M SB289	SB279	.030


M = male, F = female





	Sealed Connectors for Multiple Wires min. 10 pcs.				
	1#20-#18 and 2#20-#18	1#16-#14 and 2#16-#14	1#12-#10 and 2#12-#10		
	Part No.	Color	Part No.	Color	Part No.
	HL57-16	clr/red dash	HL57-14	clr/blue dash	HL57-10 clr/yel dash

	Butt Connectors min. 10 pcs.				
	Gauge	Butted Seam	Seamless	Brazed Barrel	Stock
	20-18	—	SAA2218	—	.030
	16-14	—	SBB1614	—	.030
	12-10	—	SC1210	—	.040
	8	—	—	SD8	.050

	Step-down Butt Connectors min. 10 pcs.		
	Gauge	Description	
		Part No.	Stock
	20-18 / 16-14	SBA631	.033 / .040
	16-14 / 12-10	SCB646	.039 / .057

	Y Connectors min. 10 pcs.			
	Gauge	Part No.	Stud	Stock
	20-18	SA2YCX	8	.030
	16-14	SB2YCX	8	.030
	12-10	SC2YCX	8	.040


SEALED CONNECTORS FOR MULTIPLE WIRES

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SERVICE PARTS INC.



Solder Sleeve Terminals

- The shrink tube is adhesive-lined and color-coded to industry standard wire range.
- The translucent, gauge-printed shrink tube allows for visual inspection of the connection, and has a greater pull strength when compared to vinyl or nylon.
- Low temperature, pre-measured solder allows for a consistent flow of solder.
- These terminals protect against corrosion and are waterproof.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

**Insulation
Color Code**




20-18 gauge



16-14 gauge






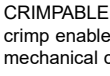



12-10 gauge

	Butt Connectors min. 10 pcs.	
	Gauge	Description
		Solder Barrel
	24-22	—
	20-18	SSC2218
	16-14	SSC1614
	12-10	SSC1210

Performance Terminals

- For the ultimate in conductivity and weather resistance, choose these terminals offering the greatest reliability, strength and durability.
- The brazed seam with serrated barrel provides a secure crimp.
- Low temperature, pre-measured solder allows for a consistent flow of solder.
- Color-coded, adhesive-lined polyolefin shrink tube assures proper sealing.
- Rated to 600 volts maximum, building wire; 1000 volts maximum, signs and fixtures.
- Temperature rating: 105°C (221°F).

 <p>ring terminals 20-10 gauge</p>	 <p>spade terminals 20-10 gauge</p>	 <p>push-on terminals 20-10 gauge</p>
 <p>butt connectors 20-10 gauge</p>	<div style="display: flex; align-items: center;"> <div style="margin-right: 20px;">  <p>SOLDER solder supports superior current flow and tensile strength</p> </div> <div style="margin-right: 20px;">  <p>CRIMPABLE crimp enables a secure mechanical connection</p> </div> <div>  <p>SHRINK TUBE shrink tube protects and seals connection against most harsh environments</p> </div> </div>	

KATCO SERVICE PARTS INC.



INSTALLATION





Hard Plastic Wire Connectors

- Color-coded for easy size selection.
- Tight, square-wire spring makes quick, secure connections for positive continuity.
- Tough, thermoplastic shell shields against environmental extremes.
- Resists chemical action from hydrocarbons, dilute acid or alkaline solutions.
- Flame-retardant properties resist heat distortion up to 105°C (221°F).
- High-dielectric shell features deep skirt design to prevent exposure of bare wire.
- Copper to copper connections only; min. 100 pcs or 500 pcs (see chart below).

Part No.	Pkg. Qty.	Color	Wire Range
TLR	100 pc. bag	red	#18 to #10, Min: 2#14, Max: 2#10 w/2#12
TLG	100 pc. bag	grey	#22 to #16, Min: 3#22, Max: #20w/1#22
TLB	100 pc. bag	blue	#22 to #16, Min: 3#22, Max: 3#16
TLO	100 pc. bag	orange	#22 to #14, Min: 3#20, Max: 4#16 w/1#20
TLY	100 pc. bag	yellow	#18 to #10, Min: 1#14 w/1#18, Max: 4#14



Winged Hard Plastic Wire Connectors

- Wings are knurled for a better grip and offset from centerline for greater twisting leverage.
- Square-wire plated spring instantly adjusts to the shape and size of the splice.
- Flame-retardant properties resist heat distortion up to 105°C (221°F).
- High-dielectric shell features deep skirt design to prevent exposure of bare wire.
- Copper to copper connections only; min. 500 pcs.

Part No.	Pkg. Qty.	Color	Wire Range
WLY	500 pc. bag	yellow	#22 to #10, Min: #2 to #18, Max: 3#12
WLR	500 pc. bag	red	#18 to #10, Min: 2#14, Max: 5#12



Wire Connectors

- Versatile connector manufactured to accept more wire combinations.
- Swept mini-wings provide additional torque.
- Square-wire spring grabs and holds wires for secure connections.
- Long skirt covers stripped wires.
- Rated at 600V max in building wire and at 1000V max in lighting fixtures/luminaries and signs.
- Copper to copper connections only; min. 500 pcs.

Part No.	Pkg. Qty.	Color	Wire Range
SLY	500 pc. bag	yellow	#22 to #12, Min: 4#22, Max: 3#12
SLR	500 pc. bag	red	#22 to #10, Min: 3#20, Max: 5#12

KATCO SERVICE PARTS INC.





Scotchlok 2® Connectors

- Because of increased wire range, 3 connector sizes can now do jobs it used to take 8 connector sizes to accomplish.
- Flexible skirt provides protection and readily bends to conform in tight places.
- UL and CSA rated.
- Rated 600V; min. 50 pcs.

Part No.	Description	Wire Range
3MO/B	Orange with blue skirt. Replaces grey, blue and orange nut style.	2#22 to 2#12
3MR/Y	Red with yellow skirt. Replaces yellow and red nut style and yellow and red wing style.	2#18 to 2#8 4#14 to 3#12 6#14 to 4#12 5#12 to 3#10
3MB/G	Blue with grey skirt. Replaces blue wing style.	4#14 to 5#10



Closed End Connectors

- Translucent nylon insulation.
- Tin-plated copper sleeve; min. 100 pcs.

Part No.	Gauge	Pkg Qty
NC2214	22-14	100
NC1610	16-10	100



Sealed Connectors for Multiple Wires

- The extra-active, free-flowing adhesive lining within these connectors encapsulates multiple wires, helping eliminate wire pull-out and making the connection weatherproof.
- These connectors replace standard closed end connectors, and are a superior solution in environments where corrosion is a problem.
- A clearly marked dashed line helps to quickly identify wire gauge range and crimp die set.

Part No.	Qty.	Color	Wire Range
HL22-14	10	clr/blue dash	#22 to #14
HL18-10	10	clr/yellow dash	#18 to #10





Ox-Gard™ Anti-Oxidant Compound

- The perfect safeguard for aluminum to aluminum, aluminum to copper wire connections and aluminum conduit joints.
- Guards against oxidation.
- Improves conductivity; penetrates aluminum oxide to maintain inter-strand and inter-conductor current paths.
- Produces a cooler connection.

Part No.	Description
961	1 oz. Squeeze Tube
964	4 oz. Squeeze Tube



Quick Splices

- Use for quick connections with no wire stripping.
- Simply insert both wires, squeeze down the metal insert with a pliers and snap the cover in place.

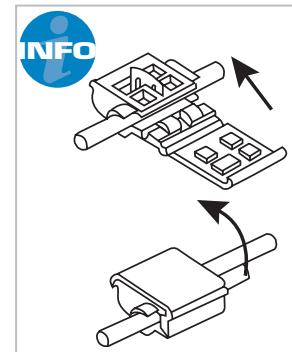
Part No.	Description	Gauge
3M905	Red, Closed port	22-18
3M564	White, Open port	18-14
3M801	Blue, Closed port	16-14



Tap Connectors (moisture resistant)

- Electrical tap connector contains a mineral oil base dielectric grease.
- When closed this grease provides a moisture-resistant barrier to destructive substances such as salt water and other corrosive environments.
- 18-14 gauge, 600V 90°C (194°F).
- 18 gauge: 7 amps; 16 gauge: 10 amps; 14 gauge: 15 amps.

Part No.	Description
3M804	Tap Connector



Sealed Connectors for Multiple Wires

- A better way to join two wires to one wire.
- The extra-active, free-flowing adhesive lining within these connectors encapsulates multiple wires, helping eliminate wire pull-out and making the connection weatherproof.
- These connectors are a superior solution to the standard quick splice.
- A clearly marked dashed line helps to quickly identify wire gauge range and crimp die set.

Part No.	Qty.	Color	Wire Range
HL57-16	10	clr/red dash	1#20-#18 and 2#20-#18
HL57-14	10	clr/blue dash	1#16-#14 and 2#16-#14
HL57-10	10	clr/yellow dash	1#12-#10 and 2#12-#10

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Pigtail Connectors

- Self-stripping electrical pigtail connectors are available with or without sealant filling.
- The sealant helps to protect against corrosion due to moisture.
- No wire stripping is required; simply insert wires and press down with a pliers.

Part No.	Description	Wire Gauge
3M314	Sealant Waterproof Pigtail Connector	22-14



T-tap Female Connectors

- Mates with .250" male blades.
- Min. 100 pcs.

Part No.	Gauge	Color	Inside Width
3M951	22-18 ga.	red	.250"
3M951	16-14 ga.	blue	.250"
3M951	12 ga.	yellow	.250"



Tap-in

- Use .156" bullet terminal for mate.

Part No.	Description	Wire Gauge
3M907	Splicing Body	18-14



Clip-on ATC®/ATO® Fuse Holder

- Self tapping design requires no wire stripping.
- No special tool is necessary; installs with common pliers.
- For use with 18-14 gauge wire.
- 20 amp max.
- Fuse not included.

Part No.	Description
ATO-TAP	Fuse Holder



Light-duty Flameless Heat Gun

- A competitively priced tool that can be held by hand or stand alone.
- Quickly and efficiently shrinks PVC, polyolefin, dual wall, crimpable shrink tubing and no-crimp solder terminals.
- Solid state construction: powerful dual set, 600°F/1000°F 1200W and 10 amps self-standing. Perfect for shrink tubing.
- Includes shrink tube reflector.
- For light-duty use only.

Part No.	Description
T400	Flameless Heat Gun



Ratchet Crimping Tool

- Tool crimps both standard and reinforced (double crimp) terminals in 22-10 gauge.
- Both tools will not disengage until uniform crimp is completed or quick release lever is triggered.
- Dies have printed key for proper crimp nest.

Part No.	Description
T804	Ratchet Crimping Tool



Wiring Devices & Quick Connector Parts



HOW IT WORKS

1-2-3 or 4 contact quick connectors may be assembled as needed using component parts shown below. The male terminals lock into one half of the connector body and female terminals lock into the mating half. Positive contact is made when the bodies are joined together. Bodies are polarized and lock together but can be easily disconnected. Terminals can be removed from bodies by using a thin blade to trip the locking tang. Terminals should be attached to wire before insertion into body.

Wiring Devices



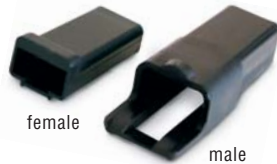
Male Terminals	
Part No.	Gauge
2965481	20-18
2971982	16-14
2977904	12-10



Female Terminals	
Part No.	Gauge
2966141	20-18
2965142	16-14
2977044	12-10

* Terminals are manufactured from brass material; rated for 49 amps.

Quick Connector Parts



1 Contact	
Part No.	Description
2984528	Body for 1 male terminal
2977253	Body for 1 female terminal



2 Contact	
Part No.	Description
2977763	Body for 2 male terminals
2973072	Body for 2 female terminals



3 Contact	
Part No.	Description
2973172	Body for 3 male terminals
2962510	Body for 3 female terminals



4 Contact	
Part No.	Description
2973603	Body for 4 male terminals
2982969	Body for 4 female terminals

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Switches

SWITCH TYPES:

S.P.S.T. = single pole, single throw switches control a single wire circuit.

S.P.D.T. = single pole, double throw switches control two single wire circuits permitting only one circuit to be energized at a time.

D.P.S.T. = double pole, single throw switches control two circuits simultaneously. Circuits are ON at the same time, OFF at the same time and may be of different voltages from separate sources.

D.P.D.T. = double pole, double throw switches control four circuits, permitting only two circuits to be energized at a time.



Heavy-duty Toggle Switches

- Typical applications: industrial controls, marine panels, trucks, buses and automotive.
- Materials: brass terminals, frame and support are steel with zinc chromate, case is black phenolic plastic (flammability rating: UL 94 flame class 94V-1) and all other external parts are brass/bright nickel.
- All motor-rated, heavy-duty toggle switches are rated for 20 amp, 277 VAC.
- **Recommended mounting hole: 1/2" diameter.**

SPECIFICATIONS:

Single Pole Switches: Double Pole Switches:

10A/277V AC 10A/277V AC

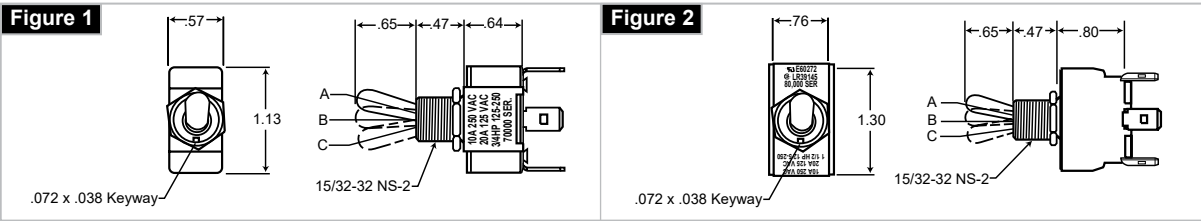
20A/125V AC 20A/125V AC

21A/14V DC 21A/14V DC

¾ HP 125-250V AC 1½ HP 125-250V AC

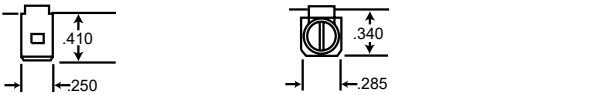
**OEM - back-up nut assembled only,
other hardware poly bagged**

**Assembled - all hardware
assembled**



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

Single Pole Heavy-duty Toggles

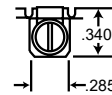
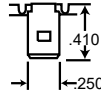


Poles	Circuit Arrangement			.250 Flat Assembled	Screw Assembled
	A	B	C		
S.P.S.T.	ON	—	OFF	55014	5582
S.P.S.T.	(ON)	—	OFF	55037	55020
S.P.S.T.	ON	—	(OFF)	55049-01	—
S.P.D.T.	ON	—	ON	55015	5584
S.P.D.T.	ON	—	(ON)	—	DC7200037
S.P.D.T.	ON	OFF	ON	55016	5586
S.P.D.T.	ON	OFF	(ON)	—	55088
S.P.D.T.	(ON)	OFF	(ON)	55033-01	55021

() Indicates momentary action



Double Pole Heavy-duty Toggles



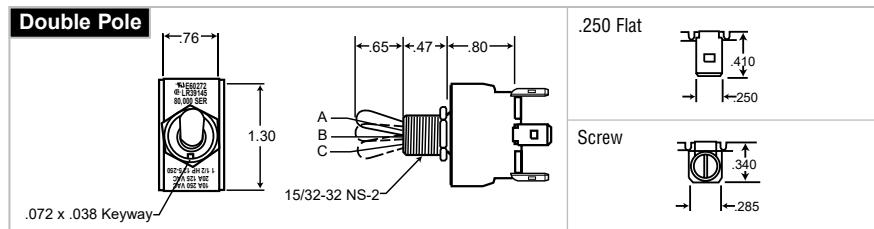
Poles	Circuit Arrangement			.250 Flat	Screw
	A	B	C	Assembled	Assembled
D.P.S.T.	ON	—	OFF	*55017	5588
D.P.S.T.	(ON)	—	OFF	—	DC7300015
D.P.D.T.	ON	—	ON	55018-01	—
D.P.D.T.	ON	—	(ON)	—	DC7300033
D.P.D.T.	ON	OFF	ON	55019	5592
D.P.D.T.	ON	OFF	(ON)	—	—
D.P.D.T.	(ON)	OFF	(ON)	—	—

() Indicates momentary action

* Indicates long handle

Specialty Circuit, Heavy-duty Toggle Switches

- A complete line of heavy-duty reversing and progressive toggle switches.
- Typical applications: tailgate, lift platform, motor controls.
- **Recommended mounting hole: ½" diameter.**



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

Specialty Circuit, Heavy-duty Toggles

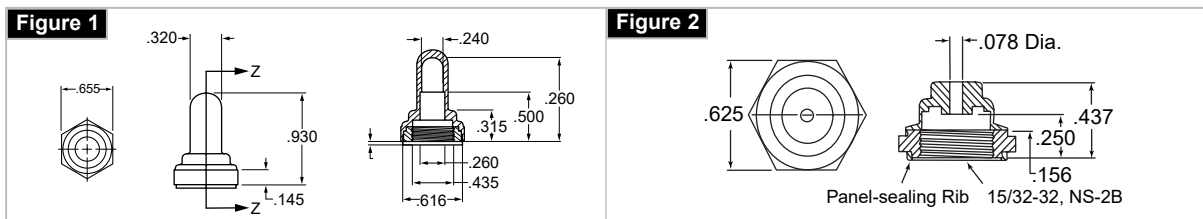
Poles	Style	Circuit Arrangement			Part No.	Termination		Ratings	No. of Terminals
		A	B	C		OEM	Assembled		
D.P.D.T.	Reversing	ON	—	ON	55018-01	—	Screw	21 amp, 14 volts DC	6
D.P.D.T.	Reversing	(ON)	OFF	(ON)	*55046	—	.250 Flat	21A, 14V DC	4

* Indicates long handle

Toggle Accessories



- Tough rubber silicone covers are UV-resistant and protect switches from moisture, dust and dirt.
- Built-in hex nut base screws on to most toggle switches.
- Boots are rated for -40°C to 180°C (-40°F to 356°F).
- 7900001 meets NEMA 4 requirements.



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

Part No.	Description	Boot Style
81264	Full Boot Toggle	Figure 1
81255	Half (½) Boot Toggle	Figure 2

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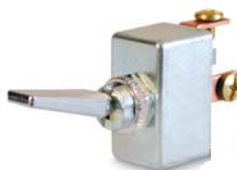




On-Off Toggle Switches

- 50 amps at 12V DC.
- Die cast housing, silver plated contacts and heavy copper terminals.
- Ideal for low voltage, high amp applications.
- $\frac{1}{32}$ " stem diameter x $\frac{1}{32}$ " length.
- Die cast toggles are rated for 50,000 cycles electrical life, 100,000 cycles mechanical life.
- **Recommended mounting hole: $\frac{1}{2}$ " diameter.**

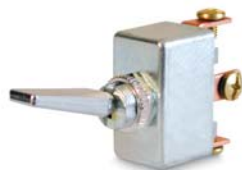
Poles	Handle Color	Termination	
		.250 Flat	Screw
S.P.S.T.	Chrome	34-216	34-212



On-Off Toggle Switch

- Two positions with copper screw terminals.
- Bat handle, $1\frac{1}{8}$ " long.
- Die cast toggles are rated for 50,000 cycles electrical life, 100,000 cycles mechanical life.
- **Recommended mounting hole: $\frac{1}{2}$ " diameter.**

Part No.	Poles	Rated
34-213	S.P.S.T.	50 amps at 6/12/24 volts DC



On-Off-On Toggle Switch

- Three positions with copper screw terminals.
- Chrome plated handle.
- Die cast toggles are rated for 50,000 cycles electrical life, 100,000 cycles mechanical life.
- **Recommended mounting hole: $\frac{1}{2}$ " diameter.**

Part No.	Poles	Rated
34-218	S.P.D.T.	50 amps at 6/12/24 volts DC



On-Off Switch

- All brass, two position toggle switch.
- Furnished with nickel-plated brass face nut and brass back-up nut.
- Mounting stem $\frac{3}{8}$ " long, $\frac{7}{16}$ " diameter with $\frac{7}{16}$ " x 28 threads.
- Perfect for marine use.

Part No.	Poles	Rated
33-300	S.P.S.T.	35 amps at 6 volts AC, 20 amps at 12 volts DC



Ignition Switch

- Starter switch, premium brass construction.
- Three terminals, three positions.
- Mounting stem: $1\frac{1}{16}$ " long, diameter $\frac{1}{16}$ ".
- Rated 25 amps at 6 volts DC, 15 amps at 12 volts DC.
- Two keys are included.

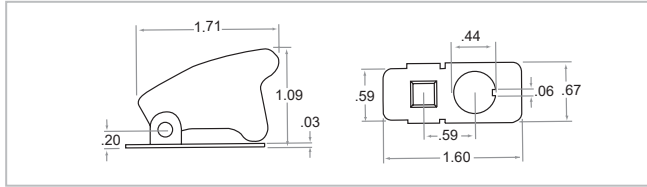
Part No.	Description
DC73450	Ignition Switch





Toggle Safety Cover

- Rugged spring-loaded design provides protection against accidental actuation.
- Perfect for a variety of industry applications, from Racing to Agriculture.
- Materials: Base faceplate is black steel; cover is red urea plastic.
- Mounting hole accepts all standard on-off toggles with $\frac{15}{32}$ " mounting stems.
- Also available in Green, Yellow, & Blue.



Part No.	Description
DC73200	Toggle Safety Cover

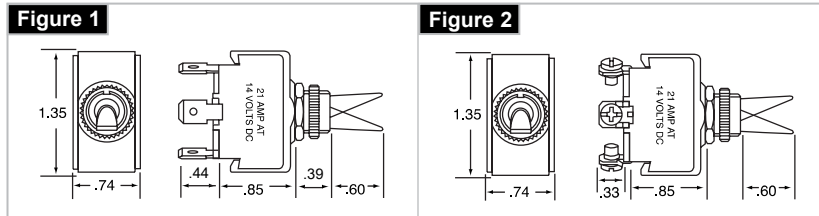


Light-duty Toggle Switch

- Our lighted toggles contain an internal "o" ring seal to protect against dust and moisture.
- Rated for 12 volts, and available in both dependent and independent illumination circuits.
- **Recommended mounting hole: $\frac{1}{2}$ " diameter.**



SPECIFICATIONS:
21A / 14V AC



Part No.	Poles	Circuit Arrangement			Description
		A	B	C	
M54110	S.P.D.T.	ON	—	OFF	red dependent/white independent
M54109	S.P.S.T.	ON	—	OFF	red dependent/white independent



Rocker Switches

- Two position rocker switches with black nylon housing.
- Illuminated "ON" position.
- Three ($\frac{1}{4}$ ") male blade terminals.
- Rated at 20A/12V DC.
- **Recommended mounting hole: $\frac{1}{2}$ " x 1".**

Part No.	Poles	Circuit Arrangement			Color
		A	B	C	
DC73355	S.P.S.T.	ON	—	OFF	Red
DC73365	S.P.S.T.	ON	—	OFF	Green
DC73375	S.P.S.T.	ON	—	OFF	Amber
DC73385	S.P.S.T.	ON	—	OFF	Blue

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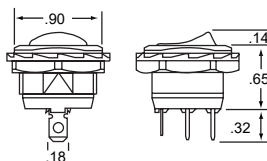




Square Face, Round Hole Rocker Switches

First resistant nylon housing (UL Flame: 94V-2) with backup nut design.
Available in non-illuminated and illuminated (LED and incandescent) styles.
Recommended mounting hole: .787" diameter.

Figure 1



SPECIFICATIONS:

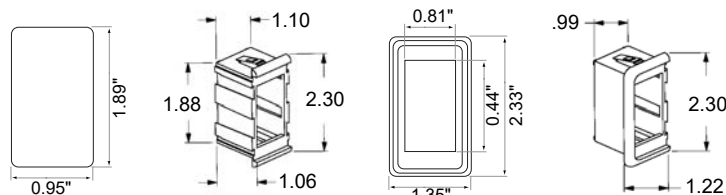
16A/125V AC
10A/250V AC
20A/12V DC
6mm max panel thickness

Non-illuminated

Part No.	Poles	Circuit Arrangement			Description
		A	B	C	
DC7500015	S.P.S.T.	ON	—	OFF	Non-illuminated

Modular Brackets

- Introducing a quick and clean system to mount switches.
- Able to be assembled in countless configurations to meet your switch needs.
- Manufactured to accommodate our Full Size Rocker Series and Surf N' Turf Sealed Rockers.
- Creating your own switch panel has never been easier.



Part No.	Description
98628	Rocker Panel Plug
82159-2	Middle Rocker Panel
82159-1	Single Rocker Bracket
87167-01	End Rocker Panel

Push-Button Switch

- Momentary push-button switch for operating fog horns and sirens.
- Plastic button and chrome-plated brass shell and mounting bracket.
- Mounting center: 2 $\frac{1}{16}$ ", overall length: 2 $\frac{3}{16}$ ", 1 $\frac{1}{2}$ " diameter.
- Rated at 5A/12V DC.



Part No.	Circuit Arrangement		
	A	B	C
52-661	(ON)	—	OFF

() Indicates momentary action

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Full Size Rocker Switches

- Heavy-duty construction.
- Plain and lighted versions.
- Moisture and dust resistant.
- Recommended uses: Commercial appliances, industrial controls, van conversions, marine panels, automotive, motor controls, trucks and buses.
- Materials: terminals are brass, frame and rocker are black glass-filled nylon, case is black nylon (flammability rating: UL 94 flame class 94V-2), gasket is molded elastomer.
- **Recommended mounting hole: .830" (±.015) x 1.450" (±.005).**



SPECIFICATIONS:

Single Pole Switches:

10A/277V AC

20A/125V AC

¼ HP 125-250V AC

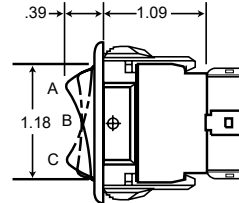
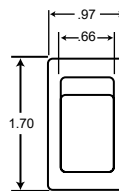
Double Pole Switches:

10A/277V AC

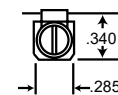
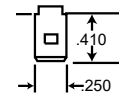
20A/125V AC

1½ HP 125-250V AC

Note: Because panel material will affect mounting performance, all mounting panel cutouts should be tested for suitability prior to manufacture.



Single & Double Pole Non-Illuminated

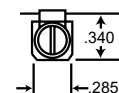
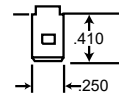


Poles	Circuit Arrangement			Termination	
	A	B	C	.250 Flat	Screw
S.P.S.T.	ON	—	OFF	*34-308	34-301
S.P.S.T.	(ON)	—	OFF	58027-01	—
S.P.D.T.	ON	—	ON	—	—
S.P.D.T.	ON	OFF	ON	58327-06	—
S.P.D.T.	(ON)	OFF	(ON)	58027-04	—
D.P.S.T.	ON	—	OFF	—	—
D.P.D.T.	ON	—	ON	34-359	—
D.P.D.T.	ON	OFF	ON	58027-11	—
D.P.D.T.	ON	OFF	(ON)	—	—
D.P.D.T.	(ON)	OFF	(ON)	—	—

() Indicates momentary action

* also available with special markings on face: -O

Lighted Rocker Switches



Poles	Circuit Arrangement			Termination		Lens Color
	A	B	C	.250 Flat	Screw	
S.P.S.T.	ON	—	OFF	34-360	—	Red
S.P.S.T.	ON	—	OFF	—	34-305	Red
S.P.S.T.	ON	—	OFF	—	34-306	Green
S.P.S.T.	ON	—	OFF	—	34-307	Amber

() Indicates momentary action

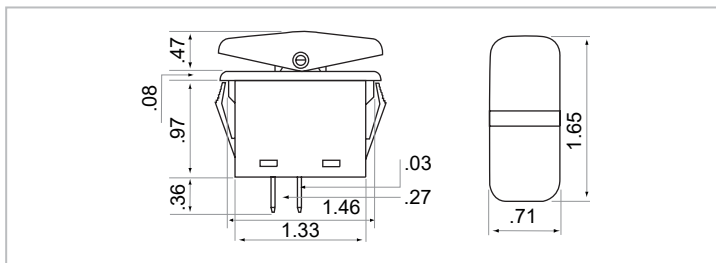
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Surf 'N Turf™ Guardian Series

- Recommended uses: marine panels, trucks, buses, trailer, construction, farm equipment and recreation equipment.
- Moisture and dust resistant.
- Designed to meet or exceed IP56 requirements.
- 20 amps, 14V DC.
- **Recommended mounting hole: .60" (± 0.004) x 1.450" (± .004).**



Poles	Rocker Color or Description	Circuit Arrangement			Part No.	No. of Terminals
		A	B	C		
S.P.S.T.	Black/Black	ON	—	OFF	DC73280	2
S.P.S.T.	Black/Red Dep.	ON	—	OFF	DC73281	3
S.P.S.T.	Black/Red	(ON)	—	OFF	DC73285	2
S.P.D.T.	Black/Black	ON	OFF	ON	DC73282	3
S.P.D.T.	Black/Black	(ON)	OFF	(ON)	DC73284	3

() Indicates momentary action

* Illuminated, dependent

Round Hole Rocker Switches



Round Hole Rocker Switch

- Dust resistant black nylon housing (UL Flame: 94V-2) with back-up nut design.
- Rated to 10A/125V AC; 6A/250V AC.
- Connection points are silver plated brass.
- Recommended mounting hole: .708".

Part No.	Poles	Circuit Arrangement			Markings
		A	B	C	
DC7100006	S.P.S.T.	ON	—	OFF	Black, White Dot





Push-Button Switch

- Heavy-duty, momentary push-button switch.
- $\frac{5}{8}$ " - 32 UNS mounting bushing for panels up to $\frac{1}{2}$ " thick.
- Die cast with silver/copper contacts for long life.
- Rubber dust and moisture-resistant. Boot nut included.
- Rated at 50A/12V DC.

Part No.	Circuit Arrangement		
	A	B	C
CH90030	(ON)	—	OFF

() Indicates momentary action



Push-Button Starter & Horn Switches

- Insulated type push-button starter and horn switches.
- Moisture-proof switch supplied with a special moisture-proof and dust-proof rubber cap.
- 73485 supplied with chrome-plated brass face nut and back-up nut.
- Mounting bushing: $1\frac{1}{4}$ " long, $\frac{5}{8}$ " diameter.
- Overall length: $2\frac{7}{8}$ ", width $\frac{7}{8}$ ".
- Brass washer and back-up nut, stainless steel springs.
- Accommodates 1" panel.
- Rated at 25A/6V DC, 15A/12V DC.



Part No.	Circuit Arrangement		
	A	B	C
DC73495	(ON)	—	OFF
DC73485	(ON)	—	OFF

() Indicates momentary action



GM Self-adjusting OEM Door Switch

- Self-adjusting dual grounding door switch.
- Requires a $\frac{5}{8}$ " hole size.

Part No.	Description
DC72960	GM Self-adjusting OEM Door Switch



GM/Ford Van Switch

- $\frac{1}{2}$ " grounding self-adjusting switch.
- Will work on GM van doors. Use in Ford cars as a ground switch going directly to alarm or, if (+) dome light activation is needed, use this switch with a relay.

Part No.	Description
DC72962	GM/Ford Van Switch

KATCO SERVICE PARTS INC.





Push-Pull Switch

- Extra heavy-duty, 2 position push-pull switch.
- Mounting stem $\frac{5}{8}$ " long, $\frac{1}{2}$ " diameter.
- Chrome-plated metal knob.
- Rated at 75A/6-28V DC.

Part No.	Poles	Circuit Arrangement		
		A	B	C
34-306	S.P.S.T.	ON	—	OFF



Push-Pull Switch

- Heavy-duty, 2 position push-pull switch.
- Made of brass and chrome.
- Mounting stem: $1\frac{1}{4}$ " long, $\frac{3}{8}$ " diameter.
- Overall length: $3\frac{1}{8}$ ", width $\frac{7}{8}$ ".
- Accommodates 1" panel with stainless steel springs.
- Rated at 25A/6V DC, 15A/12V DC.

Part No.	Poles	Circuit Arrangement		
		A	B	C
33-400	S.P.S.T.	ON	—	OFF



Master Disconnecting Switch for Batteries

- Lever operated - 6-36 volt, 180 amps.
- Continuous capacity 1,000 amps in rush S.P.S.T. (On-Off), two stud terminals.
- For battery circuit only.
- Does not disconnect alternator or generator field circuit.
- Conforms to requirements of UL #558.
- Mounting stem $\frac{3}{4}$ " diameter, $2\frac{5}{32}$ " long with two hex nuts and lock washer.



NOTE: On vehicles equipped with an alternator, the engine must be shut-off to avoid potential damage to alternator diode. Instructions sheets are included.

Part No.	Description
51-902EP	Master Disconnect Switch





Pigtail-LED

- 6" wire leads with push-in grommet.
- Rated to 12V DC with a 5/16" mounting hole.

Part No.	Description
DC73581	Red, Non-flashing
DC73582	Amber, Non-flashing
DC73583	Green, Non-flashing
DC73584	Blue, Non-flashing



Indicator Lamps

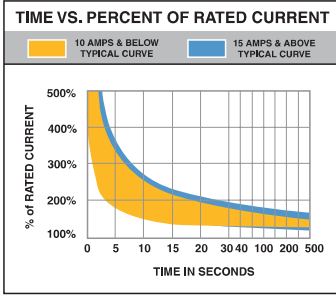
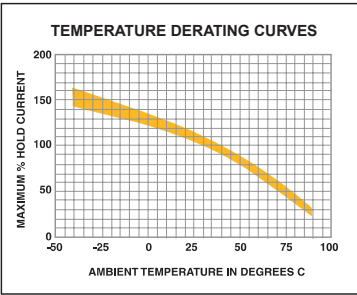
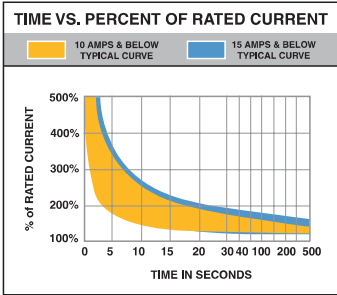
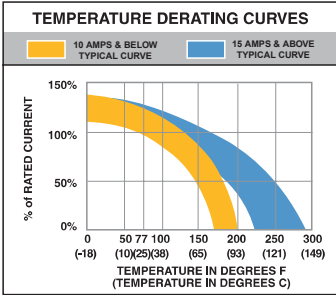
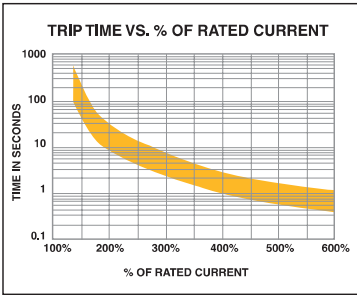
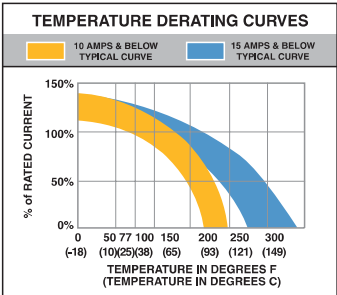
- Indicator lamps with wire leads for easy installation.
- Mounts into 1/2" hole at 12V DC.
- Rated to 3 amps.

Part No.	Poles	Color
DC73415	S.P.S.T.	Red
DC73425	S.P.S.T.	Green
DC73435	S.P.S.T.	Amber
DC73445	S.P.S.T.	Blue

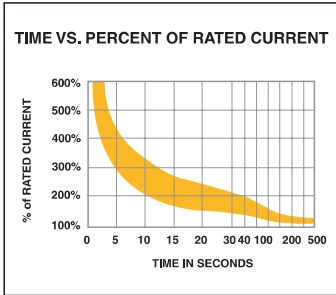
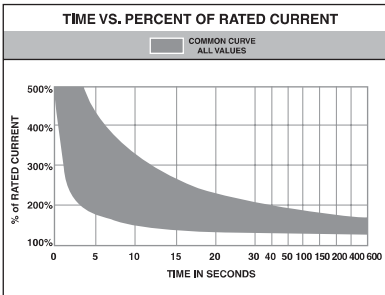
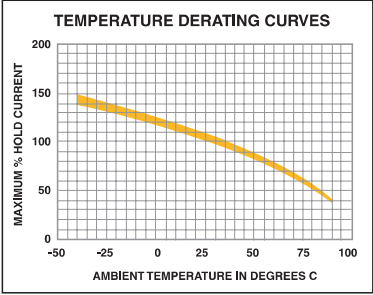
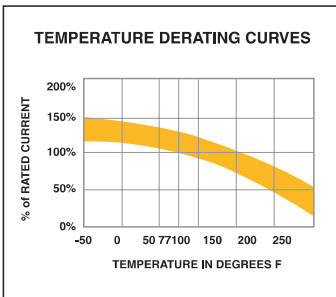
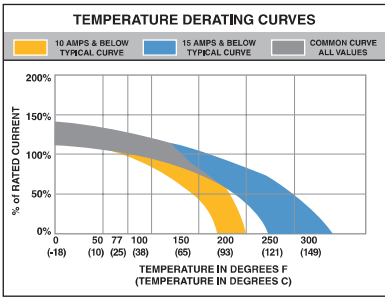
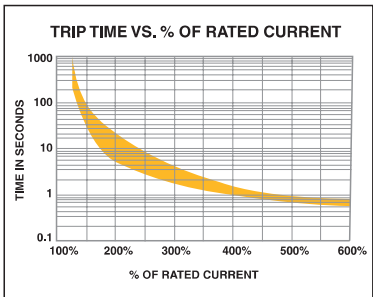


Circuit Breaker Guide

Stud Mount ATC Blade Maxi Blade



Mini Blade Push Button Hi Amp





Circuit Breakers - Stud Mount

Type 1 - 12V DC Automatic Reset

- This series of circuit protectors is comprised of single pole thermal type breakers.
- Used in many diverse applications including multiple power outlet strip, trucks, buses, portable generators, welding equipment and trolling motors.
- Operating temperatures from -23°C to 65°C (-10°F to 150°F).
- Storage temperature -29°C to 93°C (-20°F to 200°F).
- All Type 1, 2 and 3 circuit breakers are engineered for dependability.
- Breakers include nuts and washers.
- Meets S.A.E. J553 specifications.



Stud Terminals: Two 10/32 stud; .66 (AUX) .50 (BATT) Mounting Hole: .196 diameter holes

Metal with Horizontal Mounting Bracket

Part No.	Amp	Part No.	Amp
CBMP5	5	CBMP25	25
CBMP6	6	CBMP30	30
CBMP10	10	CBMP35	35
CBMP15	15	CBMP40	40
CBMP20	20	CBMP50	50

Metal without Mounting Bracket

Part No.	Amp	Part No.	Amp
CB6	6	CB25	25
CB10	10	CB30	30
CB15	15	CB40	40
CB20	20	CB50	50

Type 1 - 24V DC Automatic Reset

Metal with Horizontal Mounting Bracket

Part No.	Amp	Part No.	Amp
CBMP10-24	10	CBMP30-24	30
CBMP20-24	20	CBMP40-24	40

FUNCTIONCODE

TYPE 1 Automatic Reset

- Will recycle continuously during an overcurrent condition.
- The composite alloy material will deflect and separate the contacts when an over-current situation occurs and return to the run mode as it cools. The process will continue until the source of the overcurrent is removed or corrected.

TYPE 2 Modified Reset

- Circuit breaker will remain tripped (in the OFF position) as long as there is power to the circuit.
- Contains internal resistor.
- Reset circuit breaker by turning off the circuit or by turning off the ignition switch.
- Silver in color.

TYPE 3 Manual Reset

- Circuit breaker will remain tripped (in the off position) until indicator button or lever is manually reset to activate circuit.
- Type 3 available in plastic only.

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Type 1 - Maxi Auto Reset

- Temperature range: -29°C to 65°C (-20°F to 150°F).
- Interchangeable with Maxi blade fuse.
- 12V DC.
- Meets SAE J553.

Part No.	Amp	Part No.	Amp
CBMAX10	10	CBMAX30	30
CBMAX15	15	CBMAX40	40
CBMAX20	20	CBMAX50	50

Circuit Breakers - Miscellaneous



Type 1 - Mini

- Single pole thermal-type breakers, 14V DC.
- Cover is grey plastic housing with standard gold cover (Type 1) or silver cover (Type 2).
- Markings include amp/volt ratings.
- Meets SAE J553 specifications for Type 1 and Type 2 circuit breakers.
- Temperature range: operating -40°C to 85°C (-40°F to 185°F).
- .110" blade compatible with 280 fuse blocks.

Type 1			
Part No.	Amp	Part No.	Amp
CBMIN10	10	CBMIN20	20
CBMIN15	15	CBMIN25	25



Type 2 - Universal Circuit Breaker Connectors

- "Snap-off" design of blades allows installer to size the blades for the application.
- Color-coded markings to match the color coding for ATC® fuses (UCB-10-Red, UCB-15-Blue, UCB-20-Gold and UCB-30-Green).
- Fits standard ATC®/ATO® fuse panels.

Part No.	Amp	Part No.	Amp
211-10	10	211-20	20
211-15	15	211-30	30



Snap-in Circuit Breakers

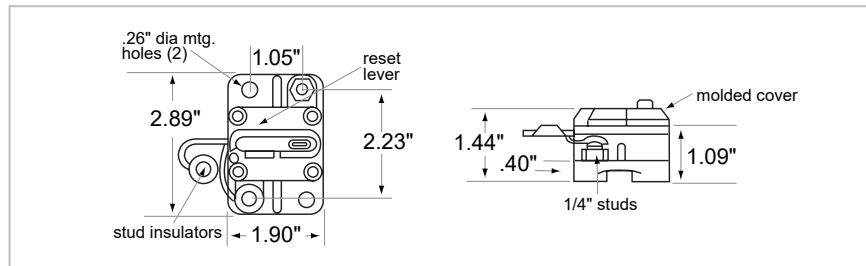
- Remote reset circuit breaker replaces round glass-style fuses in existing fuse blocks.
- Opens automatically on overload.
- Remains open for protection until trouble is corrected.
- Snap-in mounting in standard fuse clips, ¼" diameter x 1¼" long.
- 12V DC.

Part No.	Amp	Part No.	Amp
CBMK10	10	CBMK20	20
CBMK15	15	CBMK30	30

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Surface Mount



FUNCTION CODE

TYPE 1 Automatic Reset

- Will recycle continuously during an overcurrent condition.
- The composite alloy material will deflect and separate the contacts when an overcurrent situation occurs and return to the run mode as it cools. The process will continue until the source of the overcurrent is removed or corrected.

TYPE 3 Manual Reset (switchable)

- Circuit breaker will remain tripped (in the off position) until indicator button or lever is manually reset to activate circuit.
- Unique feature of push-to-trip button to manually disconnect circuit.
- Reset mechanism provides visual indication of tripped condition.



Type 1 - Automatic Reset

- Complies with S.A.E. J1625 specifications.
- Protective stud insulators included.
- Rated to 30V DC.

Part No.	Amp	Part No.	Amp
CBA60	60	CBA80	80
CBA90	90	CBA150	150
CBA100	100		



Type 3 - Manual Reset (switchable)

- Protective stud insulators included.
- Rated to 48V DC.

Part No.	Amp	Part No.	Amp
CBM60	60	CBM80	80
CBM90	90	CBM150	150
CBM100	100		



AGC®, ATO®, Mini® and Maxi™ Fuses

- Used in most domestic and imported cars.
- Meets or exceeds OEM and S.A.E. standards.



IMPORTANT:

- Voltage must match or exceed the fuse being replaced (125V for household current; 12V for auto; 24V for heavy-duty).
- Must match amperage of the old fuse.

Amp Rating	Color	Amp Rating	Color
02	gray	10	red
03	violet	15	lt. blue
04	pink	20	yellow
05	tan	25	natural
7.5	brown	30	green



¼" x 1¼"
Bulk - Min. 100 pcs.

AGC® Fuses

Bulk			
Part No.	Amp	Part No.	Amp
AGC3	3	AGC15	15
AGC5	5	AGC20	20
AGC6	6	AGC25	25
AGC7.5	7.5	AGC30	30
AGC8	8	AGC35	35
AGC10	10	AGC40	40



Bulk - Min. 10 pcs.

ATO® Fuses

Bulk			
Part No.	Amp	Part No.	Amp
ATO3	3	ATO20	20
ATO5	5	ATO25	25
ATO7.5	7.5	ATO30	30
ATO10	10	ATO40	40
ATO15	15		

* Rated to 32 volts.

Maxi Fuse

Bulk			
Part No.	Amp	Part No.	Amp
MAXI20	20	MAXI50	50
MAXI30	30	MAXI60	60
MAXI40	40		

* Rated to 32 volts.

Mini® Fuse

Bulk			
Part No.	Amp	Part No.	Amp
ATM2	2	ATM10	10
ATM3	3	ATM15	15
ATM4	4	ATM20	20
ATM5	5	ATM25	25
ATM7.5	7.5	ATM30	30

* Rated to 32 volts.



Bulk
Min. 10 pcs.



Bulk
Min. 10 pcs.



Cartridge Fuses

- Commonly used to replace fusible link wire in high current applications.
- Female terminated Maxi™ fuses provide increased time delay and low voltage drop protection.
- FLB Series is a 1/8" Bent Male Terminal Fuse with fixed centers at 1.889" (48mm).
- Voltage rating: 32V AC/DC.

PAL Fuses / FLF Series

Part No.	Color	Amp
PAL20	lt. blue	20
PAL30	pink	30
PAL40	green	40
PAL50	red	50
PAL60	yellow	60



PAL Fuses / FLS Series

Part No.	Color	Amp
JCAS30	pink	30
JCAS40	green	40



AGC® Fuse Retainer Panel Mount

- Designed to mount in panel hole of .575" diameter.
- 10A at 250 VAC - CSA.
- Fuse not included.

Part No.	Description
FHHTB26	AGC® Fuse Retainer Panel Mount



ATC®/ATO® Fuse Holder & Accessories

- "Write-in" space available to easily identify the circuits.
- Fuse cover (78370) fits 78365 and 78375.
- Manufactured with standard 3.5" GPT wire.
- Fuses not included.
- Wire color may vary.

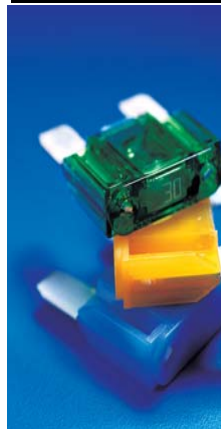
Part No.	Description
FHATO-14	14 gauge, 20 amp max.
FHATO-12	12 gauge, 30 amp max.



ATC®/ATO® Fuse Holder

- A premium quality, insulated and weatherproof ATC® fuse retainer.
- Manufactured with standard 5" of 12 gauge GPT wire.
- 30 amp max.
- Fuse not included.

Part No.	Description
FHWP-12	ATC® Fuse Holder



AGC® Nylon In-line Fuse Holders



- Fuse holders with molded nylon bodies are furnished with one fuse (fuse not assembled inside).
- Made with standard 8" GPT wire.
- 6-10 amp = 14 gauge wire leads
- Wire color may vary.

Part No.	Description
FH	Fuse Holder no fuse

AGC® In-line Fuse Holders



- Heavy-duty bakelite in-line fuse retainer.
- Made with standard 6" GPT wire.
- Fuse included.
- Wire color may vary.
- 15-30 amp = 12 gauge wire leads.

Part No.	Description
FH12	Fuse Holder 12ga



AGC® Adjustable Fuse Holder

- For use with 12 through 18 gauge wire.
- Fuse holder snap locks together for AGC® fuse size ¼" diameter x 1¼".
- Made of nylon and bright yellow in color.
- Holder rates 32 volts, 30 amps.
- Pull force: 5 lbs. min. to separate fuse holder housing with fuse installed.
- UL flammability rating 94V2.
- Crimp to hold wire in place.

Part No.	Description
AFH	Adjustable Fuse Holder



AGC® Weather Resistant Fuse Holder

- One piece molded thermoplastic fuse holder accepts wire sizes 18-12 gauge and is not weather resistant if used with other wire sizes.
- -40°C to 150°C (-40°F to 302°F) temperature range applies to the fuse holder only.
- Fuse holder can be written on to indicate circuit.
- The bright yellow color makes the fuse holder easy to locate.
- Holder rated 32 volts, 30 amps.
- For ¼" x 1¼" fuses.
- Fuse not included.
- Crimp to hold wire in place.

Part No.	Description
FH-HHB	Weather Resistant Fuse Holder





Snap-on ATC®/ATO® Fuse Holder

- Self tapping design requires no wire stripping.
- No special tool is necessary; installs with common pliers.
- For use with 18-14 gauge wire.
- 20 amp max.
- Fuse not included.

Part No.	Description
FHATO-TAP	ATC®/ATO® Fuse Holder

Mini® Fuse Holder



- Perfect weather resistant fuse holder designed for applications where moisture is a problem.
- Cap has positive snap action for tight fit.
- Manufactured with 4" 12 gauge UL 1015 wire.
- 30 amp, 32 volt max.
- For Mini® fuse only (fuse not included).
- Wire color may vary.

Part No.	Description
FHATO-12WR	Mini® Fuse Holder



Maxi™ Fuse Holder

- Fire wall mounting hole permits two or more holders to be mounted together.
- Cover comes with a removable strap.
- Manufactured with standard 5" 6 gauge GPT wire.
- Range: 20 to 80 amp, 32 volt max.
- Fuse not included.
- Wire color may vary.

Part No.	Description
FH-MAX	Maxi™ Fuse Holder with cover

ATC®/ATO® Blade-type Fuse Panels



- Compact, lightweight and rugged enough to use in recreational vehicles, trucks, buses and boats.
- The panels will accept ATC®/ATO® blade type fuses or blade type automatic or manual reset circuit breakers.
- Panels range from 6 to 12 branch protected circuits.
- Easy wiring with ¼" quick connect branch circuit terminal and stud common ground or ¼" quick connect, if preferred.
- No top cover is needed, recessed trifurcate fuse contacts.
- Molded of high grade thermoplastic.
- Rated to 0°C to 65°C (-20°F to 100°F), 105°C (221°F) with a UL rated 94V-0 thermoplastic body.
- Recessed mounting holes.

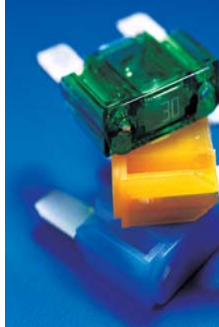


ATO®/ATC® FUSE PANEL:
Common negative bus with "push-on" tabs.
Common positive feed.
Each branch handles up to 30 amps (160 amp max. total).

ATC®/ATO® Blade Type Fuse Panel


Part No.	Position/ Branch	Part No.	Position/ Branch
52-406	6	52-410	10
52-408	8	52-412	12

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Relays

- The best solution for full voltage applicable to head lamps, auxiliary lamps, fog horns, motors for fans, window lifters, air conditioners, heated rear windows, or the myriad of other equipment existing on vehicles today.
- Engineered to deliver superior performance over a long life.



OPERATING CHARACTERISTICS:

Permissible ambient temperature = -40°C to 125°C (-40°F to 257°F)
Mechanical Life-no load = 10,000,000 operations (frequency 18,000 operations/hr)

The following applies for all relays unless otherwise noted:
Operating voltage = 8-16V at 12V; 16-32V at 24V
Contact voltage drop⁽¹⁾ = Typ. 50mV at 10A
Insulation resistance⁽¹⁾ = 20MΩ Min. (DC 500V)
Operate time⁽¹⁾ = 20ms Max.
Release time⁽¹⁾ = 20ms Max.
Resistive load N.O. = 50A at 14V DC
Resistive load N.C. = 30A at 14V DC
Dielectric strength N.O.⁽¹⁾ = AC 500V, 50/60Hz 1 min
Dielectric strength N.C.⁽¹⁾ = AC 500V, 50/60Hz 1 min
Life Expectancy Mechanical = 10,000,000 operations (frequency 18,000 operations/hr)
Life Expectancy Electrical = 100,000 operations (frequency 1,200 operations/hr)

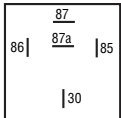
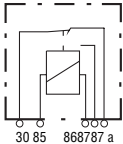
A changeover relay switches current from one user to another. Change-over relays are used for switching from one horn to the fan, from forward to backward movement of the sliding roof, from opening to closing electrically operated windows and for two-stage users such as fans and some rear window heating systems.

Change Over Relays

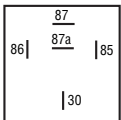
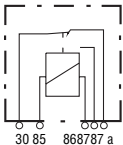
Change Over Relays can be used as: *Change Over Relays, *Normally Open Relays, *Normally Closed Relays.



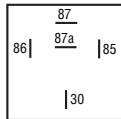
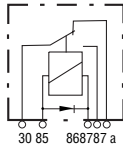
Mounting Bracket	
Part No.	Description
0332209150	12 volt, 30 amp



No Mounting Bracket	
Part No.	Description
0332209151	12 volt, 30 amp



with Diode	
Part No.	Description
0332209135	12 volt, 30/50 amp



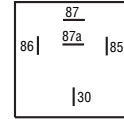
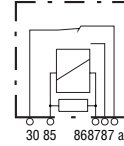
The same as above with a diode. Diode eliminates voltage spikes which can damage sensitive electronic equipment.





Potted with Resistor
Perfect for Marine Use

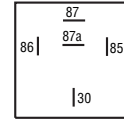
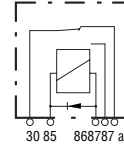
Part No.	Description
0332209159	12 volt, 30/50 amp



Change Over Relay with Diode

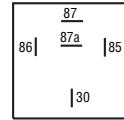
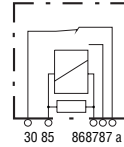
Part No.	Description
0332209135	12 volt, 30/50 amp

Diode eliminates voltage spikes which can damage sensitive electronic equipment.



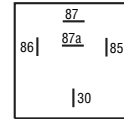
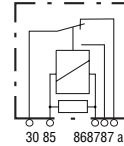
With Resistor

Part No.	Description
0332209137	12 volt, 30/50 amp



Skirted with Resistor and Bracket

Part No.	Description
HE87411	12 volt, 30/50 amp



Pre-made Relay Harnesses

- Molded base 5-pole socket.
- Manufactured with 12", 14 gauge wire leads.
- Wire: black-power, red-ground, white-switch, blue & green-end device.

Part No.	Description
BRS-3000	Relay socket prewired, 14 gauge

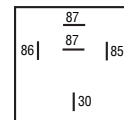
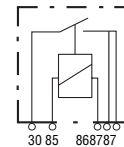
Specialty Relays



Normally Open Relay w/Dual 87 Contacts

- A popular relay for German and European cars.
- Double relay with two prongs will allow operation of two instruments.

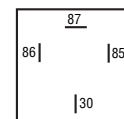
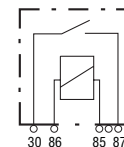
Part No.	Description
03322019150	12 volt, 30 amp (per 87 contact) S.P.S.T.



Normally Open 12V Relay

- Relay has 2-.250" and 2-.375" terminals.

Part No.	Description
0332002150	12 volt, 70 amp S.P.S.T.



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Solenoid Switches

- A current carrying coil of wire, wrapped around an iron core that, when energized, creates a magnetic field which produces a high current and force.
- Solenoids are advantageous because they allow for a low input while generating a larger output, as in the case of a starter solenoid.
- Rated for 12V DC.



Solenoids are similar to a relay, but unlike regular relays, they are used for heavy-duty applications like a motor on-off control. There are five characteristics to choosing a solenoid: intermittent or continuous, insulated or grounded, voltage, number of studs and material housing.

Part No.	Description	Make/Break Rating	Cont.	Stud Count
CH24059	S.P.S.T., Continuous 12V DC	—	85	4
CH24115	S.P.S.T., Continuous 12V DC	—	85	3
CH24063	S.P.S.T., Continuous 24V DC	—	85	4
*CH24117-01	S.P.D.T., Continuous 12V DC	—	85	4

* weatherproof

Screw Type Terminal Blocks



- Rating: 30A, 600V, UL and CSA.
- Center spacing: $\frac{5}{16}$ ".
- Distance between barriers: 0.412".
- Individual gang, not bussed.
- Temperature rating: -40°C to 130°C (-40°F to 260°F).
- Wire size #10 - 22 AWG.
- Mounting: #8 screw.

Screw Type			
Part No.	Gang	Part No.	Gang
—	2	CHM428	8
CHM426	4	CHM429	10
CHM427	6	CHM456	12

MEGA Fuse Holder

- Manufactured from a brass core with a gold or silver plating for superior connectivity.
- Snap-on covers help connection points.
- Gold plated Allen and Phillip screws secure wire connection.

Part No.	Description
02981028HXFC	MEGA Fuse Holder, gold - standard





Stud Type Terminal Blocks

- Premium stud type terminal blocks.
- Rated at 30 amps, 300V UL of 30 amps, 600 volts CSA.
- Studs are on $\frac{7}{8}$ " centers.
- Brass studs with a 10-32 thread are designed with a "dog-point" to easily guide nut on to the thread.
- The studs are directly molded into the base enabling them to withstand 25 inch pound of torque for a solid tight fit.
- Numbers and arrows are molded in the base to allow for positive identification.
- Individual gang, not bussed.
- Temperature rating: 120°C (250°F).
- Hardware is included.

Stud Type			
Part No.	No. of Studs	Part No.	No. of Studs
DC70001	4	DC70004	10
DC70002	6	DC70005	12
DC70003	8	DC70006	14



Stud Type Junction Box

- Molded cover and housing designed to be corrosion resistant.
- Mounting holes $\frac{7}{8}$ " center-on-center.
- Five open, five closed grommets and necessary hardware included.
- Seven independent #10-32 studs.
- 30 Amps max.

Part No.	Description
667-7040	Stud-type Junction Box



Power Distribution Block - .250" Quick-Connect

- Use to reduce the assembly costs of internal wiring.
- 600V: 70A rating; UL/CSA.
- Designed for equipment that requires screw connections in the field.
- Input wire sizes No. 2 to No. 14.
- Four .250" quick-connect terminals per pole. Standard with 2 poles.
- Torque rating of 45 in./lb. max.

Part No.	Description
DC79425	Power Distribution Block - .250" Quick-Connect



Power Distribution Block - 1-way

- Patented feeder bar connector.
- Suitable for field wiring.
- UL rated to General Industrial Class per UL 1059, CSA certified.
- Rating to 600V and 175 amp.
- Line connection: (1) 2/0-#8 CU-AL.
- Load connection: (4) #4-#14 CU-AL.

Part No.	Description
DC79435	Power Distribution Block - 1-way

KATCO 
SERVICE PARTS INC.





- Two and three pin flashers.
- Fits most American cars, light trucks and vans.
- Meet or exceed DOT standards.

Part No.	Description
552	Two pin, 12 volt (552 Type)
550	Three pin, 12 volt (550 Type)



- Meets FMSVSS108-S.A.E. J590b • J945.
- Lasts up to 10 times longer than thermal flashers.
- Variable load-flashes 1 to 10 signaling lamps and 2 indicator lamps.
- Flash rate will not slow down when towing a trailer.
- Precious metal contacts.
- Unique audible click.
- Input lead must be fused at 25 amps.

Part No.	Description
EF-32	Two pin, 12 volt
EF-33	Three pin, 12 volt


Wire Color Codes

Recreational Vehicles 7-pole Connectors			
No.	Color	Circuits	Recommended Wire Gauge
1	White	Ground Return	10 Gauge
2	Blue	Electric Brake	12 Gauge
3	Green	Tail, License & Running Lights	14 Gauge
4	Black	Battery Charge	10 Gauge
5	Red	Stop & Left Hand Turn Signal	14 Gauge
6	Brown	Stop & Right Hand Turn Signal	14 Gauge
7	Yellow	Auxiliary Circuit	14 Gauge

Universal 6-pole Connectors		
No.	Color	Circuits
1	White	Ground Return
2	Brown	Tail Lights
3	Yellow	Left Turn
4	Red	Stop
5	Green	Right Turn
6	Blue	Auxiliary Circuit

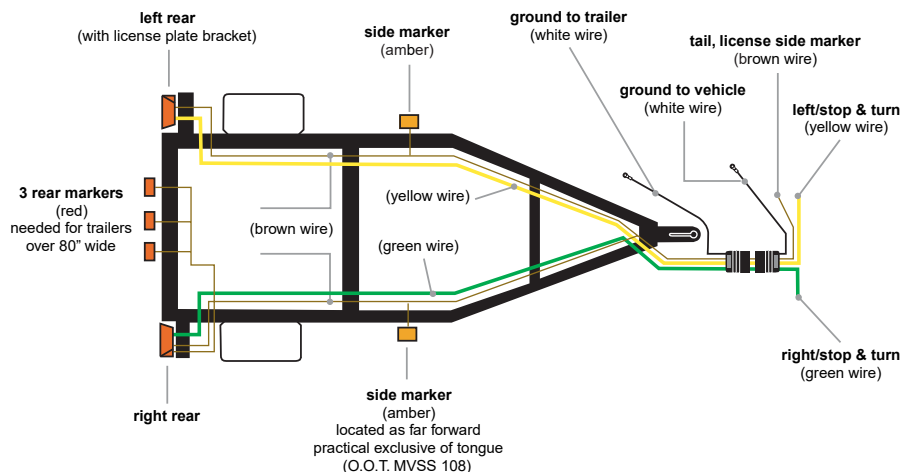
Heavy-duty 7-pole Connectors				
No.	Color	Circuits	Recommended Wire Gauge	FMVSS-121 Anti-lock
1	White	Ground Return	10 Gauge	8 Gauge
2	Black	Clearance, Side Marker & Identification Lamps	12 Gauge	12 Gauge
3	Yellow	Left Turn & Hazard Signal	12 Gauge	12 Gauge
4	Red	Stop Lamps & Anti-lock Devices	12 Gauge	10 Gauge
5	Green	Right Turn Signal & Hazard Signal	12 Gauge	12 Gauge
6	Brown	Tail, Rear Clearance, Marker & License Plate Lamps	12 Gauge	12 Gauge
7	Blue	Auxiliary Circuit	12 Gauge	12 Gauge

Universal 4-pole Connectors		
No.	Color	Circuits
1	White	Ground Return
2	Green	Right Turn & Brake Lights
3	Yellow or Red	Left Turn & Brake Lights
4	Brown	Tail Lights



NOTE: Check all circuits before operating vehicle.

TRAILER WIRING DIAGRAM



Molded Connectors

- All molded connectors are manufactured with 16 gauge tinned copper wire, except the 8-contact connector which is manufactured with 3-12 gauge and 5-16 gauge wires.
- All 4-contact flat connectors are molded with an Easy Grip® for fast and easy disconnect.
- Color coding in accordance with S.A.E. recommended practice.

! SPECIALNOTE !

All *male* connectors are shown on the left and all *female* connectors are shown on the right.
trailer = male tow vehicle = female



1-contact flat connector

1-Contact Flat	
Part No.	Description
AV9900	Male end only with 8" of wire
AV9901	Female end only with 8" of wire



2-contact flat connector

2-Contact Flat	
Part No.	Description
AV8770	Male/Female end with 8" of wire



3-contact flat connector

3-Contact Flat	
Part No.	Description
AV8769	Male end only with 8" of wire
AV8768	Female end only with 8" of wire



4-contact flat connector

4-Contact Flat	
Part No.	Description
AV10222	Male end only with 8" of wire
AV10223	Female end only with 8" of wire

Contacts	Male End	Wire Colors	Female 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



Weather Pack Removal Tools

- Designed for the positive crimping of weather pack terminals.
- Quality tools for long-lasting and dependable service.
- Ratchet assembly assures a perfect crimp every time.

Part No.	Description
T3	Removal Tool, 1/8"





(Female)



(Male)
one-way housing



(Female)



(Male)
three-way housing



male terminal



female terminal



cavity seals



cavity plug

Weather Pack Environmental Connectors

- The weather pack is designed for the engine compartment of a vehicle. Also ideal for use in marine, agriculture and other harsh environmental applications.
- Audible snap-action locking for housing and secondary terminal lock helps reduce terminal stress, provide proper terminal positioning and provides access to the terminals for service.
- Stops in cavities to insure proper insertion of terminals.
- Indexed nylon housings are rated to -40°C to 125°C (-40°F to 257°F).
- Housing, terminals, plugs and seals are sold separately.



Three basic environmental seal tests were performed which involved salt, fog, immersion and immersion flex. Between lab tests and millions of miles logged on current vehicles, these connectors have proven reliable and provide a fail-safe environmental connection.

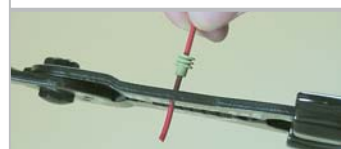
Part No.	Description	Contacts
12015791	Female Housing	1-way
12010996	Male Housing	1-way
12015792	Female Housing	2-way
12010973	Male Housing	2-way
12015793	Female Housing	3-way
12010717	Male Housing	3-way
12010974	Female Housing	4-way flat
12015797	Male Housing	4-way flat
12015798	Female Housing	4-way square
12015024	Male Housing	4-way square
12015799	Female Housing	6-way flat
12010975	Male Housing	6-way flat

Terminals

- Flex-pin and lap-lock design gives these terminals a positive connection rated for a continuous current of 20 amps.
- Dual "tangs" lock terminal into connector cavity.
- Cable seal crimp wings reduce strain on the cable core and assure proper positioning of the cable seal.

Part No.	Description	Gauge
12089188	Female Terminal, sealed	20-18
12124580	Female Terminal, sealed	16-14
12124581	Female Terminal, sealed	12
12089040	Male Terminal, sealed	20-18
12124582	Male Terminal, sealed	16-14
12124587	Male Terminal, sealed	12

Assembly Instructions



1. Apply seal to cable, before stripping insulation.



2. Crimp terminal onto stripped wire and seal and insert into connector housing.



3. Once all terminals are inserted, lock wire and seals as shown above.



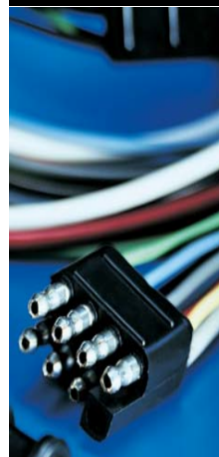
4. Once steps 1, 2, and 3 are completed for male and female housings connect together until locked.

Cavity Seals & Plugs

- Self-lubricating, silicone seals have multiple "ribs" to guard against dust, moisture, engine compartment fluids and chemicals.
- Cavity seals are crimped to the terminal to assure positive position of the seal in the housing cavity.
- The cavity plug is designed to fill and seal unused cavities.

Part No.	Style	Gauge
12015323	Green	20-18
12010293	Grey	16-14
12015193	Blue	12
12010300	Green Cavity Plug	—

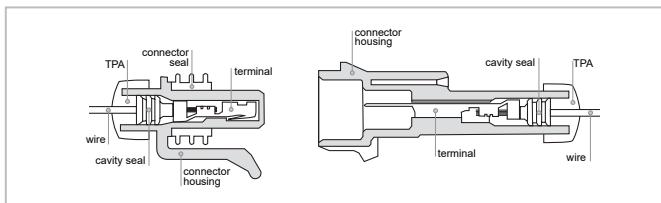
KATCO
SERVICE PARTS INC.





Metri-Pack™ Sealed 280 Series Connector Housings

- Positive locking action ensures proper connection between housings.
- Made from heat stabilized, impact modified Polyamide 66 material.
- Tri-ribbed seal on female housing aids in resistance to harsh environments.
- Temperature rating: -40°C to 125°C (-40°F to 257°F).
- Available in 1 through 5 connector housings.



Part No.	Description	Contacts
12065172	Female Housing	1-way
12065171	Male Housing	1-way
15300027	Female Housing	2-way
15300002	Male Housing	2-way
12040977	Female Housing	3-way
15300003	Male Housing	3-way
12129565	Female Housing	4-way
12129600	Male Housing	4-way
12084891	Female Housing	5-way
12186400	Male Housing	5-way

Terminal Position Assurance - TPA

- Firmly holds terminals in connector housings.
- Helps reduce tension between terminal and wire connection.
- Made from heat stabilized, impact modified Polyamide 66 material.
- Temperature rating: -40°C to 125°C (-40°F to 257°F).



Part No.	Description	Contacts
12065249	Male & Female	1-way
15300014	Male & Female	2-way
12034145	Female	3-way
15300015	Male	3-way
15300016	Female	4-way
12092733	Male	4-way
15300017	Female	5-way
12084673	Male	5-way

Terminals

- Terminals are push-to-seat with a continuous current 30 amp rating.
- Singular "tang" locks terminal into housing, ensuring proper insertion.
- Tin-plated for added protection from corrosion.



Part No.	Description	Gauge (mm ²)
12077412	Female Terminal, sealed	12-14 (3.0-2.0)
12077411	Female Terminal, sealed	16-18 (1.0-.80)
12084201	Female Terminal, sealed	20-22 (.50-.35)
12048254	Male Terminal, sealed	12-14 (3.0-2.0)
12040559	Male Terminal, sealed	16-18 (1.0-8.0)
12124977	Male Terminal, sealed	20-22 (.50-.35)



Metri-Pack Removal Tools

- Designed for the positive crimping of Metri-Pack™ terminals.
- Quality tools for long-lasting and dependable service.
- Ratchet assembly assures a perfect crimp every time.

Part No.	Description	Gauge
T4	Metri-Pack™ Removal Tool	—



cavity seals



cavity plug

Cavity Seals & Plugs

- Self-lubricating, silicone seals have multiple "ribs" to guard against dust, moisture, engine compartment fluids and chemicals.
- Cavity seals are crimped to the terminal to assure positive position of the seal in the housing cavity.
- The cavity plug is designed to fill and seal unused cavities.

Part No.	Style	Gauge
12041351	Green	18-20
12015393	Grey	16-14
12015193	Blue	12
12010300	Green Cavity Plug	—



Trailer Connector Adapters

- Innovative 1-piece molded design adapts 7, 6 or 4-way trailer connectors.
- Manufactured to interchange with standard trailer and molded connectors.
- Manufactured from nylon material for corrosion resistance.
- Socket material and molded connector wire lengths may vary, but function remains the same.



Part No.	Description
12-717	6-way round pin to 4 flat molded conn
12-716	7-way mobile home/RV to 4 flat molded conn
12-729	7-way mobile home/RV to 6-way round pin



plug



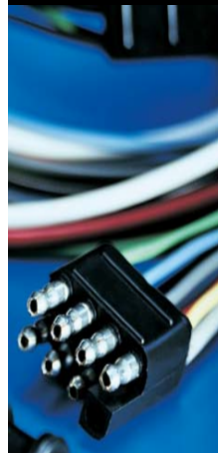
socket

Small Trailer Connectors

- Two- and four-contact 20 amp connectors.
- Polarized contacts with screw connections protected by rubber boots.
- Length 2 $\frac{1}{16}$ ".
- 6, 12 and 24 volt applications.
- Plug and socket supplied as complete unit.

Part No.	Description
11-200	2 contact, complete unit
11-405	4 contact, complete unit

KATCO SERVICE PARTS INC.





7-contact Truck/Trailer Connectors

- 40 amp connector with heavy gauge drawn steel plug and socket.
- Interchanges with most other 7-contact connectors.
- Has a polarized round brass contact.
- Socket cover locks in place and keeps out elements when not in use.
- Mounting holes 2¹⁵/₁₆" on centers.
- Cadmium plated.

Part No.	Description
11-702	Plug
11-721	Socket
11-763	Protector Spring
11-761	Connector boot



7-contact Truck/Trailer Connectors

- Seven-contact plug and socket.
- Nylon material helps eliminate corrosion, rust and poor appearances.
- 6 terminals accept up to 10 gauge, 1 up to 8 gauge.
- Labeled to industry standards.
- Rated to 40A continuous at 6-28V DC.

Part No.	Description
11-710	Nylon Plug
11-724	Nylon Socket, Solid Pin



7-contact Mobile Home/RV Connectors

- Seven contact RV connector and plug.
- Nylon material helps to eliminate corrosion, rust and poor appearance.
- Design incorporates dual handles for ease of insertion and removal.
- Labeled to industry standards.

Part No.	Description
12-706	Nylon Plug
12-707	Nylon Socket
12-7110	Mounting Bracket



OEM Style RV Socket and Harness Kit

- Kit includes socket, 4-ft harness with connector and mounting bracket
- The 7-wire leads are color-coded to RVI standards for ease of installation.
- Assembly is corrosion resistant featuring tin-plated copper alloy terminals and silicone at the rear of the socket to complete a sealed connection.
- Fits many popular OEM truck applications.

Part No.	Description
11-898P	OEM Style RV Socket and Harness Kit



6-contact Metal Connectors & Boots

- 35 amp connector with die cast metal construction and spring-loaded cover.
- Round brass contacts are interchangeable with other popular 6-way connectors.
- Mounting holes $2\frac{15}{16}$ " on centers.



Part No.	Description
11-604	Plug
11-607	Socket
11-617	Mounting Bracket
11-616	Boot



4-contact Round Trailer Connector

- Rated to 35 amps at 12-24 volts with a zinc metal construction.
- Spring-loaded cover protects split pin design.
- Extended barrel of socket supports and conceals terminal connection.
- Two $\frac{1}{4}$ " mounting holes $2\frac{7}{8}$ " center-on-center.



Part No.	Description
11-402	Plug
11-404	Socket

Single-contact Trailer Connectors

- Ideal for almost all heavy-duty power applications.
- Provides power from battery to auxiliary equipment.
- Interchangeable with competitive brands.
- Rated for 300A continuous duty.
- Pin accepts up to 2/0 cable (solder connection) and grounding lug is 4-2 gauge cable.



Part No.	Description
11-852	Plug
11-851	Socket



LEDLIGHTS

Longer Life LED lamps have a 100,000 hour rated life, which results in lower long-term costs. While traditional incandescent lamps last 1-2 years before replacement is needed, LED lamps can have a life expectancy of up to 20 years.

Brighter Illumination LED lamps are brighter and illuminate faster with a lower current draw. Incandescent bulbs can lose up to 90% of their energy in light blocked by colored lenses; LEDs deliver 100% of their energy as colored light.

Greater Durability LED lamps are shock and vibration resistant. Most circuits are epoxy resin coated to resist moisture and corrosion. For added assurance, polycarbonate lenses and housings are sonically sealed.



4" Round LED Stop, Tail, Turn Lamps

- These low count LED lamps are manufactured with a high impact polycarbonate lens that is sonically sealed to housing.
- The super 10 LED provides superior illumination, lasting up to 100,000 hours.
- They are rated for 8-14 volts DC and are a cost effective retrofit for your current lighting.
- Female receptacles are grease filled and the connections are potted for longevity.
- Use standard 4" grommet and male pigtails for mounting and connection.
- SAE and DOT rated.

Part No.	Description
STL43RB	LED, 4" Red, 10 diode
STL43AB	LED, 4" Amber, 10 diode



4" Round Steel Case LED Stop, Tail, Turn Lamp

YEAR

- This low count 12 diode LED lamp is manufactured with a high impact polycarbonate lens that is sonically sealed and encased within a powder-coated steel housing.
- The theft resistant lamp provides up to 100,000 hours of illumination and is rated for 8-14 volts DC.
- Wire leads are hard-wired directly into lamp for a weather resistant connection.
- SAE and DOT rated.

Part No.	Description
STL13RFB	LED, 4" Red, 7 diode



4" Sealed LED Stop, Tail, Turn Lamp

- 100,000 hour rated life.
- High impact polycarbonate lens and housing sonically sealed.
- Wide spectrum illumination 5mm LED.
- Greased filled terminals.
- Uses standard male pigtail and grommet
- DOT and SAE rated.
- FMVSS 108 US / CMVSS 108 Canadian compliant.

Part No.	Description
STL55RB	Red LED Lamp, 21 diode, 4"
STL55AB	Amber LED Lamp, 21 diode, 4"





Oval LED Stop, Tail, Turn Lamps

- These low count LED lamps are manufactured with a high impact polycarbonate lens that is sonically sealed to housing.
- The super 10 LED provides superior illumination, lasting up to 100,000 hours.
- They are rated for 8-14 volts DC and are a cost effective retrofit for your current lighting.
- Female receptacles are grease filled and the connections are potted for longevity.
- Use a standard oval grommet and male pigtails for mounting and connection.
- SAE and DOT rated.

Part No.	Description
STL72RB	LED, Oval Red, 12 diode
STL72AB	LED, Oval Amber, 12 diode

Oval Sealed LED Stop, Tail, Turn Lamp

- 100,000 hour rated life.
- High impact polycarbonate lens for superior light distribution and visibility.
- Epoxy resin sealed electronics are moisture, corrosion and vibration proof.
- Grease filled terminals.
- Uses standard male pigtail, grommet , or bracket.
- DOT and SAE rated.
- FMVSS 108 US / CMVSS 108 Canadian compliant.



Part No.	Description
STL70RB	Red LED Lamp, 48 diode
STL70AB	Amber LED Lamp, 56 diode



Rectangle LED, Stop, Tail, Turn Lamp

- 100,000 hour rated life.
- Can be used as a marker lamp or rear tail lamp.
- High impact polycarbonate lens & housing sonically sealed.
- Moisture, vibration and corrosion proof.
- Uses standard 3-contact male pigtail and grommet.
- Meets DOT and SAE specifications.



Part No.	Description
STL35RB	Red LED Lamp, 16 diode
STL35AB	Amber LED Lamp, 16 diode

Pigtail Plugs

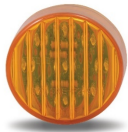
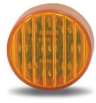
- 3-contact pigtails for use with standard stop, tail, turn lamps.
- Plugs are manufactured to replace existing pigtails or new installation.
- Both have a 11" of lead wire.
- Each includes the grounding wire pre-terminated with a ring terminal.



Part No.	Description
PM431-491	3-contact Plug

KATCO SERVICE PARTS INC.





2" & 2½" Sealed LED Clearance Marker Lamp

- 100,000 hour rated life.
- High impact polycarbonate lens and housing sonically sealed.
- Grease filled terminals.
- Uses standard male pigtail and grommet
- DOT and SAE rated.

Part No.	Description
YA24163R	Red LED Lamp, 13 diode 2½"
YA24163A	Amber LED Lamp, 13 diode 2½"
YA24164R	Red LED Lamp, 9 diode 2"
YA24164A	Amber LED Lamp, 9 diode 2"



2" & 2½" Sealed Beehive LED Clearance Marker Lamp

- 100,000 hour rated life
- Used as rear clearance marker lamps for trailers 30-ft or longer.
- High impact polycarbonate lens & housing sonically sealed.
- Uses 2-contact male pigtail and grommets
- Meets DOT and SAE specifications.

Part No.	Description
MCL21RB	Red LED Beehive, 9 diode, 2"
MCL21AB	Amber LED Beehive, 9 diode, 2"
MCL23RB	Red LED Beehive, 13 diode, 2½"
MCL23AB	Amber LED Beehive, 13 diode, 2½"



Rectangle LED Clearance Marker Lamps

- The acrylic, reflector lens of this lamp mounts over high impact plastic housing, using a stainless steel bezel.
- A popular choice found on Peterbilt® trucks, but can also be used to upgrade current cab marker lamp.
- The hard wired connections are sealed in epoxy for added weather resistance and shock absorption.
- Easily mounts with standard 4" center-to-center mounting holes.
- Rated for 8-14 volts DC and up to 100,000 hours of life.
- SAE and DOT rated.

Part No.	Description
YA24170R	LED, Rectangle Red, 12 diode
YA24170A	LED, Rectangle Amber, 12 diode





LED Clearance Marker Lamp — Scalloped

- 100,000 hour rated life.
- Epoxy resin sealed circuit board for corrosion and vibration resistance.
- Acrylic lens snap-seals onto ABS housing.
- 7" lead wire and self grounding.
- DOT, S.A.E. and PC rated.

Part No.	Description
YA24168R	Red LED Lamp, scalloped, 13 diode
YA24168A	Amber LED Lamp, scalloped 13 diode



Thin-line Sealed LED Clearance Marker Lamp

- 100,000 hour rated life.
- High impact polycarbonate lens and housing sonically sealed.
- Use pigtail and mounting bracket combo
- DOT, SAE and PC rated.

Part No.	Description
YA24161R	Red LED Lamp, 12 diode
YA24161A	Amber LED Lamp, 12 diode



Mini LED Clearance Marker Lamp

- 100,000 hour rated life.
- Used as an identification marker lamp when space is limited.
- High impact, polycarbonate housing with acrylic lens.
- Uses standard 2-contact male pigtail and bracket
- Meets DOT and SAE specifications.

Part No.	Description
YA24162R	Red, LED Lamp, 1 diode
YA24162A	Amber, LED Lamp, 1 diode



4" Round LED White Backup Lamp

- A high count, white, LED diode lamp that is durable and affordable.
- The polycarbonate lens is sonically sealed to housing.
- A direct replacement for the standard 4" incandescent lamp; can also be used as a back-up light or auxiliary lighting.
- Female receptacle is grease filled and potted for resistance to corrosion.
- Uses standard 4" grommet and male pigtails
- Rated to 8-14 volts DC and up to 100,000 hours of life. SAE and DOT rated.

Part No.	Description
BUL23CB	LED, 4" Crystal, 23 diode

KATCO SERVICE PARTS INC.



INCANDESCENT LIGHTS

Several styles of DOT-certified truck and trailer lamps, lamp accessories, reflectors and replacement mirrors are offered. These products are heavily used in the trucking industry, but can be used by construction equipment and farm implement original equipment manufacturers.

Resistant to shock, vibration, heat, moisture and corrosion, these lighting products provide a lifetime of trouble-free performance.



4" Sealed Stop, Tail, Turn Lamp

- Hermetically sealed lamp.
- Rugged, safe construction able to absorb vibration & road shock.
- Uses all standard 3-contact male pigtail connectors
- Grease filled terminals to prevent corrosion.

Part No.	Description
PM426R	Red Lamp, 4"
PM426A	Amber Lamp, 4"



Oval Stop, Tail, Turn Lamps

- Hermetically sealed polycarbonate housing & lens to resist moisture.
- Compatible with competitive components.
- Uses standard 3-contact male pigtail connector
- Grease filled terminals to prevent corrosion.

Part No.	Description
PM421R	Red Lamp, oval
PM421A	Amber Lamp, oval



Steel Base Stop, Tail, Turn Lamp — Economy Steel Lamp

- Durable black steel construction.
- Easily mountable.
- Manufactured with an acrylic snap-on style lens.
- Pre-wired for fast and easy installation.

Part No.	Description
PM413	Red Lamp, 4"



Universal 3-stud Mount Lamp

- Mounted on back of truck for tail lamp applications.
- High impact, polycarbonate housing with acrylic lens.
- Triangle, three-stud mounting pattern.
- Bulb: 2057 for stop and tail; 1156 for reverse light.

Part No.	Description
PM445	Red, Universal 3-stud Mount Lamp





2" & 2½" Sealed Clearance Marker Lamp

- Constructed to fit all popular standard grommet & bracket mounting systems.
- Hermetically sealed housing and polycarbonate lens.
- Uses all standard two contact male pigtail connectors
- Grease filled terminals to prevent corrosion.
- 2" Lamp fits in smaller places where 2½" will not fit.

Part No.	Description
PM142R	Red Lamp, 2½"
PM142A	Amber Lamp, 2½"
PM146R	Amber Lamp, 2"
PM146A	Red Lamp, 2"



Sealed Side Marker & Turn Signal Lamp

- Placed at mid-trailer for turn signal or rear vehicle applications.
- Shock resistant design for bulb longevity.
- High impact polycarbonate lens and housing sonically sealed.
- Uses standard oval grommet and 3-contact male pigtail
- Meets DOT and SAE AEP2 specifications.

Part No.	Description
PM352R	Red, Marker Lamp
PM352A	Amber, Marker Lamp

Pigtail Plugs

- Choose from a variety of pigtail plugs to hook-up your single or dual function lamps.
- Each includes the grounding wire pre-terminated with a ring terminal.
- The in-line features 6.5" of lead wire, while the others feature 11" of lead wire.



Part No.	Description
PM142-49	2-contact Plug

Pigtail Plugs

- 3-contact pigtails for use with standard stop, tail, turn lamps.
- Plugs are manufactured to replace existing pigtails or new installation.
- Both have a 11" of lead wire.
- Each includes the grounding wire pre-terminated with a ring terminal.



Part No.	Description
PM431-491	3-contact Plug

KATCO SERVICE PARTS INC.





2 Bulb Clearance Marker Lamp — Scalloped

- Manufactured with a scalloped-style lens.
- Lamp is constructed of acrylic lens that snap-seals into the ABS housing.
- Lamp includes pre-attached corrosion-resistant pigtails.
- Socket construction prolongs bulb life.

Part No.	Description
PM138A	Amber Lamp, Scalloped
PM138R	Red Lamp, Scalloped



2 Bulb Clearance Marker Lamp — Oval

- Lamp is constructed of a Duramold plastic housing with snap-on lens.
- Lamp includes pre-attached corrosion-resistant pigtails.
- Socket construction prolongs bulb life.

Part No.	Description
PM135A	Amber Lamp, Oval, 2 bulb
PM135R	Red Lamp, Oval, 2 bulb



Clearance Marker Lamps — Rectangle

- The polycarbonate lens of this lamp is sonically sealed to high impact housing.
- The dual #193 bulbs are sealed in epoxy for added weather and shock resistance.
- Thin construction allows for installation in a variety of places where space is a concern.
- Easily mounts using a standard pigtail and bracket combination
- Rated for 8-14 volts DC.
- SAE, DOT and PC rated.

Part No.	Description
PM154R	Red, Thin-line
PM154A	Amber, Thin-line





Clearance Marker Lamps — Bar Style

- Mounted on rear of trailers to indicate the presence of wide vehicle.
- Mounted 6" on center.
- Meets DOT and SAE P2, P3 specifications.

Part No.	Description
PM104-3R	Low profile, 2½" Clearance Marker
PM104-3A	Narrow, trim-line Clearance Marker
PM104-3R	Narrow, trim-line Clearance Marker



Square Submersible Boat Trailer Lamps

- Built-in Class "A" reflectors on rear and side lenses.
- Popular square design.
- Designed and manufactured for durability and strength.

Part No.	Description
PM441LW	Submersible Trailer Lamp w/License Window
PM441	Submersible Trailer Lamp



Square Stop, Tail, Turn Lamps

- Built-in Class "A" reflectors on both rear and side lenses.
- Easy insertion points for wire, eliminating need for pigtail connectors.
- Easy installation with 2-stud mounting.

Part No.	Description
PM440	Stop, Tail, Turn Lamp w/Side Marker
PM440L	Stop, Tail, Turn Lamp w/Side Marker & License Window

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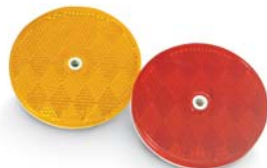




3" Stick-on Round Reflectors

- Adhesive backing effortlessly mounts to any flat surface for permanent usage.

Part No.	Description
PM475R	Red Reflector
PM475A	Amber Reflector



3/4" Center Mount Reflectors

- Hermetically sealed center mount reflector.
- Mounts quickly with a #10 screw (not included).

Part No.	Description
PM476R	Red Reflector, 3/4"
PM476A	Amber Reflector, 3/4"



4 3/8" Stick-on Rectangle Reflectors

- Versatile mounting option lets you apply the reflector with either the adhesive backing or mounting holes.
- Mounting holes require #8 screws (not included).

Part No.	Description
PM487R	Red Reflector
PM487A	Amber Reflector



3M Scotchlite™ Reflective Tape

- Red/white conspicuous tape is designed to mark the side and rear perimeter of trucks and trailers for enhanced visibility and detection.
- 100% plastic, non-corrosive and edge sealed.
- Alternates 11" red and 7" white, also available in alternating 6" red and 6" white (ideal to sell by the foot, one red and one white = 1-ft).
- Certified to meet the NHTSA standards.

Part No.	Description	Size
3M985-32ES	Red/White Reflective Tape	Bulk Roll- 2" x 150-ft (alternates 6" red, 6" white)



A National Highway Traffic Safety Administration (NHTSA) federal rule effective December 1, 1993 requires new truck trailers to be marked with highly reflective conspicuity material on the trailers sides and rear. Although this new visibility standard does not apply to trailers currently in use or those manufactured prior to 12/1/93 many fleet owners will want to retrofit their trailers. More than ¾ of heavy-vehicle rear-end fatalities occur at night. Liability claims are 35% higher for night time accidents. The average car into truck accident damages total \$265,000. Drivers rely on what they can see, and reflectorized tape provides faster, more accurate decision-making by providing better visual information.





4" Sealed Reverse Lamp

- Hermetically sealed lamp.
- Rugged, safe construction able to absorb vibration and road shock.
- Uses all standard three contact male pigtail connectors
- Grease filled terminals to prevent corrosion.

Part No.	Description
PM415	Crystal Lamp, 4"



Oval Reverse Lamp

- Hermetically sealed housing and lens to resist moisture.
- Compatible with competitive components.
- Uses standard 3-contact male pigtail connector
- Grease filled terminals to prevent corrosion.

Part No.	Description
PM416	Crystal Lamp, Oval



2" & 2½" Sealed Clearance Marker Lamp

- Constructed to fit all popular standard grommet and bracket mounting systems.
- Hermetically sealed housing and lens.
- Uses all standard two contact male pigtail connectors
- Grease filled terminals to prevent corrosion.
- 2" Lamp fits in smaller places where 2½" will not fit.

Part No.	Description
PM142C	Crystal Lamp, 2½"
PM146C	Crystal Lamp, 2"



Rubber Tractor Light

- All-purpose Par 36 sealed beam tractor with rubber-coated housing.
- Shock absorbing body provides protection.
- 12 volt, sealed beam #4411 light.
- Unit is mounted on swivel base bracket.

Part No.	Description
PM508	Tractor Light

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Rectangle License Lamp

- Hermetically sealed two-bulb design.
- Direct replacement for competitive units.

Part No.	Description
PM154C	License Lamp



License Illuminator

- Chrome-plated steel construction and flat mounting bracket provide shock-proof durability.
- Equipped with a clear lens.
- Can be used for various applications.

Part No.	Description
PM435	License Illuminator



Chrome License Plate Lamp

- For illumination of license plate.
- Metal base mount with a chrome plastic housing.
- Meets DOT and SAE specifications.

Part No.	Description
PM436	Chrome License Plate Lamp



License/Utility Light

- Fits GM/GMC truck with step bumper.
- Bulb: 67
- 12 volt DC.

Part No.	Description
PM394C	License/Utility Light





Back-up Alarms

- Heavy-duty steel housing construction for tough applications.
- Compact design.
- Includes universal mounting brackets for maximum location options.
- Alarms are covered by a 2 year warranty.



Part No.	Description	dB	volts	SAE type
ECSA931N	Self-adjusting, heavy-duty back-up Alarm	82-102dB	12-48V	B-D
EC520	Light-duty back-up Alarm	97dB	12-24V	C



Back-up Switches

- Designed and manufactured for vehicles not equipped with back-up circuits.
- Single pole, double throw (S.P.D.T.).

Part No.	Description
CH8486	Light-duty back-up Alarm Switch



SAE J1318 STROBE RATING

CLASS I- Primary warning lamps for authorized emergency vehicles. Four times brighter than CLASS II. Ten times brighter than CLASS III.

CLASS II- Primary warning lamps for authorized maintenance vehicle.

CLASS III- Primary warning lamps for vehicles that are authorized to display warning lamps.



Medium Profile Beacon

- This economical and compact strobe (5.5" x 2.8") operates as a single flash, producing 1.5 joules.
- An integral flange allows for flush or 1" pipe mounting and is pre-wired for ease of installation.
- The polycarbonate lens illuminates 360° and nylon base provides vibration protection.
- It is designed to meet UL 583 for class E, ES and EE industrial trucks and meets SAE J1455, J1318 and is CE certified.
- Reverse polarity and voltage transient protected.

Part No.	Description	Joules	volts	FPM
EC6263A	Medium Profile Beacon	1.5	12-80V	85 ± 15



Low Profile Beacon, Permanent & Magnet Mount

- An economical, light-duty strobe (3.9" x 5.1") that features a field replaceable bulb that requires no tools.
- This strobe covers all low intensity applications while operating at 12-80 VDC and 70 FPM producing 1.5 joules.
- A UV stabilized polycarbonate lens with a nylon base provides vibration resistance.
- Designed to meet SAE 1455 (transient protection), J1318 (vibration and corrosion resistance) and tested to UL 583 safety standard for type E, ES and EE for industrial trucks.
- Reverse polarity and voltage transient protected.
- Magnet mount includes a 15-ft straight cord with 12V lighter attachment.

Part No.	Description	Joules	volts	FPM
EC6465A	Low Profile Beacon	1.5	12-80V	70 ± 15
EC6465MGA	Low Profile Beacon, mag mnt	1.5	12-80V	70 ± 15

Auxiliary 12 Volt Lighter Socket

- Lighter plugs with protective snap-on cover.
- Standard .250" push-on terminals for wire connection.
- 1.100" mounting hole.



Part No.	Description
DC73549	Auxiliary 12 Volt Lighter Socket





Medium-duty Beacon, Permanent & Magnet Mount

- Designed to meet most side-of-the-road warning applications, this low profile beacon (4.9" x 6.5", & 6.7" x 6.5") produces either double or quad flash.

Part No.	Description	volts	FP
EC7960A	dble/quad beacon	12-48V	11



15" Rotating Minibar, Permanent & Magnet Mount

- The rotating minibar (4.48" x 14.75" x 8.27") is a compact, single flash, 15" minibar that is available in either permanent or vacuum mount (rated to 65 MPH).
- It features a UV and heat resistant silicon belt with stainless steel bearings for smooth and quiet operation.
- Also incorporated into the efficient design are two 55-watt halogen bulbs that produce 480 flashes per minute.
- It meets SAE J845 Class 1 output.
- Vacuum mount includes a 15-ft straight cord with 12V lighter attachment for 12V plug.

Part No.	Description	volts	RPM	FPM
PR5211	15" minibar	12V	160	480
PR5211A	15" minibar vac mag	12V	160	480



22" Rotating Minibar

- A high visibility warning light available at an economical price.
- An EM/RFI noise suppression helps reduce the sound of the heavy-duty, self-lubricating gear-drive rotator.
- The rugged aluminum base and polycarbonate lens houses two rotating 50-watt halogen bulbs with a fixed center mirror.
- Meets SAE J845 Class 1.

Part No.	Description	volts	RPM	FPM
DC10055	22" Rotating Minibar	12V	—	400

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2" Rubber Grommet for Clearance Marker Lamps

- This round rubber grommet is manufactured to fit standard 2" LED and incandescent clearance marker lamps.
- New grommets restore shock protection, security and improve vehicle appearance.

Part No.	Description
PM146-18	2" Round Rubber Grommet



2½" Rubber Grommet for Clearance Marker Lamps

- This round rubber grommet is manufactured to fit standard 2½" LED and incandescent clearance marker lamps.
- New grommets restore shock protection, security and improve vehicle appearance.

Part No.	Description
PM142-18	2½" Round Rubber Grommet



4" Rubber Grommet for Stop, Tail, Turn Lamps

- This round rubber grommet is manufactured to fit standard 4" LED and incandescent stop, tail, turn lamps.
- New grommets restore shock protection, security and improve vehicle appearance.

Part No.	Description
PM426-18	4" Round Rubber Grommet



Oval Rubber Grommet

- Grommet is manufactured to fit standard oval LED and incandescent stop, tail, turn lamps.
- New grommets help restore shock protection, security and improve vehicle appearance.

Part No.	Description
PM421-18	Rubber Grommet for Oval Light





Thin-line Chrome Mounting Bracket

- Snap-in lamp design allows for quick installation.
- Mates with Thin Line LED clearance marker lamps
- Includes female pigtail with 6" lead wire.

Part No.	Description
PM154-10K	Mounting Bracket, chrome



Mini Rectangular Chrome Mounting Bracket

- Clearance marker lamp brackets.

Part No.	Description
PM150-102	Mini Chrome Mounting Bracket



Single Contact

- Pigtail wire assembly with terminal attached.
- Socket No. 3432, 3433, 3452, 3453, 3460, 3461, 3463, 3470, 3471.
- Lamp No. 63, 67, 81, 89, 93, 209, 1003, 1073, 1129, 1133, 1141, 1156.
- SMP: S-23; Wells: 201; Borg: PT5, Nieh: LS-102

Part No.	Description
700B	Single Contact



Double Contact

- Pigtail wire assembly with terminals attached.
- Socket Nos. 3422, 3430, 3434, 3435, 3436.
- Lamp Nos. 64, 68, 82, 88, 90, 94, 210, 1004, 1034, 1074, 1130, 1154, 1157, 1158, 1175.
- SMP: S-24; Well: 200; Borg: PT7, Nieh: LS-150.

Part No.	Description
701B	Double Contact



Injector Solenoid Connector

- EV1 style connector.
- Fits multi-port injectors GM 1711799 1993-86 (replaces GM 12085491).
- Bosch & Lucas Injectors on Chrysler, Ford products, AMC/Jeep, Datsun/Nissan, Porsche, Toyota, VW and Volvo.

Part No.	Description
DC73522	Injector Solenoid Connector

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Halogen Bulbs

- Halogen lights are one of the most widely used illumination devices for forward lighting in recent models for the transportation industry.
- They offer longer life (2 to 3 times as long as an incandescent bulb) and better efficiency (10% to 20% more efficient).
- These halogen lights are offered in two different styles, a single and dual filament.
- The single filament is designed specifically for either the high or low beam while the dual filament functions as both.

Part No.	Description
9005	Halogen Capsule, HI Beam
9006	Halogen Capsule, LO Beam
9007	Halogen Capsule, HI-LO Beam



Halogen- High/Low Beam

- For automotive head lamp applications.
- 65/45 Watt, 12 volts.
- Average life (hours):150/320.
- 1 per box.

Part No.	Description
9004	Halogen - High/Low Beam



Halogen Bulb

- For automotive, motorcycle and auxiliary lighting.
- 55 Watt, 12 volts.
- 12 volts average life (hours): 225.
- H3 bulb.
- 1 per box.

Part No.	Description
H3-55W	Halogen Bulb



Clear Auto Bulb - DC Index Bulb

- 12.8 volts, 2.10 amp.
- Filament shape C-6.
- Average life (hours): 600.
- 10 per box.

Part No.	Description
1157	Clear Auto Bulb - DC Index Bulb





Booster Cables

- Superior quality, tangle free and extremely flexible.
- 100% pure copper cable clamps are color-coded for easy identification.
- Fits top post and side post batteries.

Part No.	Length (ft.)	Gauge	Insul. Color	Clamp (amps)	Package
TL412	12	4	White/Black	400	Retail Box
TL416	16	4	White/Black	400	Retail Box
TL420	20	4	White/Black	400	Retail Box
WTL416	16	4	White/Black	500	Retail Box
WTL220	20	2	Red/Black	500	Retail Box

Copper Die Cast Battery Terminals

- Terminals can be crimped or soldered.
- All terminals can be crimped with crimper.
- Includes 1/2" bolts.
- Bolts and nuts shipped loose piece.



Straight Barrel

Part No.	Cable Size	Polarity	Part No.	Cable Size	Polarity
SBT6U	6 ga.	Pos. & Neg.	SBT2/0P	2/0 ga.	Pos.
SBT4U	4 ga.	Pos. & Neg.	SBT2/0N	2/0 ga.	Neg.
SBT1P	2-1 ga.	Pos.	SBT3/0P	3/0 ga.	Pos.
SBT1N	2-1 ga.	Neg.	SBT3/0N	3/0 ga.	Neg.
SBT1/0P	1/0 ga.	Pos.	SBT4/0P	4/0 ga.	Pos.
SBT1/0N	1/0 ga.	Neg.	SBT4/0N	4/0 ga.	Neg.



Parallel (Flag)

Part No.	Cable Size	Polarity	Part No.	Cable Size	Polarity
SBTF1/0P	1/0 ga.	Pos.	SBTF2/0P	2/0 ga.	Pos.
SBTF1/0N	1/0 ga.	Neg.	SBTF2/0N	2/0 ga.	Neg.



Left Angle

Part No.	Cable Size	Polarity	Part No.	Cable Size	Polarity
SBTL1/0P	1/0 ga.	Pos.	SBTL2/0P	2/0 ga.	Pos.
SBTL1/0N	1/0 ga.	Neg.	SBTL2/0N	2/0 ga.	Neg.



Right Angle

Part No.	Cable Size	Polarity	Part No.	Cable Size	Polarity
SBTR1/0P	1/0 ga.	Pos.	SBTR2/0P	2/0 ga.	Pos.
SBTR1/0N	1/0 ga.	Neg.	SBTR2/0N	2/0 ga.	Neg.

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Lead Battery Terminals

- Manufactured with a lead alloy composed of antimony that ensures the terminal will have the tensile strength and hardness to meet today's heavy electrical demand.
- Terminals are 25-50% more dense than competitive product.
- Bolts ($\frac{1}{2}$ ") and nuts included.



Straight		
Part No.	Cable Size	Type
BTSD2/0	1-4/0 gauge	Positive & Negative

Universal		
Part No.	Cable Size	Type
BTSDL	8-3/0 gauge	Positive & Negative

Truck Battery		
Part No.	Cable Size	Type
BTSD-3P/3N	1-3/0 gauge	Positive & Negative

Battery Bolts and Nuts

- Zinc plated square head bolts.



Part No.	Description	Size
BB	Shoulder Head Nut	$\frac{5}{16}$ " x #18 x $1\frac{1}{2}$ "
SMBA	Side Terminal Bolt	$\frac{3}{8}$ " x #16 x 1"
SMBA-HD	Side Terminal Accessory Power Connection	—
505N	Battery Terminal Fastener for top & side mount batteries	—

Insulators

- Battery terminal insulators provide added protection against corrosion and harmful chemicals on battery and alternator cables.
- Improves appearance and provides prolonged cable life.



Testing Clip Insulators		
Part No.	Amp	Color
26R	25 amp	Red
26B	25 amp	Black



Alligator Clip Insulators	
Part No.	Description
62R	red, Insulator only for alligator clip
62B	black, Insulator only for alligator clip





Standard Bare Copper Lugs

- Crimp or solder.

$\frac{1}{4}$ " Stud (.250) Clearance (.336)

Part No.	Amp	Cable Size
BCL414	70	6/4 gauge
BCL214	90	2 gauge
BCL114	125	1 gauge
BCL1014	150	1/0 gauge
BCL2014	175	2/0 gauge

$\frac{5}{16}$ " Stud (.313) Clearance (.336)

Part No.	Amp	Cable Size
BCL456	70	6/4 gauge
BCL256	90	2 gauge
BCL156	125	1 gauge
BCL1056	150	1/0 gauge
BCL2056	175	2/0 gauge
BCL3056	225	3/0 gauge
BCL4056	225	4/0 gauge

$\frac{3}{8}$ " Stud (.375) Clearance (.405)

Part No.	Amp	Cable Size
BCL438	70	6/4 gauge
BCL238	90	2 gauge
BCL138	125	1 gauge
BCL1038	150	1/0 gauge
BCL2038	175	2/0 gauge
BCL3038	225	3/0 gauge
BCL4038	225	4/0 gauge

$\frac{1}{2}$ " Stud (.500) Clearance (.525)

Part No.	Amp	Cable Size
BCL212	90	2 gauge
BCL112	125	1 gauge
BCL1012	150	1/0 gauge
BCL2012	175	2/0 gauge
BCL3012	225	3/0 gauge
BCL4012	225	4/0 gauge



Heavy-duty Copper Lugs

- A premium tinned copper lug with maximum performance.
- A heavy-duty lug that delivers maximum voltage when needed.
- Rated to 600 Volts.
- Length: $2\frac{3}{16}$ ".

$\frac{5}{16}$ " Stud (.313) Clearance (.336)

Part No.	Cable Size	Color Code
HDL456	4 ga.	Grey
HDL256	2 ga.	Green
HDL156	1 ga.	Pink

$\frac{1}{2}$ " Stud (.500) Clearance (.525)

Part No.	Cable Size	Color Code
HDL112	1 ga.	Pink
HDL1012	1/0 ga.	Black
HDL2012	2/0 ga.	Orange
HDL3012	3/0 ga.	Purple
HDL4012	4/0 ga.	Yellow

$\frac{3}{8}$ " Stud (.375) Clearance (.405)

Part No.	Cable Size	Color Code
HDL438	4 ga.	Grey
HDL238	2 ga.	Green
HDL138	1 ga.	Pink
HDL1038	1/0 ga.	Black
HDL2038	2/0 ga.	Orange
HDL3038	3/0 ga.	Purple
HDL4038	4/0 ga.	Yellow

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Butt Connectors

- Use for standard cable crimp connectors.
- Manufactured from copper alloy with tin plating.

Part No.	Gauge	Style	Stock
BCL8	8 ga.	Brazed Barrel	.050
BCL6	6 ga.	Brazed Barrel	.050
BCL4	4 ga.	Brazed Barrel	.075
G372	2 ga.	Solid Barrel	.075
G372	1 ga.	Solid Barrel	.030
H383	1/0 ga.	Solid Barrel	.030
J388	2/0 ga.	Solid Barrel	.038
K393	3/0 ga.	Solid Barrel	.050



Battery Terminal Solder Slugs

- A fast and economical method for attaching a battery terminal to a cable.
- Rough sealed connection for optimum performance.
- Slugs are color-coded for gauge to industry standards.



HOW TO USE:

- 1.) Strip cable so the exposed copper reaches the battery terminal bottom.
- 2.) Apply several drops of flux to the exposed copper where the battery cable has been stripped back.
- 3.) Place the proper size slug in the battery terminal & secure terminal in vice.
- 4.) Heat the base of the battery terminal with slug inside using a propane torch or similar tool. As the battery terminal is heated, apply gentle downward pressure on the cable. Allow time for the connection to cool.
- 5.) Protective clothing and eye wear should be worn at all times.

Part No.	Slug Size	Color	Part No.	Slug Size	Color
ELA4	4 gauge	Grey	ELA10	1/0 gauge	Black
ELA2	2 gauge	Green	ELA20	2/0 gauge	Orange
ELA1	1 gauge	Pink	ELA30	3/0 gauge	Purple



Rosin Core Solder

- Offers excellent wetting action and the flux is completely non-corrosive.
- Flux is electrically non-conductive, excellent for electrical/electronic work.
- Qualified products listed under specification QQ-S-571 Type Wrap.

Part No.	Tin/Lead	Unit Spool (lb.)	Diameter	Gauge
40/60RC	40/60	1	.093"	13





Dual Power Cable Links™

- Available in 50, 175 and 350 amp ratings for use to 600 volts continuous AC or DC operation.
- Mechanical keys molded into connectors of the same color only will mate.
- Different color housings may be selected to identify other voltages, thus preventing the mismatching of the power supply to the electrical output.
- The single piece housing and modular construction provide industrial quality and durability with minimum inventory.
- Spring-loaded, silver plated, contoured contacts have a self-wiping cleaning action which ensures greater conductivity and longer life.
- Housing does not include connector; pieces sold separately.



Two (2) housings (same color) and four (4) contacts required for complete connection.

50 amp Housing

Part No.	Description	Housing Color
AN134	Housing with Spring	Grey

175 amp Housing

Part No.	Description	Housing Color
AN130A	Housing with Spring	Grey
AN212	Housing with Spring	Blue
AN251	Housing with Spring	Red

175 amp Connector

Part No.	Wire Size
AN199	1/0 gauge

350 amp Housing

Part No.	Description	Housing Color
AN175	Housing with Spring	Red

ASSEMBLY INSTRUCTIONS

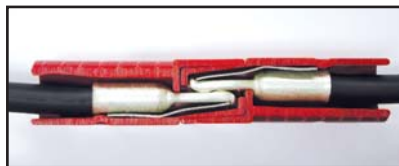


TABLE A

Connector Series	Wire Strip Length (in.)
50	5/8"
175	1 1/8"
350	1 3/8"

Two Dual Power Cable Links™ with single-piece housings. For all models: 50, 175 and 350 amps.

For installation in accordance with national and local electrical codes.

Assemble contacts to the cables according to the equipment manufacturer's assembly instructions. The following instructions are supplied as a reference.

1. Strip cable to dimensions in Table A.
2. Crimp or solder contact to cable. Note: Soldering recommended for cables with solid or minimal conductor stranding (ex. THHN type wire).
3. Observing proper polarity, place contact in housing with notched side of tongue next to spring.
4. Push contact and cable into housing until snaps over end of spring; tug slightly to make sure contact is locked into place.

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Standard 500 Amp Battery Clamp

- 500 amp battery clamp with coated handles.
- Hardware included.

Part No.	Description	Package
BH600R	Red Handled Battery Clamp	bulk
BH600B	Black Handled Battery Clamp	bulk



Pigmy Clip

- 50 amp clip.
- 3" long with 1½" jaw spread.

Part No.	Description	Package
46R	Red Pigmy Clip	bulk
46B	Black Pigmy Clip	bulk



Alligator Clip

- 10 amp steel clip.
- 1½" long with ½" jaw spread.

Part No.	Description	Package
60S	Alligator Clip	bulk



Testing Clips

- Designed specifically for battery and testing equipment applications, 10-50 amp.
- Available in versatile sizes.

Part No.	Description	Style	Amp
24	Steel-2 ⁷ / ₃₂ " long, ¾" jaw spread	Positive	25



Battery Brush

- Remove rust and corrosion from posts and terminals with this plastic brush.

Part No.	Description
DC990010	Battery Brush



Battery & Alternator Voltage Analyzer

- Long-lasting steel probe.
- Amber handle for reduced glare.
- Large alligator clip for grounding.
- 6-12 volts.

Part No.	Description
USM27000	Battery & Alternator Voltage Analyzer



Die Cast Terminal Crimping Tool

- Designed for all die cast copper battery terminals or lugs.
- Crimps 6 gauge through 4/0 gauge.
- 26" insulated red handles.
- Lock button for rotating dies.
- Chart for selecting correct die setting included.

Part No.	Description
T801	Die Cast Terminal Crimping Tool
T811-R	Replacement Die



Crimping Tool

- A heavy-duty tool for crimping solderless connectors 8 gauge through 4/0 gauge (standard copper lug).
- Can be used with either a hammer or a vice.
- Spring loaded lever.

Part No.	Description
SKT-840	Crimping Tool



OEM Type Crimping Tools

- Crimps 20-12 gauge OEM type (open barrel) automotive terminals.
- Five crimping stages.
- Five dies make rollover crimps on both stranding (electrical crimp) and insulation (strain relief crimp).

Part No.	Description
T11	Open Barrel Crimping Tool (20-14 gauge)

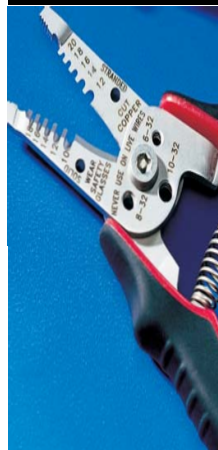


Crimping Tool

- Crimps 26-10 gauge insulated and 22-10 gauge non-insulated terminals.
- Scissor action strips stranded 26-10 AWG and solid 18-8 AWG wire.
- Two convenient wire cutting stations.
- Cuts and rethreads 4-40, 6-32, 8-32, 10-24, and 10-32 machine screws.
- Crimps 7-8mm ignition terminals.

Part No.	Description
T803	Crimping Tool

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Ratchet Crimping Tool

- Tool crimps both standard and reinforced (double crimp) insulated terminals in 22-10 gauge.
- Both tools will not disengage until uniform crimp is completed or quick release lever is triggered.
- Dies have printed key for proper crimp nest.

Part No.	Description
T804	Ratchet Crimping Tool



Multi-purpose Tool

- Precision ground cutting edges and a cushion grip with spring return.
- Looping hole aids in wire pulling and termination.
- A high precision joint to ensure smooth operation.
- Anti-glare black oxidation surface treatment for better vision.
- Three different functions: shears, multi-diameter wire stripper and pliers.

Part No.	Description	Strips Gauges
DC990630	Multi-purpose Tool	#20-#10



Multi-Purpose Tool

- Strips copper and aluminum solid and stranded wire.
- Cuts and rethreads bolts 4-40, 5-40, 6-32, 8-32, 10-24 and 10-32.
- Crimps solderless & ignition terminals.
- Plier nose for pulling and looping wire.

Part No.	Description	Gauge Size
DC990225	Multi-Purpose Tool	#22-#10

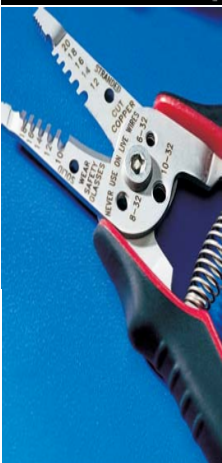


Wire Stripper

- Spring-loaded stripper to automatically remove wire insulation without crushing ends.
- Comfortable no-slip plastic handle to secure a firm grip.
- Strips 22-8 gauge wire.

Part No.	Description
T200	Wire Stripper

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Wire Stripper

- Strips cable 8 gauge through 400 MCM.

Part No.	Description
T202	Wire Stripper



Copper Cable Cutter

- Cuts copper cable 8-3/0 gauges.
- Made of high quality 1/4" hardened steel.
- Length: 8 3/4"
- Does not cut steel.

Part No.	Description
T300	Copper Cable Cutter



Heavy-duty Copper Cable Cutter

- Cuts copper cable 8-4/0 gauges.
- 22" handle.
- Does not cut steel.

Part No.	Description
T301	Heavy-duty Copper Cable Cutter



Light-duty Heat Gun (flameless)

- A competitively-priced tool that can be held by hand or stand alone.
- Quickly and efficiently shrinks PVC, polyolefin, dual wall, crimpable shrink tubing and no-crimp solder terminals.
- Solid state construction: powerful dual set, 600°F/1000°F 1200W and 10 amps self-standing.
- Includes shrink tube reflector.
- For light-duty use only.

Part No.	Description
T400	Flameless Heat Gun



Hand Caddy

- Convenient hand carrying or dispensing of small quantities of reeled wire.
- Rugged construction from 5/8", .083 steel tubing; epoxy coated to reduce chipping and peeling.
- Holds up to 8 reels, each 7" diameter by 5" wide; or 4 reels, each 7" diameter by 6" to 10" wide.

Part No.	Description	Dimensions
DC75567	Hand Caddy	22 1/2"(L) x 13 1/2"(W) x 9 1/2"(H)

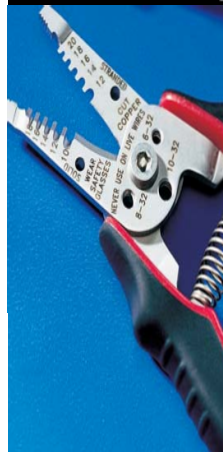


Portable Wire Caddy

- Maximum flexibility to dispense six 500-foot spools of #6 to #10 gauge or twelve 7" diameter by 5" wide reels at the same time.
- Durable welded square-tube steel frame to stand up to tough job-site applications.
- Casters are also included.

Part No.	Description	Dimensions
DC75568	Wire Caddy w/Casters	16"(L) x 26"(W) x 17 1/2"(H)

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Indoor/Outdoor Extension Cords

- Single outlet extension cord.
- Type SJTW-A extra flexible cords.
- All-weather with oil restraint -40°C (-40°F), 300V rating: 15A, 125V, 1875W.

Part No.	Description	Gauge/Conductor
14325	25-ft Cord	14/3
14350	50-ft Cord	14/3
12325	25-ft Cord	12/3
12350	50-ft Cord	12/3



Rack for Metal Boxes

- Heavy-duty steel racks holds up to four (4) metal scoop boxes.
- Baked grey hammerstone finish.
- Order boxes separately.

Part No.	Description	Weight (lbs.)
4 DRAWER SLIDE RACK	4 drawer rack for 18" x 12" x 3" boxes h: 15", w: 20", d: 15½"	37

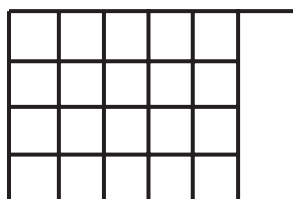


Scoop Boxes

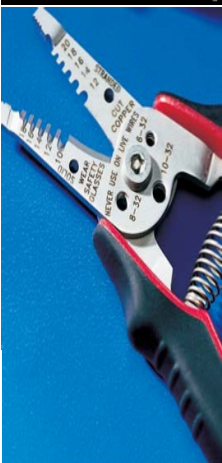
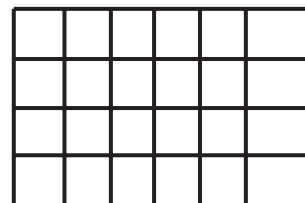
- Ideal for organizing and storing small parts.
- Rounded bottoms to make scooping out parts quick and easy.
- Model LMB21 has one larger compartment for hand tool storage.

Part No.	Dimensions	Number of Compartments	Weight (lbs.)
LMB24	18" x 12" x 3"	24	4
LMB21	18" x 12" x 3"	21	4
LMB20	18" x 12" x 3"	20	4
LMB16	18" x 12" x 3"	16	4
LMB12	18" x 12" x 3"	12	4
LMB 6	18" x 12" x 3"	6	4


















21 compartments





















24 compartments



GM Service Repair Pigtails



















	#5600C (#5600PT) Direct Ignition/Throttle Body Injection 2-18 ga Leads GM 12085496 1987-90 Buick, Chev, Olds, Pontiac Delco PT118
	#5601C (#5601PT) A/C Compressor Clutch Pigtail 2-18 ga Leads GM 12101937 1989-91 Buick, Chev, Olds, Cad, Pontiac Delco PT209
	#5602C (#5602PT) Idle Air Control & Distributor Module 4-18 ga Leads GM 12126487 1985-90 Module 1987466 for 2.8 Engine Delco PT757
	#5603C (#5603PT) Crankshaft Coolant Sensor 3-16 ga Leads Power Steering Pressure Switch Buick & Olds 1986-91, Chev 1990-91, GM 12085483 Cad 1987-90, Pontiac 1987-91 Delco PT105
	#5604C (#5604PT) Horn Connector 2-18 ga Leads Fits Horn 1999160-161 & 10456327-28 Buick, Olds, Pontiac 1988-92, GM 12116958 Chev 1988-91, Cad 1991-92 Delco PT419
	#5605C (#5605PT) Windshield Washer Pump/Low Coolant Sensor Buick & Pontiac 1987-92, Cad 1988-91, 2-16 ga Lead Chev 1987-91, Olds 1988-92, GM 12102747 GMC ST-1 Pickup 1988-91 Delco PT374
	#5606C (#5606PT) Camshaft Sensor Pigtail Buick 1986-90, Olds 1986-89, GM 12085538 Pontiac 1987-88 3-18 ga Leads Delco PT148
	#5609C (#5609PT) Oil Pressure Switch Connector Fits all GM 3 Pin Switches GM 12085499 Delco PT121
	#5610C (#5610PT) Exhaust Oxygen Sensor Pigtail 1-18 ga Lead GM 1982-90 GM 12117385 Delco PT517
	#5611C (#5611PT) Mixture Control Solenoid Pigtail 2 & 4 Barrel Rochester Varajet Carbs GM 1980-90
	#5612C (#5612PT) Idle Air Control Pigtail 4-18 ga Leads GM 12085506 GM 1982-90 w/Fuel Injection Delco PT127
	#5613C (#5613PT) Manifold Absolute Pressure Pigtail 3-18 ga Leads Green GM 12085502 Fits MAP Sensor #1637039 GM 1982+ Delco PT123
	#5614C (#5614PT) Air Conditioner Pressure Switch Pigtail GM 12085507 3-18 ga Leads GM 1984-89 Gray Delco PT128
	#5615C (#5615PT) Coolant Temperature Sensor 2-18 ga Leads GM 1985+ GM 12101899 Delco PT169
	#5616C (#5616PT) Manifold Air Temperature Sensor 2-18 ga Leads GM 12102620 Fits Sensor #25036751 GM 1985+ Delco PT307
	#5617C (#5617PT) Throttle Position Sensor 3-18 ga Leads Black GM 12116257 GM 1983+ w/Fuel Injection GM 12101923 Delco PT195 Delco PT430
	#5618C (#5618PT) Coolant Temp Sensor 2-18 ga Leads GM 1984+ GM 12085488 Fits Sensor #25036628 Delco PT110

	#5620C (#5620PT) Heater Blower/Cooling Fan Motor 2-12 ga Leads GM 12101917 Buick, Cad, Chevy, Olds, Pontiac 1982+ Delco PT189
	#5621C (#5621PT) Multi Port Fuel Injector Solenoid 2-18 ga Leads GM 12085491 Fits Lucas & Bosch Injectors Delco PT113 Buick, Chevy, Olds, Pontiac 1986+
	#5622C (#5622PT) Alternator w/Internal Voltage Regulator 2-18 ga & 1-12 ga Leads GM 12101895 GM 1986-90 Delco PT494
	#5624C (#5624PT) Throttle Body Injector Connector GM 1978+ 2-18 ga Leads GM 12102568 Delco PT285
	#5625C (#5625PT) Fuel Injector Connector 2-18 ga Leads GM 12004311 Fits Lucas & Bosch Injectors
	#5626C (#5626PT) Ignition Repair Harness 10 Leads GM CG & P Trucks 1967-93
	#5631C (#5631PT) Washer Fluid & AC Compressor 2-18 ga Leads GM 1985+ GM 12101903 Delco PT175
	#5632C (#5632PT) Black Ignition Coil Repair Harness 2-18 ga Leads GM 1985-91 Buick, Cad & Chev Fits Coil #1115315 & 1115317
	#5633C (#5633PT) Gray Ignition Coil Repair Harness 1-18 ga & 1-12 ga Leads GM 12101896 Fits Coil #1115315 & 1115317 Delco PT166 Buick, Cad & Chev 1985-91
	#5634C (#5634PT) Coolant Temperature & MAT Sensor 2-16 ga Leads GM 1990-93 GM 12085524 Delco PT134
	#5635C (#5635PT) Idle Speed Control Pigtail 4-18 ga Leads GM 1981-87 Assy #17079129 & #17079121 GM with V6 & V8 Carburetors
	#5636C (#5636PT) AC Compressor Low Pressure Switch 2-18 ga Leads GM 12085503 GM w/ V-5 Compressor (3:00 Index) Delco PT124
	#5637C (#5637PT) AC Compressor High Pressure Switch 2-18 ga Leads GM 12085521 GM w/V-5 Compressor (1:00 Index) Delco PT131
	#5638C (#5638PT) Fog/Cornering Lamp & Speed Sensor 2-18 ga Leads GM 1989+ GM 12085498 Use w/Halogen Bulbs #881, 894 & 889 GM 12043215 Delco PT120
	#5639C (#5639PT) Mass Air Flow Sensor 3-20 ga Leads GM 12085492 GM Tuned Port Injection 1985-88 Delco PT114
	#5640C (#5640PT) Coolant Temperature Switch 1-18 ga Lead GM 12102621 GM 1980-92 GM 12051234 Delco PT308
	#5642C (#5642PT) Window Lift Motor Harness 2-14 ga Leads GM 1979+ GM 12101914 Delco PT186
	#5643C (#5643PT) Throttle Position Sensor 3-20 ga Leads Fits Sensor #17112679 GM 12102748 Chev, Buick, Olds, Pontiac 1990-94 Delco PT375




















GM Service Repair Pigtails



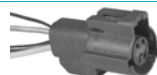













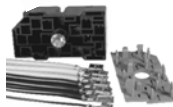


	#5644C (#5644PT) Single Pin Oil Pressure Switch 1-18 ga Lead GM "L", "Y" & "F" Bodies 1987-94	GM 12085500 Delco PT100
	#5645C (#5645PT) 4 Pin Oil Pressure Switch 4-18 ga Leads GM "E", "H" & "W" Bodies 1987-94	GM 12085539 Delco PT149
	#5646C (#5646PT) Fan Speed Switch Harness Switch #16015256 & #16032480 1-18 ga, 1-14 ga, 2-16 ga Leads	GM 1977+
	#5647C (#5647PT) Tail Lamp Repair Harness 4-18 ga Leads GM Full Size Pickups & Heavy Duty Trucks w/Metri-Pak Connection 1988+	
	#5648C (#5648PT) Cooling Fan Relay Harness Switch Relay #10038311 & #10032082 4-18 ga, 2-12 ga Leads GM 1985-88	GM 12101922 Delco PT194
	#5649C (#5649PT) MAP, Mass Air Flow Sensor 5-18 ga Leads GM 2.8 Engines w/Sequential Fuel Injection 1985-88	GM 12085497 Delco PT119
	#5650C (#5650PT) Gray Electric Choke Pigtail 1-18 ga Lead All GM with Carburetors 1982+	
	#5651C (#5651PT) Black Electric Choke Pigtail Trunk Release Switch GM without Fuel Injection 1987+	GM 12085480 Delco PT102
	#5652C (#5652PT) Direct Engine Speed/ Door Lock Actuator 2-18 ga Leads GM 1987-96	GM 12101855 Delco PT247
	#5653C (#5653PT) Heavy Duty Flasher/Mini Relay Thermal & Electronic w/Variable & Fixed Loads 5-14 ga Leads GM & Universal	
	#5654C (#5654PT) Fuel Pump, Instrument Panel, General Use 1-18 ga Lead GM 1990+	GM 12117353 Delco PT486
	#5655C (#5655PT) Clutch Switch Connector 2-18 ga Leads	GM 12101825 Delco PT217
	#5656C (#5656PT) 90° Universal Socket Sensor Temperature & 8 Stud Connections	GM 12112171 Delco PT404
	#5657C (#5657PT) Voltage Regulator w/Internal Regulators 3-18 ga & 1-12 ga Leads GM 1986+	GM 1116408 GM 1116411
	#5658C (#5658PT) Headlamp Switch 5-18 ga & 1-12 ga Leads GM 1968+	Fits Switch #1995217
	#5659C (#5659PT) Ignition Switch 1-5 Position & 1-4 Position Connectors 1-10 ga, 2-12 ga & 2-20 ga Leads GM 1969-92	
	#5660C (#5660PT) Blower Motor Switch Rear Compartment Switch #14040842 4-12 ga Leads GM Suburban 1984-91	GM 12102740 Delco PT367
	#5661C (#5661PT) Radio Lead to Windshield Antenna Chev & GMC Trucks 1973+	GM 6270498
	#5663C (#5663PT) Hook-up from GM HEI Distributor to Ignition 8" lead plugs into Distributor Cap	
	#5664C (#5664PT) HEI Hookup Distributor to Tachometer 16 ga Lead	
	#5665C (#5665PT) Coolant Temperature Sending Unit Late Model - 16 ga Lead	

Ford Service Repair Pigtails

	#5700C (#5700PT) Heater Blower & Radiator Cooling Fan Motor Fan: Ford 4 Cyl Eng 1979 1-14 ga, 1-12 ga Leads Blower: Ford Trucks, Pickups, Vans 1982-86	
	#5701C (#5701PT) Air Conditioner Clutch Coil Pigtail All Ford Products 2-18 ga Leads	
	#5702C (#5702PT) Internal Voltage Regulator Plug Pigtail 2-18 ga, 1-14 ga Leads Ford 1981-90	
	#5703C (#5703PT) Electronic Module E.E.C. IV Ignition Pigtail 6-14 ga Leads (Gray) E5ZZ-12A209A Ford 1981-91	
	#5704C (#5704PT) EEC IV Test Plug Pigtail 8-18 ga Leads Ford 1983+	
	#5705C (#5705PT) EGR Sensor Connector Pigtail 3-18 ga Leads Fits Sensor E6AZ-9J460-A Ford, Mercury 1988-91	
	#5706C (#5706PT) A/C Clutch Cycling Pressure Switch Pigtail 2-16 ga Leads Fits Switch E35Y-19E561-A Ford 1980-93	
	#5710C (#5710PT) Electronic Ignition Module E8TZ12A-297A 6-14 ga Leads (Black) Ford Light Trucks 1988-91	
	#5711C (#5711PT) Alternator Pigtail 2-10 ga & 1-20 ga Leads Ford 1981-89	
	#5712C (#5712PT) Ignition Coil Pigtail 2-18 & 1-16 ga Leads Fits Coil #E73Z-12029A Ford 1986+	
	#5713C (#5713PT) Ignition Coil Pigtail 2-16 ga Leads Fits Coil #F7TZ-12029-CC Ford 1999+	
	#5714C (#5714PT) Fuel Injector Pigtail with Oval Connector 1-18 ga & 1-16 ga Leads 4,6,8 & 10 Cyl Cars & Trucks Ford 1999+	
	#5715C (#5715PT) Alternator Pigtail Fits Alt #F81Z-10346-EARM 2-16 ga Leads Gray Housing Ford 1996+	
	#5716C (#5716PT) Alternator Pigtail Replaces #1U2Z-14S411-TA 3-14 ga Leads Black Housing Ford 1996+	
	#5719C (#5719PT) Fan Speed Switch Pigtail 2-12 ga, 1-14 ga & 1-16 ga Leads Switches E6DZ-19986-A, E9SZ-A, F2DZ-A, F2UZ-A & B Taurus, Cougar, Sable 1983-89, T-Bird 1989-93, E Trucks '92	
	#5720C (#5720PT) Engine Cooling Fan Pigtail 8 & 10 Position Connectors 5-12 ga Leads Ford E4FZ-8C290-A Ford 4 & 6 Cyl 1981-89	
	#5721C (#5721PT) Windshield Washer Pump Pigtail Pumps #EOAZ-17664-A & E3AZ-17664-A 2-18 ga Leads Ford 1968+	
	#5722C (#5722PT) Air Charge Temperature Sensor Pigtail 2-18 ga Leads Fits Sensor #E1AZ-12A697A Ford w/Fuel Injection 1981-86	

Ford Service Repair Pigtails

	#5723C (#5723PT) Engine Cooling Fan Switch Pigtail-Gray 2-14 ga Leads Fits Switch E43Z-8B607-A Ford 1984+
	#5724C (#5724PT) Engine Cooling Fan Switch Pigtail-Black 2-14 ga Leads Ford 1984+ Fits E5SZ-8B607-A & E4FZ-8B607-A
	#5725C (#5725PT) Fuel Pump Relay Connector Pigtail 1-18 ga, 2-16 ga & 1-14 ga Leads Fits Relay E3FZ-9345-B Ford 1982-93
	#5311C (#5311PT) Dash Headlamp Switch 9 Leads Ford "F" Trucks 1987-92
	#5730C (#5730PT) Headlamp Switch Repair Harness 6-18 ga, 1-16 ga & 1-12 ga Leads Fits Switch E6DZ-11654-A & F2DZ-A Taurus 1986-94, Sable 1980-94
	#5731C (#5731PT) Ignition Switch Repair Harness Fits Switch E7DZ-11572-A 4-10 ga Leads Taurus & Sable 1986-94
	#5732C (#5732PT) Door Jam/Master Cylinder/Power Mirror 3-14 ga Leads Ford Master Cylinder 1987 / Door Jam 1992
	#5733C (#5733PT) Ignition Coil Harness 2-18 ga Leads Ford Except Calif. Models 1977-84
	#5734C (#5734PT) AC Blower Motor Resistor Resistor Assembly #E7TZ-19A706-A 4-14 ga Leads Ford Trucks 1983+
	#5735C (#5735PT) Heater & AC Blower Switches 5-12 ga Leads Ford 1973+
	#5736C (#5736PT) Coolant Temperature Sensor Sensor #E1AZ-12A648-A 2-18 ga Leads Ford 1981+
	#5737C (#5737PT) Gray Exhaust Oxygen Sensor 3-18 ga & 1-16 ga Leads Ford Trucks 1989-94
	#5738C (#5738PT) Headlamp Switch Harness Fits Switch #E64Y-11654-A 5-18 ga, 2-14 ga, 1-12 ga Leads Sable 1986-89
	#5739C (#5739PT) Turn Signal Switch Harness Fits Switch #E7FZ-13341-A 5-18 ga Leads Ford 1985+
	#5740C (#5740PT) Turn Signal Switch Harness Fits Switch #E7FZ-13341-A 2-18 ga & 6-16 ga Leads Ford 1980-94
	#5742C (#5742PT) Manifold Absolute Pressure (MAP) Sensor 3-18 ga Leads Ford 1985+
	#5744C (#5744PT) Power Brake Repair Harness 2-18 ga Leads D1AZ-13410-A Ford 1965+
	#5745C (#5745PT) Electronic Ignition Module (3 Pin) 4-18 ga Leads Ford Cars & Light Trucks 1975-85 & 700 Series + Trucks 1975-91
	#5746C (#5746PT) Electronic Ignition Module (4 Pin) 4-16 ga Leads Ford 1975+

	#5747C (#5747PT) Alternator Regulator - A/C Clutch Field 1-16 ga Lead Ford 1994+
	#5748C (#5748PT) Ignition Switch Repair Harness Kit 4-12 ga & 3-10 ga Leads Ford 1981+
	#5749C (#5749PT) Black Exhaust Oxygen Sensor 3-18 ga & 1-16 ga Leads Ford 1989+
	#5750C (#5750PT) Mass Air Flow Sensor 1-16 ga & 3-18 ga Leads Ford 1989-92
	#5751C (#5751PT) EEC Relay Repair Harness 2-18 ga, 2-16 ga & 1-14 ga Leads Relay #E3AZ-12A646-A Ford 1983+
	#5752C (#5752PT) Throttle Position Sensor 3-18 ga Leads Sensor Base #9B989 Ford Taurus & Sable 1990+; Ranger, Explorer, Escort 1991+; Crown Victoria & Marquis 1992+
	#5753C (#5753PT) Idle Air By/Pass Valves / Headlamp Switch 1-18 ga & 1-16 ga Leads By Pass for Ford 1986-89 Headlamps for 1988-93 Mustang w/Fog Lamps
	#5754C (#5754PT) Headlamp Switch 6-18 ga & 2-12 ga Leads Ford Mustang 1987-93
	#5755C (#5755PT) Vehicle Speed & ABS Wheel Speed Sensor 2-18 ga Leads Ford 1993+
	#5756C (#5756PT) Inertia Fuel Shut Off Switch 2-14 ga & 1-18 ga Leads Ford 1990+
	#5757C (#5757PT) Repair Harness for Multi-Function Switches 2-16 ga & 2-12 ga Leads Ford
	#5758C (#5758PT) Repair Harness for Multi-Function Switches 9-16 ga Leads Ford
	#5759C (#5759PT) Repair Harness for Multi-Function Switches 10-16 ga Leads Ford
	#5760C (#5760PT) Repair Harness for Multi-Function Switches 11-18 ga Leads Ford
	#5761C (#5761PT) Repair Harness for Multi-Function Switches 3-20 ga & 4-16 ga Leads Ford
	#5762C (#5762PT) Radiator Cooling Fan Motor 1-12 ga & 2-10 ga Leads Ford Taurus, Sable, Continental & Escort 1990-96 Contour, Mystique w/1 motor 1995-97
	#5763C (#5763PT) Ignition Switch Harness Repair Kit 3-10 ga, 3-12 ga & 1-20 ga Leads Ford Lincoln, Mercury, Lt. Duty Trucks 1990+
	#5764C (#5764PT) Ignition Switch Repair Harness 2-12 ga & 4-14 ga Leads Ford Lt., Med. & Hvy. Duty Trucks 1970+
	#5765C (#5765PT) Horn & Blower Relay Harness Repair Kits 1 Connector & 1 Lock 1-10 ga, 1-12 ga, 1-14 ga, 1-16 ga, 1-18 ga Leads Ford Cars & Trucks

O.E.M. Electronic Terminals

All Items Available in "A" & "G" Bulk Pack Quantities - See Price Sheet

Exact OE Terminal & Housing Replacements For Vehicle Electronics
Eliminates Replacing Entire Wire Harness
Kits Available See Page 5

GM PAK-CON

	Part #	OEM #	GA	Qty	Description
	5800C 5800PT	6294511	20-18	5	Male Mates with 5801
	5801C 5801PT	6294512 12020346	20-18	5	Female Mates with 5800
	5802C 5802PT	12020320	16-14	5	Male Mates with 5803
	5803C 5803PT	12020347	16-14	5	Female Mates with 5802
	5804C 5804PT	12033817	12-10	5	Male Heavy Duty Series
	5805C 5805PT	8905087	16-14	5	Female Heavy Duty Series
	5806C 5806PT	12004996	16-14	5	Female Series II

GM METRI-PACK SERIES

	5810C 5810PT	12103881	20-18	5	Female - 150 Series Mates with 5811
	5811C 5811PT	12047581	20-18	5	Male - 150 Series Mates with 5810
	5812C 5812PT	12047767	20-16	5	Female - 150 Series
	5813C 5813PT	12052466	24	5	Female - 150 Series
	5814C 5814PT	12089340	20-18	5	150-1 Series
	5820C 5820PT	12034046	20-18	5	Female - 280 Series Mates with 5821
	5821C 5821PT	12034047	20-18	5	Male - 280 Series Mates with 5820
	5822C 5822PT	12066214	18-14	5	Female - 280 Series Mates with 5823
	5823C 5823PT	12020116	18-14	5	Male - 280 Series Mates with 5822
	5825C 5825PT	12124304	16-14	5	Female - 480 Series Mates with 5826
	5826C 5826PT	12020120	16-14	5	Male - 480 Series Mates with 5825
	5830C 5830PT	12015870	16-14	5	Female - 630 Series Mates with 5831
	5831C 5831PT	12020126	16-14	5	Male - 630 Series Mates 5830

GM MICRO-PACK SERIES

	5840C 5840PT	12040902	22	5	Male
	5841C 5841PT	12089649	20-18	5	Female
	5842C 5842PT	12020758	16-14	5	Female
	5845C 5845PT	12089507	20-18	5	GM Electronic Control Module

FORD TERMINALS

	5900C 5900PT	D1AB-14488-CA	20-18	5	Female Pin Type
	5902C 5902PT	D8BB-14474-BA D3AB-14474-DA	20-18	5	Female Box Type
	5904C 5904PT	D5AB-14474-FA D3AZ-14474-G	20-18	5	Female Snap-On
	5905C 5905PT	E7EB-14474-CA	20-18	5	1/8" Female - Mini Mates with 5906
	5906C 5906PT	E7EB-14421-EA	20-18	5	1/8" Male - Mini Mates with 5905
	5910C 5910PT	E8EB-14474-AMA	16-14	5	1/8" Female Micro
	5912C 5912PT	E8EB-14421-LA	16-14	5	1/8" Male - Mini Mates with 5911
	5913C 5913PT	E8EB-14474-VA	16-14	5	3/16" Female
	5920C 5920PT	E25B-14488-DA E8EB-14488-AHA	16-14	5	Power Window & Door Lock Terminal

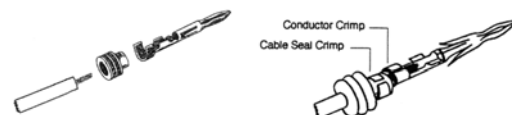
CHRYSLER TERMINALS

	5940C 5940PT	3843601	20-18	5	1/4" Female Mates with 5941
	5941C 5941PT	3843386	20-18	5	1/4" Long Male Mates with 5940
	5942C 5942PT	4368163	20-18	5	3/32" Female Mates with 5943
	5943C 5943PT	7368261	20-18	5	3/32" Male Mates with 5942
	5945C 5945PT	3843601	16-14	5	1/4" Female Mates with 5946
	5946C 5946PT	3843386	16-14	5	1/4" Male Mates with 5945
	5947C 5947PT	4304729	24-18	5	PC Board & General Purpose

UNIVERSAL TERMINALS

	5950C 5950PT	GM 2965580 Chrys 2096467	14-12	5	1/4" Female Ford C1SF-14474-A
	5951C 5951PT	GM 2965470 Chrys 2096466	20-18	5	1/4" Female Ford C5AB-14474-B
	5846C 5846PT	2965880	16-14	5	GM Power Window & Door Lock
	1581A 1581C 1581PT	Ford Fuel Pump Sending Unit	18-20	500 25 25	Terminal For #5310 Housing
	1582A 1582C 1582PT	Ford Fuel Pump Sending Unit	14-16	500 25 25	Terminal For #5310 Housing

Weather Pack Tools



Easy to Repair Weatherpack Connections

#0660T

(#0660PT)

Extractor Tool

Extractor Pick Narrow .05"

Extractor Pick Wide .09"

Releases & Extracts GM, Ford & Chrysler
OEM Terminals From Their Housings



#0663T (#0663PT)
Crimping Tool

Crimps 24-14 GA Open Barrel Terminals
Makes Precision "F" Crimps
5 Different Crimp Nests



#0665T (#0665PT)
Crimping Tool











Crimps 24-14 Gauge Insulated,
Uninsulated, Open Barrel &
Weatherpack Terminals

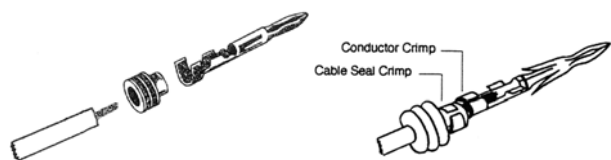


Weatherpack Connectors

All Items Available in "A" & "G" Bulk Pack Quantities - See Price Sheet

GM WEATHERPACK SERIES







	PART #	OEM #	GA	Qty	DESCRIPTION
	5849C 5849PT	12015193	12	5	Silicone Cable Seal Blue
	5850C 5850PT	12010293	16-14	5	Silicone Cable Seal Grey
	5851C 5851PT	12015323	20-18	5	Silicone Cable Seal Green
	5852C 5852PT	12010300	----	5	Silicone Cavity Plug
	5853C 5853PT	12089188	20-18	5	Female Mates with 5854
	5854C 5854PT	12089040	20-18	5	Male Mates with 5853
	5855C 5855PT	12124580	16-14	5	Female Mates with 5856
	5856C 5856PT	12124582	16-14	5	Male Mates with 5855
	5857C 5857PT	12124581	12	5	Female Mates with 5858
	5858C 5858PT	12124587	12	5	Male Mates with 5857



Easy to Repair Weatherpack Connections
 Slip Cable Seal Over Wire & Strip Wire Ends
 Insert Wire Until Insulation Butts Up To Conductor Ears Of Terminal
 Crimp Conductor Ears
 Slide Cable Seal Until It Rests In Middle Of Insulation Ears
 Crimp Insulation Ears

Extractor Picks & Tools See Page 30

UNIVERSAL HOUSINGS FOR GM TERMINALS

	PART #	OEM #	Qty	DESCRIPTION
	5860C 5860PT	12010996	1	1-Cavity Shroud Mates with 5861
	5861C 5861PT	12015791	1	1-Cavity Tower Mates with 5860
	5862C 5862PT	12010973	1	2-Cavity Shroud Mates with 5863
	5863C 5863PT	12015792	1	2-Cavity Tower Mates with 5862
	5864C 5864PT	12010717	1	3-Cavity Shroud Mates with 5865
	5865C 5865PT	12015793	1	3-Cavity Tower Mates with 5864
	5867C 5867PT	12010974	1	4-Cavity Shroud Mates with 5868
	5868C 5868PT	12015797	1	4-Cavity Tower Mates with 5867
	5869C 5869PT	12010975	1	6-Cavity Shroud Mates with 5870
	5870C 5870PT	12015799	1	6-Cavity Tower Mates with 5869
 NEW	5871C 5871PT	12065158	1	5-Cavity Round Shroud Mates with 5872
	5872C 5872PT	12034342	1	5-Cavity Round Tower Mates with 5871

ASSEMBLED WEATHERPACK CONNECTORS

Assembled Connectors with 18 Gauge Crosslink SXL Wire
 Temperature Rating -40°F to 275°F 20 Amps



#5790C (#5790PT)
Single Cavity Tower with Female Terminals



#5791C (#5791PT)
Double Cavity Tower with Female Terminals



#5792C (#5792PT)
Triple Cavity Tower with Female Terminals



#5793C (#5793PT)
Four Cavity Tower with Female Terminals



#5794C (#5794PT)
Four Cavity Square Tower with Female Terminals



#5795C (#5795PT)
Single Cavity Shroud with Male Terminals



#5796C (#5796PT)
Double Cavity Shroud with Male Terminals



#5797C (#5797PT)
Triple Cavity Shroud with Male Terminals



#5798C (#5798PT)
Four Cavity Shroud with Male Terminals



#5799C (#5799PT)
Four Cavity Square Shroud with Male Terminals

Pigtail Assemblies


Pigtails Available in Bulk Quantities - See Price Sheet




#5304C
(#5304PT)
AC Blower Motor Relay
2-14 & 1-16 ga Leads
GM-Ford-Chrysler



#5306C
(#5306PT)
Dimmer Switch Pigtail
Ford-Chrysler-AMC 1959-83



#5307C **(#5307PT)**
Dimmer Switch Pigtail
GM-Jeep 1960-84



#5308C **(#5308PT)**
A/C Compressor w/Diode
GM 12101907 1983-89
Delco PT179 2-18 ga Leads



#5309C
(#5309PT)
Front Radio Speaker
White 4 Leads
GM 1978-82



#5310C
(#5310PT)
Fuel Pump Sending Unit
Ford 1985-90
Includes 6 Terminals



#5311C
(#5311PT)
Dash Headlamp Switch
9 Leads
Ford "F" Trucks 1987-93



#5312C
(#5312PT)
Rear Radio Speaker
Blue 4 Leads
GM 1978-82



#5313C
(#5313PT)
Radio Power Supply
Black 4 Leads
GM 1978-82



#5314C
(#5314PT)
Radio Speaker
2-18 ga Leads
Ford 1988-89



#5315C
(#5315PT)
Radio Speaker
2-18 ga Leads
Ford 1989+



#5325C **(#5325PT)**
3-Prong Sealed Beam Lamp
with Fiber Optics
3-16 ga Leads
Domestic & Import Vehicles



#5407C **(#5407PT)**
Universal Sealed Beam
3-18 ga Leads
3 Prong Flasher
Bulb 9003 & H-4



#5409C **(#5409PT)**
Universal Sealed Beam
2 wires/2 Prong Flasher



#5435C **(#5435PT)**
Manual A/C & Horn Relay
GM-Chrysler-AMC
GM 2962510 1957-95



#5439C **(#5439PT)**
Universal 2-Wire Relay
Heater-A/C-Wipers
GM & Ford GM 1965-80
Do not replace connectors
with integral diode

ALTERNATOR & VOLTAGE REGULATOR HARNESS



#5327C **(#5327PT)**
Alternator Harness
Adapts SI to CS Series for
Vehicles w/out Alt Warn Light
GM 12102921 1988-95



#5328C **(#5328PT)**
Alternator Harness
Adapts SI to CS Series for
Vehicles with Alt Warn Light
GM 12083462 1988-95



#5329C
(#5329PT)
Electronic Voltage Regulator
Replaces #2983727
Chrysler 1972-87



#5330C
(#5330PT)
Voltage Regulator
6 Leads
Ford 1975-89



#5331C
(#5331PT)
Alternator Pigtail
Ford 1975+ 2-16 ga



#5430C
(#5430PT)
Alternator Pigtail
Chrysler 1965-88




#5431C **(#5431PT)**
Accessory Harness for
Voltage Regulator /
Temperature Sending Unit
Chrysler 1965-76




#5432C **(#5432PT)**
Alternator Repair Harness
Transistorized with Internal
Regulator 1-12 ga & 1-16 ga
GM 624493 1971+



#5433C **(#5433PT)**
Alternator Repair Harness
GM Delcat 1962-76
with External Regulator
GM 2977373



#5434C
(#5434PT)
Alternator Extender Harness
With Transistorized Alternator
with Internal Regulator
GM 1971+



#5436C
(#5436PT)
Voltage Regulator
Repair Harness
Ford 1965-81



#5437C
(#5437PT)
Alternator Extender Harness
GM Delcat 1962-78
with External Regulator



#5438C
(#5438PT)
Voltage Regulator Repair
Harness
GM 1961-73 Delco 7700

HALOGEN HEADLAMP ASSEMBLIES



#5301C
(#5301PT)
Sealed Hi Beam
Mini Bulb 4701
2-16 ga Leads GM 86+



#5302C
(#5302PT)
Sealed Low Beam
Mini Bulb 4703
2-16 ga Leads GM 86+



#5459C
(#5459PT)
Ford 2004 & F150
3-16 ga Leads
Bulb 9008 & H13



#5460C
(#5460PT)
GM-Ford-Chrysler
3-18 ga Leads
Bulb 9007 & 9004



#5461C
(#5461PT)
High Beam
GM 12101898 2-18 ga Leads
Bulb 9005, 9145, H-10



#5462C
(#5462PT)
Low Beam
GM 12101897
Bulb 9006 2-18 ga Leads

Socket Assemblies

Sockets Available in Bulk Quantities - See Price Sheet

#5401C
(#5401PT)
Stop-Tail-Turn-Park
Universal Double Contact
Fits 7/8" to 1-1/8" Hole
Bulb 198, 1016, 1034, 1154, 1157



#5402C
(#5402PT)
3-Wire Universal
GM Double Contact
Stop-Tail-Turn-Park
Bulb 1034, 1154, 1157



#5403C
(#5403PT)
3-Wire Twist Lock
Stop-Tail-Turn-Park
GM 1969+ #8909908 & 8903283
Bulb 1034, 1154, 1157



#5404C
(#5404PT)
Universal Double Contact
Stop-Tail-Turn-Park
GM 1963-77 #8912698
Bulb 98, 1016, 1034, 1154, 1157



#5405C
(#5405PT)
Universal Single Contact
Backup Lamp
GM Exact Replacement
Bulb 67, 81, 1133, 1141, 1156



#5406C
(#5406PT)
GM/Ford Double Contact
Ford Stop & Tail
GM Stop-Tail-Turn-Park
Bulb 1034, 1154, 1157



#5411C
(#5411PT)
90° Double Contact
Stop-Tail-Turn-Park
GM '77, Chrys '88, AMC '79
Bulb 1157 GM 12003759



#5412C
(#5412PT)
90° Single Contact
Tail-Backup-Corner
GM 1977+ #12003758
Bulb 1003, 1073, 1129, 1133, 1141, 1156



#5413C
(#5413PT)
90° Double Contact
Stop-Tail-Turn-Park
GM 1980+ #12003757
Bulb 1034, 1154, 1157



#5421C
(#5421PT)
Universal Double Contact
With Fiber Washer
Bulb 64, 68, 82, 88, 90, 94, 210, 1004, 1034, 1074, 1130, 1154, 1157, 1158, 1176



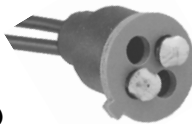
#5422C
(#5422PT)
Universal Single Contact
With Fiber Washer
GM '63, 67, 81, 89, 93, 209, 1003, 1073, 1129, 1133, 1141, 1156



#5423C
(#5423PT)
Single Contact, Phenolic Disc
With Weatherproof Boot
Bulb 63, 67, 81, 87, 89, 93, 97, 1003, 1073, 1129, 1133, 1141, 1156



#5424C
(#5424PT)
Double Contact, Phenolic Disc
With Weatherproof Boot
Bulb 64, 68, 82, 88, 90, 210, 1004, 1034, 1074, 1130, 1154, 1157, 1158, 1176, 1178



#5425C
(#5425PT)
Double Contact Tail & Stop Lamp
GM 1976-95
12013813, 8919916
Bulb 1034, 1154, 1157



#5426C
(#5426PT)
Stop-Tail -Turn-Backup
GM 12083005 1988-95
Wedge Bulb 3057 & 3157



#5427C
(#5427PT)
Stop-Tail-Turn
GM 12083006 1988-95
Wedge Bulb 3057 & 3157



#5428C
(#5428PT)
Stop-Tail-Turn-Park
GM 12076946 1988-1995
Wedge Bulb 3057 & 3157



#5429C
(#5429PT)
Stop-Tail-Turn-Park
GM 12083680 1989-93
Wedge Bulb 3057 & 3157



#5440C **(#5440PT)**
Stop-Tail-Turn -Park
Double Contact Unvl 3/4" hole
Bulb 198, 1016, 1034, 1154, 1157



#5441C **(#5441PT)**
Stop-Tail-Turn -Park
Dbl Contact w/Ground Terminal
Ford 1970-80
D1AZ-13410-B, D2OZ-13410-B
Bulb 1034, 1154 & 1157



#5442C
(#5442PT)
License Plate & Instrument Panel
Unvl Single Contact 7/8" to 1-1/8"
Bulb 63, 67, 87, 89, 93, 209, 1003, 1073, 1129, 1133, 1141, 1156



#5443C
(#5443PT)
License Plate & Instrument Panel
Unvl Single Contact 5/8" Hole
Bulb 51, 53, 55, 57, 57X



#5444C
(#5444PT)
Backup Single Contact 1-1/8" Hole
GM, Ford, Chrysler
Bulb 63, 67, 81, 87, 89, 93, 97, 209, 1003, 1073, 1129, 1133, 1141, 1156



#5445C
(#5445PT)
Stop & Tail
1-1/4" Focal Length
GM 8903203 & 8914823
Bulb 1157



#5446C
(#5446PT)
Backup Lamp
GM 12085330 1990-95
Wedge Bulb 3156



#5447C
(#5447PT)
Stop-Tail-Turn-Park
GM 12083689 1990-92
Wedge Bulb 3057 & 3157



#5450C
(#5450PT)
Ford Single Contact
Backup & Rear 1973+
Bulb 1156 #D3AZ13410A



#5451C
(#5451PT)
Ford Double Contact
Tail Lamps 1973+
Bulb 1157 #D2AB14A553HA



#5452C
(#5452PT)
Ford Double Contact
Tail Lamps 1973+
Bulb 1034, 1157 #D2AB14A553FA



#5454C
(#5454PT)
Ford All Weather Single Contact
Tail-Turn-Park
Bulb 63, 67, 81, 87, 89, 93, 209, 1003, 1073, 1129, 1133, 1141



#5455C **(#5455PT)**
Ford All Weather Double Contact
Stop-Tail-Turn-Park
Bulb 198, 1016, 1034, 1154, 1157



Socket Assemblies

Sockets Available in Bulk Quantities - See Price Sheet

**#5457C
(#5457PT)**
Instrument Panel Cluster
Bulb 194 1/2" Hole
GM 1955+
Ford 1968+ Chry 1976+



**#5458C
(#5458PT)**
Instrument Panel Cluster
Bulb 194 5/8" Hole
GM 1957+
Ford 1987+ Chry 1963+



**#5463C
(#5463PT)**
Side Marker-Corner
Chrysler 1974-88
3764865 & 3843245
Bulb 87, 93, 1156



**#5464C
(#5464PT)**
Stop-Tail-Turn
Chrysler 1971-93
3764863, 3843431 & 3747831
Bulb 1157



**#5465C
(#5465PT)**
Turn-Park-Backup
Chrysler 1987-93
4400448, 4400741, 4636358
Wedge Bulb 2456 & 3156



#5466C (#5466PT)
Stop-Tail-Park-Turn-Side Marker
Chrysler 1979-92
3843432 & 4362469
Bulb 198, 1016, 1034, 1154, 1157



#5468C (#5468PT)
License Plate Lamp
Chrysler 1989-92
Chrysler 4414184
Bulb 194



#5469C (#5469PT)
Stop-Tail-Turn
Rear Lamps
Chrysler 4450815



**#5470C
(#5470PT)**
Turn-Park Lamps
Ford 1974-80
D4OZ-13234-A Bulb 1157



**#5471C
(#5471PT)**
Turn-Park Lamps
Ford 1973-77
D3MY-13410-A Bulb 1157



**#5472C
(#5472PT)**
Turn-Park Lamps
Ford 1974-80
D4ZZ-13234-A Bulb 1157



#5473C (#5473PT)
Turn-Park Lamps
Ford 1873-80
D3AZ-13410E & D8BZ-13412A
Bulb 1156



#5474C (#5474PT)
Stop & Tail Lamps
Ford 1973-80
D3AZ-13410-G Bulb 1157



#5475C (#5475PT)
Stop & Tail Lamps
Ford 1974-91
D4LY-13410-A Bulb 1157



#5476C (#5476PT)
Parking Lamps
Ford 1975-77
D5AZ-13234-A Bulb 1141



#5477C (#5477PT)
Tail-Park Lamps
Ford 1971-92
D5UZ-13410A & D1FZ-13234A
Bulb 1157



**#5478C
(#5478PT)**
Stop-Tail Lamps
Ford 1977-93
D7OZ-13410A & E25Y-13410-A
Bulb 1157



#5479C (#5479PT)
Stop & Tail Lamps
Ford 1983-93
E8PZ-13411-B
Wedge Bulb 3057, 3157, 2458



#5480C (#5480PT)
Side Marker & Corner
Ford 1987-93
E9AZ-15A434A & E9DZ-15A434A
Wedge Bulb 3156



#5481C (#5481PT)
Park & Turn Lamps
Ford 1981-93
E1FZ-13234A
Bulb 1157



**#5482C
(#5482PT)**
Park & Rear Lamp
Ford 1980-94
E0TZ-13410A & E2SZ-13410A
Bulb 1157



#5483C (#5483PT)
Ford Trucks & Bronco 1980-90
Bulb 1156



**#5484C
(#5484PT)**
90° Socket Base Lamp (Black)
Ford 1991+
Wedge Bulb



**#5485C
(#5485PT)**
Straight Socket Base (Brown)
Ford Windstar 1995+
Wedge Bulb



SIDE MARKER LAMP SOCKETS

#5408C (#5408PT)
Side Marker, License, Corner
Fits most US Mfg Vehicles
Bulb 67, 158, 194, 194A



#5410C (#5410PT)
Side Marker -License Plate
GM 12083460 GM 1982-95
Bulb 194



#5414C (#5414PT)
Chrysler 1974-92
3588314, 4450821,
4400147
Bulb 194 & 194A



#5415C (#5415PT)
Side Marker-Corner-Tail
GM 12001470 1976-92
Ford EOSZ-15A442B 1988-89
Bulb 161, 168, 194, 194A



#5419C (#5419PT)
Universal
Tap Trailer Lights Into
Existing Light System



#5416C (#5416PT)
Chrysler 1972-88
3513686, 4055028, 4400588
Bulb 67, 158, 194, 194A



#5417C (#5417PT)
License-Park-Tail
GM 1973-95
8912750 & 12003896
Bulb 194, 194A



**#5418C
(#5418PT)**
GM 1968-95
6298892 & 6298886
Bulb 194, 194A



#5630C (#5630PT)
GM 12083007
AC/Delco LS13
Wedge Bulb #24



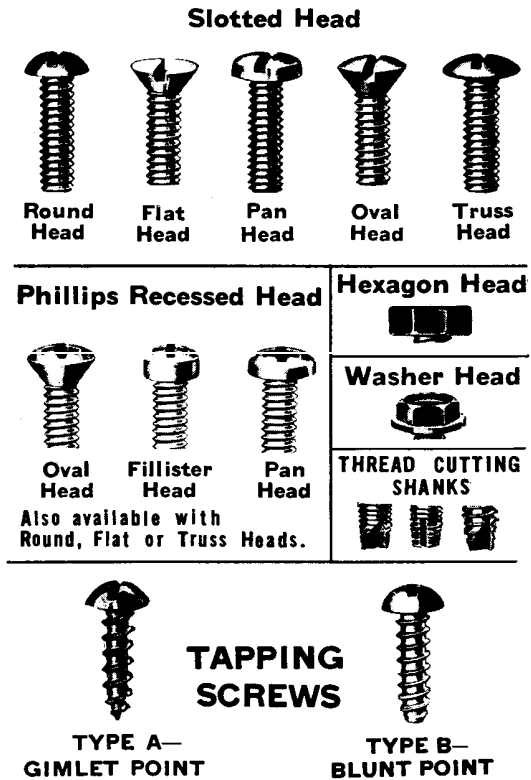
#5420C (#5420PT)
Universal Utility Light
1-1/4" Truck Bumper Hole



DECIMAL EQUIVALENTS of Wire, Letter and Fractional Size Drills

DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL	DRILL SIZE	DECIMAL
80	.0135	42	.0935	13/64	.2031	X	.3970
79	.0145	3/32	.0938	6	.2040	Y	.4040
1/64	.0156	41	.0960	5	.2055	13/32	.4062
78	.0160	40	.0980	4	.2090	Z	.4130
77	.0180	39	.0995	3	.2130	27/64	.4219
76	.0200	38	.1015	7/32	.2188	7/16	.4375
75	.0210	37	.1040	2	.2210	29/64	.4531
74	.0225	36	.1065	1	.2280	15/32	.4688
73	.0240	7/64	.1094	A	.2340	31/64	.4844
72	.0250	35	.1100	15/64	.2344	1/2	.5000
71	.0260	34	.1110	B	.2380	33/64	.5156
70	.0280	33	.1130	C	.2420	17/32	.5313
69	.0292	32	.1160	D	.2460	35/64	.5469
68	.0310	31	.1200	1/4	.2500	9/16	.5625
1/32	.0313	1/8	.1250	E	.2500	37/64	.5781
67	.0320	30	.1285	F	.2570	19/32	.5938
66	.0330	29	.1360	G	.2610	39/64	.6094
65	.0350	28	.1405	17/64	.2656	5/8	.6250
64	.0360	9/64	.1406	H	.2660	41/64	.6406
63	.0370	27	.1440	I	.2720	21/32	.6562
62	.0380	26	.1470	J	.2770	43/64	.6719
61	.0390	25	.1495	K	.2810	11/16	.6875
60	.0400	24	.1520	9/32	.2812	45/64	.7031
59	.0410	23	.1540	L	.2900	23/32	.7188
58	.0420	5/32	.1562	M	.2950	47/64	.7344
57	.0430	22	.1570	19/64	.2969	3/4	.7500
56	.0465	21	.1590	N	.3020	49/64	.7656
3/64	.0469	20	.1610	5/16	.3125	25/32	.7812
55	.0520	19	.1660	O	.3160	51/64	.7969
54	.0550	18	.1695	P	.3230	13/16	.8125
53	.0595	11/64	.1719	21/64	.3281	53/64	.8281
1/16	.0625	17	.1730	Q	.3320	27/32	.8438
52	.0635	16	.1770	R	.3390	55/64	.8594
51	.0670	15	.1800	11/32	.3438	7/8	.8750
50	.0700	14	.1820	S	.3480	57/64	.8906
49	.0730	13	.1850	T	.3580	29/32	.9062
48	.0760	3/16	.1875	23/64	.3594	59/64	.9219
5/64	.0781	12	.1890	U	.3680	15/16	.9375
47	.0785	11	.1910	3/8	.3750	61/64	.9531
46	.0810	10	.1935	V	.3770	31/32	.9688
45	.0820	9	.1960	W	.3860	63/64	.9844
44	.0860	8	.1990	25/64	.3906	1	1.0000
43	.0890	7	.2010				

COMMON SCREW TYPES



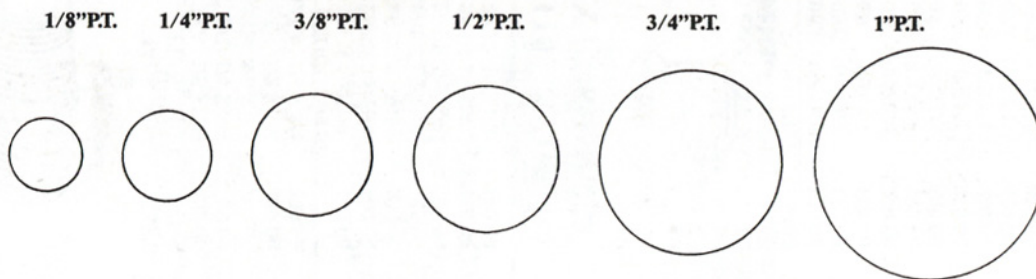
Wire Gauge Selection Guide

Note: This chart is based upon a 10% maximum voltage drop. For 5% voltage drop, use double the measured wire length. When mechanical strength is a factor, use the next larger sized wire gauge.

12-Volt System		Total Length of Cable in Circuit from Battery to Most Distant Lamp									
AMPS (App.)	Candle Power	2.5 Ft.	5 Ft.	10 Ft.	20 Ft.	30 Ft.	40 Ft.	50 Ft.	60 Ft.	80 Ft.	100 Ft.
		Ga.	Ga.	Ga.	Ga.	Ga.	Ga.	Ga.	Ga.	Ga.	Ga.
1.0	6	20	20	20	20	20	20	20	20	20	18
1.5	10	20	20	20	20	20	20	20	20	18	18
2	16	20	20	20	20	20	20	18	18	16	16
3	24	20	20	20	20	20	18	18	16	16	14
4	30	20	20	20	20	18	16	16	16	14	12
5	40	20	20	20	18	18	16	14	14	12	12
6	50	20	20	20	18	16	16	14	14	12	12
7	60	20	20	20	18	16	14	14	12	12	10
8	70	20	20	20	16	16	14	12	12	10	10
10	80	20	20	18	16	14	12	12	12	10	10
11	90	20	20	18	16	14	12	12	10	10	8
12	100	20	20	18	16	14	12	12	10	10	8
15	120	20	20	18	14	12	12	10	10	8	8
18	140	20	20	16	14	12	10	10	8	8	8
20	160	20	18	16	12	12	10	10	8	8	6
22	180	20	18	16	12	10	10	8	8	8	6
24	200	20	18	16	12	10	10	8	8	6	6
36		20	16	14	10	8	8	8	6	6	4
50		18	16	12	10	8	6	6	4	4	2
100		14	12	10	6	4	4	2	2	1	0
150		14	10	8	4	2	2	1	0	00	000
200		12	8	6	4	2	1	0	00	000	0000

ACTUAL OUTSIDE DIAMETERS OF TAPER PIPE THREADS AT SMALL END.

Brass Fittings Guide



GRADE 5 HEX HEAD CAP SCREWS / COARSE THREAD

DIAMETER		1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"
THREADS PER INCH		20	18	16	14	13	12	11
HEAD SIZE ACROSS FLATS (WRENCH SIZE)		7/16"	1/2"	9/16"	5/8"	3/4"	13/16"	7/8"
TENSILE STRENGTH		120,000 PSI	120,000 PSI	120,000 PSI	120,000 PSI	120,000 PSI	120,000 PSI	120,000 PSI
L E N G T H	1/2"	CSC-1412	CSC-51612			CSC-1212		
	3/4"	CSC-1434	CSC-51634	CSC-3834	CSC-71634	CSC-1234		
	1"	CSC-141	CSC-5161	CSC-381	CSC-7161	CSC-121	CSC-9161	CSC-581
	1-1/4"	CSC-14114	CSC-516114	CSC-38114	CSC-716114	CSC-12114		CSC-58114
	1-1/2"	CSC-14112	CSC-516112	CSC-38112	CSC-716112	CSC-12112	CSC-916112	CSC-58112
	1-3/4"	CSC-14134	CSC-516134	CSC-38134	CSC-716134	CSC-12134		CSC-58134
	2"	CSC-142	CSC-5162	CSC-382	CSC-7162	CSC-122	CSC-9162	CSC-582
	2-1/4"	CSC-14214	CSC-516214	CSC-38214	CSC-716214	CSC-12214		CSC-58214
	2-1/2"	CSC-14212	CSC-516212	CSC-38212	CSC-716212	CSC-12212	CSC-916212	CSC-58212
	3"	CSC-143	CSC-5163	CSC-383	CSC-7163	CSC-123	CSC-9163	CSC-583
	3-1/2"	CSC-14312	CSC-516312	CSC-38312	CSC-716312	CSC-12312	CSC-916312	CSC-58312
	4"	CSC-144	CSC-5164	CSC-384	CSC-7164	CSC-124	CSC-9164	CSC-584
	4-1/2"	CSC-14412	CSC-516412	CSC-38412	CSC-716412	CSC-12412	CSC-916412	CSC-58412
	5"	CSC-145	CSC-5165	CSC-385	CSC-7165	CSC-125	CSC-9165	CSC-585

Fine Thread Available On All CapScrews

More Sizes Available



GRADE 8 HEX HEAD CAP SCREWS / COARSE THREAD

DIAMETER	1/4"	5/16"	3/8"	7/16"	1/2"	9/16"	5/8"	3/4"
THREADS PER INCH	20	18	16	14	13	12	11	10
HEAD SIZE ACROSS FLATS	7/16"	1/2"	9/16"	5/8"	3/4"	13/16"	7/8"	1"
TENSILE STRENGTH	150,000 PSI	150,000 PSI	150,000 PSI	150,000 PSI	150,000 PSI	150,000 PSI	150,000 PSI	150,000 PSI
L E N G T H	1/2"	CSC8-1412	CSC8-51612	CSC8-3812				
	5/8"	CSC8-1458	CSC8-51658	CSC8-3858				
	3/4"	CSC8-1434	CSC8-51634	CSC8-3834	CSC8-71634	CSC8-1234		
	1"	CSC8-141	CSC8-5161	CSC8-381	CSC8-7161	CSC8-121	CSC8-9161	CSC8-581
	1-1/4"	CSC8-14114	CSC8-516114	CSC8-38114	CSC8-716114	CSC8-12114	CSC8-916114	CSC8-58114
	1-1/2"	CSC8-14112	CSC8-516112	CSC8-38112	CSC8-716112	CSC8-12112	CSC8-916112	CSC8-58112
	1-3/4"	CSC8-14134	CSC8-516134	CSC8-38134	CSC8-716134	CSC8-12134	CSC8-916134	CSC8-58134
	2"	CSC8-142	CSC8-5162	CSC8-382	CSC8-7162	CSC8-122	CSC8-9162	CSC8-582
	2-1/4"	CSC8-14214	CSC8-516214	CSC8-38214	CSC8-716214	CSC8-12214		CSC8-58214
	2-1/2"	CSC8-14212	CSC8-516212	CSC8-38212	CSC8-716212	CSC8-12212	CSC8-916212	CSC8-58212
	2-3/4"	CSC8-14234	CSC8-516234	CSC8-38234	CSC8-716234	CSC8-12234		CSC8-58234
	3"	CSC8-143	CSC8-5163	CSC8-383	CSC8-7163	CSC8-123	CSC8-9163	CSC8-583
	3-1/4"		CSC8-516314	CSC8-38314		CSC8-12314		
	3-1/2"	CSC8-14312	CSC8-516312	CSC8-38312	CSC8-716312	CSC8-12312	CSC8-916312	CSC8-58312
	4"	CSC8-144	CSC8-5164	CSC8-384	CSC8-7164	CSC8-124	CSC8-9164	CSC8-584
	4-1/2"	CSC8-14412	CSC8-516412	CSC8-38412	CSC8-716412	CSC8-12412	CSC8-916412	CSC8-58412
	5"	CSC8-145	CSC8-5165	CSC8-385	CSC8-7165	CSC8-125	CSC8-9165	CSC8-585
	6"	CSC8-146	CSC8-5166	CSC8-386	CSC8-7166	CSC8-126	CSC8-9166	CSC8-586

Fine Thread Available On All Capscrews



USS FLAT WASHERS

USS PART#	SIZE	O.D.	STD PKG
FW-USS-10	#10	9/16"	100
FW-USS-1/4	1/4"	3/4"	100
FW-USS-5/16	5/16"	7/8"	100
FW-USS-3/8	3/8"	1"	100
FW-USS-7/16	7/16"	1-1/4"	100
FW-USS-1/2	1/2"	1-3/8"	100
FW-USS-9/16	9/16"	1-1/2"	100
FW-USS-5/8	5/8"	1-3/4"	50
FW-USS-3/4	3/4"	2"	50
FW-USS-1	1"	2-1/2"	25
FW-USS-1-1/4	1-1/4"	3"	25
FW-USS-1-1/2	1-1/2"	3-1/2"	5



GRADE 8 USS FLAT WASHERS

YELLOW ZINC CHROMATE (HEAVY DUTY)

USS PART#	SIZE	O.D.	STD PKG
FW8-USS-1/4	1/4"	3/4"	100
FW8-USS-5/16	5/16"	7/8"	100
FW8-USS-3/8	3/8"	1"	100
FW8-USS-7/16	7/16"	1-1/4"	100
FW8-USS-1/2	1/2"	1-3/8"	100
FW8-USS-9/16	9/16"	1-1/2"	50
FW8-USS-5/8	5/8"	1-3/4"	50
FW8-USS-3/4	3/4"	2"	50
FW8-USS-7/8	7/8"	2-1/4"	25
FW8-USS-1	1"	2-1/2"	10



SAE FLAT WASHERS

SAE PART#	SIZE	O.D.	STD PKG
FW-SAE-4	#4	5/16"	100
FW-SAE-6	#6	3/8"	100
FW-SAE-8	#8	7/16"	100
FW-SAE-10	#10	1/2"	100
FW-SAE-12	#12	9/16"	100
FW-SAE-1/4	1/4"	5/8"	100
FW-SAE-5/16	5/16"	11/16"	100
FW-SAE-3/8	3/8"	13/16"	100
FW-SAE-7/16	7/16"	15/16"	100
FW-SAE-1/2	1/2"	1"	100
FW-SAE-9/16	9/16"	1-3/16"	100
FW-SAE-5/8	5/8"	1-5/16"	100
FW-SAE-3/4	3/4"	1-1/2"	100
FW-SAE-7/8	7/8"	1-3/4"	100
FW-SAE-1	1"	2"	50



GRADE 8 SAE PLATED FLAT WASHERS

YELLOW ZINC CHROMATE (HEAVY DUTY)

SAE PART#	SIZE	O.D.	STD PKG
FW8HD-SAE-1/4	1/4"	5/8"	100
FW8HD-SAE-5/16	5/16"	11/16"	100
FW8HD-SAE-3/8	3/8"	13/16"	100
FW8HD-SAE-7/16	7/16"	15/16"	100
FW8HD-SAE-1/2	1/2"	1"	100
FW8HD-SAE-9/16	9/16"	1-3/16"	50
FW8HD-SAE-5/8	5/8"	1-5/16"	50
FW8HD-SAE-3/4	3/4"	1-1/2"	50
FW8HD-SAE-7/8	7/8"	1-3/4"	25
FW8HD-SAE-1	1"	2"	10



STAR LOCK WASHERS



EXTERNAL PART#	INTERNAL PART#	EXTERNAL-INTERNAL PART#	STUD SIZE	STD PKG
LWE-10		LWEI-10	#10	100
LWE-1/4	LWI-1/4	LWEI-1/4	1/4"	100
LWE-5/16	LWI-5/16	LWEI-5/16	5/16"	100
LWE-3/8	LWI-3/8	LWEI-3/8	3/8"	100
LWE-7/16	LWI-7/16		7/16"	100
LWE-1/2	LWI-1/2		1/2"	100
	LWI-5/8		5/8"	100

LOCK WASHERS



PART#	SIZE	STD PKG
LW-8	#8	100
LW-10	#10	100
LW-1/4	1/4"	100
LW-5/16	5/16"	100
LW-3/8	3/8"	100
LW-7/16	7/16"	100
LW-1/2	1/2"	100
LW-9/16	9/16"	100
LW-5/8	5/8"	50
LW-3/4	3/4"	50
LW-1	1"	50

GRADE 8 YELLOW ZINC LOCK WASHERS



PART#	SIZE	STD PKG
LW8-1/4	1/4"	100
LW8-5/16	5/16"	100
LW8-3/8	3/8"	100
LW8-7/16	7/16"	50
LW8-1/2	1/2"	50
LW8-9/16	9/16"	50
LW8-5/8	5/8"	25
LW8-3/4	3/4"	25
LW8-7/8	7/8"	25
LW8-1	1"	10

FENDER WASHERS

PART#	I.D.	O.D.	THICKNESS	STD PKG
FNW-316X1	3/16"	1"	.047" - .080"	100
FNW-316X114	3/16"	1-1/4"	.047" - .080"	100
FNW-14X1	1/4"	1"	.047" - .080"	100
FNW-14X114	1/4"	1-1/4"	.047" - .080"	100
FNW-14X112	1/4"	1-1/2"	.047" - .080"	100
FNW-516X114	5/16"	1-1/4"	.047" - .080"	100
FNW-516X112	5/16"	1-1/2"	.047" - .080"	100
FNW-38X112	3/8"	1-1/2"	.047" - .080"	100
FNW-12X2	1/2"	2"	.047" - .080"	100



EXTRA THICK FENDER WASHERS

PART#	I.D.	O.D.	THICKNESS	STD PKG
FNWHD-14X1	1/4"	1"	.120"	100
FNWHD-14X112	1/4"	1-1/2"	.120"	100
FNWHD-516X114	5/16"	1-1/4"	.120"	50
FNWHD-516X134	5/16"	1-3/4"	.120"	50
FNWHD-38X114	3/8"	1-1/4"	.120"	50
FNWHD-38X134	3/8"	1-3/4"	.120"	50
FNWHD-12X2	1/2"	2"	.120"	50

All Hex Nuts Avliable In Fine Thread

PREVAILING TORQUE LOCK NUTS



CLASS C - WAXED

PART#	SIZE	STD PKG
HNPTC-1/4	1/4-20	100
HNPTC-5/16	5/16-18	100
HNPTC-3/8	3/8-16	100
HNPTC-7/16	7/16-14	50
HNPTC-1/2	1/2-13	50
HNPTC-9/16	9/16-12	50
HNPTC-5/8	5/8-11	25
HNPTC-3/4	3/4-10	20
HNPTC-7/8	7/8-9	25
HNPTC-1	1-8	10

NYLON LOCK NUTS

GRADE A



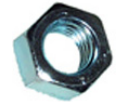
USS (COARSE)		
PART#	SIZE	STD PKG
NNC-10	10-24	100
NNC-1/4	1/4-20	100
NNC-5/16	5/16-18	100
NNC-3/8	3/8-16	50
NNC-7/16	7/16-14	50
NNC-1/2	1/2-13	50
NNC-9/16	9/16-12	50
NNC-5/8	5/8-11	25
NNC-3/4	3/4-10	20
SAE (FINE)		
NNF-10	10-32	100
NNF-1/4	1/4-28	100
NNF-5/16	5/16-24	100
NNF-3/8	3/8-24	100
NNF-7/16	7/16-20	50
NNF-1/2	1/2-20	50
NNF-5/8	5/8-18	25

YELLOW ZINC HEXAGON NUTS



GRADE 8 COARSE		
PART#	SIZE	STD PKG
HNC8-1/4	1/4-20	100
HNC8-5/16	5/16-18	100
HNC8-3/8	3/8-16	100
HNC8-7/16	7/16-14	50
HNC8-1/2	1/2-13	50
HNC8-9/16	9/16-12	50
HNC8-5/8	5/8-11	25
HNC8-3/4	3/4-10	20
HNC8-7/8	7/8-9	15
HNC8-1	1-8	10
GRADE 8 FINE		
HNF8-1/4	1/4-28	100
HNF8-5/16	5/16-24	100
HNF8-3/8	3/8-24	100
HNF8-7/16	7/16-20	50
HNF8-1/2	1/2-20	50
HNF8-5/8	5/8-18	25

HEXAGON NUTS ZINC



GRADE 5 COARSE		
PART#	SIZE	STD PKG
HNC5-1/4	1/4-20	100
HNC5-5/16	5/16-18	100
HNC5-3/8	3/8-16	100
HNC5-7/16	7/16-14	50
HNC5-1/2	1/2-13	50
HNC5-5/8	5/8-11	25
HNC5-3/4	3/4-10	20
HNC5-1	1-8	10
GRADE 5 FINE		
HNF5-5/16	5/16-24	100
HNF5-3/8	3/8-24	100
HNF5-7/16	7/16-20	50
HNF5-1/2	1/2-20	50

"U" TYPE NUTS



PART # UNC-1/4
Thread Size 1/4-20
Panel Range .025-.150
Center Hole to Edge 27/32"
Ford Products, Late Model
Standard Package - 50



PART # UNC-5/16
Thread Size 5/16-18
Panel Range .025-.150
Center Hole to Edge 7/8"
GM & Ford Products,
Late Model
Standard Package - 25



PART # UNC-3/8
Thread Size 3/8-16
Panel Range .025-.200
Center Hole to Edge 1-1/8"
Ford Products, Late Model
Standard Package - 25

GENERAL PURPOSE SPRING NUTS (UNPLATED)



PART#	THREAD SIZE	PANEL RANGE	CENTER HOLD TO EDGE	STD PKG
SN-6	No. 6	.025/.125	3/8"	100
SN-8	No. 8	.025/.125	3/8"	100

CASE HARDENED SERRATED FLANGE NUTS



PART#	THREAD SIZE	STD PKG
FNC-10	10-24	100
FNC-1/4	1/4-20	100
FNC-5/16	5/16-18	100
FNC-3/8	3/8-16	100
FNC-1/2	1/2-13	25
FNC-5/8	5/8-11	25

MACHINE NUTS



PART#	SIZE	STD PKG
MHN-632	6-32	100
MHN-832	8-32	100
MHN-1024	10-24	100
MHN-1032	10-32	100
MHN-1224	12-24	100
MHN-1420	1/4-20	100

FORGED WING NUTS



USS (Coarse)		
PART#	SIZE	STD PKG
WNC-1/4	1/4-20	100
WNC-5/16	5/16-18	50
WNC-3/8	3/8-16	50
WNC-1/2	1/2-13	25

KEP NUTS



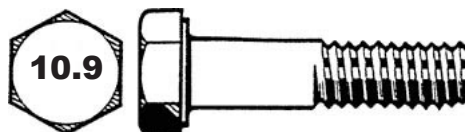
PART#	SIZE	STD PKG
KNC-6	6-32	100
KNC-8	8-32	100
KNC-10	10-24	100
KNC-1/4	1/4-20	100
KNC-5/16	5/16-18	100
KNC-3/8	3/8-16	100

KATCO
SERVICE PARTS INC.



Metric Hex Head Cap Screws

10.9 Available



**CARBON
STEEL**



REGULAR PITCH — GRADE 8.8

PART#	DIA.	PITCH	HEAD	LENGTH	STD PKG
CSM-5X10	5MM	.80	8MM	10MM	100
CSM-5X20	5MM	.80	8MM	20MM	100
CSM-5X25	5MM	.80	8MM	25MM	100
CSM-5X30	5MM	.80	8MM	30MM	100
CSM-6X10	6MM	1.0	10MM	10MM	100
CSM-6X12	6MM	1.0	10MM	12MM	100
CSM-6X16	6MM	1.0	10MM	16MM	100
CSM-6X20	6MM	1.0	10MM	20MM	100
CSM-6X25	6MM	1.0	10MM	25MM	100
CSM-6X30	6MM	1.0	10MM	30MM	100
CSM-6X35	6MM	1.0	10MM	35MM	100
CSM-6X40	6MM	1.0	10MM	40MM	100
CSM-6X45	6MM	1.0	10MM	45MM	100
CSM-8X10	8MM	1.25	13MM	10MM	100
CSM-8X12	8MM	1.25	13MM	12MM	100
CSM-8X16	8MM	1.25	13MM	16MM	50
CSM-8X20	8MM	1.25	13MM	20MM	50
CSM-8X25	8MM	1.25	13MM	25MM	50
CSM-8X30	8MM	1.25	13MM	30MM	50
CSM-8X35	8MM	1.25	13MM	35MM	50
CSM-8X40	8MM	1.25	13MM	40MM	50
CSM-8X45	8MM	1.25	13MM	45MM	50
CSM-8X50	8MM	1.25	13MM	50MM	50

PART#	DIA.	PITCH	HEAD	LENGTH	STD PKG
CSM-10X20	10MM	1.50	16MM	20MM	50
CSM-10X25	10MM	1.50	16MM	25MM	50
CSM-10X30	10MM	1.50	16MM	30MM	50
CSM-10X35	10MM	1.50	16MM	35MM	50
CSM-10X40	10MM	1.50	16MM	40MM	50
CSM-10X45	10MM	1.50	16MM	45MM	25
CSM-10X50	10MM	1.50	16MM	50MM	25
CSM-10X55	10MM	1.50	16MM	55MM	25
CSM-10X60	10MM	1.50	16MM	60MM	25
CSM-12X25	12MM	1.75	18MM	25MM	25
CSM-12X30	12MM	1.75	18MM	30MM	25
CSM-12X35	12MM	1.75	18MM	35MM	25
CSM-12X40	12MM	1.75	18MM	40MM	25
CSM-12X50	12MM	1.75	18MM	50MM	10
CSM-12X55	12MM	1.75	18MM	55MM	10
CSM-12X60	12MM	1.75	18MM	60MM	10

HEX NUTS GRADE 8.8

PART#	SIZE (MM)	PITCH	STD PKG
HNM-4	4	.70	100
HNM-5	5	.80	100
HNM-6	6	1.00	100
HNM-8	8	1.25	100
HNM-10	10	1.50	25
HNM-12	12	1.75	25
HNM-14	14	2.00	25
HNM-16	16	2.00	25

HEX NUTS GRADE 10.9

PART#	SIZE (MM)	PITCH	STD PKG
HNM10-6	6	1.00	100
HNM10-8	8	1.25	100
HNM10-10	10	1.50	100
HNM10-12	12	1.75	100
HNM10-14	14	2.00	50



NYLON INSERT LOCK NUTS

PART#	SIZE (MM)	PITCH	STD PKG
NNM-5	5	.80	100
NNM-6	6	1.00	100
NNM-8	8	1.25	100
NNM-10	10	1.50	50



FLAT WASHERS



PART#	SCREW SIZE	I.D.	STD PKG
FWM-4	4MM	4.3	100
FWM-5	5MM	5.3	100
FWM-6	6MM	6.4	100
FWM-8	8MM	8.4	100
FWM-10	10MM	10.5	100
FWM-12	12MM	13.0	100

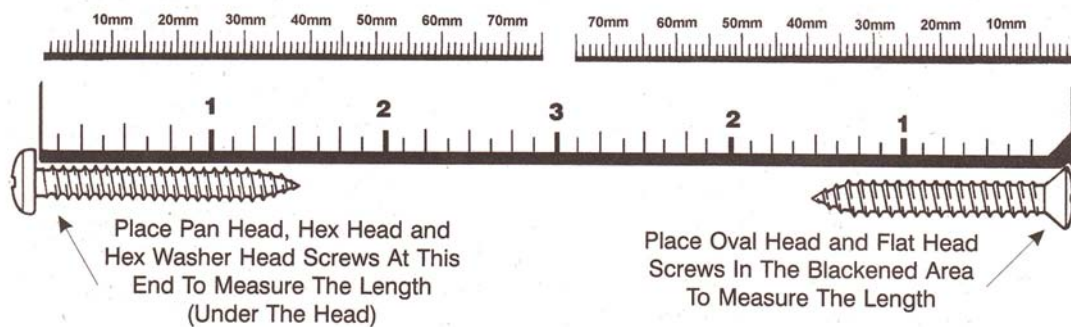
LOCK WASHERS



PART#	SCREW SIZE	I.D.	STD PKG
LWM-4	4MM	4.1	100
LWM-5	5MM	5.1	100
LWM-6	6MM	6.1	100
LWM-8	8MM	8.1	100
LWM-10	10MM	10.2	100
LWM-12	12MM	12.2	100
LWM-14	14MM	14.2	100
LWM-16	16MM	16.2	100



DIAMETER THREAD	LENGTH	STD PKG	PHILLIPS PAN HEAD	PHILLIPS FLAT HEAD	PHILLIPS TRUSS HEAD	TYPE "F" HEX WASHER HEAD
#6-32 COARSE	1/2"	100	MSCPX-612			
	3/4"	100	MSCPX-634			
	1"	100	MSCPX-61			
	1-1/2"	100	MSCPX-6112			
#8-32 COARSE	1/2"	100	MSCPX-812			
	3/4"	100	MSCPX-834			
	1"	100	MSCPX-81			
	1-1/2"	100	MSCPX-8112			
#10-32 FINE	1/2"	100	MSFPX-1012			
	3/4"	100	MSFPX-1034			
	1"	100	MSFPX-101			
	1-1/2"	100	MSFPX-10112			
#10-24 COARSE	1/2"	100	MSCPX-1012			
	5/8"	100	MSCPX-1058			
	3/4"	100	MSCPX-1034			
	1"	100	MSCPX-101			
	1-1/4"	100	MSCPX-10114			
	1-1/2"	100	MSCPX-10112			
1/4-20 COARSE	2"	100	MSCPX-102			
	1/2"	100	MSCPX-1412	MSCFX-1412	MSCTX-1412	MSCHWF-1412
	3/4"	100	MSCPX-1434	MSCFX-1434	MSCTX-1434	MSCHWF-1434
	1"	100	MSCPX-141	MSCFX-141	MSCTX-141	MSCHWF-141
	1-1/4"	100		MSCFX-14114		
	1-1/2"	100	MSCPX-14112	MSCFX-14112		
5/16-18 COARSE	2"	100	MSCPX-142	MSCFX-142		
	1/2"	50				MSCHWF-51612
	3/4"	50				MSCHWF-51634
	1"	50				MSCHWF-5161
3/8-16 COARSE	1"	50				MSCHWF-381



DIA	LENGTH	STD PKG	HEX HEAD		PHILLIPS		ROUNDHEAD WASHER BLACK
			HEX WASHER	HEX WASHER	PAN HEAD	BLACK OXIDE PAN HEAD	
#8	1/2"	100	SMSHWI-812		SMSPX-812		SMSRXWB-812
	5/8"	100			SMSPX-858		SMSRXWB-858
	3/4"	100	SMSHWI-834		SMSPX-834		SMSRXWB-834
	1"	100			SMSPX-81		SMSRXWB-81
	1-1/4"	100	SMSHWI-8114				
	1-1/2"	100	SMSHWI-8112		SMSPX-8112		SMSRXWB-8112
	2"	100					
#10	1/2"	100	SMSHWI-1012		SMSPX-1012		
	5/8"	100			SMSPX-1058		
	3/4"	100	SMSHWI-1034		SMSPX-1034		
	1"	100	SMSHWI-101		SMSPX-101		
	1-1/4"	100			SMSPX-10114		
	1-1/2"	100	SMSHWI-10112		SMSPX-10112		
	2"	100			SMSPX-102		
#12	1/2"	100			SMSPX-1212		
	3/4"	100			SMSPX-1234		
	1"	100			SMSPX-121		
	1-1/4"	100			SMSPX-12114		
	1-1/2"	100			SMSPX-12112		
1/4"	1/2"	100	SMSHWI-1412		SMSPX-1412		
	3/4"	100	SMSHWI-1434		SMSPX-1434		
	1"	100	SMSHWI-141		SMSPX-141		
	1-1/4"	100					
	1-1/2"	100	SMSHWI-14112		SMSPX-14112		
	2"	100	SMSHWI-142		SMSPX-142		
5/16"	1/2"	100	SMSHWI-51612				
	3/4"	100	SMSHWI-51634				
	1"	50	SMSHWI-5161				
	1-1/4"	50	SMSHWI-516114				
	1-1/2"	50	SMSHWI-516112				

HEX HEAD



HEX WASHER
SLOTTED

HEX WASHER

PHILLIPS



PAN
HEAD



BLACK OXIDE
PAN HEAD



ROUNDHEAD
WASHER BLACK

—ZINC—



DIA	LENGTH	HEX HEAD W / WASHER	PAN PHILLIPS HEAD	ROUND PHILLIPS W / WASHER	PAN HEAD QUAD DRIVE
#6	3/8"	TS-638	TS-PX638		
	1/2"	TS-612	TS-PX612		
1/4"	3/4"	TS-634	TS-PX634		
Head	1"		TS-PX61		
#8	1/2"	TS-812	TS-PX812		
	3/4"	TS-834	TS-PX834		
	1"	TS-81	TS-PX81		
1/4"	1-1/4"	TS-8114			
Head	1-1/2"	TS-8112	TS-PX8112		
#10	1/2"	TS-1012	TS-PX1012		
	3/4"	TS-1034	TS-PX1034		
	1"	TS-101	TS-PX101		
	1-1/4"	TS-10114			
5/16"	1-1/2"	TS-10112	TS-PX10112		
Head	2"	TS-102			
#12	3/4"	TS-1234			
	1"	TS-121			
5/16"	1-1/2"	TS-12112			
Head	2"	TS-122			
1/4"	3/4"	TS-1434			
	1"	TS-141			
	1-1/4"	TS-14114			
	1-1/2"	TS-14112			
3/8"	2"	TS-142			
Head	3"	TS-143*			

* - Std Pkg: 50

—BLACK—



DIA	LENGTH	HEX HEAD W / WASHER	PAN PHILLIPS HEAD	OVAL PHILLIPS W/BEAUTY WASHER	ROUND PHILLIPS W/WASHER
#8	1/2"	TSB-812	TSB-PX812		MT/TS 812
	3/4"	TSB-834	TSB-PX834	TSB-BWX834	MT/TS 834
	1"	TSB-81	TSB-PX81	TSB-BWX81	MT/TS 81
	1-1/4"	TSB-8114			
	1-1/2"	TSB-8112	TSB-PX8112		
#10	1/2"	TSB-1012			
	3/4"	TSB-1034			
	1"	TSB-101			
1/4"	1"	TSB-141			
	1-1/2"	TSB-14112			

Stainless Steel

CAP SCREWS —COARSE THREAD—



PART#	SIZE	STD PKG
CSCS1412	1/4-20 x 1/2"	50
CSCS1434	1/4-20 x 3/4"	50
CSCS141	1/4-20 x 1"	50
CSCS14114	1/4-20 x 1-1/4"	50
CSCS14112	1/4-20 x 1-1/2"	50
CSCS14134	1/4-20 x 1-3/4"	25
CSCS142	1/4-20 x 2"	25
CSCS14212	1/4-20 x 2-1/2"	25
CSCS143	1/4-20 x 3"	25
CSCS51634	5/16-18 x 3/4"	25
CSCS5161	5/16-18 x 1"	25
CSCS516114	5/16-18 x 1-1/4"	25
CSCS516112	5/16-18 x 1-1/2"	25
CSCS5162	5/16-18 x 2"	25
CSCS516212	5/16-18 x 2-1/2"	25
CSCS5163	5/16-18 x 3"	25
CSCS381	3/8-16 x 1"	50
CSCS38114	3/8-16 x 1-1/4"	25
CSCS38112	3/8-16 x 1-1/2"	25
CSCS382	3/8-16 x 2"	25
CSCS38212	3/8-16 x 2-1/2"	25

Also Available in Fine Thread

FENDER WASHERS

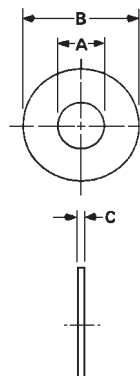


PART#	SIZE (ID)	SIZE (OD)	STD PKG
FNWS101	No. 10	1"	100
FNWS141	1/4"	1"	100
FNWS14114	1/4"	1-1/4"	100
FNWS516112	5/16"	1-1/2"	100
FNWS38112	3/8"	1-1/2"	100

COMMERCIAL FLAT WASHERS



PART#	SIZE	I.D. (A)	O.D. (B)	APPROXIMATE THICKNESS(C)	STD PKG
FWS6	No. 6	5-32"	3/8"	.030	100
FWS8	No. 8	3/16"	7/16"	.030	100
FWS10	No. 10	7/32"	1/2"	.030	100
FWS12	No. 12	1/4"	39/64"	.043	100
FWS1/4	1/4"	5/16"	47/64"	.043	100
FWS5/16	5/16"	3/8"	7/8"	.050	100
FWS3/8	3/8"	7/16"	1"	.060	100
FWS7/16	7/16"	1/2"	1-1/4"	.060	50
FWS1/2	1/2"	9/16"	1-3/8"	.060	50
FWS5/8	5/8"	11/16"	1-3/4"	.075	100



MEDIUM SPLIT LOCKWASHERS



PART#	SIZE	STD PKG
LWS6	No. 6	100
LWS8	No. 8	100
LWS10	No. 10	100
LWS1/4	1/4"	100
LWS5/16	5/16"	100
LWS3/8	3/8"	100
LWS1/2	1/2"	100

NYLON INSERT LOCK NUTS



NNCS6	6-32	50
NNCS8	8-32	50
NNCS10	10-24	50
NNFS10	10-32	50
NNCS1/4	1/4-20	50
NNFS1/4	1/4-28	50
NNCS5/16	5/16-18	50
NNFS5/16	5/16-24	100
NNCS3/8	3/8-16	25
NNFS3/8	3/8-24	25
NNCS7/16	7/16-14	25
NNCS1/2	1/2-13	10
NNFS1/2	1/2-20	25

HEX MACHINE SCREW NUTS



PART#	SIZE	APPROX HEX WIDTH	STD PKG
MNCS6	6-32	5/16"	100
MNCS8	8-32	11/32"	100
MNCS10	10-24	3/8"	100
MNFS10	10-32	3/8"	100
MNCS1/4	1/4-20	7/16"	100

HEX NUTS



PART#	SIZE	STD PKG
HNCS1/4	1/4-20	100
HNCS5/16	5/16-18	50
HNCS3/8	3/8-16	50
HNCS1/2	1/2-13	25

MACHINE SCREWS



**PAN HEAD
PHILLIPS**



**OVAL HEAD
PHILLIPS**



**FLAT HEAD
PHILLIPS**

DIAMETER THREAD	LENGTH	STD PKG	PAN HEAD PHILLIPS	OVAL HEAD PHILLIPS	FLAT HEAD PHILLIPS
#6-32 COARSE	1/2"	100	MSCPXS612		
	3/4"	100	MSCPXS634		
	1"	100	MSCPXS61		
	1-1/2"	100	MSCPXS6112		
	2"	100	MSCPXS62		
#8-32 COARSE	1/2"	100	MSCPXS812	MSCOXS812	
	3/4"	100	MSCPXS834	MSCOXS834	
	1"	100	MSCPXS81	MSCOXS81	
	1-1/2"	100	MSCPXS8112		
	2"	100	MSCPXS82		
#10-32 FINE	1/2"	100	MSFPXS1012		
	3/4"	100	MSFPXS1034		
	1"	100	MSFPXS101		
	1-1/2"	100	MSFPXS10112		
	2"	100	MSFPXS102		
	2-1/2"	100	MSFPXS10212		
#10-24 COARSE	1/2"	100	MSCPXS1012	MSCOXS1012	
	3/4"	100	MSCPXS1034	MSCOXS1034	
	1"	100	MSCPXS101	MSCOXS101	
	1-1/2"	100	MSCPXS10112	MSCOXS10112	
	2"	100	MSCPXS102	MSCOXS102	
	2-1/2"	50	MSCPXS10212	MSCOXS10212	
	3"	50	MSCPXS103	MSCOXS103	
1/4-20 COARSE	1/2"	50	MSCPXS1412		
	3/4"	50	MSCPXS1434	MSCOXS1434	MSCFXS1434
	1"	50	MSCPXS141	MSCOXS141	MSCFXS141
	1-1/4"	50	MSCPXS14114	MSCOXS14114	
	1-1/2"	50	MSCPXS14112	MSCOXS14112	MSCFXS14112
	1-3/4"	50			MSCFXS14134
	2"	50	MSCPXS142	MSCOXS142	MSCFXS142
	2-1/2"	25	MSCPXS14212	MSCOXS14212	MSCFXS14212
	3"	25	MSCPXS143	MSCOXS143	
	4"	25	MSCPXS144	MSCOXS144	

SHEET METAL SCREWS



**PAN HEAD
PHILLIPS**



**OVAL HEAD
PHILLIPS**



**FLAT HEAD
PHILLIPS**

DIAMETER THREAD	LENGTH	STD PKG	PAN HEAD PHILLIPS	OVAL HEAD PHILLIPS	FLAT HEAD PHILLIPS
#6	1/2"	100	SMSPXS612	SMSOXS612	
	5/8"	100	SMSPXS658		
	3/4"	100	SMSPXS634	SMSOXS634	SMSFXS634
	1"	100	SMSPXS61	SMSOXS61	SMSFXS61
	1-1/4"	100	SMSPXS6114		
	1-1/2"	100	SMSPXS6112	SMSOXS6112	
#8	1/2"	100	SMSPXS812	SMSOXS812	SMSFXS812
	5/8"	100	SMSPXS858		
	3/4"	100	SMSPXS834	SMSOXS834	SMSFXS834
	1"	100	SMSPXS81	SMSOXS81	SMSFXS81
	1-1/4"	100	SMSPXS8114	SMSOXS8114	SMSFXS8114
	1-1/2"	100	SMSPXS8112	SMSOXS8112	SMSFXS8112
#10	2"	100	SMSPXS82	SMSOXS82	
	1/2"	100	SMSPXS1012	SMSOXS1012	
	3/4"	100	SMSPXS1034	SMSOXS1034	SMSFXS1034
	1"	100	SMSPXS101	SMSOXS101	SMSFXS101
	1-1/4"	100	SMSPXS10114	SMSOXS10114	SMSFXS10114
	1-1/2"	100	SMSPXS10112	SMSOXS10112	SMSFXS10112
	2"	100	SMSPXS102	SMSOXS102	
#12	2-1/2"	50	SMSPXS10212		
	3"	50	SMSPXS103		
	1/2"	100	SMSPXS1212		
	3/4"	100	SMSPXS1234		
	1"	100	SMSPXS121	SMSOXS121	
#14	1-1/4"	100		SMSOXS12114	
	1-1/2"	50	SMSPXS12112	SMSOXS12112	
	2"	50	SMSPXS122	SMSOXS122	
	3/4"	100	SMSPXS1434		
	1"	100	SMSPXS141	SMSOXS141	SMSFXS141
#14	1-1/4"	50	SMSPXS14114		
	1-1/2"	50	SMSPXS14112	SMSOXS14112	SMSFXS14112
	2"	50	SMSPXS142	SMSOXS142	
	2-1/2"	50	SMSPXS14212	SMSOXS14212	
	3"	50		SMSOXS143	