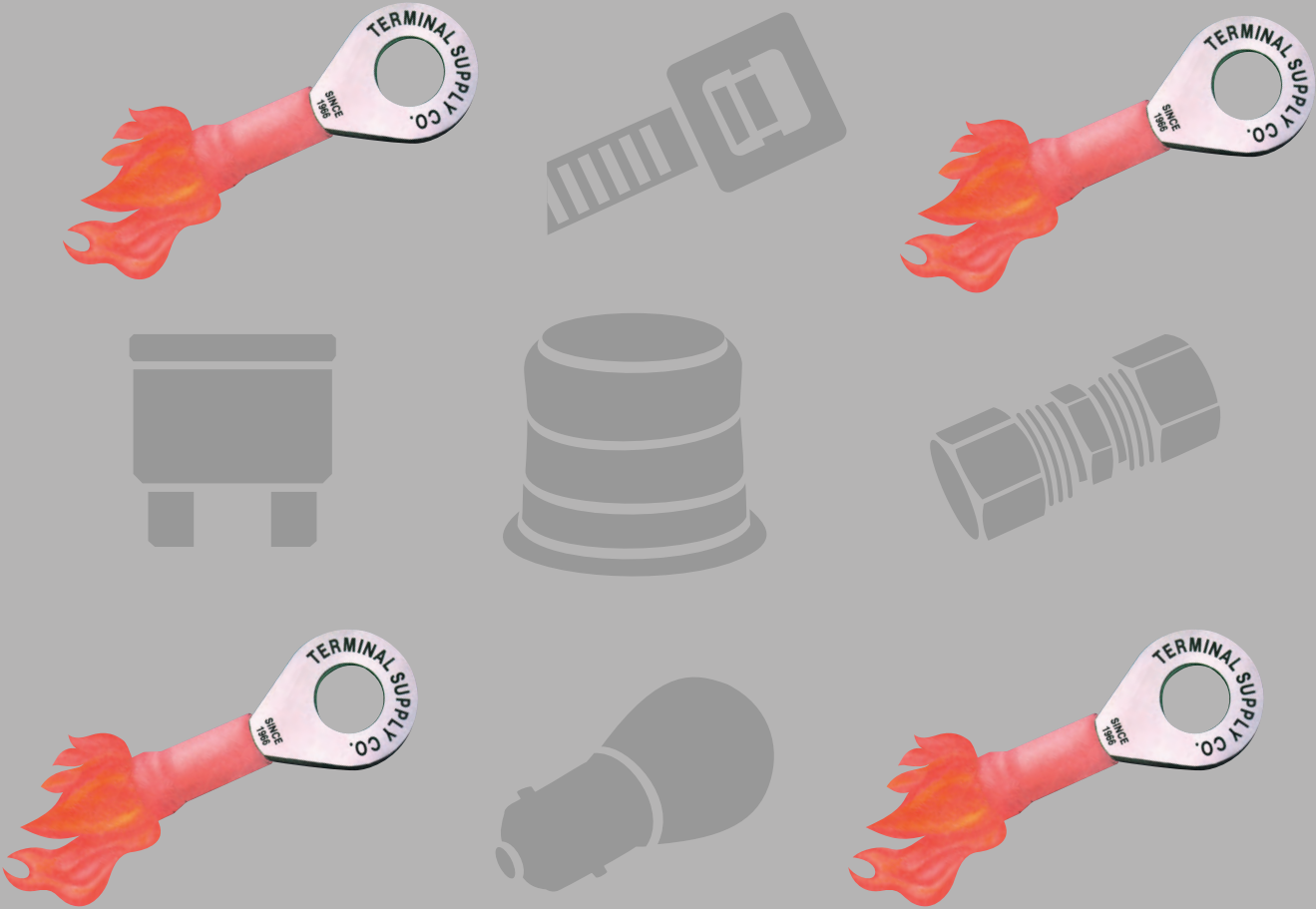


2023/2024 TERMINAL SUPPLY CO. Product Catalog

TERMINAL SUPPLY CO.

2023/2024 Product Catalog



We've got it. We'll build it. We'll solve it.



TERMINAL SUPPLY CO.

We've got it. We'll build it. We'll solve it.

Our commitment to providing the highest quality of service is built on four cornerstones that have proven our success.

Personal service, quality parts, quick delivery and attention to our customers needs

are the foundations that we provide our customers.

Our 2023/2024 catalog is designed with the benefit of 50+ years of servicing our customers. We take our Quality Policy Statement to heart and this catalog is the encomium of our relationship with our customers. With the support of over 200 manufacturers, as well as our own assembly capabilities, we can deliver on the promise to offer a collection of products that exceed your expectations. Many of the products that were added to this edition were the result of listening to and trusting our customers. We truly appreciate this guidance and look forward to servicing you in the future.

Sincerely,

Scott Leslie

President



World Headquarters - Troy, Michigan



1800 Thunderbird
Troy, MI 48084
Ph: 800-989-9632
Fax: 800-989-0824

Chicago, Illinois



906 Morse Ave.
Schaumburg, IL 60193
Ph: 800-989-5900
Fax: 800-989-0731

Cleveland, Ohio

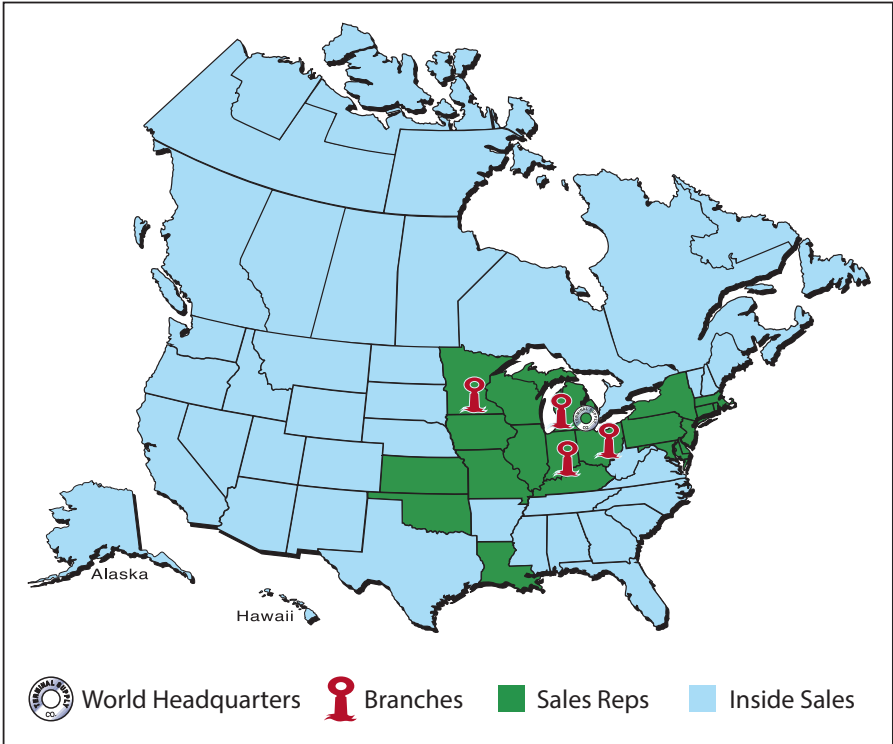


7600 Wall St.
Valley View, OH 44125
Ph: 800-989-1333
Fax: 800-989-1233

Minneapolis, Minnesota



550 West County Rd. D,
Suite 11
New Brighton, MN 55112
Ph: 800-989-6002
Fax: 651-631-2241



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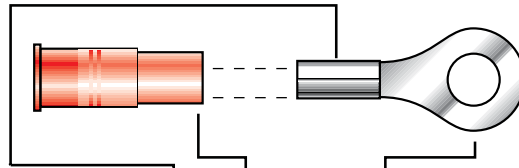
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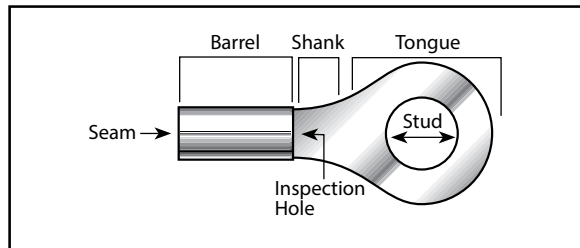
Part Number Explanation for Ring, Spade, Hook & Splice Terminals



A - 521 - 08

Letters indicate wire gauge & insulation color.	The first number specifies the barrel style & type of insulation. The second & third numbers indicate head design.	Last numbers indicate the stud size.
M 26 - 24 Yellow	1 Non-Insulated / Butted Seam 26ga. - 10ga.	02 #2
A 22 - 18 Red	2 Insulated / PVC Jacket 22ga. to 10ga.	04 #4
B 16 - 14 Blue	3 Non-Insulated / Brazed Seam 22ga. - 4/0ga.	06 #6
C 12 - 10 Yellow	4 Non-Insulated / Support Sleeve 22ga. - 14ga.	08 #8
D 8 Red	5 Insulated / Nylon Molded 22ga. - 10ga.	10 #10
E 6 Blue	6 Insulated / PVC Brazed Seam 8ga. - 3/0ga.	14 1/4"
F 4 Yellow	8 Insulated / Nylon Extruded 22ga. - 10ga.	56 5/16"
G 2 Red	9 Insulated / Nylon Support Sleeve 26ga. - 10ga.	38 3/8"
H 1/0 Blue		76 7/16"
J 2/0 Yellow		12 1/2"
K 3/0 Red		58 5/8"
L 4/0 Blue		34 3/4"
P 14-12 Yellow		78 7/8"

Terminal Type	Ratings	
	Voltage	Temperature
Nylon	600 volts	300°F
PVC	600 volts	240°F
Shrink	600 volts	221°F
Non-Insulated	Not Rated	375°F








Shrink Terminal Prefixes	
Prefixes	Description
SA, SB, SC, SD	Our most popular line of adhesive shrink terminals. These terminals rely on a mechanical crimp & are available in a wide variety of models.
SSA, SSB, SSC	Our solder/shrink terminals do not require a crimp to terminate. Each terminal contains a ring of solder that melts & connects the terminal to the wire to create the electrical connection.
KSA, KSB, KSC	This crimp/solder/adhesive lined shrink line of terminals offers the mechanical grip of a crimp & also features a ring of solder to aid in the electrical connection.
OPS	This latest series of our shrink terminal line-up features a clear adhesive lined tubing. The ring terminals also have a longer neck to create more contact when stacking terminals.

26-24 Gauge Terminals

- All terminals are copper with tin electroplate
- All of our 26-24ga. terminals are shown actual size
- Most of these terminals are sold in packages of 100, please inquire for details

26-24 Gauge: Nylon, Non-Insulated & Crimp/Solder/Shrink Terminals

Non Insulated Butt Connectors	Non Insulated Quick Disconnects	Crimp/Solder/Shrink Butt Connectors	Nylon Insulated Butt Connectors
TS-BC-2624	M-1130 M-1136	KSM-2422*	60-NB
	 		
<i>.020 stock</i>	<i>.020 stock</i>		
	<i>tab size</i> .110" .187"		

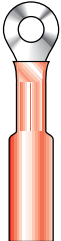
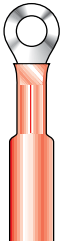
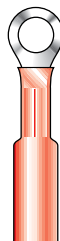
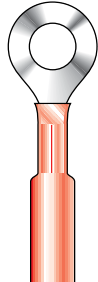
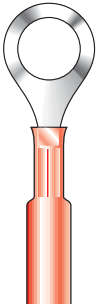
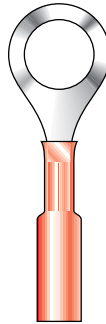
*This terminal accepts 24-22ga.

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for a wide variety of options.

22-18 Gauge Terminals

- Most of our 22-18ga. terminals have a 1/4" barrel length
- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 22-18ga. terminals are shown actual size
- These terminals are sold in packages of 100. Please inquire for details

22-18 Gauge: Adhesive Lined Shrink Terminals

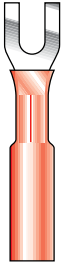

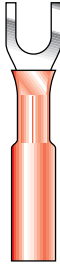



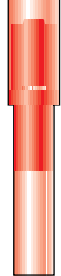

SA-221-06	SA-221-08	SA-221-10	SA-222-14	SA-222-56	SA-226-38
					
<i>.032 stock</i>					
<i>stud size</i> #6	#8	#10	1/4"	5/16"	3/8"

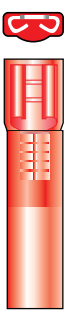
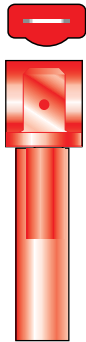


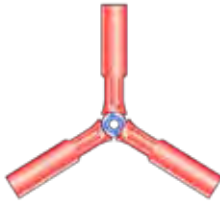
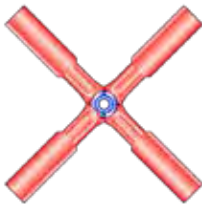
If you're looking for an assortment of shrink terminals, check out our Master Shrink Terminal Kit (MSK-32) on page 458.




Shrink terminals require a crimper & a torch, see our tool section starting on page 487 for these & other tooling options.




TERMINALS

22-18 Gauge: Adhesive Lined Shrink Terminals, cont'd

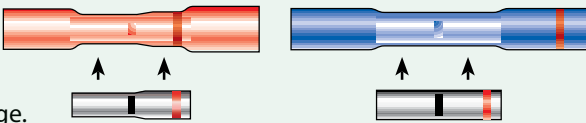
	Snap Spades						Bullet Connectors	
	SA-235-06	SA-235-08	SA-235-10	SA-2193-06	SA-2194-08	SA-2195-10	SSLA-96	SA-269
								
.032 stock								
stud size	#6	#8	#10	#6	#8	#10	diam. .156"	.156"


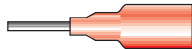
	Fully Insulated Quick Disconnects		Quick Disconnects		3 & 4 Way Connectors	
	SAA-9261	SAA-9260	SAA-2140	STA-MCT	SA-2YCX	SA-2XCX
						
.032 stock						
tab size	.250"	.250"	.250"	.250"	(Three) 22-18ga.	(Four) 22-18ga.

	Perma-Seal™ Butt Connector	Polyolefin Butt Connector	Dual Lined Butt Connector
	STC-A	STCP-SM*	STCHD-A
			
.032 stock			
	*This terminal accepts 24-22ga.		

	Multi-Wire Butt Connector	Step Down Connectors	
	STCHL-A	NSAM-648	NSBA-631
			
.032 stock			
	16-14ga. (Two 20-18ga.) / 20-18ga.	20-18ga. to 24-22ga.	16-14ga. to 22-18ga.

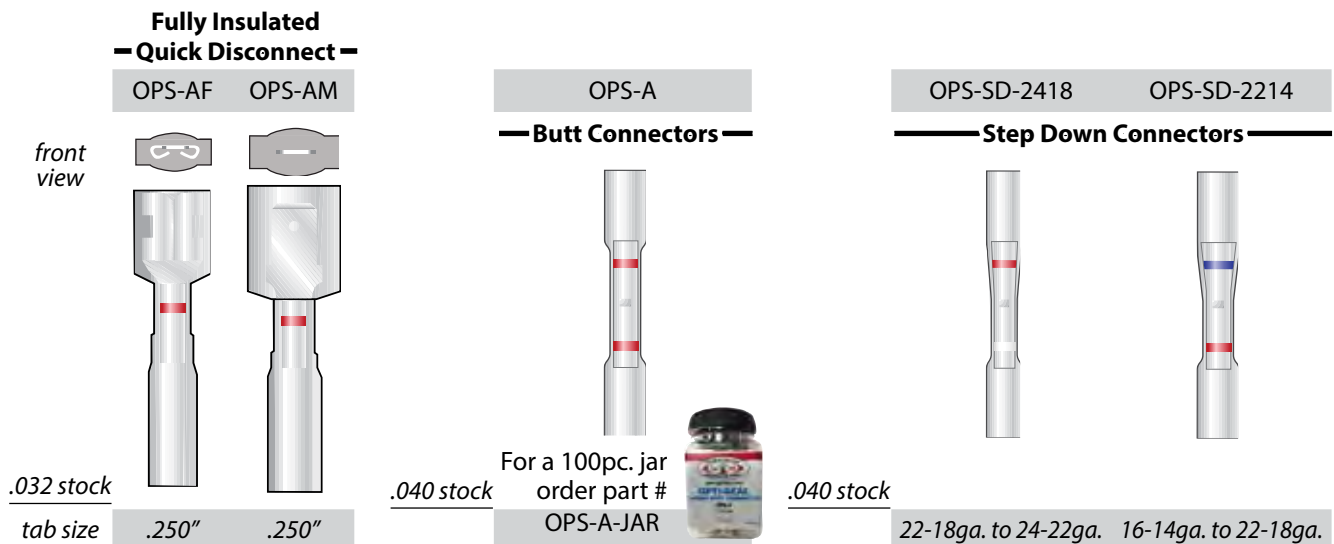
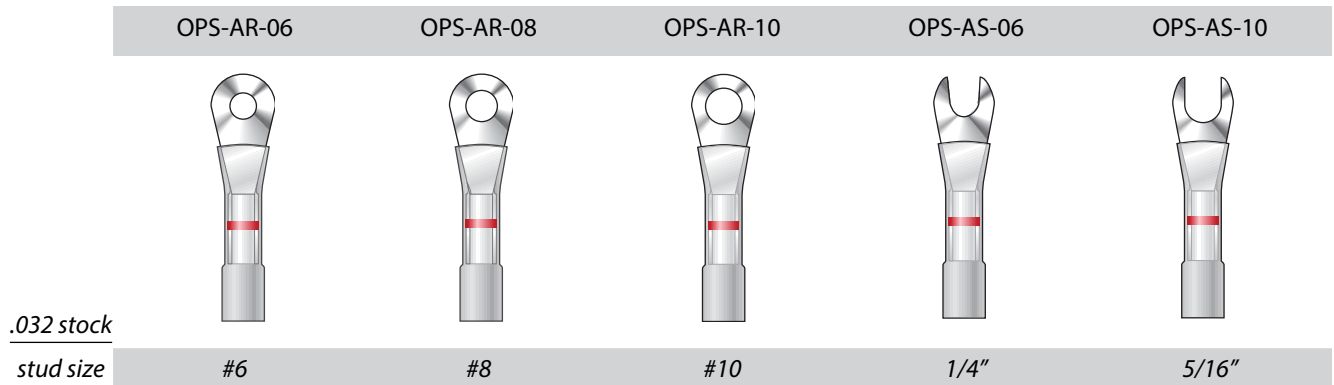
The step down & butt connectors above have barrels that are two different true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.



	Step Down Connector	Pin Terminal
	SBA-631	SA-NTC-125
		
.040 stock		
	16-14ga. to 22-18ga.	diameter .08"

Step down connectors are used to connect multiple wires of different gauges. If you're currently using a 3 or 4-way connector, consider switching to a step down connector.

22-18 Gauge: Clear Shrink Adhesive Lined Terminals



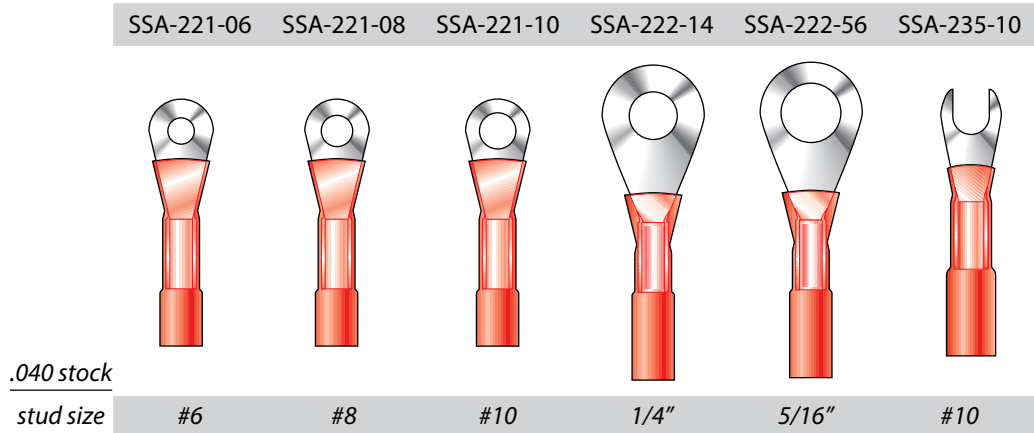
For 225 pieces of our most popular clear terminals, check out our Opti-Seal Clear Adhesive Lined Shrink Terminal Kit (OPTI-MSK-24).

For the perfect crimp on these terminals, you need the TR-50 crimper located on page 42 of the TSC catalog.

22-18 Gauge: Solder / Shrink Adhesive Lined Terminals

We offer our most popular solder / shrink terminals in a convenient 240 piece kit, our Solder Terminal Kit (SOLDER-T-KIT).

The only tool needed for our solder/shrink terminals is a heat source. Check out our full line of torches on page 487.

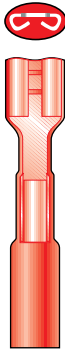
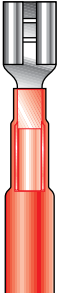





22-18 Gauge: Solder / Shrink Adhesive Lined Terminals

Our **solder / shrink terminals** are rated at 600V & are UL listed.

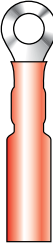
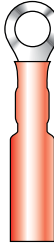
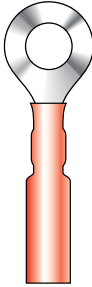
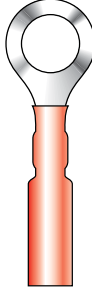
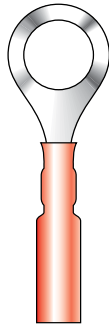
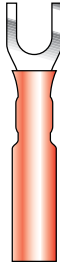
Easy installation with pre-measured solder takes the guess work out of the soldering process. Solder contains rosin flux.

The solder melting temp is 295°F. Shrink tubing temp range is -67°F to 230°F.


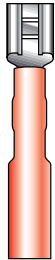
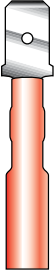
	Fully Insulated - Quick Disconnect -			Insulated Support Sleeve - Quick Disconnects -			- Butt Connectors -	
	SSA-850	SSA-2140	SSA-MCT	SSA-2422*	SSA-2218			
front view								
.040 stock								
tab size	.250"	.250"	.250"	*This terminal accepts 24-22ga.				

20-18 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals

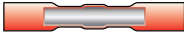



We have a wide variety of torches that will shrink these terminals perfectly, giving you a strong, weather-proof sealed connection. For all of your torch options, check out page 487. For the perfect crimp, check out TR-50 on page 475.

	KSA-21-08	KSA-21-10	KSA-21-14	KSA-21-56	KSA-21-38	KSA-22-10
						
.038 stock						
stud size	#8	#10	1/4"	5/16"	3/8"	#10

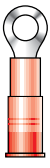
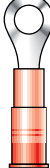
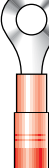

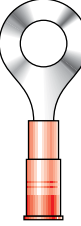
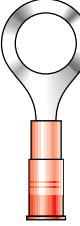
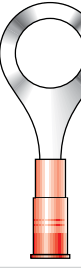
These terminals feature the reliability of a mechanical crimp with the strength & conductivity of solder. Shrink temperature is 275°F.



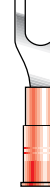
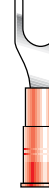
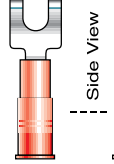
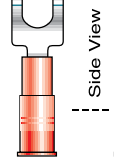
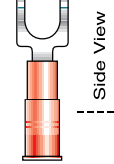
	Fully Insulated - Quick Disconnect -		
	KSA-850	KSA-2120	KSA-MCT
front view			
.038 stock			
tab size	.250"	.250"	.250"

20-18 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals, cont'd

Butt Connectors		Step Down Connectors	
KSM-2422*	KSA-2218	KSAM-648	KSBA-631
			
.038 stock			
*This terminal accepts 24-22ga.		20-18ga. to 24-22ga.	
		16-14 to 20-18ga.	

22-18 Gauge: Nylon Terminals w/ Support Sleeve


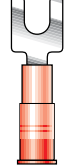
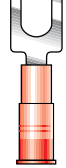
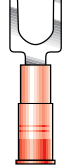

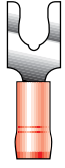

A-520-06	A-532-06	A-521-08	A-521-10	A-522-14	A-522-56	A-526-38
						
.032 stock						
stud size						
#6	#6	#8	#10	1/4"	5/16"	3/8"





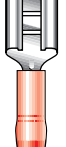
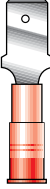
Flange Spades						
A-510-08	A-535-06	A-535-08	A-535-10	A-515-06	A-515-08	A-515-10
						
.032 stock						
stud size						
#8	#6	#8	#10	#6	#8	#10

Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

For best crimping results, we recommend crimper PA-8021. See page 475 for more info.

When choosing a male & female quick disconnect connector, be sure that both the tab size & the stock thickness match to insure a correct match.

Block Spades				Snap Spades		
AA-8109-04	A-534-06	A-534-08	A-534-10	AA-8704-06	AA-8714-08	AA-8715-10
						
.032 stock						
stud size						
#4	#6	#8	#10	#6	#8	#10

Insulated Support Sleeve Quick Disconnects					
AA-8131	AA-8137	MCT-A-587	AA-8134	AA-8140	MCT-5A
					
.020 stock			.032 stock		
tab size			tab size		
.110"	.187"	.187"	.110"	.250"	.250"

22-18 Gauge: Nylon Terminals

Be sure to check the front view of your **fully insulated connectors** before ordering. Some manufacturers designs may vary. If you don't see what you need, let us know!

Because of its very high conductive properties our terminals are made with 100% electrolytic copper. They are then electroplated with tin for corrosion resistance.

Support sleeves are used to give the insulation & crimp extra support in a heavy duty or high vibration situation.

For a wide range of nylon terminals in one box, check out our Auto Nylon Terminal Kit (AUTO-KIT-LG-N) on page 458.

Fully Insulated Quick Disconnects w/o Support Sleeve

	A-887	MCT-A-887	A-850	MCT-A-850
front view				
.020 stock			.032 stock	
tab size	.187"	.187"	tab size	.250"

Fully Insulated Quick Disconnects

	71F-187-20-NBL	71M-187-20-NBL	71F-250-32-NBL	71M-250-32-NBL
front view				
.020 stock			.032 stock	
tab size	.187"	.187"	tab size	.250"

Fully Insulated Quick Disconnects

	AA-5261	AA-5260
front view		
.032 stock		
tab size	.250"	.250"

Fully Insulated Female Flag Quick Disconnects

	AA-2222	AA-2223	A-975
inside			
outside			
.020 stock		.032 stock	
tab size	.187"	tab size	.250"





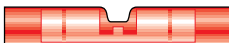
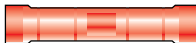
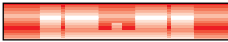

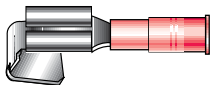
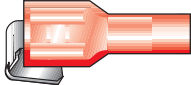
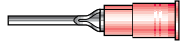
Bullet Connector

	BLT-R	A-589	BLT-RF	A-579	PC-2005F*	PC-2005M*
diameter	.156"	.156"	.180"	.180"	.210"	.210"

Need a versatile tool? Check out our crimper/wire stripper (RAR-100) on page 474. It crimps, cuts & strips a wide variety of terminals & wires.

*These connectors accept 20-18ga.

22-18 Gauge: Nylon Terminals

<p>Parallel Connector</p> <p>ASN-302</p>  <p><i>.020 stock</i></p>		<p>Butt Connector</p> <p>ASN-345</p> 			
<p>Butted Seam Funnel Entry Butt Connector</p> <p>A-945-DK</p> 		<p>Seamless Funnel Entry Butt Connector</p> <p>AS-932</p> 		<p>Funnel entry butt connectors are the perfect solution when using wire with thick insulation, such as our GXL wire on page 117.</p>	
<p>Aircraft Window Splice</p> <p>AW-542</p> 		<p>Aircraft window splices are ideal for connections that need regular inspections. These conform to military spec #MIL-T-7928/5.</p>	<p>Moisture Resistant Butt Connector</p> <p>A-500-G</p> 		<p>Moisture resistant butt connectors are filled with an anti-corrosive grease to keep the elements out of the terminal barrel.</p>
<p>Heavy Duty Butt Connector</p> <p>A-845</p> 		<p>Heavy duty butt connectors have extra heavy insulation for high vibration situations where a strong strain relief is needed.</p>	<p>Cool Seal Butt Connector</p> <p>COOLSEAL-A</p> 		<p>A Cool Seal® butt connector is a heatless & solderless, fully sealed connection. Activate the sealant by simply crimping the terminal.</p>
<p>Piggy Back Terminal</p> <p>PBT-2A</p>  <p><i>.032 stock</i> tab size</p>		<p>Fully Insulated Piggy Back Terminal</p> <p>FIPBT-2A</p>  <p><i>.250"</i></p>		<p>Pin Terminal</p> <p>TMDNTC-125</p>  <p>diameter <i>.08"</i></p>	

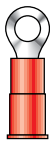
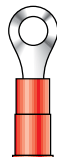




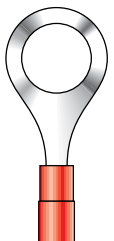
Auto Nylon Terminal Kit-Large




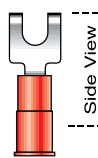
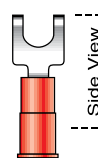
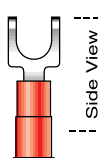
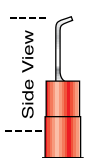






- 22-10ga. non-insulated ring terminals and butt connectors, 16-14ga. male and female quick disconnects and bullet connectors, 16-14ga. self-stripping displacement connectors and 16-14 ga. open barrel male and female 56 series terminals

Part Number	Total Pieces	Box
AUTO KIT-LG-N	912	LMB-24

22-18 Gauge: PVC Terminals

	A-220-06	A-232-06	A-221-08	A-221-10	A-222-14	A-222-56	A-226-38
							
<i>.032 stock</i>							
stud size	#6	#6	#8	#10	1/4"	5/16"	3/8"

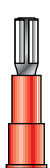







Flange Spades						
	A-235-06	A-235-08	A-235-10	A-215-06	A-215-08	A-215-10
						
<i>.032 stock</i>						
stud size	#6	#8	#10	#6	#8	#10

Block Spades		Snap Spades		
	A-234-06	AA-2704-06	AA-2714-08	AA-2715-10
				
<i>.032 stock</i>				
stud size	#6	#6	#8	#10

Check out our Auto PVC Terminal Kit (AUTO-KIT-LG-P) for a wide selection of PVC terminals in one organized location.

For best crimping results, we recommend crimper PA-1308. See page 475 for more info.

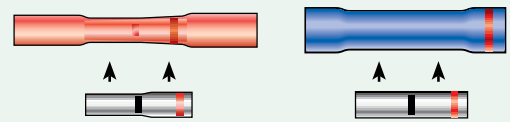
Snap spade terminals are a great choice when removing an entire fastener is not practical or when used as a temporary connection.

Quick Disconnects						Bullet Connectors				
	AA-2131	AA-2137	MCT-A-287	AA-2134	AA-2140	MCT-2A	A-289	A-279		
										
<i>.020 stock</i>			<i>.032 stock</i>							
tab size	.110"	.187"	.187"	tab size	.110"	.250"	.250"	diameter	.156"	.180"

22-18 Gauge: PVC Terminals, cont'd

	Parallel Connector	Butt Connector	Step Down Connector
	A-202	A-245	BA-631
<i>.032 stock</i>			
			16-14 to 22-18ga.
	Vinyl Step Down Connectors		Pin Terminal
	NAM-648	NBA-631	TMETC-125
<i>.032 stock</i>			
	22-18 to 24-22ga.	16-14 to 22-18ga.	diameter .08"

The step down connectors beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.



22-18 Gauge: Non-Insulated Terminals

	A-320-04	A-320-06	A-332-06	A-321-08	A-321-10	A-322-14	A-322-56	A-326-38
<i>.032 stock</i>								
stud size	#4	#6	#6	#8	#10	1/4"	5/16"	3/8"

	A-335-06	A-335-10
<i>.032 stock</i>		
stud size	#6	#10

The suggested crimper for these terminals is the WT-111M. If you're looking for a ratchet style crimper GRN-45505G or TCP-251B, all are located on page 476 of our catalog.

Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

	Block Spades			Snap Spades		
	A-134-06	A-134-08	A-134-10	AA-1704-06	AA-1714-08	AA-1715-10
<i>.032 stock</i>						
stud size	#6	#8	#10	#6	#8	#10

22-18 Gauge: Non-Insulated Terminals, cont'd

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection.

Butted Seam Quick Disconnects

AA-1131 AA-1137 MCT-A-187

AA-1134 AA-1140 MCT-1A



.020 stock

tab size .110" .187" .187"

.032 stock

tab size .110" .250" .250"

Flag Female Quick Disconnects

A-187

A-175



.020 stock

tab size .187"

.032 stock

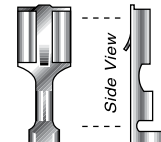
tab size .250"

Female Quick Disconnects w/ Vibration Support

AA-4173

AA-4176

AA-4176-TAB



.020 stock

tab size .187"

.032 stock

tab size .250"

tab size .250"

Bullet Connectors

A-189

A-179



diameter

.156"

.180"

Parallel Connector

AS-302



.032 stock

Butt Connector

AS-345



Step Down Connectors

NAM-348

BA-331

NBA-331



.032 stock

22-18 to 24-22ga. 16-14 to 22-18ga. 16-14 to 22-18ga.

Pin & Socket Terminals

TC-125

02-09-2103*

02-09-1104*



Pin

Socket

diameter

.08"

.093"

.093"

*These terminals accept 20-14ga.

The step down connectors beginning with N "step down" using ends that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.

Non Insulated Terminal & Shrink Tube Kit

- 22-10ga. non-insulated ring terminals and butt connectors, step down connectors and adhesive lined shrink tubing



High Temperature Terminal Kit

- 22-10ga. non-insulated ring terminals and butt connectors, 16-14ga., male and female quick disconnects and high temp. porcelain wire nuts



Part Number

Total Pieces

Box

JHTK-540

540

LMB-24

Part Number

Total Pieces

Box

HTT-KIT-SM

495

SMB-20

22-18 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

AS-20-06	AS-32-06	AS-32-08	AS-33-10	AS-22-14	AS-22-56	Butt Connector AS-45
<i>.032 stock</i>						
<i>stud size</i>						
#6	#6	#8	#10	1/4"	5/16"	

The suggested crimper for non-insulated terminals is the WT-111M, located on page 476.

Our **high temp** terminals are rated up to 900°F.

16-14 Gauge Terminals

- Most of our 16-14ga. terminals have a 1/4" barrel length.
- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 16-14ga. terminals are shown actual size
- Most of these terminals are sold in packages of 100. Please inquire for details

16-14 Gauge: Adhesive Lined Shrink Terminals

SB-237-06	SB-237-08	SB-239-10	SB-225-14	SB-225-56	SB-218-38
<i>.032 stock</i>					
<i>stud size</i>					
#6	#8	#10	1/4"	5/16"	3/8"

For proper termination of our adhesive lined shrink terminal, first use an insulated crimping tool (not anvil die). We recommend tool #TR-50. Then, use a heat source found on page 475 to melt the adhesive lined shrink tubing.

Snap Spades

SB-219-10	SB-224-06	SB-227-06	SB-227-08	SB-227-10	SB-2193-06	SB-2194-08	SB-2195-10	SB-2196-14
<i>.032 stock</i>								
<i>stud size</i>								
#10	#6	#6	#8	#10	#6	#8	#10	1/4"

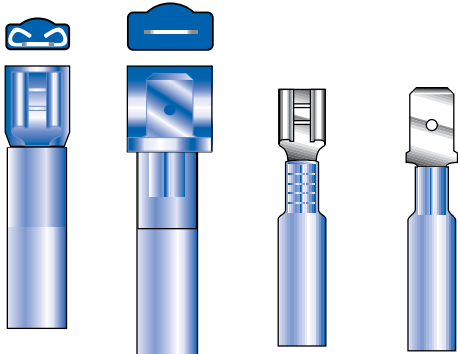
16-14 Gauge: Adhesive Lined Shrink Terminals, cont'd

Fully Insulated

— Quick Disconnects —

SBB-9263 SBB-9262 SBB-2141 STB-MCT

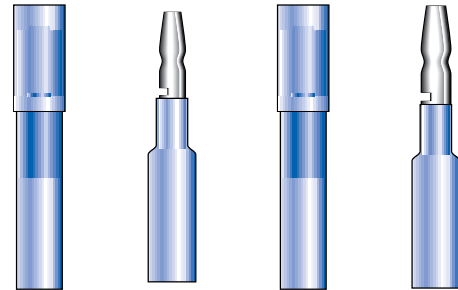
front view



.032 stock
tab size .250" .250" .250" .250"

— Bullet Connectors —

SSLC-96 SB-289 SSLC-180 SB-279



.032 stock
diameter .156" .156" .180" .180"

— Perma-Seal™ Butt Connector — — Polyolefin Butt Connector — — Dual Lined Butt Connector —

STC-B

STCP-B

STCHD-B



.032 stock

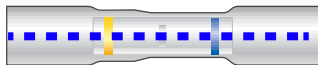
— Multi-Wire Butt Connector —

STCHL-B

— Step Down Connectors —

NSBA-631

NSCB-646



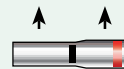
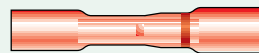
.040 stock

12-10ga. (Two 16-14ga.) / 16-14ga.

16-14ga. to 22-18ga.

12-10ga. to 16-14ga.

The step down & butt connectors above have barrels that are two different true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.



— Step Down Connector —

SBA-631

SCB-646

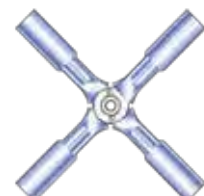
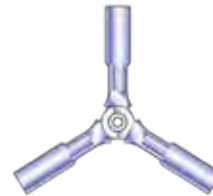
— Pin Terminal —

SB-NTC-200

— 3 & 4 Way Connectors —

SB-2YCX

SB-2XCX



.040 stock

16-14ga. to 22-18ga.

12-10ga. to 16-14ga.









diam.






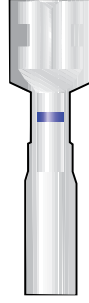
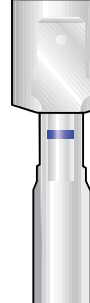




.08"

(Three) 16-14ga.



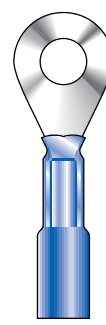
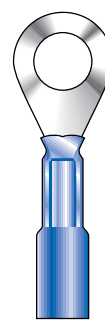
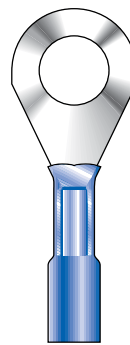

(Four) 16-14ga.

16-14 Gauge: Clear Shrink Adhesive Lined Terminals

	OPS-BR-06	OPS-BR-08	OPS-BR-10	OPS-BR-14	OPS-BR-38	OPS-BR-516	OPS-BS-06	OPS-BS-10
								
<i>.032 stock</i>								
stud size	#6	#8	#10	1/4"	3/8"	5/16"	#6	#10

	Fully Insulated Quick Disconnect		Butt Connectors	Step Down Connectors	
	OPS-BF	OPS-BM	OPS-B	OPS-SD-2214	OPS-SD-1610
<i>front view</i>					
					
<i>.032 stock</i>			For a 100pc. jar order part # OPS-B-JAR 		
tab size	.250"	.250"		16-14ga. to 22-18ga. 12-10ga. to 16-14ga.	

16-14 Gauge: Solder / Shrink Adhesive Lined Terminals




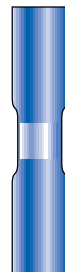
	SSB-237-08	SSB-239-10	SSB-225-14	SSB-225-56	SSB-218-38	SSB-227-10
						
<i>.040 stock</i>						
stud size	#8	#10	1/4"	5/16"	3/8"	#10

We offer our most popular solder / shrink terminals in a convenient 240 piece kit, our Solder Terminal Kit (SOLDER-T-KIT).

The solder melting temp is 295°F. Shrink tubing temp range is -67°F to 230°F.

Our **solder / shrink terminals** are rated at 600V & are UL listed.

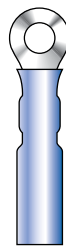
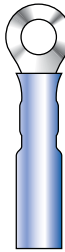
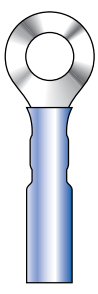
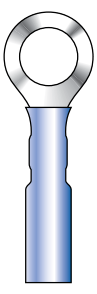
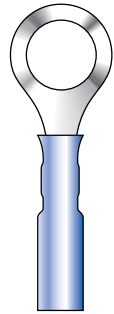
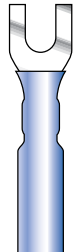
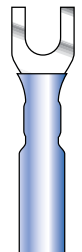
16-14 Gauge: Solder / Shrink Adhesive Lined Terminals, cont'd

	Fully Insulated Quick Disconnect		Insulated Support Sleeve Quick Disconnects		Butt Connector
	SSB-850	SSB-2141	SSB-MCT		SSB-1614
front view					
.040 stock					
tab size	.250"	.250"	.250"		

Easy installation with pre-measured solder takes the guess work out of the soldering process. Solder contains rosin flux.

The only tool needed for installation is a heat source to melt the shrink tube & solder. For a wide selection of torches, see pages 486-487.


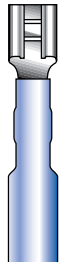
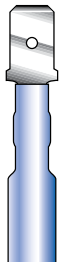
16-14 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals

	KSB-31-08	KSB-31-10	KSB-31-14	KSB-31-56	KSB-31-38	KSB-32-08	KSB-32-10
							
.038 stock							
stud size	#8	#10	1/4"	5/16"	3/8"	#8	#10

This terminal line features the reliability of a mechanical crimp with the strength & conductivity of solder.


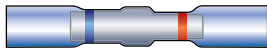

Shrink temperature is 275°F.

To perfectly crimp these terminals we recommend crimper TR-50 on page 475. For the perfect torch, see our many options on pages 486-487.

	Fully Insulated Quick Disconnect	Insulated Support Sleeve Quick Disconnects	
	KSB-850	KSB-3120	KSB-MCT
front view			
.038 stock			
tab size	.250"	.250"	.250"

To purchase all of our most popular crimp / solder / shrink terminals in one box, just order part # KSS-KIT-LG. It is a convenient 190 piece kit with everything you need. Or, a smaller option is the TS-KST-KIT which includes three sizes of butt connectors.





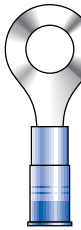


16-14 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals, cont'd

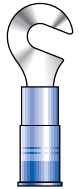
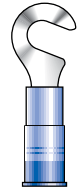

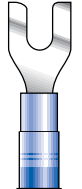
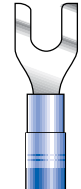
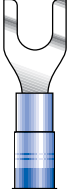
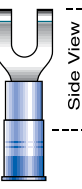
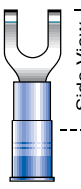
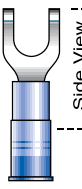
	Butt Connector	Step Down Connectors	
	KSB-1614	KSBA-631	KSCB-646
.038 stock			
		16-14ga. to 20-18ga.	12-10ga. to 16-14ga.

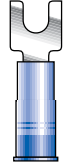
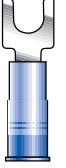
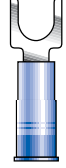
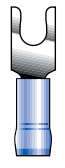
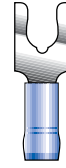

16-14 Gauge: Nylon Terminals w/ Support Sleeve








For a range of nylon terminals in one box, see our Auto Nylon Terminal Kit (AUTO-KIT-LG-N) on page 458.

We recommend crimper PA-8021 for use with our nylon terminals. See page 475 for more info.

	B-523-06	B-537-06	B-537-08	B-539-10	B-525-14	B-525-56	B-518-38
.032 stock							
stud size	#6	#6	#8	#10	1/4"	5/16"	3/8"

	Flange Spades								
	B-519-06	B-519-08	B-524-06	B-527-06	B-527-08	B-527-10	B-516-06	B-516-08	B-516-10
.032 stock									
stud size	#6	#8	#6	#6	#8	#10	#6	#8	#10

	Block Spades			Snap Spades		
	B-5781-06	B-5781-08	B-5781-10	BB-8707-06	BB-8716-08	BB-8717-10
.032 stock						
stud size	#6	#8	#10	#6	#8	#10

	Quick Disconnects						
	BB-8132	BB-8138	MCT-587	BB-8135	42727-2	BB-8141	MCT-5
.020 stock							
tab size	.110"	.187"	.187"	.032 stock	.110"	.205"	.250"

Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

Our terminals are made with 100% electrolytic copper because of its very high conductive properties. They are then electroplated with tin for corrosion resistance.

16-14 Gauge: Nylon Terminals

Fully Insulated Quick Disconnects w/o Support Sleeve

	B-887 MCT-887		B-850 MCT-850		BB-5263 BB-5262	
front view						
.020 stock			.032 stock		.032 stock	
tab size	.187"	.187"	tab size	.250"	tab size	.250"

Be sure to check the front view of your **fully insulated connectors** before ordering. Some manufacturers designs may vary. If you don't see what you need here, let us know!

Fully Insulated Quick Disconnects

	72F-187-20-NBL	72M-187-20-NBL	B-971	72F-250-32-NBL	72M-250-32-NBL	B-972
front view						
.020 stock				.032 stock		
tab size	.187"	.187"	.187"	tab size	.250"	.250"

Need the perfect tool? Check out our insulated crimper PA-1308 on page 475. It crimps 22-10ga. terminal to NEC Specifications.

Support sleeves are used to give the insulation & crimp extra support in a heavy duty or high vibration situation.

Fully Insulated Female Flag Quick Disconnects

	BB-2224		BB-2225		B-975	
	<i>inside</i>	<i>outside</i>	<i>inside</i>	<i>outside</i>	<i>inside</i>	<i>outside</i>
.020 stock			.032 stock			
tab size	.187"		tab size	.187"	.250"	

Bullet Connectors

	BLT-B	B-589	BLT-BF	B-579
diameter	.156"	.156"	.180"	.180"

Parallel Connector

	BSN-304
.032 stock	

Butt Connector

	BSN-331
.032 stock	

16-14 Gauge: Nylon Terminals

Funnel entry butt connectors are the perfect solution when using wire with thick insulation, such as our GXL wire on page 117.

Butted Seam Funnel Entry Butt Connector

B-931-DK



Seamless Funnel Entry Butt Connector

BS-942



Aircraft window splices are ideal for connections that need regular inspections. These conform to military spec #MIL-T-7928/5.

-Aircraft Window Splice-

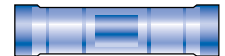
BW-543



Moisture resistant butt connectors are filled with an anti-corrosive grease to keep the elements out of the terminal barrel.

Moisture Resistant Butt Connector

B-500-G



Heavy duty butt connectors have extra heavy insulation for high vibration situations where a strong strain relief is needed.

Heavy Duty Butt Connector

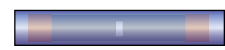
B-831



A Cool Seal® butt connector is a heatless & solderless fully sealed connection. Activate the sealant by simply crimping the terminal.

Cool Seal Butt Connector

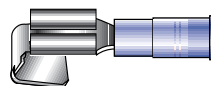
COOLSEAL-B



Piggy back terminals work with one female & one male quick disconnect terminal. See page 20 for all of your options in 16-14ga. nylon.

-Piggy Back Terminal-

PBT-2



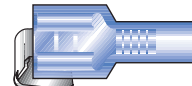
.032 stock

tab size

.250"

Fully Insulated Piggy Back Terminal

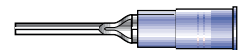
FIPBT-2



.250"

Pin Terminal

TMDNTC-200

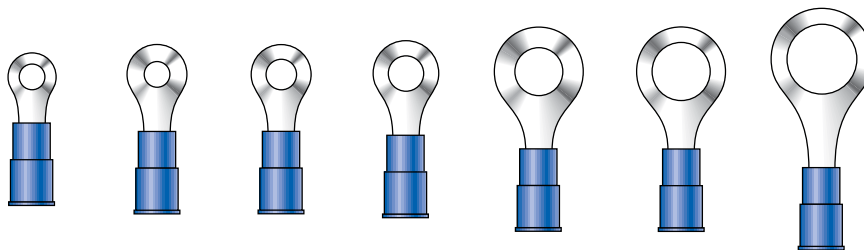


diameter

.08"

16-14 Gauge: PVC Terminals

B-223-06 B-237-06 B-237-08 B-239-10 B-225-14 B-225-56 B-218-38



.032 stock

stud size

#6

#6

#8

#10

1/4"

5/16"

3/8"

Check out our Auto PVC Terminal Kit (AUTO-KIT-LG-P) for terminals in one organized location.

We recommend crimping PA-1308 for use with our PVC terminals. See page 475 for more info.

16-14 Gauge: PVC Terminals, cont'd

		Flange Spades								
		B-219-06	B-219-08	B-224-06	B-227-06	B-227-08	B-227-10	B-216-06	B-216-08	B-216-10
<i>.032 stock</i>								<i>Side View</i>	<i>Side View</i>	<i>Side View</i>
<i>stud size</i>		#6	#8	#6	#6	#8	#10	#6	#8	#10

		Block Spades			Snap Spades		
		B-2781-06	B-2781-08	B-2781-10	BB-2707-06	BB-2716-08	BB-2717-10
<i>.032 stock</i>							
<i>stud size</i>		#6	#8	#10	#6	#8	#10

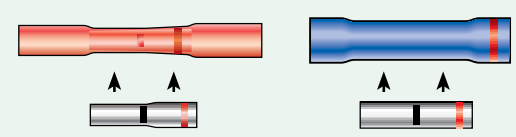
Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

		Quick Disconnects				Bullet Connectors			
		BB-2132	BB-2138	MCT-287	BB-2141	MCT-2	B-289	B-279	
<i>.020 stock</i>					<i>.032 stock</i>				
<i>tab size</i>		.110"	.187"	.187"	<i>tab size</i>	.250"	<i>diameter</i>	.156"	.180"

		Parallel Connector	Butt Connector	Step Down Connectors		Step down connectors are used to connect wires of different gauge sizes. They can also be substituted for 3-way "Y" connectors when connecting 3 wires.
		B-204	B-231	BA-631	CB-646	
<i>.032 stock</i>						
				16-14 to 22-18ga.	12-10 to 16-14ga.	

		Vinyl Step Down Connectors		Pin Terminal
		NBA-631	NCB-646	TMETC-200
<i>.032 stock</i>				<i>diameter</i>
		16-14 to 22-18ga.	12-10 to 16-14ga.	.08"

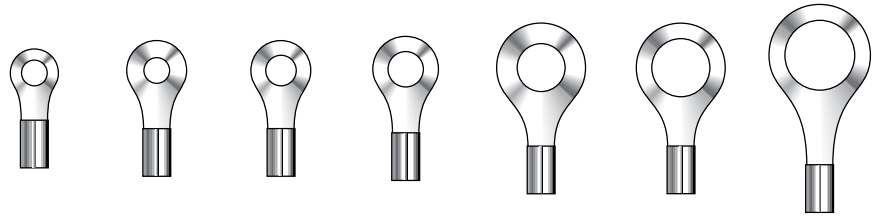
The step down connectors beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.



16-14 Gauge: Non-Insulated Terminals

The suggested crimper for non-insulated terminals is the WT-111M, located on page 476.

B-323-06 B-337-06 B-337-08 B-339-10 B-325-14 B-325-56 B-318-38

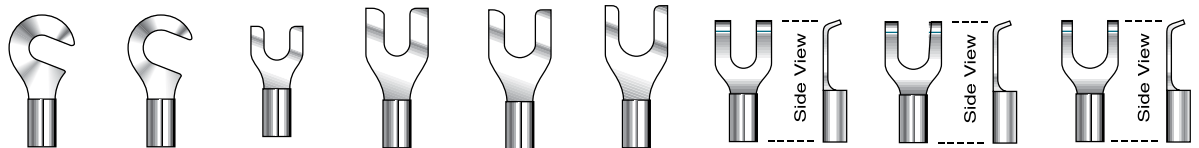


.032 stock

stud size #6 #6 #8 #10 1/4" 5/16" 3/8"

Flange Spades

B-319-06 B-319-10 B-124-06 B-327-06 B-327-08 B-327-10 B-316-06 B-316-08 B-316-10



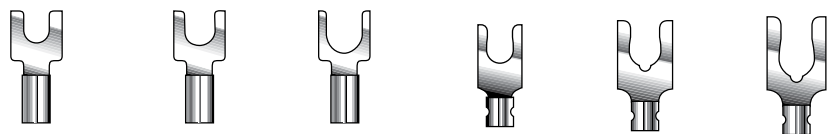
.032 stock

stud size #6 #10 #6 #6 #8 #10 #6 #8 #10

Block Spades

Snap Spades

B-1781-06 B-1781-08 B-1781-10 BB-1707-06 BB-1716-08 BB-1717-10



.032 stock

stud size #6 #8 #10 #6 #8 #10

Snap spade terminals are an excellent choice when removing the entire fastener is impractical or when used as a temporary connection.

Butted Seam Quick Disconnects

BB-1132 BB-1138 MCT-187 BB-1135 BB-1141 MCT-1



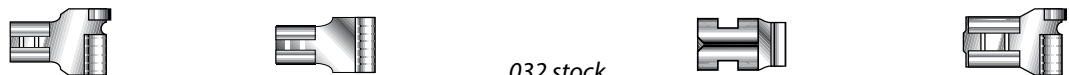
.020 stock

tab size .110" .187" .187" *.032 stock* *tab size* .110" .250" .250"

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection.

Flag Female Quick Disconnects

FFT-187 B-187 FFT-1 FFT-250

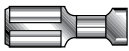




.020 stock



tab size .187" .187" *.032 stock* *tab size* .250" .250"

16-14 Gauge: Non-Insulated Terminals, cont'd


Female Quick Disconnects w/ Vibration Support

BB-4174	BB-4177	BB-4177-TAB
		 <i>Front View</i> <i>Side View</i>
<i>.020 stock</i>	<i>.032 stock</i>	
<i>tab size</i> .187"	<i>tab size</i> .250"	<i>tab size</i> .250"


Bullet Connectors

B-189	B-179
	
<i>diameter</i> .156"	<i>diameter</i> .180"





Parallel Connector

BS-304

<i>.032 stock</i>

Butt Connector

BS-331

<i>.032 stock</i>

Step Down Connectors

BA-331	NBA-331	CB-346	NCB-346
			
<i>16-14 to 22-18ga.</i>		<i>12-10 to 16-14ga.</i>	

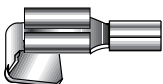
The step down connectors beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.

Butted Seam Flag Terminals




B-148-08	B-148-10
	
<i>.032 stock</i>	
<i>stud size</i> #8	<i>stud size</i> #10

Piggy back terminals work with one female & one male quick disconnect terminal. See above for all of your options in 16-14ga. non-insulated.

Piggy Back Terminal

PBT

<i>.032 stock</i>
<i>tab size</i> .250"

Pin Terminals

TC-200	02-09-2103*	02-09-1104*
	(BP-129)	(BS-129)
		
<i>diameter</i> .08"	<i>diameter</i> .093"	<i>diameter</i> .093"





*These terminals accept 20-14ga.

16-14 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

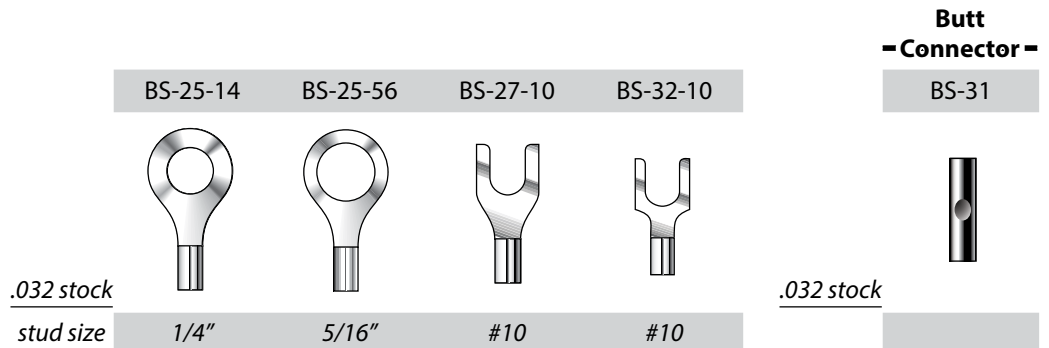
For an assortment of high temp terminals, order our High Temp Terminal Kit (HTT-KIT-SM).

The suggested crimper for non-insulated terminals is the WT-111M, located on page 476.

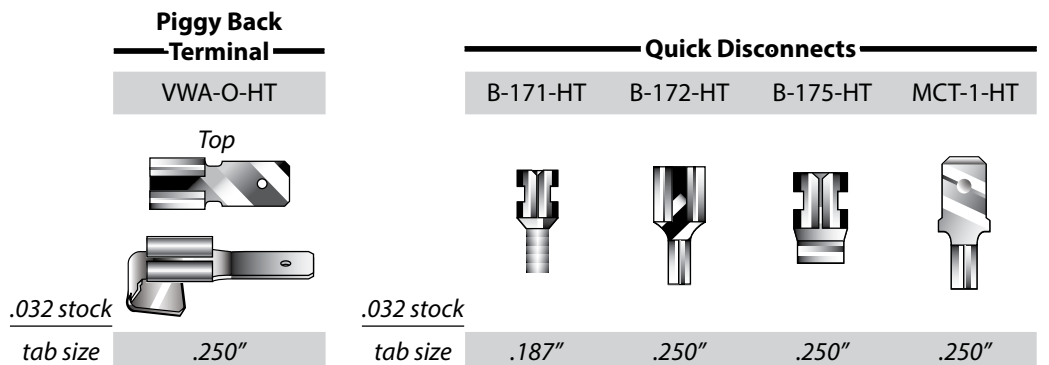
BS-23-06	BS-37-06	BS-37-08	BS-37-10
			
<i>.032 stock</i>			
<i>stud size</i> #6	<i>stud size</i> #6	<i>stud size</i> #8	<i>stud size</i> #10

16-14 Gauge: Non-Insulated HIGH TEMP Terminals, cont'd

Our **high temp terminals** are rated up to 900°F.

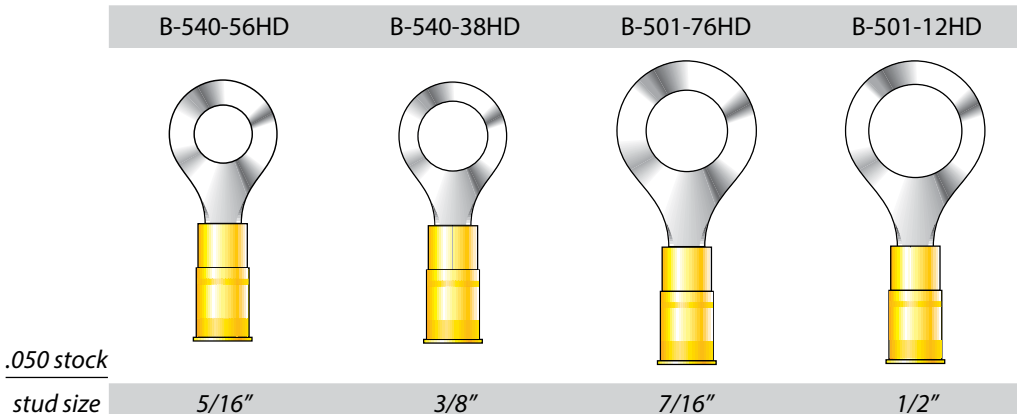
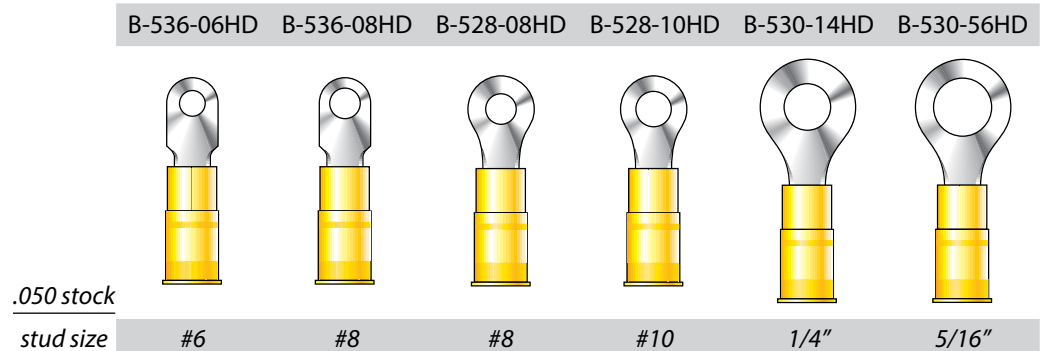


Piggy back terminals work with two female & one male quick disconnects that have a .032" stock thickness & a .250" tab size. See the quick disconnects to the right for all of your options.



16-14 Gauge: Nylon HEAVY DUTY Terminals w/ Support Sleeve

We recommend crimper PA-8021 on page 475 for use with heavy duty terminals. **Be sure to use a 12-10ga. crimping die.**













Heavy duty terminals are designed to resist fractures under heavy vibration.

PLEASE NOTE These are 16-14ga. terminals, not 12-10ga. as their yellow insulation denotes. The yellow color is to remind you to use a 12-10ga. die when crimping.

TERMINALS

16-14 Gauge: Non-Insulated HEAVY DUTY Terminals

	B-136-06HD	B-136-08HD	B-328-08HD	B-328-10HD	B-330-14HD	B-330-56HD
<i>.050 stock</i>						
<i>stud size</i>	#6	#8	#8	#10	1/4"	5/16"

	B-140-56HD	B-340-38HD	B-101-76HD	B-101-12HD
<i>.050 stock</i>				
<i>stud size</i>	5/16"	3/8"	7/16"	1/2"







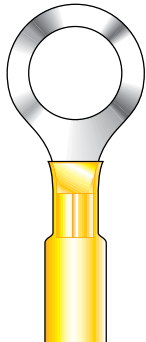
The suggested crimper for non-insulated terminals is the WT-111M, located on page 476. However, be sure to use a 12-10ga. die when crimping the 16-14ga. heavy duty terminals.

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection.

12-10 Gauge Terminals

- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 12-10ga. terminals are shown actual size
- Most of these terminals are sold in packages of 100. Please inquire for details

12-10 Gauge: Adhesive Lined Shrink Terminals

	SC-228-06	SC-228-08	SC-228-10	SC-230-14	SC-230-56	SC-240-38	SC-201-12
<i>.040 stock</i>							
<i>stud size</i>	#6	#8	#10	1/4"	5/16"	3/8"	1/2"

12-10 Gauge: Adhesive Lined Shrink Terminals, cont'd

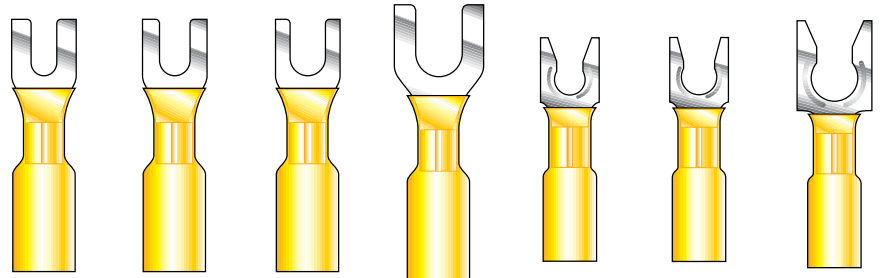
If you're looking for an assortment of our most useful shrink terminals, you need our Small Shrink Terminal Kit (STC-KIT-SMB-24).

The perfect tool for these terminals is the TR-50 crimper on page 475.

For proper termination of our adhesive lined shrink terminals, first, use an insulated crimping tool (not an anvil die). Then apply heat to melt the tubing & adhesive.

Snap Spades

SC-241-06 SC-241-08 SC-241-10 SC-268-14 SC-2194-08 SC-2195-10 SC-2196-14



.040 stock

stud size

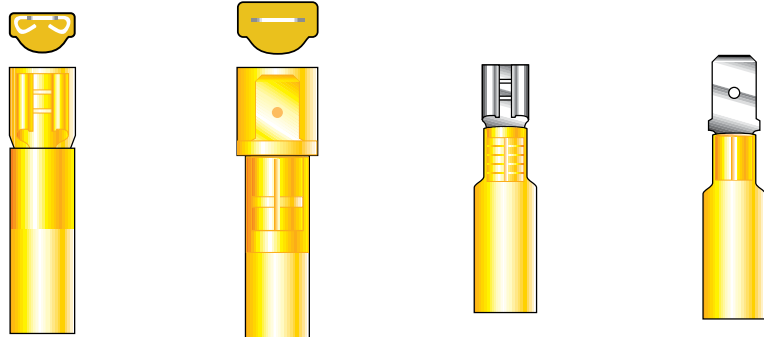
#6 #8 #10 1/4" #8 #10 1/4"

Fully Insulated Quick Disconnects

Quick Disconnects

SC-9281 SC-9280 SC-2143 STC-MCT

front view



.040 stock

tab size

.250" .250" .250" .250"

Perma-Seal™ Butt Connector Polyolefin Butt Connector Dual Lined Butt Connector

STC-C STCP-C STCHD-C



.040 stock

Multi-Wire Butt Connector Step Down Connectors

STCHL-C NSCB-646 NSDC-108



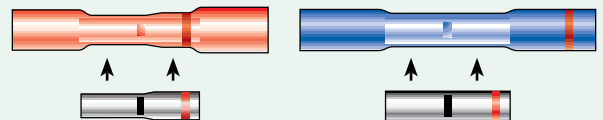
.040 stock

8ga. (Two 12-10ga.) / 12-10ga.



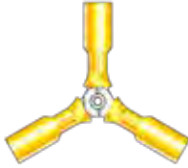
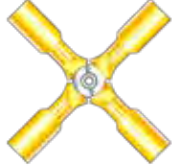
12-10ga. to 16-14ga.

8ga. to 12-10ga.

The step down & butt connectors above have barrels that are two different true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.










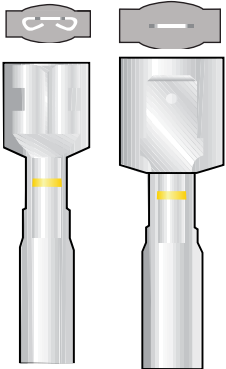

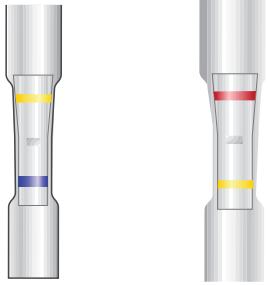

12-10 Gauge: Adhesive Lined Shrink Terminals, cont'd

Step Down Connector	Pin Terminal	3 & 4 Way Connectors	
SCB-646	SC-NTC-550	SC-2YCX	SC-2XCX
			
<i>.040 stock</i>			
12-10ga. to 16-14ga.	diam. .11"	(Three) 12-10ga.	(Four) 12-10ga.

Step down connectors are used to connect multiple wires of different gauges. If you're currently using a 3 or 4-way connector, consider switching to a step down connector.

12-10 Gauge: Clear Shrink Adhesive Lined Terminals

OPS-CR-08	OPS-CR-10	OPS-CR-14	OPS-CR-516	OPS-CR-38	OPS-CS-10	OPS-CS-14
						
<i>.032 stock</i>						
stud size #8	#10	1/4"	5/16"	3/8"	#10	1/4"

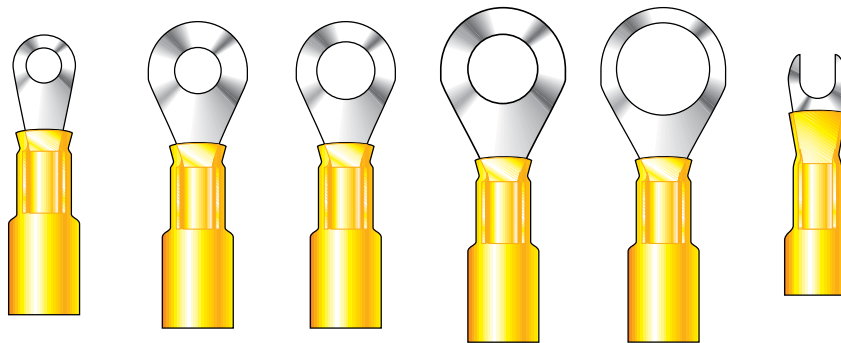
Fully Insulated Quick Disconnect	Butt Connectors	Step Down Connectors
OPS-CF OPS-CM	OPS-C	OPS-SD-1610 OPS-SD-128
<i>front view</i> 		
<i>.032 stock</i>		
tab size .250" .250"	For a 60pc. jar order part # OPS-C-JAR 	12-10ga. to 16-14ga. 8ga. to 12-10ga.

For 225 pieces of our most popular clear terminals, check out our Opti-Seal Clear Adhesive Lined Shrink Terminal Kit (OPTI-MSK-24).

For the perfect crimp on these terminals, you need the TR-50 crimper located on page 475 of the TSC catalog.

12-10 Gauge: Solder / Shrink Adhesive Lined Terminals

SSC-228-10 SSC-230-14 SSC-230-56 SSC-240-38 SSC-201-12 SSC-241-10



.040 stock

stud size #10 1/4" 5/16" 3/8" 1/2" #10

We offer our most popular solder / shrink terminals in a convenient 240 piece kit, our Solder Terminal Kit (SOLDER-T-KIT).

The only tool needed for installation is a heat source. To see our wide variety of torches, go to pages 486-487.

Our **solder / shrink terminals** are rated at 600V & are UL listed.

Easy installation with pre-measured solder takes the guess work out of the soldering process. Solder contains rosin flux.

The solder melting temp is 295°F. Shrink tubing is adhesive lined & it's temp range is -67°F to 230°F.

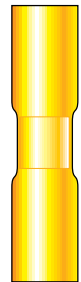
Fully Insulated
Quick Disconnect **Quick Disconnects**

SSC-850 SSC-2143 SSC-MCT

Butt Connector

SSC-1210

front view



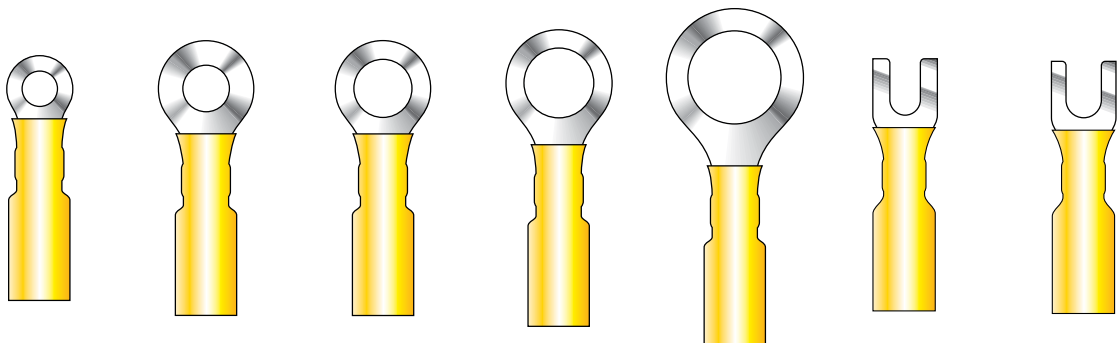
.040 stock

tab size .250" .250" .250"

.040 stock

12-10 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals

KSC-41-10 KSC-41-14 KSC-41-56 KSC-41-38 KSC-41-12 KSC-42-08 KSC-42-10



.038 stock

stud size #10 1/4" 5/16" 3/8" 1/2" #8 #10

12-10 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals, cont'd

	Fully Insulated - Quick Disconnect -			Butt - Connector -		
	Quick Disconnects	Quick Disconnects	Quick Disconnects	Step Down Connectors	Step Down Connectors	Step Down Connectors
	KSC-850	KSC-4120	KSC-MCT	KSC-1210	KSCB-646	KSDC-108
front view						
.038 stock						
tab size	.250"	.250"	.250"	12-10ga. to 16-14ga. 8ga. to 12-10ga.		
Shrink temperature is 275°F.	This terminal line features the reliability of a mechanical crimp with the strength & conductivity of solder.			For best installation results, we recommend crimping PA-1308 on page 475 and a torch from pages 486-487.		
For a wide range of terminals in one box, check out our 190 piece Crimp / Solder / Shrink Terminal Kit (KSS-KIT-LG).						

12-10 Gauge: Nylon Terminals w/ Support Sleeve

	C-536-06	C-528-06	C-536-08	C-528-08	C-528-10	C-530-14	C-530-56	Our terminals are made with 100% electrolytic copper because of its very high conductive properties. They are then electroplated with tin for corrosion resistance.
.040 stock								
stud size	#6	#6	#8	#8	#10	1/4"	5/16"	
	C-540-38	C-501-76	C-501-12	C-511-10	C-541-06	C-541-08	C-541-10	
.040 stock								
stud size	3/8"	7/16"	1/2"	#10	#6	#8	#10	

12-10 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

	Flange Spades			Block Spades		
	C-517-06	C-517-08	C-517-10	C-5105-06	C-5105-08	C-5105-10
<i>.040 stock</i>						
<i>stud size</i>	#6	#8	#10	#6	#8	#10

Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

Need the perfect tool? Check out our PA-8021 on page 475.

Be sure to check the front view of your **fully insulated connectors** before ordering. Some manufacturers designs may vary. If you don't see what you need here, let us know!

	Snap Spades		
	C-8710-06	C-8718-08	C-8719-10
<i>.040 stock</i>			
<i>stud size</i>	#6	#8	#10

	Quick Disconnects				
	P-8139	P-8142*	C-572*	MCT-5C	CP-808
<i>.020 stock</i>					
<i>tab size</i>	.187"	.250"	.250"	.250"	.375"

*These terminals accept 14-12ga.

	Fully Insulated Quick Disconnects w/o Support Sleeve			
	C-850	MCT-C-850	C-2265	C-2264
<i>front view</i>				
<i>.032 stock</i>				
<i>tab size</i>	.250"	.250"	.250"	.250"

12-10 Gauge: Nylon Terminals

Fully Insulated Quick Disconnects

	73F-250-32-NBL	73M-250-32-NBL	C-5265	C-5264
front view				
.032 stock				
tab size	.250"	.250"	.250"	.250"

Fully Insulated Female Flag Quick Disconnects

	C-975
inside	
outside	
.032 stock	
tab size	.250"

Parallel Connector

	CSN-303
.040 stock	

Butt Connector

	CSN-346
.040 stock	

Butted Seam Funnel Entry Butt Connector

	C-946-DK

Aircraft Window Splice

	CW-544

Moisture Resistant Butt Connector

	C-500-G

Heavy Duty Butt Connector

	C-846

Cool Seal Butt Connector

	COOLSEAL-C

Funnel entry butt connectors are the perfect solution when using wire with thick insulation, such as our GXL wire on page 117.




Aircraft window splices are ideal for connections that need regular inspections. These conform to military spec #MIL-T-7928/5.

Moisture resistant butt connectors are filled with an anti-corrosive grease to keep the elements out of the terminal barrel.

Heavy duty butt connectors have extra heavy insulation for high vibration situations where a strong strain relief is needed.









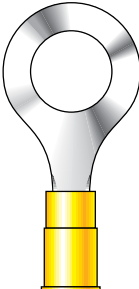
A Cool Seal® butt connector is a heatless & solderless, fully sealed connection. Activate the sealant by simply crimping the terminal.

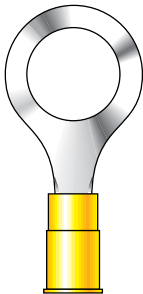






12-10 Gauge: Nylon Terminals

• Piggy Back Terminal • PBT-2C  .032 stock tab size .250"	Fully Insulated Piggy Back Terminal FIPBT-2C  .032 stock tab size .250"	Pin Terminal TMDNTC-550  .032 stock diameter .12"
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Piggy back terminals work with one female & one male quick disconnect terminal. See page 33-34 for all of your quick disconnect options in 12-10ga. nylon.






12-10 Gauge: PVC Terminals





C-236-06	C-228-06	C-236-08	C-228-08	C-228-10	C-230-14	C-230-56	C-240-38	C-201-76
								
<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>
stud size #6	stud size #6	stud size #8	stud size #8	stud size #10	stud size 1/4"	stud size 5/16"	stud size 3/8"	stud size 7/16"


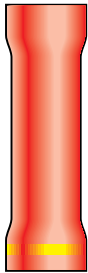



Flange Spade						
C-201-12	C-241-06	C-241-10	C-217-06	C-217-08	C-217-10	
						
<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>	<i>.040 stock</i>
stud size 1/2"	stud size #6	stud size #10	stud size #6	stud size #10	stud size #10	

12-10 Gauge: PVC Terminals, cont'd

Snap spade terminals are an excellent choice when removing an entire fastener is impractical or when used as a temporary connection.

	Block Spades			Snap Spades	
	C-2105-08	C-2105-10	C-2710-06	C-2718-08	C-2719-10
<i>.040 stock</i>					
<i>stud size</i>	#8	#10	#6	#8	#10








	Quick Disconnects		Parallel Connector	Butt Connector
	C-272	CP-814	C-203	C-246
<i>.032 stock</i>				
<i>tab size</i>	.250"	.250"		
			<i>.040 stock</i>	







	Step Down Connectors		Vinyl Step Down Connectors		Pin Terminal
	CB-646	DC-654	NCB-646	NDC-654	TMETC-550
<i>.040 stock</i>					
	12-10 to 16-14ga.	8ga. to 12-10ga.	12-10 to 16-14ga.	8ga. to 12-10ga.	diameter .12"

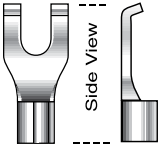
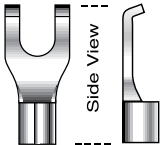






The step down connectors beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.









12-10 Gauge: Non-Insulated Terminals

	C-336-06	C-328-06	C-336-08	C-328-08	C-328-10	C-330-14	C-330-56
							
<i>.040 stock</i>							
<i>stud size</i>	#6	#6	#8	#8	#10	1/4"	5/16"

	C-340-38	C-301-76	C-301-12	C-111-10	C-141-06	C-341-10
						
<i>.040 stock</i>						
<i>stud size</i>	3/8"	7/16"	1/2"	#10	#6	#10

	Flange Spades			Block Spades			Snap Spades	
	C-117-08	C-117-10	C-1105-06	C-1105-08	C-1105-10	C-1710-06	C-1718-08	C-1719-10
								
<i>.040 stock</i>								
<i>stud size</i>	#8	#10	#6	#8	#10	#6	#8	#10

	Butted Seam Quick Disconnects				Flag Female Quick Disconnects		
	P-1139*	P-1142*	C-172	MCT-1C	B-175-ETC*	C-1012	
							
<i>.032 stock</i>					<i>.032 stock</i>		
<i>tab size</i>	.187"	.250"	.250"	.250"	<i>tab size</i>	.250"	.250"

*These terminals accept 14-12ga.

Snap spade terminals are an excellent choice when removing the entire fastener is impractical or when used as a temporary connection.

The suggested crimper for non-insulated terminals is the WT-111M, located on page 478. For flag terminals, try our new flag terminal crimping die CT-300-071 w/ handle PA-8000 on page 480.

12-10 Gauge: Non-Insulated Terminals, cont'd

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection.

	Parallel Connector	Butt Connector	Pin Terminal	
	CS-303	CS-346	TC-550	
<i>.040 stock</i>			diameter .12"	
Step Down Connectors				
	CB-346	NCB-346	DC-354	NDC-354
<i>.040 stock</i>	12-10 to 16-14ga.	12-10 to 16-14ga.	8 to 12-10ga.	8 to 12-10ga.

Non-Insulated Crimpers

	Part Number	Description	Fig.
A	WT-111M	Crimps: 22-10ga. non-insulated, solderless terminals. Specially hardened wire cutter w/ tapered nose cuts in confined spaces.	A
B	GRN-45505G	Crimps: 22-6ga. Used for standard non insulated terminals.	B
C	TCP-251B	Crimps: 22-6ga. Used for standard non insulated terminals.	C

The **step down connectors** beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.

12-10 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

	CS-28-06	CS-28-08	CS-28-10	CS-30-14
<i>.040 stock</i>				
<i>stud size</i>	#6	#8	#10	1/4"
	CS-30-56	CS-40-38		Butt Connector
				CS-46
<i>.040 stock</i>			<i>.040 stock</i>	
<i>stud size</i>	5/16"	3/8"		

For an assortment of high temp terminals, order our High Temp Terminal Kit (HTT-KIT-SM).


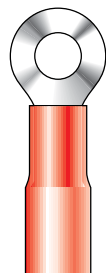
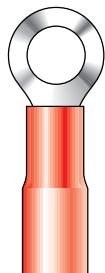
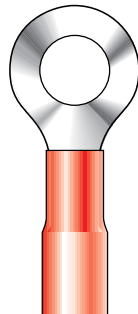
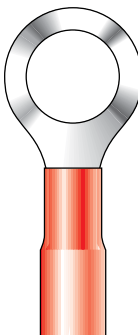
The suggested crimper for non-insulated terminals is the WT-111M, located on page 478.




Our **high temp terminals** are made from a nickel plated steel alloy, rated up to 900°F.

8 Gauge Terminals

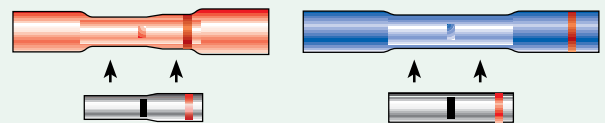
- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 8ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25, please inquire for details

8 Gauge: Adhesive Lined Shrink Terminals

	SD-810	SD-814	SD-8516	SD-838	SD-812	
						<p>For proper termination of our adhesive lined shrink terminals, first use an insulated crimping tool (not an anvil die). Then, apply heat to melt the tubing & adhesive.</p> <p>For the heavy duty version of our 8ga. shrink terminals, see page 42.</p>
<i>.045 stock</i>						
stud size	#10	1/4"	5/16"	3/8"	1/2"	

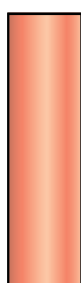
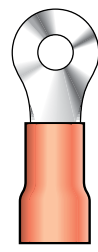
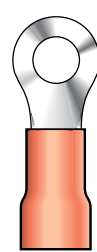
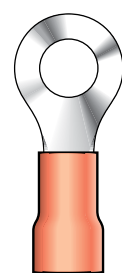
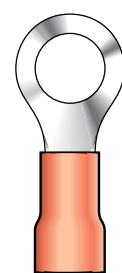
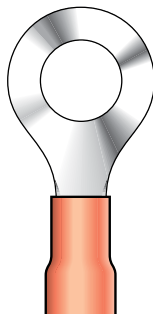
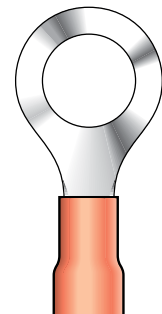
	Butt Connector	Step Down Connectors	
	SD-8	SDC-108	NSDC-108
			
<i>.045 stock</i>			
		8ga. to 12-10ga.	8ga. to 12-10ga.

The step down connectors beginning with NS "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.

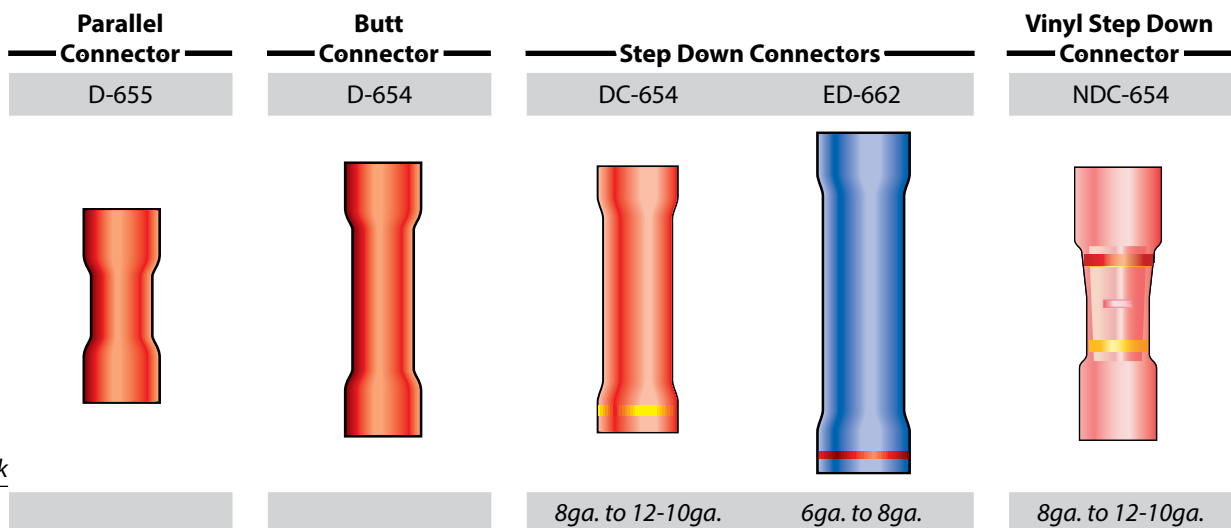
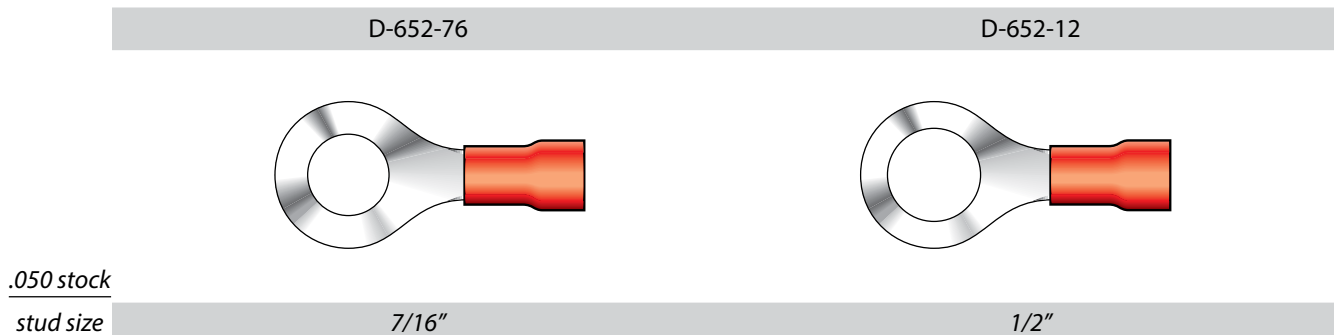
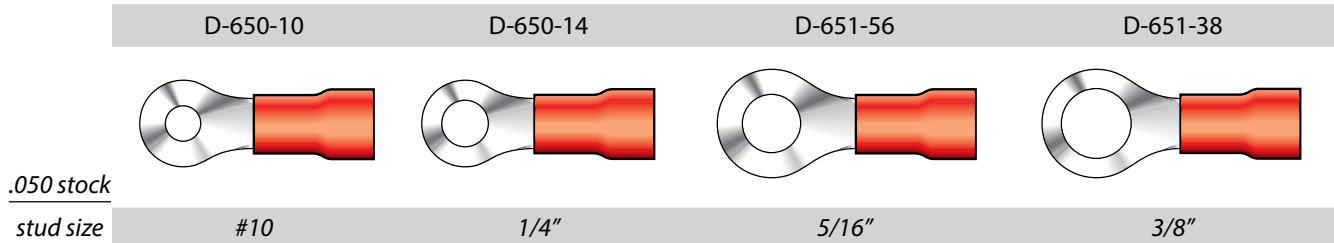


For the perfect crimp on the 8 gauge insulated terminals, we recommend the TR-50 crimper located on page 42.

8 Gauge: Nylon Terminals

	Butt Connector	D-950-10	D-950-14	D-951-56	D-951-38	D-952-76	D-952-12
	D-754						
							
<i>.050 stock</i>							
stud size		#10	1/4"	5/16"	3/8"	7/16"	1/2"

8 Gauge: PVC Terminals



TSC recommends when using un-insulated terminals in corrosive and high vibration applications that shrink tubing be used to extend the life of your connection. Shown below are 2 of our popular pre-made kits that will fit most applications.

Adhesive Lined Shrink Tube Kit's

- Heavy wall and thin wall adhesive lined shrink tubing with shrink ratio of 3:1@240°F Red and black of both types



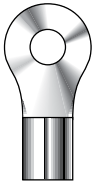
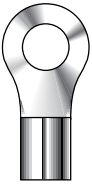


Part Number	Total Pieces	Box
ALST-KIT	42	LMB-6

- Thin wall adhesive lined shrink tubing with shrink ratio of 3:1@240°F Red and black



Part Number	Total Pieces	Box
MWS-KIT	32	PB-6

8 Gauge: Non-Insulated Terminals

	D-350-10	D-350-14	D-351-56	D-351-38
				
<i>.050 stock</i>				
<i>stud size</i>	#10	1/4"	5/16"	3/8"

TSC recommends the crimper below for large non-insulated terminals.

Wire Crimper

- Crimps 8-2ga. non-insulated terminals

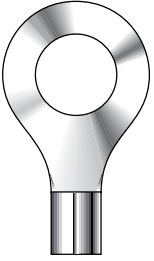





Part Number

TS-351B

.050 stock

stud size

D-352-76	D-352-12	D-353-58	D-353-34
			
<i>7/16"</i>	<i>1/2"</i>	<i>5/8"</i>	<i>3/4"</i>

Parallel Connector

D-355



.050 stock

Butt Connector

D-354



Step Down Connectors

DC-354



NDC-354



ED-362

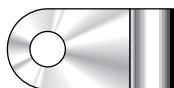


8 to 12-10ga. 8 to 12-10ga. 6 to 8ga.

The **step down connectors** beginning with N "step down" using barrels that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire gauge.

Butted Seam Flag Terminals

D-10-F

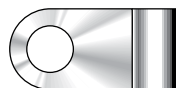


.040 stock

stud size

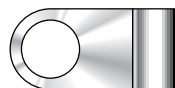
#10

D-14-F



1/4"

D-56-F

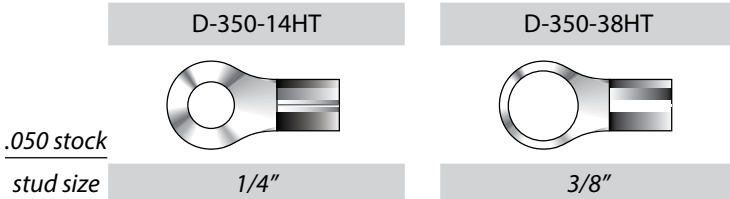


5/16"

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection.

8 Gauge: Non-Insulated HIGH TEMP Terminals

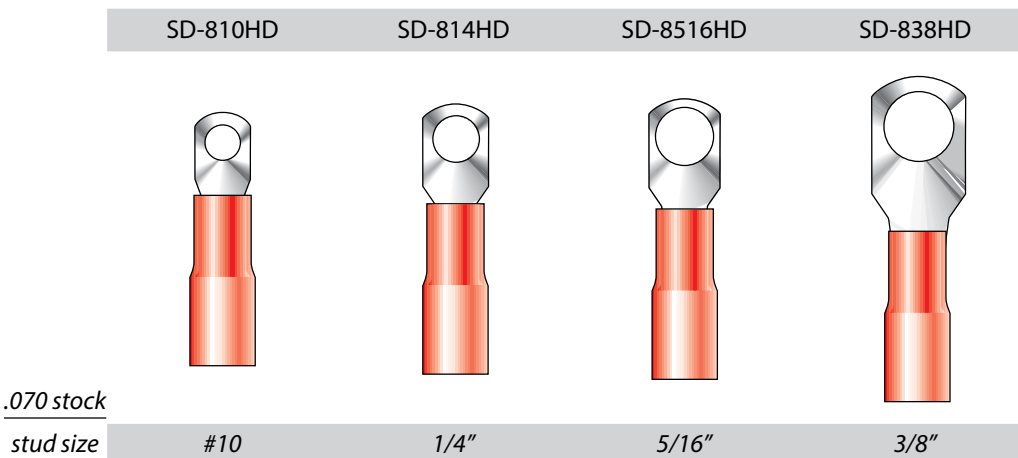
- All high temp terminals are nickel plated steel alloy



For an assortment of our non-insulated high temp terminals in a variety of sizes, order our High Temp Terminal Kit (HTT-KIT-SM).

Our **high temp terminals** are rated up to 900°F.

8 Gauge: Adhesive Lined Shrink HEAVY DUTY Terminals



Our **heavy duty 8ga. shrink terminals** are similar to our tinned BCL Lugs located on page 102.

Ratchet Crimper and Die Kits

If you're looking for a tool to crimp most of the terminals you see in this section, you can't go wrong with the TR-50. It comes in two different kits, with the crimper and without, so you can get exactly what you need.

Both kits include:

- T-DIE-4C: die for double crimping 26-10ga. insulated terminals
- T-DIE-13C: die for crimping insulated closed end connectors
- T-DIE-3F: die for crimping insulated flag terminals
- T-DIE-38: die for crimping open barrel terminals
- T-DIE-38-L: locator used with T-DIE-38
- Custom plastic storage box

The TR-50-KIT-1 kit also includes:

- TR-50 crimper w/ die for single crimping 22-8ga. insulated terminals

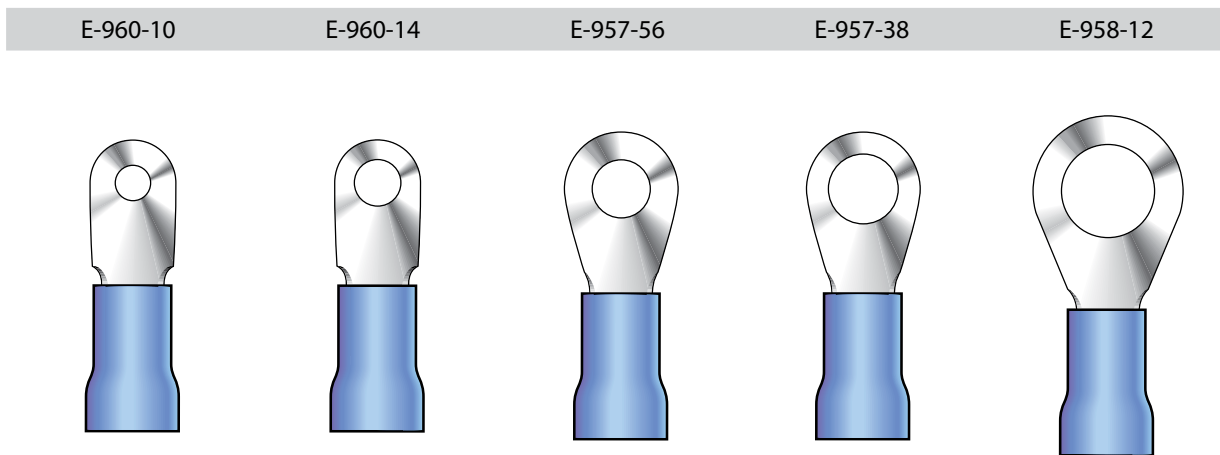


Part Number	Description	Pieces
TR-50-KIT-1	Kit w/ crimper & crimping dies in custom case	6
TR-50-KIT-2	Kit w/ crimping dies only (no crimper) in custom case	5
TR-50	Crimper w/ 22-8ga. crimping die (no case)	1

6 Gauge Terminals

- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 6ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25. Please inquire for details

6 Gauge: Nylon Terminals



.057 stock

stud size

#10

1/4"

5/16"

3/8"

1/2"

Butt Connector

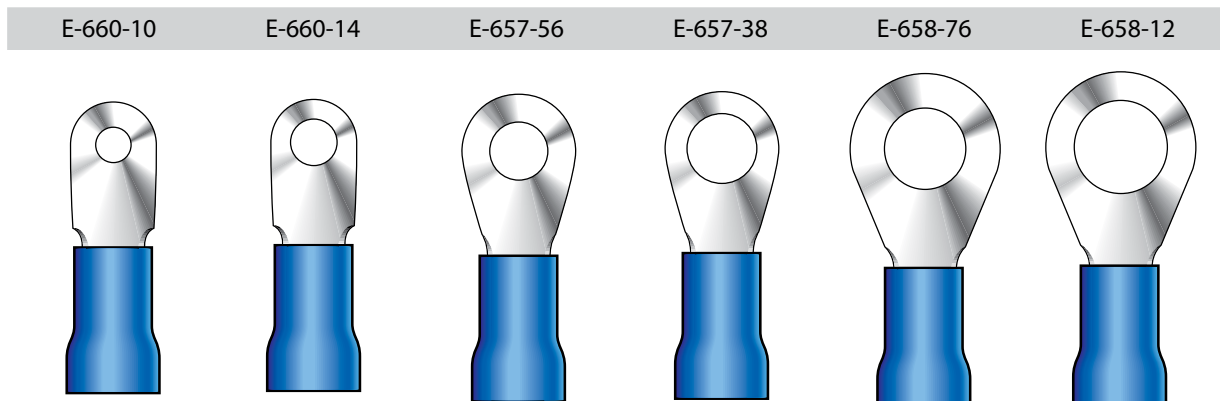
E-762



.057 stock

For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our 6 gauge terminals. See page 479 for more info on these & others.

6 Gauge: PVC Terminals



.057 stock

stud size

#10

1/4"

5/16"

3/8"

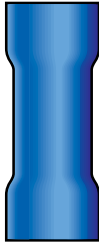
7/16"

1/2"

6 Gauge: PVC Terminals, cont'd

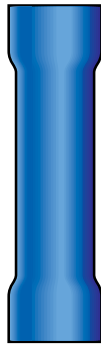
Parallel Connector

E-661



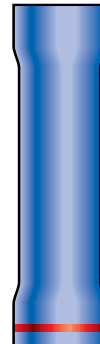
Butt Connector

E-662



Step Down Connector

ED-662



Step down connectors are used to connect wires of different gauge sizes. They can also be a substitute for 3-way "Y" connectors when connecting three wires.

.057 stock

6ga. to 8ga.

6 Gauge: Non-Insulated Terminals

E-360-10

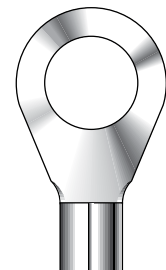
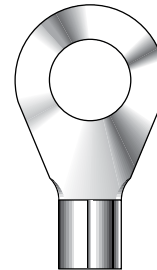
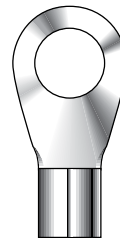
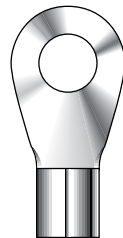
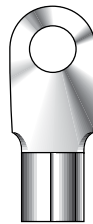
E-360-14

E-357-56

E-357-38

E-358-76

E-358-12



.057 stock

stud size

#10

1/4"

5/16"

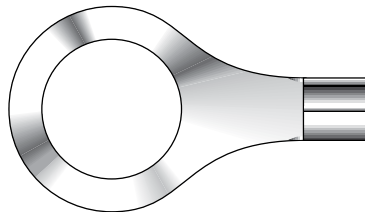
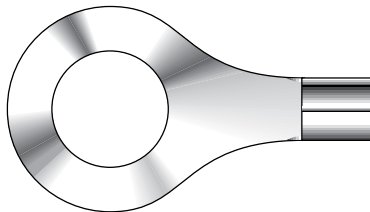
3/8"

7/16"

1/2"

E-359-58

E-359-34



.057 stock

stud size

5/8"

3/4"

For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our 6 gauge terminals. See page 479 for more info on these & others.

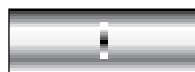
Parallel Connector

E-361



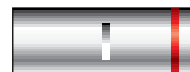
Butt Connector

E-362



Step Down Connector

ED-362

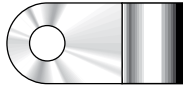
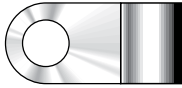
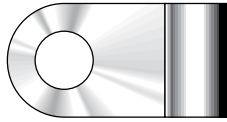


When crimping a **step down connector**, use a die that matches the larger gauge on both ends.

.057 stock

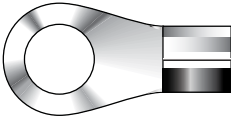
6ga. to 8ga.

6 Gauge: Non-Insulated Terminals, cont'd

Butted Seam Flag Terminals			
	E-10-F	E-14-F	E-56-F
			
<i>.050 stock</i>			
<i>stud size</i>	#10	1/4"	5/16"

6 Gauge: Non-Insulated HIGH TEMP Terminals

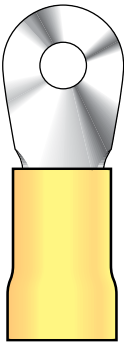
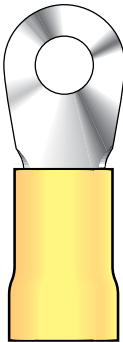
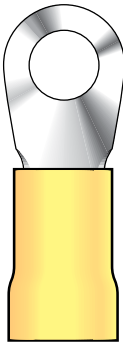
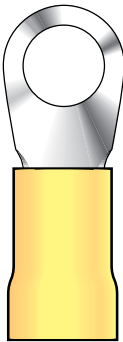
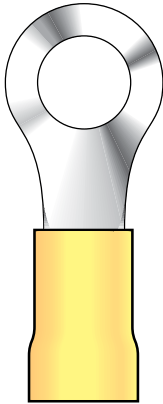
- All high temp terminals are nickel plated steel alloy

	E-357-38HT	
		Our high temp terminals are rated up to 900°F.
<i>.057 stock</i>		
<i>stud size</i>	3/8"	

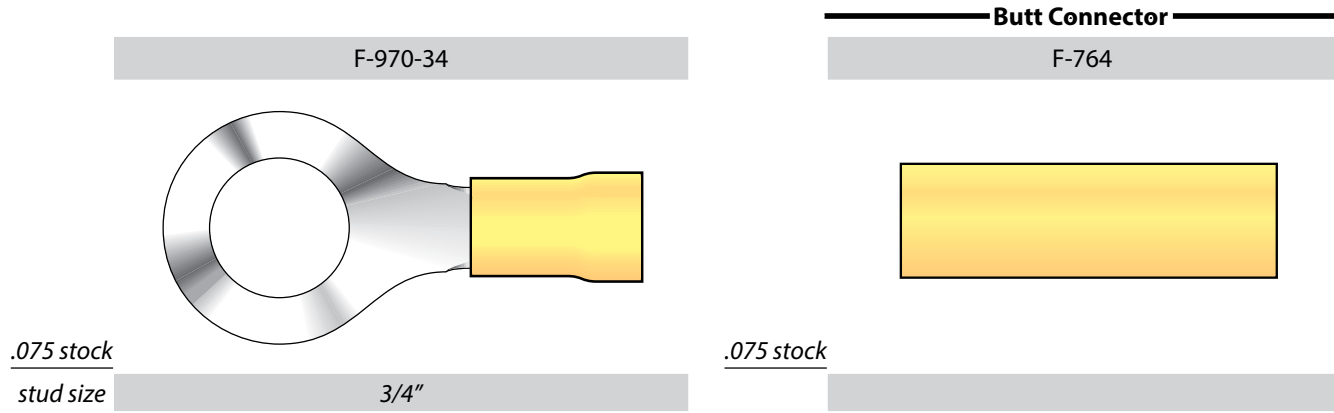
4 Gauge Terminals

- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 4ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25. Please inquire for details

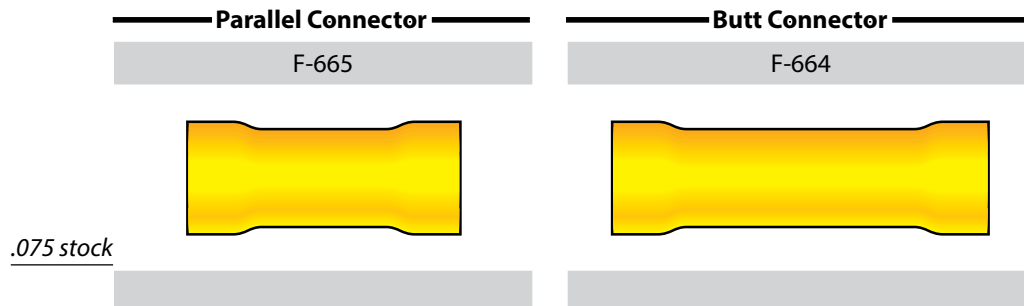
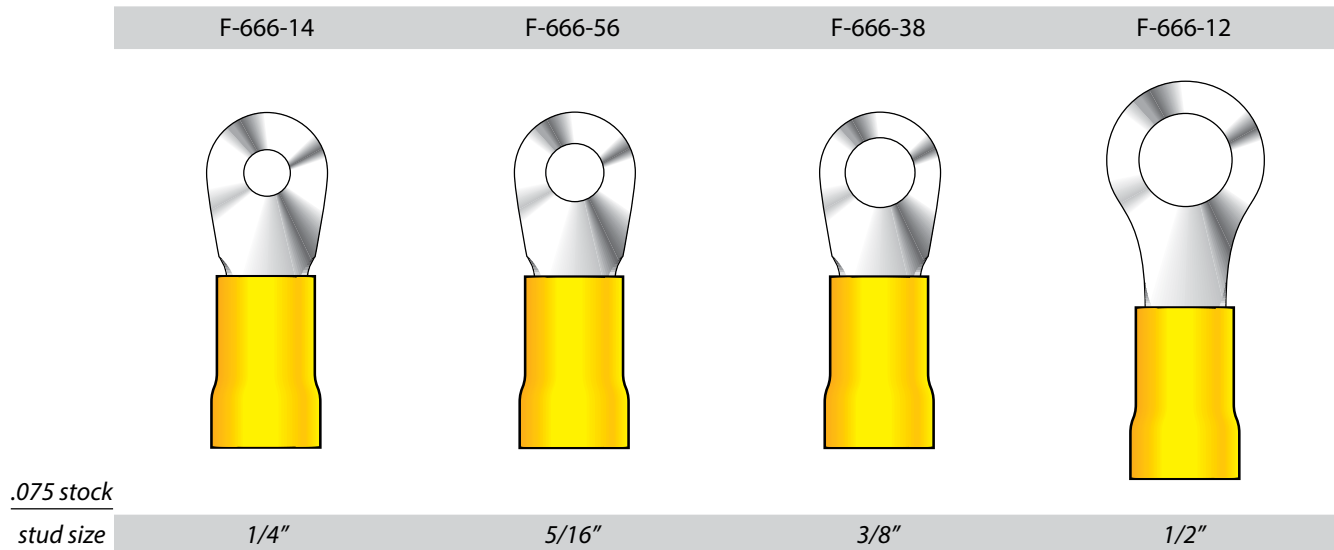
4 Gauge: Nylon Terminals

	F-966-14	F-966-56	F-966-38	F-966-76	F-969-12
					
<i>.075 stock</i>					
<i>stud size</i>	1/4"	5/16"	3/8"	7/16"	1/2"

4 Gauge: Nylon Terminals, cont'd

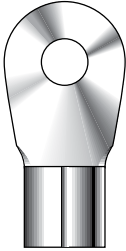
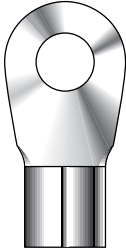
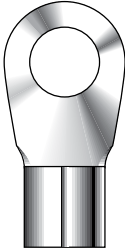
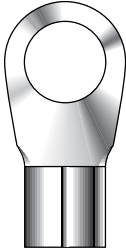
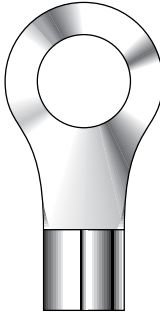



4 Gauge: PVC Terminals

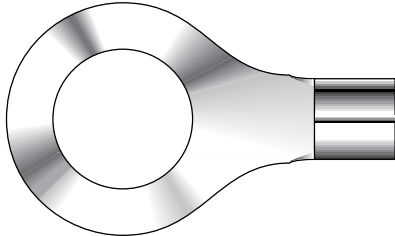

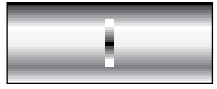


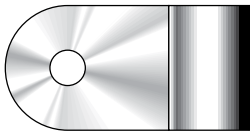
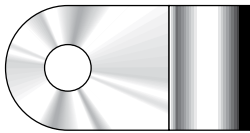
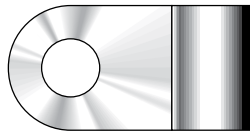
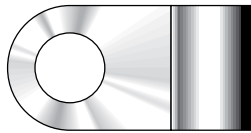
For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our 4 gauge terminals. See page 479 for more info on these & others.

4 Gauge: Non-Insulated Terminals

	F-366-14	F-366-56	F-366-38	F-366-76	F-366-12	F-370-58
						
<i>.075 stock</i>	<i>stud size</i> 1/4"	<i>stud size</i> 5/16"	<i>stud size</i> 3/8"	<i>stud size</i> 7/16"	<i>stud size</i> 1/2"	<i>stud size</i> 5/8"

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection of shrink tube & pages 486-487 for the heat source to complete the package.

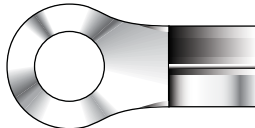
	F-370-34	Parallel Connector F-365	Butt Connector F-364
			
<i>.075 stock</i>	<i>stud size</i> 3/4"		

	Butted Seam Flag Terminals			
	F-10-F	F-14-F	F-56-F	F-38-F
				
<i>.071 stock</i>	<i>stud size</i> #10	<i>stud size</i> 1/4"	<i>stud size</i> 5/16"	<i>stud size</i> 3/8"

4 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

Our **high temp terminals** are rated up to 900°F.

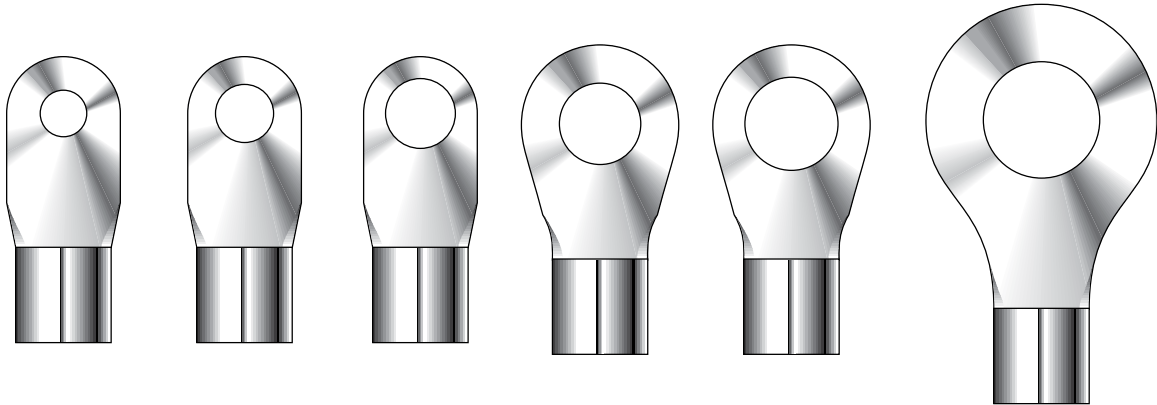
	F-366-38HT
	
<i>.075 stock</i>	<i>stud size</i> 3/8"

2 Gauge Terminals

- All terminals are copper with tin electroplate
- All of our 2ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25. Please inquire for details

2 Gauge: Non-Insulated Terminals

G-375-14 G-375-56 G-375-38 G-374-76 G-374-12 G-377-58



.075 stock

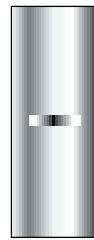
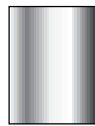
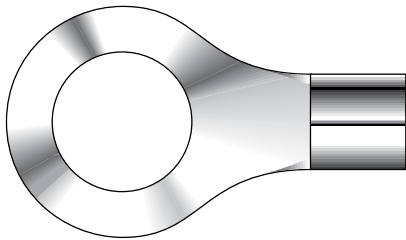
stud size 1/4" 5/16" 3/8" 7/16" 1/2" 5/8"

Parallel Connector **Butt Connector**

G-377-34

G-373

G-372



Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection. When using shrink tubing, don't forget to check out our heat sources on page 486-487.

.075 stock

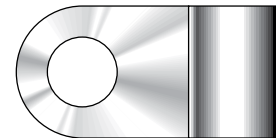
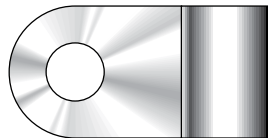
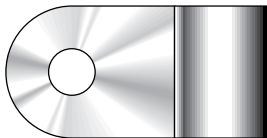
stud size 3/4"

Butted Seam Flag Terminals

G-14-F

G-56-F

G-38-F



.071 stock

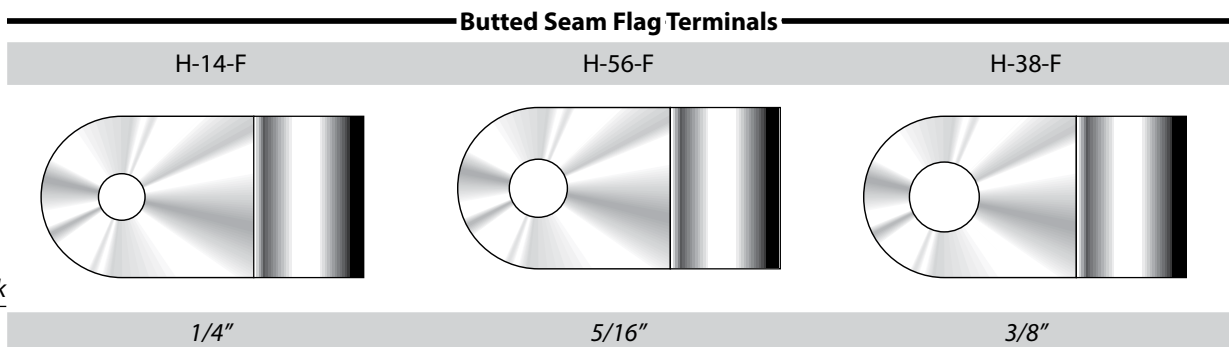
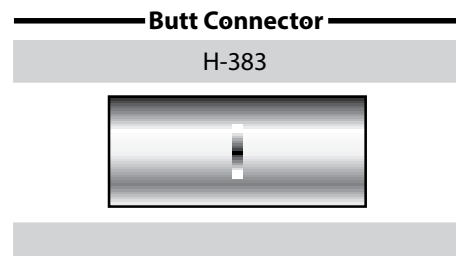
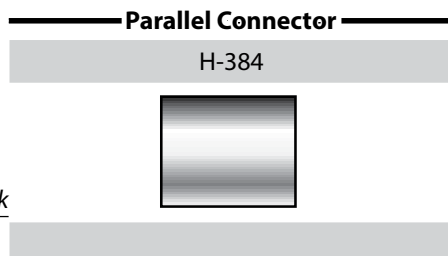
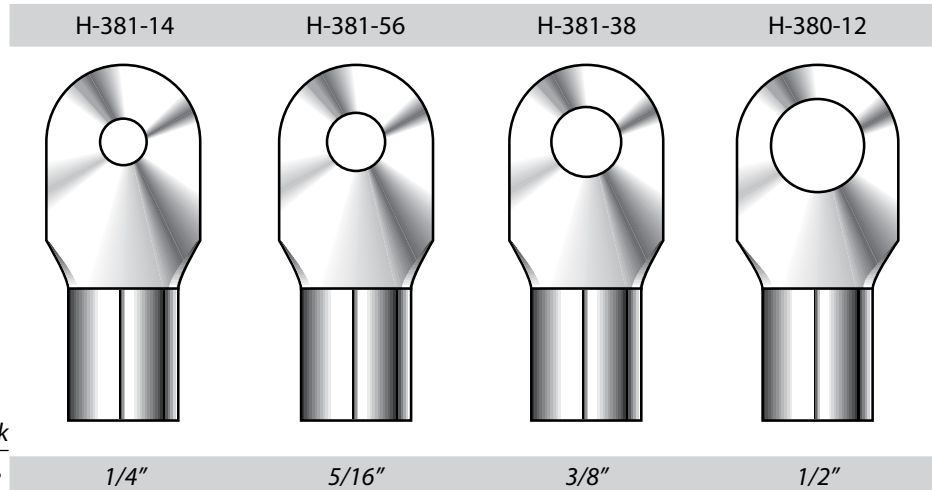
stud size 1/4" 5/16" 3/8"

1/0 Gauge Terminals

- All terminals are copper with tin electroplate
- All of our 1/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25. Please inquire for details

1/0 Gauge: Non-Insulated Terminals

Our 2 gauge, 1/0 gauge & 2/0 gauge terminals are also available with nylon or PVC insulation. For details & available sizes, contact your local sales rep or customer service.



For best crimping results, we recommend crimpers SKT-840, TS-1080 or TS-1090 for use with all of our large gauge terminals.

Large Lug Crimpers

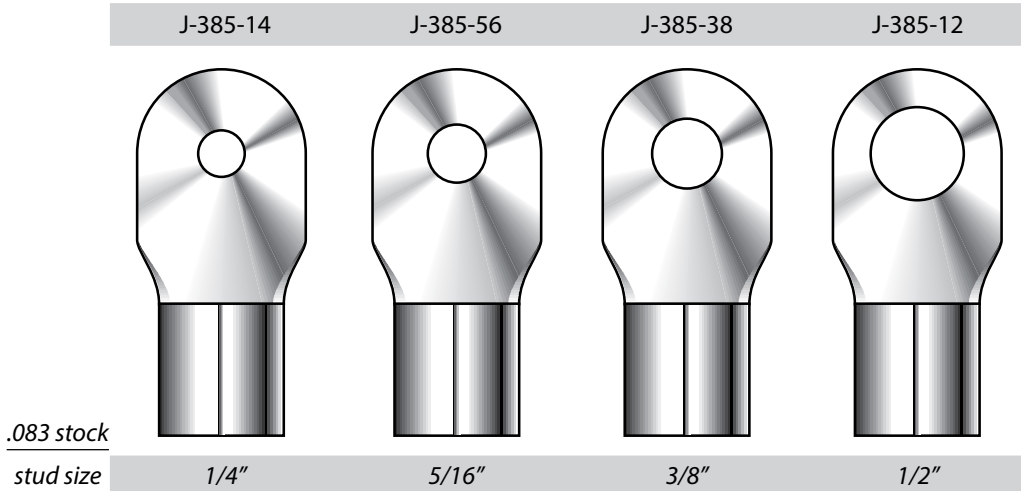


Part Number	Description	Fig.
SKT-840	Crimps: 8-4/0ga. terminals & splices. Indent type crimp. Use w/ standard hammer or vice.	A
TS-1080	Crimps: 8-1/0ga. Compression type crimp. 16" long.	B
TS-1090	Crimps: 8-4/0ga. Compression type crimp. 25" long.	C

2/0 Gauge Terminals

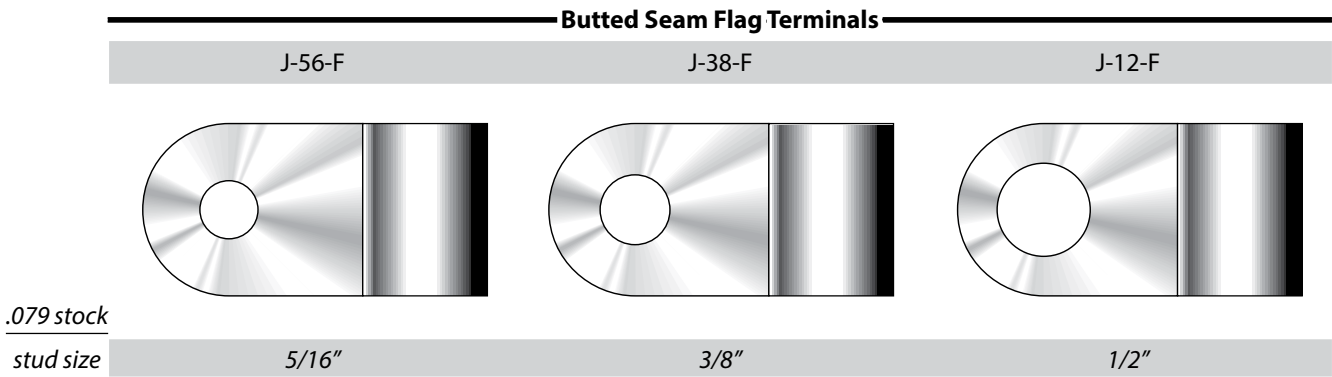
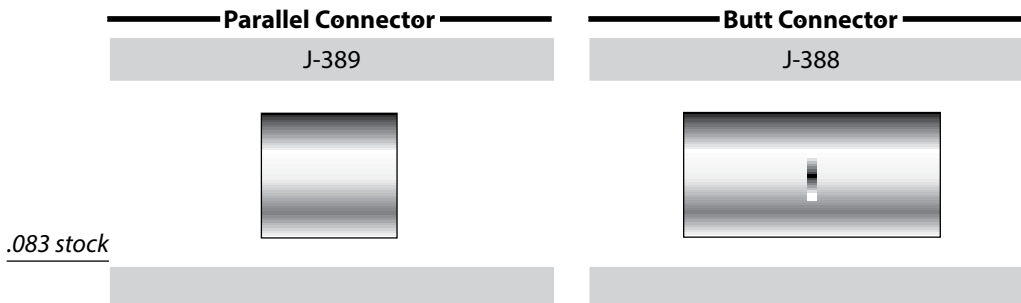
- All terminals are copper with tin electroplate
- All of our 2/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 10. Please inquire for details

2/0 Gauge: Non-Insulated Terminals



The suggested crimper for our 2/0, 3/0 & 4/0 gauge non-insulated terminals is the TS-1090, located on page 479.

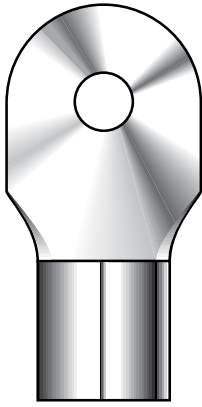
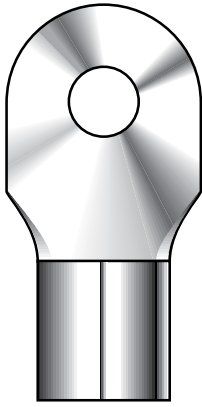
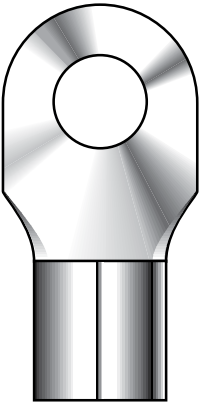
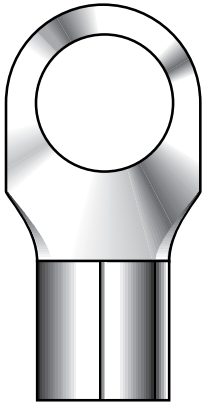
Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 446-450 for our wide selection. And don't forget to check out our heat sources on pages 486-487.

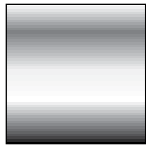
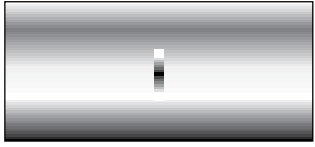


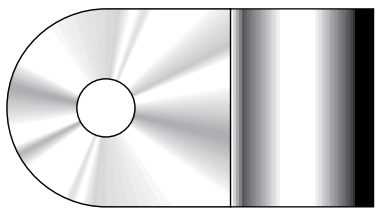
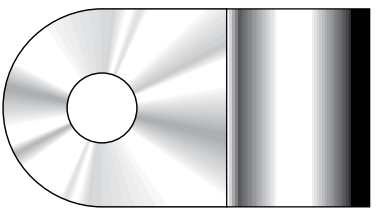
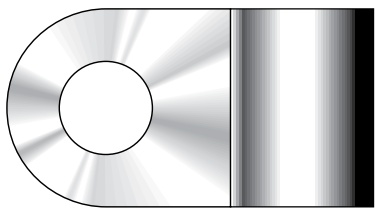
3/0 Gauge Terminals

- All terminals are copper with tin electroplate
- All of our 3/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 10. Please inquire for details

3/0 Gauge: Non-Insulated Terminals

	K-390-56	K-390-38	K-390-12	K-390-34
				
<i>.095 stock</i> stud size	5/16"	3/8"	1/2"	3/4"

Parallel Connector	Butt Connector
K-394	K-393
	
<i>.095 stock</i>	

Butted Seam Flag Terminals			
K-56-F	K-38-F	K-12-F	
			
<i>.090 stock</i> stud size	5/16"	3/8"	1/2"

4/0 Gauge Terminals

- All terminals are copper with tin electroplate
- All of our 4/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 10. Please inquire for details

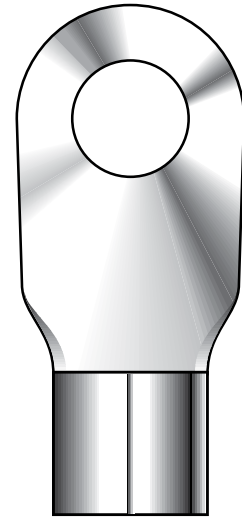
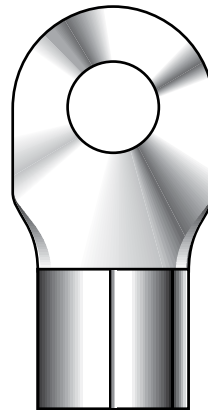
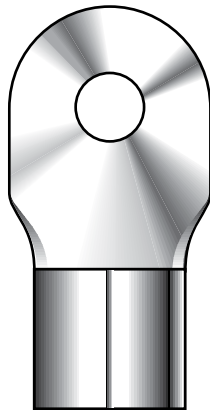
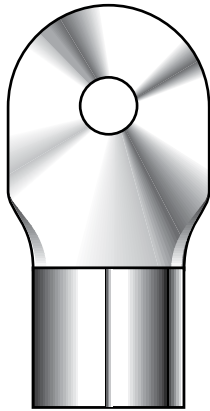
4/0 Gauge: Non-Insulated Terminals

L-395-56

L-395-38

L-395-12

L-398-58



.110 stock

stud size

5/16"

3/8"

1/2"

5/8"

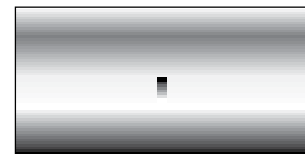
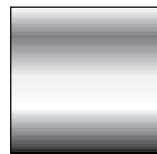
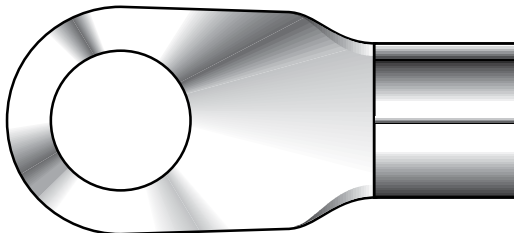
L-398-34

-Parallel Connector-

L-379

Butt Connector

L-378



.110 stock

stud size

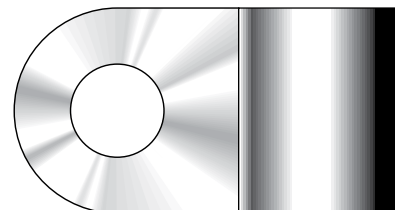
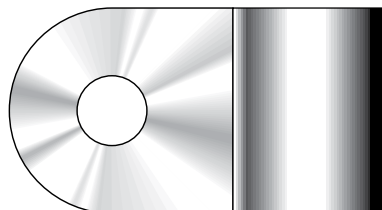
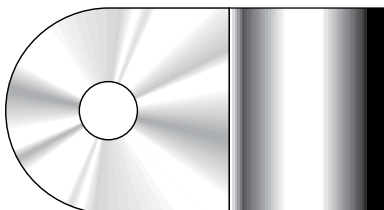
3/4"

Butted Seam Flag Terminals

L-56-F

L-38-F

L-12-F



.102 stock

stud size

5/16"









3/8"

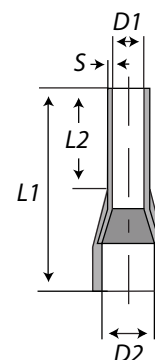
1/2"

Wire Ferrules








- All of our wire ferrules are shown actual size
- Wire ferrules are sold in packages of 100
- All wire ferrules shown are ROHS Compliant, UL Listed & REACH Certified
- Tin-plated copper
- Max operating temp: 230°F

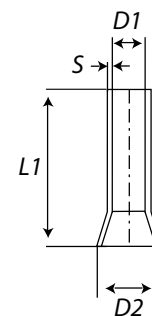
Wire Ferrules: Nylon Insulated

	Part Number	Wire Gauge	S (mm)	L2 (mm)	L1 (mm)	D1 (mm)	D2 (mm)	Color
	FRL-24N	24	0.15	6.0	10.4	.85	2.0	Aqua
	FRL-22N	22	0.15	8.0	14.0	1.0	2.6	White
	FRL-20N	20	0.15	8.0	14.0	1.2	3.0	Blue
	FRL-18N	18	0.15	8.0	14.4	1.4	2.8	Red
	FRL-16N	16	0.15	8.0	14.5	1.7	3.8	Black
	FRL-14N	14	0.15	8.0	15.0	2.2	4.7	Gray
	FRL-12N	12	0.15	10.0	17.7	2.8	4.8	Orange
	FRL-10N	10	0.15	12.0	20.0	3.5	6.3	Green



Wire Ferrules: Non-Insulated

	Part Number	Wire Gauge	S (mm)	L1 (mm)	D1 (mm)	D2 (mm)
	FRL-22	22	0.15	6.0	1.0	2.1
	FRL-20	20	0.15	6.0	1.2	2.3
	FRL-18	18	0.15	6.0	1.4	2.5
	FRL-16	16	0.15	7.0	1.7	2.8
	FRL-14	14	0.15	7.0	2.2	3.4
	FRL-12	12	0.2	9.0	2.8	4.0
	FRL-10	10	0.2	10.0	3.5	4.7








For best results, use the Paladin crimpers PA-1648 (20-12ga.) & PA-1649 (10-6ga.) located on page 479 with both our insulated & non-insulated wire ferrules.

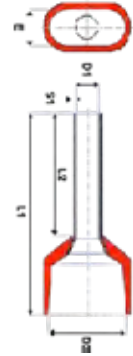
We have many other sizes of wire ferrules available. If you don't see what you're looking for, please give us a call.

For an assortment of insulated & non insulated wire ferrules, consider kits MWF-KIT-21 (with crimping tool) or MWF-KIT-21-WO (without crimping tool).

Wire Ferrules, cont'd




Wire Ferrules: Twin

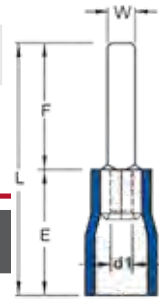
Part Number	Wire Gauge	S (mm/in.)	L2 (mm/in.)	L1 (mm/in.)	D1 (mm/in.)	D2 (mm/in.)	Color
 FRLD-22N	2 x 22	.20/.008	8.0/.32	15.1/.59	1.5/.06	4.9/.19	Orange
 FRLD-20N	2 x 20	.20/.008	8.0/.32	14.7/.58	1.7/.07	5.4/.21	White
 FRLD-18N	2 x 18	.20/.008	8.0/.32	15.1/.60	2.0/.08	5.5/.22	Yellow
 FRLD-16N	2 x 16	.20/.008	8.0/.32	15.5/.61	2.2/.24	6.2/.24	Red
 FRLD-14N	2 x 14	.20/.008	18.0/.71	26.5/1.04	2.9/.11	7.8/.31	Blue






Flat Blade Terminals

Un-Insulated Flat Blade Terminals

Part Number	Wire Gauge	Color	(f) Pin Length	(L) Length	(T) Thickness	(W) Width
 FBT-22	22-16	N/A	10mm/.39"	14.8mm/.58"	.75mm/.03"	2.3mm/.09"
 FBT-14	16-14	N/A	10mm/.39"	14.8mm/.58"	.8mm/.031"	2.4mm/.09"
 FBT-10	12-10	N/A	10mm/.39"	16.0mm/.63"	1.0mm/.04"	2.8mm/.11"






Nylon Flat Blade Terminals

Part Number	Wire Gauge	Color	(f) Pin Length	(L) Length	(T) Thickness	(W) Width
 FBT-22-N	22-16	Red	14mm/.55"	24.8mm/.98"	.75mm/.03"	3mm/.12"
 FBT-14-N	16-14	Blue	14mm/.55"	24.8mm/.98"	.8mm/.031"	3mm/.12"
 FBT-10-N	12-10	Yellow	14mm/.55"	27mm/1.1"	1.0mm/.04"	4mm/.16"



PVC Flat Blade Terminals

Part Number	Wire Gauge	Color	(f) Pin Length	(L) Length	(T) Thickness	(W) Width
 FBT-22-P	22-16	Red	14mm/.55"	23.8mm/.94"	.75mm/.03"	3mm/.12"
 FBT-14-P	16-14	Blue	14mm/.55"	22.8mm/.90"	.8mm/.031"	2.4mm/.09"
 FBT-10-P	12-10	Yellow	14mm/.55"	27mm/1.06"	1.0mm/.04"	4.5mm/.18"



For best results, use the flat blade terminal crimper - **TS-FBTC-26-10**

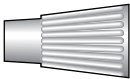
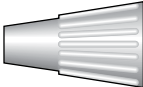
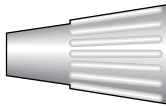
- Crimps insulated flat blade terminals
- Ratchet mechanism, hardened steel frame
- Crimping range: 26-10 AWG (.25-6.00 mm²) solid or stranded wires
- Crimping slots: 12-10 (4.00mm² – 6.00mm²) (Yellow)
16-14 (1.50mm² – 2.50mm²) (Blue)
22-18 (0.50mm² – 1.00mm²) (Red)
26-22 (0.25mm² – 0.50mm²) (Green)





Wire Connectors

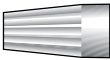
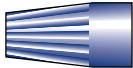
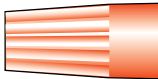
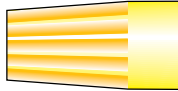
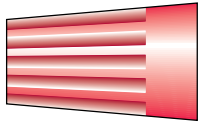
High Temp Porcelain Wire Connectors

- All of our high temp wire connectors are shown actual size
- 1900°F max temperature
- Rated at 300 volts max



	HI-1	HI-5	HI-7
			
Min	2 to 4 - 18ga.	2 to 4 - 18ga.	2 to 5 - 18ga.
Max	1 - 16ga. & 1 - 14ga.	2 - 18ga. & 1 - 14ga.	1 - 12ga. & 1 - 16ga.

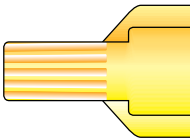
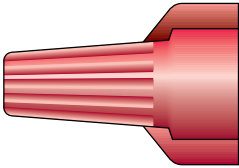
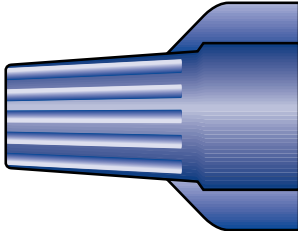
Wire Connectors

- UL Listed & CSA Certified
- All of our wire connectors are shown actual size.
- Thermoplastic
- 221°F max temperature
- TS-TWS-GRY & TS-TWS-BLU are rated at 300 volts max  
- TS-TWS-ORG, TS-TWS-YEL & TS-TWS-RED are rated at 600 volts for buildings & 1000 volts max for signs or fixtures

	TS-TWS-GRY	TS-TWS-BLU	TS-TWS-ORG	TS-TWS-YEL	TS-TWS-RED
					
Min	1 - 20ga. & 1 - 22ga.	3 to 5 - 22ga.	3 - 18ga. & 2 - 22ga.	1 - 10ga. & 1 - 14ga.	2 - 14ga.
Max	2 - 16ga.	3 - 16ga.	2 - 14ga.	6 - 18ga.	3 - 16ga. or 3 - 10ga.

Winged Wire Connectors

- UL Listed & CSA Certified
- All of our wing nut wire connectors are shown actual size
- Thermoplastic
- 221°F max temperature  
- Rated at 600 volts for buildings & 1000 volts max for signs or fixtures

	TS-WLS-YEL	TS-WLS-RED	TS-WLS-BLU
			
Min	2 - 18ga.	2 - 14ga.	3 - 12ga.
Max	3 - 12ga.	5 - 12ga.	1 - 6ga. & 2 - 8ga.

The quick spin wing design makes installing the last one as easy as installing the first one of the day with less stress on your fingers.

Skirted Winged Wire Connectors

- All of our skirted wing nut connectors are shown actual size
- Rated at 600 volts for buildings & 1000 volts max for signs or fixtures

Because of the increased wire range of the **O/B**, **R/Y** & **B/G**, you will always have the right one for the job, with less inventory to manage!

Skirted wire connector **T/R** is available in 25 or 50 packs, or in a convenient 750 piece jug. To order this larger quantity, use part number T/R+JUG.

	O/B	R/Y	B/G	T/R
<i>Min</i>	2 - 22ga.	2 - 18ga.	4 - 14ga.	2 - 18ga.
<i>Max</i>	2 - 12ga.	2 - 8ga.	5 - 10ga.	5 - 12ga.

Sealed Waterproof Connectors

- All of our sealed waterproof connectors are shown actual size
- 221°F max temperature
- Pre-filled custom sealant locks out moisture & air between -45°F to 400°F
- UL 50 tested as rain tight / water tight
- Meets NEC Article 110-11 for use in all NEMA enclosures

Our sealed waterproof connectors replace electrical tape & heat shrink & eliminate the need for on-site assembly & multi-piece kits. Added ribs for easier twist-on applications.

	DI-102	DI-415	DI-636
<i>Min</i>	3 - 22ga.	6 - 22ga.	4 - 14ga.
<i>Max</i>	2 - 14ga.	4 - 14ga.	2 - 6ga. & 1 - 12ga.

Open Barrel Splices

- Open barrel splices are not shown actual size
- Perfect for crimping multiple wires
- Soldering after crimping is recommended

	12084688	00821240	01839906	2962985
<i>Min</i>	4 - 16ga. to 2-14ga.	2 - 14ga. to 2-12ga.	4 - 14ga. to 3-12ga.	4-12ga.
<i>Max</i>	6 - 18ga.	5 - 16ga.	8 - 16ga.	6 - 10ga.

These crimping tools are recommended;







12040070 (For A, B & C)

13987239 (For D)



Nylon Insulated Closed-End Connectors

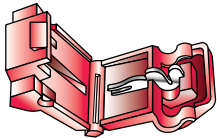
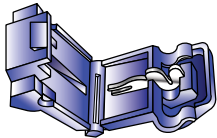
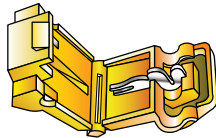
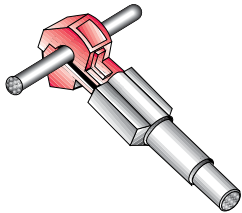
- All of our closed end connectors are shown actual size
- Rated at 600 volts max
- Adhesive Lined Shrink Closed End Connectors

	NC-2214	NC-2016	NC-1610	NC-1010	NCS-2214	NCS-1810
						
Min	2 - 22ga.	2 - 18ga.	2 - 16ga.	1 - 12ga. & 1 - 14ga.	3 - 22ga.	3 - 22ga.
Max	2 - 18ga.	1 - 16ga. & 1 - 18ga.	1 - 12ga. & 1 - 16ga.	1 - 10ga. & 1 - 14ga.	2 - 14ga.	10ga. & 1 - 18ga.

For the perfect crimp, use our Paladin crimper PA-1308, located on page 475.

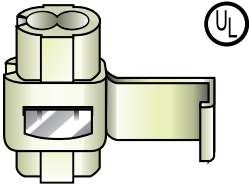
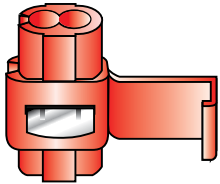
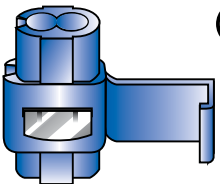
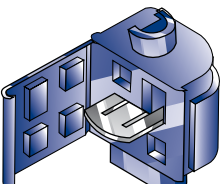

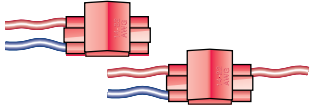
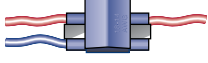

Female Tap Connectors, Self Stripping

- UL Listed & CSA Certified
- All of our female tap connectors are shown actual size
- Designed for mid-span taps & can be disconnected

	T-250R-TERMINAL	T-250	T-250Y	
				
	22-18ga.	16-14ga.	12-10ga.	
works w/	MCT-A-850	MCT-850	C-2264	

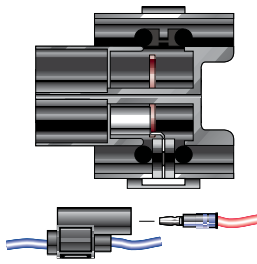
Displacement Connectors, Self Stripping

- Rated at 300 volts max
- Most are UL Listed

T-4	T-4A	T-4B	T-4BG
			
			
18-14ga.	22-14ga. with stop	18-14ga. with stop	18-14ga. moisture resistant gel w/ stop

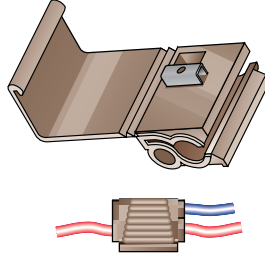
Displacement Connectors, Self Stripping, cont'd

T-5



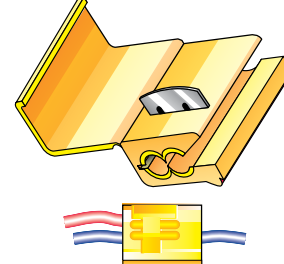
18-14ga.

T-6



18-10ga.
with stop

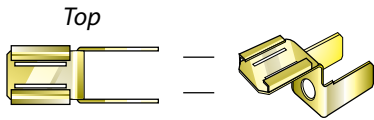
T-7



12-10ga.
with stop

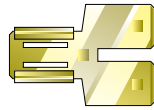
Disconnect Adapters

250-03Z



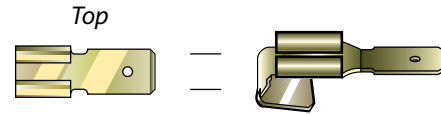
converts 1 - .250" male tab to 2 male tabs

MMFA



converts 1 - .250" male tab to 2 male tabs

VWA-O



two .250" male tabs bent at angles: 10° up & 120° back

Splicing Connectors

- Works w/ solid & stranded conductors
- Easily combine different wire sizes & types
- Rated: 450V; 32A

WG-412



2 conductors
24-12ga.

WG-413



3 conductors
24-12ga.

WG-415



5 conductors
24-12ga.

WG-500



Mounting carrier for
DIN-35 rail/panel mount

WG-505



Strain relief plate
used w/ WG-500

Communication Connectors

UB2A



0.082" max insulation
19-26ga. solid wire

E-9Y

IDC Connector Crimping Pliers


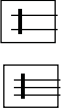

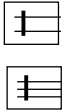


Crimps UB2A

- Curved handles for greater control
- Induction hardened side-cutting knives for long life
- 11/16" jaw width
- Forged in the USA with custom US made tool steel for maximum durability
- Hot-riveted joint for smooth action and no wobble handle

Electrical Pigtail Connectors, Self Stripping

- UL Listed
- Connects 2 or 3 wires
- Operating temp: 221°F
- Works w/ wires .155" O.D. or smaller

TS-314	TS-314U
 	 
22-14ga. <i>grease filled, water resistant</i>	22-14ga. <i>ungreased</i>

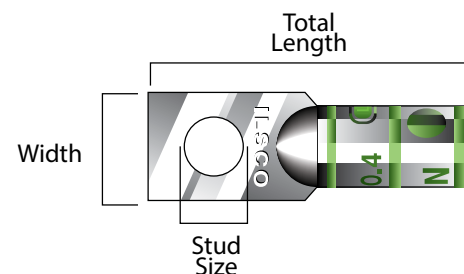
IlSCO Connectors

IlSCO Copper Compression Lugs

Part Number	Welding Cable	Battery Cable	Stud Size	Length (inches)	Width (inches)
CLWS-8-10	-	8	10	1.569	.374
CLWS-6-10	8	6	10	1.882	.411
CLWS-6-14	8	6	1/4	2.0	.411
CLWS-4-10	6	4	10	1.921	.486
CLWS-4-14	6	4	1/4	2.039	.486
CLWS-4-516	6	4	5/16	2.234	.486
CLWS-2-14	4	2	1/4	2.091	.599
CLWS-2-516	4	2	5/16	2.286	.599
CLWS-2-38	4	2	3/8	2.286	.599
CLWS-1-14	2	1	1/4	2.58	.673
CLWS-1-516	2	1	5/16	2.58	.673
CLWS-1-38	2	1	3/8	2.58	.673
CLWS-1/0-14	1	1/0	1/4	2.731	.738
CLWS-1/0-516	1	1/0	5/16	2.731	.738
CLWS-1/0-38	1	1/0	3/8	2.731	.738
CLWS-2/0-14	1/0	2/0	1/4	2.771	.811
CLWS-2/0-516	1/0	2/0	5/16	2.771	.811
CLWS-2/0-38	1/0	2/0	3/8	2.771	.811
CLWS-3/0-14	2/0	3/0	1/4	2.814	.885
CLWS-3/0-516	2/0	3/0	5/16	2.814	.885
CLWS-3/0-38	2/0	3/0	3/8	2.814	.885
CLWS-3/0-12	2/0	3/0	1/2	3.189	.885
CLWS-4/0-14	3/0	4/0	1/4	2.866	.999
CLWS-4/0-516	3/0	4/0	5/16	2.866	.999
CLWS-4/0-38	3/0	4/0	3/8	2.866	.999
CLWS-4/0-12	3/0	4/0	1/2	3.241	.999
CLWS-250-12	4/0	250MCM	1/2	3.469	1.088
CLWS-300-12	-	300MCM	1/2	3.837	1.189
CLWS-350-12	-	350MCM	1/2	3.873	1.291



- UL 486A 194°F Listed & CSA Certified for 600 volts
- Constructed from high strength seamless copper tubing
- Supplied with a sight hole for visual inspection of proper cable insertion
- Electro-tin plated
- Sight hole & chambered barrel for visual inspection of proper cable insertion
- For copper conductor cable only
- Color coded for IlSCO tooling. See chart on following page

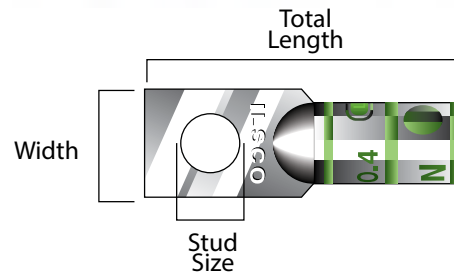


IlSCO Connectors

IlSCO Short Copper Compression Lugs w/Sight Hole

Part Number	Welding Cable	Battery Cable	Stud Size	Total Length
CSWS-6-10	6	6	10	1.219"
CSWS-6-14	6	6	1/4	1.375"
CSWS-6-516	6	6	5/16	1.57"
CSWS-6-38	6	6	3/8	1.57"
CSWS-4-10	4	4	10	1.296"
CSWS-4-14	4	4	1/4	1.414"
CSWS-4-516	4	4	5/16	1.609"
CSWS-4-38	4	4	3/8	1.609"
CSWS-2-10	2	2	10	1.473"
CSWS-2-14	2	2	1/4	1.591"
CSWS-2-516	2	2	5/16	1.786"
CSWS-2-38	2	2	3/8	1.786"
CSWS-1-10	1	2	10	1.517"
CSWS-1-14	1	2	1/4	1.83"
CSWS-1-38	1	2	3/8	1.83"
CSWS-1/0-10	1/0	1	10	1.668"
CSWS-1/0-14	1/0	1	1/4	1.981"
CSWS-1/0-516	1/0	1	5/16	1.981"
CSWS-1/0-38	1/0	1	3/8	1.981"
CSWS-2/0-14	2/0	1/0	1/4	2.021"
CSWS-2/0-516	2/0	1/0	5/16	2.021"
CSWS-2/0-38	2/0	1/0	3/8	2.021"
CSWS-3/0-10	3/0	2/0	10	1.751"
CSWS-3/0-14	3/0	2/0	1/4	2.064"
CSWS-3/0-516	3/0	2/0	5/16	2.064"
CSWS-3/0-38	3/0	2/0	3/8	2.064"
CSWS-4/0-14	4/0	3/0	1/4	2.241"
CSWS-4/0-516	4/0	3/0	5/16	2.241"
CSWS-4/0-38	4/0	3/0	3/8	2.241"

IlSCO



- UL467 Listed & CSA Certified
- Constructed from high strength, seamless copper tubing w/ electro-tin plating
- For copper conductor cable only

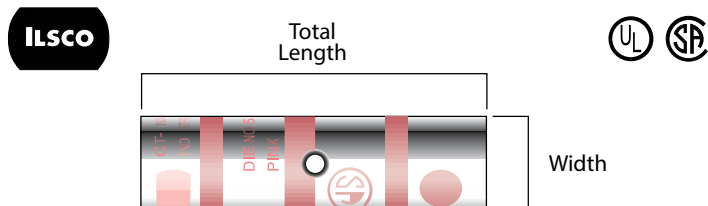
The tools for these compression lugs, TS-1080 and TS-1090 can be found in the Hand Tools section of this catalog.



We bring the store to your door, with a fleet of vans fully stocked with our most popular parts

IlSCO Copper Compression Sleeves

- UL 486A 194°F Listed & CSA Certified for 600 volts
- Constructed from high strength seamless copper tubing
- Center wire stop
- Electro-tin plated
- Color coded for IlSCO tooling, see chart below



Part Number	Welding Cable	Battery Cable	Length (inches)	O.D. (inches)
CT-8	8	8	1.125	.272
CT-6	6	6	1.750	.295
CT-4	4	4	1.875	.343
CT-2	-	2	1.875	.421
CT-1	2	1	1.875	.468
CT-1/0	1	1/0	1.875	.515
CT-2/0	1/0	2/0	2.0	.562
CT-3/0	2/0	3/0	2.125	.609
CT-4/0	3/0	4/0	2.125	.687

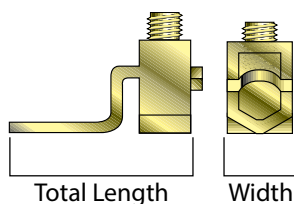
ILSCO Crimping Color Codes					
Color	Welding Cable	Battery Cable	Color	Welding Cable	Battery Cable
Red	-	8	Black	1/0	2/0
Blue	8	6	Orange	2/0	3/0
Gray	6	4	Purple	3/0	4/0
Brown	4	2	Yellow	4/0	250MCM
Green	2	1	White	-	300MCM
Pink	1	1/0	Red	-	350MCM

The color codes to the left refer to IlSCO brand tools. To assure the perfect tool crimp for every gauge of your IlSCO lugs, see pages 59-61 for everything we have to offer.

IlSCO Copper Single Hole Mechanical Lugs

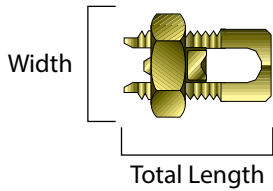


- UL E6207 Listed & CSA Certified
- Rated to 600 volts
- Constructed from seamless copper for high conductivity & efficiency
- Wires are wedged between arched pressure bar & v-bottom collar, establishing positive contact & a firm, permanent grip
- Easy to install with slotted screwdriver or allen wrench
- Reusable



Part Number	Screw Type/Size	Wire Range	Total Length (inches)	Width (inches)	Stud Size
SLU-25	Slotted Screw	14 - 10ga.	1.0	.3125	#6
SLU-35	Slotted Screw	14 - 6ga.	1.1875	.75	#10
SAU-70	Slotted Screw	14 - 4ga.	1.3125	.5	1/4
SLU-70	Slotted Screw	8 - 2ga.	1.5313	.5	1/4
SLU-125	Slotted Screw	6 - 1/0ga.	1.9688	2.625	1/4
SLU-175	3/16" Allen	4 - 3/0ga.	2.1875	.75	3/8
SLU-225	7/32" Allen	2 - 4/0ga.	2.625	1.0	5/16
SLU-300	5/16" Allen	1/0ga. - 350MCM	3.1875	1.5	3/8
SLU-400	5/16" Allen	1/0ga. - 500MCM	4.25	1.5	3/8
SLU-650	3/8" Allen	600MCM - 1000MCM	4.625	2.0	1/2

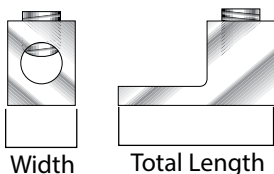
Ilco Copper Split Bolts



- UL E6207 Listed, CSA Certified & RoHS Compliant
- Rated to 600 volts
- Constructed from high strength copper alloy, allowing maximum pressure on conductors
- Highly resistant to seasonal cracking & corrosion
- Precision tooled threads allow maximum torque to assure a cool & safe connection

Part Number	Wire Range for Equal Main & Tap	Min Tap w/ One Max Main	Total Length (inches)	Width (inches)
IK-10	12STR - 10STR	16STR	.85	.50
IK-8	16STR - 8STR	16STR	.85	.50
IK-6	10SOL - 6SOL	16SOL	1.05	.63
IK-4	8SOL - 4SOL	16SOL	1.05	.69
IK-3	6SOL - 2SOL	12SOL	1.32	.82
IK-2	6SOL - 2STR	14STR	1.32	.82
IK-1/0	4SOL - 1/0STR	14SOL	1.64	.88
IK-2/0	2SOL - 2/0STR	14STR	1.82	.88
IK-250	2SOL - 4/0STR	6SOL	2.16	1.00

Ilco Aluminum Single Hole Mechanical Lugs




- UL 486B 194°F Listed & CSA Certified
- Rated to 600 volts
- Constructed from high strength aluminum alloy
- All connectors are plated to provide low contact resistance
- Easy to install with slotted screwdriver or allen wrench
- Dual rated for aluminum or copper conductors

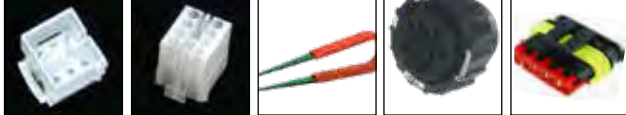
Part Number	Screw Type/Size	Wire Range	Total Length (inches)	Width (inches)	Stud Size
TA-6-S	Slotted Screw	14 - 4ga.	1.0625	.5	1/4
TA-2	Slotted Screw	14 - 2ga.	1.1563	.5	1/4
TA-0	Slotted Screw	14 - 1/0ga.	1.4688	.625	1/4
TA-2/0	3/16" Allen	14 - 2/0ga.	1.4688	.625	1/4
TA-250	5/16" Allen	6ga. - 250MCM	2.0	1.0	5/16
TA-300	5/16" Allen	6ga. - 300MCM	2.0	.8594	1/4
TA-350	3/8" Allen	6ga. - 350MCM	2.25	1.125	3/8
TA-500	3/8" Allen	4ga. - 500MCM	2.8125	1.5	3/8
TA-600	1/2" Allen	2ga. - 600MCM	3.1875	1.5	3/8
TA-800	1/2" Allen	300MCM - 800MCM	3.375	1.75	5/8
TA-1000	9/16" Allen	350MCM-1000MCM	3.375	1.75	5/8

We are proud to be a stocking distributor for Ilco for over 35 years. If you don't see what you need here, give us a call. We'll send you a full line catalog.

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Delphi 56 Series: Unsealed Connectors

- Current capability: 0-20 amps
- One terminal is needed for each cavity (must be ordered separately)
- Terminals are made from tin plated brass, unless otherwise noted



Female Connectors



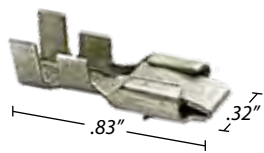
Part Number	No. of Cavities	Fig.
2977253	1	A
2977647	2	B
2973781	2	C
2973872	2	D
2973407	2	E
8905116	3	F
2962510	3	G
2977048	4	H
2973422	5	I
2977044	6	J
12052978	6	K
2965977	8	L

Male Connectors



Part Number	No. of Cavities	Fig.
2984528	1	A
8900826	2	B
2984883	2	C
2977763	2	D
2973431	2	E
8905117	3	F
2973172	3	G
6294544	4	H
3138080	5	I
2977042	6	J
2965972	8	K

Female Terminals



Part Number	Wire Gauge
2962508*	20-18
2965141	20-18
2962447*	16-14
2965142	16-14
2965143	12
6288913	10

*Terminals are made from non-plated brass

Male Terminals



Part Number	Wire Gauge
2965481	20-18
2971962	16-14
2971859	12
8917283*	10
12015878	10

Female connectors accept female terminals & male connectors accept male terminals.

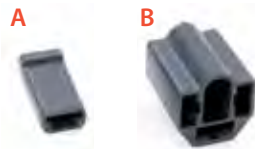
Different gauge Delphi terminals may not be exactly as pictured

Delphi 59 Series: Unsealed Connectors

- Current capability: 0-20 amps
- One terminal is needed for each cavity (must be ordered separately)
- Terminals are made from tin plated brass, unless otherwise noted



Female Connectors



Part Number	No. of Cavities	Color	Figure
2977878	1	Black	A
2965810	3	Black	B

Male Connectors



Part Number	No. of Cavities	Color	Figure
8917857	3	Black	A

Female Terminals



Part Number	Wire Gauge
12033978	22-18
2973216	16-14

Male Terminals



Part Number	Wire Gauge
8905807	16-14
8917322*	12-10

*Terminals are made from tin-plated copper

Delphi 56 & 59 Series Compatible Tools



Part Number	Description	Fig.
12085271	Two step crimper for 20-14ga. wire. Unsealed connectors only.	A
6285847	Two step crimper for 20-10ga. wire. Unsealed connectors only.	B
8913440	One step crimper for 20-14ga. wire. Unsealed connectors only.	C
PA-1306	Ratchet style crimper for 22-12ga. wire. Unsealed connectors only. Suggested for female terminals only.	D
12094430	Removal tool	E

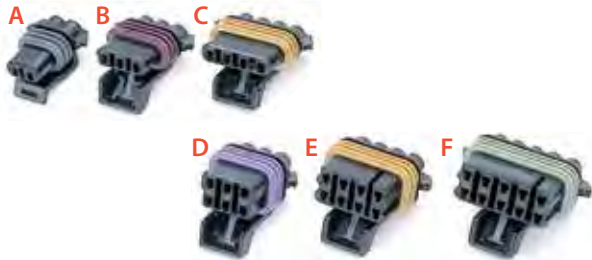
Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 150 Series: Sealed Connectors

- Current capability: 0-14 amps
- One terminal & one cable seal are required for each cavity & one TPA secondary lock is required for each connector (all must be ordered separately)
- Cavity plugs are required for each unused cavity
- Female terminals are made from silicon brass, male terminals are made from tin plated brass



Female Connectors



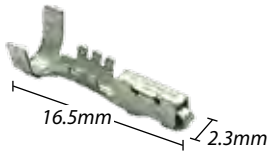
Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12052641	2	A	12052634
12110293	3	B	12052845
12162144	4	C	12047948
12052848	6	D	12052850
12047937	8	E	12066304
12065425	10	F	12124264

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12162000	2	A	12052634
12129615	3	B	12052845
12162102	4	C	12047948
12124107	6	D	12052850
12047931	8	E	12047936
12045808	10	F	12124264

Female Terminals



Part Number	Wire Gauge
12084200	22-20
12048074	18-16

Male Terminals



Part Number	Wire Gauge
12077628	22-20
12045773	18-16

Cable Seals



Part Number	Wire Gauge	Color
12084193	22	Tan
15324974	20	Blue
15324973	16	Dk. Red
15324976	18	White

Cavity Plug



Part Number	Color
12059168	Dk. Red

Connector Position Assurance (CPA)



Part Number	Description
12020833	For use on all 150 Series sealed connections

Female connectors accept female terminals & male connectors accept male terminals.

We also offer a 355 piece Metri-Pack 150 Series Kit (MP-150-KIT), complete with all of the connectors, terminals & seals you'll need. See page 459 for more details.

Delphi makes a precision pick set, specifically for their Metri-Pack series connectors. To order, just ask for part#: 12032198. See page 68 for details.

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 150 Series: Unsealed Connectors

- Current capability: 0-14 amps
- One terminal is required for each cavity & TPA secondary locks are required for each connector (all must be ordered separately)
- Female terminals are made from silicon brass, male terminals made are from tin plated brass



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12047682	1	A	N/A
12047662	2	B	12047664
12052832	2	C	12047664
12064758	3	D	12047783
12047781	3	E	12047783
12064760	4	F	12047664*
12047785	4	G	12047664*
12064762	6	H	12064764*
12047886	8	I	12045689*
12064766	8	J	12064768*
12064769	10	K	12064771*

*Two secondary locks required for connector.

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12047683	1	A	N/A
12047663	2	B	12047665
12052833	2	C	12047665
12064759	3	D	12047784
12047782	3	E	12047784
12064761	4	F	12047787
12047786	4	G	12047787
12064763	6	H	12064765
12045688	8	I	12045690
12064767	8	J	12045690
12064770	10	K	12064772

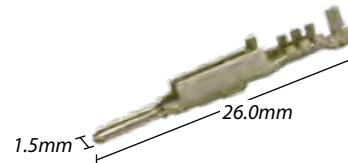
Female Terminals



Part Number	Wire Gauge
12064971	22-20
12047767	18-16

A quick method to determine which Metri-Pack Series terminal you have is by measuring the width of a male terminal. The 150 Series terminal is 1.5mm wide, the 280 Series is 2.8mm wide, etc.

Male Terminals



Part Number	Wire Gauge
12059894	22-20
12047581	18-16

A Metri-Pack crimping tool is required to assure a satisfactory seal. See page 68 for your best options.

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 150 Series Compatible Tools

	Part Number	Description	Fig.
A	12039500	Two step crimper for 22-16ga. wire. Unsealed connectors only.	A
B	12155975	Two step crimper for 20-14ga. wire. Sealed connectors only.	B
C	OBT-1028CT	Open barrel crimper for 24-14ga. wire.	C
D	12032198	Precision pick set	D
E	12094429	Removal tool	E

Metri-Pack 150.2 Pull-to-Seat Series: Sealed Connectors

- Current capability: 0-14 amps
- Multiple cable seal included
- **This line of connectors mates to several different devices**
- Terminals are made from silicon brass

Female Connectors



Part Number	No. of Cavities	Color	Mates To	Fig.
12162198*	2	Medium gray	Various	A
12162193	2	Black	Temperature sensor	B
12162280	3	Gray	Various	C
12162182	3	Black	Crankshaft sensor	D
12065287*	3	Black	Pressure sensor	E
12162188	4	Black	Distributor module	F
12162261	6	Black	Various	G

Female Terminals

Part Number	Wire Gauge
12124076	22-20
12124075	18-16

Female Terminals

*Use w/ 12162198 & 12065287

Part Number	Wire Gauge
12089290	22-20
12103881	18-16

All connectors are supplied with rear multiple cable seals.

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 150.2 Series Compatible Tools



Part Number	Description	Fig.
12039500	Two step crimper for 22-16ga. wire. Unsealed connectors only.	A
OBT-1028CT	Open barrel crimper for 24-14ga. wire.	B
12032198	Precision pick set	C
12180559	Removal tool	D

Metri-Pack 280 Series: Sealed Connectors

- Current capability: 0-30 amps
- One terminal & one cable seal are required for each cavity & one TPA secondary lock is required for each connector (all must be ordered separately)
- Terminals are made from tin plated brass
- Cavity plugs are required for each unused cavity



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12065172	1	A	12065249
15300027	2	B	15300014
12124819	2	C	12020807
12040977	3	D	12034145
12129565	4	E	15300016
12084891	5	F	15324857
12110751	7	G	12110754

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12065171	1	A	12065249
15300002	2	B	15300014
12059450	2	C	12065279
15300003	3	D	15300015
12129600	4	E	15324063
12186400	5	F	12084673
12110753	7	G	12110754

Female Terminals



Part Number	Wire Gauge
12084201	22-20
12077411	18-16
12129493	14-12
12077413	12

Male Terminals



Part Number	Wire Gauge
12124977	22-20
12048159	18-16
12129497	14-12
12048254	12

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 280 Series: Sealed Connectors, cont'd

Cable Seals



Part Number	Wire Gauge	Color
15324983	22	Dk. Red
15324985	20	Purple
15324984	18	Tan
15324982	16-14	Green
15324980	14-12	Lt. Gray
15324981	12	Blue

Cavity Plug



Part Number	Color
12010300	Green

Female connectors accept female terminals & male connectors accept male terminals.

Need a bit of everything? Our Metri-Pack 280 Series Kit (MP-280-KIT), on page 459 has everything you'll need to make complete connections.

Connector Position Assurance (CPA)



Part Number	Description	Fig.
12052834	For use on all 280 Series sealed, 1 & 7 cavity connections*	A
12020833	For use on all 280 Series sealed, 3-5 cavity connections*	B

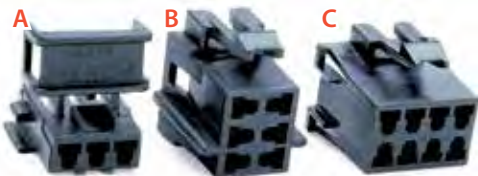
*CPA's not needed for 2 cavity connectors

Metri-Pack 280 Series: Unsealed Connectors

- Current capability: 0-30 amps
- One terminal is required for each cavity & TPA secondary locks are required for each connector, unless otherwise noted (all must be ordered separately)
- Terminals are made from tin plated brass



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12020397	3	A	N/A
12064752	6	B	12064753*
12064998	8	C	12064999*

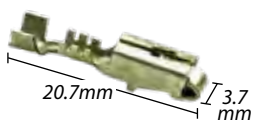
Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12020398	3	A	N/A
12064754	6	B	12064755*
12066195	8	C	12065141

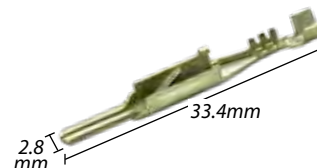
*Two secondary locks required for connector

Female Terminals



Part Number	Wire Gauge
12052217	22-20
12034046	20-18
12066214	16-14
12129494	14-12
12015858	12-10

Male Terminals



Part Number	Wire Gauge
12066271	22-20
12034047	20-18
12020116	16-14
12129498	14-12
12084586	12-10

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 280 Series Compatible Tools

Part Number	Description	Fig.
12085271	Two step crimper for 20-14ga. wire. Unsealed connectors only.	A
12155975	Two step crimper for 20-14ga. wire. Sealed connectors only.	B
OBTS-1028S	Crimper for 24-14ga. wire. Sealed connectors only.	C
OBT-1028CT	Open barrel crimper for 24-14ga. wire.	D
12071687	Two step crimper for 12-10ga. wire. Sealed connectors only.	E
6285847	Crimper for 20-10ga. wire. Unsealed connectors only.	F
12094430	Removal tool	G

Metri-Pack 480 Series: Sealed Connectors

- Current capability: 0-42 amps
- One terminal & one cable seal are required for each cavity & one TPA secondary lock is required for each connector (all must be ordered separately)
- Cavity plugs are required for each unused cavity
- Terminals are made from tin plated brass



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12052613	2	A	12059897
12131592	3	B	12131543
12048412	4	C	12048413

Male Connectors



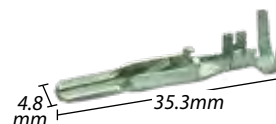
Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12065863	2	A	12059897
15344628	3	B	12131543
N/A	4		N/A

Female Terminals



Part Number	Wire Gauge
12048450	20-16
12048451	16-14
12052139	12-10

Male Terminals



Part Number	Wire Gauge
12065196	16-14
12065197	12
12052172	10

Metri-Pack 480 Series cable seals & plugs are located on page 72.

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 480 Series: Sealed Connectors, cont'd

Cable Seals



Part Number	Wire Gauge	Color
15324991	20	Yellow
15324988	16-14	White
15324989	14-12	Red
15324990	12	Purple
12034170	10	Orange

Cavity Plug



Part Number	Color
35232480	Gray

Get everything you need all in one box with our Metri-Pack 480 Series Kit (MP-480-KIT).

Connector Position Assurance (CPA)



Part Number	Description
12020833	For use on all 480 Series sealed connections

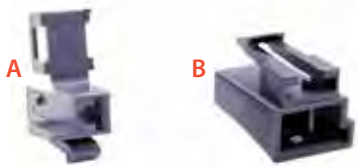
Female connectors accept female terminals & male connectors accept male terminals.

Metri-Pack 480 Series: Unsealed Connectors

- Current capability: 0-42 amps
- One terminal is required for each cavity & TPA secondary locks are required for each connector, unless otherwise noted (all must be ordered separately)
- Terminals are made from tin plated brass

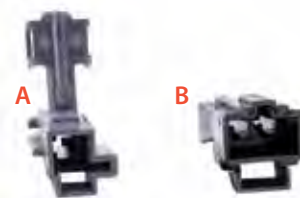


Female Connectors



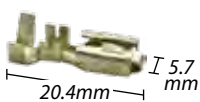
Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12015952	1	A	N/A
12064749	2	B	12059860

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12015987	1	A	N/A
12064750	2	B	12064751

Female Terminals



Part Number	Wire Gauge
12052219	22-20
12015860	20-18
12124304	16-14
12052221	12
12084595	12-10

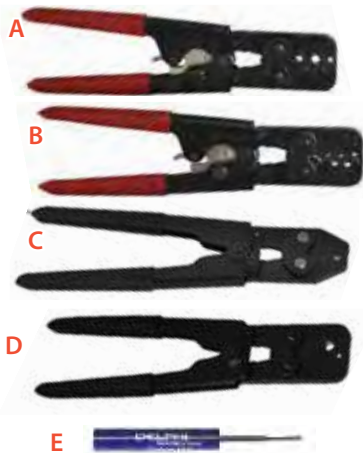
Male Terminals



Part Number	Wire Gauge
12020119	20-18
12020120	16-14
12052827	12
12033820	12-10

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 480 Series Compatible Tools



Part Number	Description	Fig.
12085270	Two step crimper for 20-14ga. wire. Sealed connectors only.	A
12085271	Two step crimper for 22-14ga. wire. Unsealed connectors only.	B
6285847	Two step crimper for 20-10ga. wire. Unsealed connectors only.	C
12071687	Two step crimper for 12-10ga. wire. Sealed connectors only.	D
12094430	Removal tool	E

A Metri-Pack crimping tool is required to assure a satisfactory seal.

Metri-Pack 630 Series: Sealed Connectors

- Current capability: 0-46 amps
- One terminal & one cable seal are required for each cavity & one TPA secondary lock is required for each connector (all must be ordered separately)
- Cavity plugs are required for each unused cavity
- Terminals are made from tin plated brass



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12033769*	2	A	N/A
12124685	3	B	12045699

*Only accepts female pull-to-seat terminals, on following page

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12034269*	2	A	12034363
12124686	3	B	12045699

*Only accepts unsealed terminals, use Male Terminals on following page. Also requires multiple cable seals, on following page.

Female Terminals



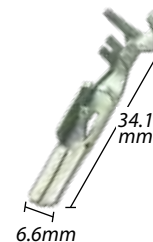
Part Number	Wire Gauge
12052457	20-18
12052455	16-14
12052456	12-10

Female Pull-to-Seat Terminals



Part Number	Wire Gauge
12020156	20-18
12066614	16-14
12033997	12-10

Male Terminals



Part Number	Wire Gauge
12064734	20-18
12064735	16-14
12064737	12
12064736	10

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 630 Series: Sealed Connectors, cont'd

Cable Seals



Part Number	Wire Gauge	Color
15324997	20-18	Tan
12052388	16-14	Dk. Red
15324994	14	Lt. Gray
15324996	12	Blue
12052386	10	Green

For an assortment of 630 Series parts, order our Metri-Pack 630 Series Sealed Connector Kit (MP-630-KIT).

Cavity Plug



Part Number	Color
12059255	Lt. Green

Multiple Cable Seal

- For 12034269 only



Part Number	Color
12034364	Gray

Connector Position Assurance (CPA)



Part Number	Description
12020833	For use on all 630 Series sealed 3 cavity connections

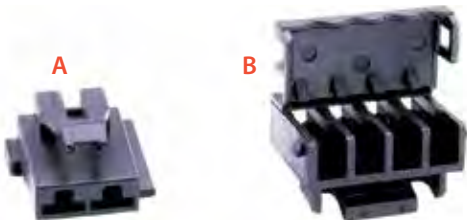
Female connectors accept female terminals & male connectors accept male terminals. However, female connector # 12033769 only accepts female pull-to-seat terminals.

Metri-Pack 630 Series: Unsealed Connectors

- Current capability: 0-46 amps
- One terminal is required for each cavity & TPA secondary locks are required for each connector, unless otherwise noted (all must be ordered separately)
- Terminals are made from tin plated brass



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12129939	2	A	12129940
12015664	4	B	N/A

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12129938	2	A	12129940
12052623	4	B	N/A

Female Terminals



Part Number	Wire Gauge
12052222	22-20
12015869	20-18
12015870	16-14
12052224	12
12084590	12-10

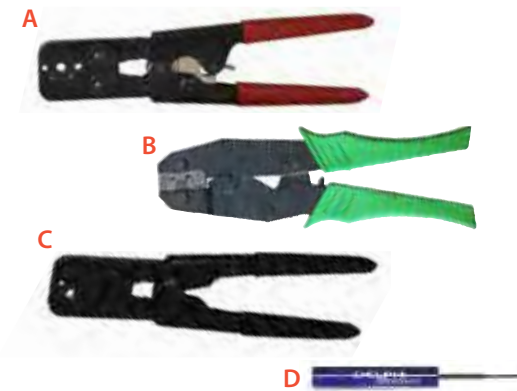
Male Terminals



Part Number	Wire Gauge
12066454	22-20
12020125	20-18
12020126	16-14
12052826	12
12066493	12-10

Different gauge Delphi terminals may not be exactly as pictured

Metri-Pack 630 Series Compatible Tools



Part Number	Description	Fig.
12085270	Two step crimper for 22-16ga. wire. Unsealed connectors only.	A
PA-1306	Ratchet style crimper for 22-12ga. wire. Unsealed connectors only.	B
12071687	Two step crimper for 12-10ga. wire. Sealed connectors only.	C
12094430	Removal tool	D

GT-150 Series: Sealed Connectors

- Current capability: 0-15 amps
- One terminal & one cable seal are required for each cavity (all must be ordered separately)
- Terminals are made from tin plated brass
- Cavity plugs are required for each unused cavity
- Primary Lock Reinforcement (PLR) is included with all of these connectors

Delphi's GT Series of terminals & connectors use a smaller, 2-rib seal that saves on size & material without loss of performance.

Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
13510085	2	A	15355128
13519047	3	B	15418545
15487756	4	C	15418546
13519051	5	D	15418547
15397577	6	E	15317363
15326835	8	F	15418415
15326842	10	G	15418288
13530777	12	H	15430903
15326856	14	I	15430904
15326863	16	J	15358785

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
13510099	2	A	15355128
15326813	3	B	15418545
15487755	4	C	15418546
13519053	5	D	15418547
15397579	6	E	15317363
15326840	8	F	15418415
15326847	10	G	15418288
15326854	12	H	15430903
15326861	14	I	15430904
15326868	16	J	15358785

Different gauge Delphi terminals may not be exactly as pictured

GT-150 Series: Sealed Connectors, cont'd

Female Terminals



Part Number	Wire Gauge
12191818	22-20
12191819	18-16

Male Terminals



Part Number	Wire Gauge
15326268	22-20
15326269	18-16

Cable Seals



Part Number	Wire Gauge	Color
15366021	22-20	White
15366060	18-16	Blue

Cavity Plug



Part Number	Color
15305171	Green

Female connectors accept female terminals & male connectors accept male terminals.

Connector Position Assurance (CPA)

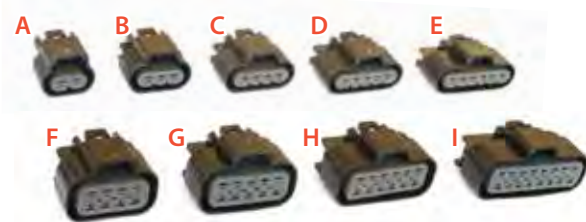


Part Number	Description
15317832	For use on GT Series sealed 2-16 cavity female connectors

GT-280 Series: Sealed Connectors

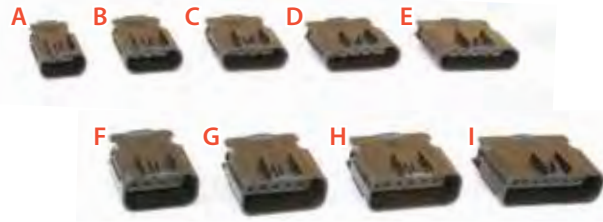
- Current capability: 0-25 amps
- One terminal & one cable seal are required for each cavity (all must be ordered separately)
- Terminals are made from tin plated brass, except where noted
- Cavity plugs are required for each unused cavity
- Primary Lock Reinforcement (PLR) is included with all of these connectors

Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
13518845	2	A	15430899
15326614	3	B	N/A
13521459	4	C	15430898
13521463	5	D	15430895
13521467	6	E	15436198
15326654	8	F	15430896
15326660	10	G	15430900
15326910	12	H	15436200
15326666	16	I	15436199

Male Connectors

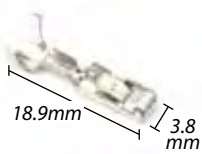


Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
15326678	2	A	15430899
15326623	3	B	N/A
15326633	4	C	15430898
15326647	5	D	15430895
15326640	6	E	15436198
15326655	8	F	15430896
15326661	10	G	15430900
15326915	12	H	15436200
15326667	16	J	15436199

Different gauge Delphi terminals may not be exactly as pictured

GT-280 Series: Sealed Connectors, cont'd

Female Terminals



Part Number	Wire Gauge
15304718	22-20
15304719	18-16
15304717	16-12
15326004*	10

Male Terminals



Part Number	Wire Gauge
15304730	22-20
15304731	18-16
15304732	16-12

*Terminals are made from tin-plated beryllium copper

Cable Seals



Part Number	Wire Gauge	Color
15366065	22-20	Orange
15366066	18-16	Yellow
15366067	14-12	Tan
12191235	10	Purple

Cavity Plug



Part Number	Color
15305170	White

Connector Position Assurance (CPA)



Part Number	Color
15317832	For use on GT Series sealed 2-16 cavity connections

A quick method to determine which GT Series terminal you have is by measuring the width of a male terminal. The 150 Series terminal is 1.5mm wide, the 280 Series is 2.8mm wide, etc.

GT-150 & GT-280 Series Compatible Tools



Part Number	Description	Fig.
12155975	Two step crimper for 20-14ga. wire. Sealed connectors only.	A
12094430	GT-150 removal tool	B
12094429	GT-280 removal tool	C
15313892	GT-150 & GT-250 removal tool	D

Each member of our outside service team drives a fully stocked vehicle to offer you on the spot VMI. We have a rotating selection to keep you up to date on the latest products that affect your industry. From building custom kits, labeling bins or getting an emergency order delivered to your door, our staff will provide the service necessary to get the job done.



Different gauge Delphi terminals may not be exactly as pictured

Weather Pack Series: Sealed Connectors

- Current capability: 0-20 amps
- One terminal & one cable seal are required for each cavity & a TPA secondary lock is required for each connector (all must be ordered separately)
- Cavity plugs are required for each unused cavity



Female Connectors



Part Number	No. of Contacts	Index Code	Fig.
12015791	1	①	A
12015792	2	② ①	B
12103784	2	③ ②	C
12015793	3	① ① ①	D
12015798	4	① ② ② ①	E
12015797	4	① ① ① ①	F
15324197	5	① ① ① ① ④	G
12015799	6	① ① ① ① ① ①	H
15492531	22	N/A	I

Male Connectors



Part Number	No. of Contacts	Index Code	Fig.
12010996	1	①	A
12010973	2	① ①	B
12034074	2	④ ③	C
12010717	3	① ① ①	D
12015024	4	④ ① ① ④	E
12010974	4	① ① ① ①	F
12065158	5	① ① ① ① ②	G
12010975	6	① ① ① ① ① ①	H
15492521	22	N/A	I

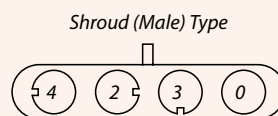
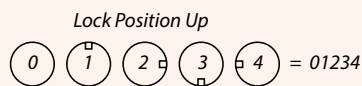
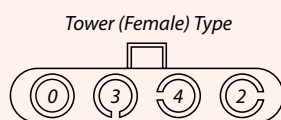
3 Contact Green Connector

- Part #: 12020403
- Mates to device

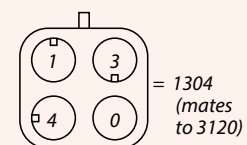


How to Read Weather Pack Index Codes

The index code is designed to show the index feature configuration of each connector body. The code is used by looking into the mating end of the connector with its lock feature up. The code digits represent the radial position of the index feature with a digit for each cavity as shown & are left to right as viewed. A zero indicates no index feature, so any tower index (0 thru 4) will fit.



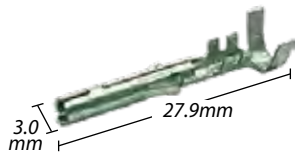
Lock Position Up



Different gauge Delphi terminals may not be exactly as pictured

Weather Pack Series: Sealed Connectors, cont'd

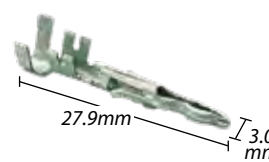
Female Terminals



Part Number	Wire Gauge
12020801	22
12089188	20-18
12124580	16-14
12124581	12

Male & female connectors can accept either male or female terminals in the Weather Pack Series only.

Male Terminals



Part Number	Wire Gauge
12089307	22
12089040	20-18
12124582	16-14
12124587	12

Get everything you need in one box! Check out the Delphi Weather Pack Connector Kit (WP-2003) on page 459.

Cable Seals



Part Number	Wire Gauge	Color
15324983	22	Dk. Red
15324985	20	Purple
15324984	18	Tan
15324982	16-14	Green
15324980	14	Gray
15324981	12	Blue

Cavity Plugs



Part Number	Color
12010300	Lt. Green

Connector Clips



Part Number	Description
12047835	12.2mm x 23.8mm x 8.4mm For use on WP Series 2-6 cavity female connectors

Secondary Locks



Part Number	Description
12010852	Secondary lock for 22 contact connectors. Two per connector required.

Weather Pack Series Compatible Tools



Part Number	Description	Fig.
12085270	Two step crimper for 20-14ga. wire	A
12014254	One step crimper for 20-14ga. wire	B
OBTS-1028S	Crimper for 24-14ga. wire.	C
OBS-3016	Open barrel sealed crimper for 30-16ga. wire.	D
12014012	Removal tool	E
12033495	Cable seal insertion tool	F

How To Assemble Most Sealed Delphi Connectors



Before stripping your wire, be sure to slide the cable seal onto the wire, behind the portion to be stripped. After stripping, align seal with cable installation.



To crimp, align the terminal in the appropriate crimping tool & position the wire & seal in place. After crimping, inspect the crimp job before installing into a connector body.

MX150 Series: Sealed Connectors

- Current capability: up to 22 amps
- Operating voltage: 250 volts
- Accepts 22-14ga. wire, up to .103" jacket diameter
- Environmentally sealed housings, with no additional seals, wedge locks or CPA locks required
- Operating temp: 257° to -40°F

Male Connectors



Part Number	No. of Cavities	Cavity Layout (Row x Column)	Fig.
33481-0301	3	1x3	A
33481-0401	4	1x4	B
33481-0601	6	1x6	C
33482-4001	4	2x2	D
33482-3601	6	2x3	E
33482-4801	8	2x4	F
33482-6201	12	2x6	G
33482-8601	16	2x8	H
33482-2101	20	2x10	I

Female Connectors



Part Number	No. of Cavities	Cavity Layout (Row x Column)	Fig.
33471-3301	3	1x3	A
33471-0401	4	1x4	B
33471-0601	6	1x6	C
33472-4001	4	2x2	D
33472-0601	6	2x3	E
33472-4801	8	2x4	F
33472-1201	12	2x6	G
33472-1606	16	2x8	H
33472-2001	20	2x10	I

Male Terminals



Part Number	Wire Gauge
33000-1003-L	22
33000-1002-L	20-16
33000-1001-L	14

Cavity Plug



Part Number	Color
34345-0001	Natural

Female Terminals



Part Number	Wire Gauge
33012-3003-L	22
33012-3002-L	20-18
33012-3001-L	14-16

Male connectors accept male terminals & female connectors accept female terminals.

MX150 Series Compatible Tools



Part Number	Description	Fig.
63811-5900	16-14ga. female terminal crimping tool	A
63811-6000	22-18ga. female terminal crimping tool	A
63811-2400	16-14ga. male terminal crimping tool	A
63811-2600	22-18ga. male terminal crimping tool	A
63813-1500	Removal tool	B
XR-450-S	Needle nose pliers	C

.093" Pin & Socket: Connectors

- Current capability: 9-12 amps
- Operating voltage: 600 volts
- Nylon housings, with a flammability rating of UL94V-2
- Fully isolated terminals
- UL File #E29179, CSA File #LR19980

Receptacle Connectors



Part Number	No. of Cavities	Max Amperage	Fig.
19-09-1019	1	12 amps	A
19-09-1029	2	12 amps	B
19-09-1039	3	11 amps	C
19-09-1049	4	9 amps	D
19-09-1069	6	9 amps	E
19-09-1099	9	9 amps	F
19-09-1129	12	9 amps	G

Plug Connectors



Part Number	No. of Cavities	Max Amperage	Fig.
19-09-2019	1	12 amps	A
19-09-2029	2	12 amps	B
19-09-2039	3	11 amps	C
19-09-2049	4	9 amps	D
19-09-2069	6	9 amps	E
19-09-2099	9	9 amps	F
19-09-2129	12	7 amps	G

Pin Terminals



Part Number	Wire Gauge
02-09-2118	22-18
02-09-2103 (BP-129)	20-14

Each housing can accept either pin or socket terminals, depending on your application.

Socket Terminals



Part Number	Wire Gauge
02-09-1119	22-18
02-09-1104 (BS-129)	20-14

We have two Molex Connector Kits, a large (MOLEX-KIT-LG) & a small (MOLEX-KIT-SM), so there's one to meet every need.

.093" Pin & Socket Compatible Tools



Part Number	Description	Fig.
PA-1631	One step crimper with precision fixed dual-plate dies for accuracy (no replacement dies available). For 24-14ga. wire.	A
PA-1645	One step crimper with precision fixed dual-plate dies for accuracy (no replacement dies available). For 30-18ga. wire.	A
OBT-1028CT	For 24-14ga. wire	B
11-03-0006	Extraction tool for 24-14ga. wire.	C

TE Connectivity

MATE-N-LOK®: Connectors

- Current capability: 9-12 amps
- Operating voltage: 250 volts
- Nylon, free hanging housings, with a flammability rating of UL94V-2 & maximum temperature rating of 221°F
- All terminal are brass with tin plating
- UL File #E28476

Receptacle Connectors



Part Number	No. of Cavities	Max Amperage	Fig.
1-480350-0	1	12 amps	A
1-480319-0	2	12 amps	B
1-480305-0	3	11 amps	C
1-480426-0	4	9 amps	D
1-480340-0	6	9 amps	E
1-480345-0	8	9 amps	F
1-480339-0	10	9 amps	G

Plug Connectors



Part Number	No. of Cavities	Max Amperage	Fig.
1-480349-0	1	12 amps	A
1-480318-0	2	12 amps	B
1-480303-0	3	11 amps	C
1-480424-0	4	9 amps	D
1-480270-0	6	9 amps	E
1-480283-0	8	9 amps	F
1-480285-0	10	9 amps	G

.084" Dia. Pin Terminals



Part Number	Wire Gauge
60618-1	24-18
60620-1	20-14

.084" Dia. Socket Terminals



Part Number	Wire Gauge
60617-1	24-18
60619-1	20-14

We have two AMP MATE-N-LOK® Kits, a large (AMP-MNL-KIT-LG) & a small (AMP-MNL-KIT-SM), so there's one to meet every need.

Receptacle connectors accept pin terminals & plug connectors accept socket terminals.

MATE-N-LOK® Compatible Tools



Part Number	Description	Fig.
PA-1631	One step crimper with precision fixed dual-plate dies for accuracy (no replacement dies available). For 24-14ga. wire.	A
PA-1645	One step crimper with precision fixed dual-plate dies for accuracy (no replacement dies available). For 30-18ga. wire.	A
465644-1	Extraction tool for pins & sockets.	B
455830-1	Insertion tool	C
305183	Extraction tool for 20-16ga., .062 pin dia.	D

AMP SuperSeal 1.5mm Series: Connectors

- Current capability: 0-14 amps
- Operating voltage: 24 volts
- Nylon, free hanging housings, with a temperature rating of -40° to 257°F
- All female terminals are phosphor bronze & male terminals are brass with tin plating
- Water protection degree: IP67

Receptacle Connectors



Part Number	No. of Cavities	Fig.
282103-1	1	A
282104-1	2	B
282105-1	3	C
282106-1	4	D
282107-1	5	E
282108-1	6	F

Plug Connectors



Part Number	No. of Cavities	Fig.
282079-2	1	A
282080-1	2	B
282087-1	3	C
282088-1	4	D
282089-1	5	E
282090-1	6	F

Male Terminals



Part Number	Wire Gauge
183036-1	22-20
183024-1	20-16

Female Terminals



Part Number	Wire Gauge
183035-1	22-20
183025-1	20-16

Receptacle connectors accept male terminals & plug connectors accept female terminals.

Cable Seals



Part Number	Wire Gauge	Color
281934-4	22-20	Green
281934-2	20-16	Yellow
281934-3	16-14	Red

Cavity Plug



Part Number	Color
282081-1	Red

Pigtails featuring these connectors are available on page 267.

Rubber Boots



Part Number	Work With
880810-1	282080-1, 282104-1
880811-2	282087-1, 282105-1

AMP SuperSeal 1.5mm Series Compatible Tools



Part Number	Description	Fig.
58583-1	Ratchet style crimper for 20-16ga. wire. Crimps wire & seal in one step.	A
OBTS-1028S	Crimper for 24-14ga. wire.	B
9-1579007-1	Removal tool	C
12094429	Removal tool	D

AMP CPC, Series 1: Connectors

- Lightweight all plastic & metal-shell housings, with a temperature rating of -40° to 221°F
- UL 94V-0 rated & made of stabilized, heat resistant, self extinguishing thermoplastic material
- UL file #E28476
- Connectors are standard sex
- Works with Multimate (MM) .062" dia. terminals

Plug Connectors w/ Coupling Ring



Part Number	Shell Size - No. of Contacts (Type)	Fig.	Replacement Coupling Ring
206060-1	11 - 4 (MM)	A	213811-1
206708-1	13 - 9 (MM)	B	213813-1
206037-1	17 - 16 (MM)	C	213810-1
206837-1	23 - 24 (MM)	D	213812-1
206150-1	23 - 37 (MM)	E	213812-1

Free Hanging Receptacle Connectors



Part Number	Shell Size - No. of Contacts (Type)	Fig.
206153-1	11 - 4 (MM)	A
206705-2	13 - 9 (MM)	B
206036-3	17-16 (MM)	C
206838-2	23-24 (MM)	D
206151-2	23 - 37 (MM)	E

Square Flange Receptacle Connectors w/ Mounting Holes



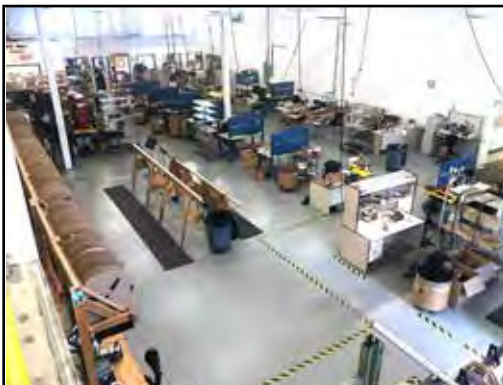
Part Number	Shell Size - No. of Contacts (Type)	Fig.
206061-1	11 - 4 (MM)	A
206705-1	13 - 9 (MM)	B
206036-1	17-16 (MM)	C
206838-1	23-24 (MM)	D
206151-1	23 - 37 (MM)	E

Square Flange Receptacle Connectors w/ Threaded Inserts



Part Number	Shell Size - No. of Contacts (Type)	Fig.
208130-1	11 - 4 (MM)	A
208131-1	13 - 9 (MM)	B
206036-8	17-16 (MM)	C
211839-1	23-24 (MM)	D
787610-1	23 - 37 (MM)	E

Receptacle connectors accept Multimate pin terminals & plug connectors accept Multimate socket terminals, see page 86 for options.



TSC Manufacturing is an ISO 9001 Approved and WHMA-A-620 Trained Manufacturer. We have been providing the highest quality products at competitive pricing for the past 20 years. Our manufacturing operation has expanded from 1,500 sq. ft. to 30,000 sq. ft. over that time. Our vast experience enables us to offer services to many industries including specialty vehicle, vocational truck, automotive aftermarket, military and defense, and transportation. Our capabilities include but are not limited to:

- **Manufacturing**
- **Research & Design**
- **Custom Kitting**

AMP CPC, Series 3: Connectors

- Lightweight plastic housings with a temperature rating of -40° to 221°F
- UL 94V-0 rated & made of stabilized, heat resistant, self extinguishing thermoplastic material
- UL file #E28476
- Connectors are standard sex
- Works with Power (P) .230" blade width terminals
- Current capability: up to 25A per contact

Plug Connectors w/ Coupling Ring



Part Number	Shell Size - No. of Contacts	Fig.	Replacement Coupling Ring
206037-2	17 - 3 (P)	A	213810-1
206136-1	23 - 7 (P)	B	213812-1

Free Hanging Receptacle Connectors



Part Number	Shell Size - No. of Contacts (Type)	Fig.
206207-1	17 - 3 (P)	A
206137-2	23 - 7 (P)	B

Square Flange Receptacle Connectors w/ Mounting Holes



Part Number	Shell Size - No. of Contacts (Type)	Fig.
206036-2	17 - 3 (P)	A
206137-1	23 - 7 (P)	B

Square Flange Receptacle Connectors w/ Threaded Inserts



Part Number	Shell Size - No. of Contacts (Type)	Fig.
213581-1	17 - 3 (P)	A
206137-5	23 - 7 (P)	B

Receptacle connectors accept Power male terminals & plug connectors accept Power female terminals, see page 86 for options.

AMP CPC, Series 4: Connectors

- Lightweight plastic housings with a temperature rating of -40° to 221°F
- UL 94V-0 rated & made of stabilized, heat resistant, self extinguishing thermoplastic material
- Connectors are standard sex
- Works with Power (P) .230" blade width terminals & Multimate (MM) .062" dia. terminals

Plug Connectors w/ Coupling Ring



Part Number	Shell Size - No. of Contacts (Type)	Fig.
211824-1	23 - 5 (P), 8 (MM)	A
207485-1	23 - 4 (P), 12 (MM)	B
206612-1	23 - 2 (P), 20 (MM)	C

Free Hanging Receptacle Connectors



Part Number	Shell Size - No. of Contacts (Type)	Fig.
211825-2	23 - 5 (P), 8 (MM)	A
207486-2	23 - 4 (P), 12 (MM)	B
206613-3	23 - 2 (P), 20 (MM)	C

AMP CPC, Series 4: Connectors, cont'd

Square Flange Receptacle Connectors w/ Mounting Holes



Part Number	Shell Size - No. of Contacts (Type)	Fig.
211825-1	23 - 5 (P), 8 (MM)	A
207486-1	23 - 4 (P), 12 (MM)	B
206613-1	23 - 2 (P), 20 (MM)	C

Receptacle connectors accept Power & Multimate male/pin terminals & plug connectors accept Power & Multimate female/socket terminals, see below for options.

AMP CPC, Series 1 & 4: .062" dia. Multimate Terminals

Pin Terminals



Part Number	Material	Wire Gauge	Fig.
1-66103-8	Bright tin plated brass	24-20	A
66103-3	Gold/nickel plated brass	24-20	B
66103-4	Sel. gold/nickel plated brass	24-20	C
1-66099-5	Bright tin plated brass	18-16	A
66099-3	Gold/nickel plated brass	18-16	B
66099-4	Sel. gold/nickel plated brass	18-16	C
1-66361-2	Bright tin plated brass	18-14	A
66361-3	Gold/nickel plated brass	18-14	B
66361-4	Sel. gold/nickel plated brass	18-14	C

Socket Terminals



Part Number	Material	Wire Gauge	Fig.
1-66105-9	Bright tin plated brass	24-20	A
66105-3	Gold/nickel plated brass	24-20	B
66105-4	Sel. gold/nickel plated brass	24-20	C
1-66101-9	Bright tin plated brass	18-16	A
66101-3	Gold/nickel plated brass	18-16	B
66101-4	Sel. gold/nickel plated brass	18-16	C
1-66360-2	Bright tin plated brass	18-14	A
66360-3	Gold/nickel plated brass	18-14	B
66360-4	Sel. gold/nickel plated brass	18-14	C

AMP CPC, Series 3 & 4: .230" blade width Power Terminals

Male Terminals



Part Number	Finish	Wire Gauge	Fig.
66261-2	Sel. gold/nickel plated copper	16-12	A
66261-1	Tin plated copper	16-12	B
66259-2	Sel. gold/nickel plated copper	10	A
66259-1	Tin plated copper	10	B

Female Terminals



Part Number	Finish	Wire Gauge	Fig.
66740-6	Sel. Gold / Nickel	16-12	A
66740-8	Tin plated copper	16-12	B
66741-6	Sel. Gold / Nickel	10	A
66741-8	Tin plated copper	10	B

AMP CPC Compatible Tools

Multimate Terminal Tools (Series 1 & 4)



Part Number	Description	Fig.
OBT-1028CT	Open barrel crimper for 24-14ga. wire.	A
PA-1631	One step crimper with precision fixed dual-plate dies for accuracy (no replacement dies available). For 24-14ga. wire.	B
OBS-3016	Open barrel sealed crimper for 30-16ga. wire.	C
305183	Removal tool for .062" dia. terminals	D

Power Terminal Tools (Series 3 & 4)



Part Number	Description	Fig.
90382-2	Ratchet crimper for 16-12ga. wire.	A
90384-1	Ratchet crimper for 10ga. wire.	A
6285847	Two step crimper for 20-10ga. wire.	B
91019-3	Removal tool for .230" tab terminals	C
91124-1	Removal tool for .230" tab terminals w/o plunger	D

AMP CPC: Accessories

Standard Size Strain Relief Cable Clamps

- Made of UL 94V-0 rated, stabilized, heat resistant, self extinguishing black thermoplastic material



Part Number	Shell Size	Dia. (inches)	Length (inches)	Max Cable O.D.	Thread Size	Series
1-206062-4	11	.825"	1.250"	.329"	5/8"-24 UNEF-2B	1, 3, & 4
206966-7	13	.950"	1.400"	.453"	3/4"-20 UNEF-2B	1, 3, & 4
206070-8	17	1.125"	1.400"	.453"	15/16"-20 UNEF-2B	1, 3, & 4
206138-8	23	1.600"	1.555"	.703"	1-3/8"-18 UNEF-2B	1, 3, & 4

Large Size Strain Relief Cable Clamps

- Made of UL 94V-0 rated, stabilized, heat resistant, self extinguishing black thermoplastic material



Part Number	Shell Size	Dia. (inches)	Length (inches)	Max Cable O.D.	Thread Size	Series
206358-5	11	.850"	1.450"	.453"	5/8"-24 UNEF-2B	1, 3, & 4
207008-5	13	1.131"	1.655"	.703"	3/4"-20 UNEF-2B	1, 3, & 4
206322-9	17	1.131"	1.655"	.703"	15/16"-20 UNEF-2B	1, 3, & 4
206512-5	23	1.600"	1.655"	1.125"	1-3/8"-18 UNEF-2B	1, 3, & 4

Sealing Caps

- Black thermoplastic cap w/ neoprene sealing gasket



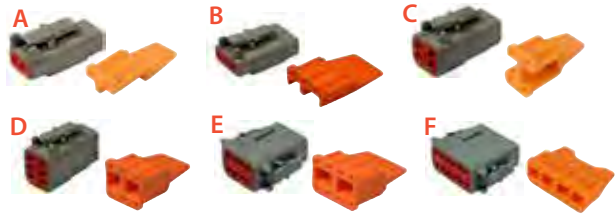
Part Number	Shell Size	Dia. (inches)	Width (inches)	Series
206903-2	11	.360"	.927"	1
211870-2	13	.360"	1.055"	1
207445-3	17	.360"	1.295"	1 & 3
207446-3	23	.460"	1.728"	1, 3 & 4

Deutsch

DTM Series: Connectors

- Current capability: 7.5 amps
- Thermoplastic housings & wedge locks, rated at -67°F to 257°F
- Silicone elastomer seals create an environmentally sealed connection
- Terminals are nickel plated copper alloy (gold plated optional, contact us for details)
- Each housing requires a wedge lock (must be ordered separately)
- Designed specifically for cable to cable applications on the engine or transmission, under the hood, on the chassis or in the cab.

Plug Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DTM06-2S	2	WM-2S	A
DTM06-3S	3	WM-3S	B
DTM06-4S	4	WM-4S	C
DTM06-6S	6	WM-6S	D
DTM06-08SA	8	WM-8S	E
DTM06-12SA	12	WM-12S	F

Plug connectors accept socket terminals & have orange secondary locks. (All parts sold separately)

Solid Socket Terminals



Part Number	Contact Size	Wire Gauge
0462-201-20141	20	24-20
0462-201-2031*	20	24-20

Open Barrel Socket Terminals



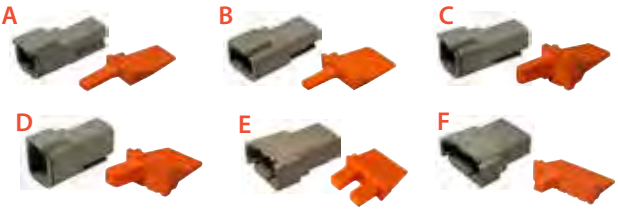
Part Number	Contact Size	Wire Gauge
1062-20-0122	20	20-16

Sealing Plugs



Part Number	Contact Size
0413-204-2005	20

Receptacle Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DTM04-2P	2	WM-2P	A
DTM04-3P	3	WM-3P	B
DTM04-4P	4	WM-4P	C
DTM04-6P	6	WM-6P	D
DTM04-08PA	8	WM-8P	E
DTM04-12PA	12	WM-12P	F

Receptacle connectors accept pin terminals & have orange secondary locks. (All parts sold separately)

Solid Pin Terminals



Part Number	Contact Size	Wire Gauge
0460-202-20141	20	24-20
0460-202-2031*	20	24-20

*Terminals made of gold plated copper alloy

Open Barrel Pin Terminals



Part Number	Contact Size	Wire Gauge
1060-20-0122	20	20-16

DTM Series connectors will only accept contact size 20 terminals & plugs.

How To Assemble DTM, DT & DTP Series Deutsch Connectors



Grasp crimped contact about an inch behind the contact barrel.



Hold contact with rear grommet facing you.



Push contact into connector grommet until it clicks. A tug will confirm it's properly locked in place. Repeat with all contacts.

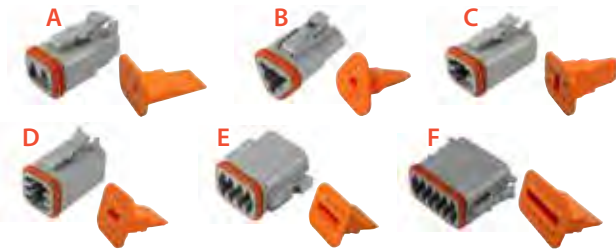


Insert secondary lock: receptacle- w/ half holes aligned w/ contacts; plugs- w/ full holes aligned w/ contacts. Lock will snap into place.

DT Series: Connectors

- Current capability: 13 amps
- Thermoplastic housings & wedge locks, rated at -67°F to 257°F
- Silicone elastomer seals create an environmentally sealed connection
- Terminals are made of nickel-plated copper alloy, unless otherwise noted
- Each housing requires a wedge lock (must be ordered separately)
- Designed specifically for cable to cable applications on the engine or transmission, under the hood, on the chassis or in the cab.

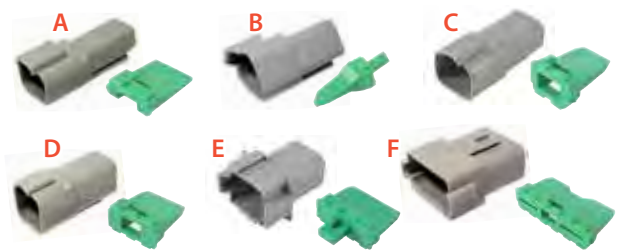
Plug Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Repl. Seal Part Number	Fig.
DT06-2S	2	W2S	SEAL 2	A
DT06-3S	3	W3S	SEAL 3	B
DT06-4S	4	W4S	SEAL 4	C
DT06-6S	6	W6S	SEAL 6	D
DT06-08SA	8	W8S	SEAL 8	E
DT06-12SA	12	W12S	SEAL 12	F

Plug connectors accept socket terminals & have orange secondary locks. (All parts sold separately)

Receptacle Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DT04-2P	2	W2P	A
DT04-3P	3	W3P	B
DT04-4P	4	W4P	C
DT04-6P	6	W6P	D
DT04-08PA	8	W8P	E
DT04-12PA	12	W12P	F

Receptacle connectors accept pin terminals & have green secondary locks. (All parts sold separately)

Solid Socket Terminals



Part Number	Contact Size	Wire Gauge
0462-201-16141	16	20-16
0462-209-16141	16	14*
0462-201-1631	16	20-16**
0462-209-1631	16	14**

*14ga. terminals supplied w/ painted green stripe to indicate 14ga.

Solid Pin Terminals



Part Number	Contact Size	Wire Gauge
0460-202-16141	16	20-16
0460-215-16141	16	14*
0460-202-1631	16	20-16**
0460-215-1631	16	14**

**Terminals made of gold-plated copper alloy

Open Barrel Socket Terminals



Part Number	Contact Size	Wire Gauge
1062-16-0122	16	18-16
1062-14-0122	16	16-14

DT Series connectors will only accept contact size 16 terminals & plugs.

Pigtails featuring these connectors are available on page 267.

Open Barrel Pin Terminals



Part Number	Contact Size	Wire Gauge
1060-16-0122	16	18-16
1060-14-0122	16	16-14

Sealing Plugs



Part Number	Contact Size
114017	16-12

Different gauge Deutsch terminals may not be exactly as pictured

DT Series: Connectors, cont'd

- Current capability: 13 Amps
- Operating temp: -67° to 257°F
- Connectors & wedge locks made of thermoplastic
- Seals made of silicone elastomer



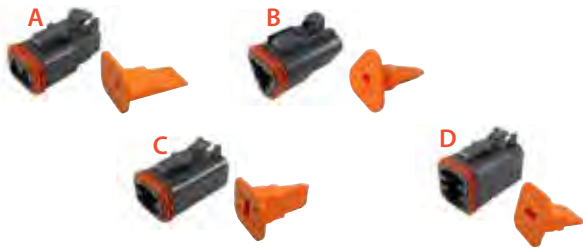
Black Connectors

Connector, wedge lock, contact size 16 terminals (all sold separately).

Deutsch crimpers and removal tools located on page 97.

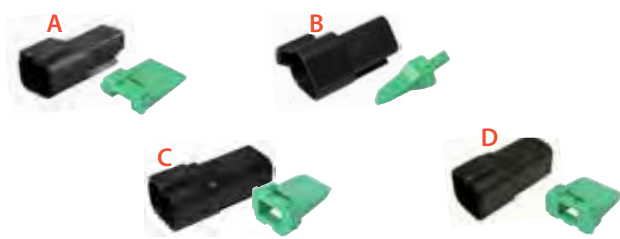
Plug connectors accept socket terminals & receptacle connectors accept pin terminals. Connectors & wedgelocks are not to scale.

Plugs



Part Number	No. of Cavities	Wedge Lock Part Number	Seal Part Number	Fig.
DT06-2S-E004	2	W2S	SEAL 2	A
DT06-3S-E004	3	W3S	SEAL 3	B
DT06-4S-E004	4	W4S	SEAL 4	C
DT06-6S-E004	6	W6S	SEAL 6	D

Receptacles



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DT04-2P-E004	2	W2P	A
DT04-3P-E004	3	W3P	B
DT04-4P-E004	4	W4P	C
DT04-6P-E004	6	W6P	D

Plug connectors accept socket terminals located on page 89 and have orange secondary locks
 Receptacle connectors accept pin terminals located on page 89 and have green secondary locks.
 All parts sold separately.

DT Series: Y-Splitter



Required parts: Connector (one DT04-3P-P007 & three DT06-3S), wedge locks (two W3S-1939-P012 & one W3S-P012), contact size 16 terminals (all sold separately). Note: Plug connectors accept socket terminals & receptacle connectors have them molded in, so no additional terminals needed.

Plugs



Part Number	No. of Cavities	Wedge Lock Part Number	Seal Part Number
DT06-3S	1	W3S-1939-P012 W3S-P012	SEAL 3

Y-Splitter Receptacles



Part Number	No. of Cavities	Wedge Lock Part Number
DT04-3P-P007	3	-

Different gauge Deutsch terminals may not be exactly as pictured

DT Series: Connectors, cont'd

Receptacle Boots

Part Number	Description	Fig.
DT2P-BT	2-way boot	A
DT3P-BT	3-way boot	B
DT4P-BT	4-way boot	C
DT6P-BT	6-way boot	D
DT8P-BT	8-way boot	E
DT12P-BT	12-way boot	F

Plug Boots

Part Number	Description	Fig.
DT2S-BT	2-way boot	A
DT3S-BT	3-way boot	B
DT4S-BT	4-way boot	C
DT6S-BT	6-way boot	D
DT8S-BT	8-way boot	E
DT12S-BT	12-way boot	F

DTP Series: Connectors

- Current capability: 25 amps
- Thermoplastic housings & wedge locks, rated at -67°F to 257°F
- Silicone elastomer seals create an environmentally sealed connection
- Terminals are nickel plated copper alloy (gold plated optional, contact us for details)
- Each housing requires a wedge lock (must be ordered separately)
- Designed to offer the proven reliability & quality of the DT Series, with the added flexibility of using power contacts

Plug Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DTP06-2S	2	WP2S	A
DTP06-4S	4	WP4S	B

Plug connectors accept socket terminals & have orange secondary locks. (All parts sold separately)

Receptacle Connectors



Part Number	No. of Cavities	Wedge Lock Part Number	Fig.
DTP04-2P	2	WP2P	A
DTP04-4P	4	WP4P	B

Receptacle connectors accept pin terminals & have orange secondary locks. (All parts sold separately)

Solid Socket Terminals

Part Number	Contact Size	Wire Gauge
0462-203-12141	12	14-12

Open Barrel Socket Terminals

Part Number	Contact Size	Wire Gauge
1062-12-0166	12	14-12
1062-12-0222	12	10

Solid Pin Terminals

Part Number	Contact Size	Wire Gauge
0460-204-12141	12	14-12

Open Barrel Pin Terminals

Part Number	Contact Size	Wire Gauge
1060-12-0166	12	14-12
1060-12-0222	12	10

DTP Series connectors will only accept contact size 12 terminals & plugs.

Different gauge Deutsch terminals may not be exactly as pictured

DTP Series: Connectors, cont'd

Receptacle Mounting Clips



Part Number	Material	Mounting Hole O.D.	Fig.
1027-003-1200	Stainless	.433"	A
1027-005-1200	Stainless	.512"	B
1011-026-0205	Plastic	.200"	C
1011-030-0205	Plastic	.250"	D

Sealing Plugs



Part Number	Contact Size
114017	16-12

Receptacle Boots



Part Number	Description	Fig.
DTP2P-BT	2-way boot	A
DTP4P-BT	4-way boot	B

Plug Boots

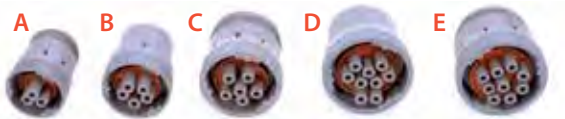


Part Number	Description	Fig.
DTP2S-BT	2-way boot	A
DTP4S-BT	4-way boot	B

HD10 Series: Connectors

- Current capability: 13 amps
- Thermoplastic housings & silicone rubber grommets, rated at -67°F to 257°F
- Terminals are nickel plated copper alloy
- Designed to provide a solution to today's interconnection problems found in the heavy duty industry

Plug Connectors



Part Number	No. of Cavities	Shell Configuration	Fig.
HD16-3-96S	3	Threaded Rear	A
HD16-5-16S	5	Non-Threaded Rear	B
HD16-6-96S	6	Threaded Rear	C
HD16-9-16S	9	Non-Threaded Rear	D
HD16-9-96S	9	Threaded Rear	E

Square Flange Receptacle Connectors



Part Number	No. of Cavities	Shell Configuration	Fig.
HD10-3-96P	3	Threaded Rear	A
HD10-5-16P	5	Non-Threaded Rear	B
HD10-6-96P	6	Threaded Rear	C
HD10-9-16P	9	Non-Threaded Rear	D
HD10-9-96P	9	Threaded Rear	E

In-Line Receptacle Connectors



Plug connectors accept socket terminals & receptacle connectors accept pin terminals.

Part Number	No. of Cavities	Shell Configuration	Fig.
HD14-3-96P	3	Threaded Rear	A
HD14-5-16P	5	Non-Threaded Rear	B
HD14-6-96P	6	Threaded Rear	C
HD14-9-16P	9	Non-Threaded Rear	D
HD14-9-96P	9	Threaded Rear	E

Different gauge Deutsch terminals may not be exactly as pictured

HD10 Series: Connectors

Protective Plug Caps



Part Number	Used For
HDC-14-3	3 cavity plugs
HDC-14-6	6 cavity plugs
HDC-14-9	9 cavity plugs

Strain Relief Brackets

- Works with plug connectors, square flange receptacle connectors & threaded rear in-line receptacle connectors
- TRM-BLK cable ties suggested to attach cable to strain relief



Part Number	Used For
HD18-003	3 cavity connectors
HD18-006	6 cavity connectors
HD18-009	9 cavity connectors

Sealing Plugs



Part Number	Contact Size
114017	16-12

Protective Receptacle Caps



Part Number	Used For
HDC-16-3	3 cavity receptacles
HDC-16-5	5 cavity receptacles
HDC-16-6	6 cavity receptacles
HDC-16-9	9 cavity receptacles

Keep a handle on your protective caps with Deutsch's rubber lanyard (#JDL-082397). Caps sold separately.



Square Flange Receptacle Gaskets



- Required for each square flange receptacle

Part Number	Works With
HD10-3-GKT	HD10-3-96P
HD10-5-GKT	HD10-5-16P
HD10-6-GKT	HD10-6-96P
HD10-9-GKT	HD10-9-16P / HD10-9-96P

HD10 Series connectors only accept contact size 16 pins and socket terminals located on page 95. Connectors & accessories are not interchangeable with the HD30 or HDP30 Series.

For a complete list of all Deutsch tooling options, please see page 97.

DTHD Series: Connectors

Black Connectors

- Current capability: 25-100 Amps
- Operating temp: -67° to 257°F
- Connectors made of thermoplastic
- Seals made of silicone elastomer



Required parts: Connector, contact size 12, 8 or 4 terminals (all sold separately)

Note: Plug connectors accept socket terminals & receptacle connectors accept pin terminals located on page 97.

Plugs



Part Number	No. of Cavities	Contact Size	Amps	Fig.
DTHD06-1-12S	1	12	100	A
DTHD06-1-8S	1	8	60	B
DTHD06-1-4S	1	4	25	C

Receptacles



Part Number	No. of Cavities	Contact Size	Amps	Fig.
DTHD04-1-12P	1	12	100	A
DTHD04-1-8P	1	8	60	B
DTHD04-1-4P	1	4	25	C

Different gauge Deutsch terminals may not be exactly as pictured

HD30 Series: Connectors

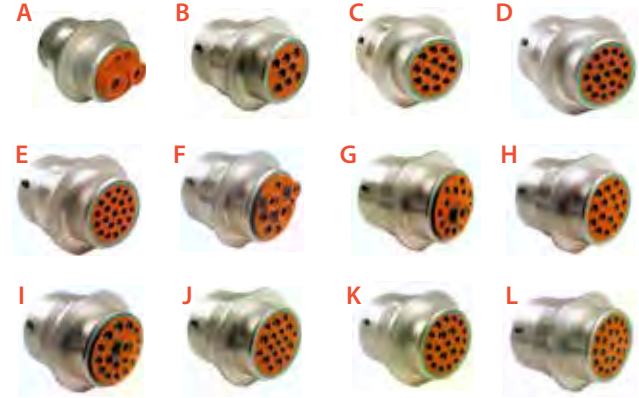
- Current capability: 7.5 amps (Size 20 contacts) thru 100 amps (Size 4 contacts)
- Aluminum housings & silicone rubber grommets, rated at -67°F to 257°F
- Terminals are nickel plated copper alloy
- Designed to meet the needs of the heavy duty equipment & transportation industries for rugged, multi-pin sealed connector systems

Plug Connectors



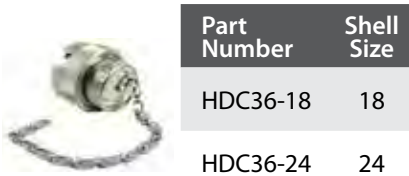
	Part Number	No. of Cavities - Contact Size	Fig.
Shell Size 18	HD36-18-6SN	2 - size 4, 4 - size 16	A
	HD36-18-8SN	8 - size 12	B
	HD36-18-14SN	14 - size 16	C
	HD36-18-20SN	2 - size 16, 18 - size 20	D
	HD36-18-21SN	21 - size 20	E
Shell Size 24	HD36-24-9SN	1 - size 4, 2 - size 8, 6 - size 12	F
	HD36-24-14SN	1 - size 4, 1 - size 12, 12 - size 16	G
	HD36-24-16SN	16 size 12	H
	HD36-24-18SN	1 - size 8, 3 - size 12, 14 - size 16	I
	HD36-24-19SN	6 - size 12, 13 - size 16	J
	HD36-24-21SN	4 - size 12, 17 - size 16	K
	HD36-24-23SN	23 - size 16	L

Receptacle Connectors

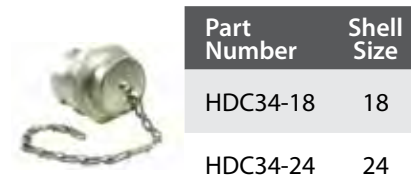


	Part Number	No. of Cavities - Contact Size	Fig.
Shell Size 18	HD34-18-6PN	2 - size 4, 4 - size 16	A
	HD34-18-8PN	8 - size 12	B
	HD34-18-14PN	14 - size 16	C
	HD34-18-20PN	2 - size 16, 18 - size 20	D
	HD34-18-21PN	21 - size 20	E
Shell Size 24	HD34-24-9PN	1 - size 4, 2 - size 8, 6 - size 12	F
	HD34-24-14PN	1 - size 4, 1 - size 12, 12 - size 16	G
	HD34-24-16PN	16 size 12	H
	HD34-24-18PN	1 - size 8, 3 - size 12, 14 - size 16	I
	HD34-24-19PN	6 - size 12, 13 - size 16	J
	HD34-24-21PN	4 - size 12, 17 - size 16	K
	HD34-24-23PN	23 - size 16	L

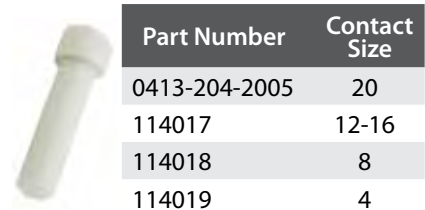
Protective Plug Caps



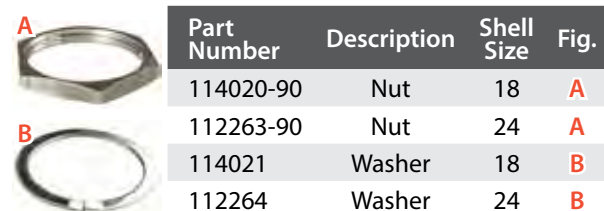
Protective Receptacle Caps



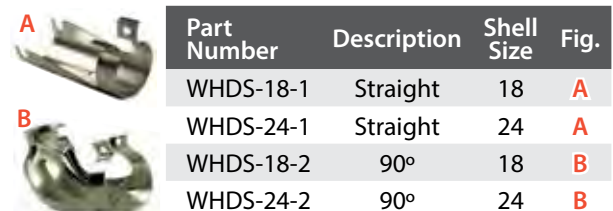
Sealing Plugs



Receptacle Panel Nuts & Lockwashers




Strain Relief Brackets



Different gauge Deutsch terminals may not be exactly as pictured


HD30 Series: Connectors, cont'd

Solid Socket Terminals



Part Number	Contact Size	Wire Gauge
0462-201-20141	20	20
0462-005-20141	20	18-16
0462-201-16141	16	20-16
0462-209-16141	16	14*
0462-203-12141	12	14-12
0462-203-08141	8	10-8
0462-203-04141	4	6


Solid Pin Terminals



Part Number	Contact Size	Wire Gauge
0460-202-20141	20	20
0460-010-20141	20	18-16
0460-202-16141	16	20-16
0460-215-16141	16	14*
0460-204-12141	12	14-12
0460-204-08141	8	10-8
0460-204-0490	4	6


*14ga. terminals supplied w/ painted green stripe to indicate 14ga.

Open Barrel Socket Terminals



Part Number	Contact Size	Wire Gauge
1062-20-0122	20	22-16
1062-16-0122	16	18-14
1062-14-0122	16	16-14
1062-12-0166	12	14-12

Open Barrel Pin Terminals



Part Number	Contact Size	Wire Gauge
1060-20-0122	20	22-16
1060-16-0122	16	18-14
1060-14-0122	16	16-14
1060-12-0166	12	14-12

Plug connectors accept socket terminals & receptacle connectors accept pin terminals.

HDP20 Series: Connectors

- Current capability: 7.5 amps (Size 20 contacts) thru 100 amps (Size 4 contacts)
- Thermoplastic housings & silicone rubber grommets, rated at -67°F to 257°F
- Terminals are nickel plated copper alloy
- Designed to stand up to the harsh environment of the industrial market where chemicals can damage the connector housing

Plug Connectors



	Part Number	No. of Cavities - Contact Size	Fig.
Shell Size 18	HDP26-18-6SN	2 - size 4, 4 - size 16	A
	HDP26-18-8SN	8 - size 12	B
	HDP26-18-14SN	14 - size 16	C
	HDP26-18-20SN	2 - size 16, 18 - size 20	D
	HDP26-18-21SN	21 - size 20	E

Receptacle Connectors



	Part Number	No. of Cavities - Contact Size	Fig.
Shell Size 18	HDP24-18-6PN	2 - size 4, 4 - size 16	A
	HDP24-18-8PN	8 - size 12	B
	HDP24-18-14PN	14 - size 16	C
	HDP24-18-20PN	2 - size 16, 18 - size 20	D
	HDP24-18-21PN	21 - size 20	E

Different gauge Deutsch terminals may not be exactly as pictured

HDP20 Series: Connectors, cont'd

Plug Connectors



Shell Size 24	Part Number	No. of Cavities - Contact Size	Fig.
	HDP26-24-9SN	1 - size 4, 2 - size 8, 6 - size 12	F
	HDP26-24-14SN	1 - size 4, 1 - size 12, 12 - size 16	G
	HDP26-24-16SN	16 size 12	H
	HDP26-24-18SN	1 - size 8, 3 - size 12, 14 - size 16	I
	HDP26-24-19SN	6 - size 12, 13 - size 16	J
	HDP26-24-21SN	4 - size 12, 17 - size 16	K
	HDP26-24-23SN	23 - size 16	L

Receptacle Connectors



Shell Size 24	Part Number	No. of Cavities - Contact Size	Fig.
	HDP24-24-9PN	1 - size 4, 2 - size 8, 6 - size 12	F
	HDP24-24-14PN	1 - size 4, 1 - size 12, 12 - size 16	G
	HDP24-24-16PN	16 size 12	H
	HDP24-24-18PN	1 - size 8, 3 - size 12, 14 - size 16	I
	HDP24-24-19PN	6 - size 12, 13 - size 16	J
	HDP24-24-21PN	4 - size 12, 17 - size 16	K
	HDP24-24-23PN	23 - size 16	L

Protective Receptacle Caps



Part Number	Shell Size
HDC26-18	18
HDC26-24	24

Sealing Plugs



Part Number	Contact Size
0413-204-2005	20
114017	12-16
114018	8
114019	4

Receptacle Panel Nuts



Part Number	Description	Shell Size
2411-002-1805	Nut	18
2411-001-2405	Nut	24

Receptacle Lockwashers



Part Number	Description	Shell Size
2414-002-1886	Washer	18
2414-001-2486	Washer	24

Plug & Receptacle Boots



Part Number	Description	Fig.
HD30-18BT-BK	Shell size 18, straight	A
HD30-18BT-90-BK	Shell size 18, 90° bend	B
HD30-24BT-BK	Shell size 24, straight	C
HD30-24BT-90-BK	Shell size 24, 90° bend	D

Different gauge Deutsch terminals may not be exactly as pictured

HDP20 Series: Connectors, cont'd

Solid Socket Terminals



Part Number	Contact Size	Wire Gauge
0462-201-20141	20	20
0462-005-20141	20	18-16
0462-201-16141	16	20-16
0462-209-16141	16	14*
0462-201-1631	16	20-16**
0462-215-1631	16	14**
0462-203-12141	12	14-12
0462-203-08141	8	10-8
0462-203-04141	4	6

Solid Pin Terminals



Part Number	Contact Size	Wire Gauge
0460-202-20141	20	20
0460-010-20141	20	18-16
0460-202-16141	16	20-16
0460-215-16141	16	14*
0460-202-1631	16	20-16**
0460-215-1631	16	14**
0460-204-12141	12	14-12
0460-204-08141	8	10-8
0460-204-0490	4	6

*14ga. terminals supplied w/ painted green stripe to indicate 14ga.
 **Terminals made of gold-plated copper alloy

Open Barrel Socket Terminals



Part Number	Contact Size	Wire Gauge
1062-20-0122	20	22-16
1062-16-0122	16	18-14
1062-14-0122	16	16-14
1062-12-0166	12	14-12

Open Barrel Pin Terminals



Part Number	Contact Size	Wire Gauge
1060-20-0122	20	22-16
1060-16-0122	16	18-14
1060-14-0122	16	16-14
1060-12-0166	12	14-12

Plug connectors accept socket terminals & receptacle connectors accept pin terminals.

Deutsch Compatible Tools

Removal Tools



Part Number	Contact Size	Wire Gauge	Fig.
0411-240-2005	20	22-20	A
0411-310-1605	16	18-16	B
0411-291-1405	16	16-14	C
114010	12	14-12	D
114008	8	10-8	E
114009	4	6	F
DT-RT-1	N/A	N/A	G
LI-59600	20-14	24-14	H
DTA-18550	20, 16, 12	24-16	I
DTA-18551	12	16-14	J
DTA-18552	16	18-16	K
DTA-18553	20	24-20	L
DTA-18560	4	6	M
DTA-18570	8	10-8	N

Open Barrel Contact Crimping Tools



Part Number	Contact Size	Wire Gauge	Fig.
DTT-20-02	20	22-14	A
DTT-16-00	16	16-14	A
DTT-12-00	12	14-12	B

Solid Contact Crimping Tool



- Two indent crimp

Part Number	Contact Size	Wire Gauge
HDT-04-08	8 & 4	10-6
DC-18870	8 & 4	10-6

Deutch Service Kits



Part Number	Kit Includes	Fig.
DTA-18650	<ul style="list-style-type: none"> - Release tools for 16-14ga. (gold), 18-16ga. (blue) & 24-20ga. (red) terminals - Open barrel crimper for 24-14ga. terminals - Closed barrel crimper for 18-14ga. terminals - Closed barrel crimper for 22-20ga. terminals 	A
DTA-18700	<ul style="list-style-type: none"> - Release tools for 6ga. (green), 10-8ga. (gray), 16-14ga. (gold), 18-16ga. (blue) & 24-20ga. (red) Deutsch terminals - Release tool for Weather Pack terminals - Open barrel crimper for 24-14ga. Deutsch terminals - Closed barrel crimper for 12ga. Deutsch terminals - Closed barrel crimper for 18-14ga. Deutsch terminals - Closed barrel crimper for 22-14ga. Delphi terminals 	B

Solid Contact Crimping Tools



Part Number	Description	Contact Size	Wire Gauge	Fig.
DC-18860	4 indent	12	12	A
PA-1461	4 indent	16	18-14	A
PA-1462	4 indent	20	22-20	A
HDT-48-00	8 indent	20, 16	20-12	B
0426-209-0000	Repl. screw	N/A	N/A	C

Apex/FCI

Apex 2.8 Series

- Current capability: 40 Amps
- Operating temp: -40° to 257°F
- Connectors made of nylon 35GF
- Internal seals made of silicone elastomer



Black Connectors

Required parts: Connector, terminals (all sold separately)

Tool: Apex 2.8 Series Crimper located on page 99.

Note: Female connectors accept female terminals & male connectors accept male terminals located on page 99.

Female Connectors



Male Connectors



Part Number	FCI Reference Number	No. of Cavities	Fig.	Part Number	FCI Reference Number	No. of Cavities	Fig.
10757672	54200206	2	A	15488574	54200210	2	A
10757671	54200308	3	B	15394689	54200312	3	B
15425692	54200409	4	C	15489820	54200413	4	C
35063643	54200608	6	D	15430633	54200612	6	D
15316895	54201009	10	E	15425612	54201016	10	E
10763414	54201411	14	F	10757674	54201415	14	F

Apex 2.8 Series, cont'd

Terminals

10762803



10757692

Female Part Number	FCI Reference Number	Male Part Number	FCI Reference Number	Wire Gauge	Description
10757691	54002200	10762776	54002201	22	Tin-plated copper
10757690	54001800	10762775	54001801	20-18	Tin-plated copper
10762803	54001400	10757692	54001401	16-14	Tin-plated copper
10762802	54001000	10762774	54001001	12-10	Tin-plated copper

Cavity Plugs



Part Number	Description
54200005	For male & female connectors

Extraction Tool



Part Number	Description
5400-EXT	For extracting terminals

Crimpers

Required parts: Crimper frame, locator & crimper die (all sold separately)

Crimper Frame



Part Number	Description
6240003RT	Empty crimper frame

Crimper Locators



Part Number	Description	Fig.
6241666001	Female terminal locator	A
6241668001	Male terminal locator	B

Crimper Dies



Female Terminal Die Part Number	Fig.	Male Terminal Die Part Number	Fig.	Wire Gauge
624166630	A	624166830	C	22, 12, 10
624166730	B	624166930	D	20, 18, 16, 14

Delphi/Compatible Tools

Secondary Lock Removal Tools



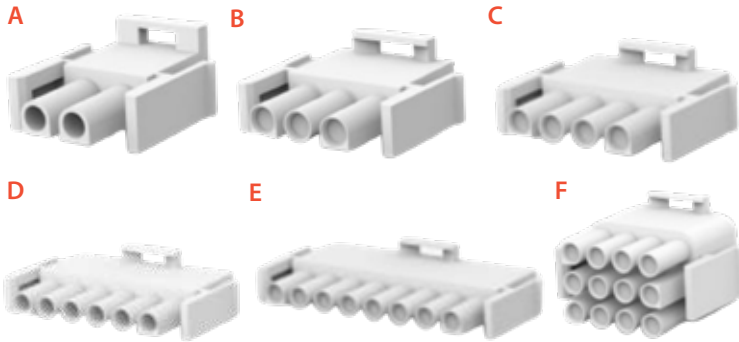
Part Number	Width of Tip	Description	Fig.
12122647	.066"	Red w/ red button	A
12094441	.140"	Red w/ white button	B

Works with Delphi Connector Series: Metri-Pack 150, 280, 480 & 630
GT-150, GT-280 and Weather Pack

Universal MATE-N-LOCK System

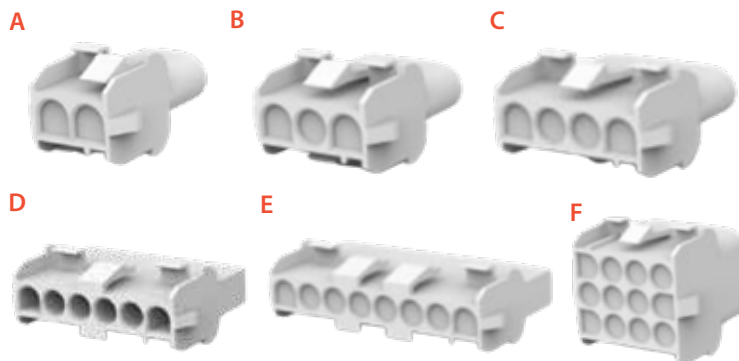
- Current: Operating voltage of 600 VAC/DC, 10A-Max
- Housing material is nylon and has a 125°C temperature rating All terminals shown are brass, tin plated
- UL, CSA and VDE approved

Receptacle Connectors



Part Number	Number of Cavities	Fig.
1-480698-0	2	A
1-480700-0	3	B
1-480702-0	4	C
640585-1	6	D
640586-1	8	E
1-480708-0	12	F

Plug Connectors



Part Number	Number of Cavities	Fig.
1-480699-0	2	A
1-480701-0	3	B
1-480703-0	4	C
926307-1	6	D
926308-1	8	E
1-480709-0	12	F

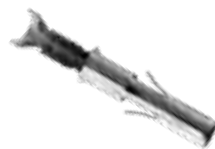
These pin and socket terminals are universal and can be used in either the plug or receptacle housing listed above.

.084" Diameter Pin Terminals



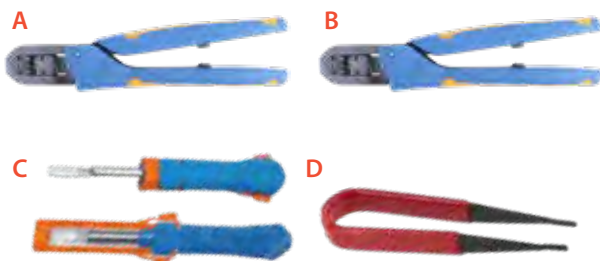
Part Number	Wire Gauge
350690-1	24-18
350547-1	20-14
350552-1	20-14 or 2-18ga

.084" Diameter Socket Terminals



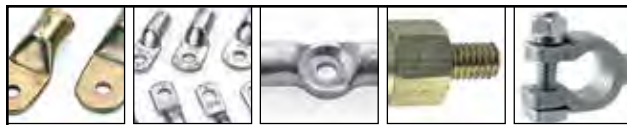
Part Number	Wire Gauge
350689-1	24-18
350550-1	20-14
350551-1	20-14 or 2-18ga

.084" Diameter Pin & Socket Compatible Tooling



Part Number	Description	Fig.
91510-1	Ratcheted one step crimper for 24-18 ga wire	A
91500-1	Ratcheted one step crimper for 20-14 ga wire	B
1804030-1	Extraction tool	C
91002-1	Contact Insertion tool	D

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Battery Lugs & Terminals

Copper Lugs

- Almost all of our BCL lugs are available tin plated & some are available with a wide pad & also tin plated w/ wide pad, indicated by the **W**
- BCL lug's can also be soldered for extra strength in your connections



Varieties Available	
Tin Plated Copper	T
Regular Copper w/ Wide Pad	W
Tin Plated Copper w/ Wide Pad	WT

For the correct part number, use the abbreviations above (in red), along with this example:

BCL-4-38WT

Part Number	Wire Gauge	Stud Size	Stock Thickness	Pad Width
BCL-8-10	8	10	.070	.450
BCL-8-14	8	1/4	.070	.450
W BCL-8-56	8	5/16	.070	.450
W BCL-8-38	8	3/8	.070	.600
BCL-6-10	6	10	.080	.450
W BCL-6-14	6	1/4	.080	.450
W BCL-6-56	6	5/16	.080	.450
W BCL-6-38	6	3/8	.070	.600
BCL-6-12	6	1/2	.080	.760
BCL-4-10	4	10	.080	.530
BCL-4-14	4	1/4	.080	.530
W BCL-4-56	4	5/16	.080	.530
W BCL-4-38	4	3/8	.080	.530
BCL-4-12	4	1/2	.090	.760
BCL-2-14	2	1/4	.090	.620
BCL-2-56	2	5/16	.090	.620
W BCL-2-38	2	3/8	.090	.620
BCL-2-12	2	1/2	.090	.760
BCL-1-14	1	1/4	.100	.660
W BCL-1-56	1	5/16	.100	.660
W BCL-1-38	1	3/8	.100	.660

Part Number	Wire Gauge	Stud Size	Stock Thickness	Pad Width
BCL-1-12	1	1/2	.100	.760
BCL-1/0-14	1/0	1/4	.110	.730
BCL-1/0-56	1/0	5/16	.110	.730
W BCL-1/0-38	1/0	3/8	.110	.730
BCL-1/0-12	1/0	1/2	.110	.730
BCL-2/0-14	2/0	1/4	.110	.820
BCL-2/0-56	2/0	5/16	.110	.820
BCL-2/0-38	2/0	3/8	.110	.820
BCL-2/0-12	2/0	1/2	.110	.820
BCL-3/0-14	3/0	1/4	.120	.910
BCL-3/0-56	3/0	5/16	.120	.910
BCL-3/0-38	3/0	3/8	.120	.910
BCL-3/0-12	3/0	1/2	.120	.910
BCL-4/0-14	4/0	1/4	.130	1.000
BCL-4/0-56	4/0	5/16	.130	1.000
BCL-4/0-38	4/0	3/8	.130	1.000
BCL-4/0-12	4/0	1/2	.130	1.000
BCL-250-38	250	3/8	.110	1.8125
BCL-250-12	250	1/2	.110	1.8125
BCL-250-58	250	5/8	.110	1.8125

Want to stay organized? Purchase our Copper Lug Kit (BCLS-KIT) on page 460. 118 different sized lugs come housed in one of our handy metal drawer.

To ensure the perfect crimp, we recommend the TS-1090 crimper for 6 - 4/0ga. or the TS-1080 crimper for all 6 - 1/0ga. BCL & HDL lugs. For more information, see page 479.

Tin Plated Copper Splices

- These BCSP splices are made from 99.9% copper, with electro-tin plating and are seamless
- Designed for stranded copper wired
- Highly controlled flare to allow for easy cable insertion
- Rated for 600V



Part Number	Wire Gauge
BCSP-8	8
BCSP-6	6
BCSP-4	4
BCSP-2	2
BCSP-1	1

Part Number	Wire Gauge
BCSP-10	1/0
BCSP-20	2/0
BCSP-30	3/0
BCSP-40	4/0

Heavy Duty Starter Ground Lug Battery Terminals

- These HDL lugs are made from 100% copper, with tin plating and are stackable
- HDL lug's can also be soldered for extra strength in your connections

Standard Starter Ground Lugs



Part Number	Wire Gauge	Stud Size	Stock Thickness	Pad Width
HDL-8-14	8	1/4	.075	.550
HDL-8-38	8	3/8	.060	.700
HDL-6-14	6	1/4	.110	.470
HDL-6-56	6	5/16	.080	.630
HDL-6-38	6	3/8	.080	.600
HDL-6-12	6	1/2	.065	.700
HDL-4-14	4	1/4	.110	.560
HDL-4-56	4	5/16	.100	.600
HDL-4-38	4	3/8	.100	.600
HDL-4-12	4	1/2	.090	.670
HDL-1-14	1-2	1/4	.150	.770
HDL-1-56	1-2	5/16	.150	.770
HDL-1-38	1-2	3/8	.150	.770
HDL-1-12	1-2	1/2	.150	.770

Part Number	Wire Gauge	Stud Size	Stock Thickness	Pad Width
HDL-100-14	1/0	1/4	.150	.870
HDL-100-56	1/0	5/16	.150	.870
HDL-100-38	1/0	3/8	.150	.870
HDL-100-12	1/0	1/2	.150	.870
HDL-200-14	2/0	1/4	.180	.920
HDL-200-56	2/0	5/16	.180	.920
HDL-200-38	2/0	3/8	.180	.920
HDL-200-12	2/0	1/2	.180	.920
HDL-300-56	3/0	5/16	.180	.920
HDL-300-38	3/0	3/8	.180	1.020
HDL-300-12	3/0	1/2	.180	1.020
HDL-400-38	4/0	3/8	.180	1.100
HDL-400-56	4/0	5/16	.180	1.100
HDL-400-12	4/0	1/2	.180	1.100

Check out our Heavy Duty Lug Kit (HDL-KIT) on page 461. It features 170 of these heavy duty lugs and has everything you'll need.

Anti-Rotational Heavy Duty Stacking Battery Terminals

- Anti-rotational indents allow stacking, grip the battery securely & prevent movement.
- Stamped from 99.9% ETP copper, these are the most conductive stud top terminals available.



Part Number	Wire Gauge	Stud Size
HDL-N-438	4	3/8
HDL-N-1238	1-2	3/8
HDL-N-1038	1/0	3/8

Part Number	Wire Gauge	Stud Size
HDL-N-2038	2/0	3/8
HDL-N-3038	3/0	3/8
HDL-N-4038	4/0	3/8

Post Battery Terminals

Straight Post Terminal



Part Number	Post Type	Wire Gauge
SBT-4	Universal	6-4
SBT-1P	Positive	1-2
SBT-1N	Negative	1-2
SBT-1/0P	Positive	1/0
SBT-1/0N	Negative	1/0
SBT-2/0P	Positive	2/0
SBT-2/0N	Negative	2/0
SBT-3/0P	Positive	3/0
SBT-3/0N	Negative	3/0
SBT-4/0P	Positive	4/0
SBT-4/0N	Negative	4/0

Flag Post Terminal



Part Number	Post Type	Wire Gauge
SBTF-1/0P	Positive	1/0
SBTF-1/0N	Negative	1/0
SBTF-2/0P	Positive	2/0
SBTF-2/0N	Negative	2/0
SBTF-3/0P	Positive	3/0
SBTF-3/0N	Negative	3/0
SBTF-4/0P	Positive	4/0
SBTF-4/0N	Negative	4/0

Left Angle Post Terminal



Part Number	Post Type	Wire Gauge
SBT-1/0P-LA	Positive	1/0
SBT-1/0N-LA	Negative	1/0
SBT-2/0P-LA	Positive	2/0
SBT-2/0N-LA	Negative	2/0
SBT-3/0P-LA	Positive	3/0
SBT-3/0N-LA	Negative	3/0
SBT-4/0P-LA	Positive	4/0
SBT-4/0N-LA	Negative	4/0

Right Angle Post Terminal



Part Number	Post Type	Wire Gauge
SBT-1/0P-RA	Positive	1/0
SBT-1/0N-RA	Negative	1/0
SBT-2/0P-RA	Positive	2/0
SBT-2/0N-RA	Negative	2/0
SBT-3/0P-RA	Positive	3/0
SBT-3/0N-RA	Negative	3/0
SBT-4/0P-RA	Positive	4/0
SBT-4/0N-RA	Negative	4/0

Need a variety of battery terminals? Then you need our Battery Terminal Kit (BATT-TERM-KIT). It has over 100 pieces of our different heavy duty battery terminals in it.

To ensure the perfect crimp, we recommend the TS-1090 or TS-1080 tool for all of our lugs. For more information, see page 479.

For longer service life on all of your battery cable connections, we recommend our 700 Series shrink tubing (see page 447 for specs). For your convenience, we now offer it cut into 1-1/2" pieces. Please contact customer service for more details.

Post Battery Terminals, cont'd

90° Starter Ground Lugs



Part Number	Wire Gauge	Stud Size
HDL-8-38-90	8	3/8
HDL-6-38-90	6	3/8
HDL-4-38-90	4	3/8
HDL-4-12-90	4	1/2
HDL-1-38-90	1-2	3/8
HDL-1-12-90	1-2	1/2
HDL-100-38-90	1/0	3/8

Part Number	Wire Gauge	Stud Size
HDL-100-12-90	1/0	1/2
HDL-200-38-90	2/0	3/8
HDL-200-12-90	2/0	1/2
HDL-300-38-90	3/0	3/8
HDL-300-12-90	3/0	1/2
HDL-400-38-90	4/0	3/8
HDL-400-12-90	4/0	1/2

45° Starter Ground Lugs



Part Number	Wire Gauge	Stud Size
HDL-8-38-45	8	3/8
HDL-6-38-45	6	3/8
HDL-4-38-45	4	3/8
HDL-4-12-45	4	1/2
HDL-1-38-45	1-2	3/8
HDL-1-12-45	1-2	1/2
HDL-100-38-45	1/0	3/8

Part Number	Wire Gauge	Stud Size
HDL-100-12-45	1/0	1/2
HDL-200-38-45	2/0	3/8
HDL-200-12-45	2/0	1/2
HDL-300-38-45	3/0	3/8
HDL-300-12-45	3/0	1/2
HDL-400-38-45	4/0	3/8
HDL-400-12-45	4/0	1/2

Stud Type Battery Terminals

Double Barrel Terminal



Part Number	Wire Gauge	Stud Size
ST-1/0	1/0	3/8
ST-2/0	2/0	3/8
ST-3/0	3/0	3/8

Single Barrel Terminal



Part Number	Wire Gauge	Stud Size
ST-4S-SM*	4	3/8
ST-4S	4	3/8
ST-1S	1 - 2	3/8
ST-1/0S	1/0	3/8
ST-2/0S	2/0	3/8
ST-3/0S	3/0	3/8

* Includes bolt for fastening to side mount battery terminal

Miscellaneous Battery Terminals

Wing Nut Terminal



Part Number	Post Type	Stud Size
WNBT-P	Positive	3/8
WNBT-N	Negative	5/16
WNBT-2	1 pos. & 1 neg.	

Solid Lead Military Type Terminal

- For diesel truck applications with parallel batteries



Part Number	Post Type	MS Spec
BT-38P	Positive	MS-75004-1
BT-38N	Negative	MS-75004-2

Miscellaneous Battery Terminals, cont'd

Universal Lead Terminal



Part Number	Post Type	Wire Gauge
BTSD-L	Universal	6 - 1
BTSD-2/0	Universal	2 - 4/0

Truck Battery Terminal



Part Number	Post Type	Wire Gauge
BTSD-3P	Positive	6 - 1
BTSD-3N	Negative	6 - 1

Side Mount Battery Terminals & Bolts

Side Mount Terminal

- Includes bolt for fastening to battery



Part Number	Wire Gauge	Stud Size
BTSD-SM	6 - 1	3/8

OEM Side Mount Bolt



Part Number	Description
SMBA-S	1.15" total length, 3/8-16 thread

Side Mount Accessory Adapters

- Connects power to communication equipment & accessories on vehicles with side mount batteries.

Long Side Mount Adapter



Part Number	Description	Fig.
SMBA-L	1" total length, 3/8-16 thread. Zinc plated	A
6706-010	Optional spacer	B

Extra Long Side Mount Adapter

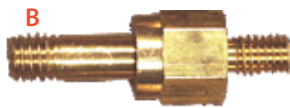


Part Number	Description
SMBA	1.75" total length, 3/8-16 thread

Heavy Duty Side Mount Adapter



Zinc plated nut



Part Number	Description	Total Length	Studs	Fig.
SMBA-HD	For single power lead	1.5"	3/8 stud & 5/16 accessory post	A
BA-22XL	For double power lead	2"	3/8-16 accessory post	B

Top Mount Accessory Adapters

- Connects power to communication equipment & accessories on vehicles with top mount batteries.

Heavy Duty Top Mount Adapter



Zinc plated nut

Part Number	Description
ADN-14	1.610" total length, 5/16-18 male stud & 1/4-20 female accessory post
ADN-38	1.875" total length, 3/8-16 male stud & 3/8-16 female accessory post

Battery Nuts & Bolts



Part Number	Working Length	Stud Size	Post Type	Fig.
BB	1-7/32"	5/16-18	N/A	A
BB-14	1-5/8"	1/4-20	N/A	B
BB-BLACK	1-1/4"	5/16-18	Negative	C
BB-RED	1-1/4"	5/16-18	Positive	D
SMBB	7/16"	3/8-16	N/A	E

Solder & Flux

Flux



Part Number	Description	Net Weight	Fig.
51012	Paste	2 oz.	A
51024	Liquid Rosin	3 oz.	B

Check out our wide range of torches & soldering guns to work with all of our solder, on pages 486-487.

Solder



Part Number	Tin % / Lead %	Core Type	Dia.	Net Weight	Fig.
TS60/40RC-032	60 / 40	Rosin	.032	.5 oz.	A
TS60/40RC-032-1	60 / 40	Rosin	.032	1 lb.	B
TS60/40RC-062-1	60 / 40	Rosin	.062	1 lb.	B
TS60/40RC-093-1	60 / 40	Rosin	.093	1 lb.	B
TS60/40RC-125-1	60 / 40	Rosin	.125	1 lb.	B
TS40/60AC-125-1	40 / 60	Acid	.125	1 lb.	B
TS-LF/RC-093-1	100 / 0	Lead Free Rosin	.093	1 lb.	B
TS-LF/AC-125-1	100 / 0	Lead Free Rosin	.125	1 lb.	B

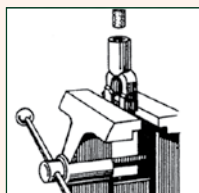
Solder Slugs



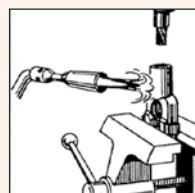
Part Number	Color	Wire Gauge
ESP-6	Gray	6
ESP-4	Gray	4
ESP-2	Green	2
ESP-1	Pink	1
ESP-1/0	Black	1/0
ESP-2/0	Orange	2/0
ESP-3/0	Purple	3/0
ESP-4/0	Yellow	4/0

Keep a variety of solder slug sizes on hand with our Solder Slug Kit (ESP-KIT-6).

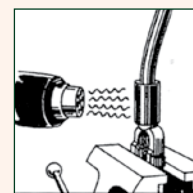
How To Use a Solder Slug



Insert terminal into bench vise & drop slug into terminal. Slide shrink tube over cable.



Strip 1" of insulation from cable, apply flux to exposed copper & insert in terminal. Heat terminal with propane torch until slug is melted.



Slide shrink tube into place & heat with a heat gun.

Battery Power Products

SB 50 Series Connector - 50 Amp - 600VDC



- Operating temp: -4° to 221°F

Part Number	Color	Wire Gauge	Description
SY6319	Gray	6	Housing w/ springs & 2 contacts
SY6319G2	Gray	8	
SY6319G1	Gray	12-10	
SY6331G1	Red	6	
SY6331G2	Red	12-10	

- 1.89"L x 1.38"W x 0.63"H

Part Number	Color	Wire Gauge	Description
SY992	Gray	N/A	Housing w/ springs only
SY903G1	N/A	6	2 terminal contacts
SY905G1	N/A	8	
SY904G1	N/A	12-10	
134G1	Red	N/A	Dust cover

SB 175 Series Connector - 175 Amp - 600VDC



- Operating temp: -4° to 221°F
- 3.13"L x 2.19"W x 1.00"H

Part Number	Color	Wire Gauge	Description
SY6325G1	Gray	1/0	Housing w/ springs & 2 contacts
SY6325G5	Gray	2	
SY6325G6	Gray	4	
SY6326G1	Blue	1/0	
SY6328G1	Yellow	1/0	
SY6329G1	Red	1/0	

Part Number	Color	Wire Gauge	Description
SY940	Gray	N/A	Housing w/ springs only
SY941	Blue	N/A	
SY943	Yellow	N/A	
SY949	Red	N/A	
SY944	N/A	1/0	2 terminal contacts
SY944-2	N/A	2	
SY944-4	N/A	4	
134G2	Red	N/A	Dust cover

SB 350 Series Connector - 350 Amp - 600VDC



- Operating temp: -4° to 221°F
- 4.25"L x 2.75"W x 1.31"H

Part Number	Color	Wire Gauge	Description
SY6320G1	Gray	2/0	Housing w/ springs & 2 contacts
SY6320G5	Gray	3/0	
SY6320G2	Gray	4/0	
SY6321G1	Blue	2/0	
SY6321G5	Blue	3/0	
SY6321G2	Blue	4/0	
SY6322G1	Red	2/0	
SY6322G5	Red	3/0	
SY6322G2	Red	4/0	

Part Number	Color	Wire Gauge	Description
SY906	Gray	N/A	Housing w/ springs only
SY912	Blue	N/A	
SY913	Red	N/A	
SY907	N/A	2/0	2 terminal contacts
SY916	N/A	3/0	
SY908	N/A	4/0	
134G3	Red	N/A	Dust cover

We recommend the TS-1090 or TS-1080 tools for all the lugs in this section. For more information, see page 479.

Protect your connections from dust & debris with our new dust covers. See each series section for the cover that will fit your series.



All of the SB Series Power Connectors mate to themselves, just by flipping one connector over.

Terminal Boots & Protectors

- Protects alternator & electrical system from power surges & shorts
- Reduce risk of battery explosion caused by sparks
- Made from PVC rated to 190°F
- Color coded for easy identification
- Conforms to SAE J1128 dielectric specifications, meets OSHA & USCG requirements
- All are packaged in quantities of 5

BCL Terminal Protectors

Automotive Lug



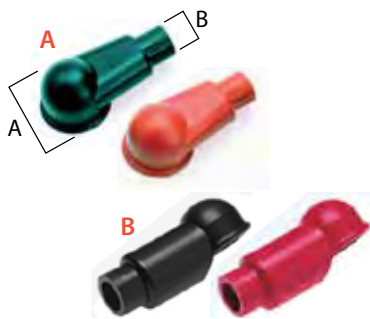
Part Number	Color	Wire Gauge
TSAL-1R	Red	1 - 2
TSAL-1B	Black	1 - 2
TSAL-100R	Red	1/0 - 2/0
TSAL-100B	Black	1/0 - 2/0

Lug & Ring Terminal



Part Number	Color	Inside Dia.	Wire Gauge
CAP-R	Red	.81"	8-2
CAP-B	Black	.81"	8-2
CAP-R-XS	Red	.73"	18-10
CAP-B-XS	Black	.73"	18-10

Heavy Duty Starter



Part Number	Color	A	B	Wire Gauge	Fig.
TSHDS-4R	Red	1.00"	.300"	4	A
TSHDS-4B	Black	1.00"	.300"	4	A
TSHDS-1R	Red	1.00"	.500"	1 - 2	A
TSHDS-1B	Black	1.00"	.500"	1 - 2	A
TSHDS-100R	Red	1.00"	.650"	1/0 - 2/0	B
TSHDS-100B	Black	1.00"	.650"	1/0 - 2/0	B
TSHDS-400R	Red	1.27"	.750"	3/0-4/0	B
TSHDS-400B	Black	1.27"	.750"	3/0-4/0	B

These protectors work with our BCL terminals found on page 102.

Other sizes & styles of terminal protectors are available. If you don't see what you need, contact customer service or your local sales rep for more info.

HDL Terminal Protectors

Straight Clamp



Part Number	Color	Wire Gauge
TSSC-6R	Red	6
TSSC-6B	Black	6
TSSC-4R	Red	4
TSSC-4B	Black	4
TSSC-1R	Red	1 - 2
TSSC-1B	Black	1 - 2
TSSC-100R	Red	1/0 - 2/0
TSSC-100B	Black	1/0 - 2/0

Flag Clamp



Part Number	Color	Wire Gauge
TSFC-1R	Red	1 - 2
TSFC-1B	Black	1 - 2
TSFC-100R	Red	1/0 - 3/0
TSFC-100B	Black	1/0 - 3/0

These protectors work with our HDL & SBT terminals found on pages 103 & 104.

Battery Cables

Jump Battery Cables

- Cables feature anti-rotational lugs



Part Number	Length (eye to eye)	Wire Gauge	Terminals	Color	Fig.
JUMP-8-RED	8"	1/0	3/8 lugs	Red	A
JUMP-8-RED-2/0	8"	2/0	3/8 lugs	Red	A
JUMP-8-BLK	8"	1/0	3/8 lugs	Black	A
JUMP-8-BLK-2/0	8"	2/0	3/8 lugs	Black	A
JUMP-16-RED	16"	1/0	3/8 lugs	Red	A
JUMP-16-BLK	16"	1/0	3/8 lugs	Black	A
JUMP-10F-RED	10"	1/0	1 left, 1 right angle	Red	B
JUMP-10F-BLK	10"	1/0	1 left, 1 right angle	Black	B

Battery Stud Top Nuts

- Sold in quantities of five



Part Number	Material	Stud Size
505N-STAINLESS	Stainless Steel	3/8
505N-RED	Nylon	3/8
505N-BLACK	Nylon	3/8

Our Jump Battery Cables can be custom made to any length & wire gauge you need. Please contact your salesperson for a quote.

Multi-Battery Overmolded Cable Assembly

- Fits up to 3/8" stud



Part Number	Size	Length	Wire Gauge	Color
G31-7R	2 Battery	7"	2/0	Red
G31-7B	2 Battery	7"	2/0	Black
G31-14R	3 Battery	14"	2/0	Red
G31-14B	3 Battery	14"	2/0	Black
G31-21R	4 Battery	21"	2/0	Red
G31-21B	4 Battery	21"	2/0	Black

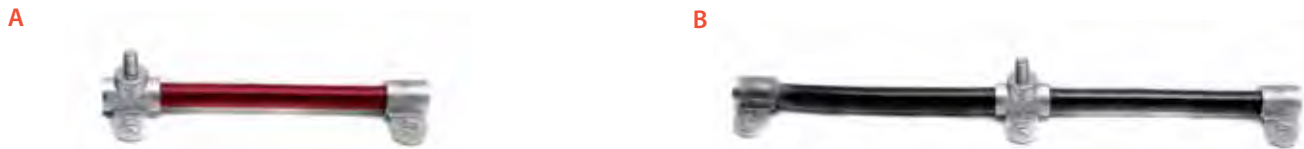
Protective Stud Caps

- Sold in quantities of ten



Part Number	Stud Size
G31-CAP-R	3/8
G31-CAP-B	3/8

Multi-Stud 2/0ga. Battery Cables



Part Number	Total Length	Wire Gauge	Color	Terminals	Fig.
TS-04317 TS-04318	7"	2/0	Red Black	Include 3 hex serrated flange nuts & 1 charging post for 3/8" stud type battery	A
TS-04319 TS-04320	14"	2/0	Red Black	Include 4 hex serrated flange nuts & 1 charging post for 3/8" stud type battery	B

Ground Straps

Ground cables can be custom made to your exact specifications, please ask your sales rep or customer service for more details.

Pre-Made Ground Straps



Part Number	Length (inches)	Width (inches)	Wire Gauge	Stud Size
GS-1009	9	1-1/2	1/0	3/8
GS-1012	12	1-1/2	1/0	3/8
GS-1015	15	1-1/2	1/0	3/8
GS-1018	18	1-1/2	1/0	3/8

Bulk Ground Strapping

- Flat braided, tight weave tinned copper provides maximum flexibility
- Provides an excellent low resistance ground path
- Ideal shielding for short run cable



Spool Sizes Available	
50'	50
100'	100
500'	500

For the correct part number, use the abbreviations (in red), along with this example:

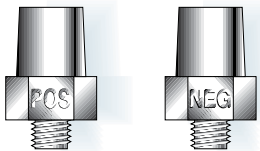
M810 - 100

Part Number	Width (inches)	Wire Gauge	Stranding #/Ga.	Nom. Ampacity
M808	1/4	14	168/36	32
M810	3/8	12	288/36	40
M812	1/2	10	384/36	53
M816	3/4	7	864/36	88
M820	1-3/8	5	336/30	100
M822	1-1/2	3	528/30	145
M823	1-3/4	2/0	1248/30	250

Heavy Duty Battery Accessories

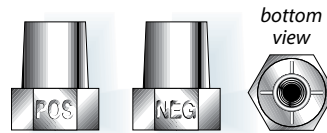
Battery Charging Posts

Male Charging Posts



Part Number	Post Type
BPA-P	Positive
BPA-N	Negative

Female Charging Posts



Part Number	Post Type
BPF-P	Positive
BPF-N	Negative

Heavy Duty Battery Feeder Stud



- Designed to bring D.C. power through firewalls & bulkheads
- Impact resistant plastic insulator / mounting bushing, 1-17/64" dia., 5/8" long
- Two 3/8"-16 threaded brass stud terminals, 5/8" long

Part Number	Volts	Max Amps	Color
CH-46211-01	6 - 36	150	Black
CH-46211-R	6 - 36	150	Red

Feed Thru Stud Type Junction Block



- Heavy duty ground or power connection points
- AC/DC current
- Thermoplastic base w/ zinc plated brass studs

Part Number	Color	Stud Size	Amps	Fig.
C-1933	Black	1/2-13	400	A
C-5898	Red	3/8-16	250	B
C-1938	Black	3/8-16	250	B
C-2791	Black	1/4-20	100	B

Jumper Cables & Accessories

Jumper Cables

- Inner cable constructed of 100% fine stranded copper wire
- Tangle free design remains flexible even in cold weather

Clamp On Jumper Cables



Part Number	Length (feet)	Wire Gauge	Amps/Clamp	Clamp Type
JC-44-15	15	4	400	JCHD
JC-44-20	20	4	400	JCHD
JC-44-25	25	4	400	JCHD
JC-22-15	15	2	600	3308
JC-22-20	20	2	600	3308
JC-22-25	25	2	600	3308
JC-11-15	15	1	800	3308
JC-11-20	20	1	800	3308
JC-11-25	25	1	800	3308

Do you have a unique application? We can customize our power cables to meet your exact requirements. Contact customer service or your sales rep for more info.

If you're interested in making your own, check out our jumper cable clamps on the following page & bonded booster cable you'll need to assemble them on page 122.

To protect you plug-in jumper cable connections from dust & debris, see page 108 for more information on the connector cover, part # 134G3.

Plug In Jumper Cables

- Lug-to-plug end (LTP) has two 3/8 stud terminals for easy, permanent installation in service vehicle
- Clamp-to-plug end (CTP) connects to the LTP via a SB 175 Series plug that can be easily disconnected, allowing you to store the CTP in cab of service vehicle, reducing risk of theft, loss or damage
- Wire gauge must match when ordering as a set. EX: LTP-44 & CTP-44-20



Part Number	Length (feet)	Wire Gauge	Amps/Clamp	Clamp Type
LTP-44	3	4	N/A	Terminal
LTP-22	3	2	N/A	Terminal
LTP-11	3	1	N/A	Terminal
LTP-44-6	6	4	N/A	Terminal
LTP-22-6	6	2	N/A	Terminal
LTP-11-6	6	1	N/A	Terminal
CTP-44-15	15	4	400	JCHD
CTP-44-20	20	4	400	JCHD
CTP-44-25	25	4	400	JCHD
CTP-22-15	15	2	600	3308
CTP-22-20	20	2	600	3308
CTP-22-25	25	2	600	3308
CTP-11-15	15	1	800	3308
CTP-11-20	20	1	800	3308
CTP-11-25	25	1	800	3308

Jumper Cables Ends



800 Amp Clamps

- Jaws made of solid copper
- **Supplied 2 per set: 1 red & 1 black, includes 1 side cable protector**
- Works with 4-2/0ga. cable

Part Number	Overall Length	Jaw Opening
3308	9-3/4"	1-1/2"
3308J	Replacement jaws, 2 per set	

400 Amp Clamps



- Clamps made of solid copper
- **Supplied 4 per set: 2 red & 2 black**
- Works with 4-6ga. cable

Part Number	Overall Length	Jaw Opening
JCHD-M	6"	1-5/8"

If you need smaller size clips, we carry those as well. For all of the details, see pages 141 & 142.

Heavy Duty Battery Jumper Terminal

- For battery connections at easily accessible locations, inside or outside vehicle
- Can be used individually (pos. terminal) or in pairs (pos. & neg. terminals)
- Solid brass, grooved contact post: 13/16" dia., 1-1/8" long
- Accepts standard jumper cables
- Brass hex nut & washer included, 3/8" - 16 stud



Part Number	Color	Post Type	Amps	Volts
CH-46210-02	Red	Positive	150	6 - 48
CH-46210-03	Black	Negative	150	6 - 48

Battery Chargers

6 Amp Battery Charger



- Caustic environment, thermal overload & reverse polarity protected
- Completely potted in epoxy to protect electronics from hostile environments
- Three stage charging, using Guest's auto switching electronics
- LED "charging" & "ready" indicators
- Can be connected indefinitely without harming your battery
- UL Listed

Part Number	Charging Task	Battery Types	Battery Voltage	Output Amps	AC	DC	Dimensions (inches)
MA-2606A-B	Full & maintain charge	Flooded, gel or AGM	12	6	6' cord w/ straight plug	4' cord w/ battery clips	9.7 x 5.9 x 3.4

We also carry a wide selection of battery inverters. See pages 140 for all of the details.

Battery Service Aids & Accessories

Battery Chemicals

Noco Corrosion Preventatives



Part Number	Description	Net Weight
NC-CB-104	Brush-on, red	4oz.
NC-A-202	Aerosol, red	12.25oz

Noco Battery Cleaners



Part Number	Description	Net Weight
NC-E-403	Aerosol, clear	14oz.

Quick Cote+ with Acid Neutralizer

- Protects from corrosion & neutralizes acids long term
- Prevents seizing of threaded fasteners
- Non-hardening & non-caking



Part Number	Description	Net Weight
QUICK COTE	Brush-on	8oz.

Battery Terminal Accessories

Battery Terminal Protectors

- Felt protectors stop corrosion caused by acid fumes from imperfectly sealed batteries
- Impregnated with NCP-2 compound, which lasts indefinitely



Part Number	Application	Qty.
NC-B-603	Top terminal	50

Battery Brushes

- Inner bristles clean post terminals, outers clean cable connectors



Part Number	Description
TS-112	Metal housing

Terminal Cleaning Power Brushes




Part Number	Type	Fig.
TS-05515	Top	A
TS-05516	Stud	B


Need something you don't see here? TSC Manufacturing, our custom harness manufacturing division, can customize any cable to fit your application. Contact customer service or your sales rep for more information.

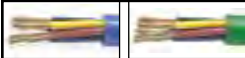



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Explanation of Wire Charts

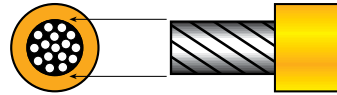
Part Number
22 GPT

Most of our wire part numbers are a combination of wire gauge, # of conductors, type of wire, spool size & color (see examples to the right). Not all numbers are entered this way, so there is an example of how to obtain the correct part number for ordering, with each type of wire.

22		GPT	- 250	RED
<i>Wire Gauge</i>	<i># of Conductors</i>	<i>Type of Wire</i>	<i>Spool Size</i>	<i>Color</i>
18	- 4	B	- 100	

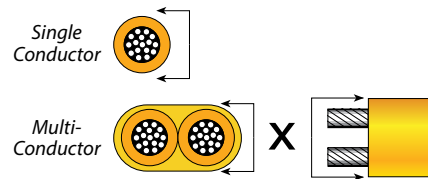
Stranding
7 x 30

This specifies the number of strands (metal conductors) that are contained inside the jacket of the wire. The first number states that the wire has seven strands. The second number states that each of those strands are 30ga. wire.



Nom. O.D. (inches)
.094 x .188

This section shows the nominal outer diameter, or the total width of the wire in inches. For bonded & multi-conductor wires, there are two separate numbers. The first one is the height of each wire separately. The second is the width of all the wires together.



Bulk Qty. (feet)
5000

This category specifies the largest volume of feet per reel you can purchase in bulk. Keep in mind that bulk quantities of wire may vary from time to time. This is because vendors may change footage due to production. Some wire is also available in drum quantities. If you are interested in either, please call customer service at 800-989-9632.



Please keep in mind that some of the charts in the wire section may be altered for added information on special product applications.

Conversion Chart for Wire & Cable Carrying Capacities

Wire Gauge	Light Circuit Cable (continuous duty)	Battery Cable (intermittent duty)	Welding Cable (up to 50ft.)
18	3 Amperes		
16	6 Amperes		
14	15 Amperes		
12	20 Amperes		
10	25 Amperes		
8	35 Amperes		
6	50 Amperes	90 Amperes	60 Amperes
4		125 Amperes	150 Amperes
2		150 Amperes	200 Amperes
1		200 Amperes	250 Amperes
1/0		225 Amperes	300 Amperes
2/0		275 Amperes	400 Amperes
3/0		325 Amperes	
4/0			



Automotive Wire

GPT Primary Wire

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40°F to 176°F; 50 volts
- Specifications: SAE J1128; Chrysler MS-3450; Ford ESF-M1L56A
- Features: Abrasion resistant
- Uses: interior wiring harnesses for cars, trucks, tractors & off-road vehicles



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)	Drum Qty. (feet)
22 GPT	7 x 30	.079	5000	105000
20 GPT	7 x 28	.084	5000	70000
18 GPT	16 x 30	.092	5000	60000
16 GPT	19 x 29	.103	5000	40000
14 GPT	19 x 27	.117	5000	30000
12 GPT	19 x 25	.141	2500	20000
10 GPT	19 x 23	.173	2500	28000
8 GPT	19 x 21	.215	2500	25000

Colors				Spool Sizes	
Black	BLK	Orange	ORG	100ft.	100
Blue	BLU	Pink	PNK	500ft.	500
Brown	BRN	Purple	PUR	1000ft.	1000
Gray	GRY	Red	RED	Bulk Reel	BULK
Green	GRN	Tan	TAN	Drum Qty.	DRUM
Lt. Blue	LBL	White	WHT		
Lt. Green	LGR	Yellow	YEL		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → 18 GPT - 100 - BLK

GXL Wire

- Jacket: Cross-linked polyethylene
- Conductor: Stranded, bare copper
- Rated: -58°F to 257°F; 50 volts or less
- Specifications: SAE J1128; Chrysler MS-5919; Ford ESB-M1L85-B; RVIA approved
- Features: Abrasion, oil, heat & flame resistant. Labeled every 2ft. with temperature, type, gauge & SAE
- Uses: exterior wiring harnesses for cars, trucks, tractors & off-road vehicles
- **6 gauge GXL approved for SAE J1127 (jacket is marked SGX, per industry standard)**



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)	Drum Qty. (feet)
20 GXL	7 x 28	.085	5000	70000
18 GXL	16 x 30	.092	5000	60000
16 GXL	19 x 29	.102	5000	405000
14 GXL	19 x 27	.117	5000	30000
12 GXL	19 x 25	.141	2500	20000
10 GXL	19 x 23	.173	2500	28000
8 GXL	19 x 21	.215	1000	25000
6 GXL	133 x 27	.281	500	20000

Colors				Spool Sizes	
Black	BLK	Orange	ORG	100ft.	100
Blue	BLU	Pink	PNK	500ft.	500
Brown	BRN	Purple	PUR	1000ft.	1000
Gray	GRY	Red	RED	Bulk Reel	BULK
Green	GRN	Tan	TAN	Drum Qty.	DRUM
Lt. Blue	LBL	White	WHT		
Lt. Green	LGR	Yellow	YEL		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → 20 GXL - 100 - RED

TXL Extra Thin Wall Wire

- Jacket: Cross-linked polyethylene
- Conductor: Stranded, bare copper
- Rated: -40°F to 257°F; 50 volts or less
- Specifications: SAE J1128; Chrysler MS-8288; Ford ESB-M1L123A
- Features: Conforms to tight areas
- Uses: automotive applications where high heat resistance, minimal diameter & weight are required



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)	Drum Qty. (feet)
22 TXL	7 x 30	.062	5000	100000
20 TXL	7 x 28	.070	5000	80000
18 TXL	19 x 30	.078	5000	70000
16 TXL	19 x 29	.089	5000	60000
14 TXL	19 x 27	.103	5000	36000
12 TXL	19 x 25	.124	2500	24000
10 TXL	19 x 23	.155	2500	24000

Colors				Spool Sizes	
Black	BLK	Orange	ORG	100ft.	100
Blue	BLU	Pink	PNK	500ft.	500
Brown	BRN	Purple	PUR	1000ft.	1000
Gray	GRY	Red	RED	Bulk Reel	BULK
Green	GRN	Tan	TAN		
Lt. Blue	LBL	White	WHT		
Lt. Green	LGR	Yellow	YEL		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 16 TXL - 100 - YEL

Multi-Conductor Wire

Duplex Primary Wire

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40°F to 221°F; 50 volts or less
- Specifications: SAE J1128
- Features: Outer gray PVC jacket protects against abrasion & weather
- Uses: general purpose wiring in boats, autos & motor driven equipment



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
18-2 D	16 x 30	.150 x .240	9000
16-2 D	19 x 29	.162 x .265	8000
14-2 D	19 x 27	.180 x .300	7000
12-2 D	19 x 25	.210 x .360	5000
10-2 D	19 x 23	.235 x .420	3500
8-2 D	19 x 21	.290 x .520	2000
16-3 D	19 x 29	.162 x .365	5000
14-3 D	19 x 27	.180 x .420	4000
12-3 D	19 x 25	.210 x .500	3000
10-3 D	19 x 23	.235 x .595	2500
16-4 D	19 x 30	.195 x .510	3500
14-4 D	19 x 27	.210 x .560	3000

Standard Colors		Spool Sizes	
2 conductor	white & black	100ft.	100
3 conductor	green, white & black	500ft.	500
4 conductor	green, red, white & black	1000ft.	1000
		Bulk Reel	BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 18 - 2 D - 100

Bonded Wire

- Jacket: Polyvinyl Chloride (PVC)
- Conductor: Stranded, bare copper
- Rated: -40°F to 176°F; 50 volts or less
- Specifications: SAE J1128; Chrysler MS-3450; Ford ESB-M1L56A
- Features: Conforms to tight areas
- Uses: wire harnesses for passenger cars, trucks, tractors & off-road vehicle



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
18-2 B	16 x 30	.094 x .188	14000
16-2 B	19 x 29	.105 x .210	12500
14-2 B	19 x 27	.122 x .244	10500
12-2 B	19 x 25	.138 x .280	5000
18-3 B	16 x 30	.094 x .282	12500
16-3 B	19 x 29	.105 x .315	10000
14-3 B	19 x 27	.122 x .366	8500
18-4 B	16 x 30	.094 x .376	8000
16-4 B	19 x 29	.105 x .420	8000
14-4 B	19 x 27	.122 x .488	6500
12-4 B	19 x 25	.143 x .361	2500
16-5 B	19 x 29	.105 x .420	5000

Standard Colors	
2 conductor	red & black
3 conductor	green, yellow & brown
4 conductor	green, yellow, brown & white
5 conductor	green, brown, yellow, blue & white

Spool Sizes	
100ft.	100
250ft.	250
500ft.	500
1000ft.	1000
Bulk Reel	BULK

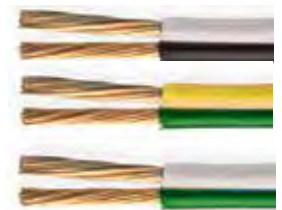
To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **18 - 2 B - 250**

Our bonded wire is available in custom colors. Minimums may apply. Call customer service for info.

Dual Color Bonded Wire

- Jacket: Polyvinyl chloride (PVC)
- Conductor: Stranded, bare copper
- Rated: -40°F to 176°F; 50 volts or less
- Specifications: SAE J1128; Chrysler MS-3450; Ford ESB-M1L56A
- Features: Conforms to tight areas
- Uses: Vehicle wire harnesses



Part Number	Stranding	Nom. O.D. (inches)
16-2 B	19 x 29	.105 x .210

Standard Colors	
Black/White	BK/WT
Green/Yellow	GN/YE
White/Green	WH/GN

Spool Sizes	
250ft.	250
500ft.	500

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **16 - 2 B - 500BK/WH**

We also offer a large selection of molded trailer connectors on pages 265-266.



2-Way Flat



4-Way Flat



Multi-Conductor Trailer Cable

Trailer Cable

- Jacket: PVC or Neoprene
- Conductor: Stranded, bare copper
- Rated: -40°F to 176°F (PVC) -58°F to 221°F (neoprene); 60 volts
- Features: Color coded conductors for easy ID. Resistant to abrasion, oil, grease, acid & weather
- Uses: any general electrical trailer hook up



Part Number	Wire Gauge	Stranding	Nom. O.D. (inches)	Outer Jacket
14-4 P	4/14ga.	19 x 27	.410	Black PVC
14-4 N	4/14ga.	19 x 27	.460	Blue Neoprene
14-6 P	6/14ga.	19 x 27	.490	Black PVC
14-6 N	6/14ga.	19 x 27	.580	Blue Neoprene
14-7 T	7/14ga.	19 x 27	.375	Black Thin Wall PVC
14-7 RV	4/14ga. 1/12ga. 2/10ga.	19 x 27 19 x 25 19 x 23	.560	Black PVC
14-7 P	7/14ga.	19 x 27	.560	Black PVC
12-7 P	6/12ga. 1/10ga.	19 x 25 19 x 23	.600	Black PVC
12-7 N	6/12ga. 1/10ga.	19 x 25 19 x 23	.690	Blue Neoprene

	Standard Colors
14-4 P	white, black, red & brown
14-4 N	white, black, red & brown
14-6 P	black, yellow, red, green, brown & blue
14-6 N	white, black, yellow, red, green & brown
14-7 T	white, black, yellow, red, green, brown & blue
14-7 RV	white, black, yellow, red, green brown & blue
14-7 P	white, black, yellow, red, green, brown & blue
12-7 P	black, yellow, red, green, brown, blue & white (10ga.)
12-7 N	black, yellow, red, green, brown, blue & white (10ga.)

Spool Sizes	
50ft.	50
100ft.	100
500ft.	BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → **14-7 T - 100**

We also offer a large selection of 6 and 7 way trailer plugs and receptacles in addition to junction boxes and electronic brake controls in our Truck Product and Connectors section on pgs. 261-263.

ABS Trailer Cable

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -58°F to 176°F
- Features: Color coded conductors for easy ID, resistant to abrasion, oil, grease, acid & weather
- Uses: to hook trailers equipped with ABS brakes



Part Number	Wire Gauge	Stranding	Nom. O.D. (inches)	Outer Jacket
12-7 ABS	4/12ga. 2/10ga. 1/8ga.	65 x 30 105 x 30 168 x 30	.690	Green PVC

	Standard Colors
12-7 ABS	12ga.: black, brown, green & yellow; 10ga.: red & blue; 8ga.: white

Spool Sizes	
100ft.	100
500ft.	BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → **12-7 ABS - 100**

Marine Grade Wire

Single Conductor Boat Cable

- Jacket: Flame retardant PVC
- Conductor: Electro-tinned stranded copper
- Rated: -40°F to 221°F (dry), -40°F to 167°F (wet); 600 volts
- Specifications: UL 1426; RoHS compliant; meets USCG requirements
- Features: Excellent flexibility
- Uses: marine as well as automotive, heavy duty & off road applications
- 8 & 6ga. available in BLK, GRN, RED, WHT & YEL



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
16 MGR	26 x 30	.122	6000
14 MGR	41 x 30	.138	5000
12 MGR	65 x 30	.162	3500
10 MGR	105 x 30	.190	3500
8 MGR	7(24 x 30)	.270	2000
6 MGR	7(37 x 30)	.340	3500

Colors				Spool Sizes	
Black	BLK	Orange	ORG	100ft.	100
Blue	BLU	Pink	PNK	500ft.	500
Brown	BRN	Purple	PUR	1000ft.	1000
Gray	GRY	Red	RED	Bulk Reel	BULK
Green	GRN	Tan	TAN		
Lt. Blue	LBL	White	WHT		
Lt. Green	LGR	Yellow	YEL		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 16 MGR - 100 - BLK

Multi-Conductor Boat Cable

- Jacket: PVC
- Conductor: Stranded, tinned copper
- Rated: -40°F to 221°F (dry), -40°F to 167°F (wet); 600 volts
- Specifications: UL Listed (#E67078), meets SAE, ABYC & USCG requirements
- Features: Protected by a white PVC outer jacket
- Uses: boat inverters, power generators & shore power connections



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
16-2 BC	26 x 30	.190 x .310	5000
14-2 BC	41 x 30	.200 x .340	2500
12-2 BC	65 x 30	.220 x .380	5000
10-2 BC	105 x 30	.240 x .420	1000
16-3 BC	26 x 30	.190 x .430	2500
14-3 BC	41 x 30	.200 x .470	2000
12-3 BC	65 x 30	.220 x .530	1000
10-3 BC	105 x 30	.240 x .600	1000

Standard Colors		Spool Sizes	
2 conductors	black & white	100ft.	100
3 conductors	green, black & white	500ft.	500
		Bulk Reel	BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 10 - 2 BC - 100

Battery Cable

Bonded Booster Cable

- Jacket: TPR Super Flex
- Conductor: Fully annealed stranded copper
- Rated: -94°F to 221°F; 600 volts
- Features: Operating flexibility of -70°F, suitable for all weather
- Uses: making custom jumper cables. For the necessary connectors, see page 95.



Part Number	Wire Gauge	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
SF 44	4	413 x 30	.425x.975	500
SF 22	2	665 x 30	.425x1.075	500
SF 11	1	836 x 30	.530x1.025	500

Standard Colors	Spool Sizes			
Black and red jacket	12ft.	12	100ft.	100
	25ft.	25	Bulk Reel	BULK
	50ft.	50		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → SF 44 - 100

We also supply jumper cable clamps and accessories on page 113.



Light Duty Booster Cable

- Jacket: Heavy Duty PVC
- Conductor: Fully annealed stranded copper
- Rated: 176°F; 60 volts
- Specifications: SAE J1494
- Uses: tarp motors, winches & other medium duty applications



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
8-2 B	31 x 23	.320	1500
6-2 B	19 x 27	.360	1200

Standard Colors	Spool Sizes			
8-2 B black & yellow	100ft.	100	Bulk Qty.	BULK
6-2 B black & orange	500ft.	500		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 8 - 2 B - 100

Starter or Ground Battery Cable

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40°F to 221°F; 50 volts
- Specifications: SAE J1127
- Uses: all battery cable connections



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
6 PVC	49 x .0231	.301	500
4 PVC	133 x .0233	.356	500
2 PVC	133 x .0226	.420	500
1 PVC	133 x .0254	.458	500
1/0 PVC	133 x .0285	.515	500
2/0 PVC	133 x .0315	.570	500

Colors	Spool Sizes			
Red RED	25ft.	25	100ft.	100
Black BLK	50ft.	50	Bulk Reel	BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 4 PVC - 100 - RED

Combination Battery & Welding Cable

- Jacket: Ethylene Propylene Rubber
- Conductor: ASTM Class B flexible soft drawn electrolytic copper
- Rated: -40°F to 221°F; 600 volts
- Features: Resistant to abrasion, water, acids, bases, oil, salt, ozone, chemicals & UV damage
- Uses: jumper cables & battery cable connections



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
SF 6	259 x 30	.320	500
SF 4	406 x 30	.376	500
SF 2	648 x 30	.430	500
SF 1	804 x 30	.535	500
SF 1/0	1026 x 30	.560	500
SF 2/0	1273 x 30	.600	500
SF 3/0	1596 x 30	.655	500
SF 4/0	2014 x 30	.720	500

Colors		Spool Sizes	
Red	RED	25ft. 25	100ft. 100
Black	BLK	50ft. 50	Bulk Reel BULK

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → SF 2 - 50 - BLK

Can Bus Cable

Can Bus Cable

- Jacket: Exrad125 - Jacket features:
High resistance to flexing, fatigue
Strong resistance to oil
Excellent weather and chemical resistance
Very resistant to tears and physical abrasion
- Conductor: Jacket Crosslink Polyethylene
- Rated: -67°F to 257°F; **60 volts**
- Standard Approvals: SAEJ1939-11/15, ROHS
- Uses: for communication and diagnostics among vehicle components, light and heavy duty, on and off-road trucks and trailers, construction and agricultural equipment and implements, marine and stationary applications like generator sets, MIL-Spec wire



Part Number	Conductor/ Wire gauge	Shielding	Nom. O.D. (inches)
CANBS-202	2-20ga.	Shielded	.300
CANBS-182	2-18ga.	Shielded	.352
CANB-202	2-20ga.	Unshielded	.208
CANB-182	2-18ga.	Unshielded	.211

Standard Colors		Spool Sizes	
2 conductors	yellow & green	100ft. 100	500ft. 500
		1000ft. 1000	

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → CANB-202-100

Type SOOW & SJOOW

SOOW

- Jacket: Neoprene
- Conductor: Fully annealed, stranded bare copper
- Rated: -40°F to 194°F; **600 volts**
- Features: Oil resistant inner & outer insulation

SJOOW

- Jacket: Neoprene
- Conductor: Fully annealed, stranded bare copper
- Rated: -40°F to 194°F; **300 volts**
- Features: Oil resistant inner & outer insulation
- Uses: Portable appliances (all types), tools, small motors, lighting, battery chargers, garage door openers, washing machines, refrigerators & sound equipment



Types Available			
SOOW	SOOW	SJOOW	SJOOW

Standard Colors		Spool Sizes	
2 conductors	black & white	50ft.	50
3 conductors	black, white & green	100ft.	100
4 conductors	black, white, green & red	250ft.	250

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **18-2 SOOW - 100**

Part Number	Stranding	Current Amps	SOOW Nom. O.D. (inches)	SJOOW Nom. O.D. (inches)
18-2	16 x 30	10	.345	.285
18-3	16 x 30	10	.365	.305
18-4	16 x 30	7	.390	.330
16-2	26 x 30	13	.370	.310
16-3	26 x 30	13	.390	.330
16-4	26 x 30	10	.420	.365
14-2	41 x 30	18	.510	.340
14-3	41 x 30	18	.535	.365
14-4	41 x 30	15	.575	.415
12-2	65 x 30	25	.570	.410
12-3	65 x 30	25	.595	.430
12-4	65 x 30	20	.650	.475
10-3	104 x 30	30	.660	.580
10-4	104 x 30	25	.715	.655
8-3	65 x .0159	40	.855	N/A
8-4	65 x .0159	35	.950	N/A
6-3	133 x .0142	55	.995	N/A
6-4	133 x .0142	45	1.080	N/A
4-3	133 x .0179	70	1.160	N/A
4-4	133 x .0179	60	1.280	N/A
2-3	168 x .0201	95	1.335	N/A
2-4	168 x .0201	80	1.485	N/A

Can't find the cable for your application? As an authorized distributor for General Cable & Alpha Wire, we have quick & competitive access to a broad range of communication, control & coaxial cable. Call customer service for a quick response to your specialty wire & cable product questions.

Our 8ga. & heavier service cords are also available by the foot. For more details please contact your sales rep or customer service.

Industrial grade and commercial grade plugs and receptacles found on pages 208-210.



Multi-Conductor Communication Cable

- Jacket: PVC jacket, shield is 100% Flexfoil, aluminum / polyester 25% overlap
- Conductor: Fully annealed, stranded tinned copper
- Rated: -4°F to 176°F; 300 volts
- Features: Gray PVC jacket protects conductors from normal wear
- Specifications: UL Style 2464, NEC article 800 type CM, OSHA acceptable, passes CSA FTY & UL's 70,000 BTU vertical flame test, CSA PCC (CSA 140°F)

Shielded Communication Cable

- Uses: industrial equipment controls, computers, broadcast & sound systems and remote strobe systems

Part Number	Conductors / Wire Ga.-Ground	Stranding	Nom. O.D. (inches)
CCS-202	2/20ga. - 20ga.	7 x 28	.203
CCS-203	3/20ga. - 20ga.	7 x 28	.213
CCS-204	4/20ga. - 22ga.	7 x 28	.234
CCS-182	2/18ga. - 20ga.	16 x 30	.229
CCS-183	3/18ga. - 20ga.	16 x 30	.247
CCS-184	4/18ga. - 20ga.	18 x 30	.238
CCS-186	6/18ga. - 24ga.	18 x 30	.249
CCS-162	2/16ga. - 18ga.	19 x .0117	.314
CCS-163	3/16ga. - 18ga.	19 x .0117	.332



Standard Colors		Spool Sizes	
2 conductors	black & red	100ft.	100
3 conductors	black, clear & red	500ft.	500
4 conductors	black, clear, red & green	1000ft.	1000

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → **CCS - 183 - 100**

Unshielded Communication Cable

- Uses: public address systems, intercoms, internal telephones & remote control circuits

Part Number	Conductors / Wire Ga.	Stranding	Nom. O.D. (inches)
CC-202	2/20ga.	7 x 28	.192
CC-203	3/20ga.	7 x 28	.216
CC-204	4/20ga.	7 x 28	.235
CC-205	5/20ga.	7 x 28	.254
CC-207	7/20ga.	7 x 28	.275
CC-182	2/18ga.	16 x 30	.222
CC-183	3/18ga.	16 x 30	.232
CC-184	4/18ga.	16 x 30	.253
CC-185	5/18ga.	16 x 30	.275
CC-187	7/18ga.	16 x 30	.298
CC-162	2/16ga.	19 x .0117	.268
CC-163	3/16ga.	19 x .0117	.283
CC-164	4/16ga.	19 x .0117	.306
CC-165	5/16ga.	19 x .0117	.334
CC-167	7/16ga.	19 x .0117	.364



Spool Sizes Available					
100ft.	100	500ft.	500	1000ft.	1000

Standard Colors	
2 conductors	black & red
3 conductors	black, clear & red
4 conductors	black, clear, red & green
5 conductors	black, clear, red, green & brown
7 conductors	black, clear, red, green, brown, blue & orange

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:
EXAMPLE → **CC - 164 - 100**

All of the wire in this catalog is **MADE IN THE USA** and **ROHS COMPLIANT**

Coaxial Cable & Connectors

Coaxial Cable Connectors



Part Number	Cable Type	Description	Fig.
CMC-3001	58	BNC - plug crimp type	A
CMC-3002	59	BNC - plug crimp type	B
CMC-4001	58	TNC - plug crimp type	C
CMC-4002	59	TNC - plug crimp type	D
CMC-7001	6	F - series crimp type	E
CMC-7002	59	F - series crimp type	F

Single Conductor Coaxial Cable

RG-58U

- Jacket: Solid polyethylene
- Conductor: Solid bare copper
- Radio frequency & broadcast

RG-58AU

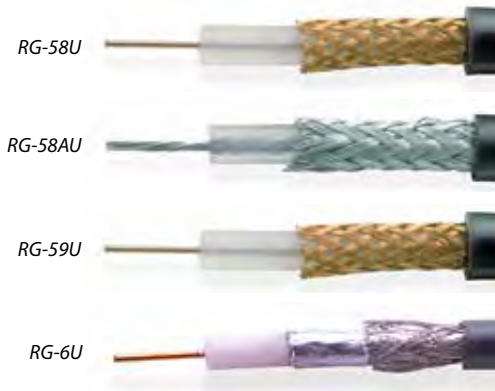
- Jacket: Solid polyethylene
- Conductor: Tinned copper
- Radio frequency & broadcast

RG-59U

- Jacket: Solid polyethylene
- Conductor: Solid copper coated steel
- RF signal transmission, CATV, MATV, local area network, citizen band radio, computer applications & cathode ray tube (CRT)

RG-6U

- Jacket: Cellular polyethylene
- Conductor: Solid copper coated steel
- RF signal transmission, digital video, CATV, MATV, local area network & FM broadcast



Spool Sizes Available			
100ft.	100	1000ft.	1000

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **RG - 58U - 1000**

Part Number	Wire Gauge	Impedance Ohms	Nom. O.D. (inches)	Jacket - Nominal % Coverage	Shield - Nominal % Coverage
RG-58U	20	53	.116	Black PVC - .195	Tinned copper braid - 81
RG-58AU	20	50	.116	Black PVC - .195	Tinned copper braid - 95
RG-59U	22	75	.146	Black PVC - .242	Bare copper braid - 95
RG-6U	18	75	.180	Black PVC - .240	Flexfoil shield - 100

Hookup Wire

TFFN & THHN Wire

- Jacket: PVC with polyamide nylon armor
- Conductor: Fully annealed bare, stranded copper
- Rated: 176°F in oil; 600 volts
- Specifications: CSA & UL Listed
- Features: Resists oils, gas, water, acid, ozone, alkalines, sunlight & abrasion
- Uses: building wire, raceways fixtures, conduit - tubing raceways & internal wiring of fixtures



Part Number	Stranding	Nom. OD (inches)	Bulk Qty. (feet)
18 TFFN	16 x 30	.090	2500
16 TFFN	19 x .0117	.104	2500
14 THHN	19 x .0147	.116	2500
12 THHN	19 x .0185	.135	2500
10 THHN	19 x .0234	.169	2500
8 THHN	19 x .0295	.216	500

Colors*				Spool Sizes*	
Black	BK	Pink	PK	500ft.	500
Blue	BU	Purple	PU	Bulk Reel	BULK
Brown	BN	Red	RD		
Gray	GY	White	WH		
Green	GN	Yellow	YE		
Orange	OR				

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 14 THHN - 500 - BU

Minimums may apply on some colors & sizes

Single Conductor Machine Tool Wire (MTW)

- Jacket: PVC
- Conductor: Fully annealed bare, stranded copper
- Rated: -40°F to 194°F; 600 volts
- Features: Resistant to oils, flame, abrasion, moisture, corrosion & heat
- Specifications: UL Listed; NMTBA type MTW/AWM; CSA AWM; passes VW-1 vertical flame test; OSHA acceptable
- Use: motor & transformer lead, external wiring of machinery & building wire



Part Number	Stranding	Nom. OD (inches)	Bulk Qty. (feet)
18 MTW	16 x 30	.110	5000
16 MTW	26 x 30	.123	5000
14 MTW	41 x 30	.136	5000
12 MTW	65 x 30	.155	2000
10 MTW	105 x 30	.179	1500
8 MTW	7 x 24 x 30	.242	500
6 MTW	7 x 37 x 30	.260	500
4 MTW	19 x .0469	.331	500

Colors*				Spool Sizes*	
Black	BLK	Orange	ORG	500ft.	500
Blue	BLU	Pink	PNK	Bulk Reel	BULK
Brown	BRN	Purple	PUR		
Gray	GRY	Red	RED		
Green	GRN	White	WHT		
Lt. Blue	LBL	Yellow	YEL		

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → 18 MTW - 500 - ORG

Minimums may apply on some colors & sizes

Speaker Wire - Type PLT-1

- Jacket: PVC
- Conductor: Fully annealed, 1 bare & 1 tinned stranded copper
- Features: Extra flexible for easy handling & installation
- Uses: stereo speaker wire, but also in lamps, radios & jukeboxes



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
22-2 SW	7x30	.070 x .145	5000
20-2 SW	10x30	.090 x .182	5000
18-2 SW	16x30	.095 x .192	5000
16-2 SW	26x30	.120 x .210	4000
14-2 SW	41x30	.140 x .285	3000
12-2 SW	65x30	.150 x .300	-
10-2 SW	413x36	.240 x .485	-

Standard Colors
Clear PVC, with 1 bare & 1 tinned copper conductor (for polarity)

Spool Sizes
100ft. **100** 1000ft. **1000**
250ft. **250** Bulk **BULK**
500ft. **500** Reel

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **22 - 2 SW - 100**

Lamp / Appliance Cord

- Jacket: PVC
- Conductor: Fully annealed, stranded, bare copper
- Rated: -4°F to 140°F ; 300 volts; 10 amps
- Specifications: UL & CSA Listed
- Features: Type SPT-1; polarity ridged jacket for easy ID
- Uses: lamps, as well as in stereos & jukeboxes



Colors
Black **BLK** White **WHT**
Brown **BRN**

Spool Sizes
250ft. **250**

Part Number	Stranding	Nom. O.D. (inches)
18-2 LC	41x34	.107 x .210

To indicate the correct part number, use the part number shown in black along with the quantity and/or color abbreviation shown in red:

EXAMPLE → **18 - 2 LC - 250 - WHT**

For additional information on our wire racks and holders, see page 472 or inquire with your local sales rep. or customer service.

GRN-9505



GRN-9510



GRN-909



WSR



WSR-2

WSR-1

Fusible Link Wire

- A fusible link is a special section of low tension cable installed by an OEM
- Designed to open a circuit when subjected to extreme current overload
- Note: extreme care should be taken to always replace a fusible link with the same gauge & length installed by the manufacturer
- Available only in 25ft. spools
- Colors may vary



Part Number	Wire Gauge
FLW-20	20
FLW-18	18
FLW-16	16
FLW-14	14
FLW-10	10
FLW-8	8

Test Lead Wire

- Jacket: PVC
- Conductor: Stranded, tinned, soft copper
- Rated: -13°F to 140°F ; 5000 volts (working voltage, intermittent use only), 20000 volts (breakdown voltage)
- Features: Durable insulation with high gloss finish
- Uses: applications requiring extra flexible insulated wire, including multimeters, analyzers & oscillators



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
TLW-50	65 x 36	.145	50

Standard Colors
Supplied in one bag with lengths of 25ft. red & 25ft. black, for a total of 50ft.

Wire Markers

Rite-On Wire Markers



- Comes with reloadable dispenser made from high impact plastic that is oil & grease resistant
- Label window holds label in place so you can write with ease

Part Number	Print Area W x L	Marker Size W x L	Wire Range
RO-175	3/4" x 3/4"	3/4" x 3"	4ga. - 4/0ga.
175-REF	Self-laminating refills		

Wire Markers, cont'd

ScotchCode™ Wire Marker Tapes & Dispenser

- Compact, convenient & refillable
- Each roll is .215"W x 8"L



Part Number	Description
STD	10 compartment dispenser (empty)
STD-0-9	Dispenser filled w/ 10 tapes numbered 0 thru 9
STD-C	Dispenser filled w/ colored tapes: black, blue, brown, green, gray, orange, red, violet, white & yellow
SER-	Numbered tapes 0-9 sold separately. To order add desired number after the prefix. EX: SER-8
SER-	Lettered tapes A-Z sold separately. To order add desired letter after the prefix. EX: SER-H
SER-	Numbered tapes sold in groups of 10 consecutive numbers, 0-9 thru 90-99. To order add the desired grouping after the prefix. EX: SER-40-49

Custom Wire Harness & Cable Assembly Production



TSC Manufacturing is an ISO 9001 Approved and WHMA-A-620 Trained Manufacturer. We have been providing the highest quality products at competitive pricing for the past 20 years. Our manufacturing operation has expanded from 1,500 sq. ft. to 30,000 sq. ft. over that time. Our vast experience enables us to offer services to many industries including specialty vehicle, vocational truck, automotive aftermarket, military and defense, and transportation. Our capabilities include but are not limited to:

- **Manufacturing**
- **Research & Design**
- **Custom Kitting**

Specialized Equipment


- IPC/WHMA-A-620 Trained
- Automated Crimp Tooling for 100+ Terminals, (Delphi, Aptiv, FCI, Amp, TE, Deutsch, Molex, Yazaki)
- 200+ Rennsteig Hand Crimp Dies for 500+ Terminals, (Delphi, Aptiv, FCI, Amp, TE, Deutsch, Molex, Yazaki, Sumitomo, Bosch)
- Diamond Die, Schleuniger, and Mecal Benchtop Crimp Presses
- Heavy Duty Pneumatic Crimp Tooling for Battery Cables
- Schleuniger Cut and Strip Machines with Inkjet Printers
- Schleuniger Cut, Strip, and Crimp Machine with Inkjet Printers
- Stapla Ultra Sonic Welders
- Cam Innovations Harness Tape Machines
- Wardwell New England Butt 24 Carrier Braid Machines
- Dynalab Continuity Testing Equipment
- Mark-10 Pull Testing Equipment

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Terminal Blocks, Tabs & Hardware

Closed Back Terminal Blocks

- Screws & terminals are nickel plated steel, stainless steel available as special order, minimums may apply
- Most series are available in up to 30 sections
- All are UL Listed & CSA Certified



Part Number	# of Sections	Length Between Mounting Holes (inches)	Overall Length (inches)	Description
37002	2	1-1/8	1-13/32	UL Listed: XCFR2.E47811
37003	3	1-1/2	1-25/32	CSA Certified: LR19766
37004	4	1-7/8	2-5/32	Volts: 300 AC/DC
37006	6	2-5/8	2-29/32	Amps: 15
37008	8	3-3/8	3-21/32	Wire Gauge: 22-16
37009	9	3-3/4	4-1/32	Overall Width: 7/8"
37012	12	4-7/8	5-5/32	Overall Height: 29/64"
38002	2	1-5/16	1-5/8	Terminal Spacing: 3/8"
38003	3	1-3/4	2-1/16	Screw Stud Size: 6-32
38004	4	2-3/16	2-1/2	Base: Thermoplastic, rated to 266°F
38005	5	2-5/8	2-15/16	UL Listed: XCFR2.E62806
38006	6	3-1/16	3-3/8	CSA Certified: LR19766
38007	7	3-1/2	3-13/16	Volts: 300 AC/DC
38008	8	3-15/16	4-1/4	Amps: 30
38009	9	4-3/8	4-11/16	Wire Gauge: 22-14
38012	12	5-11/16	6	Overall Width: 1-1/8"
39006	6	3-15/16	4-11/32	Overall Height: 17/32"
39008	8	5-1/16	5-15/32	Terminal Spacing: 7/16"
39010	10	6-3/16	6-19/32	Screw Stud Size: 6-32
				Base: General purpose phenolic, rated to 302°F
				UL Listed: XCFR2.E47811
				CSA Certified: LR19766
				Volts: 600 AC/DC
				Amps: 30
				Wire Gauge: 14-12
				Overall Width: 1-5/16"
				Overall Height: 23/32"
				Terminal Spacing: 9/16"
				Screw Stud Size: 8-32
				Base: General purpose phenolic, rated to 302°F

Common BusBars

Screw Terminal BusBar

- Solid brass busbar safely carries up to 150A
- #8-32 round head screws for attachment of wires
- Two mounting holes accept #10 countersunk flathead screws
- Moisture-resistant molded thermoplastic insulator base



Part Number	Gang	Size L x W x H	Mounting Centers
CH-M-449	10	5-3/4" x 1-1/4" x 1-1/32"	5.19"

Stud Terminal BusBar

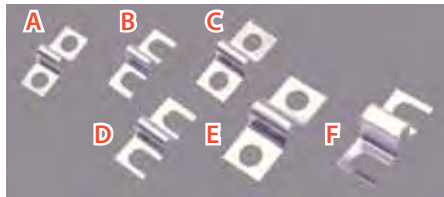
- Solid brass busbar
- Four #10-32 stud terminal w/ hex nuts & lock washers
- Two mounting holes accept 3/16" screws
- Moisture-resistant molded thermoplastic base



Part Number	Gang	Size L x W x H	Mounting Centers
CH-46206-04	4	3-7/8" x 5/8" x 27/32"	3.125"

Terminal Block Tabs

Over the Barrier Jumpers



Part Number	Style	Volts	Amps	For Series	Fig.
3710	#6 Ring	150	15	37000	A
3712	#6 Spade	150	15	37000	B
3810	#6 Ring	250	20	38000	C
3812	#6 Spade	250	20	38000	D
3910	#8 Ring	600	30	39000	E
3912	#8 Spade	600	30	39000	F

Quick Disconnect Terminal Block Tabs

- All tabs are .250" x .032"
- Rated at 250 volts, 20 amps
- For 38000 series



Part Number	Style	Description	Fig.
3520	2 end tab	Flat	A
3522	2 end tab	45° angle	B
3529	1 end tab	Flat	C
3532	1 end tab	90° angle	D
3531	1 end tab	45° angle	E
3820	2 end tab	Flat	F
3822	2 end tab	45° angle	G
3823	2 end tab	90° angle	H
3831	1 end tab	45° angle	I

Stud Type Terminal Blocks



Part Number	# of Sections	Length Between Mounting Holes (inches)	Overall Length (inches)	Description
TB-1	1	1-3/8	2-1/4	Rated: 250A / 600V Stud Size: 3/8"-16 x 7/8"
TB-1-RED	1	1-3/8	2-1/4	
TB-2	2	2-1/4	3	Rated: 30A / 600V Stud Size: #10-24 x 1/2"
TB-3	3	3	3-3/4	
TB-4	4	3-3/4	4-1/2	
TB-5	5	4-1/2	5-1/4	
TB-6	6	5-1/4	6	
TB-8	8	6-3/4	7-1/2	

For replacement nuts for these terminal blocks, see page 393 for a full selection of our keps nuts (KNC-3/8 & KNC-10)

Pilot & Panel Lights

Incandescent Pilot Lights

3/4" Mounting Stem

- 3/4" dia. x 11/16" long mounting stem
- Chrome plated brass bezel, 7/8" dia.
- Lens dia. 17/32"
- Have an extra wire for grounding
- Replacement lamp is 53L-12V



Part Number	Color	Connection
CH-PL-20-AC	Amber	2/16ga. - 8"
CH-PL-20-GC	Green	2/16ga. - 8"
CH-PL-20-RC	Red	2/16ga. - 8"

7/8" Mounting Stem

- 7/8" dia. x 3/4" long mounting stem
- Plated brass bezel, 1-1/4" dia.
- Lens dia. 15/16"
- Replacement lamp is 68L-12V



Part Number	Color	Connection
CH-PL-86-AC	Amber	2 - 16ga., 8" wire leads
CH-PL-86-GC	Green	2 - 16ga., 8" wire leads
CH-PL-86-RC	Red	2 - 16ga., 8" wire leads

LED Pilot Lights

1/2" Mounting Stem

- 1/2" dia. mounting stem
- Rated: 14 volt



Part Number	Color	Connection
LI-AMBER-LED	Amber	2 - 16ga., 7" wire leads
LI-CLEAR-LED	Clear	2 - 16ga., 7" wire leads
LI-RED-LED	Red	2 - 16ga., 7" wire leads

LED pilot lights are a terrific choice, as they are shock & vibration proof, making them very long lasting.

1/2" Mounting Stem, Snap-In

- 1/2" dia. mounting stem
- 5/8" dia. bezel
- Rated: 12V



Part Number	Color	Connection
CH-PL-524-AC	Amber	.25" quick connect terminals
CH-PL-524-BC	Blue	.25" quick connect terminals
CH-PL-524-GC	Green	.25" quick connect terminals
CH-PL-524-RC	Red	.25" quick connect terminals

1/2" Mounting Stem

- .5" dia. x 1.248" long body
- .63" dia. bezel
- Fits panels 0.02" thru 0.30" thick
- Rated: 12V



Part Number	Color	Connection
CH-PL-612-A	Amber	.25" quick connect terminals
CH-PL-612-B	Blue	.25" quick connect terminals
CH-PL-612-G	Green	.25" quick connect terminals
CH-PL-612-R	Red	.25" quick connect terminals

Are you are looking for another style of pilot light not shown in our full line catalog?

We can assist you with locating the style you require. Contact your local Sales Rep., our Customer Service Department at 1-800-989-9632, or email sales@Go2TSC.com with your request.

Solenoids

Solid State Relay - Electronic Solenoid Switch

- Less susceptible to vibration- all electronic, no moving parts to wear out
- 16ga. standard ON/OFF control wires
- 5/16"-18 contact terminals
- Control current: .02 amps max.
- Low 'on' resistance: .005 amps



Part Number	Grounded / Insulated	Circuit	Volts	Continuous Amp Rating	Intermittent Amp Rating	Temperature Rating	Dimensions L x W x H	Housing Type
CH-48785	Insulated	SPST	9-31	85	175	-40 to 185°F	5" x 3" x 2.9"	Steel

Motor Reversing Solenoid

- For reversing motors such as hoists, winches, windlasses and snowplow blades
- 4 5/16"-24" copper studs
- 2-coil male quick disconnect terminals 1/4" tab
- Coil type (common ground)
- Use with SPDT momentary switch rocker, CH-58027 or toggle CH-55021

Part Number	Circuit	Volts	Continuous Amp Rating	Dimensions L x W x H
CH-24450	DPDT	12	75	5.009" x 3.285" x 3.012"



Latching (Continuous) Solenoids

- Solenoids have 5/16-24 contact terminals & a 10-32 ignition terminal
- Bracket mounting holes: 5/16" x 19/32", 2-13/64" on centers
- Requires less than 3.5 amps to operate
- Can be used as a remote battery isolator or a remote battery disconnect switch
- Can be used with momentary switches CH-55037 or CH-58027-02

Part Number	Grounded / Insulated	Circuit	Volts	Continuous Amp Rating	Housing Type
CH-24200	Insulated	SPST	12	110	Steel



Solenoids: What are they & how do they work?

A solenoid is an electromagnetic relay used in a direct current wiring system between a low current capacity switch & a high current load requirement. In an engine starting system, the starting position of an ignition switch might have a rating of 5 amps, while the starter motor might have an initial cranking requirement of 200 to 350 amps. The ignition switch energizes the solenoid coil which moves the high current capacity contact to a closed position, thereby energizes the starter motor.

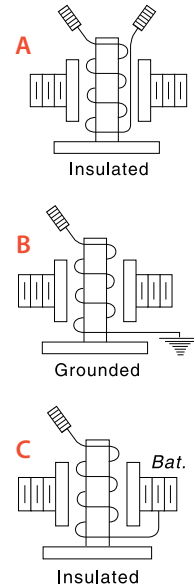
The application above would use an INTERMITTENT solenoid, meaning it could carry a high rating to meet the short demand of starting the engine, but only for up to 15 seconds during each start. If the starter was run continuously, the solenoid would overheat & fail, as would the starter. A CONTINUOUS solenoid is constructed so that it can be energized continuously without overheating its windings.

Continuous Solenoids

- Solenoids have 5/16"-24 contact terminals & a #10-32 ignition terminal
- Bracket mounting holes: 5/16" x 19/32", 2-13/64" on centers

Part Number	Circuit Configuration	Circuit	Volts	Continuous Amp Rating	Make / Break Amp Rating	Housing Type	Fig.
CH-24213	Insulated	SPST	12	200	-	Steel	A
CH-24214	Insulated	SPST	24	200	-	Steel	A
CH-24401	Insulated	SPDT	12	85 / 35	85 / 35	Steel	B
CH-24401-04	Insulated	SPDT	12	85 / 35	85 / 35	Plasticized	-
CH-24402	Insulated	SPDT	24	85 / 35	85 / 35	Steel	-
CH-24401-01	Grounded	SPDT	12	85 / 35	85 / 35	Steel	-
CH-24063	Insulated	SPST	24	85	120 / 65	Steel	A
CH-24063-08	Insulated	SPST	24	65	65 / 65	Plasticized	A
CH-24106	Grounded	SPST	12	85	85 / 85	Steel	B
CH-24082	Grounded	SPST	12	85	85 / 85	Steel	B
CH-24115	Insulated	SPST	12	85	85 / 85	Steel	C
CH-24059	Insulated	SPST	12	85	85 / 85	Steel	A
CH-24117	Insulated	SPST	12	85	85 / 85	Plasticized	A
CH-24117-01	Insulated	SPST	12	65	85 / 85	Plasticized	A
CH-24059-08	Insulated	SPST	12	65	65 / 65	Steel	A

Circuit Configuration



Intermittent Solenoids

- Solenoids have 5/16"-24 contact terminals & a #10-32 ignition terminal
- Bracket mounting holes: 5/16" x 19/32", 2-13/64" on centers (CH-24023 is 2-9/16" on centers)

Part Number	Circuit Configuration	Circuit	Volts	Make / Break Amp Rating	Housing Type	Intermittent Time	Fig.
CH-24037	Grounded	SPST	12	750 / 100	Steel	10sec. ON - 20min. OFF	B
CH-24022	Grounded	SPST	12	750 / 100	Phenolic		B
CH-24071	Grounded	SPST	12	750 / 100	Plasticized		B
CH-24044	Grounded	SPST	12	750 / 100	Steel		B
CH-24047	Insulated	SPST	12	750 / 100	Steel		A
CH-24023	Insulated	SPST	12	750 / 100	Phenolic		A
CH-24076	Insulated	SPST	12	750 / 100	Plasticized		A
CH-24060	Insulated	SPST	12	750 / 100	Steel		C

Housing Type



Heavy Duty Plastic Body Continuous Solenoids

- Solenoids have 5/16"-24 contact terminals & a #10-32 ignition & ground terminals or .250" male quick disconnects
- Bracket mounting holes: 5/16" x 19/32", 2-13/64" on centers

Part Number	Circuit Configuration	Circuit	Volts	Make / Break	Housing Type	Mounting Bracket	Fig.
CH-24824-01	Insulated	SPST	24	600 / 225	Plastic	L-Bracket	A
CH-24812	Insulated	SPST	12	600 / 225	Plastic	L-Bracket	A
CH-24612-10	Grounded	SPST	12	400 / 100	Plastic	F-Bracket	B
CH-24512-10	Insulated	SPST	12	400 / 100	Plastic	F-Bracket	C



Multi-Function Jump Starter / Personal Power Supply

- Jump starts: cars, trucks, motorcycles, ATVs, UTVs, snowmobiles & watercraft
- Charges & powers: iPads, cell phones, kindles, PSPs, PDAs, cameras, & more
- Onboard hi-power LED flash light w/ two built in flash patterns w/ S.O.S. beacon
- Built in over-charge & over-discharge protections
- Comes with: carry case, mini jumper clamps, home charger, mobile charger for cigarette lighter



Part Number	Amps	Ports	Cables	Size (L x W x H)	Weight	Fig.
AGBMS-XP-1	200 Amp - 400 Peak Amp jump starting ability	2 - 5V USB ports 1 - 12V port 1 - 19V port	1 - universal laptop cable w/ 8 detachable tips 1 - universal 12V accessory cable 1 - universal 4 into 1 USB cable for 5V accessories	6.25" x 3.25" x 1"	15.25 oz.	A
AGBMS-XP-10	300 Amp - 600 Peak Amp jump starting ability	2 - 5V USB ports 1 - 12V port 1 - 19V port	1 - universal laptop cable w/ 8 detachable tips 1 - universal 12V accessory cable 1 - universal 4 into 1 USB cable for 5V accessories	9" x 3.2" x 1.2"	18oz.	B
TS-MSC-XP-1			Replacement clamps for AGBMS-XP-1			
TS-MSC-XP-10			Replacement clamps for AGBMS-XP-10			

Memory Saver Cable

- › Works w/ MICRO-START power supplies AGBMS-XP-1 & AGBMS-XP-10 (NOT compatible w/ AGBMS-XP-3)
- › Keeps your vehicles settings while changing the battery



Part Number	Description
AG-MSA22	3 foot cable

Battery Isolators

Standard Battery Isolators

- Isolates each battery to prevent the battery with the higher charge from draining into the battery with the lower charge.
- Allows two batteries to charge simultaneously from a single power source



CH-48122 is for use with Delcotron Series CS Alternators & includes an extra ignition connection terminal. It connects to a terminal or wire that is switched by the ignition switch.

Part Number	Max Alternator Rating (amps)	Volts	Terminal Style	Dimensions L x W x H	Fig.
CH-48120	140	12-36	3-5/16" studs	6" x 4-3/16" x 3-11/32"	A
CH-48160	200	12-36	3-5/16" studs	8-1/2" x 4-3/16" x 3-13/32"	B
CH-48122	140	12-36	3-5/16" studs & 1-#10 stud	6" x 4-3/16" x 3-11/32"	C

Smart Battery Isolators

- Works with all alternator types
- Smaller, lighter, less heat generated
- LED status indicator
- No diode efficiency losses
- Reduces charging system workload by not connecting auxiliary battery until primary battery is charged to 13.2volts.
- Prevents load on auxiliary battery from draining the starting battery
- Allows bi-directional charging from alternator or from shore/campground power charger/converter when available
- Optional start assist - Momentary switch (not included) allows the auxiliary battery to assist the starting battery
- Mounting: 5/16" x 19/32" mounting holes on 2-13/64" centers



Part Number	Max Alternator Rating (amps)	Volts	Terminal Style	Dimensions L x W x H
CH-48525	85	9-16	Two 5/16 - 24 copper power studs; two 10-24 top studs	3.27" x 3.34" x 2.93" including base
CH-48530	200	9-16		

For the correct momentary switch to complete your setup, use our Weather Resistant Push Button Switch (CH-M-626) on page 194.

Terminal Supply Co is a full line Littelfuse & Cole Hersee distributor. If you don't see what you're looking for here, please contact your local sales rep or customer service and they will find the part to exactly fit your needs.

Power Inverters

Pure Sine Inverters

- Suitable for laptops, diagnostic & office equipment & all other consumer electronics
- See below for installation kits & accessories
- Remotes listed are sold separately



Part Number	Output Wattage	Surge Wattage	Voltage	Dimensions L x W x H	Weight	Outlets	DC Connect (12V)	Remotes
GP-ISW200-12	200	250	12	7.9"x5.2"x2.8"	5.9lbs.	2	Lighter plug	Option for 2-wire switch
GP-ISW200-24	200	250	24	7.9"x5.2"x2.8"	5.9lbs.	2		
GP-ISW400-12	400	800	12	9.3"x6.1"x2.8"	7.7lbs.	2 GFCI	Anderson lug terminals	
GP-ISW400-24	400	800	24	9.3"x6.1"x2.8"	7.7lbs.	2 GFCI		
GP-ISW700	700	1200	12	13.0"x7.9"x3.3"	5.7lbs.	2 GFCI	GP-DC-KIT2	GP-ISW-R / GP-SWR-A
GP-ISW1000	1000	1750	12	14.7"x7.9"x3.3"	7.2lbs.	2 GFCI	GP-DC-KIT2	GP-ISW-R / GP-SWR-A
GP-ISW1500	1500	2650	12	16.6"x9.8"x3.3"	9.1lbs.	2 GFCI	GP-DC-KIT3	GP-ISW-R / GP-SWR-A
GP-ISW2000	2000	3500	12	17.5"x9.8"x3.3"	11.6lbs.	2 GFCI+HW	GP-DC-KIT4	GP-ISW-R / GP-SWR-A
GP-ISW3000	3000	6000	12	17.4"x10.0"x6.2"	18.1lbs.	HW	GP-DC-KIT5	GP-ISW-R / GP-SWR-A

Modified Sine Inverters

- Suitable for power tools & less precise equipment
- Rated: 12V
- See below for installation kits & accessories
- Remotes listed are sold separately



Part Number	Output Wattage	Surge Wattage	Dimensions L x W x H	Weight	Outlets	DC Connect (12V)	Remotes
GP-225HD	25	450	5.3"x3.9"x2.1"	1.0lbs.	2	Lighter plug	N/A
GP-400HD	400	800	6.5"x4.3"x2.6"	1.5lbs.	2	Lighter plug	N/A
GP-800HD	800	1600	7.5"x4.9"x3.0"	2.3lbs.	2	GP-DC-KIT2	GP-REMOTE
GP-1000HD	1000	2000	9.4"x4.9"x3.0"	3.1lbs.	2	GP-DC-KIT2	GP-REMOTE
GP-1750HD	1750	3500	8.1"x8.9"x3.5"	6.2lbs.	3	GP-DC-KIT3	GP-REMOTE
GP-3000HD	3000	6000	11.4"x10.0"x4.1"	10.5lbs.	4 + HW	GP-DC-KIT5	GP-REMOTE
GP-5000HD	5000	10000	18.5"x9.9"x4.1"	15.7lbs.	4 + HW	GP-DC-KIT5	GP-REMOTE

ELECTRICAL PRODUCTS

Pure & Modified Sine Accessories

Installation Kits

- Includes 10' battery cables, tie downs, lugs, appropriate inverter fuse & mounting block



Part Number	Inverter Size
GP-DC-KIT2	600W - 1000W
GP-DC-KIT3	1100W - 1800W
GP-DC-KIT4	2000W - 2500W
GP-DC-KIT5	2600W - 3000W

Pure Sine vs. Modified Sine Power

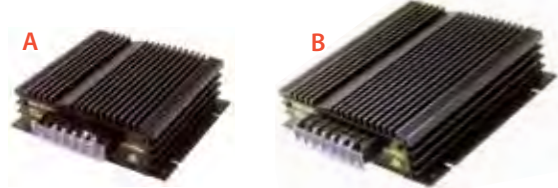
A modified sine power inverter works well for most uses & is the most common type of inverter on the market. It is also the most economical choice of the two. If you are mostly running things like lights, TVs, microwaves & tools, a modified sine power inverter will suit your needs.

Pure sine power inverters produce AC power that is exactly like, utility-supplied electrical power. This makes them better suited to run sensitive electronic items, such as laptops, stereos, laser printers, medical equipment & variable speed or rechargeable tools. The "clean" power produced by pure sine inverters allows for less distortion, audible & electrical noise, glitches & crashes in your electronic equipment.

If you have any questions regarding which power inverter is right for your application, talk to your local sales rep or call customer service.

Heavy Duty Inverters

- Powers: lift trucks, golf carts, electronic vehicles
- Designed for applications requiring a 12 volt power source converted from a 24 volt battery



Part Number	Input / Output	Current Continuous	Current Limit	Size (H x W x L)	Fig.
TS-N2412-12	22-32VDC / 13.8VDC	10 amps	12 amps	2" x 6.2" x 6"	A
TS-N2412-24	22-32VDC / 13.8VDC	20 amps	24 amps	2" x 6.2" x 7"	B

24-12 Volt DC Converters



- Reliably converts 24 volts DC to 12 volts DC so that 12V devices can operate in 24V construction equipment, trucks, RVs & buses
- >90% power conversion efficiency
- Built-in over/under voltage input & overload protection
- Die cast aluminum housing, epoxy sealed
- 100% waterproof

Part Number	Max Amps	Size (H x W x L)	Fig.
A2-2412-20	20	1-1/16" x 2-7/8" x 2-15/16"	A

AC to DC Converters



- Converts 110VAC to 12VDC
- Crowbar overvoltage protection prevents damage to connected equipment due to overvoltage
- Automatic time-controlled overcurrent protection in case of overload
- Solid state, integrated circuit maintains excellent regulation of output voltage

Part Number	Output	Size (H x W x L)
EC-EC20	20 Amps	6" x 6" x 10"

Clips

- When ordering sets of clips with covers, they come with 5 red covers, 5 black covers & 10 clips
- When ordering part numbers without covers, supplied individually

1-11/16" Overall Length - 5/16" Jaw Opening



Part Number	Description	Amps	Clip Material
593	Clip	5	Steel
593C	Clip	10	Copper
593-COV	Clips w/ covers (10)	5	Steel
593C-COV	Clips w/ covers (10)	10	Copper
72 COVER-RED	Red replacement cover		
72 COVER-BLK	Black replacement cover		

1-31/32" Overall Length - 5/16" Jaw Opening

- #6 screw eliminates need for soldering or crimping



Part Number	Description	Amps	Clip Material
60S	Clip	10	Steel
60SC	Clip	10	Copper
60S-COV	Clips w/ covers (10)	10	Steel
60SC-COV	Clips w/ covers (10)	10	Copper
62 COVER-RED	Red replacement cover		
62 COVER-BLK	Black replacement cover		

2" Overall Length - 7/16" Jaw Opening

- Automotive analyzer clip



Part Number	Description	Amps	Clip Material
594	Clip	10	Steel
594-COV	Clips w/ covers (10)	10	Steel
49 COVER-RED	Red replacement cover		
49 COVER-BLK	Black replacement cover		

2.4" Overall Length - 5/8" Jaw Opening

- General purpose clip designed for electronic ignition testers & other automotive applications



Part Number	Description	Amps	Clip Material
27C	Clip	20	Steel
27C-C	Clip	40	Copper
27C-COV	Clips w/ covers (10)	20	Steel
27C-C-COV	Clips w/ covers (10)	40	Copper
29 COVER-RED	Red replacement cover		
29 COVER-BLK	Black replacement cover		

We offer a variety of the clips you see in this section in one box. Check out our Clip Kit (CLIP-KIT).

Clips, cont'd

2-27/32" Overall Length - 3/4" Jaw Opening

- Heavy duty clip designed for battery operated equipment, charger & trouble lights
- Teeth are designed to latch securely on battery posts



Part Number	Description	Amps	Clip Material
595	Clip	25	Steel
595-COV	Clips w/ covers (10)	25	Steel
26 COVER-RED	Red replacement cover		
26 COVER-BLK	Black replacement cover		

4-1/4" Overall Length - 1-1/16" Jaw Opening

- Heavy duty clip for battery & test work



Part Number	Description	Amps	Clip Material
21C	Clip	50	Steel
21C-C	Clip	100	Copper
21C-COV	Clips w/ covers (10)	50	Steel
21C-C-COV	Clips w/ covers (10)	100	Copper
23 COVER-RED	Red replacement cover		
23 COVER-BLK	Black replacement cover		

2-13/16" Over Length - 1-1/8" Jaw Opening

- Miniature plier-type clamp
- Can use up to 8ga. wire



Part Number	Description	Amps	Material
46C-RED	Red Clip	75	Copper
46C-BLK	Black Clip	75	Copper

We also offer high amp jumper cable ends. To see what we stock, check out page 113 for all of the info.

3" Overall Length - 3/4" Jaw Opening

- Teeth mesh on all three sides
- Crimp or screw connection



Part Number	Description	Amps	Clip Material
25C	Clip	40	Steel
25C-C	Clip	75	Copper
25C-COV	Clips w/ covers (10)	40	Steel
25C-C-COV	Clips w/ covers (10)	75	Copper
26 COVER-RED	Red replacement cover		
26 COVER-BLK	Black replacement cover		

6" Overall Length - 1-5/8" Jaw Opening

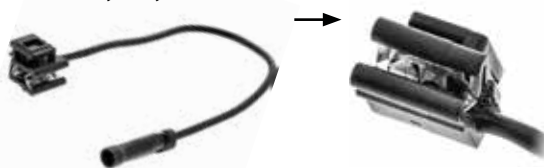
- Heavy duty clip designed for fast charges & heavy grounding applications



Part Number	Description	Amps	Clip Material
BU-11CPN	Clips	200	Copper
BU-11CPN-RC	Clip w/ red covers	200	Copper
BU-11CPN-BC	Clip w/ black covers	200	Copper
13 COVER-RED	Red replacement cover		
13 COVER-BLK	Black replacement cover		


6" Overall Length - 1-5/8" Jaw Opening

- Create a ground w/ any piece of sheet metal, w/o drilling or cutting
- Max panel thickness: .156"
- 4-way slotted design for using a cable tie in virtually any direction




Part Number	Description
GT-218	6" 18ga. lead w/ pre-crimped butt connector


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Glass Fuses & Accessories

Glass Fuses

AGW Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V / 1-30A	1/4" x 7/8"	AGW	303

AGC Glass Fuses



- Fast acting for max protection
- Broad amp range for improved compatibility
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1/4-3A 32V / 4-35A	1/4" x 1-1/4"	AGC	312: 1/4-10amp 311: 12-30amp

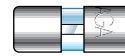
AGX Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1/8-2A 125V / 2 1/2-6A 32V / 8-30A	1/4" x 1"	AGX	362

AGA Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V / 1-30A	1/4" x 5/8"	AGA	301

GMA Glass Fuses



- Fast acting for max protection
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1/10-3A 125V / 4-6A	5mm x 20mm	GMA	235

AGU Glass Fuses



- Fast acting for max protection
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1-5A 32V / 10-60A	13/32" x 1 1/2"	AGU	BLF/BFN: 1-30amp 511: 35-60amp

SFE Glass Fuses



- Fast acting for max protection
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V / 4A	1/4" x 5/8"	SFE	307
32V / 6A	1/4" x 3/4"		
32V / 7-1/2A	1/4" x 7/8"		
32V / 9A	1/4" x 1"		
32V / 14A	1/4" x 1 1/16"		
32V / 20A	1/4" x 1 1/4"		
32V / 30A	1/4" x 1 7/16"		

MDL Glass Fuses



- Time delay allows close sizing on inductive circuits
- Broad amp range allows improved compatibility
- Actual parts may not be exactly as pictured
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1/100-7A 32V / 8-30A	1/4" x 1 1/4"	MDL	313

Glass fuses on this page are packed in quantities of 50. For ordering the correct glass fuse part number, use the fuse prefix, along with the amperage size needed. Refer to the following examples:

Bulk packages of 50pcs.
For 5 packs:

AGC - 20
SFE - 20 - 5PK

For a variety of our most popular fuses in one box, take a look at our Glass Fuse Kit (GLASS-FUSE-KIT) on page 462.

Glass Fuse Blocks

AGC Style Fuse Blocks



- Nickel plated brass spring clips rated for currents
- Accepts all 1-1/4" length - 1/4" dia. fuses
- 250 volt, up to 20 amp

Part Number	Length x Width (inches)	Number of Poles
FB-1	.78 x 2.38	1
FB-2	1.69 x 2.38	2
FB-3	2.59 x 2.38	3
FB-4	3.50 x 2.38	4
FB-6	5.31 x 2.38	6
FB-8	7.12 x 2.38	8
FB-10	8.94 x 2.38	10
FB-12	10.75 x 2.38	12

Common Feed Fuse Blocks



- Accepts all 1-1/4" length - 1/4" dia. fuses
- 300 volt, up to 20 amp

Part Number	Length x Width (inches)	Number of Poles
FB-4CF	3 x 2.5	4
CH-M-647-01	8.75 x 2.25	12

In Line Glass Fuse Holders



Fuses not included

Part Number	Wire Ga.	Description	Works With	Fig.
AFH	16-12	Nylon, universal & easy to crimp. Pull force: 5lbs min to separate w/ fuse inside	1/4" dia. 7/8" to 1-1/4" length 30amp, 32 volt	A
HFB	18-12	Rubber, shock resistant. Resists water, salt spray, UV light, ozone & many organic solvents. Temp range: -40° to 302°F	1/4" dia. 1-1/4" length 30amp, 32 volt	B



Part Number	Wire Ga.	Description	Supplied With	Fig.
TS-95-14	14	Orange wire loop	AGC-15	A
FH-12	12	Red wire leads	AGC-30	B
FH	14	Black wire leads	SFE-20	C



Fuses not included

Part Number	Wire Ga.	Description	Works With
150145	14	15" black wire loop Universal retainer w/ spring	AGC-20 SFE-20

Panel Mount Glass Fuse Holders

- 250 volt; 20 amp
- Temperature range: -40° to 185°F
- UL Listed; CSA Certified
- All work with AGC, MDL or the SFE-20 fuses
- Bussmann: Tin plated brass terminals, neoprene washer & plastic hex nut; supplied unassembled
- Littelfuse: Tin or nickel plated copper alloy terminals, neoprene washer & metal hex nut; supplied unassembled

Fluted Knob



LITTELFUSE			
Part Number	Length (inches)	Max Panel Thickness	Type of Terminal
342038	1.78	.187	3/16" Q.C
342838	1.78	.187	1/4" Q.C.
342828	1.78	.187	1/4" 90° Q.C.

Low Profile



BUSSMANN			
Part Number	Length (inches)	Max Panel Thickness	Type of Terminal
HTB-22I	1.595	.3	3/16" Q.C
HTB-26I	1.595	.3	1/4" Q.C.



LITTELFUSE			
Part Number	Length (inches)	Max Panel Thickness	Type of Terminal
342048	1.78	.187	3/16" 90° Q.C
342858	1.78	.187	1/4" Q.C.
342848	1.78	.187	1/4" 90° Q.C.

Battery Mounted Fuse Holder with Busbar

- 4-pole fuse holder for M6 ZCASE fuses designed to be used as a battery strap to connect the positive posts of two Group 31 batteries
- Temp rating: -40° to 260°F
- Provides 4 individual fused outputs in a convenient linear setup



Part Number	Max Amps	Volts	Temp.	Description
FHZ-410	400	32	85°C to -40°C	4-position battery mounted fuse holder with Busbar

Z Case Bolt-Down Fuses

- Designed for a one bolt connection M6 (125-250A) or M8 (300-400A) and can be used directly on a battery post or busbar connection.
- Operating temperature: -40° to 125°F
- Voltage rating characteristics: 32V AC/DC, Slo-Blo®



Part Number	Amps
ZCASE-80	80
ZCASE-100	100
ZCASE-125	125
ZCASE-150	150
ZCASE-175	175
ZCASE-200	200
ZCASE-225	225
ZCASE-250	250
ZCASE-300	300
ZCASE-350	350
ZCASE-400	400

Mega & Midi Fuses & Accessories

Mega Slo-Blo Fuses

- Use: battery & alternator connectors & other heavy gauge cables
- Features: Eliminates nuisance blowing during temporary, short duration overloads
- Materials: Plastic body with copper terminals
- 32 volt AC/DC
- Size: 2.7"L x .75"W
- Mounting holes, center to center: 2"



Part Number	Amps
MEG-80	80
MEG-100	100
MEG-125	125
MEG-150	150
MEG-175	175
MEG-200	200
MEG-225	225
MEG-250	250
MEG-300	300
MEG-350	350
MEG-400	400
MEG-450	450
MEG-500	500

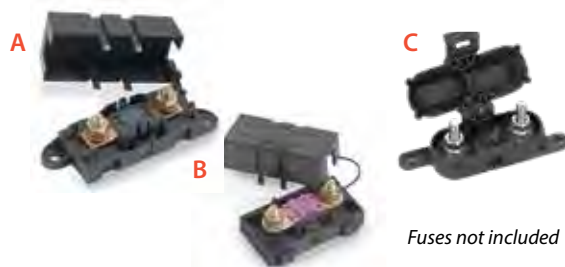
Midi Slo-Blo Fuses

- Use: battery & alternator connectors & other heavy gauge cables
- Features: Eliminates nuisance blowing during temporary, short duration overloads
- Materials: Plastic body with copper terminals
- 32 volt AC/DC
- Size: 1.614"L x .394"W
- Mounting holes, center to center: 1.181"



Part Number	Amps	Font Color
MID-30	30	Orange
MID-40	40	Green
MID-50	50	Red
MID-80	80	White

Mega & Midi Fuse Holders



Part Number	Max Amps	Type	Studs	Description	Fig.
298900	500	Mega	2 - 5/16"	w/ cover	A
498900	200	Midi	2 - #10	w/ cover	B
HMEG	500	Mega	2 - 5/16"	w/ cover	C

MIDI Fuse Blocks w/Cover

- #10-32 stainless steel studs & keps nuts
- Includes red cover, fuses are not included
- Up to 6 units can be connected w/ an input module & bussbar (pictured with 3 units, all sold separately)

Part Number	Max Amps	Size	Description
MID-427	400	3.11" x 0.99" x 1.22"	1-way



Blade Fuses & Accessories

Mini Fuses

Standard Mini Fuses

- 32 volt fast acting
- .187" tab width
- Available in 5pk (to order: add -5PK to the end of the part number)
- Bussmann series: ATM
- Littelfuse series: 297



Part Number	Amps	Color
MIN-2	2	Gray
MIN-3	3	Purple
MIN-5	5	Tan
MIN-7.5	7-1/2	Brown
MIN-10	10	Red
MIN-15	15	Blue
MIN-20	20	Yellow
MIN-25	25	Clear
MIN-30	30	Green

Get all of the Standard Mini Fuses you see here all in one spot! Just order our Mini Fuse Kit (MINI-FUSE-KIT), see page 462 for all of the details!

LED Mini Fuses

- Integrated LED glows when fuse is blown
- 32 volt fast acting
- .187" tab width



Part Number	Amps	Color
MIN-5-LED	5	Tan
MIN-7.5-LED	7-1/2	Brown
MIN-10-LED	10	Red
MIN-15-LED	15	Blue
MIN-20-LED	20	Yellow
MIN-25-LED	25	Clear
MIN-30-LED	30	Green

Low Profile Mini Fuses

- Space saving alternative
- 32 volt fast acting
- .187" tab width
- Bussmann series: ATM-LP
- Littelfuse series: 891



Part Number	Amps	Color
ATM-5LP	5	Tan
ATM-7.5LP	7-1/2	Brown
ATM-10LP	10	Red
ATM-15LP	15	Blue
ATM-20LP	20	Yellow
ATM-25LP	25	Clear
ATM-30LP	30	Green

Pre-Wired Mini Fuses

Low Profile Pre-Wired Mini Fuses



- 18ga., 6" wire leads

Part Number	Amps	Color
6710-PT	10	Red
6715-PT	15	Blue
6720-PT	20	Yellow

Standard Pre-Wired Mini Fuses



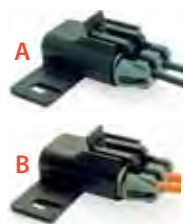
- 18ga., 6" wire leads

Part Number	Amps	Color
5605-PT	10	Red
5606-PT	15	Blue
5607-PT	20	Yellow

Mini Fuse Holders

Environmentally Sealed Fuse Holders

- Protects from moisture, salt, automotive fluids & high heat



Part Number	Max Amps	Wire Ga.	Fig.
FH-MIN-16-WR	15	16 - Black	A
FH-MIN-12-WR	30	12 - Orange	B
Components			
15300027	Connector		
ES-10-CAP	Cap		
12129493	14-12ga. terminal		
12077411	18-16ga. terminal		
15324981	12ga. seal		
15324982	16ga. seal		
15300014	TPA lock		

Inline Fuse Holder w/ Cap



Part Number	Max Amps	Wire Ga.
FHM-1	20	16 - Black
FHM-2	30	12 - Red

Inline LED Fuse Holders

- LED glows red when fuse is blown



Part Number	Max Amps	Wire Ga.
FH-MIN-LED	15	14 - Red

In Line Fuse Holder



Part Number	Max Amps	Wire Ga.
153002	20	22-16
153003	30	14-10

Add-On Circuit Low Profile Mini Fuse Holders

- Uses two fuses in place of one, providing protection to both



Part Number	Max Amps	Wire Ga.
LPS-08	30	16 - Red

For both Mini Add-On Circuit Fuse Holders the max combined current is 30 amps with max primary current 25 amps and max auxiliary current 15 amps.

Unless otherwise noted, fuses are sold separately. For the correct fuses, see the Mini fuse section on the previous two pages.

Add-On Circuit Standard Mini Fuse Holders

- Uses two fuses in place of one, providing protection to both



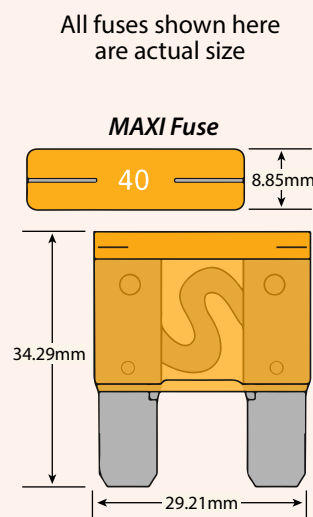
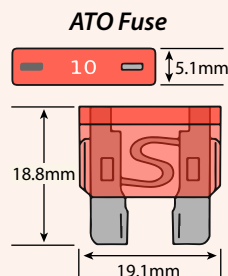
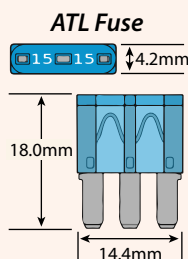
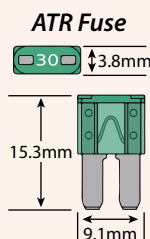
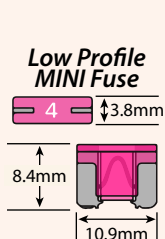
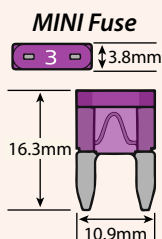
Part Number	Max Amps	Wire Ga.
FHM-200	30	16 - Red

In Line Low Profile Mini Fuse Holder



Part Number	Max Amps	Wire Ga.
LPS-01B-16R	15	16 - Red
LPS-01B-12R	30	12 - Red

Blade Fuse Comparison



All fuses shown here are actual size

Mini Fuse Blocks

Mini Fuse Block w/ LED Indicator

- 250" tab quick disconnect side connections
- Cover included, fuses not included
- 32 volt max



Part Number	Number of Positions	Max Amps
BLM-I-304	4	100A total 30A/circuit
BLM-I-306	6	
BLM-I-310	10	

Fuse Panel For Fuses & Circuit Breakers



- Molded of high performance thermoplastic
- Weather tight enclosure
- Temp rating: -40° to 260°F
- Mounting: four #10-32 fasteners (not included)

Works with the following:

Part Number	Description
12110846	22-20ga. terminal
12129409	16-14ga. terminal
12110853	12-10ga. terminal
15324985	22-20ga. cable seal
15324982	16-14ga. cable seal
15324981	12-10ga. cable seal
12010300	Unused cavity plug

Part Number	Description
RTMF	20 position fuse block w/ no cover
RTMF-SC	20 position fuse block w/ shallow cover; 1.3" high
RTMF-DC	20 position fuse block w/ deep cover; 2.1" high

Pre-Wired Mini Fuse Panel For Fuses & Circuit Breakers



PDM-RTMF-SC-B

- Molded of high-performance thermoplastic, has a weathertight seal when cover, cable seals & cavity plugs are installed (IP66 rated)
- Temp rating: -40° to 260°F
- Mounting: Four panel mount #10-32 threaded inserts
- Input: two 1/4 input studs, 80A max per lead
- Output: twenty 16" long output leads, 30A max per lead
- Output leads color coded per input buss, L1 red, L2 orange
- Each lead labeled w/ corresponding fuse block placement number, F1-F20

Part Number	Description	Wire Breakdown (per input)
PDM-RTMF-SC	20 position fuse block	Two 10ga. Two 12ga.
PDM-RTMF-SC-B	20 position fuse block w/ bracket	Six 14ga.

Pre-Wired Mini Fuse Panel For Fuses & Relays



A



B

- Molded of high-performance thermoplastic, has a weathertight seal when cover, cable seals & cavity plugs are installed (IP67 Rated)
- Temp rating: -40° to 221°F
- Mounting: plated steel 30° bracket, module snaps into bracket allow easy viewing & servicing
- All wire leads 14ga. GXL, each labels with relay number (#1, #2, #3) & relay pin function (#30, #85, #86, #87, #87a (#87a only present on -3R))

Part Number	Supplied With	Fig.
PDM-HWB18-2R	Two relays (MCR-535) & two MINI fuses (MIN-30)	A
PDM-HWB18-3R	Three relays (301-1C-C-R1U01) & three MINI fuses (MIN-20)	B

ATR Micro Fuses

ATR Micro Fuses

- 32 volt fast acting
- .110" tab width
- Bussmann series: ATR
- Littelfuse series: MICRO2



Part Number	Amps	Color
ATR-5	5	Tan
ATR-7.5	7-1/2	Brown
ATR-10	10	Red
ATR-15	15	Blue
ATR-20	20	Yellow
ATR-25	25	Clear
ATR-30	30	Green

Pre-Wired ATR Micro Fuses

- 18ga., 6" wire leads



Part Number	Amps	Color
6210-PT	10	Red
6215-PT	15	Blue
6220-PT	20	Yellow

ATR Micro Fuse Holders

Add-On Circuit Fuse Holders



- Uses two fuses in place of one, providing protection to both

Part Number	Max Amps	Wire Ga.
LPT-08	30	16 - Red

For ATR Add-On Circuit Fuse Holders the max combined current is 30 amps with max primary current 25 amps & max auxiliary current 15 amps. Unless otherwise noted, fuses are sold separately. See the previous section for fuses.

Inline Fuse Holders



Part Number	Max Amps	Wire Ga.
FH-ATR-12	30	12 - Red
FH-ATR-16	15	16 - Red

LED Inline Fuse Holders



- LED glows red when fuse is blown

Part Number	Max Amps	Wire Ga.
FH-ATR-12-LED	30	12 - Red
FH-ATR-16-LED	15	16 - Red

ATL Micro Fuses

ATL Micro Fuses

- 32 volt fast acting
- .110" tab width
- Bussmann series: ATR
- Littelfuse series: MICRO2



Part Number	Amps	Color
ATL-5	5	Tan
ATL-7.5	7-1/2	Brown
ATL-10	10	Red
ATL-15	15	Blue

ATL Micro Fuses, cont'd

- 18ga., 6" wire leads



Part Number	Amps	Color
6810-PT	10	Red
6815-PT	15	Blue

ATL (Micro 3) Fuse Holder



Part Number	Max Amps	Wire Ga.
FH-ATL-16WR	15	16-Red
FH-ATL-14WR	20	14-Red

ATO Fuses

Standard ATO Fuses

- 32 volt fast acting
- .250" tab width
- Available in 5pk (to order: add -5PK to the end of the part number)
- Bussmann series: ATC
- Littelfuse series: 257



Part Number	Amps	Color
ATO-1	1	Dk. Gray
ATO-2	2	Lt. Gray
ATO-3	3	Purple
ATO-4	4	Pink
ATO-5	5	Tan
ATO-7.5	7-1/2	Brown
ATO-10	10	Red

Part Number	Amps	Color
ATO-15	15	Blue
ATO-20	20	Yellow
ATO-25	25	Clear
ATO-30	30	Lt. Green
ATO-35	35	Dk. Green
ATO-40	40	Orange

ATO fuses are standard in most foreign and domestic vehicles. They come with industry standard color coded plastic housings for the easy identification of fuse ratings.

We have two ways to get all of the ATO fuses you need. Order our ATO Fuse Kit in large (ATO-KIT-LG) or small (ATO-KIT-SM). To see what each has to offer, see page 462.

LED ATO Fuses

- Integrated LED glows when fuse is blown
- 32 volt fast acting
- .250" tab width



Part Number	Amps	Color
ATO-3-LED	3	Purple
ATO-5-LED	5	Tan
ATO-7.5-LED	7-1/2	Brown
ATO-10-LED	10	Red
ATO-15-LED	15	Blue
ATO-20-LED	20	Yellow
ATO-25-LED	25	Clear
ATO-30-LED	30	Green

You can now get all of these handy fuses in one handy box! See page 462 for all of the details on our LED ATO Fuse Kit (ATO-LED-KIT-SM).

ATO Access-A-Fuse

- 32 volt fast acting
- .250" tab width
- Additional hinged auxiliary blade



Part Number	Primary Fuse Amps	Aux Fuse Amps	Color
APF-AF-20	20	7.5	Yellow

Pre-Wired ATO Fuses

- 18ga., 6" wire leads



Part Number	Amps	Color
5710-PT	10	Red
5715-PT	15	Blue
5720-PT	20	Yellow

ATO Fuse Holders

LED Fuse Holders



- LED glows red when fuse is blown

Part Number	Max Amps	Wire Ga.
FH-ATO-LED	30	12 - Red

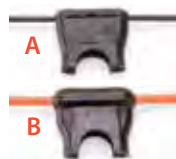
Tap Fuse Holders



- Self stripping, installs w/ pliers

Part Number	Max Amps	Wire Ga.
ATO-TAP	20	18-14

ATO Fuse Holders



Part Number	Max Amps	Wire Ga.	Fig.
FH-ATO	20	16 - Black	A
FH-ATO-12	30	12 - Orange	B

Sealed Fuse Holders



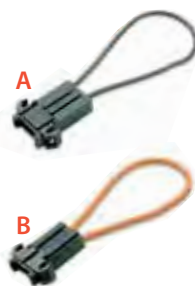
- Nylon body & latching cap

Part Number	Max Amps	Wire Ga.
FH-ATO-10BR	40	10 - Red
FH-ATO-12BR	30	12 - Red
FH-ATO-14BR	20	14 - Red

Components

12033769	Connector
12033731	Cap
12033997	12-10ga. terminal
12066614	16-14ga. terminal

Stackable Fuse Holders



- For in-line or snap mount panel applications
- Interlock body design allows up to 10 holders to be snapped together

Part Number	Max Amps	Wire Ga.	Fig.
AFH-1	20	8" loop of 14 - Black	A
AFH-2	20	8" loop of 10 - Orange	B

Weather Resistant Fuse Holders



Part Number	Max Amps	Wire Ga.	Fig.
FH-ATO-WR	15	16 - Black	A
FH-ATO-14-WR	20	14 - Red	B
FH-ATO-12-WR	30	12 - Orange	C

Add-On Circuit Fuse Holders



- Uses two fuses in place of one, providing protection to both

Part Number	Max Amps	Wire Ga.
FHA-200	30	16 - Red

For ATO Add-On Circuit Fuse Holders the max combined current is 30 amps with max primary current 25 amps & max auxiliary current 15 amps. Unless otherwise noted, fuses are sold separately. See the previous page for fuses.

ATO Waterproof Fuse Holders



- Ideal for marine applications or any application with a continually wet environment

Part Number	Max Amps	Wire Ga.	Rated
FHW-10R	30	10 - Red	58VDC

ATO Fuse Blocks

ATO Dual Bank Common Feed Fuse Blocks

- Tin-plated copper screw mount terminal
- .250" tab quick disconnects, #10-32 input stud size
- Includes clear cover



Part Number	Description	Stud Size	Rated
FBST-4CF	4-way	3.94" x 1.85" x 1.02	32VDC;
FBST-6CF	6-way	3.94" x 2.48" x 1.02	30A per
FBST-10CF	10-way	3.94" x 3.74" x 1.02	circuit

ATO Single Bank Common Feed Fuse Blocks

- Tin-plated copper screw mount terminal
- .250" tab quick disconnects, 5mm input stud size
- Includes clear cover



Part Number	Description	Stud Size	Rated
FBT-604	4-way	2.46" x 3.50" x 1.59	32VDC;
FBT-606	6-way	2.46" x 4.76" x 1.59	30A per
FBT-610	10-way	2.46" x 7.28" x 1.59	circuit

Fuse / Circuit Breaker Fuse Blocks w/ Common Feed

- .250" tab quick disconnect terminals
- 10-32 stud size terminal w/ hex nut, flat washer & lock washer included
- 30 amp per circuit, 150 amp total for block at 12 volt



Part Number	Number of Positions	Length x Width x Height (inches)
ATO-FB6CF	6	2.47 x 3.25 x .75
ATO-FB8CF	8	3.09 x 3.25 x .75
ATO-FB10CF	10	3.75 x 3.25 x .75
ATO-FB12CF	12	4.34 x 3.25 x .75
ATO-FB14CF	14	4.97 x 3.25 x .75
ATO-FB18CF	18	6.22 x 3.25 x .75

Each member of our outside service team drives a fully stocked vehicle to offer you on the spot VMI. We have a rotating selection to keep you up to date on the latest products that affect your industry. From building custom kits, labeling bins or getting an emergency order delivered to your door, our staff will provide the service necessary to get the job done.



ATO Fuse Blocks, cont'd

Water Resistant Fuse Blocks



- 250" tab quick disconnect side connections (ATO-FB16 has bottom tab connectors)
- Water resistant - snap-fit plastic covers w/ o-ring seals

Part Number	Number of Positions	Length x Width x Height (inches)	Max Amps	Fig.
ATO-FB4	4	2.625 x 1.0625 x 1.5	80	A
ATO-FB6	6	3.375 x 1.0625 x 1.5	100	B
ATO-FB8	8	4.5 x 1.0625 x 1.5	135	C
ATO-FB16	16	4.75 x 3.5 x 3.625	320	D

Standard ATO Fuse Blocks



- .250" tab quick disconnect side connections
- Two mounting holes for secure installation
- Interlocking feature permits multi-unit block
- 32 volt max

Part Number	Number of Positions	Max Amps
350417	5	15

Fuse Block Pigtail



- 1/10ga., common feed wire, 4/16ga. w/ female quick disconnects, all red GXL wire
- Comes w/ one each: ATO-15, ATO-25, ATO-30, ATO-40

Part Number	Description
SR-5040-A	Hold four ATO fuses

Fuse Block Housing

- Molded in nylon
- Stackable, w/ bolt holes for mounting



Part Number	Description
12004943	Holds 4 ATO fuses

Terminals For Housing

- Use w/ fuse block 12004943



Part Number	Wire Ga.	Max Amps	Common Feed
12020334	20-18	10	1 Way
12020321	16-14	20	1 Way
12020400	12-10	30	1 Way
12004563	12-10	40	2 Way
12004571	16-14	45	4 Way
12004568	12-10	60	4 Way

ATO Fuse Blocks, cont'd

ATO Fuse Blocks w/ LED Indicator

- .250" tab quick disconnect side connections
- Cover included
- 24 volt max



Part Number	Number of Positions	Max Amps
BLR-I-301	1	30

ATO Blade Fuse Block with Pos/Neg Bus

- Consolidates branch circuits & in-line fuses
- Positive distribution bus w/ #10-32 stud
- Accepts ring or spade terminals
- 32 volt max



Part Number	Description	Max Amps
BSS-5025	6 position	100A/ block, 30A/ circuit
BSS-5026	12 position	
BSS-5032	12 position, incl. ground	

ATO Fuse Block w/ Grounding Pad

- For ATO fuses & circuit breakers
- Includes cover
- Load connectors: 4mm screws



Part Number	Number of Positions
FB-SF-6	6
FB-SF-12	12

Maxi Fuses

Standard Maxi Fuses

- 32 volt slo-blo
- .375" tab width
- Bussmann series: MAX
- Littelfuse series: 299



Part Number	Amps	Color
MAX-20	20	Yellow
MAX-30	30	Green
MAX-40	40	Orange
MAX-50	50	Red

Part Number	Amps	Color
MAX-60	60	Blue
MAX-70	70	Tan
MAX-80	80	Natural

MAXI fuses are commonly used to replace fusible link wire. They come with industry standard color coded plastic housings for the easy identification of fuse ratings.

Get all of the Maxi Fuses we offer all in one box in our Maxi Fuse Kit (MAXI-FUSE-KIT).

Maxi Fuse Holders

Fuse Holders w/ Cap



- Protective cover - splash proof
- Easy installation

Part Number	Max Amps	Wire Ga.
MAH-1	80	6 - Black

Unless otherwise noted, fuses are sold separately from our fuse holders and fuse blocks. For the correct fuses, see the Maxi fuse section above.

Maxi Fuse Blocks

Standard Fuse Blocks

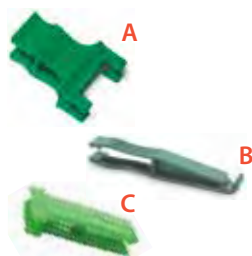
- Has screw terminals
- Works with Littelfuse fuses



Part Number	Number of Positions	Max Amps
MAB-1	1	60
152900	Cover for MAB-1	

Fuse Pullers & Testers

Fuse Pullers & Testers



Part Number	Works With	Fig.
097026	Maxi fuses	A
097023	Glass, mini, micro & ATO fuses	B
FP-ATR	Micro fuses	C

Fuse Puller/Tester

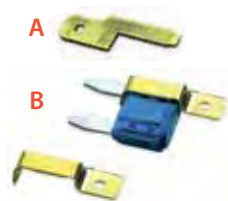


- Illuminated green light indicates a functioning fuse
- Designed for one handed use

Part Number	Works With
097019	Glass & blade fuses

Fuse Taps

Mini Fuse Taps



Part Number	Tab size	Fig.
MIN-TAP-FL	.187" tab - flat	A
MIN-TAP	.187" tab	B

ATO Fuse Taps



Part Number	Tab size	Fig.
ATO-C	.250" tab	A
BFT	.250" tab	B

Min Tap



- Inserted into hot side of empty fuse block cavity

Part Number	Tab size
MIN-TAP-250	.250" tab

Battery Tap



- Attaches to battery terminal to create 3 additional circuits

Part Number	Tab size
TRI-TAP	.250" tab

Cartridge Fuses

PAL Fuses

Male PAL Fuses

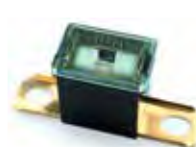
- Bussmann series: FLM
- Littelfuse series: PAL



Part Number	Amps	Color
PAL-130	30	Pink
PAL-160	60	Yellow
PAL-180	80	Black
PAL-1100	100	Blue
PAL-1120	120	White

9/16 Bent Male PAL Fuses

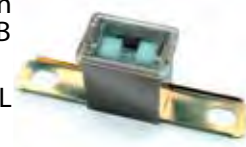
- Bussmann series: FLD
- Littelfuse series: PAL



Part Number	Amps	Color
PAL-430	30	Pink
PAL-440	40	Green
PAL-450	50	Red
PAL-480	80	Black
PAL-4100	100	Blue

13/16 Bent Male PAL Fuses

- Bussmann series: FLB
- Littelfuse series: PAL



Part Number	Amps	Color
PAL-230	30	Pink
PAL-240	40	Green
PAL-250	50	Red
PAL-260	60	Yellow
PAL-270	70	Brown
PAL-280	80	Black

PAL Fuses, cont'd

Female PAL Fuses

- Bussmann series: FLF
- Littelfuse series: PAL



Part Number	Amps	Color
PAL-20	20	Blue
PAL-30	30	Pink
PAL-40	40	Green
PAL-50	50	Red
PAL-60	60	Yellow

Mini Female PAL Fuses

- Bussmann series: FLS
- Littelfuse series: PAL



Part Number	Amps	Color
PAL-330	30	Pink
PAL-340	40	Green

Need some of everything? Our PAL Fuse, Kit (PAL-FUSE-KIT) has all of our available PAL fuses in one box.

JCASE Fuses

Slo-Blo JCASE Fuses

- Bussmann series: FMX
- 32 Volt AC/DC
- Littelfuse series: 495
- **H x L x W: 27mm x 12mm x 14.1mm**



Part Number	Amps	Color
JCAS-20	20	Blue
JCAS-30	30	Pink
JCAS-40	40	Green
JCAS-50	50	Red
JCAS-60	60	Yellow

Low Profile JCASE Fuses

- Bussmann series: FMX-LP
- 58 Volt DC
- Littelfuse series: 895
- **H x L x W: 16mm x 12mm x 14.5mm**



Part Number	Amps	Color
LJCAS-20	20	Blue
LJCAS-25	25	White
LJCAS-30	30	Pink
LJCAS-40	40	Green
LJCAS-50	50	Red
LJCAS-60	60	Yellow

JCASE Fuse Blocks

Power Distribution Relay Module & Fuse Block

- For high current applications w/ extreme moisture & high vibration
- Feature M8 power input studs & weather-tight cover



Part Number	Description	Contains
CBPFM	Power fuse module	2 JCASE fuse positions
CBPRM	Power relay module	35amp relay & 2 JCASE fuse positions

Fuse Block Pigtail

- Two 9" 16ga. GXL wire leads



Part Number	Description
PT-1510	Works w/ CBPFM
Components	
12052641	Connector
12048074	Terminals

MCASE Micro Fuses

MCASE FMM Micro Fuses

- Bussmann series: FMM
- 32 Volt DC
- Littelfuse series: 695
- **H x L x W: 17.5mm x 6.2mm x 10.7mm**



Part Number	Amps	Color
FMM-15	15	Gray
FMM-20	20	Blue
FMM-25	25	White
FMM-30	30	Pink
FMM-40	40	Green

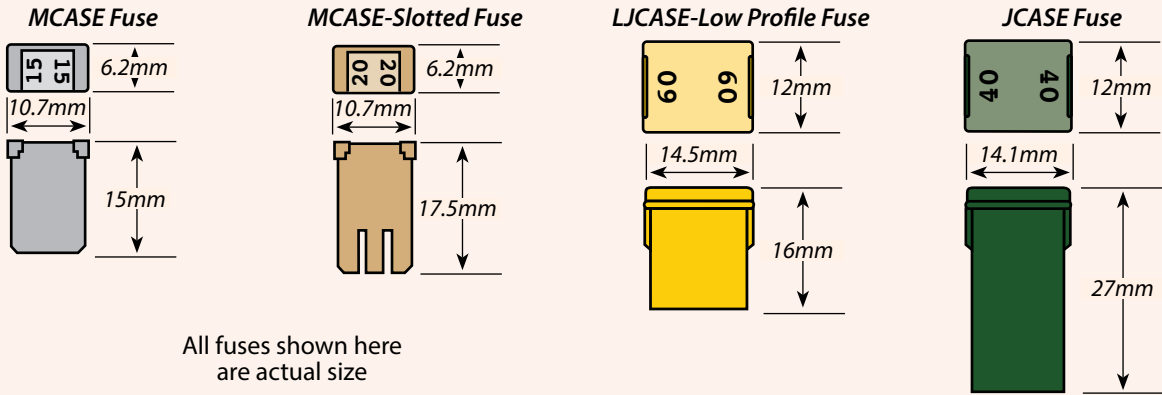
MCASE FMS Micro Fuses

- Bussmann series: FMS
- 32 Volt DC
- Littelfuse series: 695-Slotted
- **H x L x W: 17.5mm x 6.2mm x 9.7mm**

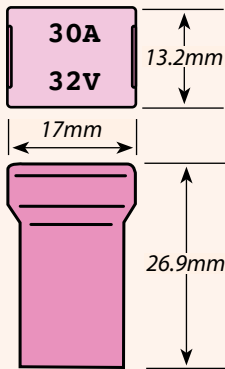


Part Number	Amps	Color
FMS-15	15	Gray
FMS-20	20	Blue
FMS-25	25	Tan
FMS-30	30	Pink
FMS-40	40	Green
FMS-50	50	Red
FMS-60	60	Yellow

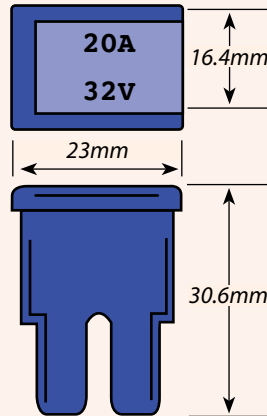
Cartridge Fuse Comparison



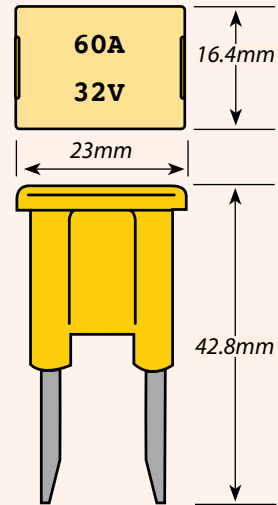
Mini Female PAL Fuse



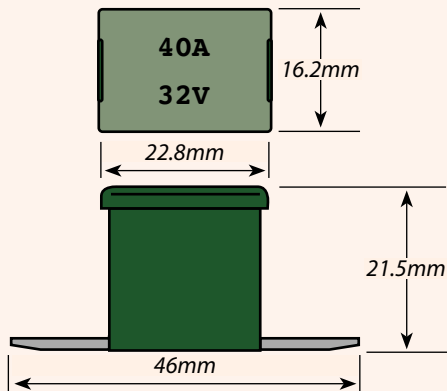
Female PAL Fuse



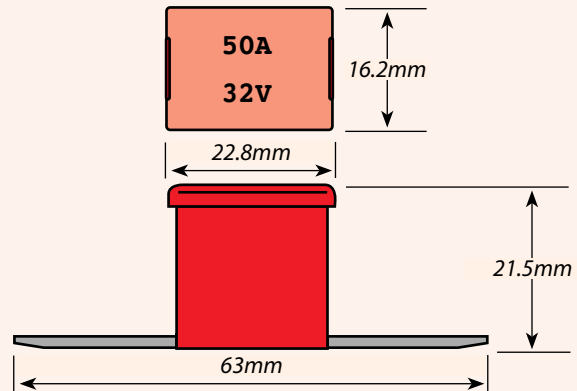
Male PAL Fuse



9/16 Bent Male PAL Fuse



13/16 Bent Male PAL Fuse



ANL & ANN Fuses & Accessories

ANL & ANN Fuses

- Used in battery operated forklifts & other low voltage battery operated equipment
- Window shows limiter status
- Small footprint saves space

ANL Fast Acting Fuses



- Time-delay sizing for inductive circuits

ANN Very Fast Acting Fuses



- Fast acting circuit protection

Amps	Volts	Bussmann Series	Littelfuse Series
35 - 675	32VDC	ANL	CNL

Amps	Volts	Bussmann Series	Littelfuse Series
10 - 800	130VDC	ANN	CNN

For the correct ANL or ANN fuse part number, use the fuse prefix (ANL or ANN) & available amperages. Refer to this example:

ANN - 175

ANL & ANN Fuse Holder

Fuse Holders

- 3.46"L x 1.22"W x 0.49"H, 2.43" stud center to center
- Made of polyester impact/electrical - black with mineral & glass fiber added



Part Number	Amps	Description	Stud Size	Fig.
4164-FR	200	Fuse holder	5/16	A
BLC-09-GT	500	Fuse holder	M8	B
BLC-09-GTC		Clear cover for BLC-09-GT (sold separately)		C

Industrial Fuses

FLNR Slo-Blo Class RK5 Fuses

1/10 - 60 amp



70 - 600 amp



- Use: Distribution panel boards & general purpose
- Features: Reduces damage to equipment caused by heating & magnetic forces of short circuits
- 1/10 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 600	250VAC / 125VDC	FRN(R)	FLNR

FLSR Slo-Blo Class RK5 Fuses

1/10 - 60 amp



70 - 600 amp



- Use: Service entrance switches, panel boards & general purpose
- Features: Low resistance design reduces power & utility bills
- 1/10 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 600	600VAC / 300VDC	FRS(R)	FLSR

Industrial Fuses, cont'd

SLC Medium Time Delay Class G Fuses

- Use: General purpose residential & commercial circuits
- Features: Cost effective & space saving alternative
- 1/2 - 60 amp supplied in 10 pk



Amps	Volts	Bussmann Series	Littelfuse Series
1/2 - 60	480VAC / 600VAC	SC	SLC

For the correct industrial fuse part number, use the fuse prefix, available amperages & supplied packages. Refer to this example: SLC - 20 - 10

Midget Fuses

BLN Fast Acting Fuses



- Use: Control circuits, street lighting, HID lighting, computers & other applications
- Features: High interrupting capacity current-limiting type fuse
- 1 - 30 amp supplied in 10pk

Amps	Volts	Bussmann Series	Littelfuse Series
1 - 30	250VAC	BAN	BLN

FLM Time Delay Fuses



- Use: Control circuit transformers, solenoids & other circuits w/ high rush currents & supplemental protection of small motors
- 1/10 - 30 amp supplied in 10pk

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 30	250VAC	FNM	FLM

KLK Fast Acting Fuses



- Use: General purpose residential & commercial circuits w/ little or no motor lead
- 1/10 - 30 amp supplied in 10pk

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 30	600VAC	KTK	KLK

For the correct midget fuse part number, use the fuse prefix, available amperages & supplied packages. Refer to this example: FLM - 4/10 - 10

Indicator Fuses

FLSR-ID Time Delay Fuses

- Use: Switch main & feeder switches, service entrance switches & general purpose circuits
- Features: Reduced damage caused by heating & magnetic forces of short circuits
- 1/10 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk; 110 - 600 amp individually



Amps	Volts	Littelfuse Series
1/10 - 600	600VAC / 300VDC	FLSR-ID






For the correct indicator fuse part number, use the fuse prefix, available amperages & supplied packages. Refer to this example: FLSR - ID - 200 - 1






Terminal Supply Co. is a full line work & forward lighting distributor. If you don't see what you need here, just ask us, we'll find it for you.

Contents

				
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REFERENCE

Circuit Breakers: Metal or Plastic?	165
-------------------------------------	-----

Type I Circuit Breakers

- Continuously cycles, "resets" until the overload is corrected

With Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Steel case



Part Number	Amps	Volts
CH-30172-15	15	24VDC
CH-30172-20	20	24VDC
CH-30172-30	30	24VDC

Auto Reset w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Steel case



Part Number	Amps	Volts
CBMP-10	10	12VDC
CBMP-15	15	12VDC
CBMP-20	20	12VDC
CBMP-25	25	12VDC
CBMP-30	30	12VDC
CBMP-35	35	12VDC
CBMP-40	40	12VDC
CBMP-50	50	12VDC

Auto Reset

- Two #10-32 studs
- Steel case



Part Number	Amps	Volts
CB-8	8	12VDC
CB-10	10	12VDC
CB-15	15	12VDC
CB-20	20	12VDC
CB-25	25	12VDC
CB-30	30	12VDC
CB-35	35	12VDC
CB-40	40	12VDC
CB-50	50	12VDC

Auto Reset w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Steel case
- Part supplied may be Bussmann or Cole Hersee, depending on availability



Part Number		Amps	Volts
Unsealed	Sealed		
CH-30055-10	CH-30138-10	10	12VDC
CH-30055-15		15	12VDC
CH-30055-20	CH-30138-20	20	12VDC
CH-30055-25		25	12VDC
CH-30055-30	CH-30138-30	30	12VDC
CH-30055-40		40	12VDC
CH-30055-50		50	12VDC

Waterproof w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Waterproof plastic case
- Extra length auxiliary stud



Part Number	Amps	Volts
CBP-1-20	20	12VDC
CBP-1-25	25	12VDC
CBP-1-30	30	12VDC
CBP-1-40	40	12VDC
CBP-1-50	50	12VDC

We also have covers & brackets to fit our stud type circuit breakers. To see everything we have to offer, check out our circuit breaker accessories section on page 170.

Terminal Supply Co. is a Littelfuse / Cole Hersee full-line master distributor. If you don't see exactly the part you need here, contact your local sales rep or customer service & they will help you find it!



Type I Circuit Breakers, cont'd

Shortstop

- Two #10-32 studs
- Plastic case



Part Number	Amps	Volts
46411	10	12VDC
46416	15	12VDC
46421	20	12VDC
46426	25	12VDC
46431	30	12VDC
46441	40	12VDC
46451	50	12VDC

PVC Coated w/ Wire Leads & Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- 10" wire loop
- Steel case



Part Number	Amps	Volts	Wire Gauge
CH-30062-30	30	12VDC	12 - Red

Maxi

- Operating temp: -20 to 150°F
- Thermoplastic housing w/ standard gray cover
- .310" blade width



Part Number	Amps	Volts
CB-MAX-20	20	12VDC
CB-MAX-25	25	12VDC
CB-MAX-30	30	12VDC
CB-MAX-35	35	12VDC
CB-MAX-40	40	12VDC
CB-MAX-50	50	12VDC

Shortstop w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Waterproof plastic case



Part Number	Amps	Volts
46511	10	12VDC
46516	15	12VDC
46521	20	12VDC
46531	30	12VDC
46541	40	12VDC

ATO

- Operating temp: -40 to 185°F
- Thermoplastic housing w/ standard gold cover
- .206" blade width



Part Number	Amps	Volts
CB-ATO-7.5	7.5	14VDC
CB-ATO-10	10	14VDC
CB-ATO-15	15	14VDC
CB-ATO-20	20	14VDC
CB-ATO-25	25	14VDC
CB-ATO-30	30	14VDC

Circuit Breakers: Metal or Plastic?

When considering the choice between metal or plastic circuit breakers, keep in mind that the difference in weight & structural integrity are not that great. The plastic body circuit breakers, however, will resist corrosion & denting.

If you're looking for a variety of mini circuit breakers in one spot, take a look at our Mini Circuit Breaker Kit (CB-MIN-KIT) with 30 circuit breakers.

Type I Circuit Breakers, cont'd

ATO Plug In

- Grooved for easy size adjustment
- Plated steel case
- .200" blade width



Part Number	Amps	Volts	Color
CH-30409-10	10	12VDC	Red
CH-30409-20	20	12VDC	Gold
CH-30409-25	25	12VDC	Silver
CH-30409-30	30	12VDC	Green

Mini

- Operating temp: -40 to 185°F
- Thermoplastic housing w/ standard gold cover
- .110" blade width



Part Number	Amps	Volts
CB-MIN-7.5	7.5	12VDC
CB-MIN-10	10	12VDC
CB-MIN-15	15	12VDC
CB-MIN-20	20	12VDC
CB-MIN-25	25	12VDC
CB-MIN-30	30	12VDC

Type II Circuit Breakers

- Remains open as long as the overload exists, power must be disconnected for the unit to be reset

Ford Truck

- Replaces AGC & SFE glass fuses



Part Number	Amps	Volts
FO-CB-10	10	12VDC
FO-CB-15	15	12VDC
FO-CB-20	20	12VDC
FO-CB-25	25	12VDC
FO-CB-30	30	12VDC
FO-CB-40	40	12VDC

1-1/4" Snap In

- Fits any standard fuse block
- Replaces 1-1/4" glass fuses



Part Number	Amps	Volts
CBF-10	10	12VDC
CBF-15	15	12VDC
CBF-20	20	12VDC
CBF-30	30	12VDC
CBF-40	40	12VDC

Mini

- For MIN Fuses
- .110" blade width



Part Number	Amps	Volts
CB-MIN-T2-10	10	12VDC
CB-MIN-T2-15	15	12VDC
CB-MIN-T2-20	20	12VDC
CB-MIN-T2-25	25	12VDC
CB-MIN-T2-30	30	12VDC

Mack Truck

- Male blade terminals on 1" center



Part Number	Amps	Volts
MK-CB-5	5	12VDC
MK-CB-6	6	12VDC
MK-CB-8	8	12VDC
MK-CB-10	10	12VDC
MK-CB-15	15	12VDC
MK-CB-20	20	12VDC
MK-CB-25	25	12VDC
MK-CB-30	30	12VDC

Type II Circuit Breakers, cont'd

Maxi

- Direct replacement for many OEM applications
- .310" blade width



Part Number	Amps	Volts
MXB-10	10	12VDC
MXB-15	15	12VDC
MXB-20	20	12VDC
MXB-25	25	12VDC
MXB-30	30	12VDC

ATO Plug In

- Grooved for easy size adjustment
- .200" blade width



Part Number	Amps	Volts	Color
211-8	8	12VDC	Silver
211-10	10	12VDC	Red
211-15	15	12VDC	Blue
211-20	20	12VDC	Gold
211-25	25	12VDC	Silver
211-30	30	12VDC	Silver

Type III Circuit Breakers

- Remains open until the unit is manually reset by pushing the button

MG Series Push Button

- Gray thermoplastic housing
- Voltage: 250 VAC interrupt capacity
- Operating temp: -10°F to 150°F
- 7/16" bushing



Part Number	Amps	
	.250" Blade Terminal	90° Blade Terminal
MG-8-BL	MG-8-90	8
MG-10-BL	MG-10-90	10
MG-15-BL	MG-15-90	15
MG-20-BL	MG-20-90	20
N/A	MG-30-90	30

MP Series Push Button

- Resets actuator mechanism then remains disengaged until manually reset
- 3/8" bushing



Part Number	Amps	Volts
MP-5-BL	5	250VAC / 50VDC
MP-10-BL	10	250VAC / 50VDC
MP-15-BL	15	250VAC / 50VDC
MP-20-BL	20	250VAC / 50VDC
MP-25-BL	25	250VAC / 50VDC
MP-30-BL	30	250VAC / 50VDC
MP-35-BL	35	250VAC / 50VDC

Waterproof w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Waterproof plastic case



Part Number	Amps	Volts
CBP-3-15	15	12-24VDC
CBP-3-20	20	12-24VDC
CBP-3-30	30	12-24VDC
CBP-3-40	40	12-24VDC
CBP-3-50	50	12-24VDC

We offer thread-on boots that create a waterproof seal to protect the push buttons. See them on page 170.

Push Button Reset

- Two 15/64" mounting holes, 1-9/16" on centers
- Two #10-32 studs
- Temperature resistant plastic case



Part Number	Amps	Volts
CH-30407-20	20	12-24VDC
CH-30407-30	30	12-24VDC
CH-30407-40	40	12-24VDC

Type III Circuit Breakers, cont'd

ATO w/ Manual Reset

- Operating temp: -40° to 185°F
- Thermoplastic housing w/ standard silver cover
- .206" blade width



Part Number	Amps	Volts	Reset Button Color
CB223-7.5	7.5	12-24VDC	Brown
CB223-10	10	12-24VDC	Red
CB223-15	15	12-24VDC	Blue
CB223-20	20	12-24VDC	Yellow
CB223-25	25	12-24VDC	White
CB223-30	30	12-24VDC	Green

Low Profile ATO w/ Manual Reset

- Operating temp: -40° to 185°F
- Thermoplastic housing w/ standard color coded cover
- .206" blade width



Part Number	Amps	Volts	Reset Button Color
CB227-5	5	12-24VDC	Tan
CB227-6	6	12-24VDC	Moss Green
CB227-7.5	7.5	12-24VDC	Brown
CB227-10	10	12-24VDC	Red
CB227-15	15	12-24VDC	Blue
CB227-20	20	12-24VDC	Yellow
CB227-25	25	12-24VDC	White
CB227-30	30	12-24VDC	Green

Mini w/ Manual Reset

- Operating temp: -40° to 185°F
- Thermoplastic housing w/ standard silver cover
- .110" blade width



Part Number	Amps	Volts	Reset Button Color
CB223-10-200	10	12-24VDC	Red
CB223-15-200	15	12-24VDC	Blue
CB223-20-200	20	12-24VDC	Yellow
CB223-25-200	25	12-24VDC	White
CB223-30-200	30	12-24VDC	Green

High Amp Circuit Breakers

Type I

Surface & Panel Mount

- Used in trucks, buses, RVs, lift gates & marine applications
- Two 1/4" - 28 studs
- IP67 rated



Surface Mount



Panel Mount

Part Number		Amps	Volts
Surface Mount	Panel Mount		
CB1-SM-60	CB1-PM-60	60	12-42VDC
CB1-SM-80	CB1-PM-80	80	12-42VDC
CB1-SM-100	CB1-PM-100	100	12-42VDC
CB1-SM-120	CB1-PM-120	120	12-42VDC
CB1-SM-150	CB1-PM-150	150	12-42VDC

High Amp Circuit Breakers, cont'd

Type I Marine Rated

Panel Mount

- Two #10-32 studs & stainless steel hardware
- Weatherproof



Part Number	Amps	Volts	Part Number	Amps	Volts
CB251-10	10	32VDC	CB251-30	30	32VDC
CB251-15	15	32VDC	CB251-35	35	32VDC
CB251-20	20	32VDC	CB251-40	40	32VDC
CB251-25	25	32VDC	CB251-50	50	32VDC

Type III

Surface & Panel Mount

- Used in trucks, buses, RVs, lift gates & marine applications
- Two 1/4" - 28 studs
- IP67 rated



Surface Mount



Panel Mount

Part Number		Amps	Volts
Surface Mount	Panel Mount		
-	CB3-PM-25	25	12 - 42VDC
CB3-SM-40	CB3-PM-40	40	12 - 42VDC
CB3-SM-50	CB3-PM-50	50	12 - 42VDC
CB3-SM-60	CB3-PM-60	60	12 - 42VDC
CB3-SM-70	CB3-PM-70	70	12 - 42VDC
CB3-SM-80	CB3-PM-80	80	12 - 42VDC
CB3-SM-90	CB3-PM-90	90	12 - 42VDC
CB3-SM-100	CB3-PM-100	100	12 - 42VDC
CB3-SM-110	CB3-PM-110	110	12 - 42VDC
CB3-SM-120	CB3-PM-120	120	12 - 42VDC
CB3-SM-135	CB3-PM-135	135	12 - 42VDC
CB3-SM-150	CB3-PM-150	150	12 - 42VDC
CB3-SM-200	-	200	12 - 42VDC
CB3-SM-250	-	250	12 - 42VDC

Type III Marine Rated

Surface & Panel Mount

- Two 5/16"-18 studs & stainless steel hardware
- Weatherproof
- Flush mount, with pull-to-trip lever



Surface Mount



Panel Mount

Part Number		Amps	Volts
Surface Mount	Panel Mount		
CB187F-25	CB187P-25	25	48VDC
CB187F-30	CB187P-30	30	48VDC
CB187F-35	CB187P-35	35	48VDC
CB187F-40	CB187P-40	40	48VDC
CB187F-50	CB187P-50	50	48VDC
CB187F-60	CB187P-60	60	48VDC
CB187F-70	CB187P-70	70	48VDC
CB187F-80	CB187P-80	80	48VDC
CB187F-90	CB187P-90	90	48VDC
CB187F-100	CB187P-100	100	48VDC
CB187F-110	CB187P-110	110	48VDC
CB187F-120	CB187P-120	120	48VDC
CB187F-135	CB187P-135	135	48VDC
CB187F-150	CB187P-150	150	48VDC
CB187F-200	-	200	48VDC

Circuit Breaker Mounting Brackets

Plated Steel Mounting Bracket

- For use with all stud type breakers w/o brackets
- Circuit breakers snap in & hold securely
- Mounts with two .250" (or smaller) bolts or screws



Part Number	Gang	Length x Width (inches)	Mounting Centers (inches)
CH-30090-2	2	4.81 x 1.29	4.00
CH-30090-3	3	5.71 x 1.29	4.90
CH-30090-4	4	6.62 x 1.29	5.81
CH-30090-8	8	10.25 x 1.29	9.43

Busbars

Copper Busbar

- Connects stud type breakers in CH-87128 series mounting brackets
- Connects breakers to provide higher amperage ratings
- All are .560" wide



Part Number	Gang	Length (inches)	Mounting Centers
CH-86126-4	4	3.23	2.73
CH-86126-6	6	5.05	4.55
CH-86126-12	12	10.51	10.01

Brass Busbar

- Connects stud type breakers
- Connects breakers to provide higher amperage ratings
- All are .312" wide
- All have hole size of .210"



Part Number	Gang	Length (inches)	Mounting Centers
CH-86099-2	2	1.53	.926
CH-86099-3	3	2.43	1.86
CH-86099-4	4	3.34	2.75
CH-86099-5	5	4.24	3.63

Circuit Breaker Accessories

Circuit Breaker Boots

Flexible PVC Circuit Breaker Cover

- Protects continually energized posts from accidental shorting
- Easily removable for testing purposes



Part Number	Fits	Color
TS-CB-BOOT	Type I - Stud Type	Black
TS-CB-BOOT-RED	Type I - Stud Type	Red

Push Button Circuit Breaker Boots

- Creates weatherproof seal
- Features magnifying top for easier identification



Part Number	Bushing Size	Fits
CB-PBB-C-7/16	7/16"	Type III - MG Series
CB-PBB-C-3/8	3/8"	Type III - MP Series

Relays & Flashers



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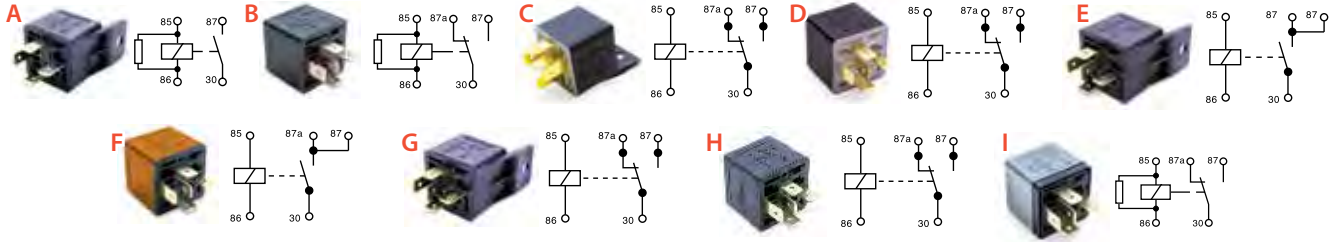
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REFERENCE

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Why use a relay?	177

Relays

Tyco/Bosch Relays

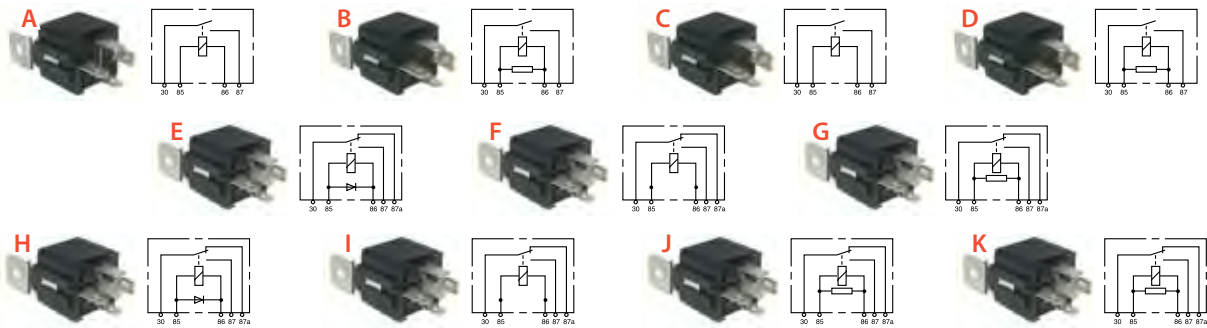


Part Number	Bosch Ref Number	Tyco Ref Number	Hella Ref Number	Amps	Volts	Contact Action	Description	Fig.
TYR-004-1250	332 019 110	V23234B1001X004	87430	50	12	SPST	With resistor & bracket	A
TYR-032-1250	332 209 137	V23234A0001X032	87530	50	12	SPDT	With resistor	B
TYR-050-2420	332 209 203	V23234A1004X050	N/A	20	24	SPDT	With bracket	C
TYR-055-2420	332 209 211	V23234A0004X055	87436	20	24	SPDT		D
TYR-005-1240	332 019 150	V23234C1001X005	87118	40	12	SPST	With bracket	E
TYR-006-1240	332 019 151	V23234C0001X006	87483	40	12	SPST		F
TYR-036-1240	332 209 150	V23234A1001X036	87499	40	12	SPDT	With bracket	G
TYR-037-1240	332 209 151	V23234A0001X037	87401	40	12	SPDT		H
TYR-042-1240	332 209 159	V23234A0001X042	87404	40	12	SPDT	With resistor	I

Relays can be used in a variety of applications: head lamps, auxiliary lighting, small motors, etc.

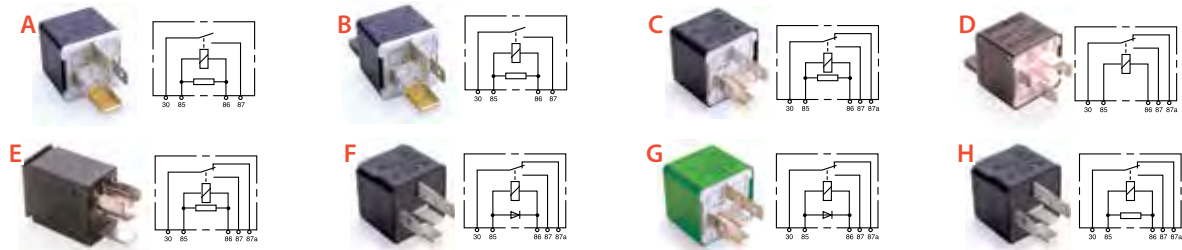
For the corresponding pigtailed to connect to the relays on these two pages, see what we offer on page 176.

Cole Hersee Relays



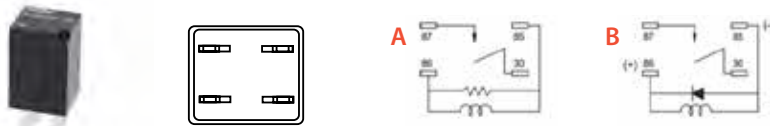
Part Number	Amps	Volts	Contact Action	Terminals/Width (Inches)	Description	Fig.
CH-RA-400112-NN	40	12	SPST	4/.250	With snap-in bracket	A
CH-RA-700112-DN	70	12	SPST	2/.250 & 2/.375	With resistor & snap-in bracket	B
CH-RA-700112-NN	70	12	SPST	2/.250 & 2/.375	With snap-in bracket	C
CH-RA-700112-RN	70	12	SPST	4/.250	With resistor & snap-in bracket	D
CH-RC-400112-DN	30/40	12	SPDT	5/.250	With diode & snap-in bracket	H
CH-RC-400112-NN	30/40	12	SPDT	5/.250	With snap-in bracket	I
CH-RC-400112-RN	30/40	12	SPDT	5/.250	With resistor & snap-in bracket	J

Hella Relays



Part Number	Amps	Volts	Contact Action	Terminals / Width (inches)	Description	Fig.
HE-87440	50	12	SPST	2/.375, 2/.250	With resistor & bracket	B
HE-87429B	20/40	12	SPDT	5/.250	With resistor	C
HE-87499B	20/40	12	SPDT	5/.250	With bracket	D
HE-87416B	10/20	12	SPDT	3/.187, 2/.250	With resistor	E
HE-87427	10/20	24	SPDT	5/.250	With diode	F
HE-87424B	20/40	12	SPDT	5/.250	With diode	G
HE-87115	10	24	SPDT	5/.250	With resistor	H

ISO 280 Ultra Micro Relays



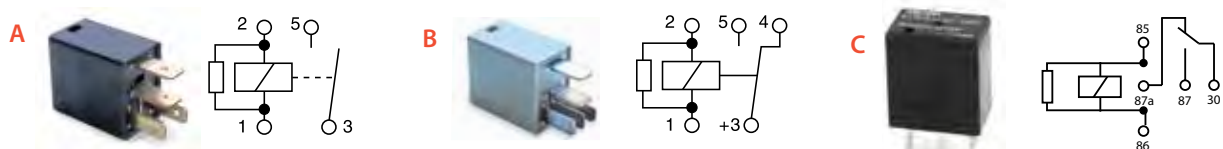
Part Number	Amps	Volts	Contact Action	Terminals / Width (mm)	Description	Fig.
303-1AH-C-R1U01	20	12	SPST	4/2.8	With resistor	A
303-1AH-C-D1	20	12	SPDT	4/2.8	With diode	B

ISO 280 Micro Relays



Part Number	Amps	Volts	Contact Action	Terminals / Width (mm)	Description	Fig.
MCR-435	35	12	SPST	4/2.8	With resistor	A
HE-87429B	35	12	SPDT	5/.28	With resistor	B

Micro Relays - Standard



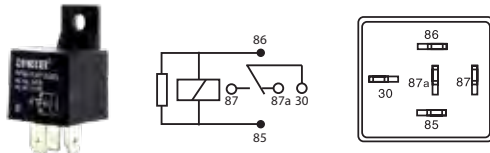
Part Number	Bosch Ref Number	Tyco Ref Number	Hella Ref Number	Amps	Volts	Contact Action	Terminals / Width	Description	Fig.
TYR-003-1220	332 011 007	V23374A1601X003	N/A	30	12	SPST	2/.187, 2/.250	With resistor	A
TYR-011-1220	332 207 307	V23274A1601X011	87416B	20	12	SPDT	3/.187, 2/.250	With resistor	B
871-1C-C-R1U01				35A (NO) 30A (NC)	12	SPDT	5/.250	With resistor	C

ISO 280 Mini Relays



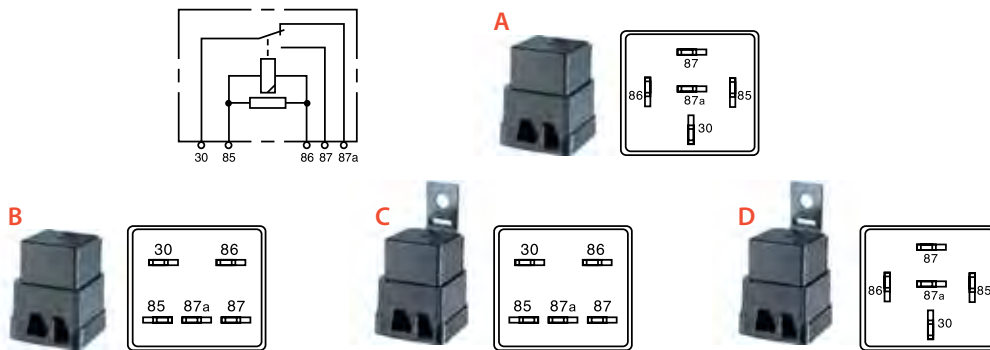
Part Number	Amps	Volts	Contact Action	Terminals / Width (mm)	Description	Fig.
MNR-420	20/35	12	SPST	4/2.8	With resistor	A
MNR-520	20/35	12	SPDT	5/2.8	With resistor	B

40 Amp Rated ISO Mini Relays



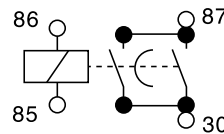
Part Number	Amps	Volts	Contact Action	Terminals / Width (inches)	Description	Fig.
TS-DR-30	40 (NO) / 30 (NC)	12	SPST	5/.250	With bracket & diode	A

Hella Skirted Mini Relays



Part Number	Amps	Volts	Contact Action	Terminals / Width (inches)	Description	Suggested Pigtail	Fig.
HE-87405	20/40	12	SPDT	5/.250	Waterproof w/ resistor	TS-BOS-WP	A
HE-87406	20/40	12	SPDT	5/.280	Waterproof w/ resistor	TS-BOS-WP-280	B
HE-87417	20/40	12	SPDT	5/.280	Waterproof w/ resistor & bracket	TS-BOS-WP-280	C
HE-87421	10/20	24	SPDT	5/.250	Waterproof w/ resistor & bracket	TS-BOS-WP	D
HE-87414	20/40	12	SPDT	5/.250	Waterproof w/ resistor & bracket	TS-BOS-WP	D

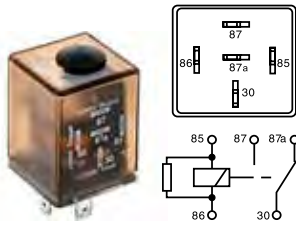
Mini - Giant Power Relays



See page 176 for the corresponding relay pigtail # TP-49129-A

Part Number	Bosch Ref Number	Tyco Ref Number	Amps	Volts	Contact Action	Description
TYR-001-1275	332 002 150	V23232D0001X001	75	12	SPST	Dual contact, with resistor
TYR-007-2450	332 002 250	V23232E0002X007	50	24	SPST	Dual contact, with resistor
TYR-003-1275	332 002 156	V23232A0001X003	75	12	SPST	Dual contact, with parallel & series diodes

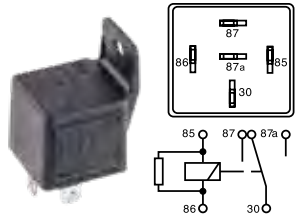
Time Delay Relays



- Adjustable time delay off w/ 2 seconds to 3 minute timer w/ internal potentiometer (located under rubber cap on top of unit)
- 8V trigger voltage
- Internal green LED indicated when relay is on

Part Number	Function	Amps	Volts	Contact Action	Terminals / Width (inches)	Description
TDR-200	ON-OFF	20/30	12	SPST	5/.250	With diode
TDR-250	ON-ON	20/30	12	SPDT	5/.250	With diode

High Power Relay w/Negative Spike Protection

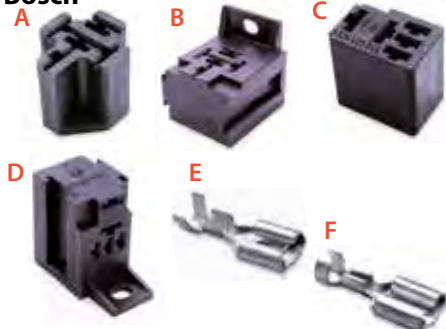


- Negative spike protection protects sensitive transistors when the coil is disengaged & prevents momentary reverse polarity damage
- 8V trigger voltage

Part Number	Amps	Volts	Contact Action	Terminals / Width (inches)	Description
HDR-4060	40/60	12	SPST	5/.250	With negative spike protection & bracket

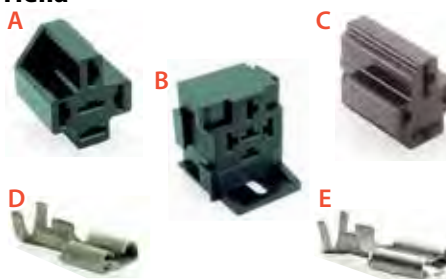
Relay Sockets & Terminals

Bosch



Part Number	Terminals / Width (inches)	Description	Fig.
334 485 007	5/.250	5 terminal connector, impact resistant	A
334 485 008	5/.250	5 terminal connector w/ bracket, impact resistant, stackable	B
334 485 046	2/.250, 3/.187	5 terminal connector for micro relays	C
334 485 045	2/.250, 3/.187	5 terminal connector for micro relays, stackable	D
42238-2	.250	18-14ga. terminal	E
42282-2	.187	18-14ga. terminal	F
180351-2	.250	12-10ga.	E

Hella



Part Number	Terminals / Width (inches)	Description	Fig.
HE-87127B	5/.250	5 terminal connector	A
HE-87122B	5/.250	5 terminal, bracket mount connector	B
HE-87129B	2/.250, 2/.375	4 terminal, 70 amp connector	C
HE-87272	.250	16-14ga. terminal (100/pack)	D
HE-87279	.375	10-6ga. terminal (50/pack)	E

Packard

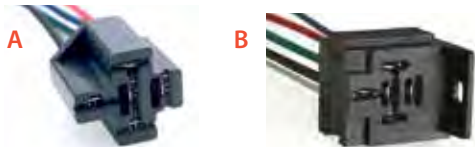


Part Number	Terminals / Width (inches)	Description	Fig.
12033871	5/.250	5 terminal connector	A
12015869	.250	18-16ga. terminal	B
12015870	.250	16-14ga. terminal	C
12084590	.250	12-10ga. terminal	D
12033872	N/A	TPA secondary lock	-

For the terminals on this page, use tool part #12094430 for proper removal & crimper part # OBT-1028CT to assure a satisfactory crimp. Details for both tools are located on page 69.

Relay Pigtails

Bosch



Part Number	Terminals / Width (inches)	Wire Leads	Fig.
PT-BOS	5/.250	5/16ga.	A
PT-BOS-12	5/.250	3/12ga. 2/16ga.	A
PT-BOS-12BK	5/.250	3/12ga. 2/16ga.	B
Components			
334 485 007	Connector for PT-BOS & PT-BOS-12		
334 485 008	Connector for PT-BOS-12BK		
42238-2	18-14ga. terminals		

Hella



Part Number	Terminals / Width (inches)	Wire Leads
PT-HHAC	2/.250, 2/.375	2/14ga., 2/10ga.
Components		
HE-87129B	Connector	
HE-87272	16-14ga. terminals, .250" tab (100/pk)	
280756-2	12-10ga. terminals, .375" tab (100/pk)	

Mini - Giant Power Relay



Part Number	Terminals	Wire Leads
TP-49129-A	2	2/14ga.
Components		
2973781	Connector	
12124512	16-14ga. terminals	

Skirted Relay (Weatherproof) - .250" Terminals



Part Number	Terminals / Width (inches)	Wire Leads
TS-BOS-WP	5/.250	2/14ga. 3/16ga.
TS-BOS-WP-14-12	5/.250	2/12ga. 3/14ga.
Components		
12065685	Connector	
12033997	12-10ga. terminals	
12066614	16-14ga. terminals	

Skirted Relay (Weatherproof) - 2.8mm Terminals



Part Number	Terminals / Width (mm)	Wire Leads
TS-BOS-WP-280	5/2.8	2/14ga. 3/16ga.
Components		
12110539	Connector	
12129493	14-12ga. terminals	
12077411	18-16ga. terminals	
12110540	TPA Secondary lock	

Forward & Reverse Relay Module



- Fully sealed to be corrosion & moisture resistant
- Carries a heavy load current
- Temp rating: -40° to 185°F

Part Number	Amps: Continuous	Amps: Intermittent	Amps: Inrush	Volts	Dimensions (L x W x H)
CH-24452	50	70	150	12VDC	2.91 x 3.51 x 1.86

Relay Tools

Puller Pliers

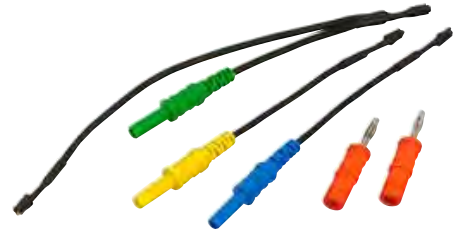
- Offset handle & thin tips allow access in confined areas
- Angled tips to fit slots or edge of relay cover w/ less chance of damage



Part Number	Description
LI-46950	Works w/ domestic & import vehicles

Test Lead Kit

- Contains two terminal to banana tip wires, two pin tip to banana plug adapters & one terminal to banana tip wire w/ jumper wire



Part Number	Description
LI-69200	5 piece kit

Test Jump Kit



- Contains four jumpers to fit the most popular size relays on domestic & import vehicles
- Jumpers have tabs for clamping & flat pads to place test leads on
- No need to pierce wires or connect multiple jumper wires
- Comes in a blow-molded case for storage

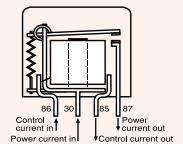
Part Number	Description
LI-56810	4 piece kit

The LI-56810 Test Jump Kit works with relays on pages 172-175.

What is a relay?

Relays are used to control electrical loads & are elementary components of modern vehicle control units. A relay is a remote-controlled switch operated by electrical current for switching circuits on, off or over.

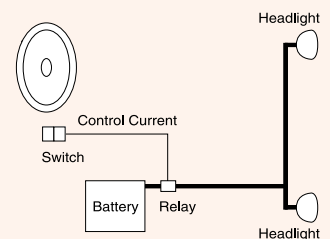
One of the basic rules of electricity states that the electrical resistance of a lead depends on its length & cross-sectional area. The longer & thinner it is, the greater the resistance, meaning less voltage at the far end of the lead where the power user is. If the power user is a bulb, a little less voltage will mean a lot less light.



Why use a relay?

Leads are resistances. Resistances cause voltage drop, which means that consumer performance is reduced.

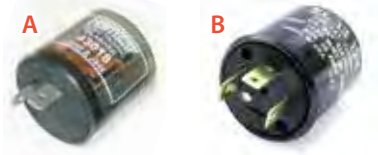
The best solution is to use a relay. In this example, the power current is routed over the shortest distance between battery & head lamp via the relay. A control current lead of only 0.75sq. mm (current consumption for this lead, less than 150mA) is required between the dashboard switch & relay. The result is practically the whole power current reaches the consumer.



Flashers

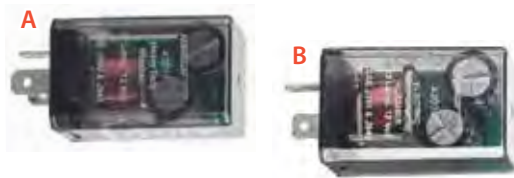
Electro-Mechanical Flashers

Heavy Duty



Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EL-12	12	1 - 12	2	Compact size for cars & light trucks	A
EL-13	12	1 - 12	3	For heavy duty trucks & trailers	B

Extra Heavy Duty



Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EL-13HD	12	1 - 20	3	For high lamp count trucks & trailers	A
EL-12HD	12	1 - 20	2	For high lamp count trucks & trailers	B

Alternating



Part Number	Volts	Lamp Load	Terminals	Description
EL-13A	12	2 - 14	3	For emergency, medical & buses

24 Volt



Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EG-22	24	1 - 12	2	For 24 volt electrical systems	A
EG-23	24	1 - 12	3	For 24 volt electrical systems	B

Pigtails for our electro-mechanical flashers are located on pg. 180.

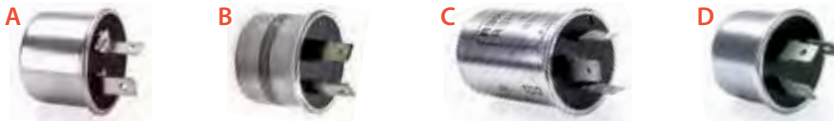
Solid State Flashers



Our solid state flashers are the perfect choice for high use applications such as road maintenance, refuse & postal vehicles.

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
TL-275	12	1 - 20	3 male .250 QD/ 1-#8 fork	20 light heavy duty flasher, 10-100FPM, operated LED as well as incandescent lamps, rated for 42amp load or 32cp bulbs	A
TL-276	12	1 - 20	3 male QD/ 1-#8 fork	Alternating, 20 light Heavy Duty, 80-100 operated LED as well as incandescent lamps, rated for 42amp load or 32cp bulbs	B

Thermal Flashers

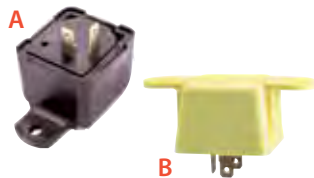


Part Number	Volts	Lamp Load	Terminals	Description	Fig.
552	12	1 - 6	2	For passenger cars	A
575	12	1 - 8	2	Fleet duty, variable load. Boat, auto, truck, off-road & tractor	B
535	6	1 - 6	3	For old model tractors & trailers	C
550	12	1 - 6	3	For light & heavy duty trucks	D

Can't find the flasher to fit your exact requirements? Give us a call & let us find the right part for your application. From foreign cars to high amp wig-wag emergency flashers, we are your one stop source.

Specialty Flashers

Heavy Duty



Part Number	Volts	Lamp Load	Terminals	Description	Fig.
852-5X	12	1 - 10	2	For trucks & foreign cars	A
850-5X	12	1 - 10	3	10x service life of other thermal flashers	B

Warning

- Indicates bulb outage by flashing twice the normal speed



Part Number	Volts	Lamp Load	Terminals
EP-36	12	1 - 6	3

Heavy Duty - Loud

- Gives extra loud pulsating sound to avoid leaving flashers on & falsely signalling a turn



Part Number	Volts	Lamp Load	Terminals
LF-12	12	1 - 6	2

Headlight



- Solid state design
- Seven selectable patterns
- Heavy duty, isolation & DRL compatible
- For most domestic car models w/ positive side switched headlights
- 18" wire leads

Part Number	Volts	Terminals
SF-ETHFSS-SP	8-30VDC @ 10 amps/output	3

RELAYS & FLASHERS

Solid State LED Flashers

Passenger & Heavy Duty Vehicle w/ Ground Wire

- For LED lamp systems w/ low resistance



Part Number	Volts	Lamp Load	Terminals
HS-43026	12	10 amp max	2

Electronic LED Flashers

Variable Load

- 60-120 flashes per minute
- Heavy duty contacts w/ external ground wire



Part Number	Volts	Lamp Load	Terminals
ER-LED-3T	12	20 amp max	3
ER-LED-2T	12	20 amp max	2

Five Pin

- Direct replacement for OE flasher
- Doesn't require a separate ground wire; uses factory wiring



Part Number	Volts	Lamp Load	Terminals
ER-LED-5T	12	20 amp max	5

Flasher Accessories

3-Terminal Flasher Pigtail



Part Number	Wire Leads	Works With	Fig.
SBPT-1	16ga. GXL; 11-1/2"	3-prong flashers & sealed beams	A
SBPT-1-12	12ga. GXL; 11-1/2"		

Components	
2965810	Connector
2973216	16ga. terminals
2977100	12ga. terminals

NEW PRODUCTS COMING SOON!

NEW & EXCITING PRODUCTS ARE COMING IN FASTER THAN WE CAN PUT THEM IN THE CATALOG. TO FIND OUT ALL ABOUT THEM:

1. ASK YOUR LOCAL SALES REP
2. CHECK OUT OUR YOUTUBE CHANNEL: [TERMINALSUPPLYCO](#)
3. GO TO [WWW.GO2TSC.COM](#)

WHETHER YOU SEE IT IN OUR CATALOG OR NOT, WE'LL BE ABLE TO FIND SOMETHING TO FIT YOUR EXACT NEEDS!


WE'VE GOT IT. WE'LL BUILD IT. WE'LL SOLVE IT.

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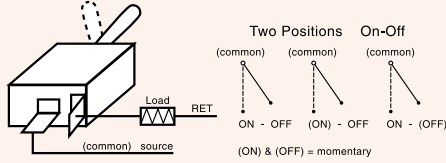
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Toggle Switches & Accessories

Toggle Switches: How They Work

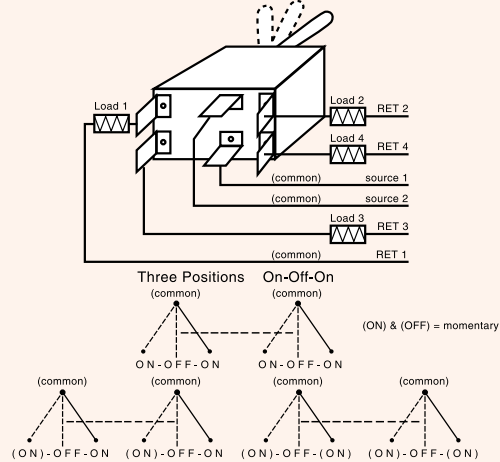
Single Pole / Single Throw (SPST)

A two terminal switch that opens or closes one circuit.



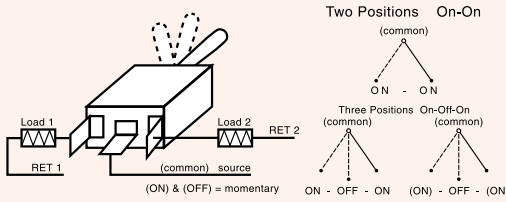
Double Pole / Double Throw (DPDT)

A six terminal switch that controls two double wire circuits permitting only one circuit to be energized at a time, or four single wire circuits permitting only two circuits to be energized at a time.



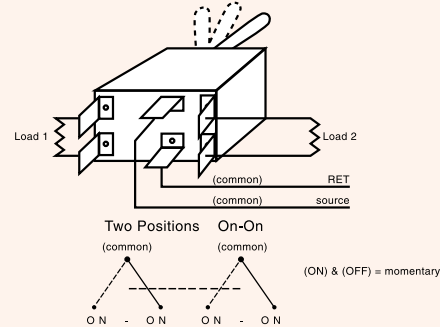
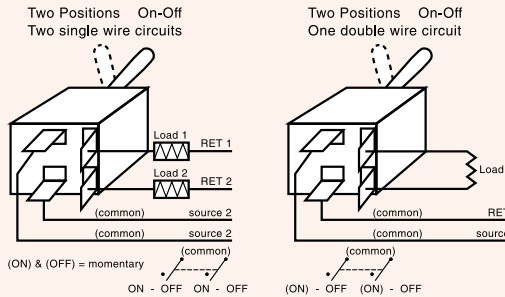
Single Pole / Double Throw (SPDT)

A three terminal switch that controls two single wire circuits. Only permits one circuit to be energized at a time.



Double Pole / Single Throw (DPST)

A four terminal switch that controls one double wire circuit or two single wire circuits.



Medium Duty

Single Pole

- Mounting stem: 15/32" - 32 thread, 15/32" long, w/ keyway in down position
- Fits panels: up to 1/4" thick



Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-5558	SPST	ON-OFF	2 - Screw	Nickel plated standard handle	10A @ 12VDC
CH-M-484	SPST	ON-OFF	2 - Screw	Chrome plated standard handle	
CH-5568	SPST	ON-OFF	2 - 6" Leads	Nickel plated ball handle	
CH-M-584	SPST	ON-OFF	2 - 6" Leads	Chrome plated standard handle	

(ON) or (OFF) in the function indicates momentary

Medium Duty, cont'd

Double Pole



- Mounting stem: 15/32" - 32 thread, 15/32" long, w/ keyway in down position
- Nickel plated brass stem, handles & mounting hardware
- Silver contacts for dependable operation
- Fits panels: up to 1/4" thick

Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-5588	DPST	ON-OFF	4 - Screw	Standard handle	
CH-55017	DPST	ON-OFF	4 - Blade	Standard handle	
CH-5590	DPDT	ON-ON	6 - Screw	Standard handle	
CH-5592	DPDT	ON-OFF-ON	6 - Screw	Standard handle	
CH-55054	DPDT	(ON)-OFF-(ON)	6 - Screw	Standard handle	
CH-55054-04	DPDT	(ON)-OFF-(ON)	6 - Screw	Long handle	25A @ 12VDC
CH-55018	DPDT	ON-ON	6 - Blade	Standard handle	
CH-55019	DPDT	ON-OFF-ON	6 - Blade	Standard handle	
CH-55057	DPDT	ON-OFF-ON	6 - Blade	Long handle	
CH-55065-03	DPDT	(ON)-OFF-(ON)	6 - Blade	Standard handle	
CH-55065-02	DPDT	(ON)-OFF-(ON)	6 - Blade	Long handle	

Heavy Duty

Zinc Diecast Housing



- Mounting: 1/2" (12.7mm) mounting hole

Part Number	Circuit	Function	Terminal Style	Description	Rated
2102	SPST	ON-OFF	2 - Screw	Standard bat handle	20A @ 12VDC
2150	SPST	ON-OFF	2 - Screw	Standard flat handle	
2153	SPST	ON-OFF	2 - Blade	Standard flat handle	
2154	SPST	ON-OFF	2 - Screw	Long handle	50A @ 6-24VDC
2155	SPDT	ON-ON	3 - Screw	Standard flat handle	
2159	SPDT	ON-OFF-ON	3 - Screw	Standard flat handle	

Metal Housing w/ Faceplate



- Mounting: .48" (12.2mm) mounting hole
- Fits panel: up to .12" thick

Part Number	Circuit	Function	Terminal Style	Description	Rated
2143	SPST	OFF-ON	2 - Screw	Chrome handle	
2128	SPDT	ON-ON	3 - Screw	Chrome handle	50A @ 12VDC
2116	SPDT	ON-OFF-ON	3 - Screw	Chrome handle	

(ON) or (OFF) in the function indicates momentary - *Minimums may apply

Heavy Duty, cont'd

Single Pole

- Mounting stem: 15/32" - 32 thread, 15/32" long, w/ keyway, located in down position
- Standard handle: 11/16", long handle: 1-1/2"
- Most fit panels up to 1/4" thick



Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-5582	SPST	ON-OFF	2 - Screw	Standard handle	
CH-5520	SPST	ON-OFF	2 - Screw	Standard handle, o-ring in stem	
CH-55055-01	SPST	ON-OFF	2 - Screw	Long handle	
CH-55023	SPST	ON-OFF	2 - Screw	Standard handle, screw & blade	
CH-55020	SPST	OFF-(ON)	2 - Screw	Standard handle	
CH-55020-04	SPST	OFF-(ON)	2 - 8" Leads	PVC coated, standard handle, o-ring in stem	
CH-55014	SPST	ON-OFF	2 - Blade	Standard handle	
CH-55014-05	SPST	ON-OFF	2 - Blade	Standard handle, o-ring in stem	
CH-55055	SPST	ON-OFF	2 - Blade	Long handle	
CH-55037	SPST	OFF-(ON)	2 - Blade	Standard handle	
CH-55049-01	SPST	ON-(OFF)	2 - Blade	Standard handle	
CH-5582-10	SPST	ON-OFF	2 - 8" Leads	PVC coated, standard handle, o-ring in stem, fits panels up to 3/16" panel thick	25A @ 12VDC 15A @ 24VDC
CH-5584	SPDT	ON-ON	3 - Screw	Standard handle	
CH-55015	SPDT	ON-ON	3 - Blade	Standard handle	
CH-5586	SPDT	ON-OFF-ON	3 - Screw	Standard handle	
CH-55016	SPDT	ON-OFF-ON	3 - Blade	Standard handle	
CH-55036	SPDT	ON-OFF-ON	3 - 9.5" Leads	PVC coated, standard handle	
CH-55088	SPDT	ON-OFF-(ON)	3 - Screw	Standard handle	
CH-55021	SPDT	(ON)-OFF-(ON)	3 - Screw	Standard handle	
CH-55033-01	SPDT	(ON)-OFF-(ON)	3 - Blade	Standard handle	
CH-55021-08	SPDT	(ON)-OFF-(ON)	3 - Screw	Long handle	
CH-55021-07	SPDT	(ON)-OFF-(ON)	3 - 8" Leads	PVC coated, standard handle, o-ring in stem	
CH-55021-04	SPDT	(ON)-OFF-(ON)	3 - Screw	Standard handle, o-ring in stem	

Extra Heavy Duty

Diecast Housing



- Mounting stem: 15/32" - 32 thread, .240" long, w/ keyway
- Bracket mount: .170" dia. holes on 1.72" centers
- Fits panels: up to 3/16" thick

Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-551840	SPST	ON-OFF	2 - Screw	Standard handle	30A @ 6-12VDC
CH-551844	SPDT	(ON)-OFF-(ON)	3 - Screw	Standard handle	15A @ 24-36VDC

(ON) or (OFF) in the function indicates momentary

Weather Resistant

- Mounting stem: 15/32" - 32 thread, w/ keyway located in down position
- Fits panels: up to 1/8" thick
- Handle : transparent Lexan w/ o-ring in bushing (lighted); black nylon (standard)



Part Number	Circuit	Function	Terminal Style	Description	Volts
CH-54100	SPST	ON-OFF	2 - Screw	Standard	
CH-54109	SPST	ON(red) - OFF(white)	4 - Screw	Lighted	
CH-54100-01	SPST	ON-OFF	2 - Blade	Standard	24A @ 12VDC
CH-54107-01	DPDT	ON-OFF-ON	6 - Blade	Standard	
CH-54109-01	SPST	ON(red) - OFF(white)	4 - Blade	Lighted	

Switches w/ lighted handles can be wired for dependent (illuminated when switch is actuated) or independent (not controlled by operation of the switch) operation.

1-1/2, 3/4, 1/3 HP

- Mounting stem: 15/32" - 32 thread
- Fits panels: up to 7/16" thick
- UL + recognized; CSA listed
- Included: hardware; ON/OFF switch plate for single throw switches marked with a *
- Recommended mounting hole: 1/2" dia.



Part Number	Circuit	Function	Terminal Style	Rated
1188/20	DPST	ON-OFF	4 - Screw	
1194/20	DPDT	ON-ON	6 - Screw	
1194-Q/20	DPDT	ON-ON	6 - Blade	1-1/2 HP
1189/20	DPDT	ON-OFF-ON	6 - Screw	21A @ 14VAC
1189-Q/20	DPDT	ON-OFF-ON	6 - Blade	20A @ 125VAC
1244/20	DPDT	(ON)-OFF-ON	6 - Screw	
1193/20	DPDT	(ON)-OFF-(ON)	6 - Screw	
1185/20*	SPST	ON-OFF	2 - Screw	
1185-Q/20*	SPST	ON-OFF	2 - Blade	
1196-Q/20	SPST	(ON)-OFF	2 - Blade	3/4 HP
1186/20	SPDT	ON-ON	3 - Screw	21A @ 14VAC
1187/20	SPDT	ON-OFF-ON	3 - Screw	20A @ 125VAC
1187-Q/20	SPDT	ON-OFF-ON	3 - Blade	
1195/20	SPDT	(ON)-OFF-(ON)	3 - Screw	
1188Q/20	DPST	ON-OFF	4 - Blade	1-1/2 HP
1193Q/20	DPDT	(ON)-OFF-(ON)	6 - Blade	20A @ 125VAC 10A @ 250VAC
1154-B/10*	SPST	ON-OFF	2 - 6" leads	1/3 HP 10A @ 125VAC

(ON) or (OFF) in the function indicates momentary - *Minimums may apply

Environmentally Sealed Micro Switches

Standard

- Meets IP67 & IP68; Nema 3, 3R, 4, 13
- UL File #: E12252; CSA File#: LR4442
- Fits panels: up to 3/16" thick
- Mounting stem: 15/32" - 32 thread
- Temp range: -4° to 160°F



Part Number	Circuit	Function	Terminal Style	UL Rating Code
1NT1-2	SPST	OFF-ON	2 - Screw	L191
1NT1-3	SPDT	ON-ON	3 - Screw	L192
1NT1-4	SPST	(OFF)-ON	2 - Screw	L192
1NT1-6	SPST	(ON)-OFF	2 - Screw	L192
1NT1-8	SPDT	(ON)-ON	3-Screw	L192
1NT91-2	SPST	OFF-ON	2 - Blade	L191
2NT1-2	DPST	OFF-ON	4 - Screw	L191
2NT1-3	DPDT	ON-ON	6 - Screw	L191
2NT1-8	DPDT	(ON)-ON	6 - Screw	L192
2NT91-2	DPST	OFF-ON	4 - Blade	L191
2NT91-3	DPDT	ON-ON	6 - Blade	L191
1NT1-1	SPDT	ON-OFF-ON	3 - Screw	L191
1NT1-5	SPDT	(ON)-OFF-ON	3 - Screw	L191
1NT1-7	SPDT	(ON)-OFF-(ON)	3 - Screw	L192
1NT91-1	SPDT	ON-OFF-ON	3 - Blade	L191
1NT91-5	SPDT	(ON)-OFF-ON	3 - Blade	L192
1NT91-7	SPDT	(ON)-OFF-(ON)	3 - Blade	L192
2NT1-1	DPDT	ON-OFF-ON	6 - Screw	L191
2NT1-5	DPDT	(ON)-OFF-ON	6 - Screw	L192
2NT1-7	DPDT	(ON)-OFF-(ON)	6 - Screw	L192
2NT1-70	DPDT	(ON)-ON-(ON)	6 - Screw	L192
2NT91-1	DPST	ON-OFF-ON	6 - Blade	L191

Part Number	Circuit	Function	Terminal Style	UL Rating Code
2NT91-5	DPDT	(ON)-OFF-ON	6 - Blade	L192
2NT91-7	DPDT	(ON)-OFF-(ON)	6 - Blade	L192
4NT1-1	4PDT	ON-OFF-ON	12 - Screw	L191
4NT1-7	4PDT	(ON)-OFF-(ON)	12 - Screw	L192

Military Spec

- Qualified to MIL-S-3950
- Fits panels: up to 3/16" thick
- Mounting stem: 15/32" - 32 thread
- Temp range: -85° to 160°F

Part Number	Circuit	Function	Terminal Style	UL Rating Code	Military Number
1TL1-2	SPST	OFF-ON	2 - Screw	L191	MS24523-22
1TL1-6	SPDT	(ON)-OFF	2 - Screw	L192	MS24523-30
1TL1-3	SPDT	ON-ON	3 - Screw	L191	MS24523-23
2TL1-3	DPDT	ON-ON	6 - Screw	L191	MS24524-23
2TL1-6	DPST	(ON)-OFF	4 - Screw	L192	MS24524-30
1TL1-7	SPDT	(ON)-OFF-(ON)	3 - Screw	L192	MS24523-27
2TL1-1	DPDT	ON-OFF-ON	6 - Screw	L191	MS24524-21

Rating Codes

L191: 15 amps, 125/250/277 VAC; 1/2 Hp, 125 VAC; 1 Hp, 250/277 VAC; 5 amps, 125 VAC "L"

L192: 10 amps, 125/250/277 VAC; 1/4 Hp, 125 VAC; 1/2 Hp, 250/277 VAC; 3 amps, 125 VAC "L"

Sub Miniature

- Mounting hole: .250"



Part Number	Circuit	Function	Terminal Style	Description	Rated
35-003	SPDT	ON-(ON)	3 - Solder Terminal	Mini bat handle	5A @ 125VAC / 12-28VDC
35-004	SPDT	ON-ON	3 - Solder Terminal	Mini bat handle	
35-005	SPDT	ON-OFF-ON	3 - Solder Terminal	Mini bat handle	
35-006	SPST	ON-OFF	2 - Solder Terminal	Plasticized handle	
35-007	SPDT	ON-OFF-(ON)	3 - Solder Terminal	Mini bat handle	
35-008	SPDT	(ON)-OFF-(ON)	3 - Solder Terminal	Mini bat handle	

(ON) or (OFF) in the function indicates momentary

Reversing (Polarity)

- Mounting stem: 15/32" - 32 thread, 15/32" long w/ keyway
- Fits panels: up to 1/4" thick
- For changing direction of permanent magnet electric motors



Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-55046	DPDT	(ON)-OFF-(ON)	4 - Blade	Std handle	25A @ 12VDC
CH-55046-04	DPDT	(ON)-OFF-(ON)	4 - Blade	Long handle	
CH-55018-01	DPDT	ON-ON	4 - Blade	Std handle	15A @ 24VDC

Illuminated

- Mounting: 1/2" mounting hole



Part Number	Circuit	Function	Terminal Style	Description	Rated	Fig.
LST-RED	SPST	ON-OFF	3 - .250" blade	Standard handle	16A @ 12VDC	A
LST-BLUE	SPST	ON-OFF	3 - .250" blade	Standard handle		A
LST-AMBER	SPST	ON-OFF	3 - .250" blade	Standard handle		A
LST-GREEN	SPST	ON-OFF	3 - .250" blade	Standard handle		A
LLT-RED	SPST	ON-OFF	3 - .250" blade	Long handle		B
LLT-BLUE	SPST	ON-OFF	3 - .250" blade	Long handle		B
LLT-AMBER	SPST	ON-OFF	3 - .250" blade	Long handle		B
LLT-GREEN	SPST	ON-OFF	3 - .250" blade	Long handle		B

Accessories

Toggle 1/2 Boot Seal

- 15/32" - 32 thread
- Accommodates all handle lengths



Part Number	Description
CH-81255	Rubber w/ nickel plated nut

Handle Extensions

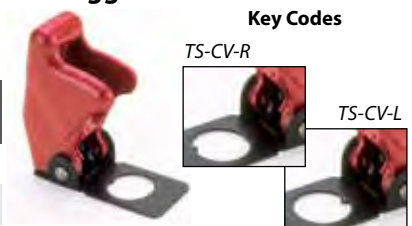
- Snaps over standard or ball handled toggle switches
- Extends handle to 1-7/8" long



Part Number	Color
CH-81271	Red

All Steel Construction Toggle Switch Protector

- 15/32" - 32 thread



Part Number
TS-CV-R
TS-CV-L

Economy Toggle Switch Protector

- Accepts 15/32" - 32 thread switches



Part Number
CH-82468

(ON) or (OFF) in the function indicates momentary

Accessories, cont'd

Toggle Switch Panel

- For use with 1/2" switches

Part Number	Number of Holes
147721	1



Nickel-Plated Steel Faceplate

- 1" high x 5/8" wide
- "ON" & "OFF" stamped into metal
- Fits 15/32" dia. stems & keyway

Part Number
CH-8250



Toggle Switch Guard

- Accepts 15/32" - 32 thread switches
- Two .140" mounting holes, 1.87" on centers

Part Number	Description
CH-82465	Stamped ON / OFF



Toggle Full Boot Seal

- 15/32" - 32 thread
- Rubber w/ nickel plated brass nut
- Fits handle up to 11/16" long
- Other colors available

Part Number	Color
CH-81264	Gray
CH-81264-01	Black
CH-81264-05	Red



Recessed Faceplate / Switch Guard

- 3-3/16" outer dia. fits a 2" dia. hole
- Three 7/32" mounting holes
- Fits 15/32" stems & keyway

Part Number
CH-5543-15



Rocker Switches & Accessories

Round

Round Bezel



- Mounts in opening: .795" dia.
- Fits panels: up to 1/2" thick
- Snap-in mounting
- .187" blade terminals



Part Number	Circuit	Function	Terminal Style	Description	Rated	Fig.
TSRR-LED-RED	SPST	ON-OFF	3-Blade	Red diode, blk actuator	10A @ 12VDC	A
TSRR-LED-AMB	SPST	ON-OFF	3-Blade	Amber diode, blk actuator	10A @ 12VDC	A
TSRR-LED-BLU	SPST	ON-OFF	3-Blade	Blue diode, blk actuator	10A @ 12VDC	A
TSRR-LED-GRN	SPST	ON-OFF	3-Blade	Green diode, blk actuator	10A @ 12VDC	A
TSRR-RED	SPST	ON-OFF	3-Blade	Red lens	20A @ 12VDC	B
TSRR-AMB	SPST	ON-OFF	3-Blade	Amber lens	20A @ 12VDC	B
TSRR-BLU	SPST	ON-OFF	3-Blade	Blue lens	20A @ 12VDC	B
TSRR-GRN	SPST	ON-OFF	3-Blade	Green lens	20A @ 12VDC	B
TSRR-85	SPST	ON-OFF	2-Blade	Black actuator	10A @ 125/12VDC	C
TSRR-85-WHT	SPST	ON-OFF	2-Blade	White actuator	10A @ 125/12VDC	D
TSRR-96	SPST	(ON)-OFF	2-Blade	Black actuator	10A @ 125/12VDC	C
TSRR-89	DPDT	ON-OFF-ON	6-Blade	Black actuator	10A @ 125/12VDC	C
TSRR-93	DPDT	(ON)-OFF-(ON)	6-Blade	Black actuator	10A @ 125/12VDC	C

(ON) or (OFF) in the function indicates momentary

Dependent pilot light illuminated when switch is actuated, Independent pilot light not controlled by operation of switch

Round, cont'd

Square Bezel



- Mounts in 3/4" opening
- 3/16" blade terminals
- Threaded rear w/ hex nut for mounting

Part Number	Circuit	Function	Terminal Style	Description	Rated
HE-80595	SPST	ON-OFF	3-Blade	Amber lens	10A @ 12VDC
HE-80596	SPST	ON-OFF	3-Blade	Blue lens	10A @ 12VDC
HE-80597	SPST	ON-OFF	3-Blade	Green lens	10A @ 12VDC
HE-80598	SPST	ON-OFF	3-Blade	Red lens	10A @ 12VDC

Oval Rocker Switches

A



B



C



- Mounts in opening: .480" dia.
- Fits panels: up to .157" thick
- Threaded rear w/ round nut for mounting
- .250" blade terminals

Part Number	Circuit	Function	Terminal Style	Description	Rated	Fig.
RD1-84100	SPST	OFF-ON	2-Blade	Black actuator	30A @ 12VDC	A
RD1-84220	SPST	OFF-ON	3-Blade	Amber illuminated actuator	30A @ 12VDC	B
RD1-84230	SPST	OFF-ON	3-Blade	Green illuminated actuator	30A @ 12VDC	B
RD1-84240	SPST	OFF-ON	3-Blade	Red illuminated accuator	30A @ 12VDC	B
RD1-84250	SPST	OFF-ON	3-Blade	Blue illuminated accuator	30A @ 12VDC	B
RD2-84820	SPST	OFF-ON	3-Blade	Black actuator w/ amber diode	30A @ 12VDC	C
RD2-84830	SPST	OFF-ON	3-Blade	Black actuator w/ green diode	30A @ 12VDC	C
RD2-84840	SPST	OFF-ON	3-Blade	Black actuator w/ red diode	30A @ 12VDC	C
RD2-84850	SPST	OFF-ON	2-Blade	Black actuator w/ blue diode	30A @ 12VDC	C

Weather Resistant

Marine Grade



- Mounts in opening: .83" x 1.45"
- Fits panels: .060" to .250" thick
- Supplied w/ neoprene mounting gasket/panel seal, silver contacts
- Certified to IP66 & IP68 for protection against dust, prolonged spray & submersion under pressure

Part Number	Circuit	Function	Terminal Style	Rated
CH-M-58031-01	SPST	OFF-ON	2 - Blade	20A @ 12VDC
CH-M-58031-07	SPST	OFF-(ON)	2 - Blade	
CH-M-58031-02	SPDT	ON-OFF-ON	3 - Blade	
CH-M-58031-04	DPST	OFF-ON	4 - Blade	

(ON) or (OFF) in the function indicates momentary
 Dependent pilot light: illuminated when switch is actuated, Independent pilot light: not controlled by operation of switch

Weather Resistant, cont'd

Illuminated

A



- Mounts in opening: .83" x 1.45"
- Fits panels: .093" to .187" thick
- Snap-in mounting

B



Part Number	Circuit	Function	Terminal Style	Lenses	Pilot Lights	Rated	Fig.
CH-58328-13	SPST	OFF-ON	3 - Blade	Amber	1 Dependent	25A @ 12VDC	A
CH-58328-12	SPST	OFF-ON	3 - Blade	Clear			A
CH-58328-11	SPST	OFF-ON	3 - Blade	Green			A
CH-58328-04	SPST	OFF-ON	3 - Blade	Red	1 Dependent (LED)		A
CH-58312-A4	SPST	ON-OFF	3 - Blade	Amber - wide lens			B
CH-58312-R4	SPST	ON-OFF	3 - Blade	Red - wide lens			B

Standard



- Mounts in opening: .83" x 1.45"
- Fits panels: .093" to .187" thick
- Snap-in mounting

Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-56027-01	SPST	ON-OFF	2 - Screw	Black actuator	25A @ 12VDC
CH-58027-01	SPST	ON-OFF	2 - Blade	Black actuator	
CH-58027-02	SPST	OFF-(ON)	2 - Blade	Black actuator	
CH-56327-01	SPST	OFF-ON	3 - Screw	1 dep. red pilot light	
CH-58327-01	SPST	OFF-ON	3 - Blade	1 dep. red pilot light	
CH-58027-03	SPDT	ON-OFF-ON	3 - Blade	Black actuator	
CH-58027-04	SPDT	(ON)-OFF-(ON)	3 - Blade	Black actuator	
CH-58327-06	SPDT	ON-OFF-ON	4 - Blade	2 dep. red pilot lights	
CH-58027-06	DPST	OFF-ON	4 - Blade	Black actuator	
CH-58027-07	DPDT	ON-OFF-ON	6 - Blade	Black actuator	
CH-58027-11	DPDT	(ON)-OFF-(ON)	6 - Blade	Black actuator	
CH-58027-08	DPDT	ON-ON	6 - Blade	Black actuator	

Illuminated Build Your Own Switch Kits



- Mounts in opening: .83" x 1.45"
- Fits panels: .093" to .187" thick
- Comes w/ one switch & a set of snap-in pilot light lenses (amber, clear, green, red)
- Snap-in mounting

Part Number	Circuit	Function	Terminal Style	Lenses	Pilot Lights	Rated
CH-58328-100BP	SPST	OFF-ON	3 - Blade	1 set of 4 lenses	1 Dependent	25A @ 12VDC
CH-58328-101BP	SPST	OFF-ON	4 - Blade	1 set of 4 lenses	1 Independent	

(ON) or (OFF) in the function indicates momentary

Dependent pilot light: illuminated when switch is actuated, Independent pilot light: not controlled by operation of switch

Weather Resistant LED Illuminated Rockers

- Electrical rating: 21A 14V DC,
20A 125V AC 1/3HP,
10A 250V AC 3/4HP
- Fits panel: .04 x.20 (1.0-5.0)max
- Operation temp: -25°C ~ + 85°C
- Waterproof IP: IP56

A



B



C



D



Part Number	Circuit	Function	Terminal Style	Description	Fig.
SRD100-001	SPST	ON-OFF	3-.250 Blade	Amber	A
SRD100-002	SPST	ON-OFF	3-.250 Blade	Green	A
SRD100-003	SPST	ON-OFF	3-.250 Blade	Red	A
SRD100-004	DPST	ON-OFF	5-.250 Blade	Amber	A
SRD100-005	DPST	ON-OFF	5-.250 Blade	Green	A
SRD100-006	DPST	ON-OFF	5-.250 Blade	Red	A
SRD100-007	SPDT	ON-OFF-ON	4-.250 Blade	Red/Red	B
SRD100-008	SPDT	ON-OFF-ON	4-.250 Blade	Amber/Amber	B
SRD100-009	SPDT	ON-OFF-ON	4-.250 Blade	Green/Green	B
SRD100-010	SPDT	ON-OFF-ON	4-.250 Blade	Blue/Blue	B
SRD200-001	SPST	ON-OFF	3-.250 Blade	Amber	C
SRD200-002	SPST	ON-OFF	3-.250 Blade	Green	C
SRD200-003	SPST	ON-OFF	3-.250 Blade	Red	C
SRD200-004	DPST	ON-OFF	5-.250 Blade	Amber	C
SRD200-005	DPST	ON-OFF	5-.250 Blade	Green	C
SRD200-006	DPST	ON-OFF	5-.250 Blade	Red	C
SRD200-007	SPDT	ON-OFF-ON	4-.250 Blade	Red/Red	D
SRD200-008	SPDT	ON-OFF-ON	4-.250 Blade	Amber/Amber	D
SRD200-009	SPDT	ON-OFF-ON	4-.250 Blade	Green/Green	D
SRD200-010	SPDT	ON-OFF-ON	4-.250 Blade	Blue/Blue	D

Standard - Narrow Bezel

- Mounts in opening: .83" x .1.45"
- Fits panels: .040" to .100" thick
- Rated: 25 amp; 12VDC
- Snap-in mounting



Part Number	Circuit	Function	Terminal Style	Actuator/ Bezel Color	Description	Rated
CH-57300-01	SPST	ON-OFF	3 - Blade	White/Nickel	Dependent red pilot light	25A @ 12VDC

(ON) or (OFF) in the function indicates momentary

Illuminated

Mini



- Mounting: 1/2" x 3/4" mounting hole

Part Number	Circuit	Function	Terminal Style	Rated
MLR-RED	SPST	ON-OFF	3 - .187" blade	10A @ 12VDC
MLR-BLUE	SPST	ON-OFF	3 - .187" blade	
MLR-AMBER	SPST	ON-OFF	3 - .187" blade	
MLR-GREEN	SPST	ON-OFF	3 - .187" blade	

Standard



- Mounting: 1/2" x 1" mounting hole

Part Number	Circuit	Function	Terminal Style	Rated
LR-RED	SPST	ON-OFF	3 - .250" blade	20A @ 12VDC
LR-BLUE	SPST	ON-OFF	3 - .250" blade	
LR-AMBER	SPST	ON-OFF	3 - .250" blade	
LR-GREEN	SPST	ON-OFF	3 - .250" blade	
LR-PANEL	Snap in clips allow panels to be easily joined together			

Rocker Switch Brackets



Part Number	Description	Fig.
CH-82159-1	End section: use 2 switches & 2 end sections	A
CH-82159-2	Center section: add center sections for 3 or more switches	B
CH-82159-3	Bracket for individual switches	C
CH-98628	Bracket hole plug: to block any unused sections	D
CH-87167-01-BP	Mounting bracket: mounts under/on top of panel, holds 2-6 switches	E

Below is an example of a finished switch panel using the pieces above. To create a set up like this you would need:

- (1) CH-87167-01-BP mounting bracket
- (2) CH-82159-0 end sections
- (3) CH-82159-2 center sections
- (5) Rocker switches of your choice in any of the CH-56000, CH-57000, CH-58000, CH-M-56000 series, located on pages 179-181.



(ON) or (OFF) in the function indicates momentary

Momentary Push Button Switches

Light Duty



- Mounting stem: 1/2" - 20 thread, 5/8" long
- No knob, shaft has 3/32" hole for attachment of cable or lever

Part Number	Circuit	Function	Terminal Style	Rated
CH-9109	SPST	OFF-(ON)	2 - Screw w/ lock washers	10A @ 12VDC

Medium Duty

Chrome Plated



- Mounting stem: 5/8" - 32 thread, 7/8" long
- Fits panels: up to 1/2" thick

Part Number	Function	Terminal Style	Rated
CH-9115	ON-(OFF)	2 - Screw w/ lock washers	10A @ 12VDC
CH-9023	OFF-(ON)	2 - Screw w/ lock washers	10A @ 12VDC

PVC Coated



- Mounting stem: 5/8" - 32 thread, 5/8" long
- Fits panels: up to 5/8" thick
- Switch is OFF with button depressed, spring return to ON

Part Number	Function	Terminal Style	Rated
CH-90043-07	ON-(OFF)	2 - 7" 18ga. wire leads	10A @ 12VDC

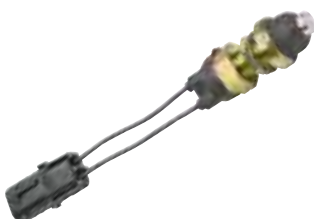
Nylon Housing



- Mounting stem: 5/8" dia., 3/4" long
- Switch is ON with button depressed, spring return to OFF

Part Number	Function	Terminal Style	Rated
52-611	OFF-(ON)	2 - Screw	25A @ 6V - 15A @ 12V

Moisture Proof



- Mounting stem: 1/4" dia., .285" long
- Switch is normally ON, push to OFF
- Connector mates with Packard part #12015792

Part Number	Function	Terminal Style	Rated
21-541	ON-(OFF)	2 - 6" 16ga. wire leads w/ Packard connector 12010973	20A @ 12VDC

Heavy Duty



- Mounting stem: 5/8" - 32 thread, 21/32" long
- Fits panels: up to 1/2" thick
- Switch is ON with button depressed, spring return to OFF
- Rubber cap provides moisture & dirt protection

Part Number	Function	Terminal Style	Rated	Fig.
24-359	OFF-(ON)	2 - Screw	60A @ 12VDC 40A @ 24VDC	A
24-360	OFF-(ON)	2 - Screw		B
CH-9245	OFF-(ON)	2-Screw	35A @ 12VDC 20A @ 24VDC	B
CH-9095	OFF-(ON)	2 - Screw		C
CH-9276-09	OFF-(ON)	3 - Screw		D
CH-90030-12	OFF-(ON)	2 - 18ga., 8" wire leads		E
CH-83280-03	Replacement rubber cap for CH-90030-12 & CH-9276-09			

Marine Grade

Extra Heavy Duty



- Mounting stem: 5/8" - 32 thread, 1-3/8" long
- Fits panels: up to 1" thick
- Switch is ON with button depressed, spring return to OFF

Part Number	Circuit	Function	Terminal Style	Rated	Fig.
CH-M-626	SPST	OFF-(ON)	2 - Screw	35A @ 12VDC 20A @ 24VDC 10A @ 36VDC	A
CH-M-626-02	SPST	OFF-(ON)	2 - Screw		B
CH-83280-03	Replacement black screw on rubber cap for CH-M-626-02				

PVC Coated



- Mounting stem: 5/8" - 32 thread, 21/32" long
- Fits panels: up to 1/2" thick
- Switch is ON with button depressed, spring return to OFF
- Will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style	Rated
CH-M-608	SPST	OFF-(ON)	2 - 12" 18ga. wire leads	10A @ 12VDC

(ON) or (OFF) in the function indicates momentary

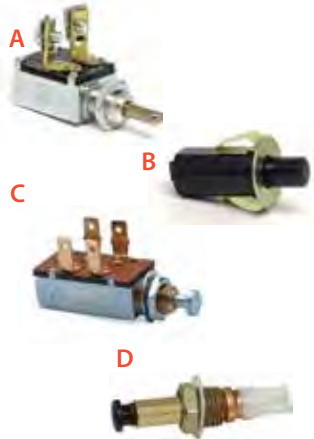
Engine Start



- Mounting stem: 7/8" - 24 thread, 21/32" long
- Fits panels: up to .10" thick

Part Number	Function	Terminal Style	Rated
CH-90047	OFF-(ON)	2 - Screw	35A @ 12VDC - 20A @ 24VDC

Door



Part Number	Circuit	Function	Terminal Style	Rated	Mounting	Fig.
CH-9055	SPST	ON-(OFF)	2 - Screw	10A @ 12VDC	7/8"-24 thread 21/32" long stem	A
CH-9075	SPST	ON-(OFF)-ON	2 - Female Bullets	5A @ 12VDC	Snaps into .80 - .85" hole .03 - .07" thick panels	B
CH-91801	DPST	ON-(OFF)	4 - Blade	10A @ 12VDC	7/16"-20 thread 7/16" long stem	C
52-620	SPST	ON-(OFF)	Mates to pigtail	10A @ 14VDC	1/2"-20 thread Self tapping	D
52-622	Mating pigtail connector for switch #52-620, three 8", 18ga. wire leads					-

Moisture Resistant Push Button



- Mounts hole: 7/8" diameter
- Operation temp: -25°C – 85°C
- IP65 rated with splash proof rubber boot that ensures protection against water and moisture (IP65)

Part Number	Circuit	Function	Terminal Style	LED Color	Rated
PBS-RED	SPST	OFF-ON	3-.250 Blade	Red	10A @ 14VDC
PBCM-RED	SPST	OFF-(ON)	3-.250 Blade	Red	10A @ 1VDC

LED Anti-Vandal Push Button



- Mounting: 3/4 dia. mounting stem with hex nut
- Panel Thickness: .03 thru .39
- LED - Independent Light
- Designed with stainless steel body and sealed to an IP67 rating

Part Number	Circuit	Function	Terminal Style	LED Color	Rated
PBLS-RED	SPST	ON-(ON)	5-.110 Male Blade	Red	14VDC
PBLS-BLU	SPST	ON-(ON)	5-.110 Male Blade	Blue	14VDC
PBLS-GRN	SPST	ON-(ON)	5-.110 Male Blade	Green	14VDC

Push - Pull Switches

Light Duty



- Mounting stem: 3/8" - 20 thread, 1-1/4" long
- Fits panels: up to 3/4" thick

Part Number	Circuit	Function	Terminal Style	Rated
1811	SPST	OFF-ON	2 - Screw	25A @ 6VDC 15A @ 12VDC

Heavy Duty

Two Speed Axle Switch

- Mounting: On gear shift lever w/ clamp (not included)
- Zinc case w/ rubber boot
- Rated: 20A @ 12VDC



Part Number	Circuit	Function	Terminal Style
CH-50036	SPDT	ON-ON	3 - Bullet

Plastic Knob

- Mounting stem: 7/16", 5/8" long
- Rated: 25A @ 6VDC, will handle 6-12VDC



Part Number	Circuit	Function	Terminal Style
35-300	SPST	OFF-ON	2 - Screw

Illuminated Knob

- Mounting specs: 5/8" dia. hole
- Rated: 20A @ 12VDC



Part Number	Circuit	Function	Terminal Style
TL-102	SPST	ON-OFF	2 - 16" 18ga. wire leads
TL-07332		Replacement red knob	
53L		Replacement bulb	

Die Cast

- Mounting stem: 15/32" - 32 thread, 5/8" long
- Fits panels: up to 3/8" thick
- Rated: 75A @ 6VDC, will handle 6-28VDC



Part Number	Circuit	Function	Terminal Style
1820	SPST	OFF-ON	2 - Screw

Heater

- Mounting stem: 7/16" - 18 thread, 5/16" long
- Rated: 5A @ 12VDC



Part Number	Circuit	Function	Terminal Style
CH-68028	SPST	OFF-HIGH-LOW	2 - Screw

Headlamp Switch

- Mounting stem: 3/8" - 24 thread
- Rated: 10A @ 12VDC



Part Number	Circuit	Function	Terminal Style
CH-7112	SPST	OFF-PARK/TAILOFF-TAIL-HIGH/TAILOFF	5 - Screw

Marine Grade

Chromed Knob

- Mounting stem: 3/8" - 32 thread, 1-1/4" long
- Fits panels: up to 3/4" thick
- Rated: 6-36VDC; 10A @ 12VDC



Part Number	Circuit	Function	Terminal Style
CH-M-628	SPST	OFF-ON (normally off)	2 - Screw

Brass, PVC Coated Housing

- Mounting stem: 3/8" - 32 thread, 1-1/4" long
- Fits panels: up to 3/4" thick
- Rated: 6-36VDC; 10A @ 12VDC



Part Number	Circuit	Function	Terminal Style
CH-M-606	SPST	OFF-ON	2 - 12" 18ga. wire leads

Foot Operated Switches

Headlight Dimmer

On Floorboard Mounted



- Mounting: two 7/32" holes, 1-5/8 on center
- Depress-release for low beam, depress-release for high beam

Part Number	Circuit	Function	Terminal Style	Amps	Volts
52-252	SPDT	ON-ON	3 - Blade	15	12VDC

Starter

LED Printed



- 7/8 dia. mounting stem with hex nut
- Fits panel thickness up to 26/64
- Push button is printed with text - ENGINE START

Part Number	Circuit	Function	Terminal Style	Color	Amps	Volts
STW-RED	SPST	OFF-(ON)	3-Screw	Red	50	12VDC
STW-GRN	SPST	OFF-(ON)	3-Screw	Green	50	12VDC
STW-BLU	SPST	OFF-(ON)	3-Screw	Blue	50	12VDC

Stoplamp Switches

Mechanical



Part Number	Circuit	Function	Terminal Style	Rated	Mounting	Fig.
CH-8486	SPST	ON-OFF-(ON)	2 - .156" Bullet terminals	10A @ 12VDC	2 - #10-32 holes 5/8" centers	A
CH-8487	SPST	ON-(ON)	2 - .156" Bullet terminals	10A @ 12VDC	2 - #10-32 holes 5/8" centers	A

Hydraulic



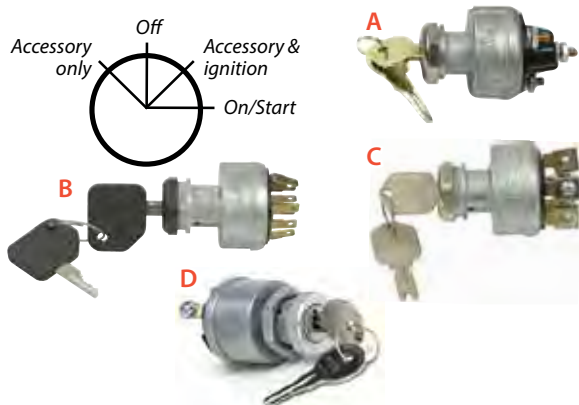
Part Number	Circuit	Function	Terminal Style	Operates At	Mounting	Fig.
CH-8626	SPST	OFF-OFF	2 - #6-32 screws	60 to 120psi	1/8"-27 dia. x 11/32" long mounting stem	A
CH-8629	SPST	OFF-OFF	2 - .156" Bullet terminals	60 to 120psi	1/8"-27 dia. x 11/32" long mounting stem	B

(ON) or (OFF) in the function indicates momentary

Ignition Switches

4-Postion

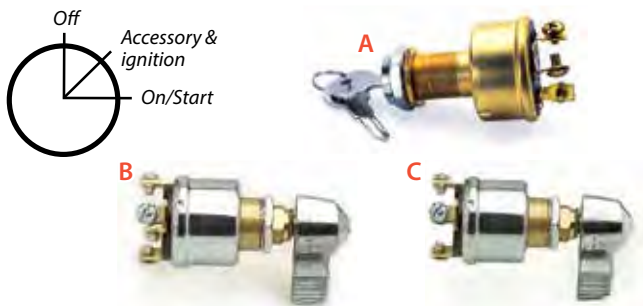
- Key removed in Off position only



- All keys come 2 keys per ring

Part Number	Terminal Style	Rated	Key Code	Replacement Key	Fig.
31-103	4 - Stud	8A @ 14VDC	Various	No replacement	A
31-104	4 - Stud		Keyed alike	31-600-103	A
31-231	11 - .250" Blade		Keyed alike	19564	B
31-242	5 - Screw		Keyed alike	31-166-001	C
CH-9579	4 - Screw	10A @ 12VDC	Various	No replacement	D

3-Postion



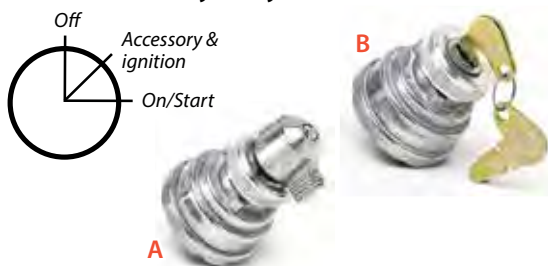
Part Number	Terminal Style	Rated	Replacement Key	Fig.
3906	3 - Screw	15A @ 12VDC	No replacement	A
CH-95591	4 - Screw	10A @ 12VDC	N/A	B
CH-95612	3 - Screw	25A @ 12VDC	N/A	C

3-Postion Diesel



Part Number	Terminal Style	Rated	Mounting Stem
CH-95033	3 - Screw	10A @ 12VDC	5/8"-32 thread

3-Postion Heavy Duty Anti-Restart



Part Number	Terminal Style	Rated	Mounting Stem	Replacement Key	Fig.
CH-956-3124	5 - Screw	10A @ 12VDC	1"-24 thread	N/A	A
CH-956-4111	4 - Blade	10A @ 12VDC	1"-24 thread	N/A	A
CH-956-3126	4 - Screw	10A @ 12VDC	1"-24 thread	CH-83357	B

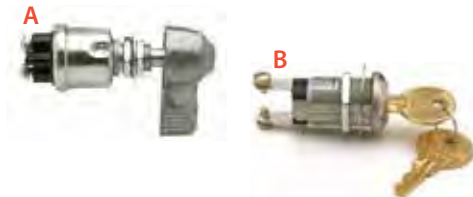
Ignition Switches, cont'd

2 & 3-Postion Sealed



Part Number	Positions	Terminal Style	Rated	Key Code	Replacement Key
CH-95060-04	3 (Off-Ign/Acc-Start)	Integral Deutsch connector	10A @ 12VDC	Various	No replacement
CH-95060-07	2 (Off-Ign-Acc)				

2-Postion



Part Number	Positions	Terminal Style	Rated	Mounting Stem	Fig.
CH-9500	Off - On	2 - Screw	10A @ 12VDC	1/2"-20 thread	A
CH-9622-01	Off - On	2 - Screw	5A @ 12VDC	3/4"-24 thread	B

Rotary Switches

3-Postion Reversing



Part Number	Function	Terminal Style	Rated	Mounting Stem
CH-75712-04	(ON)-OFF-(ON)	4 - Screw	50A @ 12VDC	1/2"-20 thread
CH-90005-01	(ON)-OFF-(ON)	4 - Screw	15A @ 12VDC	1/2"-20 thread

Battery Control Products

Master Battery Disconnect Switches

Plastic - Keyed



- Mounting specs: Two 6mm mounting holes
- Red plastic key gives easy access to shut down power for a useful safety/security device
- Will handle 12-24VDC

Part Number	Circuit	Function	Terminal Style	Rated
HE-87181	SPST	ON-OFF	Two 3/8" dia. studs	50A continuous / 1000A (for 10 sec) intermittent @ 12VDC
HE-87185			Replacement key	

Master Battery Disconnect Switches, cont'd

Plated Steel Case - Keyed



- 3/4"-16 thread x 17/32" long brass mounting stem; fits panels up to 1/4" thick
- Hencol lock w/ two keys
- Indexing pin on case aligns unit & prevents rotation
- Will handle 6-36 VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated
CH-2484-02	SPST	OFF-ON	2 - 3/8"-24 studs	Silver	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-82065-02	Face plate					

High Amp Plated Steel Case - Die Cast Lever



- 3/4"-16 x 17/32" long brass mounting stem; fits panels up to 3/16" thick
- Intermittent = 30 seconds on, 3 minutes off
- Will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated
CH-75904	DPST	OFF-ON	2-3/8"-24 & 2-#10-32	Silver	N/A	125A continuous / 1000A intermittent @ 12VDC
CH-75907	DPST	OFF-ON	2-1/2"-20 & 2-#10-32 studs	Copper	N/A	300A continuous / 2000A intermittent @ 12VDC
CH-75908	SPST	OFF-ON	2-1/2"-20 studs	Copper	N/A	
CH-82065-02	Face plate					

Plated Steel Case - Die Cast Lever



- 3/4"-16 x 23/32" long brass mounting stem; fits panels up to 3/16" thick
- Intermittent = 15 seconds on, 5 minutes off
- Will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated
CH-2484-06 <i>*includes o-ring</i>	SPST	OFF-ON	2 -3/8"-20 studs	Silver	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-2484-09	SPST	OFF-ON	2 -3/8"-20 studs	Copper	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-2484-A	SPST	OFF-ON	2 -3/8"-20 studs	Silver	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-2484	SPST	OFF-ON	2 -3/8"-20 studs	Copper	UL 375M	20A continuous / 125A intermittent @ 12VDC
CH-2484-16	SPST	OFF-ON	2 -3/8"-20 studs	Silver	UL 707B	175A continuous / 800A intermittent @ 12VDC
CH-82065	Face plate					

Master Battery Disconnect Switches, cont'd

Waterproof Case - With Lockout



- Mounting specs: 3/4"-16 mounting stem
- Intermittent = 90 seconds on, 5 minutes off @ 1000A; 60 seconds on, 5 minutes off @ 1500A; 30 seconds on, 5 minutes off @ 2000A; 15 seconds on, 5 minutes off @ 3000A
- Satisfies OSHA requirements for an energy isolation device
- Lockout will fit a 1/4" lock shaft
- Sealed to IP67
- Will handle 12-24VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated
CH-75920	SPST	OFF-ON	2 -5/16"-24 studs	Copper	N/A	300A continuous / 3000A intermittent @ 12VDC

One Piece Die Cast Case



- Mounting specs: 3/4" mounting stem; fits panels up to 1/4" thick
- Intermittent = 4 seconds on, 20 minutes off @ 1000A
- Will handle 6-36VDC



Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated	Fig.
51-927	SPST	OFF-ON	2 - 1-1/2" studs w/ nuts & washers	Silver plated	N/A	6-36VDC, 180A continuous / 1000A intermittent @ 12VDC	A
51-904	DPST	OFF-ON	2 - 3/4" studs 2 -#10-32 studs	Silver plated	N/A		B
51-303	Faceplate, for both switches						-
51-308	Replacement zinc die cast lever & set screw for 51-904						-

Marine Grade



- Mounting specs: 3/4" mounting stem; fits panels up to 15/16" thick
- Intermittent = 15 seconds on, 5 minutes off @ 1000A
- Will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Rated
CH-M-284	SPST	OFF-ON	2 - 3/8" studs	Copper	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-M-284-02	SPST	OFF-ON	2 - 3/8" studs	Silver	N/A	

Dual Battery Selector



- 6" dia. flange, 2-5/8" overall height
- Permits current to be carried by either of two batteries simultaneously, or cuts off all current at the source
- Four positions: OFF, battery #1 ON, both batteries ON, battery #2 ON
- Ignition protected; conforms to USCG safety standard, section 183,410
- Will handle 6-36VDC

Part Number	Terminal Style	Contacts	UL Listing	Rated
CH-M-750	3 - 3/8" dia. studs	Copper	UL 707B	310A continuous / 500A intermittent @ 12VDC

Miscellaneous Switches

Gravity Activated

- Rated: 5A @ 12VDC



Part Number	Circuit	Function	Terminal Style
MS-2	SPST	Optional	1 - Tek screw / 1 - .250" blade

Pin

- Rated: 5A @ 12VDC
- 5/16" - 18 thread



Part Number	Circuit	Function	Terminal Style
HA-7846	SPST	ON-OFF	Blade

Horn Button

- Mounting: 4521 fits up to 2" dia. pipe
- Rated: 16 amp; 12VDC



Part Number	Circuit	Function	Terminal Style	Fig.
3930	SPST	ON-OFF	2 - Screw	A
4521	SPST	ON-OFF	2 - Screw	B

Transit Buzzer Control

- Rated: 36VDC



Part Number	Circuit	Function	Terminal Style
CH-40100	SPST	OFF-(ON)	2-Screw

Sealed Plugger Switch

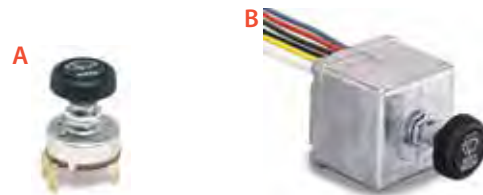
- Rated: 10A @ 14VDC
- 5/16-18 Self Tapping Thread



Part Number	Function	Description	Fig.
52-620	On-off (normally on - push to off)	Pollak door jamb sealed plunger	A
52-622	3 - 8" 18 ga. wire leads	Pollak mating connector for 52-620 switch	B

Windshield Wiper

- Mounting stem: 7/16"-28 thread, .45" long
- Rated: 12VDC



Part Number	Description	Terminal Style	Fig.
CH-75228-04	3 position	5 - Terminal	A
CH-75600-04	4 position	6 - Wire leads	B

Back-Up Ball Switches



Part Number	Circuit	Function	Terminal Style	Rated	Mounting	Fig.
CH-91113	SPST	OFF-(ON)	2 - Screws	20A @ 12VDC	9/16"-18 thread mounting stem	A
CH-9242	SPST	OFF-(ON)	2 - Screws	35A @ 12VDC	9/16"-18 thread mounting stem	A

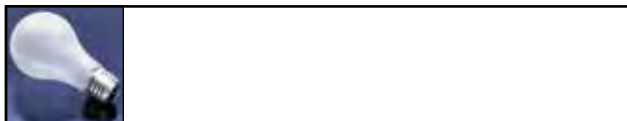
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Safety Tape

Traction Tape

General Purpose

- Mineral coated, slip resistant material w/ highly durable surface
- Low profile design reduces trip hazard
- Designed for use on smooth, flat surfaces
- Other colors available, minimums may apply



Part Number	Width	Length	Package Type	Color
TTB-624	6"	24"	Sheet	Black
TTB-160	1"	60'	Roll	Black
TTB-260	2"	60'	Roll	Black
TTB-460	4"	60'	Roll	Black

General Purpose

- High friction, slip resistant material
- Aluminum backing conforms around corners & adheres to irregular surfaces
- Other colors available, minimums may apply



Part Number	Width	Length	Package Type	Color
TT-CON-624	6"	24"	Sheet	Black
TT-CON-260	2"	60'	Roll	Black
TT-CON-460	4"	60'	Roll	Black
TT-CON-660	6"	60'	Roll	Black
TT-CON-1260	12"	60'	Roll	Black

Slip Resistant Coating



- More durable than tape
- Resistant to oil & gas
- Plastic beads improve traction on almost any surface
- Sold single or in cases of 6

Part Number	Net Weight	Package Type	Color
SSP-16-83	12oz.	Aerosol can	Black
SSP-16-81	12oz.	Aerosol can	Clear
SSP-16-89	12oz.	Aerosol can	Yellow

Conspicuity Tape

Standard

- Meets NHTSA regulations
- Withstands exposure to broad range of chemicals

- Performs at angles approaching 90°
- Rigid construction allows for easy application



Part Number	Width	Length	Package Type	Color / Pattern
CT-150-2	2"	150'	Roll	7" white - 11" red
CT-150-2W	2"	150'	Roll	Solid white
CT-182	2"	18"	Sheet	7" white - 11" red
CT-122W	2"	12"	Sheet	Solid white
CT-150-3	3"	150'	Roll	7" white - 11" red
CT-150-3W	3"	150'	Roll	Solid white
CT-150-4	4"	150'	Roll	7" white - 11" red

Conspicuity Tape, cont'd

Value

- Conforms to all FHWA rulings & NHTSA regulations on trailer conspicuity



Part Number	Width	Length	Package Type	Color / Pattern
CT-150-VAL	2"	150'	Roll	6" red - 6" white

Yellow High Intensity

- Primarily used for school buses



Part Number	Width	Length	Package Type	Color / Pattern
CT-1-150-Y	1"	150'	Roll	Solid yellow
CT-2-150-Y	2"	150'	Roll	Solid yellow

Triangle Kit



- Meets D.O.T. standards
- Set of 3 complete triangle units with high impact weighted bases, housed in heavy duty storage case
- 15-1/2" high x 17-3/4" wide

Part Number	Description
TS-SL-711-70	3 piece triangle warning device kit

We also carry a full line of adhesive mount & screw mount reflectors to add to the visibility of your truck. See page 319 for more info.

Work Lights

Pro Series Fluorescent Work Light w/ Receptacle

- Features dual end hooks, grounded 12 amp receptacle & ON/OFF rocker switches
- 26 watt output equal to 125 watt incandescent



Part Number	Color	Description
SL-908	Yellow	6ft., 16/3 SJT cord
SL-975	Black	25ft., 16/3 SJT cord
SL-103PDQ		Replacement lamp

Economy Fluorescent Work Light

- Features ON/OFF rocker switch & hanging hook
- Cool running, 13 watt



Part Number	Color	Description
SL-520	Black	25ft., 18/2 SVT cord
SL-103PDQ		Replacement lamp
SL-202		Replacement outer tube

Work Lights, cont'd

Pro Series Reel w/ Fluorescent Work Light

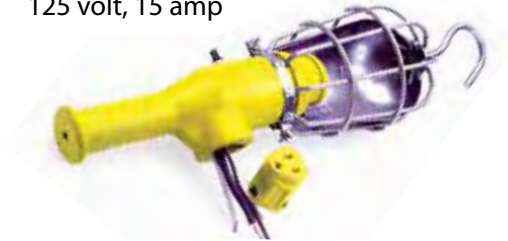
- Features a 12 amp grounded receptacle, 13 amp resettable circuit breaker, dual hooks & independent rocker switches
- 26 watt output equal to 125 watt incandescent



Part Number	Color	Description
SL-8908	Yellow	50ft., 14/3 SJTW cord
SL-103PDQ		Replacement lamp

Portable Hand Lamp

- Features a reflector & switch, including side outlet
- 125 volt, 15 amp



Part Number	Color	Description
ER-944-RS	Yellow	Lamp
ER-104-R		Replacement lamp guard
ER-79		Replacement switch

For a more durable option, use our rough service bulbs in all of your trouble lights. See page 208 for more info.

Retractable LED Work Light

- Features two built-in magnets w/ detachable magnetic hook & a reel mounting bracket
- Two brightness settings: 600 & 1200 lumen



Part Number	Color	Description
SL-866	Yellow/Black	50ft., 18/2 SVT cord

All Weather Trouble Light

- Meets OSHA specifications for general use; UL Listed
- Features exclusive one piece injection molded handle, grounded vinyl coated metal guard w/ switch, side outlet & a cord flexible down to -4°F
- 12 volt, 13 amp



Part Number	Color	Description
163-25TL	Yellow	25ft., 16/3 SJT cord
163-50TL	Yellow	50ft., 16/3 SJT cord

Economy Retractable Trouble Light

- Features durable push on/off switch, hanging hook & cord on a retractable reel
- Can handle up to a 75W incandescent bulb (sold separately)



Part Number	Color	Description
SL-851	Yellow/Black	50ft., 18/3 SVT cord
SL-100		Replacement outer cage

Corded LED Work Light

- Features two built-in magnets w/ detachable magnetic hook & a reel mounting bracket
- Two brightness settings: 600 & 1200 lumen



Part Number	Color	Description
SL-2135	Yellow/Black	25ft., 18/2 SJT cord

Work Lights, cont'd

Pro Series Quad Tap Retractable Reel

- Features polarized plug w/ four 15 amp grounded receptacles, resettable 15 amp circuit breaker & LED power status light



Part Number	Color	Description
SL-8904	Yellow	50ft., 12/3 SJTW cord

Multi-Directional LED Work Lamp

- USB-C rechargeable (a 2 Amp AC wall charging block is required for charging, sold separately)
- Built-in power bank
- Rotating magnetic handles
- Rotating C.O.B. panels
- Water & impact resistant



Part Number	Lumen	Description
TS-OMNI-2000	20-2000	6 Light Modules

Rechargeable Dual-Light LED Spotlight & Work Lamp

- Spot & flood lights can be used separately or together
- Features hook/prop stand & a clip-on magnet for hands-free use
- 170 lumen (flood) / 200 lumen (spot)



Part Number	Color	Description
NSR-2492	Orange	Cordless; includes AC/DC power supply/charger

Rechargeable LED Under Hood Work Light

- Features adjustable cradle w/ a pair of spring-loaded, foam-covered grippers that extend 48"-70" & magnets in each handle for hands-free use
- Full power and half power modes
- 1200 (full) / 650 (half) lumen



Part Number	Color	Description
SLR-2120	Black	Cordless; includes AC/DC power supply/charger

Rechargeable LED Work Lamp

- Features 3 magnets & a detachable magnetic hook for hands-free use
- Flat bottom & octagonal design allows light to stand on its own
- 600 (high) / 225 (low) lumens



Part Number	Color	Description
NSR-2168R	Orange	Cordless; includes AC/DC power supply/charger

SVT Cord: Light Duty Service Thermoplastic. Copper conductors w/ PVC insulation. 300 volt. -4°F to 140°F. Indoor use.

SJT Cord: Junior Hard Service Thermoplastic. Copper conductors w/ PVC insulation. 300 volt. -4°F to 140°F. Indoor use.

SJTW Cord: Weather Resistant Junior Hard Service Thermoplastic. Copper conductors w/ PVC insulation. 300 volt. -4°F to 140°F. Outdoor use.

Light Bulbs

- Brass base eliminates “freezing” or corroding in socket
- Heavy duty shock proof filament adds to bulb life (5000 rated hours of life)



Part Number	Description	Watts	Volts	Life Hours	Pack Qty.	Case Qty.	Fig.
RSB-60	Industrial grade	60	120	5000	4	24	A
RSB-60T	Teflon coated	60	120	5000	4	24	A
RSB-25-12V	Rough service	25	12	5000	4	24	A

Wiring Devices

Industrial Grade

- UL Fed Spec # 13393
- CSA File #LR-406
- Operating temp: -40°F to 140°F

Straight Blade

- Unique cord clamp accepts a wide range of cord sizes (.245 - .700”), providing a secure grip without damaging the cord jacket
- Has a brass color coded #8 terminal screw



Plug Part Number	Receptacle Part Number	NEMA Configuration Plug	NEMA Configuration Receptacle	Volts	Amps	Poles / Wires	Wire Gauge	Fig.
LE-5666-C	LE-5669-C	6-15P	6-15R	250	15	2P / 3W	18-10	A
LE-5266-C	LE-5269-C	5-15P	5-15R	125	15	2P / 3W	18-10	B
LE-5266-PLC <i>Features a power indicating LED</i>	LE-5269-PLC	5-15P	5-15R	125	15	2P / 3W	18-10	B
LE-5366-C	LE-5369-C	5-20P	5-20R	125	20	2P / 3W	18-10	C

To hook up your Wiring Devices, we also sell Service Cord on pages 124. If you do not see what you're looking for, just contact customer service or your local sales rep.

Industrial Grade, cont'd

Locking Blade



Plug Part Number	Receptacle Part Number	NEMA Configuration		Volts	Amps	Poles / Wires	Wire Gauge	Fig.
		Plug	Receptacle					
LE-2721	LE-2723			3ø 250	30	3P / 4W	14-8	A
LE-2731	LE-2733			3ø 480	30	3P / 4W	14-8	A
LE-4770-C	LE-4779-C			277	15	2P / 3W	18-10	B
LE-2431	LE-2433			3ø 480	20	3P / 4W	14-10	C
LE-4720-C	LE-4729-C			125	15	2P / 3W	18-10	D
LE-2311	LE-2313			125	20	2P / 3W	16-10	D
LE-2611	LE-2613			125	30	2P / 3W	16-8	D

Flanged Inlet & Outlet

- Unique cord clamp accepts a wide range of cord sizes (.245 - .700"), providing a secure grip without damaging the cord jacket
- Has a brass color coded #8 terminal screw



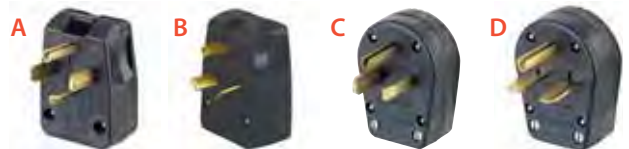
Plug Part Number	Receptacle Part Number	NEMA Configuration		Volts	Amps	Poles / Wires	Wire Gauge
		Plug	Receptacle				
LE-5278-C	LE-5279-C			125	15	2P / 3W	18-10

Interested in making your own cords? See our full line of service cord on page 124.

Commercial Grade

Straight Blade

- Solid brass blades with color-coded terminals
 - Supplied with 30A blades & flat 50A blade
 - Interchangeable blades eliminate need for stocking different devices
 - Built-in rejection feature prevents closure if blades are incorrectly positioned
 - Use with 14-6ga. round cord 8/2-10/3 SRDT & 6/2-8/1 flat wire
- UL Listed, file #E-13393
 - CSA Certified, file #LR-406
 - Operating temp: -40° to 140°F



Part Number	NEMA Configuration		Volts	Amps	Wire Gauge	Cord Dia. min - max	Fig.
LE-275-T			125 / 250	30 / 50	14-6	.75" - 1.25"	A
LE-287-T			125 / 250	30 / 50	14-6	.687" - 1.05"	B
LE-930			125	30 / 50	14-6	.630" - 1.05"	C
LE-931			250	30 / 50	14-6	.630" - 1.05"	D

Heavy Duty Grade

Our in-house manufacturing department can make custom extension cords to meet your exact specifications. Contact your sales rep or customer service for more info.

Straight Blade



Plug Part Number	Receptacle Part Number	NEMA Config.	Volts	Amps	Poles / Wires	Wire Gauge
ER-1510-P	ER-1610-C	5-15	125	15	2P / 3W	18-12

To hook up your Wiring Devices, we also sell Service Cord on pages 124. If you do not see what you're looking for, just contact customer service or your local service rep.

Flashlights

USB-C Rechargeable Flashlight with Power Bank

- USB-C rechargeable
- USB power bank
- 2x adjustable zoom
- Power indicator
- Battery charging indicator
- Anodized aircraft-grade aluminum
- Waterproof (IP67) and impact-resistant
- Recharge time: 7-28 hours, depending on output of USB
- Weight 2.0LBS
- Length: 11.08"



Part Number	Light Modes with Lumens	Description
TS-1007	*Turbo - (12,000) - 30 second intervals High - (7,000) 2 hours Medium - (3,000) 3 hours Low - (300) 12 hours Strobe - (12,000) 2 hours	12K flashlight with rechargeable battery and USB-C to USB charging cable

*Turbo mode is designed to give you short bursts of power when you need it most.

Rechargeable EDC Flashlight with a 90° Rotating Swivel Head

- USB Rechargeable
- Anodized aircraft-grade aluminum; water (IPX4) and impact-resistant
- 90° swivel head
- Battery charging indicator
- Recharge time: ~4 hours, depending on output of USB
- Weight: 0.18 lbs.
- Dimensions (H) 3.75" x (W) 1" x (D) 1.125



Part Number	Light Modes with Lumens	Description
TS-6907	*Turbo - (1,000) - 30 second intervals High - (500) 1 hour Medium - (200) 1.7 hours Low - (50) 6 hours Strobe - (500) 1 hour	SWYVEL flashlight Li-ion 16340 rechargeable battery USB charging MagCable

Compact High Power Rechargeable Flashlight

- Features: Anodized aircraft grade aluminum, water & impact resistant, magnetic base (doubles as magnetic charging port), removable clip
- 5 modes: High, medium, low, strobe, TURBO



Part Number	Lumens	Description
TS-6878	500 / 200 / 50 / 500 / 1000	Rechargeable

The Big Larry™ LED Work/Emergency Light

- Features: Anodized aircraft grade aluminum, water & impact resistant, magnetic base
- 3 modes: High, low, emergency red flasher



Part Number	Lumens	Description
TS-6384	400 / 160	3 AA cell size (included)

Flashlights, cont'd

Waterproof LED Flashlight w/ USB Power Bank

- Features: Anodized aircraft-grade aluminum, waterproof & impact resistant, 4x adjustable beam, lanyard for carrying, tactical edge
- 4 modes: high, medium, low, strobe



Part Number	Lumens	Description
TS-6697	3200 / 320 / 32 / 3200	Rechargeable

Pocket Work Light with Magnetic Swivel Clip

- Equipped with new C-O-B LED technology with 170 lumens of intense light
- Rotating magnetic clip for hands free lighting



Part Number	Lumens	Description
TS-0018	170	Water and impact-resistant Ergonomic non-slip grip Magnetic clip Protective LED housing

Rechargeable Headlight with 5 Light Modes

- Compact and lightweight
- Water resistant (IPX4)
- Turbo mode included
- Rechargeable with flex fuel
- Comes with 1 x USB-C to USB charging cable



Part Number	Lumens	Description
TS-0008	Turbo (1,500) - 30 second intervals High (750) 2 hours Medium (250) 6 hours Low (10) 18 hours Red (5) 12 hours	Low-profile, compact, 1500 lumen, USB-C rechargeable headlamp

Waterproof LED Inspector Flashlight

- Features: Anodized aircraft-grade aluminum, waterproof & impact resistant, 3x adjustable beam, removable steel clip & Soft-Touch Technology that provides momentary operation when light is off
- 3 modes: high, low, strobe



Part Number	Lumens	Description
TS-6713	180 / 54 / 180	2 AAA cell size (included)
TS-6810	360 / 120 / 360	Rechargeable

LED Work Slyde+™ Light / Flashlight

- Features: Anodized aircraft-grade aluminum, waterproof & impact resistant, 4x adjustable zoom, fully dimmable, slide out to work light, magnetic base
- 4 modes: flashlight, work light, red & red flash



Part Number	Lumens	Description
TS-6783	400 / 400 / 40 / 40	4 AAA cell size (included)

Rechargeable Selectable Mode LED Flashlight w/ USB Power Bank



- Features: Anodized aircraft-grade aluminum, water & impact resistant, 4x adjustable beam, steel belt/pocket clip, magnetic base
- 5 modes: high, medium, low, strobe, stealth light (green low light)

Part Number	Lumens	Description
TS-6698	1000 / 500 / 100 / 1000	Rechargeable

Guardian Angel LED Wearable Safety Light & Mounts

Maximum Industrial Alkaline

- Lights have 18 LEDs & are up to 800 lumen
- Constant on, flashing & SOS settings
- Low, medium, high & MAX brightness settings
- 360° illumination, 5+ miles of visibility
- Waterproof (IP68), dust proof, shock proof
- Built-in magnet attaches to nearly all surfaces, including mounts below
- Rechargeable lithium ion battery uses Type-C cable (included)
- LED colors available:



Part Number	Description	Fig.
GA-ELT-GG	Light w/ 2 green LED sides	A
GA-ELT-WR	Light w/ 1 red LED side & 1 white LED side	B
GA-ELT-WYWY	Light w/ 2 white/yellow LED sides	C
GA-ELT-SCM	Strap & epaulet clip mount	D
GA-ELT-HHM	Hard hat mount	E
GA-ELT-NMSM	Non-metallic surface adhesive/screw mount	F
GA-ELT-RBM	Bike/rail rubber strap mount	G
GA-ELT-MCM	Safety cone clip mount	H
GA-ELT-UCM	Universal clip mount	I
GA-ELT-BSM	Bike/rail strap mount	J
GA-ELT-WM	Window/suction cup mount	K
GA-ELT-RBSM	Rotatable strap mount	L

Batteries

Maximum Industrial Alkaline

- Used in high drain devices

To order batteries in case quantities, add -CASE to the end of the original part number, example:

B/C-ALK - **CASE**



Part Number	Type	Pack Qty.	Case Qty.
B/AAA-ALK	AAA	8	96
B/AA-ALK	AA	8	96
B/C-ALK	C	6	72
B/D-ALK	D	6	72
B/9V-ALK	9 volt	6	72

Miniature Alkaline

- Used in modern electronic devices



Part Number	Type	Pack Qty.
MX-2500	AAAA	2

Lithium

- Used in key fobs, remote controls, fitness trackers, etc.



Part Number	Type	Pack Qty.
CR2032	3 volt	2

Specialty Alkaline

- Used in garage door remotes, car alarms, etc.



Part Number	Type
GP-23-A	12 volt

Quartz

- Used in common accessories that indicate 1.55 volt or #357 battery



Part Number	Type	Pack Qty.
357-BAT	1.55 volt	1

Protective Gear

Ear Plugs



- Made of soft, highly visible orange foam that conforms to the ear canal fast and comfortably
- Noise reduction rating: 29dB

Part Number	Description	Pairs Per Box
EP-BOX	Without cord	200
EP-BOX-CORD	Corded	100

Ear Muffs



- Lightweight headband, dual low-pressure bands and broad foam cushions improve comfort
- Hi-visibility yellow covers
- Noise reduction rating: 25dB

Part Number	Description
3M-H9A	Lightweight ear muffs

Eyewear

Adjustable

- Offers limited protection against moderate impact hazards, metal chips, particles & sparks
- Impact resistant poly-carbonate lens
- Meets/exceeds ANSI Z87.1 standards



Part Number	Lens Color	Pack Qty.	Case Qty.
EYE-VC	Clear	1	12

Frameless

- Light weight & frameless for optimum comfort & coverage w/ wide angle, poly-carbonate lenses
- Universal fit temples, scratch resistant lens and 99.9% UV protection
- Meets/exceeds ANSI Z87.1 standards



Part Number	Lens Color	Pack Qty.	Case Qty.
EYE-BC	Clear	1	12
EYE-BB	Smoke	1	12

Air Respirators



Part Number	Used For	Pack Qty.	Case Qty.	Fig.
3M-8661ES	Nuisance dust & pollen. Not to be used for harmful substances.	5	60	A
3M-8511PB	Dust from sanding jobs & installing fiberglass. NIOSH approved: N95 (42 CFR 84). Not to be used for vapors or paint sprays.	10	80	B
3M-8293	NIOSH approved: P100.	1	20	C

Work Gloves



Fig.	Series Number	Description	Sizes Available				
			S	M	L	XL	XXL
A	KN-94WA	Unlined grain pigskin	X	X	X	X	
B	KN-2011	Unlined spandex driver, synthetic leather palm	X	X	X	X	X
C	KN-2041	Unlined, reinforced spandex, general	X	X	X	X	X
D	KN-102HK	Thermal lined goatskin drivers		X	X	X	
E	KN-2051	Thermal & waterproof lined, reinforced	X	X	X	X	X
F	KN-1498	Economy unlined cowhide palm			X		
G	KN-909	High visibility unlined grain pigskin, mesh back	X	X	X	X	
H	KN-1938KW	High visibility thermal lined grain pigskin, knit wrist	X	X	X	X	X
I	KN-2041HV	Unlined, reinforced spandex, reflective		X	X	X	
J	KN-1790	Thermal lined gripping	X	X	X	X	
K	KN-1890	Nitrile gripping	X	X	X	X	
L	KN-820	Brown jersey	X		X	X	

To determine your glove size, measure around the widest part of the palm (below your knuckles) of your dominant hand. The length, in inches, correspond to these sizes:

MEN'S

Small: 7 - 8"
 Medium: 8 - 9"
 Large: 9 - 10"
 X-Large: 10 - 10.5"
 XX-Large: 10.5 - 11"

WOMEN'S

Small: 6 - 7"
 Medium: 7 - 8"
 Large: 8 - 9"

Some gloves may be considered seasonal by the vendor. If late in the season, stock may be limited. Please contact customer service or your local sales rep for info.

To order gloves in the size you need, add an available size abbreviation to the end of the original part number, example:

KN-94WA - L

Disposable Gloves

TorqueGrip Nitrile

- Powder free, fully textured & orange color
- Hi-Vis orange is easily seen in dark engine compartments
- All sizes are 9.45" long and 8 mil thick
- Also available in cases of 10 boxes



Part Number	Size	Width At Palm
TG-8843	Medium	3.74"
TG-8844	Large	4.13"
TG-8845	X-Large	4.53"
TG-8846	XX-Large	4.72"

Back and Knee Protection

Black Nylon Mesh Back Support

- Economical 9" width belt with elastic back panel
- Breathable nylon mesh body
- Five back stays prevent belt from riding up and assure consistent support
- Front panels with hook & loop closure offer a custom, secure fit
- Detachable elastic suspenders are adjustable for added convenience



Part Number	Size	Fits
TS42-440-S	Small	30" - 36"
TS42-440-M	Medium	36" - 40"
TS42-440-L	Large	40" - 44"
TS42-440-XL	X-Large	44" - 48"
TS42-440-XXL	XX-Large	48" - 54"

Slip Resistant Knee Pad

- Slip-resistant design grips work surface for a firmer, more stable hold
- 12mm NBR foam padding cut to hug the knee, provides consistent support without bottoming out.
- 840D nylon fabric cover
- Nickel-plated grommets
- Buckle closure



Part Number	Qty
TS42-335	1 pair

Welding Protective Gear

Leather Welding Gloves

- Protects against sparks, hot metal & slag



Part Number	Size	Width At Palm
TS-14402	Large	7"

Protective Leather Welding Sleeves

- 100% cowhide leather
- Elastic cuff w/ adjustable biceps
- Heat resistant



Part Number	Size
TS-14519	18" long

Welding Protective Gear, cont'd

Welding Blankets



Part Number	Description	Working Temp	Size	Fig.
TS-12398	Vermiculite coated fiberglass blanket - double layer, 50oz.	1500°F	4' x 6'	A
TS-12399	Vermiculite coated fiberglass blanket - double layer, 50oz.	1500°F	6' x 6'	A
TS-12255	Silicone coated fiberglass blanket - single layer	500°F	38" x 24"	B
TS-12394	Black carbon fiber blanket	3000°F	54" x 60"	C

Box Style Flip-Up Acetylene Goggles

- #5 flip-up lens
- Vented to prevent fogging
- Made from soft vinyl for comfort



Part Number	Lens Size
TS-14309	2" x 4-1/4"

Auto Darkening Helmet

- #9 - #13 auto-darkening lens
- Adjustable, ratcheting headgear
- 4 color graphic box
- Outside cover lens
- Inside safety lens



Part Number	Lens Size
TS-14263	3.82" x 1.85"

First Aid Kits

Industrial / Construction



- Meets OSHA & ANSI standards
- Compact, full size kit comes in weather resistant case designed to be kept in truck or at work site
- Includes: adhesive bandages & tape, gauze, alcohol prep pads, sting relief pads, first aid/burn cream, latex gloves, scissors, a cold pack, triangular bandage & first aid instructions

Part Number	Description
FA-131	118 pieces

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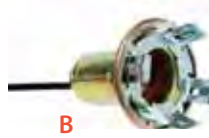
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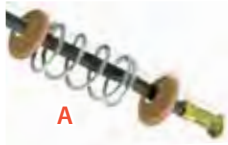
Lamp Sockets

Instrument Panel / License Plate - Single Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
PL-32	Ford; 5/8" mounting hole	18ga.; 11"	51L, 53L, 55L, 57L	A
PL-23	1-1/8" mounting hole	18ga.; 11"	63L, 67L, 81L, 87L, 89L, 93L, 1003L, 1073L, 1129L, 1133L, 1141L, 1156L	B
PL-11	Metal housing; clips for 7/8" x 1-1/8" mounting hole	18ga.; 11"	67L, 87L, 89L, 93L, 1003L, 1073L, 1133L, 1141L, 1156L	C

Replacement Single Contacts



Part Number	Description	Wire Leads	Works With	Fig.
CWPT-1	Phenolic disc, moisture resistant	18ga.; 12"	PL-32	A
CWPT-2	Phenolic disc, moisture resistant	18ga.; 12"	PL-23, PL-11	B
BE-920124	Grommet contact button (12/pack)	12"	Betts lighting sockets	C
BE-920120	Replacement contact for 16-14ga. wire	N/A	BE-920124	D
PTC-1	Contact button	18ga.; 12"	CWPT-1, CWPT-2, CWPT-2R	E
CT-1P	Replacement contact for 18ga. wire	N/A	PTC-1	F

Stop / Tail / Turn - Double Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
TS-3444	GM; PVC housing; 18ga. wire leads	18ga.; 11"	1034L, 1154L, 1157L, 2057L	A
TS-28916	GM (replaces part #12083006); PVC housing; 18ga. wire leads	18ga.; 10-1/2"	2057L, 3157L	B

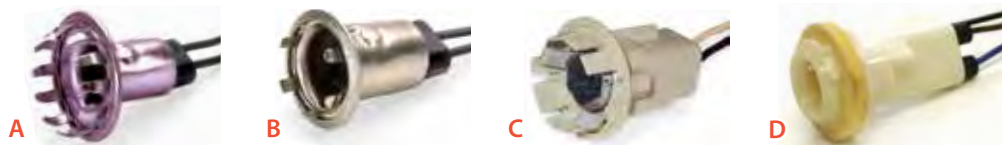
For more info on the corresponding lamps for all of our sockets, see our Mini Bulb section on pages 238-246.

Stop / Tail / Back Up - Double Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
TS-3439	PVC housing	18ga.; 10-1/2"	1157L, 2057L	A
TS-3441	PVC housing; 18ga. 6-1/2" wire leads w/ butt connectors	18ga.; 6-1/2" w/ butt connectors	1157L, 2057L	B

Park / Stop / Tail / Turn - Double Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
PL-10	GM; metal housing; 1-1/8" mounting hole	18ga.; 11"	198L, 1016L, 1154L, 1157L	A
PL-13	Metal housing; 3/4" mounting hole	18ga.; 11"	198L, 1016L, 1034L, 1154L, 1157L, 2057L	B
PL-40	GM, PVC housing	18ga.; 11"	1034L, 1154L, 1157L, 2057L	C
TS-3532	Ford, Chrysler; PVC housing	18ga.; 8" w/ butt connectors	1034L, 1154L, 1157L, 2057L	D

Instrument Panel - Double Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
TS-4130	PVC housing; twist in style; 3/8" mounting hole	N/A	37L, 70L, 73L, 74L, 85L	A
TS-3487	GM, Chrysler; PVC housing; twist in style; 5/8" mounting hole	N/A	194L, 194AL, 168L	B
TS-3486	Ford, GM, Chrysler; PVC housing; twist in style; 1/2" mounting hole	N/A	168L, 194L, 194AL	C
TS-3483	License / stop / tail / side marker; PVC housing	18ga.; 11"	194L, 194AL, 168L, 193L	D
ML-1	Ford, GM; side marker; PVC housing	18ga.; 11"	194L, 194AL, 168L, 193L	E

PIGTAILS & WIRE HARNESSSES

Miscellaneous - Double Contact



Part Number	Description	Wire Leads	Works With Lamps	Fig.
TS-28915	GM (replaces part #12083005); back up / stop / tail / turn / park	18ga.; 9"	3157L	A
TS-28921	GM (replaces part #12085330); back up / license	18ga.; 11"	3057L, 3156L	B
GMLH	GM; park / stop / tail; metal housing	18ga.; 11"	198L, 1016L, 1034L, 1154L, 1157L	C

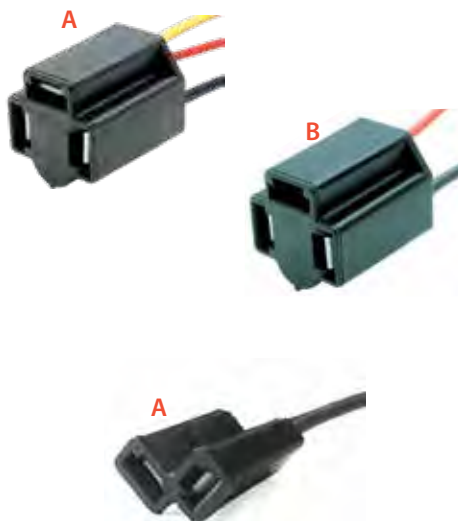
Replacement Double Contacts



Part Number	Description	Wire Leads
CWPT-3	Plastic disc; moisture resistant	18ga.; 11"

Pigtails

Headlamp Sealed Beams & Flashers



Part Number	Wire Leads	Works With	Fig.
SBPT-1	16ga. GXL; 11-1/2"	3-prong flashers & sealed beams	A
SBPT-1-12	12ga. GXL; 11-1/2"		
SBPT-2	16ga. GXL; 11-1/2"	2-prong sealed beams	B

Components

2965810	Connector
2973216	16ga. terminals
2977100	12ga. terminals

Part Number	Wire Leads	Works With	Fig.
SL-1021-B	14ga. GXL; 7"	2-prong flashers	A

Components

2973385	Connector
2965142	Terminals

OEM Headlamp Replacements

High / Low Beam

- 16ga. GXL, 9" wire leads



Part Number	Works With Lamps
TS-28904	9004L, 9007L, 9004BL, 9004LL, 9007BL
Components	
12048369	Connector
12077411	Terminals
15324982	Seal
12048371	TPA

Fog, Automotive, Halogen

- 16ga. GXL, 8" wire leads



Part Number	Works With Lamps
PT-880	880L, 885L, 890L, 893L, 899L
Components	
12020599	Connector
12077411	Terminals
15324982	Seal
12034446	TPA

Fog, Automotive, Halogen

- 16ga. GXL, 8" wire leads



Part Number	Works With Lamps
PT-881	881L, 886L, 889L, 894L, 896L
Components	
12124819	Connector
12077411	Terminals
15324982	Seal
12020807	TPA

Low Beam

- 16ga. GXL, 8" wire leads



Part Number	Works With Lamps
PT-9006	9006L
Components	
12059181	Connector
12077411	Terminals
15324982	Seal
12059185	TPA

High Beam

- 16ga. GXL, 8" wire leads



Part Number	Works With Lamps
PT-9005	9005L
Components	
12059183	Connector
12077411	Terminals
15324982	Seal
12059185	TPA

Halogen

- 18ga. TXL, 8" wire leads



Part Number	Works With Lamps
PT-99-8625	H965L

Halogen

- 16ga. TXL, 8" wire leads



Part Number	Works With Lamps
PT-99-8509	H9008L

Halogen

- 18ga. GPT, 7" wire leads



Part Number	Works With Lamps
PT-89-6653	H1155L, 881L, 886L
Components	
12124819	Connector
12077411	Terminals
15324982	Seal
12020807	TPA

Halogen - Heavy Duty

- 14ga. GXL, 8" wire leads



Part Number	Works With Lamps
SH-35043-003	H1155L, 881L, 886L, 889L, 894L, 896L
Components	
12124819	Connector
12129493	Terminals
15324982	Seal
12020807	TPA

For more info on the corresponding lamps for all of our pigtails, see our Mini Bulb section on pages 238-246.

AMP SuperSeal 1.5mm Series Pigtails

2-Cavity Plugs



Part Number	Connector Color	Key Way	Wire Leads	Max Amps
PT-SSC-2P-A	Black	A	10" 16ga. Black TXL	17
PT-SSC-2P-B	Gray	B	10" 16ga. Black TXL	17
PT-SSC-2P-C	Black	C	10" 16ga. Black TXL	17
PT-SSC-2P-D	Green	D	10" 16ga. Black TXL	17
PT-SSC-2P-E	Black	E	10" 16ga. Black TXL	17
PT-SSC-2P-F	Black	F	10" 16ga. Black TXL	17
PT-SSC-2P-G	Gray	G	10" 16ga. Black TXL	17
PT-SSC-2P-J	Black	J	10" 16ga. Black TXL	17
PT-SSC-2P-L	Natural	L	10" 16ga. Black TXL	17
PT-SSC-2P-M	Black	M	10" 16ga. Black TXL	17

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.
Keyways: For more information on the keyways, please visit Go2TSC.com/Library.aspx

Deutsch DTM Series Pigtails

2 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM04-2P	Gray	10" 18ga. Black GXL	7.5

2 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM06-2S	Gray	10" 18ga. Black GXL	7.5

3 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM04-3P	Gray	10" 18ga. Black GXL	7.5

3 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM06-3S	Gray	10" 18ga. Black GXL	7.5

Deutsch DTM Series Pigtails, cont'd

4 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM04-4P	Gray	10" 18ga. Black GXL	7.5

4 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM06-4S	Gray	10" 18ga. Black GXL	7.5

6 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM04-6P	Gray	10" 18ga. Black GXL	7.5

6 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTM06-6S	Gray	10" 18ga. Black GXL	7.5

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

Deutsch DTP Series Pigtails

2 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTP04-2P	Gray	10" 18ga. Black GXL	7.5

2 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTP06-2S	Gray	10" 18ga. Black GXL	7.5

4 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTP04-4P	Gray	10" 18ga. Black GXL	7.5

4 Cavity - Plugs



Part Number	Connector Color	Wire Leads	Max Amps
PT-DTP06-4S	Gray	10" 18ga. Black GXL	7.5

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

Ford

Ignition Kit



- Fits Ford '86
- Switch #E6FZ-11572-A
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-91-6973	4/12ga. & 3/10ga.; 4"; terminated

Windshield Washer Pump



- Fits Ford, Lincoln, Mercury '68
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-90-6815	16ga.; 8"

Voltage Regulator



- Fits Ford

Part Number	Wire Leads
170	16ga.; 6"

A/C Blower Motor Resistor



- Fits Ford trucks '86
- Resistor #E7TZ-19A706-A
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-91-6881	4/14ga.; 8"

Radiator Cooling Fan Motor



- Fits Ford 4cyl. engines '79, including heater blower motor Ford trucks, pick-ups & vans '82 thru '86

Part Number	Wire Leads
FPT-86-6082	2/12ga.; 12"

Rear Lamp Assembly



- Fits Ford F650 & F750 trucks '00 & up
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-99-8150	4/18ga.; 8"

Coolant Temperature Sensor



- Sensor #E1AZ-12A648-A
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-91-6995	2/18ga.; 8"

Voltage Regulator



- Fits most Ford '75
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-76-4342	3/14ga.; 8"

Heater & A/C Fan Speed Switch



- Fits Ford Cougar, E Van, Mustang, Sable, Taurus & T-bird '86 & up
- Switch #F2UZ-19986A,B
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-93-7179	2/12ga., 1/14ga., 1/16ga.; 7-1/2"

Headlight Repair



- Fits F Series Ford trucks '87
- Switch #E7TZ-11654 -C
- Not supplied by O.E.M.

Part Number	Wire Leads
FPT-91-6894	3/20ga., 4/18ga., 1/16ga. & 1/12ga.; 8"

For an assortment of the most popular GM pigtails all in one box, pick up our GM Pigtail Kit (GM-PT-KIT).

Alternator, Regulator & A/C Clutch



- Fits Ford '94 & up
- Not supplied by O.E.M.
- Sold 10/pack

Part Number	Wire Leads
AU-19156	1/18ga.; 7"

Ford, cont'd

Internal Voltage Regulator



- Fits Ford Topaz, Tempo, Sable, Taurus & Escort '86

Part Number	Wire Leads
FPT-87-6249	1/14ga. & 2 / 20ga.; 9"

Heater & A/C Blower Switches



- Fits most Ford base numbers 1986 switches from 73 & up

Part Number	Wire Leads
FPT-83-5746	5/12ga.; 5" w/ butt conn.

GM

Headlight Switch



Part Number	Wire Leads
PT-57176	12ga. GXL; 7-1/2"
Components	
2977645	Connector
2965143	Terminals

Throttle Position Sensor



Part Number	Wire Leads
PT-4802	16ga. GXL; 9"
Components	
12015793	Connector
12124580	Terminals

Dimmer Switch



Part Number	Wire Leads
TS-3500	16ga. GXL; 11-1/2"
Components	
2984164	Connector
2962447	Terminals

Oxygen Sensor

- Sealed pigtail



Part Number	Wire Leads
PT-4800	16ga. GXL; 9"
Components	
12015791	Connector
12124580	Terminals

Manifold Absolute Pressure

- Replaces GM part # 12085502



Part Number	Wire Leads
PT-4805	16ga. GXL; 10-1/2"
Components	
12020403	Connector
12124582	Terminals

Terminal Supply carries a large selection of pigtails. If you do not see what you are looking for here, please contact our customer service department at 800-989-9632 and they will assist you in finding the perfect pigtail for your job.

A/C Compressor High Pressure Cut Out



Part Number	Wire Leads
PT-1501	16ga. GXL; 9"
Components	
12162444	Connector
12103881	Terminals

A/C Compressor Low Pressure Cut Out



Part Number	Wire Leads
PT-1502	16ga. GXL; 9"
Components	
12162443	Connector
12103881	Terminals

A/C Compressor Clutch

- Replaces GM part # 12101937



Part Number	Wire Leads
PT-1506	16ga. GXL; 9"
Components	
12162017	Connector
12048074	Terminals

GM, cont'd

Trans Converter Clutch

- Replaces GM part # 12085533



Part Number	Wire Leads
PT-4809	16ga. GXL; 9"
Components	
12010503	Connector
12124580	Terminals

Throttle Position Sensor

- Replaces GM part # 12102748



Part Number	Wire Leads
AU-18527	20ga. GXL
Components	
12065287	Connector
12089290	Terminals

Multi-Port Fuel Injector

- Replaces GM part # 12085491



Part Number	Wire Leads
PT-7101	16ga. GXL; 9-1/2"
Components	
12129140	Connector
12077939	Terminals

Manifold Air Pressure Sensor



Part Number	Wire Leads
PT-1503	16ga. GXL; 16"
Components	
12162199	Connector
12124075	Terminals

Heater Blower

- ATO fuse holder



Part Number	Wire Leads
PT-6300	12ga. GXL; 5"
Components	
12033769	Connector
12033997	Terminals

Coolant Temp Sensor

- Also for brake & washer fluid sensors & ignition module



Part Number	Wire Leads
PT-1504	16ga. GXL; 11"
Components	
12162193	Connector
12124075	Terminals

Washer Fluid Sensor

- Also for back-up lamp switch & A/C compressor switch



Part Number	Wire Leads
PT-5608	16ga. GXL; 9-1/2"
Components	
2973407	Connector
2962447	Terminals

Exhaust Gas Recirculation

- For windshield washer pump exhaust gas recirculation



Part Number	Wire Leads
PT-1510	16ga. GXL; 9"
Components	
12052641	Connector
12048074	Terminals

Alternator

- Alternators w/ internal voltage regulator



Part Number	Wire Leads
137	16 & 12ga. GXL; 6"
Components	
6294493	Connector
2962447	16ga. terminals
2965143	12ga. terminals

Alternator

- Fits Delcontron10-SI, 12-SI, 15-SI, 27-SI w/ internal voltage regulator



Part Number	Wire Leads
PT-5607	16ga. GXL; 12"
Components	
6294493	Connector
2962447	Terminals

Brake Control

- Works w/ most Chevy & GM full size pick-ups & Suburbans



Part Number	Wire Leads
TG-6131-A	16 & 12ga. GXL; 10"
Components	
12193924	Connector
12129425	16ga. terminals
12129424	12ga. terminals

GM Delphi 56 Series Pigtails

6 Cavity - Receptacles



Part Number	Connector Color	Wire Leads	Max Amps
PT-56-6F	Natural	10" 14ga. Black GXL	20

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.
Notes: Mates with most 6-blade switches

GM Metri-Pack 150 Series Pigtails

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-2F	Black		14
PT-MP150-2F-W	White	10" 16ga. Black GXL	14
PT-MP150-2F-G	Gray		14

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-2M	Black	10" 16ga. Black GXL	14
PT-MP150-2M-G2	White	Black GXL	14

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-3F	Black		14
PT-MP150-3F-W	Black	10" 16ga. Black GXL	14
PT-MP150-3F-G	Gray		14
PT-MP150-3F-N	Natural		14

3 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-3M	Black	10" 16ga. Black GXL	14

- Male pigtail only available in black, other color female pigtails mate directly to devices

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 150 Series Pigtails, cont'd

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4F-B22	Black	10" 16ga. Black GXL	14

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4F-B51	Black	10" 16ga. Black GXL	14

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4F-B03	Black	10" 16ga. Black GXL	14

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4F	Black	10" 16ga. Black GXL	14

4 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4M	Black	10" 16ga. Black GXL	14

4 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-4M-B12	Black	10" 16ga. Black GXL	14

5 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-5M-B01	Black	10" 16ga. Black GXL	14

5 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-5F-B12	Black	10" 16ga. Black GXL	14

6 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-6M	Black	10" 16ga. Black GXL	14

6 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150-6F	Black	10" 16ga. Black GXL	14

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 150.2 Series Pigtails

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-2FB	Black	10" 16ga.	14
PT-MP150.2-2FG	Gray	Black TXL	14

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-3FB1	Black	10" 16ga.	14
PT-MP150.2-3FG2	Gray	Black TXL	14

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-3FB	Black	10" 16ga. Black TXL	14

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-4FB	Black	10" 16ga. Black TXL	14

5 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-5FB	Black	10" 16ga. Black TXL	14

6 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP150.2-6FB	Black	10" 16ga. Black TXL	14

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 280 Series Pigtails

1 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-1F	Black	10" 14ga. Black GXL	30

1 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-1M	Black	10" 14ga. Black GXL	30

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 280 Series Pigtails

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-2F-B1	Black	10" 14ga. Black GXL	30

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-2M-B1	Black	10" 14ga. Black GXL	30

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-2F-B2	Black	10" 14ga. Black GXL	30

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-2M-B2	Black	10" 14ga. Black GXL	30

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-3F	Black	10" 14ga. Black GXL	30

3 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-3M	Black	10" 14ga. Black GXL	30

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-4F	Gray	10" 14ga. Black GXL	30

4 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-4M	Gray	10" 14ga. Black GXL	30

5 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-5F	Gray	10" 14ga. Black GXL	30

5 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-5M	Gray	10" 14ga. Black GXL	30

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 280 Series Pigtails, cont'd

7 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-7F	Black	10" 14ga. Black GXL	30

7 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP280-7M	Black	10" 16ga. Black GXL	30

GM Metri-Pack 480 Series Pigtails

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP480-2F	Black	10" 12ga. Black GXL	42

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP480-2M	Black	10" 12ga. Black GXL	42

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM Metri-Pack 630 Series Pigtails

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP630-2F	Black	10" 12ga. Black GXL	46

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP630-2M	Black	10" 12ga. Black GXL	46

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP630-3F	Black	10" 12ga. Black GXL	46

3 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-MP630-3M	Black	10" 12ga. Black GXL	46

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM/GT-150 Series Pigtails - Shrouded

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-2F	Black	10" 16ga. Black TXL	15

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-2FS	Black	10" 16ga. Black TXL	15

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-2M	Black	10" 16ga. Black TXL	15

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-3F	Black	10" 16ga. Black TXL	15

3 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-3M	Black	10" 16ga. Black TXL	15

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-4F	Black	10" 16ga. Black TXL	15

4 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-4M	Black	10" 16ga. Black TXL	15

5 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-5F	Black	10" 16ga. Black TXL	15

5 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-5M	Black	10" 16ga. Black TXL	15

6 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-6F	Black	10" 16ga. Black TXL	15

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM/GT-150 Series Pigtails - Shrouded, cont'd

6 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150-6M	Black	10" 16ga. Black TXL	15

GM/GT-150 Series Pigtails - Unshrouded

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-2F	Black	10" 18ga. Black TXL	15

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-2M	Black	10" 18ga. Black TXL	15

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-3F	Black	10" 18ga. Black TXL	15

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-3FY	Black w/ yellow seal	10" 18ga. Black TXL	15
PT-GT150SL-3FY	Black w/ purple seal	10" 18ga. Black TXL	15

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT150SL-4F	Black	10" 18ga. Black TXL	15

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

GM/GT-280 Series Pigtails - Shrouded

2 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-2F	Black	10" 14ga. Black TXL	25

2 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-2M	Black	10" 14ga. Black TXL	25

3 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-3F	Black	10" 14ga. Black TXL	25

3 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-3M	Black	10" 14ga. Black TXL	25

4 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-4F	Black	10" 14ga. Black TXL	25

4 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-4M	Black	10" 14ga. Black TXL	25

5 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-5F	Black	10" 14ga. Black TXL	25

5 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-5M	Black	10" 14ga. Black TXL	25

6 Cavity - Female



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-6F	Black	10" 14ga. Black TXL	25

6 Cavity - Male



Part Number	Connector Color	Wire Leads	Max Amps
PT-GT280-6M	Black	10" 14ga. Black TXL	25

Connector colors: The colors of the connectors are not interchangeable and do not mate together. Please be sure to note the color of the connector you are mating your pigtail to, because internal keyways may be different.

Miscellaneous

I.H. Headlight Switch Repair



Part Number	Wire Leads
MC-16428-A	8/12ga.; 12"
Components	
2977645	Connector
2965143	Terminals

Ignition Key Start

- Used w/ Pollak switches



Part Number	Wire Leads
MC-16428-D	6/12ga.; 12"
Components	
2984017	Connector
2965143	Terminals

Heater Blower Switch

- Used on Ford, Mack, International & Kenworth



Part Number	Wire Leads
MC-16428-F	5/14ga.; 5"
Components	
12004327	Connector
2965142	Terminals

I.H. Headlight Switch Repair



Part Number	Wire Leads
MC-16428-G	5/14ga.; 12"
Components	
8911352	Connector
2962447	Terminals

Dodge Adapter

- Total length: 10" +/- 1/2"



Part Number	Wire Leads
TG-DODGEADP	1/10ga., 2/14ga., 4/16ga.

Fifth Wheel Harness

- Fits full size Ford & GM trucks '97 & up
- Total length: 8ft.



Part Number	Wire Leads
TG-6323-B	4/16ga., 1/10ga., 2/12ga.

Sealed Horn Replacement



Part Number	Wire Leads
DF-22036-A	2/16ga.; 8"
Components	
12052644	Connector
12048074	Terminals
15324973	Seal
12052634	TPA Lock

Fifth Wheel Extension Harness

- Total length: 18"
- Allows for a longer drop or for the trailer plug to be mounted in a different location



Part Number	Wire Leads
TG-6323-Z	16ga. - lt. green, green, brown, yellow 10ga. - black, 12ga. - blue, red

Terminal Supply has access to many other pigtails that aren't shown in this catalog. If you have a specific pigtail that isn't shown here, contact your local sales rep or customer service for more details.

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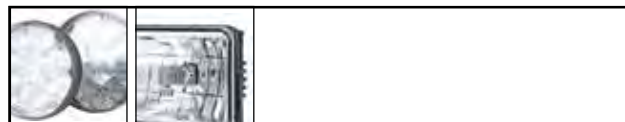


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Incandescent Miniature Bulbs

Mean Spherical Candlepower (MSCP)

MSCP is the generally accepted method of rating the total light output of miniature lamps. While candle power is a measure of the total amount of light given off from a light source in ONE direction, mean spherical candlepower is a measure of the total amount of light given off from a light source in ALL directions.

B-6 Bulbs: 3/4" (19mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
105L	Auto interior, heavy duty	12.8	1	12	S.C. bayonet	A
1003L	Auto interior	12.8	.94	15	S.C. bayonet	A
1004L	Auto interior, marine	12.8	1	15	D.C. bayonet	B

T-2 Bulbs: 1/4" (6.8mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base
12-PSBL	Pilot	12	.17	2M EFC	Slide no. 5
24-PSBL	Pilot	28	.073	3M EFC	Slide no. 5
120-PSBL	Pilot	120	.025	1200 EFC	Slide no. 5

B-3 1/2 Bulbs: 7/16" (11mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base
PR-4L	2C cell flashlight	2.33	.27	.4	S.C. mini flanged
PR-2L	2D cell flashlight	2.38	.5	.8	S.C. mini flanged
KPR-102L	2 krypton cell flashlight	2.40	.7	1.3	S.C. mini flanged
PR-3L	3D cell flashlight	3.57	.5	1.5	S.C. mini flanged
KPR-103L	3 krypton cell flashlight	3.60	.75	2.7	S.C. mini flanged
PR-13L	4F cell hand lantern	4.75	.5	2.2	S.C. mini flanged
PR-12L	5D cell flashlight	5.95	.5	3.1	S.C. mini flanged
PR-18L	6D cell flashlight	7.20	.55	5.5	S.C. mini flanged

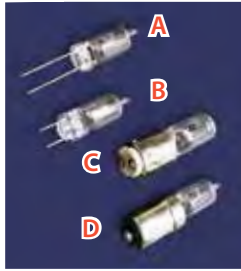
G-3 1/2 Bulbs: 7/16" (11mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
10L	Indicator	2.50	.5	.5	Bi-pin	A
51L	Indicator	7.50	.22	1	Mini bayonet	B
1449L	Toy Train	14.0	.2	2	Mini screw	C
53L	Auto & indicator	14.4	.12	1	Mini bayonet	B
182L	Auto & indicator	14.4	.18	1	Mini bayonet	B
1445L	Auto	14.4	.135	.7	Mini bayonet	B
1450L	Indicator	24.0	.035	.23	Mini bayonet	B
265L	Indicator	28.0	.08	.75	Mini bayonet	B
356L	Aircraft	28.0	.17	3.5	Mini bayonet	B

Incandescent Miniature Bulbs, cont'd

T-4 Bulbs: 1/2" (13mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
795L	Halogen	12.8	3.91	108	S.C. bayonet	D
797L	Halogen	12.8	3.91	108	G7.1	B
1/A-50W	Light bars, halogen	12.8	3.91	108	Bi-pin	A
1987L	Aircraft, quartz halogen	28	5.36	24	D.C. bayonet	C

T-1 3/4 Bulbs: 3/16" (4.7mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
2721MFL	Auto	12	.1	.48	B8.5d	B
2752MFX	Instrument panel	12	.125	.48	BX8.5d	A
PC-74L		14	.1	.70	P8.25d	C

T-1 3/4 Bulbs: 7/8" (5.5mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
394L	Indicator	12	.04	.12	S.C. midget flanged	A
37L	Auto	14	.09	.5	Sub mini wedge	B
70L	Auto	14	.15	1.5	Sub mini wedge	B
73L	Indicator	14	.08	.3	Sub mini wedge	B
74L	Auto	14	.1	.7	Sub mini wedge	B
330L	Aircraft	14	.08	.5	S.C. midget flanged	A
382L	Indicator	14	.08	.3	S.C. midget flanged	A
85L	Indicator	28	.04	.3	Sub mini wedge	B

G-6 Bulbs: 3/4" (19mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
63L	Coin machine	7	.63	3	S.C. bayonet	A
89L	Auto	13	.58	6	S.C. bayonet	A
90L	Auto & marine	13	.58	6	D.C. bayonet	B
98L	Auto heavy duty	13	.62	6	S.C. bayonet	A
67L	Auto	13.5	.59	4	S.C. bayonet	A
68L	Auto & marine	13.5	.59	4	D.C. bayonet	B
97L	Auto heavy duty	13.5	.69	4	S.C. bayonet	A
1178L	Auto	13.5	.69	4	D.C. bayonet	B
631L	Auto, 2 filament	14	.63	6	S.C. bayonet	A
623L	Auto	28	.37	6	S.C. bayonet	A
624L	Auto & marine, 2 filament	28	.37	6	D.C. bayonet	B
1251L	Auto	28	.23	3	S.C. bayonet	A

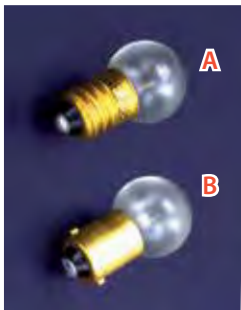
Incandescent Miniature Bulbs, cont'd

T-3 1/4 Bulbs: 13/32" (10mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
285L	Signal	5	.09	.25	Wedge	A
1850L	Signal	5	.09	.25	Mini bayonet	B
755L	Indicator	6.3	.15	.33	Mini bayonet	B
259L	Radio, TV & indicator	6.3	.25	.65	Wedge	A
280L	Signal	10	.13	.85	Wedge	A
1816L	Aircraft & auto	13	.33	3	Mini bayonet	B
168L	Auto instrument	14	.35	3	Wedge	A
193L	Heavy duty truck	14	.33	2	Wedge	A
194L	Auto	14	.27	2	Wedge	A
194NAL	Side marker-amber	14	.27	1.5	Wedge	A
658L	Indicator	14	.08	.31	Wedge	A
756L	Indicator	14	.08	.31	Mini bayonet	B
1815L	Indicator	14	.2	1.4	Mini bayonet	B
1889L	Auto heavy duty	14	.27	2	Mini bayonet	B
1893L	Auto heavy duty	14	.33	2	Mini bayonet	B
1891L	Auto radio & indicator	14	.24	2	Mini bayonet	B
1892L	Auto	14.4	.12	.75	Mini bayonet	B
313L	Aircraft	28	.17	3.5	Mini bayonet	B
464L	Aircraft	28	.17	3	Wedge	A
757L	Indicator	28	.08	.62	Mini bayonet	B
1819L	Aircraft & indicator	28	.04	3.4	Mini bayonet	B
1864L	Aircraft	28	.17	3	Mini bayonet	B

G-4 1/2 Bulbs: 9/16" (14mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
55L	Instrument	7	.41	2	Mini bayonet	B
57L	Auto & instrument	14	.24	2	Mini bayonet	B
258L	Flasher lamp	14	.27	1.6	Mini screw	A
293L	Auto & radio	14	.33	2	Mini bayonet	B
1895L	Auto / truck marker	14	.27	2	Mini bayonet	B
456L	Instrument	28	.17	2	Mini bayonet	B

RP-11 Bulbs: 1-3/8" (35mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
1323L	Auto	6.2	4.13	32	S.C. prefocus	C
1134L	Auto	6.2	3.87	32	D.C. bayonet	B
1195L	Auto, nickel plated base	12.5	3	50	S.C. bayonet	A
1196L	Auto	12.5	3	50	D.C. bayonet	B
1054L	Marine	32	.74	32	D.C. bayonet	B

Incandescent Miniature Bulbs, cont'd

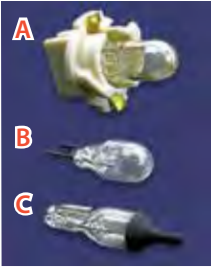
S-8 Bulbs: 1" (25mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
1154L	Auto	6.4/7	2.63/.75	21/3	D.C. index	C
1295NAL	Auto signal-amber	12.5	3	37	S.C. bayonet	A
93L	Auto	12.8	1.04	15	S.C. bayonet	A
94L	Auto/marine	12.8	1.04	15	D.C. bayonet	B
199L	HD truck signal	12.8	2.25	32	S.C. bayonet	A
1073L	Auto	12.8	1.8	32	S.C. bayonet	A
1076L	Auto	12.8	1.8	32	D.C. bayonet	B
1141L	Auto	12.8	1.44	21	S.C. bayonet	A
1142L	Auto	12.8	1.44	21	D.C. bayonet	B
1156DCL	School bus stop arm	12.8	2.1	32	D.C. bayonet	B
1156L	Auto/truck marker	12.8	2.1	32	S.C. bayonet	A
1156NAL	Auto-amber	12.8	2.1	24	S.C. bayonet	A
3156L	Auto	12.8	2.1	32	S.C. wedge	D
198L	Truck stop/signal	12.8/14	2.25/.59	32/3	D.C. index	C
1016L	Auto	12.8/14	1.34/.65	21/6	D.C. index	C
1034L	Auto stop/tail/signal	12.8/14	1.8/.59	32/3	D.C. index	C
1157L	Auto truck stop/signal	12.8/14	2.1/.59	32/3	D.C. index	C
1157NAL	Auto signal/park-amber	12.8/14	2.1/.59	24/2.2	D.C. index	C
1176L	Auto stop/tail/signal	12.8/14	1.34/.59	21/6	D.C. bayonet	B
2057L	HD auto stop/signal	12.8/14	2.1/.49	32/2	D.C. index	C
2057NAL	Auto/truck stop/signal-amber	12.8/14	2.1/.49	24/1.5	D.C. index	C
2357NAL	Auto/truck stop/signal-amber	12.8/14	2.20/.59	30/2.2	D.C. index	C
3057L	Auto park/tail/signal	12.8/14	2.1/.48	32/2.0	D.C. wedge	E
3057NAL	Auto park/signal-amber	12.8/14	2.1/.48	24/1.5	D.C. wedge	E
3157L	Auto park/signal	12.8/14	2.1/.59	32/3	D.C. wedge	E
3157NAL	Auto park/signal-amber	12.8/14	2.1/.59	24/2.2	D.C. wedge	E
3357L	HD auto stop/signal	12.8/14	2.23/.59	40/3	D.C. wedge	E
3357NAL	Auto stop/park-amber	12.8/14	2.23/.59	30/2.2	D.C. wedge	E
3457L	Auto stop/park	12.8/14	2.23/.59	30/2.2	D.C. wedge	E
4057KL	Auto park/signal, long life, Krypton filled	12.8/14	2.1/.48	32/2	D.C. wedge	E
4157LL	Auto park/signal, long life	12.8/14	2.23/.59	32/3	D.C. wedge	E
4157NALL	Auto park/signal-amber, long life	12.8/14	2.23/.59	24/2.2	D.C. wedge	E
305L	Aircraft	28	.51	15	S.C. bayonet	A
307L	Aircraft	28	.67	21	S.C. bayonet	A
308L	Aircraft	28	.67	21	D.C. bayonet	B
1203L	Special service	28	.71	21	S.C. bayonet	A
1638L	Marine, 2 filament	28	1.02	32	D.C. bayonet	B
1662L	Aircraft, inverted filament	28	.93/.34	32/6	D.C. index	C
1665L	Aircraft	28	.8	21	S.C. bayonet	A
1683L	Auto	28	1.02	32	S.C. bayonet	A
1692L	Marine	28	.61	15	D.C. bayonet	B
1229L	Emergency lighting	40	.38	15	D.C. bayonet	B

Incandescent Miniature Bulbs, cont'd

T-2 1/4 Bulbs: 9/32" (7.5mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
786L	Maglite halogen	6	2	19	G-4 two pin	B
882L	Instrument halogen	12.8	.35	3.8	P.C. socket	A
891L	Hi-mount stop halogen	12.8	.63	11	G-4 two pin	B
2040L	Auto light bar halogen	12.8	.625	10.5	Wedge	C

T-3 Bulbs: 3/8" (9.5mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base	Fig.
222L	AA cell flashlight	2.25	.25	12	Mini screw	B
561L	Auto	12.8	.97	12	Rigid loop	C
211-2L	Auto	12.8	.97	12	Mini cap	A
212-2L	Auto	13.5	.74	6	Mini cap	A
562L	Auto	13.5	.74	6	Rigid loop	C

T-4 3/4 Bulbs: 19/32" (15.2mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base
577L	Auto	12.8	1.4	21	Double end cap

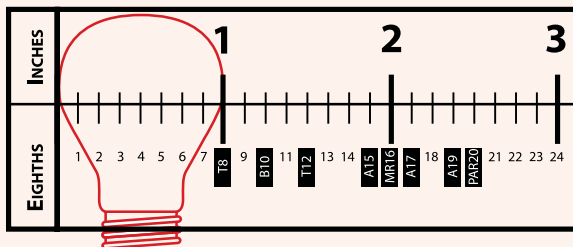
T-5 Bulbs: 5/8" (16mm) Diameter



Part Number	Application	Volts	Amps	MSCP	Base
915L	Emergency lighting	12	.75	11	Wedge
917L	Auto	12	1.2	10	Wedge
912L	Auto heavy duty	12.8	1	12	Wedge
921L	Auto heavy duty	12.8	1.4	21	Wedge
922L	Auto heavy duty	12.8	.98	15	Wedge
906L	Auto heavy duty	13	.69	6	Wedge
904L	Auto	13.5	.69	4	Wedge
916L	Auto	13.5	.54	2	Wedge

Sizing Your Lamp

Maximum overall diameter is given in eighths of an inch (or 3.2mm). For example: a T-5 bulb is 5/8" (16mm) in diameter at its maximum dimension.



Terminal Supply Co. stocks over 800 varieties of miniature bulbs. If the lamp that you're looking for is not pictured, give us a call and we'll find exactly what you need.

Determining Amps, Volts & Watts

Voltage & wattage can generally be found stamped on the base of the lamp. If only given amps, remember this conversion:

$$\text{Amps} \times \text{Volts} = \text{Watts}$$

Incandescent Miniature Bulbs, cont'd

800 Series Bulbs



Part Number	Application	Volts	Watts	Life Hours	Base	Fig.
880L	Auto fog	12.8	27	300	Axial prefocus	A
881L	Auto fog	12.8	27	300	Right angle prefocus	B
885L	Auto fog	12.8	50	200	Axial prefocus	A
886L	Auto fog	12.8	50	200	Right angle prefocus	B
889L	Auto signal halogen	12.8	27	300	Right angle plastic	B
890L	Auto signal halogen	12.8	27	300	Axial plastic	A
893L	Auto fog	12.8	37.5	200	Axial plastic prefocus	A
894L	Tractor	12.8	37.5	200	Right angle prefocus	B
896L	Auto fog	12.8	37.5	200	Right angle prefocus	B

Halogen Headlamp Bulbs



Part Number	Application	Volts	Watts	Life Hours	Base	Fig.
9003L	Auto halogen, hi/lo (HB2)	12/12	60/55	150/320	Axial prefocus	A
9003LL	Auto halogen, hi/lo, long life (HB2)	12/12	60/55	150/800	Axial prefocus	A
BP9003BLX	Auto halogen, hi/lo w/ xenon (HB2)	12/12	60/55	150/300	Axial prefocus	A
9005L	Auto halogen, high beam (HB3)	12.8	65	150	Right angle prefocus	B
9005LL	Auto halogen, high beam, long life (HB3)	12.8	65	320	Right angle prefocus	B
BP9005BLX	Auto halogen, high beam w/ xenon (HB3)	12.8	65	300	Right angle prefocus	B
9005BKL	Auto halogen, high beam w/ xenon, blue (HB3)	12.8	65	300	Right angle prefocus	B
9005XSLL	Auto halogen, high beam, long life (HB3A)	12.8	65	700	Straight	D
9006L	Auto halogen, low beam (HB4)	12.8	55	500	Right angle prefocus	C
9006LL	Auto halogen, low beam, long life (HB4)	12.8	55	1100	Right angle prefocus	C
BP9006BLX	Auto halogen, low beam w/ xenon (HB4)	12.8	55	890	Right angle prefocus	C
9006XSLL	Auto halogen, low beam, long life (HB4A)	12.8	55	2000	Straight	D
9004L	Auto halogen, hi/lo (HB1)	12.8/12.8	65/45	150/320	Axial prefocus	E
9004LL	Auto halogen, hi/lo, long life (HB1)	12.8/12.8	65/45	250/850	Axial prefocus	E
BP9004BLX	Auto halogen, hi/lo w/ xenon (HB1)	12.8/12.8	65/45	200/800	Axial prefocus	E
9004BKL	Auto halogen, high beam w/ xenon, blue (HB1)	12.8/12.8	65/45	150/320	Axial prefocus	E
9007L	Auto halogen, hi/lo (HB5)	12.8/12.8	65/55	200/500	Axial prefocus	F
9007LL	Auto halogen, hi/lo, long life (HB5)	12.8/12.8	65/55	200/1500	Axial prefocus	F
BP9007BLX	Auto halogen, hi/lo w/ xenon (HB5)	12.8/12.8	65/55	200/800	Axial prefocus	F
H835L	Auto halogen (H8)	13.2	35	320	Right angle prefocus	G
H965L	Auto halogen (H9)	13.2	65	120	Right angle prefocus	H
H1042L	Auto halogen (H10)	13.2	42	775	Right angle prefocus	I
H1155L	Auto halogen (H11)	13.2	55	550	Right angle prefocus	G
H1253L	Auto halogen (H12)	13.2	53	950	Right angle prefocus	I
H9008L	Auto halogen (H13)	13.2	65/55	300/900	Axial prefocus	J

Incandescent Miniature Bulbs, cont'd

G4 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
12345L	Auto halogen	12	20	550	100	Bi-Pin

H1 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
12258L	Auto halogen	12	55	1550	150	P14.5S
12454L	Auto halogen	12	100	2800	150	P14.5S
64150L	Auto halogen	12	55	129	225	P14.5S
HE-78110	Auto halogen	12	100	217	50	P14.5S
HE-78115	Auto halogen	24	70	158	225	P14.5S

H2 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
12311L	Auto halogen	12	55	1800	150	X511
12507L	Auto halogen	12	100	3000	150	X511

H3 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
12336L	Auto halogen	12	55	1450	150	PK22S
12455L	Auto halogen	12	100	2350	150	PK22S
13336L	Auto halogen	24	70	1750	150	PK22S

H4 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
12342L	Auto halogen	12	60 / 55	1650 / 1600	100 / 200	P43T-38
12569L	Auto halogen	12	130 / 90	175 / 135	100 / 200	P43T-38
78158L	Auto halogen	12	100 / 55	191 / 80	100 / 200	P43T-38
78159L	Auto halogen	12	100 / 80	175 / 135	100 / 200	P43T-38
78160L	Auto halogen	24	75 / 70	1900 / 1200	75 / 150	P43T-38

H7 Bulbs

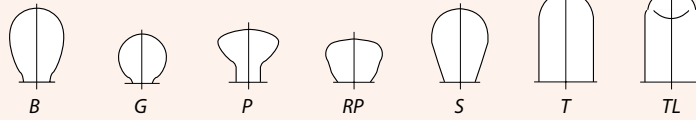


Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
78175L	Auto halogen	12	55	120	320	PX26D
78100L	Auto halogen	24	70	80	120	PX26D

Incandescent Miniature Bulbs, cont'd

Miniature Bulb Shapes

"Bulb" refers to the glass portion of the lamp. Refer to the diagram below for common bulb shape.



Double Ended Quartz Halogen Bulbs



Part Number	Application	Volts	Watts	MOL inches/mm	Lumens	Life Hours	Base
Q150T3/CL	Halogen work lamp	120	150	4.69/119.1	2200	2000	Recessed Single Contact
Q300T3/CL		120	300	4.69/119.1	4800		
Q500T3/CL		120	500	4.69/119.1	10000		
Q1500T3/CL		240	1500	10.06/255.6	32000		

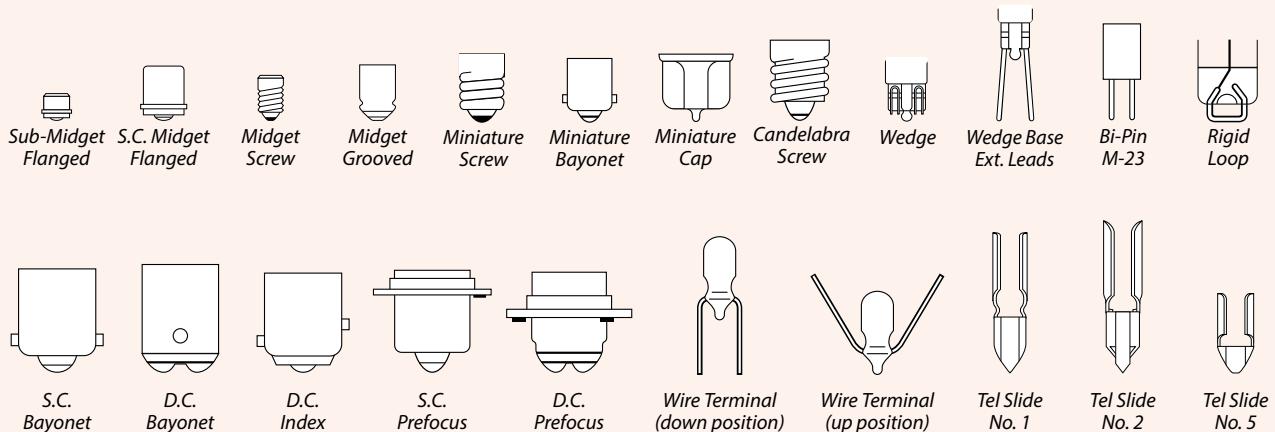
Linear Fluorescent Bulbs



Part Number	Application	Watts	MOL inches/mm	Lumens	Life Hours	Base
F8T5/CW	Cool white, preheat	8	12/305	400	7500	Mini bi-pin
F13T5/CW		13	21/533	850		Mini bi-pin
F15T8/CW		15	18/457	825		Medium bi-pin

Miniature Lamp Bases

In most cases, bases provide electrical contact to the lamp and support the lamp in the fixture. For miniature and sub-miniature lamps, bayonet or wedge base types are generally preferred over screw types when vibration is present. In addition, wedge bases reduce socket size & complexity. Flanged or collared types are associated with requirements for filament location.



LED Miniature Bulbs

S-8 LED Bulbs: 1" (25mm) Diameter

- Ideal for off-road use, construction equipment & industrial applications. ***Not intended for street use**
- Provides superior light output
- Shock & vibration resistant, no filament to damage
- Low heat generation, will not damage lamp lens
- 20,000+ life hours
- Rated: 12 - 14 volts; .01 amps

Red Part Number	Amber Part Number	White Part Number	Base	Replaces	Fig.
1156-LED-RED	1156-LED-AMB	1156-LED-WHT	S.C. bayonet	1156L	A
1157-LED-RED	1157-LED-AMB	1157-LED-WHT	D.C. index	1157L	B
3156-LED-RED	3156-LED-AMB	3156-LED-WHT	S.C. wedge	3156L	C
3157-LED-RED	3157-LED-AMB	3157-LED-WHT	D.C. wedge	3157L	D
N/A	HS-84180-AMB	HS-84180-WHT	S.C. bayonet	1156L	E
N/A	HS-84181-AMB	HS-84181-WHT	D.C. index	1157L	F
N/A	HS-84182-AMB	HS-84182-WHT	S.C. wedge	3156L	G
N/A	HS-84183-AMB	HS-84183-WHT	D.C. wedge	3157L	H

Pigtails for these bulbs are located in our pigtail section starting on page 221.

T-3 1/4 LED Bulbs: 13/32" (10mm) Diameter



Red Part Number	Color	Milliamps	Volts	Luminous Flux	Average Life Hours	Base	Replaces	Fig.
194-LED-RED	Red	30	12	1.54	100,000	Wedge	158L, 159L, 161L, 168L, 184L, 193L, 194L, 658L	A
194-LED-AMB	Amber							
194-LED-WHT	White							
194-LED-WW	Warm White							
194-LED-BLU	Blue							
194-LED-GRN	Green							
1893-LED-RED	Red	30	12	1.85	100,000	Miniature Bayonet	53L, 57L, 182L, 293L, 756L, 1445L, 1488L, 1815L, 1816L, 1889L, 1891L, 1893L, 1895L	B
1893-LED-AMB	Amber							
1893-LED-WHT	White							
1893-LED-WW	Warm White							
1446-LED-RED	Red	30	12.8	0.88	100,000	Miniature Screw	52L, 258L, 428L, 1446L, 1449L, 1487L	C
1446-LED-AMB	Amber							
1446-LED-WHT	White							
1446-LED-WW	Warm White							
1446-LED-BLU	Blue							
1446-LED-GRN	Green							

LED Miniature Bulbs, cont'd

T-1 3/4 LED Bulbs: 3/16" (4.7mm) Diameter



Red Part Number	Color	Milliamps	Volts	Luminous Flux	Average Life Hours	Base	Replaces
37-LED-RED	Red						
37-LED-AMB	Amber						
37-LED-WHT	White	20	12.8	1.00	100,000	Wedge	18L, 37L, 70L, 73L, 74L
37-LED-WW	Warm White						
37-LED-BLU	Blue						
37-LED-GRN	Green						

Sealed Beams



Par - 36: 4.5" (114mm) Diameter

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
4405	Spot	12.8	30	50,000	100	Screw terminals
4406	Tractor, flood	12.8	35	600	300	Screw terminals
4411	Auto, tractor	12.8	35	3,000	300	Screw terminals
4411-1	Auto, tractor	12.8	35	3,000	300	Slip-on & screw terminals
4411-1-LED	Auto, tractor, LED	10-30	30	-	>30,000	Slip-on terminals
4414	Auto signal	12.8	18	1,400	300	Screw terminals
4415	Auto fog	12.8	35	9,000	300	Screw terminals
4415A	Auto fog - amber	12.8	35	7,000	300	Screw terminals
4416	Auto spot	12.8	30	35,000	300	Screw terminals
4466	Tractor	12.8	60	1,000	300	Screw terminals
7400	Rotating beacon	12.8	35	33,000	300	Slip-on terminals
H-7600	Halogen rotating beacon	12.8	37.5	60,000	300	Screw terminals

Sealed Beams, cont'd

Par - 36: 4.5" (114mm) Diameter

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
H-7604	Halogen spot	12.8	50	100,000	100	Screw terminals
H-7610	Halogen tractor	12.8	50	5,200	400	Screw terminals
H-7616	Halogen spot	12.8	37.5	70,000	300	Screw terminals
4509	Aircraft landing spot lamp	13	100	110,000	25	Screw terminals
4502	Auto headlamp military	28	50	10,000	400	Screw terminals
4505	Aircraft navigation	28	50	45,000	400	Screw terminals
4752	CIM flood spot	28	60	2,000	800	Screw terminals
4350	Electric truck work light	36	60	2,100	400	Slip-on terminals

Par - 46: 5.75" (146mm) Diameter

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
4412	Auto fog	12.8	35	11,000	300	Screw terminals
4412A	Auto fog - amber	12.8	35	8,800	300	Screw terminals
4419	Tractor	12.8	35	1,600	300	Screw terminals
4435	Spot	12.8	30	75,000	100	Screw terminals
4436	Spot	12.8	35	60,000	300	Screw terminals
H-5001	Halogen high beam	12.8	50	50,000	200	2 contact lugs
H-7635	Halogen spot	12.8	50	160,000	100	Screw terminals
H-5006	Halogen hi/lo	12.8/12.8	35/35	15,000/25,000	200/320	3 contact lugs
4421	Auto, special service	13	100	23,000	300	Slip-on terminals
4571	Flood, special service	28	150	7,000	300	Screw terminals
4578	CIM flood	28	60	1,600	800	2 contact lugs
4579	Machinery headlamp hi/lo	28/28	80/60	24,000/11,000	400/400	3 contact lugs
4880	CIM headlamp	28	60	6,000	800	2 contact lugs

Par - 56: 7" (178mm) Diameter

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
H-6024	Halogen headlamp hi/lo	12.8/12.8	65/35	35,000/27,000	150/320	3 contact lugs
H-6024BL	Brightlite halogen headlamp hi/lo	12.8/12.8	65/55	28,000/24,000	150/450	3 contact lugs

Rec - 48: 5.9" x 3.6" (150mm x 92mm)

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
H-9406	Halogen headlamp hi/lo	12.8	50	1,350	400	2 right angle lugs
H-9411	Halogen tractor trapezoidal	12.8	50	5,400	400	2 right angle lugs
H-9421	Halogen headlamp hi/lo	12.8	50	4,000	200	2 right angle lugs

Sealed Beams, cont'd

Rec - 58: 6.5" x 3.9" (165mm x 100mm)

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
H-4651	Halogen headlamp high beam	12.8	50	55,000	200	2 contact lugs
H-4656	Halogen headlamp hi/lo	12.8/12.8	35/35	25,000/15,000	320/200	3 contact lugs
H-6545	Halogen headlamp hi/lo	12.8/12.8	65/45	35,000/25,000	150/450	3 contact lugs
H-6545BL	Headlamp hi/lo w/ Xenon	12.8/12.8	65/55	28,000/24,000	150/450	3 contact lugs
H-4656BL	Headlamp hi/lo w/ Xenon	12.8/12.8	55/40	26,000/15,000	150/450	3 contact lugs
4921-1	Auto truck special service	13	100	25,000	300	Slip-on terminals

Rec - 68: 7.9" x 5.6" (200mm x 142mm)

Part Number	Application	Volts	Design Watts	Candle Power	Life Hours	Base
6052	Headlamp type 2B1 hi/lo	12.8/12.8	65/55	35,000/30,000	150/320	3 contact lugs
H-6054	Halogen headlamp hi/lo	12.8/12.8	65/35	40,000/35,000	150/320	3 contact lugs
H-6054BL	Headlamp hi/lo w/ Xenon	12.8/12.8	65/55	28,000/27,000	150/450	3 contact lugs

LED Headlamps

7" Round



- Exceeds FMVSS-108 & CMVSS-108 requirements for high beam & low beam performance
- Military grade die-cast aluminum housing, non-yellowing polycarbonate lens & epoxy sealed electronics

Part Number	Description	Diodes	Volts	Amps	Base
TL-27270C	High/low beam	2	12-24	2.95 / 1.45	3 blade pigtail

7" Round w/ "Halo" Ring Lights



- Polycarbonate lens, aluminum die cast housing
- IP67 waterproof rating
- Includes auxiliary outer "halo" ring lights
- Offers longer life than comparable Par 56, 178mm lamps

Part Number	Description	Diodes	Volts	Amps	Base
TS-TLED-H3	High/low beam	9	12-24	2.81/1.4	3 blade terminals

LED Headlamps, cont'd

4" x 6" Rectangular - Standard Grade



- D.O.T. Approved
- Polycarbonate lens, aluminum diecast housing
- IP67 waterproof rating
- Includes H4 headlight extension plug, part # TA-TPIG-H1
- Offers longer life than comparable Rec 58, 165mm x 100mm lamps

Part Number	Description	Diodes	Lumen	Volts	Amps	Base
TA-TLED-H2	Low beam	2	1100	12-24	0.7	3 blade terminals
TA-TLED-H1	High beam	2	1700	12-24	0.8	

4" x 6" Rectangular - Premium Grade



- D.O.T. Approved
- Polycarbonate lens, aluminum alloy housing
- IP67 waterproof rating
- Offers longer life than comparable Rec 58, 165mm x 100mm lamps

Part Number	Description	Diodes	Lumen	Volts	Amps	Base
TA-TLED-H6	Low beam - chrome	3	850	6-24	2.3	3 blade terminals
TA-TLED-H7	High beam - chrome	3	1150	12-24	2.3	
TA-TLED-H73	Low beam - black	3	850	6-24	2.3	
TA-TLED-H75	High beam - black	3	1150	12-24	2.3	

4.2" x 6.6" Rectangular - High Performance



- Wider beam for increased road coverage & up close illumination
- Polycarbonate lens, Maxx-Shield coating
- Mechanical aiming pads
- Offers longer life than comparable Rec 58, 165mm x 100mm lamps

Part Number	Description	Diodes	Lumen	Volts	Amps	Base	Fig
MX-VHL-4X6LO	Low beam	1	400	12/24	1.1 / .6	3 pin pigtail	A
MX-VHL-4X6HI	High beam	1	400	12/24	1.2 / .7		A
MX-VHL-4X6DRL	Low beam/DRL	5	400	12/24	1.1 / .6		B

5" x 7" Rectangular w/"Halo" Ring Lights



- Polycarbonate lens, aluminum die cast housing
- IP67 waterproof rating
- Includes auxiliary outer "halo" ring lights
- Offers longer life than comparable Rec 58, 165mm x 100mm lamps

Part Number	Description	Diodes	Lumen	Volts	Amps	Base
TS-TLED-H4	High/low beam	7	1200/1200	12-24	3.45	3 blade terminals

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Work Lighting

LED Work Lighting

Maxxima MaxxHeat LED Work Lights



- Features: polycarbonate lens & housing, stainless steel mounting bracket & bolt
- Heating element in lens activated when temperature drops below 45°F

Part Number	Color	Size	Rated	Diodes	Lumen
MX-MWL-19-A-MH	White	4.8" dia. x 1.5"D	2.3A/12V; 1.1A/24V	15	675
MX-MWL-19Y-A-MH	Amber			15	675

Maxxima Heavy Duty Work Lamps



- Features: aluminum black powder coated housing & stainless steel mounting bracket
- 5/16" stud for mounting
- Rated: 12.8V; 1.24A

Part Number	Description	Rated	Diodes	Lumen	Fig.
MX-MWL-01B	4.5" dia. round lamp		6	550	A
MX-MWL-04	4" x 6" rectangular lamp	12.8V; 1.24A	6	400	B
MX-MWL-50SP	6.2" x 3.3" x 1.8" rectangular lamp		6	1200	C

Maxxima LED Work Lights



- Features: polycarbonate lens
- Stainless steel mounting bracket & bolt

Part Number	Color	Size	Rated	Diodes	Lumen	Fig.
MX-MWL-19-A	White					A
MX-MWL-19Y-A	Amber	4.8" dia. x 1.5"D	2.3A/12V; 1.1A/24V	15	675	B
MX-MWL-41	White	4.7" dia. x 1.6"D	2.4A/12V; 1.2A/24V	16	2100	C
MX-MWL-42	White	5.9" x 3.6" H x 1.5"D				D
MX-MWL-57SP	White	6.2"L x 3.8"H x 1.8"D	2.3A/12V; 830MA/36V	8	2150	E
MX-MWL-58	White	7.1"L x 3.7"H x 2.2"D	2.8A/12V; 1.1A/36V	18	3050	F

Optronics LED Swivel Base Utility Light



- Features: powder coated aluminum diecast housing, stainless steel mounting hardware & polycarbonate lens
- Adjustable mounting arm w/ two swivel points

Part Number	Color	Size	Rated	Diodes	Lumen
OT-TLL42-FS	White	5.0" dia.	3.25A/12V; 1.63A/24V	13	3800

LED Work Lighting, cont'd

Trux Accessories LED Mini Work Light



- Features: aluminum diecast housing, stainless steel bracket & polycarbonate lens
- IP67 waterproof rating

Part Number	Size	Rated	Diodes	Raw Lumen	Effective Lumens
TA-TRX-135	2"H x 2"W x 1"D	.87A/ 12V; .43A/ 24V	9	1500	900

Hella Blue LED Forklift Warning Spotlight



- Provides visual warning to pedestrians
- Features: aluminum diecast housing, stainless steel bracket & polycarbonate lens

Part Number	Color	Rated	Diodes
HE-0181	Blue	10-80VDC	2

ECCO LED Flood Beam Work Lamps



- Features: Aluminum heatsink housing, steel mounting bracket
- Single bolt mounting

Part Number	Description	Rated	Diodes	Raw Lumen	Fig.
EC-E92004	4.57" dia. lamp	12-24V; 0.6A	6	700	A
EC-E92006	4.33" lamp	12-24V; 1.3A	9	1450	B
EC-E92007	4.33" lamp	12-24V; 0.7A	5	750	C
EC-E92013	4.96" dia. lamp	12-24V; 0.9A	6	675	D
EC-EW2471	3.3" lamp	12-24V; 1.2A	5	775	E
EC-EW2102	4.3" lamp	12-24V; 2.6A	8	2000	F
EC-EW2411	4.4" lamp	12-24V; 1.2A	6	1000	G

Rigid Industries Ignite Surface Mount LED Lamps



- Features: lightweight housing, mounting bracket mates with any Go-Pro style mounts
- Size: 1.4" x 1.4" x 2"

Part Number	Description	Rated	Diodes	Raw Lumen
RG-20511	Spot beam	6-28V; .85A	1	1000
RG-20521	Flood beam	6-28V; .85A	1	1000

LED Work Lighting, cont'd

Rigid Industries Dually LED Lamps



- Features: aluminum powder coated housing, lexan lens, plug & play wiring harness w/ switch & sealed connector part # DT04-2P for an easy watertight connection
- Size: 3.2"W x 3.2"D

Part Number	Description	Rated	Diodes	Raw Lumen	Fig.
RG-DUALLYFLDW	Flood lamp				A
RG-DUALLYDFLDW	Diffuse flood lamp	10-50V; 1.1A	4	1568	B
RG-DUALLYSPTW	Spot lamp				C

Rigid Industries D2 HD Wide Beam LED Lamps



- Features: cast aluminum housing, polycarbonate lens, plug & play wiring harness w/ switch & sealed connector & hardware
- Comes in a set of two lamps

Part Number	Description	Rated	Diodes	Raw Lumen
RG-D2DW2	3" square flood lamps	9-36V; 2.4A	6	6192

Trux Accessories Mini LED Work Lamps



- Features: diecast aluminum housing, polycarbonate lens & stainless steel mounting bracket

Part Number	Description	Rated	Diodes	Raw Lumen
TA-TLED-U33	3" square flood lamp	10-30V; .69A	5	1260
TA-TLED-U34	3" round spot lamp	10-30V; .69A	5	1260
TA-TLED-U32	3" square spot lamp	10-30V; .86A	5	1260
TA-TLED-U35	3" round flood lamp	10-30V; .86A	5	1260

Hella LED Flood Work Lamps



- Features: diecast aluminum housing, polycarbonate lens & stainless steel mounting bracket

Part Number	Description	Rated	Diodes	Raw Lumen
HE-5RD2.0-LED	4.4" round lamp	9-33V; 1.04A	14	2000
HE-4SQ2.0-LED	4.2" square lamp		16	2000

ECCO LED Worklight W/360° Rotation Axis and Switch



- On-Off switch
- IP67 rated
- 360° stainless steel rotation axis
- Aluminum heatsink housing
- 4.3"W x 3.3"D x 5.2" H including handle
- Total height with base and handle is 8.1"

Part Number	Description	Rated	Diodes	Raw Lumen	Fig.
EC-EW2451	Flood	12-24 VDC; 2.2 A	9 - 3 Watt LED's	1300	A
EC-EW2450	Spot				B

LED Work Lighting, cont'd

Whelen Mini LED Work Light



- Optic lens changes easily via removable lens retainer
- Injection molded polycarbonate lenses are impact resistant and hard-coated
- Die-cast aluminum powder-coated housing in Black or White
- LEDs are instant On/Off, eliminating ramp up time and high current inrush
- Includes 72" cable
- Powder-coated stainless steel bail bracket with 0.375" stud carriage bolt mount

Part Number	Housing	Size	Volts	Diodes	Lumen	Amps.	Fig.
WH-NP6BW	White	3"H x 3.5"W x 1.75"D	12/24 VDC	6	2552	1.5	A
WH-NP6BB	Black	3"H x 3.5"W x 1.75"D	12/24 VDC	6	2552	1.5	B

Hella LED Mini Light Bars



- Features: diecast aluminum housing, polycarbonate lens & stainless steel mounting bracket

Part Number	Description	Rated	Diodes	Raw Lumen	Fig.
HE-357203051	6.2" flood light bar - white	10-30V	6	1000	A
HE-357203031	7.6" flush mount flood light bar - blk		6	1000	B
HE-357203011	6.2" spot light bar - black		6	1000	C
HE-357203001	6.2" flood light bar - black		6	1000	C

Trux Accessories LED Mini Light Bar



- Features: diecast aluminum housing, polycarbonate lens & stainless steel mounting bracket

Part Number	Description	Rated	Diodes	Raw Lumen
TA-TLED-U98	6.2" flood light bar	1.8A @ 12V .88A @ 24V	6	1600

Rigid Industries LED Utility Light Bars



- Features: 100% optically clear - AR1 coated polycarbonate lens
- Rated: 9-36V

Part Number	Description	Amps	Diodes	Raw Lumen
RG-RGDL04E	4" flood light bar	2.17	8	3000
RG-RGDL04P	4" spot light bar		8	3000
RG-RGDL06E	6" flood light bar	3.26	12	4500
RG-RGDL06ED	6" flood light bar w/ 60° diffusion film		12	4500
RG-RGDL06P	6" spot light bar		12	4500
RG-RGDL10E	10" flood light bar	4.71	20	5740

LED Work Lighting, cont'd

Optronics LED Utility Spot/Flood Light Bar



- Features: heavy duty aluminum housing & polycarbonate lens
- 16ga., 14" lead & ground wire
- IP65 rated for dust & water resistance
- Rated: 12-24VDC

Part Number	Description	Amps	Diodes	Raw Lumen Spot / Flood
OT-UCL23CB	7.25" spot/flood light bar	3.0	12	2520/1550
OT-UCL21CB	13.58" spot/flood light bar	4.0	24	5000/2700
OT-UCL20CB	21.26" spot/flood light bar	6.8	40	7500/4521
OT-UCL22CB	33" spot/flood light bar	9.8	60	12600/6777
OT-BK-20BB	Mounting bracket for all light bars pictured (sold separately)			

Rechargeable Flood Work Lights



- Features: aluminum heatsink housing, polycarbonate lens & magnetic base
- Includes a USB charging cable
- Three operating modes

Part Number	Color	Size	Rated	Diodes	Raw Lumen
EC-EW2461	Black	4.5"W x 9.1"H x 3.9"D	12-24V; 3.2A	6	650
EC-EW2461-CAMO	Camo				

Maxxima Dual Function Scene & Warning Light



- Surface mount w/28 flash patterns
- SAE J595, Class I
- 13"L x 1.4"W x 1.4"D
- Four 17" leads w/bullets
- White scene light w/ (36 LED's), amber flashing warning light w/ (36 LED's)

Part Number	Color	Rated	Raw Lumens
MX-M84420YWCLDC	Amber/ White	12 V; 0.9A	700 (scene light)

ECCO 50" Spot/Flood Combination Bar



- IP67 Rated, SAE Class 1
- Upper row (steady burn amber)
Lower row (steady burn white)
- Custom optics designed for dual-light operation
- Brackets included for front or rear vehicle mounting
- Includes weather protected controller - Part # EC-3420CB

Part Number	Description	Rated	Raw Lumens
EC-EW3420	Flood light with Safety Director™	12-24 VDC	9

Incandescent & Halogen Work Lighting

Rubber Auxiliary



- Weather sealed rubber housing protects against shock, vibration, rust & corrosion
- Mounts w/ 5/16" stud & adjustable bracket
- Size: 4-3/4" dia. x 3" depth

Part Number	Type	Rated
OT-TL-10CB	Sealed beam	12 volt / 35 watt
TS-620-HD	Halogen, H3	12 volt / 55 watt
4411-1	Replacement sealed beam	
4411-1-LED	Replacement LED sealed beam	
12336L	Replacement halogen bulb	

Forward Lighting

LED Snow Plow Lighting

Truck-Lite LED Snow Plow Kit



- Black powder-coated, diecast aluminum alloy housing & tempered glass lens w/ polycarbonate reflector optics
- Hard wired lamps with fully encapsulated electronics to protect from corrosion & moisture
- Kit includes: 2 headlamp/pedestal lamp assemblies & wiring harness

Part Number	Description	Rated	Diodes	Fig.
TL-80880	7" Round Lamp Kit	12-24V; 3.6/1.8A	23	A
TL-80875	5" x 7" Rectangular Lamp Kit	12-24V; 3.6/1.8A	23	B
TL-80990	7" Round Heated Lamp Kit	12-24V; 3.6/2.1A	23	A

ECCO LED Snow Plow Kit



- Polycarbonate lens, diecast aluminum housing, metalized reflector
- Snow-melt & anti-icing system
- Dual options for bottom & back mounting
- Indicator lamp can be mounted to the top, left or right sides of headlamp
- Kit includes: 2 headlamp/indicator lamp assemblies & wiring harness

Part Number	Description	Rated
EC-EW4010	6" Square Heated Lamp Kit	12-24V; 3.2/1.6A

Incandescent Snow Plow Lighting

Truck-Lite Universal Snow Plow Kit

- High impact polycarbonate & steel construction



- Mounts on one 1/2"-13 stud
- One piece harness runs from switch to front of vehicle

Part Number	Description
TL-80800	Kit: 2 - hi/lo halogen headlamps w/ integrated park/turn lamps, switch, HD flasher, wiring harness & hardware
H-6545BL	Replacement sealed beam
1157L	Replacement park/turn bulb

Truck-Lite Economy Snow Plow / ATL Kit

- High impact polycarbonate & steel construction



- Two vehicle harnesses run from lamps & attach w/ twist type connections
- Mounts on one 1/2"-13 stud

Part Number	Description
TL-80888	Kit: 2 - hi/lo halogen headlamps w/ integrated park/turn lamps, switch, 2 wiring harnesses & hardware
H-6545BL	Replacement sealed beam
1157L	Replacement park/turn bulb

Spotlights

Handheld LED Spotlights



- Features: aluminum array housing with rugged plastic handle, polycarbonate lens
- Inner lens effectively focuses light into a concentrated spot beam
- Booted power switch on handle
- Size: 4-3/4" dia. x 6-1/2"L

Part Number	Description	Rated	Diodes	Lumen
TS-HHSL-C	Corded w/ accessory plug	12V; 2.5A	9	2000
TS-HHSL-R	Rechargeable w/ AC wall & DC car chargers	12V; 2.6A	9	2000

Searchlights

Golight LED Searchlight



- UV ray & salt water resistant
- 370° rotation & 135° tilt
- 544,000 candle power
- 3.7 amps @ 13.8V

Part Number	Mount	Color	Includes	Unit Size
GL-30005ST	Portable	White	1 wireless handheld remote, attached magnetic base, 15' cord w/ 12VDC plug	7"x7"x8"
GL-30515ST	Portable	Black		

Golight High Intensity Searchlight



- UV ray & salt water resistant
- 370° rotation & 135° tilt
- 544,000 candle power
- 3.7 amps @ 13.8V

Part Number	Mount	Color	Includes	Unit Size
GL-30004ST	Portable	White	1 wireless handheld remote, stainless steel mounting bracket	7"x7"x6.5"
GL-30514ST	Portable	Black		

Golight Halogen Searchlight



- UV ray & salt water resistant
- 370° rotation & 135° tilt
- 400,000 candle power
- 5.5 amps @ 13.8V

Part Number	Mount	Color	Includes	Unit Size
GL-7901GT	Portable	White	1 wireless handheld remote, Suction cup/magnet mount shoe, 15' cord w/ 12VDC plug	7"x7"x8"
GL-7951GT	Portable	Black		
GL-2000GT	Permanent	White	1 wireless handheld remote, mounting hardware & rockguard	7"x7"x6.5"
GL-2051GT	Permanent	Black		
GL-2007GT	Permanent	White	1 wireless handheld remote, 1 wireless dash mount remotes, mounting hardware & rockguard	7"x7"x6.5"
GL-2057GT	Permanent	Black		

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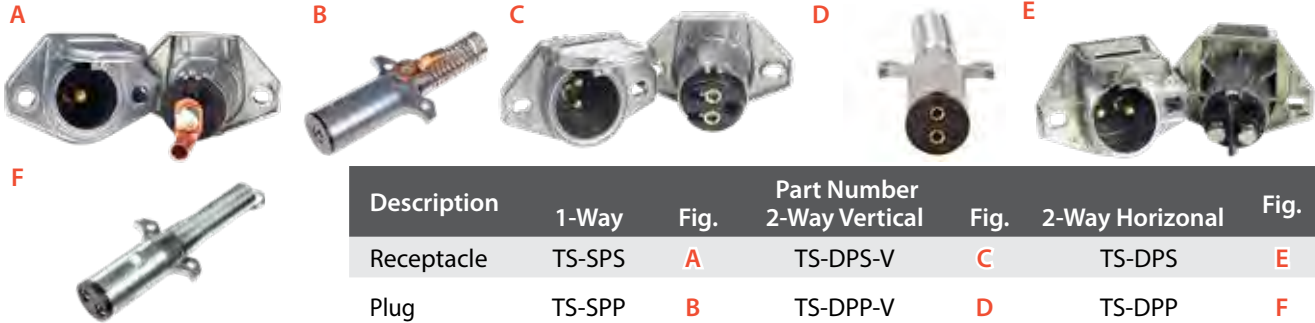
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Tractor / Trailer Connectors, Coiled Cables & Accessories

Die Cast Liftgate

1-Way & 2-Way Heavy Duty

- Rated: 300 amps
- Zinc diecast body is corrosion resistant
- Accepts 4-6ga. cable



Description	1-Way	Fig.	Part Number	2-Way Vertical	Fig.	2-Way Horizontal	Fig.
Receptacle	TS-SPS	A	TS-DPS-V	C	TS-DPS	E	
Plug	TS-SPP	B	TS-DPP-V	D	TS-DPP	F	

1-Way & 2-Way Coils

- For liftgate & remote battery applications
- Temp rating: -40°F to 140°F
- 4ga. copper cable
- 100 amp continuous / 200 amp intermittent capacity
- Cable ends include terminal lugs for a return ground cable



Part Number			Work Length
1-Way	2-Way Vertical	2-Way Horizontal	
LGC-15	LGC-15-DP-V	LGC-15-DP	15ft.

4-Way Die Cast

Heavy Duty

- Rated: 12-24 volt; 35 amp
- Zinc die cast body w/ engineering grade plastic insert & split brass contacts



Description	Part Number				Fig.
	Cole Hersee	Phillips	Pollak	Tramec	
Receptacle	CH-1232	15-400	11-404	38494	A
Recept, w/ exposed screw terminals	CH-1257	N/A	N/A	N/A	A
Plug w/ spring	CH-1253	15-430	11-403	N/A	B
Plug	CH-1233	15-410	11-402	38194	C

Chrome Plated

- Rated: 12-24 volt; 20 amp, polarized
- Chrome die cast body w/ ABS plastic high impact insulators & split brass contacts



Description	Part Number	Fig.
Receptacle	11-410	A
Plug	11-409	B

Wire Code for 4-Way Connectors

Number Code	Color	Circuits
1	White	Ground return
2	Green	Right turn & brake lts
3	Red/Yellow	Left turn & brake lts
4	Brown	Tail lights

Number code: Connect the correct wire to the corresponding number on the receptacle and the plug. If your insert has letters instead of numbers, just match the number to the corresponding letter of the alphabet, i.e. A = 1, B = 2, etc. **Trailer cable is located on page 120.**

4-Way Mini Coils

- For adding circuits to tractor/trailer
- 4/14ga. (black, yellow, red, white)
- Temp rating: -40°F to 140°F



Part Number	Work Length
MINI-48	8ft.
MINI-410	10ft.
MINI-415	15ft.

6-Way Die Cast

Heavy Duty

- Zinc die cast body w/ engineering grade plastic insert & split brass contacts



Description	Part Number				Fig.
	Cole Hersee	Phillips	Pollak	Tramec	
Receptacle	CH-1235	15-600	11-609	38496	A
Plug	CH-1236	15-610	11-604	38196	B
Plug w/ spring	CH-1254	15-630	11-605	38195	C

Wire Code for 6-Way Connectors

Number Code	Color	Circuits
1	White	Ground return
2	Green	Right turn
3	Yellow	Left turn
4	Red	Stop and/or electric brake
5	Brown	Tail lights
6	Blue	Auxiliary circuit

Number code: Connect the correct wire to the corresponding number on the receptacle and the plug. If your insert has letters instead of numbers, just match the number to the corresponding letter of the alphabet, i.e. A = 1, B = 2, etc.

Trailer cable is located on page 120.

6-Way Mini Coils

- Great for adding circuits to tractor/trailer
- 6/14ga. (black, brown, green, red, white, yellow)
- Temp rating: -40°F to 140°F



Part Number	Work Length
MINI-68	8ft.
MINI-610	10ft.
MINI-615	15ft.

6-Way Illuminated Mini Coils

- Night-Glow™ illuminates on tailight function verifying continuity
- Tin plated terminals



Part Number	Work Length
HP-47055	8ft.

7-Way Die Cast

Heavy Duty

- Zinc die cast body w/ engineering grade plastic insert & split brass contacts



Description	Part Number				Fig.
	Cole Hersee	Phillips	Pollak	Tramec	
Receptacle	CH-12063-01	15-720	11-721	38497	A
Repl. rec. interior	N/A	15-724	N/A	N/A	-
Plug	N/A	15-710	11-700	38198	B
Plug w/ spring	CH-1255	15-730	11-702	38197	C
Repl. plug interior	N/A	15-711	11-764	N/A	-
Repl. spring	N/A	15-731	11-763	N/A	-

Wire Code for 7-Way Connectors

Number Code	Color	Wire	Circuits	FMVSS-121 Anti-Lock
1	White	10ga	Ground return	8ga.
2	Black	12ga	Clearance, side marker & ID lts	12ga.
3	Yellow	12ga	Left turn & hazard signal	12ga.
4	Red	12ga	Stop lts & anti-lock dev.	10ga.
5	Green	12ga	Right turn & hazard lts	12ga.
6	Brown	12ga	Tail, rear clear. & lic. plate	12ga.
7	Blue	12ga	Aux. circuit / ABS power	12ga.

Number code: Connect the correct wire to the corresponding number on the receptacle and the plug. If your insert has letters instead of numbers, just match the number to the corresponding letter of the alphabet, i.e. A = 1, B = 2, etc.

Trailer cable is located on page 120.

TRUCK PRODUCTS & CONNECTORS

7-Way Die Cast, cont'd

Self Grounding Receptacles

- Configured for ISO cables
- Corrosion-resistant die cast metal
- Polarized ground terminal
- Solid brass contacts



Part Number	Manufacturer	Amp
CH-12077-01	Cole Hersee	-

7-Way Heavy Duty Coils

- Zinc plated plugs w/ springs & split pin inserts for positive termination
- 1/10ga. (white), 6/12ga. (black, blue, brown, green, red, yellow)
- Temp rating: -40°F to 140°F



Part Number	Work Length
CC-712	12ft.
CC-715	15ft.

7-Way ABS Rated Coils

- Green cables are NHTSA approved
- 1/8ga. (white), 2/10ga. (red, blue), 4/12ga. (brown, black, yellow, green)
- Temp rating: to -40°F



Part Number	Work Length
CC-ABS-12	12ft.
CC-ABS-15	15ft.

7-Way ABS ISO Rated Coils

- Yellow cables are NHTSA approved
- 1/8ga. (white), 2/10ga. (red, blue), 4/12ga. (brown, black, yellow, green)
- Temp rating: to -85°F
- NOTE: Coils feature special ISO plugs



Part Number	Work Length
CC-ABS-12-ISO	12ft.
CC-ABS-15-ISO	15ft.

7-Way Glass Filled Nylon

Plugs & Receptacles



- Engineering grade plastic insert & solid brass contacts

Description	Part Number		Fig.
	Cole Hersee	Pollak	
Receptacle	CH-12080	11-723	A
Plug		11-703	B
Plug w/ spring	CH-12082	11-710	C
Repl. plug Interior	N/A	11-764	-
Repl. spring	CH-81192	11-763	-

7-Way Glass Filled Nylon, cont'd

Receptacles w/ Replaceable Circuit Breakers

- Heavy duty zinc die cast face plate
- Glass filled nylon base plate and housing
- Split brass contacts
- Accepts all SAE J560 plugs
- Circuit breakers (15, 20 or 30amp) not included w/ Phillips receptacles



Part Number	Manufacturer	Amp	Fig.
15-750	Phillips	-	A
15-760	Phillips	-	A
11-737	Pollak	20	B
11-739	Pollak	30	B

7-Way RV

Plastic Standard RV Plug & Receptacle

- Plastic rust-proof housing keeps plug looking and performing like new



Description	Part Number Pollak	Fig.
Receptacle	12-707	A
Plug	12-706	B

RV OEM Receptacle Harness

- 48" length
- For the harness that mates directly to this one, order #TG-6323-7M (female part # pictured)



RV OEM Replacement Receptacle

- Nylon body eliminates corrosion
- Tin-plated copper alloy contacts
- Connects w/ an interlocking, weather-tight connector (TG-6323-7F)



Description	Part Number Pollak
Receptacle	11-893

Part Number	Wires
TG-6323-7F	Yellow/16ga., white/10ga., blue/14ga., green/16ga., black/14ga., brown/16ga., red/16ga.

Always be sure that your trailer connectors are working correctly with a circuit tester. See page 268 for our wide selection.

RV OEM Replacement Twist & Lock Receptacle

- Nylon body eliminates corrosion
- Tin-plated copper alloy contacts
- Connects w/ an interlocking, weather-tight connector (TG-6323-7F)



Description	Part Number Pollak
Receptacle	11-916

Wire Code for 7-Way RV Connectors

Number Code	Color	Wire	Circuits
1	White	10ga.	Ground return
2	Blue	12ga.	Electric brake
3	Green	14ga.	Tail, license & running lts
4	Black	10ga.	Battery charge
5	Red	14ga.	Left turn & stop
6	Brown	14ga.	Right turn & stop
7	Yellow	14ga.	Auxiliary circuit

Number code: Connect the correct wire to the corresponding number on the receptacle and the plug. If your insert has letters instead of numbers, just match the number to the corresponding letter of the alphabet, i.e. A = 1, B = 2, etc. **Trailer cable is located on page 120.**

Metal Standard RV Plug & Receptacle

- Heavy duty plating for maximum weather and corrosion resistance



Description	Part Number Pollak	Fig.
Receptacle	12-703	A
Plug	12-702	B

TRUCK PRODUCTS & CONNECTORS

13-Way Glass Filled Nylon

Plugs & Receptacles



- Glass-filled plastic housings cannot rust or corrode contacts

Description	Part Number		Fig.
	Pollak	Cole Hersee	
Receptacle		CH-12300	A
Plug		CH-12301	B

Truck Connector & Coiled Cable Accessories

Receptacle Boots

- Rubber boot seals against dust & moisture



Description	Part Number		Fig.
	Pollak	Cole Hersee	
Fits all 6-way receptacles	11-616	N/A	A
Fits all 7-way receptacles	11-761	CH-11178	B

Surface Mounted Adapter Boxes

- Part pictured: #38265
- Works with receptacles w/ replaceable circuit breakers on page 164-165



Description	Part Number	
	Bottom Entry	Back Entry
3" adapter box	3826035	3826035B
2" adapter box	38265	38265B

Heavy Gauge Steel Receptacle Brackets



Description	Part Number		Fig.
	Uncoated	Black Coated	
4 & 6-way	11-617	11-627	A
7-way	11-771	N/A	B
7-way	7WB	7WB-BLK	C
RV style	12-701	12-711	D

Trailer Connector & Gladhand Dock Station

- Brackets are angled for easy & safe driver docking



Part Number	Description
TR-34211	Fits all 7-way plugs & gladhands

Trailer Connector Plug Holder

- Heavy duty glass filled housing
- Spring loaded for a secure fit



Part Number	Description
CH-11750	Fits all 7-way & 13-way SAE J560b plugs

Truck Connector & Coiled Cable Accessories, cont'd

Hose Support Springs

- Zinc plated, yellow dichromated high tensile strength steel springs



Part Number	Length	Dia.	Application
34015	13"	1"	Air hose-tractor
34114	16.4"	1"	Air hose-HD trailer slider assembly
34017	25"	1-1/16"	Vacuum hose-tractor

Pogo Stick Hose Support Pole

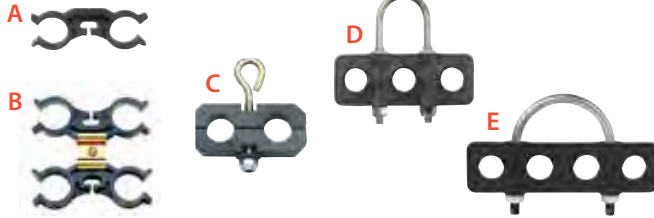
- Excellent support for air & electrical lines
- Durable, zinc-plated steel body
- Heavy duty polyester coated steel springs
- 5/8"-11 stud & nut for extra support
- Heavy fabric holder hose strap



Part Number	Description
VC-581011	40" pogo stick

Heavy Duty Hose Separators

- ABS plastic construction



Part Number	Size	Number of Hoses	Fig.
VC-580037	3/8"	2	A
VC-580038	3/8"	4	B
VC-580039	1/2"	2	C
VC-580040	5/8"	3	D
VC-580041	5/8"	4	E

Molded Trailer Connectors

2-Way Flat

- Connector mates to itself by flipping unit



Part Number	Description
PH-2	Female / Male; 16ga. 2 - 11" wire leads
PH-2-12	Female / Male; 12ga. 2 - 11" wire leads

3-Way Flat



Part Number	Description	Fig.
PH-3F	Female; 16ga. 3 - 11" wire leads	A
PH-3M	Male; 16ga. 3 - 11" wire leads	B

4-Way Flat (Splice In)



Part Number	Description	Fig.
PH-48FF	Female; 16ga., 3 - 48" & 1 - 18" wire leads	A
PH-48FF-W/48"GR	Female; 16ga., 4 - 48" wire leads	A
PH-48FM	Male; 16ga., 4 - 18" wire leads	B

4-Way Flat (Full Trailer Length)

- Meets SAE standards



Part Number	Description	Fig.
PH-72FF	Female; 16ga., 4 - 6' wire leads	A
PH-27M	Male; 16ga., 3 - 30' & 1 - 18" wire leads	B

Molded Trailer Connectors, cont'd

4-Way Flat Wishbone w/ 5th Wire for Running Lights



Part Number	Description
PH-48FM-DB	Male; 16ga., 5 - 48" wire leads

4-Way Flat Extension Connectors



- Female connector on one end & male connector on the other

Part Number	Length
PH-18C	18"
PH-48C	48"

5-Way Flat

- Meets SAE standards & will operate all DOT required lights



Part Number	Description	Fig.
PH-5F	Female; 5 - 6' wire leads	A
PH-5M	Male; 5 - 4' wire leads	B

6-Way Flat



Part Number	Description	Fig.
PH-6F	Female; 16ga., 6 - 48" wire leads	A
PH-6M	Male; 16ga., 6 - 18" wire leads	B

Flat Connector Covers



- Protects connector from salt, dirt & road debris

Part Number	Size
DT-20112	4-way
DT-20118	5-way

8-Way Flat



Part Number	Description	Fig.
PH-8F	Female; 3/12ga. 5/16ga. GPT 8" wire leads	A
PH-8M	Male; 3/12ga. 5/16ga. GPT 8" wire leads	B

Ford Snap Plugs

- Water resistant
- Mates w/ each other or any .180" dia. snap plug



Part Number	Description	Fig.
PL-43	Female; 16ga., 11" wire lead	A
PL-44	Male; 16ga., 11-1/2" wire lead	B

Ford

- Snap receptacle



Part Number	Description	Mates With
PH-79F	Female; 16ga., 11-1/2" wire leads	.156" dia. plug
TL-94922	Female; 16ga., 18" wire leads	.180" dia. plug

Universal

- Snap receptacle
- Mates w/ any .156" dia. snap plug



Part Number	Description
MP-1	Female; 16ga., 8" wire leads

Molded Trailer Connectors, cont'd

Our pre-assembled Weather Pack Harnesses use female terminals inside the male connectors and male terminals inside the female connectors. See pg. 78 for the Weather Pack Series available in loose pieces.

Weather Pack Harnesses



Part Number		Size	Wire Leads
Male	Female		
PT-WP-1M	PT-WP-1F	1-way connector	14ga., 10"
PT-WP-2M	PT-WP-2F	2-way connector	
PT-WP-3M	PT-WP-3F	3-way connector	
PT-WP-4M	PT-WP-4F	4-way connector	
PT-WP-6M	PT-WP-6F	6-way connector	

AMP Superseal 1.5 Harnesses



Part Number		Size	Wire Leads
Plugs	Receptacles		
PT-SS-1P	PT-SS-1R	1-way connector	16ga., 10"
PT-SS-2P	PT-SS-2R	2-way connector	
PT-SS-3P	PT-SS-3R	3-way connector	
PT-SS-4P	PT-SS-4R	4-way connector	

For info on the individual AMP SuperSeal Connectors, see page 83.

Deutsch DT Series Harnesses



Part Number		Size	Wire Leads
Plugs	Receptacles		
PT-DT06-2S	PT-DT04-2P	2-way connector	16ga., 12"
PT-DT06-3S	PT-DT04-3P	3-way connector	
PT-DT06-4S	PT-DT04-4P	4-way connector	
PT-DT06-6S	PT-DT04-6P	6-way connector	
PT-DT06-8S	PT-DT04-8P	8-way connector	
PT-DT06-12S	PT-DT04-12P	12-way connector	

For info on the individual Deutsch DT Series Connectors, see page 89.

Circuit Testers

4-Way Flat Tester

- Plugs into female connector on tow vehicle
- LED's glow when circuits are functioning correctly
- For tail light, turn signal & ground connections

Part Number

TS-2365



6-Way Round Pin Tractor Trailer Circuit Tester

- Plugs into vehicle side socket
- LED's glow when circuit is functioning correctly
- Weatherproof

Part Number

IPA-7897



Circuit Testers, cont'd

7-Way RV Tester

- Fits all standard blade types
- LED's glow when circuit is functioning correctly
- For all circuits



Part Number

63-0170

7-Way Pin Tester

- Plug into tractor's 7-way jumper cable & bring cable into cab
- LED's glow when circuits are functioning correctly
- Plastic housing & solid brass pins



Part Number

BE-920273

7-Way Cable & Circuit Tester

- LED's glow when circuits function correctly in connector assembly or tractor
- Glass filled polypropylene & poly-carbonate body w/ solid brass pins
- For use w/ 12-24 volt system & neg. or pos. grounded vehicles



Part Number

TL-97101

Adapters

Trailer Plug Adapters

6-way Round to 4-way Flat



Part Number

TS-624

7-way Blade to 4-way Flat



Part Number

TS-724

7-way Blade to 6-way Round



Part Number

TS-726

7-way Round to 4-way Flat



Part Number

TS-724-PN

6-way Round to 7-way Blade w/ Flexible Wires

- Die-cast zinc 6-way connector for durability
- Corrosion resistant terminals



Part Number

HP-47435

7-way Blade to 6-way Round & 4-way Flat

- Impact & corrosion resistant
- Includes dust cover

Part Number

HP-47565

Description

Center pin auxiliary

HP-47575

Center pin electric brake



Trailer Plug Adapters, cont'd

7-way Blade to 4 & 5-way Flat

- Impact & corrosion resistant
- Includes dust covers

Part Number
HP-47385



7-way Blade to 4 or 5-way Flat, w/ 12V Outlet

- Impact & corrosion resistant
- Includes dust cover

Part Number
HP-47675



Electrical Adapters

ATA Adapters



- Housing is a strong, precision, zinc die casting w/ yellow dichromate coating for corrosion protection

Part Number	Adapts	Fig.
59W7	ATA 7-way truck tractor to 6-way trailer	A
59W8	ATA 6-way truck tractor to 7-way trailer	B

Fifth Wheel Harness



- Plugs into existing harness on most GM pickup chassis, then into harness in truck body

Part Number	Length
TG-6323-B	99"

12 Volt Accessories

12V Plug & Receptacle



- Manufactured from marine grade materials
- Rated: 12 volt; 15 amp rated, 10 amp fused
- Moisture proof sealing rings
- LED indicator light on plug

Part Number	Description	Fig.
MA-12VPG	Plug	A
MA-12VRC	Receptacle	B
MA-12VPK	Complete set	A&B

Marine Grade Dual USB Receptacle



- Manufactured from marine grade materials
- Input rated: 12/24 volt;
- Output: 5 volt, 2.1 amp max

Part Number	Description
USB-2X	Double receptacle

Tractor / Trailer Cleaning Brushes

6-Way Plug & Receptacle Scrubber

- Cleans terminals of all 6-way plugs & receptacles
- Made of rugged stainless steel brushes
- Perfect for glove box or tool box



Part Number

4-122

7-Way Plug & Receptacle Scrubber

- Cleans terminals of all 7-way plugs & receptacles
- Made of rugged stainless steel brushes
- Only 6-1/2" high



Part Number

BE-920032

Continue to protect your electrical connections by using anti-corrosive preventatives along with our cleaning brushes. To order, see page 302.

Junction Boxes

7-Way Junction Box

- 4 open & 4 closed grommets
- Corrosion resistant w/ strain relief collar
- Mounting bolts, 7.375" center to center



Part Number

GR-82-1000

Description

One row of seven #10 studs

7-Way Circuit Breaker Junction Box

- 4 open & 4 closed grommets
- Made of precision molded, engineering grade plastic
- 7.5"L x 3.75"W x 2.5"H



Part Number

52-249

Description

Holds seven circuit breakers (sold separately on pg. 164)

10-Way Junction Box

- Made of precision molded, engineering grade plastic
- 7.5"L x 3.75"W x 2.5"H



Part Number

52-248

Description

One row of ten #10 studs

12-Way Junction Box

- 6 open & 6 closed grommets
- With strain relief collar
- 6.5"L x 4.25"W x 2.5"H



Part Number

TS-1240

Description

Two rows of six #10 studs

18-Way Junction Box

- Available drilled or undrilled
- Brass circuits in a moisture & corrosion free unit
- 9.38"L x 4"W x 3.25"H



Part Number

BE-351044

Description

Two rows of 9 studs - drilled & tapped box

BE-351045

Two rows of 9 studs - undrilled box

Brake Coils & Gladhand Products

Brake Coils

Heavy Duty Brake Coils

- Nom. O.D.: .62"; Nom I.D.: .375"; Wall thickness: .123"
- 1/2" x 1/2" fitting
- DOT certified
- Resists oil, chemicals, ozone, weather & sunlight
- Temp rating: -70°F to 200°F



Coils w/ 10" leads shown

Description	Part Number			Work Length
	Red	Blue	Set	
Coil w/ 10" leads	BC-12 RED	BC-12 BLUE	BC-12 SET	12ft.
	BC-15 RED	BC-15 BLUE	BC-15 SET	15ft.
Coil w/ 40" leads	BC-12W/40" RED	BC-12W/40" BLUE	BC-12W/40" SET	12ft.
	BC-15W/40" RED	BC-15W/40" BLUE	BC-15W/40" SET	15ft.

Gladhand Products

Gladhands

- 1/2" inlet port
- Lightweight aluminum construction



Part Number	Application	Color
36301	Universal (non-polarized)	Gold
36101	Service (polarized)	Blue
36201	Emergency (polarized)	Red

Angle Mount Gladhands

- 3/8" inlet port



Part Number	Application	Color
12-136	Service	Blue
12-138	Emergency	Red

Gladhand Seals

- Made from polyurethane material
- Part #36001 is BUNA-N



Part Number	Application	Color
12-0162	Emergency	Red
36001	Protect-o-Seal	Black
12-0161	Service	Blue

Gladhand Seals with Screen

- One piece polyurethane construction w/ stainless steel screen
- Replaces existing seals to keep air system free of contaminants & insects



Part Number	Application	Color
GHS-2005R	Emergency	Red
GHS-2005B	Service	Blue

Glad Grips

- Reduces wear & tear on coiled air lines
- Heat, oil & UV resistant
- Plastic w/ plated steel couplings
- 1/2" pipe thread
- Package includes 1 red grip, 1 blue grip & hardware



Part Number	Application
GLAD-GRIPS	Reduces line kinks at gladhand

Heavy Duty Tarp Straps

- Made of molded EPDM with strengthened metal, tear drop design ends for extra support
- Tested to ASTM standards
- Ideal for trucks, cars, boats, freight hauling & for securing transported items
- Available in bulk cases of 50. To order, add -CASE to end of the part number



Part Number	Supplied Length	Maximum Length
BGC-10	10"	18"
BGC-15	15"	27"
BGC-21	21"	36"
BGC-31	31"	54"
BGC-41	41"	66"
SHOOK-013	Replacement S-hook	

Ratchet Straps

1" Ratchet Straps

- Sold in two-packs
- Breaking strength : 2,500lbs



Part Number	Description	Length
7316-10	Blue webbing w/ PVC coated D-rings & wire hooks	10'
7316-15	Blue webbing w/ PVC coated D-rings & wire hooks	15'
7317-10	Blue webbing w/ PVC coated S-hooks	10'
7317-15	Blue webbing w/ PVC coated S-hooks	15'

2" Ratchet Straps

- Features a long, wide handle ratchet
- Webbing breaking strength : 12,000lbs.
- Working load limit: 3,335lbs.



Part Number	Description	Length	Fig.
5822-27	Yellow webbing w/ flat hooks	27'	A
5822-30	Yellow webbing w/ flat hooks	30'	A
5826-27	Yellow webbing w/ wire hooks	27'	B
5826-30	Yellow webbing w/ wire hooks	30'	B

DC Hourmeters



- Operating voltage: 10-80 VDC
- 1/4" male blade terminals
- White print on black background
- Sealed cases impervious to acids & solvents
- UL & CSA approved

Part Number	Size	Bezel	Mount	Fig.
SW-83500	2.20"L x 2.13"W x 1.25"H	Black	2 screw	A
SW-83502	2.20"L x 2.27" Dia.	Chrome	2.27" dia. cup	B

Electronic Brake Controls

1-2 Axle Trailer Brake System

- Mounts at any angle, even upside down
- Power-on LED for positive tow vehicle-to-trailer connection
- Easy access adjustment controls
- Includes all mounting hardware



Part Number	Description	L x W x H (inches)
AP-80500	Handles up to 4 brakes	5.0 x 3.0 x 1.5

1-3 Axle Trailer Brake System

- Mounts at any angle, even upside down
- Large, easy to read digital display
- Short circuit / loss of ground protection
- For 12 volt negative ground systems
- Includes all mounting hardware



Part Number	Description	L x W x H (inches)
AP-80550	Handles up to 6 brakes	4.75 x 3.5 x 1.5625

1-4 Axle Trailer Brake System

- Compact, for flexibility in mounting
- Minimizes interference w/ tow vehicle electrical systems
- Bi-colored LED brake monitor
- Includes all mounting hardware



Part Number	Description	L x W x H (inches)
BC-9030	Handles up to 8 brakes	6.2 x 5.4 x 2.3

1-4 Axle Trailer Brake System

- Self-adjusting sensors
- Digital display continual diagnostics check
- Includes all mounting hardware
- Designed for electronic over hydraulic brake systems



Part Number	Description	L x W x H (inches)
AP-90885	Handles up to 8 brakes	5.125 x 3.125 x 2

Need the pigtail to connect your Electronic Brake System? Just contact customer service with the make and model of your vehicle and they will assist you with locating the correct part number.

Break-Away System

- Activates trailer brakes upon separation from tow vehicle
- Built-in LED battery meter verifies battery charge
- 1-2 axle capacity
- 5-amp hour battery
- Built-in battery charges when connected w/ tow vehicle



Part Number	Application
20099	Kit: includes box, switch, battery, charger, 7" switch & hardware
Replacement Parts	
20107	Weldable mounting plate w/ hardware
20106	Replacement lid w/ LED meter
20005	Replacement switch & cable
20008	Replacement rechargeable, 12 volt, 5 amp battery
HP-20051	2" replacement pin & cable
20009	3" replacement pin & cable
20120	Replacement box

TRUCK PRODUCTS & CONNECTORS

Cameras

Standard Camera System

- 5.6" LCD hi-res color monitor w/ internal controller & touchscreen
- CMOS infrared 11 LED camera
- Expandable up to 3 cameras



Part Number	Description
EC-EC5603-K	Color camera & monitor

Widescreen Camera System

- 7" LCD hi-res widescreen color monitor w/ internal controller
- CMOS infrared 18 LED camera
- Expandable up to 2 cameras



Part Number	Description
EC-K7000B	Color camera & widescreen monitor

Wireless Camera System

- 5.6" LCD hi-res color monitor w/ internal controller & touchscreen
- CMOS infrared 11 LED camera
- Expandable up to 4 cameras



Part Number	Description
EC-EC5605-WK2	Color camera & monitor

Widescreen Quad View Camera System

- 7" LCD hi-res widescreen color monitor w/ internal controller, touch screen & split screen, quad view capability
- Standard camera w/ audio & infrared
- Expandable up to 4 cameras



Part Number	Description
EC-EC7000-QK	Color camera & widescreen monitor

Snow Plow Markers



- Fiberglass marker has 9" strip of fluorescent orange tape at the top for hi-visibility
- Spring mounted with plated mounting brackets included
- Makes plow ends more visible to drivers

Part Number	Size
83658	1/4" dia. x 28" long

Getting your plow truck prepared for winter? See page 257 of our Forward Lighting section for our selection of snow plow lighting.

Dash Fans



- Features a chrome finish, a three-way OFF/HI/LOW switch & cigarette plug adapter

Part Number	Size	Rated
TS-12VFAN	7.5" diameter	12 volts
TS-24VFAN	7.5" diameter	24 volts

Truck Mirrors

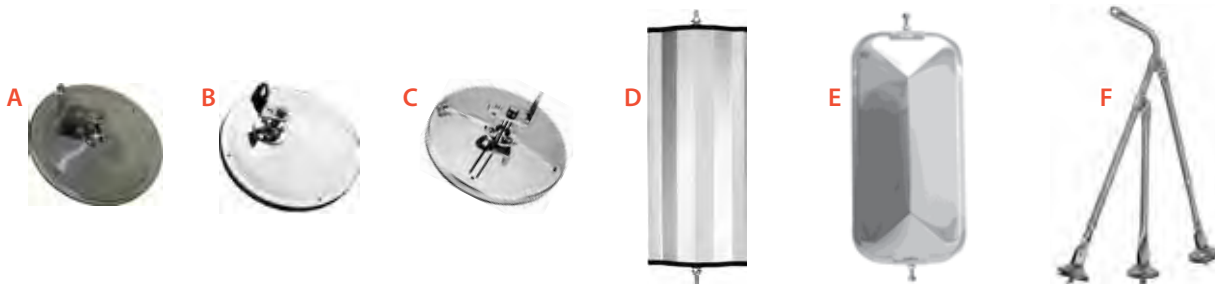
Convex Adhesive Mount Mirrors

- Eliminates blind spot & triples viewing area
- Adhesive back mounts on any clean, flat surface



Part Number	Description
VC-723065	3-3/4" round
VC-723060	3" round
VC-723075	4" x 5-1/2" rectangular

Truck Mirrors



Part Number	Size	Material	Description	Fig.
VC-708515	6"	Stainless steel	Convex, smooth back, center mount	A
VC-708509	7.5"	Stainless steel	Convex, smooth back, off-set mount	B
VC-708502	8.5"	Stainless steel	Convex, smooth back, off-set mount	B
VC-708560	8.5"	Stainless steel	Convex, smooth back, off-set mount, heated, 12V/10W/1.2A	B
VC-708508	7.5"	Stainless steel	Convex, ribbed back, center mount	C
VC-708501	8.5"	Stainless steel	Convex, ribbed back, center mount	C
VC-708559	8.5"	Stainless steel	Convex, ribbed back, center mount, heated, 12V/10W/1.2A	C
VC-705038	6" X 16"	Brushed aluminum	West coast, angle back, 5/16"-18 mounting	D
VC-705333	7" X 16"	Polished stainless steel	West coast, OEM style, angle back, 5/16"-18 mounting	D
VC-705335	7" X 16"	Stainless steel	West coast, angle back, 5/16"-18 mounting, heated, 12V/10W/1.2A	D
VC-708525	7" X 16"	Stainless steel	West coast, 5/16"-18 mounting, heated, 12V/10W/1.2A	D
VC-705112	7" X 16"	Stainless steel	West coast, V-back, 5/16"-18 mounting	E
VC-705113	7" X 16"	Stainless steel	West coast, V-back, 5/16"-18 mounting, heated, 12V/10W/1.2A	E
VC-715778	N/A	Stainless steel	Three arm mirror bracket, attaches to any west coast mirror	F

Document Holders

Plastic Document Holders

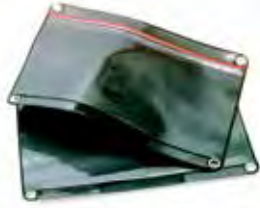


- Made from high impact, chemical resistant plastic.
- Features inside retaining spring and smoked lens

Part Number	Size (L x W x H)	Manufacturer	Fig.
TL-97960	5.22" x 5.86" x 2.16"	Truck-Lite	A
BE-820012	4.875" x 5.87" x 1.656"	Betts	B
GR-43901	6.5" x 6.5" x 1.6875"	Grote	C

Document Holders, cont'd

Vinyl Document Holder



- Laminated for all weather protection
- Sealing zipper for easy insertion of paper
- Four #10 eyelets

Part Number	Size (L x W)	Brand
GR-43411	8.25" x 5.5"	Grote

Polycarbonate Document Holder



- Surface mount
- Twist-on cover w/ gasket protects documents from dirt & moisture

Part Number	Size (Dia. x D)	Brand
OT-DH55	5.5" x 2.125"	Optronics

License Plate Brackets

- Accepts stud mount license plate lights



Part Number	Description	Size (L x H)	Brand	Fig.
OT-LP-5SB	Black heavy duty plastic bracket	8.25" x 5.4375	Optronics	A
OT-LP-10SB	Black heavy duty plastic bracket	9.5" x 4.813"	Optronics	B
OT-LP-15SB	Zinc plated steel bracket	8.438" x 3.625"	Optronics	C
OT-LP-20SB	Powder coated steel bracket	8.5" x 2.875"	Optronics	D
OT-LP-31SB	Black heavy duty plastic bracket - for low temps	8.25" x 4.25"	Optronics	E

License Plate Holder



- Designed for mounting on flat surfaces
- Made of black plastic

Part Number	Size (L x W x D)
OT-LP-35BB	14-1/2" x 8-1/4" x 13/16"

Wheel Chocks

Eye Bolt Chock



- Universal design that works in either direction
- Long lasting rubber provides form grip on pavement & will never dent or rust
- 13/16" steel, zinc plated eye bolt

Part Number	Description
7001-EBC	Wheel chock w/ ridged sides for extra grip

Contents



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LED Lamps

4" Round Stop / Tail / Turn Lamps

LED

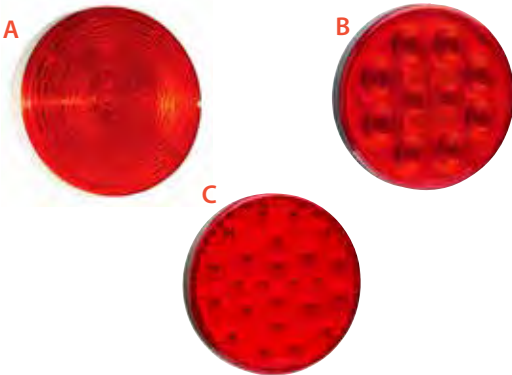
Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion. Polycarbonate sonically welded lens & housing.
- Connection: FNF pigtail, unless otherwise noted

Part Number	Description	Diodes	Fig.
TL-44302R	Lamp	6	A
TL-44982R	Lamp, diamond shell	6	A
TL-44326R	Kit: lamp & black flange	6	B
TL-44030R	Kit: lamp, grommet & adapter	6	C
TL-4050	Lamp, 3-wire pigtail connection	24	D
TL-44202R	Lamp	42	E
TL-44002R	Kit: lamp, grommet & adapter	42	G

Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion. Polycarbonate hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54332	Lamp, male pin	3	A
GR-54342	Lamp	3	A
GR-53252	Lamp, male pin	10	B
GR-53312	Lamp, male pin	24	C
GR-G4002	Lamp	24	C

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded waterproof lens & housing in a single unit
- Connection: 3-wire pigtail, unless indicated

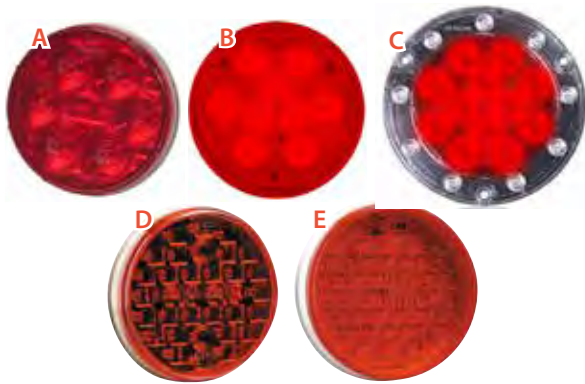
Part Number	Description	Diodes	Fig.
OT-STL-003RB	Lamp	1	A
OT-STL-13RB	Lamp	7	B
OT-STL-42RB	Lamp	10	C
OT-STL-43RB	Lamp	10	D
OT-STL-43RBX	Lamp, w/ reflex flange	10	E
OT-STL-201XRB	Lamp, w/ back-up lamp 2-way & 3-way FNF pigtail req.	16	F
OT-STL-55RB	Lamp	21	G
OT-STL-101RB	Lamp	21	H
OT-STL-201RFMB	Lamp, w/ back-up lamp & flange 2-way & 3-way FNF pigtail req.	24	I

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

4" Round Stop / Tail / Turn Lamps, cont'd

LED

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail (lights w/ back-up require 2)

Part Number	Description	Diodes	Fig.
MX-M42346R	Lamp	6	A
MX-M42365R	Lamp	9	B
MX-M85417R	Lamp, w/ back-up lamp	12R / 9W	C
MX-M42320R	Lamp	32	D
MX-M42100R	Lamp	44	E

4" Round MaxxHeat LED Stop /Tail / Turn Lamps

Maxxima



MaxxHeat

- Rated: 12 volt; 2.0A
- Features: polycarbonate lens & housing
- Heating element in lens activated when temperature drops below 45°F
- Connection: PL-3 pigtail

Part Number	Description	Diodes
MX-M42358R-MH	4" round lamp	6

4" Round Hybrid S/T/T, Back-Up & Work Light

Maxxima



- Features: red stop light (12 LEDs), red tail light (12 LEDs), white back-up light (9 LEDs), white work light (9 LEDs)
- Includes neoprene gasket & mounting screws
- Approvals: SAE J593
- Size: 5.5" Dia. x 0.5"D
- Rated: 12 volts; 1.0 amps
- Connection: Five 10" blunt cut leads

Part Number	Color	Mount	Lumen
MX-M85437R-WL	Red/White	Flange	1000

4" Round Park / Turn Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate, sonically welded lens & housing
- Connection: FNF pigtail, unless otherwise noted

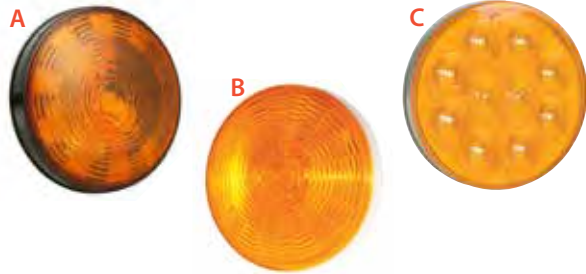
Part Number	Description	Diodes	Fig.
TL-4050A	Lamp, 3-wire pigtail connection	24	A
TL-44203Y	Lamp	60	B

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

4" Round Park / Turn Lamps, cont'd

LED

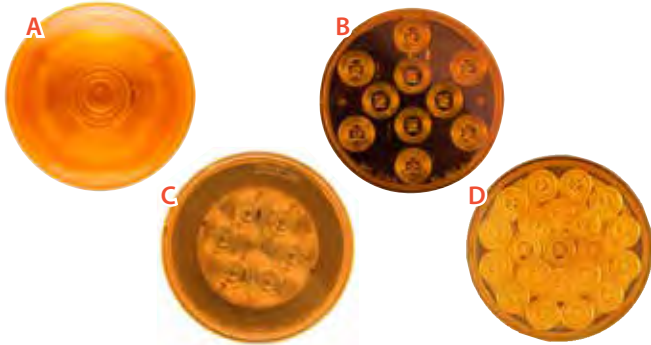
Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54313	Lamp	3	A
GR-54363	Lamp	3	B
GR-53253	Lamp, male pin, uses pigtail GR-67002	10	C

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
OT-STL-003AB	Lamp	1	A
OT-STL-43AB	Lamp	10	B
OT-STL-101AB	Lamp	21	C
OT-STL-55AB	Lamp	21	D

Maxxima



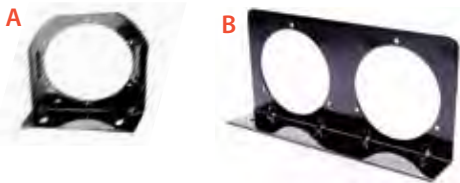
MaxxHeat

- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
MX-M42322Y	Heated Lamp	15	A
MX-M42100Y	Lamp	48	B

4" Round Mounting Accessories

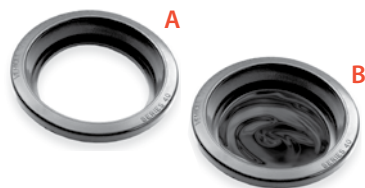
4" Coated Steel Round Mounting Brackets



- 4-1/2" hole for mounting 4" round lamps

Description	Truck-Lite	Part Number Grote	Optronics	Fig.
1 lamp bracket	TL-40720	GR-43572	OT-BK-45BB	A
2 lamp bracket	TL-40715	GR-43642	N/A	B

4" Round Mounting Grommets



- Black shock-proof rubberized grommet

Description	Truck-Lite	Part Number Grote	Optronics	Fig.
Open back grommet	TL-40700	GR-91740	OT-A-45GB	A
Closed back grommet	N/A	GR-91950	N/A	B

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

6" Oval Stop / Tail / Turn Lamps

LED

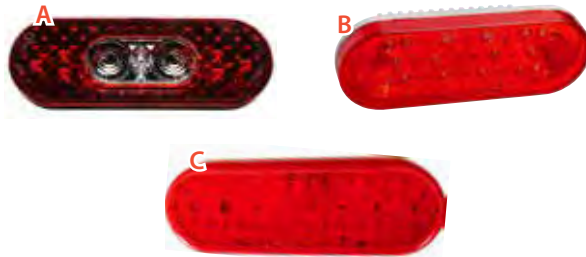
Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion. Polycarbonate sonically welded lens & housing
- Connection: FNF pigtail, unless otherwise noted

Part Number	Description	Diodes	Fig.
TL-66252R	Lamp & gray flange:	1	A
TL-66250R	Lamp	1	B
TL-6050	Lamp, 3-wire pigtail connection	24	C
TL-60252R	Lamp & gray flange	26	D
TL-60250R	Lamp	26	E
TL-60050R	Kit: lamp, grommet & adapter	26	F

Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion. Polycarbonate hermetically sealed lens & housing
- Connection: 3-wire pigtail (lamp w/ back-up require a 2-wire pigtail also)

Part Number	Description	Diodes	Fig.
GR-54682	Lamp, w/ back-up lamp	6R / 2W	A
GR-53962	Lamp, male pin	16	B
GR-G6002	Lamp, male pin	56	C

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit
- Connection: 3-wire pigtail, unless otherwise noted

Part Number	Description	Diodes	Fig.
OT-STL-002RB	Lamp	1	A
OT-STL-12RB	Lamp	6	B
OT-STL-72RB	Lamp	10	C
OT-STL-78RB	Lamp, flange mount, hard wired	10	D
OT-STL-572RB	Lamp	12	E
OT-STL-22RB	Lamp	12	F
OT-STL-68RB	Lamp, hard wired	10R / 4W	G
OT-STL-70RB	Lamp	48	H

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

6" Oval Stop / Tail / Turn Lamps, cont'd

LED

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail (lights w/ back-up lamp also requires a 2-wire pigtail).

Part Number	Description	Diodes	Fig.
MX-M63322R	Lamp	9	A
MX-M63322RCL	Lamp, clear lens	9	B
MX-M63352R	Lamp w/ pigtail	14	C
MX-M85615R	Lamp, w/ back-up lamp	6R/10W	D
MX-M63420R	Lamp	42	E
MX-M63100R	Lamp	60	F

6" Low Profile LED Hybrid Stop / Tail / Turn & Back-Up Lamps

Maxxima



- Rated: 12 volt; 150mA (BU) / 180mA (STT)
- Features: polycarbonate lens & housing, completely sealed electronics, ultra-low profile (only .5" thick)
- Connection: PL-3 pigtail (2 required)

Part Number	Description	Diodes
MX-M63354-HYB	6" oval lamp	8 red/4 white
MX-M5060	Low profile grommet	

6" Oval MaxxHeat LED Stop / Tail/ Turn Lamps

Maxxima



- Rated: 12 volt; 2.0A
- Features: polycarbonate lens & housing
- Heating element in lens activated when temperature drops below 45°F
- Connection: PL-3 pigtail

Part Number	Description	Diodes
MX-M63348R-MH	6" oval lamp	6

6" Oval Park / Turn Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate, sonically welded lens & housing, lens
- Connection: FNF pigtail, unless otherwise noted

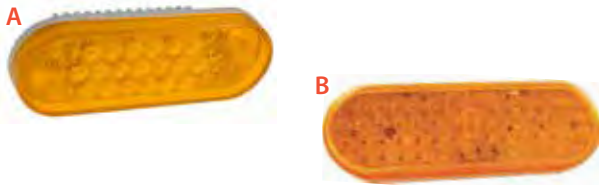
Part Number	Description	Diodes	Fig.
TL-6050A	Lamp, 3-wire pigtail connection	24	A
TL-60290Y	Lamp	44	B
TL-60094Y	Kit: lamp, grommet & adapter	44	C

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

6" Oval Park / Turn Lamps, cont'd

LED

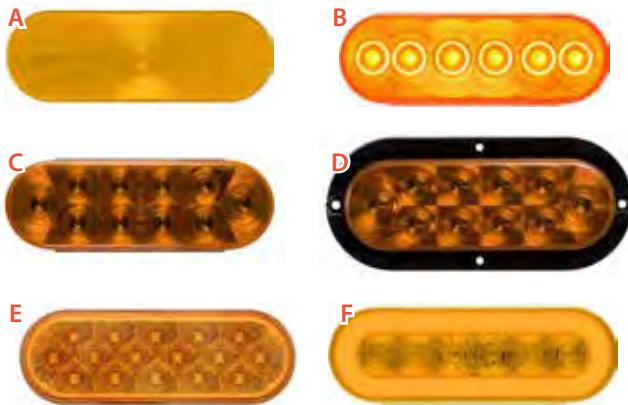
Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: Grote male pin

Part Number	Description	Diodes	Fig.
GR-53963	Lamp, male pin	16	A
GR-G6003	Lamp, male pin	56	B

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit
- Connection: 3-wire pigtail, unless otherwise noted

Part Number	Description	Diodes	Fig.
OT-STL-002AB	Lamp	1	A
OT-STL-12AB	Lamp	6	B
OT-STL-72AB	Lamp	10	C
OT-STL-78AB	Lamp, flange mounted, hard wired	10	D
OT-STL-22AB	Lamp	12	E
OT-STL-111AB	Lamp	16	F

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
MX-M63339Y	Lamp	9	A
MX-M63350Y	Lamp	14	B
MX-M63420Y	Lamp	42	C
MX-M63100Y	Lamp	60	D

6" Oval Mounting Accessories

6" Oval Mounting Grommets



- Black shock-proof rubberized grommet

Description	Truck-Lite	Grote	Optronics	Fig.
Open back grommet	TL-60700	GR-92420	OT-A-70GB	A
Closed back grommet	TL-60704	GR-92720	N/A	B

Rectangular Stop / Tail / Turn Lamps

LED

Truck Lite



- Recommended grommet part #TL-45700
- Features: acrylic lens, housing & flange

Part Number	Description	Diodes	Volts	Connection	Fig.
TL-45258R	Lamp, 5.31" x 3.4"	15	10-30	Hard wired w/ 3 socket connector	A
TL-4550	Lamp, 5.3" x 3.4"	24	13.5	3-wire pigtail	B

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

Rectangular Stop / Tail / Turn Lamps, cont'd

LED

Optronics



- Recommended grommet part number: OT-A33GB
- Features: plastic, sonically welded, waterproof lens & housing in a single unit

Part Number	Description	Diodes	Volts	Connection
OT-STL-35RB	Lamp, 5-5/16" x 3-7/16"	16	12	3-wire pigtail

Maxxima



- Recommended grommet part number: MX-M49700
- Features: polycarbonate, sonically welded lens & housing

Part Number	Description	Diodes	Volts	Connection
MX-M42201R	Lamp, 5.3" x 3.4"	44	12	3-wire pigtail

6" Oval Mid-Turn Lamps

LED

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit
- Connection: 3-wire pigtail

Part Number	Description	Diodes
OT-STL-75AB	Lamp	9

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes
MX-M63124Y	Lamp	6

Truck-Lite



- Rated: 12 volt
- Features: polycarbonate lens & housing w/ sealed design
- Connection: FNF pigtail

Part Number	Description	Diodes
TL-60421Y	Lamp	12

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

7" Round Lamps

LED

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit
- Surface mount, mounting gasket included
- Connection: hard wired

Part Number	Description	Diodes	Fig.
OT-STL-90RB	Lamp, red S/T/T	31	A
OT-STL-90AB	Lamp, amber rear turn / side marker	31	B

Stop, Tail, Park, Turn & Back-Up Lamp Plugs

LED

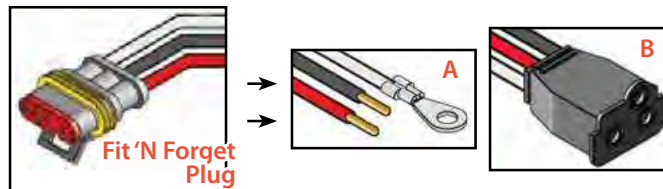
Pigtails

- Ground wire has #10 ring terminal



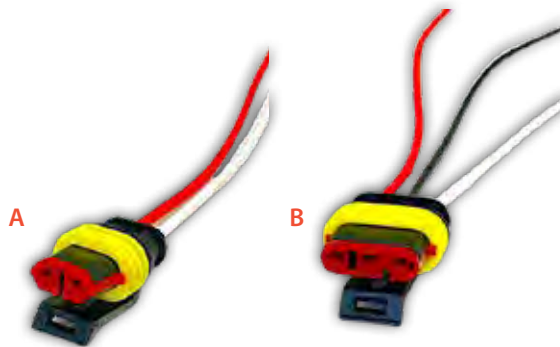
Description	Part Number				Fig.
	Truck-Lite	Grote	Optronics	Maxxima	
3-wire right angle	TL-94993	GR-67090	OT-A-47PB	MX-M50900	A
3-wire straight	TL-94926	GR-67000	OT-A-45PB	N/A	B
3-wire straight, for male pin lamps	N/A	GR-67002	N/A	N/A	C
2-wire, right angle	TL-94992	N/A	OT-A-49PB	MX-M50950	D
2-wire, straight	TL-94925	N/A	OT-A-45CB	N/A	E

Truck-Lite Fit 'N Forget (FNF) Weatherproof Pigtails



Description	Part Number	Fig.
Fit 'N Forget plug w/ 3 - 8" wire leads (ground w/ #10 ring terminal)	TL-94707	A
Converts S/T/T plug into Fit 'N Forget plug	TL-94706	B

Optronics Weatherproof Pigtails



Description	Part Number	Fig.
2-way pigtail: weatherproof connector to bare wires & ring terminal	OT-A-42PMB	A
3-way pigtail: weatherproof connector to bare wires & ring terminal	OT-A-45PMB	B

Which pigtail should I choose?

When choosing a pigtail for your lamp, first note what type of connection your lamp has: 2-wire, 3-wire or Fit 'N Forget Weatherproof (FNF). Then you can choose between a straight or a right angle connector, depending on your needs. Lamps will accept either connector. The advantage of the right angle is that it provides a weather tight connection. Truck-Lite also offers their Fit 'N forget pigtails with some of their lights that converts a standard plug to a weather proof Fit 'N Forget plug.

Combination Tail Lamps

LED

Truck Lite



- Features: epoxy encapsulated electronics protect against vibration & corrosion
- Connection: hard wired

Part Number	Description	Diodes	Volts	Mounting
TL-5070	Passenger side w/license	S/T/T: 16 License: 4 B/U: 18	12.8	3 stud
TL-5071	Driver's side			

Optronics Fleet Count™



- Features: acrylic lens, plastic housing
- Connection: hard wired

Part Number	Description	Diodes	Volts	Mounting
OT-STL-61RB	Passenger side	S/T/T: 9 License: 3 B/U: 6	12	2 stud
OT-STL-61RLB	Driver side w/ license			

Optronics GloLight™



- Features: acrylic lens, plastic housing
- Connection: hard wired

Part Number	Description	Diodes	Volts	Mounting
OT-STL-161RB	Passenger side	S/T/T: 30 License: 3 B/U: 6	12	2 stud
OT-STL-161RLB	Driver side w/ license			

Back-Up Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: polycarbonate lens & housing

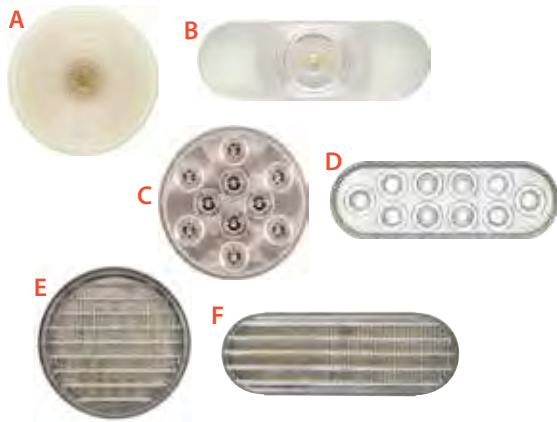
Part Number	Description	Diodes	Connection	Fig.
TL-44350C	4" round lamp	6	FNF pigtail	A
TL-44346C	4" round lamp w/ black flange	6	FNF pigtail	B
TL-4060C	4" round lamp	24	2-wire pigtail	C
TL-6060C	6" oval lamp	24	2-wire pigtail	D

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

Back-Up Lamps, cont'd

LED

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit

Part Number	Description	Diodes	Connection	Fig.
OT-BUL-003CB	4" round lamp	1	2-wire pigtail	A
OT-BUL-002CB	6" oval lamp	1	2-wire pigtail	B
OT-BUL-43CB	4" round lamp	10	2-wire pigtail	C
OT-BUL-72CB	6" oval lamp	10	2-wire pigtail	D
OT-BUL-53CB	4" round lamp	36	2-wire pigtail	E
OT-BUL-52CB	6" oval lamp	36	2-wire pigtail	F

Maxxima



- Rated: 12 volt
- Features: polycarbonate lens & housing

Part Number	Description	Diodes	Connection	Fig.
MX-M42324	4" round lamp	18	3-wire pigtail	A
MX-M42213	5" rectangle lamp	18	3-wire pigtail	B
MX-M63324	6" oval lamp	18	3-wire pigtail	C

2" Round Clearance / Marker Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing

Part Number	Description	Color	Connection	Diodes	Fig.
TL-30250R	Lamp only	Red	FNF pigtail	2	A
TL-30250Y	Lamp only	Amber	FNF pigtail	2	B
TL-30050R	Kit: lamp, grommet & adapter	Red	FNF pigtail	2	A
TL-30050Y	Kit: lamp, grommet & adapter	Amber	FNF pigtail	2	B
TL-30270R	Lamp, low profile	Red	FNF pigtail	2	C
TL-30270Y	Lamp, low profile	Amber	FNF pigtail	2	D
TL-30375R	Lamp, high profile	Red	FNF pigtail	8	E
TL-30375Y	Lamp, high profile	Amber	FNF pigtail	8	F
TL-3050	Lamp	Red	2-wire pigtail	10	G
TL-3050A	Lamp	Amber	2-wire pigtail	10	H

Pigtails are not included with lamps, unless noted. Please see page 285 (B/U Lamps) and 293 (C/M Lamps) for the correct pigtails.

2" Round Clearance / Marker Lamps, cont'd

LED

Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 2-wire pigtail



Part Number	Description	Color	Diodes	Fig.
GR-47112	Lamp	Red	2	A
GR-47113	Lamp	Amber	2	B
GR-46132	Lamp, PC rated	Red	5	C
GR-46133	Lamp, PC Rated	Amber	5	D
GR-G3002	Lamp	Red	9	E
GR-G3003	Lamp	Amber	9	F

Optronics



- Rated: 12 volt
- Features: sonically welded, waterproof lens & housing in a single unit
- Connection: 2-wire pigtail



Part Number	Description	Color	Diodes	Fig.
OT-MCL-56RB	Lamp	Red	1	A
OT-MCL-56AB	Lamp	Amber	1	B
OT-MCL-155RB	Lamp	Red	1	C
OT-MCL-155AB	Lamp	Amber	1	D
OT-MCL-55RB	Lamp	Red	3	E
OT-MCL-55AB	Lamp	Amber	3	F
OT-MCL-54RB	Lamp	Red	5	G
OT-MCL-54AB	Lamp	Amber	5	H

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 2-wire connection



Part Number	Description	Color	Diodes	Fig.
MX-M34260R	Lamp	Red	6	A
MX-M34260Y	Lamp	Amber	6	B
MX-M09100R	Lamp	Red	9	C
MX-M09100Y	Lamp	Amber	9	D

Pigtails are not included with lamps, unless noted. Please see page 293 for the correct pigtails.

2-1/2" Round Clearance / Marker Lamps

LED

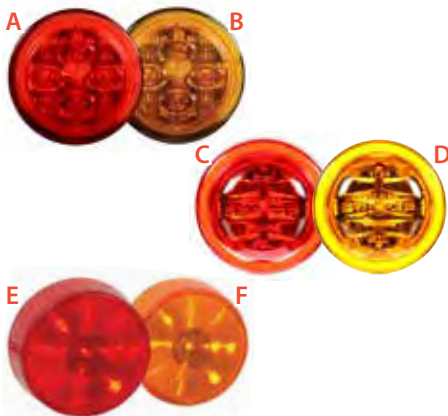
Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing
- Connection: FNF pigtail

Part Number	Description	Color	Diodes	Fig.
TL-10250R	Lamp only	Red	2	A
TL-10250Y	Lamp only	Amber	2	A
TL-10251R	Lamp w/ flange	Red	2	B
TL-10251Y	Lamp w/ flange	Amber	2	B
TL-10271Y	ABS lamp w/ flange	Amber	2	B
TL-10050R	Kit: lamp, grommet & adapter	Red	2	C
TL-10050Y	Kit: lamp, grommet & adapter	Amber	2	C

Truck Lite



- Rated 12 volt
- Features: epoxy sealed from corrosion. Polycarbonate lens & housing
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
TL-10286R	Lamp, PC rated, low profile	Red	8	A
TL-10286Y	Lamp, PC rated, low profile	Amber	8	B
TL-10275R	Lamp	Red	8	C
TL-10275Y	Lamp	Amber	8	D
TL-1050	Lamp	Red	13	E
TL-1050A	Lamp	Amber	13	F

Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion Polycarbonate hermetically sealed lens & housing
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
GR-47122	Lamp	Red	1	A
GR-47123	Lamp	Amber	2	B

PC rated lamps are terrific multitaskers. They combine the clearance & side marker functions to produce a 90° angle of light left & right of center when properly mounted on a 45° angle.

Benefits of LED Lighting

LED lamps offer many benefits over incandescent lamps. Unlike standard incandescent bulbs, LED's have no filament, therefore they are not susceptible to shock and vibration. This gives them a life up to 30 times longer than a standard bulb, meaning less time for you spent searching for and changing light bulbs. LED's also have a lower amp draw that contributes to their cost saving reputation.

Pigtails are not included with lamps, unless noted. Please see page 293 for the correct pigtails.

2-1/2" Round Clearance / Marker Lamps, cont'd

LED

Optronics



- Rated: 12 volt
- Features: sonically welded, waterproof lens & housing in a single unit
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
OT-MCL-527RB	Lamp	Red	2	A
OT-MCL-527AB	Lamp	Amber	2	B
OT-MCL-51RB	Lamp	Red	3	C
OT-MCL-51AB	Lamp	Amber	3	D
OT-MCL-57RB	Lamp	Red	3	E
OT-MCL-57AB	Lamp	Amber	3	F
OT-MCL-58RB	Lamp	Red	7	G
OT-MCL-58AB	Lamp	Amber	7	H
OT-MCL-59RB	Reflectorized lamp	Red	8	I
OT-MCL-59AB	Reflectorized lamp	Amber	8	J
OT-MCL-157RB	Lamp	Red	9	K
OT-MCL-157AB	Lamp	Amber	9	L

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
MX-M16280R	Lamp	Red	8	A
MX-M16280Y	Lamp	Amber	8	B
MX-M11300R	Lamp	Red	13	C
MX-M11300Y	Lamp	Amber	13	D

Beehive Clearance / Marker Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
TL-30276R	Lamp, 2"	Red	2	A
TL-30276Y	Lamp, 2"	Amber	5	B
TL-10276R	Lamp, 2-1/2"	Red	8	C
TL-10276Y	Lamp, 2-1/2"	Amber	8	D

Pigtails are not included with lamps, unless noted. Please see page 293 for the correct pigtails.

Clearance / Marker Accessories

Pigtails



Description	Part Number		
	Optronics	Truck-Lite	Grote
Right angle, 2 wire	OT-A-46PB	TL-94902	MX-M50950

Clearance / Marker Mounting Grommets

- Black shock-proof rubberized grommet



Description	Part Number		
	Optronics	Truck-Lite	Grote
2" grommet	OT-A-54GB	TL-30700	GR-92120
2-1/2" grommet	OT-A-57GB	TL-10700	GR-91400

Rectangular Clearance / Marker Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing
- Designed to fit applications requiring minimal space
- Connection: 2-wire pigtail

Part Number	Description	Color	Diodes	Fig.
TL-15250R	Lamp, 2-1/2" x 1-1/4"	Red	1	A
TL-15250Y	Lamp, 2-1/2" x 1-1/4"	Amber	3	B
TL-19250R	Lamp, 3-3/4" x 1-1/4"	Red	2	C
TL-19250Y	Lamp, 3-3/4" x 1-1/4"	Amber	4	D

Optronics



- Rated: 12 volt
- Features: sonically welded, waterproof lens & housing in a single unit

Part Number	Description	Color	Connection	Diodes	Fig.
OT-AL-191RB	Lamp, 2-1/2" x 1-3/16"	Red	2-wire pigtail	3	A
OT-AL-191AB	Lamp, 2-1/2" x 1-3/16"	Amber	2-wire pigtail	3	B
OT-MCL-75RB	Lamp, 3-15/16" x 1-1/4"	Red	1-wire plug	4	C
OT-MCL-75AB	Lamp, 3-15/16" x 1-1/4"	Amber	1-wire plug	4	D
OT-MCL-165RB	Lamp, 3-7/8" x 1-1/4"	Red	1 or 2-wire plug	10	C
OT-MCL-165AB	Lamp, 3-7/8" x 1-1/4"	Amber	1 or 2-wire plug	10	D

Identification Bars

LED

Truck Lite

- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing
- Mounts w/ 2-#10 screws
- 16-1/2"L x 1-3/8"W x 1-5/8"H, lamps on 6" centers



Part Number	Description	Color	Diodes
TL-15050R	Stainless steel base	Red	1/lamp
TL-15250R	Replacement lamp	Red	1
TL-93943	Replacement harness, 14ga. wire	-	-

Pigtails are not included with lamps, unless noted. Please see page 293 for the correct clearance marker pigtails.

Identification Bars, cont'd

LED

Optronics



- Rated: 12 volt
- Features: all weather molded plastic housing & durable lens
- 16-1/2"L x 1-3/8"W x 1-5/8"H, lamps on 6" centers
- Mounts on 16-1/16" centers

Part Number	Description	Color	Diodes	Fig.
OT-MCL-93RB	Molded black plastic base	Red	3/lamp	A
OT-MCL-84RB	Polished stainless steel base	Red	3/lamp	B
OT-AL-91RB	Replacement lamp	Red	3	-
OT-A-93PB	Replacement harness	-	-	-

Maxxima

- Rated: 12 volt
- Features: polycarbonate reflector lens & housing
- Mounts on 16-1/2" centers
- Connection: hard wired, bullet & ring terminal



Part Number	Description	Color	Diodes
MX-M20343R	17"L x 1"H, lamps on 16.5" centers	Red	7/lamp
MX-M20340R	Replacement lamp	Red	7

Multi-Function LED Light Bars

- Rated: 12 volt
- Features: impact resistant polycarbonate housing
- Connection: hard wired



Part Number	Description	Color	Size L x W x D	Mounting	Wire Leads	Diodes	Fig.
TS-220-4400	Identification	Red	15" x 1.40" x 1.185"	8.5" centers	2	3	A
TS-250-4400	Stop/Tail/Turn	Red	15.5" x .8" x 1.6"	14.5" centers	3	11	B
TS-250-4500	Stop/Tail/Turn	Red w/ clear lens	15.5" x .8" x 1.6"	14.5" centers	3	11	C
TS-253-4400	ID/3-brake/Turn	Red	15.5" x .8" x 1.6"	14.5" centers	4	11	B
TS-254-1100	Sidemarkers/Clearance	Amber	15.5" x .8" x 1.6"	14.5" centers	3	11	D
TS-256-4400	ID/3-brake	Red	15.5" x .8" x 1.6"	14.5" centers	3	3	B

3/4" Single Diode Clearance / Marker Lamps

Truck Lite



- Rated: 12 volt
- 2 wire leads
- Mounts in a 3/4" diameter hole

Part Number	Description	Color	Diodes
TL-33740R	3-lamp harness	Red	3 (1 per lamp)

3/4" Single Diode Clearance / Marker Lamps, cont'd

LED

Truck Lite

- Rated: 14 volt
- 1-16ga. wire lead
- Features: electronics completely sealed in epoxy to resist corrosion
- Mounts in a 3/4" diameter hole
- Meets PC requirements when mounted at a 45° angle



Part Number	Description	Color	Diodes	Fig.
TL-33250R	Lamp only	Red	1	A
TL-33250Y	Lamp only	Amber	1	A
TL-33050R	Grommet mount kit: PVC grommet & lamp	Red	1	B
TL-33050Y	Grommet mount kit: PVC grommet & lamp	Amber	1	B
TL-33051R	Flange mount kit: black nylon flange & lamp	Red	1	C
TL-33051Y	Flange mount kit: black nylon flange & lamp	Amber	1	C

Optronics

- Rated: 12 volt
- 2-18ga. wire lead; 1 lead, 1 ground
- Features: sonically welded, waterproof lens & housing in a single unit
- Mounts in 3/4" mounting hole
- 1-3/32" grommet diameter

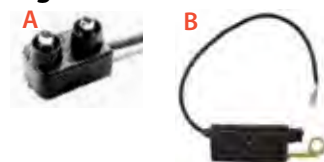


Part Number	Description	Color	Diodes	Fig.
OT-MCL-11RB	Lamp only	Red	2	A
OT-MCL-11AB	Lamp only	Amber	2	A
OT-MCL-11RKB	Grommet mount kit: PVC grommet & lamp	Red	2	B
OT-MCL-11AKB	Grommet mount kit: PVC grommet & lamp	Amber	2	B

Clearance / Marker Lamp Plugs

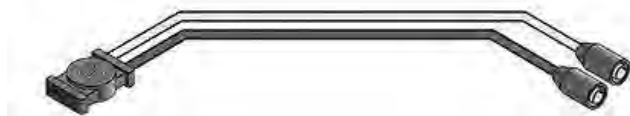
LED

Pigtails



Description	Part Number				Fig.
	Truck-Lite	Grote	Optronics	Maxxima	
2-wire right angle	TL-94902	GR-67001	OT-A-46PB	MX-M50950	A
1-wire plug	N/A	N/A	OT-A-65P	N/A	B

Truck-Lite Fit 'N Forget (FNF) Weatherproof Pigtails



Description	Part Number
Used to adapt LED lamps to conventional plug harness system	TL-93745

Optronics Weatherproof Pigtails



Description	Part Number
2-way pigtail: weatherproof connector to bare wires & ring terminal	OT-A-42PMB

LED Adhesive Flexible Strip Lights

LED

Maxxima

- Rated: 12 volt; 0.4A
- Features: easy to install self adhesive strips, interior/exterior use
- Connection: Two wire leads, blunt cut



Part Number	Size	Diodes	Lumen
MX-MSLS-1218	12" x .4"	18	270
MX-MSLS-1827	18" x .4"	27	410
MX-MSLS-2436	24" x .4"	36	550
MX-MSLS-3654	36" x .4"	54	825

License Plate Lamps

LED

Truck Lite



- Rated: 12 volts
- Features: polycarbonate lens
- Connection: hard wired

Part Number	Description	Diodes	Fig.
TL-15040	2.5" lamp & gray bracket	3	A
TL-15205	2.5" lamp	3	B
TL-36140C	1" X 2" lamp	3	C

Optronics



- Rated: 12 volt
- Connection: hard wired, 2 wire leads

Part Number	Description	Diodes	Fig.
OT-LPL-41CB	Armored lamp	5	A
OT-LPL-31CB	Mini lamp	2	B
OT-LPL-55CB	Lamp w/ bracket	5	C

Interior Lighting

LED

Truck Lite



- Rated: 12 volt
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes
TL-80162C	5.79"L x 2.87"H x .96"H	Clear	6

Optronics



- Rated: 12 volt
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes	Fig.
OT-ILL-46CB	5-3/4"L x 2-3/4"W x 11/16"H	Clear	9	A
OT-ILL-22CB	4-1/2"L x 2-7/8"W x 1"H (w/ switch)	Clear	18	B
OT-ILL-24CB	6-1/8" Dia. x 7/8"H	Clear	24	C

Interior Lighting, cont'd

LED

Grote



- Rated: 12 volt
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes
GR-60581	13-3/4"L x 1-11/64"W x 15/16"H	Clear	24

Maxxima



- Rated: 12 volt
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes	Fig.
MX-M84433-A	5.9" Dia. x 1.2" D w/ PIR sensor	Clear	42	A
MX-M84434-A	5.9" Dia. x 1.2" D w/ 3-way switch	Clear	42	A
MX-M84435-A	5.9" Dia. x 1.2" D	Clear	42	A
MX-M84416	16.6"L x 3.5"W x 0.8"D	Clear	66	D

LED Dual Color Interior Lamps

Maxxima



- Rated: 12 volt; 1.1A
- Features: polycarbonate lens & housing
- Touch On/Off switch
- Can be switched between red & white light
- Connection: Two 4.5" wire leads, 18ga. blunt cut

Part Number	Description	Color	Lumen
MX-M84438RW	21.6" x 4.7" x 1.2"D lamp	24 red / 64 white	1000

Trailer Lighting

LED

Waterproof Trailer Light Kits



- Kit includes: 2 LED combination tail lamps, license bracket, 25ft. wiring harness & hardware

Part Number	Description	Replacement Lights	Fig.
OT-TLL-16RK	Universal mount	Passenger side: OT-STL-16RB Driver side: OT-STL-17RB	A
OT-TLL-9RK	Stud mount	Passenger side: OT-STL-8RB Driver side: OT-STL-9RB	B

Incandescent Lamps

Round Lamps & Accessories

4" Standard Lamps

- Hermetic lens-to-housing seal
- Fits all competitive pigtails, brackets & grommets
- Connection: 3-wire pigtail



The pigtails needed to properly hook up all of our stop/tail/turn lamps are located on page 285.

Description	Color	Truck-Lite	Part Number Grote	Optronics
Stop/Tail/Turn	Red	TL-40202R	GR-52772	OT-ST-45RB
Tail/Turn	Amber	TL-40202Y	GR-52773	OT-ST-45AB

4" Round Mounting Brackets

- 4-1/2" hole for mounting 4" round lamps
- Made from coated steel



Description	Truck-Lite	Part Number Grote	Optronics
1 lamp bracket	TL-40720	GR-43572	OT-BK-45BB
2 lamp bracket	TL-40715	GR-43642	N/A

4" Round Mounting Grommets

- Black shock-proof rubberized grommet



Description	Truck-Lite	Part Number Grote	Optronics
Open back grommet	TL-40700	GR-91740	OT-A-45GB
Closed back grommet	N/A	GR-91950	N/A

Oval Lamps & Accessories

6" Standard Lamps

- Sealed housing & lens
- Vibration resistant bulb
- Fits all competitive pigtails, brackets & grommets



Description	Color	Connection	Truck-Lite	Part Number Grote	Optronics
Stop/Tail/Turn , dbl contact	Red	3-wire pigtail	TL-60202R	GR-52892	OT-ST-70RB
Tail/Turn, dbl contact	Amber		TL-60202Y	GR-52893	OT-ST-70AB
Stop/Tail/Turn kit: lamp, grommet & plug	Red		TL-60002R	GR-52572	OT-ST-74RB
Tail/Turn kit: lamp, grommet & plug	Amber	2-wire pigtail	TL-60002Y	GR-52573	OT-ST-74AB
Turn, sgl contact	Red		TL-60201R	GR-55772	N/A
Turn, sgl contact	Amber		TL-60201Y	GR-55773	N/A

6" Mid Turn Lamp

- Sealed Lexan housing & lens
- Heavy duty shock safe bulb
- Features side indicator, marker/clearance & reflector functions
- Size: 6.50"L x 2.96" D
- 180° visibility
- Fits all competitive pigtails, brackets & grommets
- Connection: 3-wire pigtail

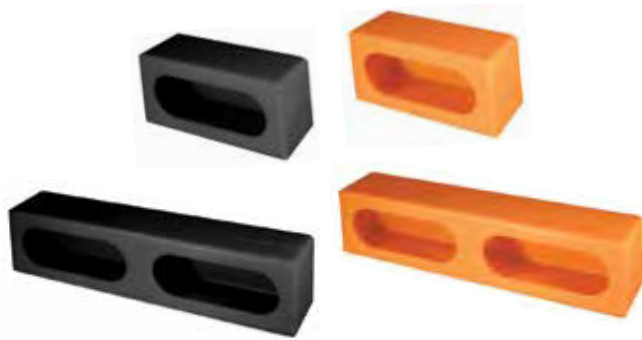


Description	Color	Part Number Grote
Lamp	Amber	GR-52193

Pigtails are not included with lamps, unless noted. Please see page 297 for the correct pigtails.

Oval Lamps & Accessories, cont'd

6" Oval PVC Mounting Modules



- Fits any 6" oval lamp w/ grommet
- Made from polyethylene PVC, rust & chemical proof
- Drill wire feed holes where you'd like

Description	Size (L" x W" x D")	Part Number TSC
1 lamp - black	8.5 x 4.25 x 3.125	TS-BTR-1OV-BLK
1 lamp - orange	8.5 x 4.25 x 3.125	TS-BTR-1OV-ORG
2 lamp - black	16.5 x 4.25 x 3.125	TS-BTR-2OV-BLK
2 lamp - orange	16.5 x 4.25 x 3.125	TS-BTR-2OV-ORG

6" Oval Steel Mounting Modules



- Fits any 6" oval lamp w/grommet
- Made from black powder coated steel

Description	Size (L" x W" x D")	Part Number TSC
1 lamp	8.3 x 3.9 x 3.1	TS-T103
2 lamp	16.5 x 4.0 x 3.25	TS-T103-2

6" Oval Mounting Brackets

- 6-1/4" hole for mounting 6" oval lamps
- Made from coated steel



Description	Part Number	
	Truck-Lite	Optronics
1 lamp bracket	TL-60720	OT-BK-70BB

6" Oval Mounting Grommets

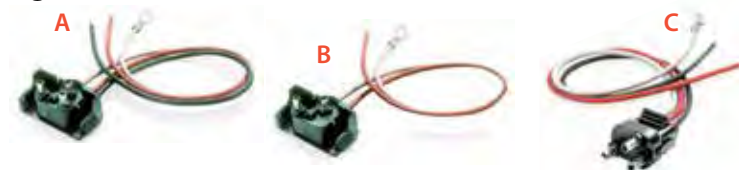
- Black shock-proof rubberized grommet



Description	Part Number		
	Optronics	Truck-Lite	Grote
Open back grommet	OT-A-70GB	TL-60700	GR-92420
Closed back grommet	N/A	TL-60704	GR-92720

Stop, Tail & Turn Lamp Plugs

Pigtails



Description	Part Number			Fig.
	Truck-Lite	Maxxima	Optronics	
Right angle, 3 wire	TL-94993	MX-M50900	OT-A-47PB	A
Right angle, 2 wire	TL-94992	-	OT-A-49PB	B
Straight, 3 wire	TL-94926	-	OT-A-45PB	C

Wiring Harness

- Right angle, 3 wire
- Sold as an entire roll of continuous pigtails or can be cut to length



Part Number	Description	Qty.
MX-M50900-100	Daisy chained pigtails, 12" between plugs	100 (1 roll)
MX-M50900-12DC		1-99

Combination Tail Lamps



- Combination stop/tail/turn/back-up assembly w/ license illuminator

Description	Part Number		Fig.
	Optronics	Grote	
Light w/ weatherproof pigtail - 3 stud mounting	-	GR-50972	A
Light w/ weatherproof pigtail - 2 stud mounting	OT-ST-60RB	GR-50992	A
Light w/ left side junction box - 3 stud mounting	-	GR-50912	B
Light w/ right side junction box - 3 stud mounting	-	GR-50902	C
Replacement lens for lights w/ weatherproof pigtail	OT-A-60RB	GR-91302	-
Replacement lens for lights w/ junction boxes	-	GR-91302	-

Back-up Lamps

4" Round Lamps

- Vibration sealed polycarbonate lens & housing
- Vibration & shock resistant bulb
- Connection: 2-wire pigtail



Description	Color	Part Number	
		Truck-Lite	Optronics
12V Lamp	Clear	TL-40204	OT-BU-45CB
Kit: 12V lamp, grommet & plug	Clear	TL-40004	OT-BU-44CB
24V Lamp	Clear	TL-40212	-
Kit: 24V lamp, grommet & plug	Clear	TL-40012	-

6" Oval Lamps

- Vibration sealed high impact, polycarbonate lens & housing
- Vibration & shock resistant bulb
- Connection: 2-wire pigtail



Description	Color	Part Number	
		Truck-Lite	Optronics
Lamp only	Clear	TL-60204C	OT-BU-70CB
Kit: lamp, grommet & plug	Clear	TL-60004C	OT-BU-74CB

Back-up Lamp Plugs

Back-up Lamp Pigtails



Description	Part Number	
	Truck-Lite	Optronics
Right angle, 2 wire	TL-94992	OT-A-49PB

Pigtails are not included with lamps, unless noted. Please see page 285 for the correct pigtails.

Clearance / Marker Lamps & Accessories

Permamold Housing Screw Mount Lamps

- High impact, corrosion proof housing
- Size: 4"L x 2"W x 1-1/8"D
- Mounting: Two #10 screws on 3" centers
- Uses two bulbs



Description	Color	Connection	Part Number	
			Truck-Lite	Grote
Lamp	Red	Hard wired	TL-1211	GR-46792
Lamp	Amber	Hard wired	TL-1211A	GR-46793
Replacement lens	Red	-	TL-9007	GR-91962
Replacement lens	Amber	-	TL-9007A	GR-91963
Replacement bulb	-	-	194L	1893L

Permamold Housing Screw Mount Lamps

- High impact housing w/ snap-on lens
- Size: 4"L x 2"W x 1"D
- Mounting: Two #10 screws on 3" centers
- Uses two bulbs



Description	Color	Connection	Part Number	
			Truck-Lite	Optonics
Lamp	Red	Hard wired	TL-1259	OT-MC-66RB
Lamp	Amber	Hard wired	TL-1259A	OT-MC-66AB
Replacement lens	Red	-	TL-9093	OT-A-66RB
Replacement lens	Amber	-	TL-9093A	OT-A-66AB
Replacement bulb	-	-	193L	194L

Armored Lamps

- Steel housing, polycarbonate lens & sponge rubber lens gasket
- Size: 4-1/2"L x 2"W x 1-1/2"D
- Mounting: Two 1/4" holes on 4" centers



Description	Color	Connection	Part Number
Lamp	Red	Hard wired	055-00-522
Lamp	Amber	Hard wired	055-00-512
Replacement bulb	-	-	67L
Replacement lens	Red	-	20079-2
Replacement lens	Amber	-	20079-1

Sealed Lamps

- ABS plastic housing, acrylic lens & pigtail w/ built-in grommet
- Size: 4-1/2"L x 11/16"W x 1-1/16"D
- Mounting: Two 1/4" holes on 4" centers
- 193L bulb & lens not replaceable



Description	Color	Connection	Part Number
Lamp	Red	Hard wired	052-00-722
Lamp	Amber	Hard wired	052-00-712

Clearance / Marker Lamps & Accessories, cont'd

2" Round Twist-On Lamps

- Sonically sealed polycarbonate housing & lens
- Size: 2" dia. x 3/4" deep
- Rated: 14 volt; .33 amp bulb @ 2.0 candlepower
- Connection: 2-wire pigtail



Description	Color	Part Number		
		Optronics	Truck-Lite	Grote
Lamp	Red	OT-MC-53RB	TL-30200R	GR-45822
Lamp	Amber	OT-MC-53AB	TL-30200Y	GR-45823
Lamp w/ vertical ABS logo	Amber	N/A	TL-30230Y	N/A
Lamp w/ horizontal ABS logo	Amber	OT-MC-53ABSB	TL-30257Y	N/A

2-1/2" Round Twist-On Lamps

- Sonically sealed polycarbonate housing & lens
- Size: 2-1/2" dia. x 3/4" deep
- Rated: 12 volt; .33 amp bulb @ 2.0 candlepower
- Connection: 2-wire pigtail



Description	Color	Part Number	
		Truck-Lite	Optronics
Lamp	Red	TL-10202R	OT-MC-55RB
Lamp	Amber	TL-10202Y	OT-MC-55AB
Reflectorized lamp	Red	TL-10205R	OT-MC-57RB
Reflectorized lamp	Amber	TL-10205Y	OT-MC-57AB

2-1/2" Rectangle Snap-On Lamps

- Sonically sealed polycarbonate housing & lens
- Size: 2-1/2"L x 1-1/4"W x 7/8"D
- 1 bulb
- Rated: 14 volt; .33 amp bulb @ 2.0 candlepower
- Connection: 2-wire pigtail



Description	Color	Part Number	
		Truck-Lite	Optronics
Lamp	Red	TL-15200R	OT-A-91RB
Lamp	Amber	TL-15200Y	OT-A-91AB
Lamp w/ ABS logo	Amber	TL-15203Y	N/A

3-3/4" Rectangle Snap-On Lamps

- Sonically sealed polycarbonate housing & lens
- Size: 3-3/4"L x 1-1/4"W x 15/16"D
- 2 bulbs
- Rated: 14 volt; 3.3 amp bulb @ 2.0 candlepower



Description	Color	Part Number	
		Truck-Lite	Optronics
Lamp	Red	TL-19200R	OT-MC-65RB
Lamp	Amber	TL-19200Y	OT-MC-65AB
Lamp w/ ABS logo	Amber	TL-19205Y	N/A

Snap-On Lamp Mounting Brackets

- Polycarbonate bracket
- 2-screw mount

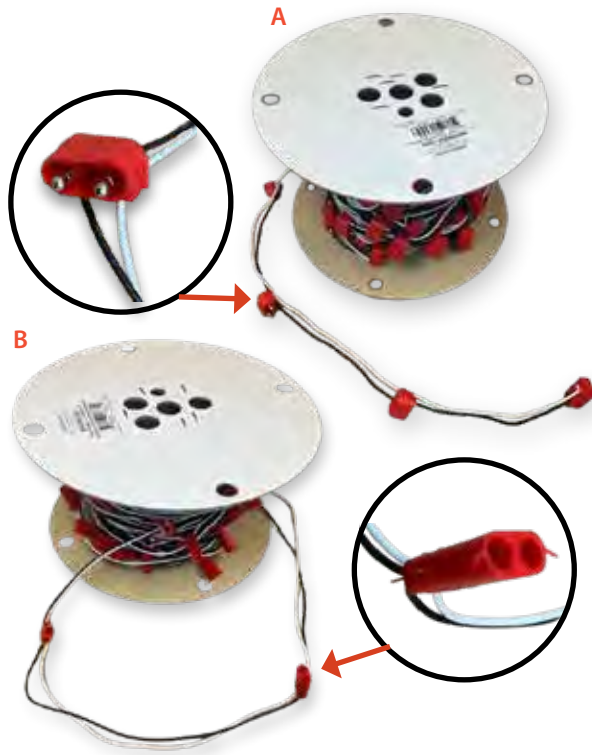


Description	Color	Part Number		Fig.
		Truck-Lite	Optronics	
2-1/2" bracket	Gray	TL-15404		A
2-1/2" bracket	Gray	TL-15729		B
2-1/2" bracket	Black	TL-15730		B
3-3/4" bracket	Gray	TL-19721		A
3-3/4" bracket	Black	TL-19726		A

Pigtails are not included with lamps, unless noted. Please see page 293 for the correct pigtails.

Clearance / Marker Lamp Plugs

Wiring Harness



- Right angle, 2 wire
- Sold as an entire roll of continuous pigtails or can be cut to length

Part Number	Description	Qty.	Fig.
MX-M50950A-200	Daisy chained pigtails, 6" between plugs	200 (1 roll)	A
MX-M50950-6DC		1-199	A
MX-M50950A-100	Daisy chained pigtails, 12" between plugs	100 (1 roll)	A
MX-M50950-12DC		1-99	A
MX-M50960-50	Daisy chained female pigtails	50 (1 roll)	B
MX-M50960-100	12" between plugs	100 (1 roll)	B
MX-M50960-12DC	Daisy chained female pigtails 12" between plugs	1-49	B

Identification Light Bars

Molded Plastic ID Light Bars

- Size: 17"L x 1-7/16"W x 1-5/8"H
- Rated: 12 volts, .33 amps
- Mounting: Two #10 holes on 7-1/2" centers
- Plastic housing & durable lens resist corrosion
- Connection: 2-wire harness w/ butt connectors



Stainless Steel ID Light Bars

- Size: 16-1/2"L x 1-3/8"W x 1-5/8"H
- Mounting: Two #10 holes on 16-1/16" centers
- Sealed lens & housing less susceptible to shock & vibration
- Connection: 2-wire harness w/ butt connectors



Description	Color	Part Number	
		Optronics	Truck-Lite
Light bar	Red	OT-MC-93RB	TL-15745R
Light bar	Amber	OT-MC-93AB	N/A
Replacement light	Red	OT-A-91RB	TL-15200R
Replacement light	Amber	OT-A-91AB	TL-15200Y
Replacement harness	-	N/A	TL-93945

Description	Color	Part Number	
		Optronics	Truck-Lite
Light bar	Red	OT-MC-94RB	TL-15741R
Replacement light	Red	OT-A-91RB	TL-15200R
Replacement harness	-	OT-A-93PB	TL-93943

TRUCK & TRAILER LIGHTING

Interior Lighting

- Connection: hard wired



Part Number Truck-Lite	Size	Housing	Switch	Mounting	Repl. Bulb	Fig.
TL-80354	8-1/4"	Chrome plated steel	Yes	4 holes on flat surface	1156L	A
TL-80355	8-1/4"	Chrome plated steel	No	4 holes on flat surface	1156L	A
TL-80350	6"	Chrome plated steel	Yes	4 holes on flat surface	1156L	B
TL-80351	6"	Chrome plated steel	No	4 holes on flat surface	1156L	B

License Plate Lamps

Steel Chrome Lamp



- Chrome plated steel housing
- Size: 2-1/4"L x 1-1/2"W x 2-3/4"D
- Mounting: Two 1/4" screws on 2" centers
- Connection: hard wired w/ butt conn.

Description	Truck-Lite	Optronics
Lamp	TL-26330	OT-LP-21CB
Replacement bulb	67L	67L

Chrome Lamp



- Chrome housing
- Size: 1-1/2"L x 1-1/2"D (under flange)
- Mounting: 1-1/4" dia. hole thru .060-.250" thick panel
- Connection: hard wired w/ butt connectors

Description	Truck-Lite	Part Number Optronics
Lamp	TL-26331	OT-LP-11CB
Replacement bulb	67L	67L

Anti-Corrosives

Truck Lite NYK-77 Preventative



Part Number	Size	Fig.
TL-97940	8oz. tub	A
TL-97944	2oz. tube	B
TL-98013	5oz. tube	C

Grote Ultra-Seal Preventative



Part Number	Size	Fig.
GR-99170	4oz. tube	A
GR-99180	8oz. tub	B

IPA DeoxIT® Cleaner



Part Number	Size
IPA-8030	2ml tube (clean)

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Mini Bars

LED Mini Bars

LED



Mini Light Bar - SAE Class I - 11"

- Features: built-in controller, 8' cable w/cigarette plug, water resistant PC housing, 8 flash patterns
- Approvals: SAE Class I
- Size: 1.97"H x 10.87"L
- Rated: 12-24 volts
- **LED colors available:** 
- **Dome color available:** 



Part Number	Color	Mount
TS-MLEDB-11-CA	Clear dome, amber LED's	Magnetic, w/ stainless permanent mount bracket included
TS-MLEDB-11-CAC	Clear dome, amber/clear LED's	
TS-MLEDB-11-CAG	Clear dome, amber/green LED's	



ECCO Reflex™ - SAE Class I - 11"

- Features: four LED reflector modules, polycarbonate base, low profile lens, 18 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 11"L x 7.6"W x 2.2"D
- Rated: 12-24 volts; 2.7 amps
- **LED colors available:** 
- **Dome colors available:** 



Part Number	Color	Mount
EC-5550A	Amber dome, amber LED's	Permanent
EC-5550A-VM	Amber dome, amber LED's	Vacuum magnet
EC-5550CA	Clear dome, amber LED's	Permanent
EC-5550CA-VM	Clear dome, amber LED's	Vacuum magnet



ECCO Reflex™ - SAE Class I - 15"

- Features: reflective & TIR Optic LED modules, polycarbonate base, low profile lens, 18 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 15"L x 9"W x 2.5"D
- Rated: 12-24 volts; 6.0 amps
- **LED colors available:** 
- **Dome colors available:** 



Part Number	Color	Mount
EC-5590A	Amber dome, amber LED's	Permanent
EC-5590A-VM	Amber dome, amber LED's	Vacuum magnet
EC-5590CA	Clear dome, amber LED's	Permanent
EC-5590CA-VM	Clear dome, amber LED's	Vacuum magnet

ECCO Reflex™ - SAE Class I - 15"

- Features: eight LED reflector modules, polycarbonate base, low profile lens, 18 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 15"L x 9"W x 2.5"D
- Rated: 12-24 volts; 5.1 amps
- **LED colors available:** 
- **Dome colors available:** 



Part Number	Color	Mount
EC-5585A	Amber dome, amber LED's	Permanent
EC-5585A-VM	Amber dome, amber LED's	Vacuum magnet
EC-5585CA	Clear dome, amber LED's	Permanent
EC-5585CA-VM	Clear dome, amber LED's	Vacuum magnet

LED Mini Bars, cont'd

LED

ECCO Reflex™ - SAE Class II - 15"

- Features: eight LED reflector modules, polycarbonate base, low profile lens, 18 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class II, CE
- Size: 15"L x 9"W x 2.5"D
- Rated: 12-24 volts; 2.7 amps
- **LED color available:** ●
- **Dome colors available:** ○ ●



Part Number	Color	Mount
EC-5580A	Amber dome, amber LED's	Permanent
EC-5580A-VM	Amber dome, amber LED's	Vacuum magnet
EC-5580CA	Clear dome, amber LED's	Permanent
EC-5580CA-VM	Clear dome, amber LED's	Vacuum magnet

ECCO Reflex™ - SAE Class II - 11"

- Features: four LED reflector modules, polycarbonate base, low profile lens, 18 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 11"L x 7.6"W x 2.2"D
- Rated: 12-24 volts; 2.7 amps
- **LED color available:** ●
- **Dome colors available:** ○ ●



Part Number	Color	Mount
EC-5545A	Amber dome, amber LED's	Permanent
EC-5545A-VM	Amber dome, amber LED's	Vacuum magnet
EC-5545CA	Clear dome, amber LED's	Permanent
EC-5545CA-VM	Clear dome, amber LED's	Vacuum magnet

ECCO Square Beacon - SAE Class I - Low Profile

- Features: hi-intensity LEDs combined w/ reflector technology, 24 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 6.5"L x 6.5"W x 2.3"D
- Rated: 12-24 volts; 8.6 amps
- **LED colors available:** ○ ●
- **Dome colors available:** ○ ●



Part Number	Color	Mount
EC-EB7180A	Amber dome, amber LED's	4-bolt
EC-EB7180A-VM	Amber dome, amber LED's	Vacuum magnet
EC-EB7180CA	Clear dome, amber LED's	4-bolt
EC-EB7180CA-VM	Clear dome, amber LED's	Vacuum magnet

ECCO Square Beacon - SAE Class I - Medium Profile

- Features: hi-intensity LEDs combined w/ reflector technology, 8 flash patterns
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class I, CE
- Size: 6.5"L x 6.5"W x 3.3"D
- Rated: 12-24 volts; 6.2 amps
- **LED colors available:** ○ ●
- **Dome colors available:** ○ ●



Part Number	Color	Mount
EC-EB7185AAA	Amber dome, amber LED's	4-bolt
EC-EB7185AAA-VM	Amber dome, amber LED's	Vacuum magnet
EC-EB7185CAA	Clear dome, amber LED's	4-bolt
EC-EB7185CAA-VM	Clear dome, amber LED's	Vacuum magnet

LED Mini Bars, cont'd

LED

ECCO RotoLED™ Hybrid Beacon / Mini Bar - SAE Class I



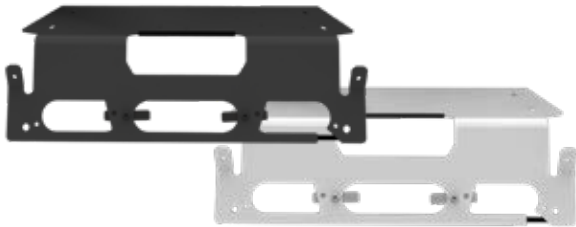
- Features: polycarbonate lens, no brushes or gears to wear out, 8 3-watt LED's & a TIR optic for exceptionally bright beam
- Approvals: SAE J845 Class I
- Size: 13.3"L x 5.8"H x 6.3"W
- Rated: 12-24 volts; 2.6 amps
- **LED color available:** ●
- **Dome color available:** ●

Part Number	Color	FPM	Mount
EC-5280A	Amber dome, amber LED's	360	Permanent
EC-5280A-MG			Magnet

Mini Bar Mounts

ECCO Brake Light Mount

- Made for Ford F-150's, F-250's & F-350's
- Mounts to third brake light
- Enables mounting of lights without damaging the vehicle



Part Number	Color
EC-EZ1000B-FL	Black
EC-EZ1000W-FL	White

ECCO Adhesive Magnetic Mounting Plate

- Self-adhesive
- Single use
- Use one for beacons and two for minibars



Part Number	Color
EC-EZ2000HBT	Black

North American Signal Brake Light Mount

- Mounts to third brake light
- Drill free installation, uses a clamp & gasket system to hold in position



Part Number	Made for	Size
NA-VPE-F150	Aluminum body Ford F-150's, 2015 & newer	19" x 8"
NA-VPE-CHGM	GMC Sierra & Chevy Silverados, 2014 - 2022	19" x 8"

Whelen Quick Fit Bolt On Mounting Platform

- Mounts w/ third brake light screw holes
- Drill free installation, uses a vehicle specific vacuum formed install kit (other models available)
- Models shown here are black powder coated steel & will work with magnet mount lights



Part Number	Made for	Size
WH-QFFORD1S	Ford F-150's, 2015-2020 & F-250 & F-350 Super Duty, 2017-2020	17.25" x 7.25"
WH-QFGM1S	GMC Sierra & Chevy Silverados, 2014 & newer	17.25" x 7.25"

If you do not see a mounting option for your year and make of vehicle, please contact your local sales rep. or customer service.

Emergency Light Bars

LED Light Bars

LED

North American Signal Co. Action Lite™ LED

- Features: polycarbonate dome, painted steel base
- Cycles through 3 preprogrammed flash patterns
- Magnet mount version comes with 4-60lb. pull magnets & 15ft. cord w/ cigarette lighter plug & on/off switch
- Size: 17.25"L x 9.4"W x 2.75"D
- Rated: 12-24 volts; 1.4 amps
- **LED colors available:** ●
- **Dome colors available:** ○ ●



Part Number	Color	Mount
NA-MMBZLEDFL-CA	Clear dome, amber LED's	Permanent
NA-MMBZLEDFLMCA	Clear dome, amber LED's	Magnet

Slim Light Bar - SAE Class I - 21"

- Features: 26 flash patterns, includes controller w/ 9ft. cord that plugs into 12V accessory jack
- Approvals: SAE Class I
- Size: 21"L x 8.27"W x 1.57"D
- Rated: 12 volts



Part Number	Color	Mount
TS-MLEDB-21-CA	Clear dome, amber LED's	Permanent
TS-MLEDB-21-CAC	Clear dome, amber & clear LED's	Magnet
TS-MLEDB-21-MNT	Magnetic mounting kit	

ECCO 11" Series ReflexL® Narrow LED Light Bar

- Aluminum frame, polycarbonate lens, and stainless steel mounting feet
- 35 flash patterns (single-color), 91 flash patterns (dual-color)
- Temperature Range: -40°F to +149°F (-40°C to +65°C)
- Rated: 6.5A @ 12VDC or 3.4V @ 24VDC
- Compact footprint: 1.3" tall by 5" wide
- Compact and powerful warning
- Multiple mounting options
- Approvals: IP65 SAE Class 1
- Additional optional switch part number EC-9905SW (sold separately)
- **LED colors available:** ●



Part Number	Color	Mount
EC-11-024CA-E	Clear dome, amber LED's	4 bolt
EC-11-024CA-E-MG	Clear dome, amber LED's	Magnet

Emergency Light Bars, cont'd

LED Light Bars, cont'd

LED

Low Profile Warning Light Bar

- Built-in self-contained 13 flash patterns
- Fast select left or right arrow on/off
- Aluminum base, water resistant
- 12V-24VDC
- 48" L X 9" W x 2.5" H
- 17 foot cable hard wire or built-in internal dashboard control switch and vehicle back rack mounting bracket included
- Additional optional switch part number EC-9905SW (sold separately)
- Vehicle cab roof mounting kits part number TS-MLEDB-48-MNT (sold separately)
- Approvals: ECE R65 and ECE R10 approval for primary emergency warning use



Part Number	Description	Color	Length
TS-MLEDB-48-AA	18 ultra-bright light modules to front and back 13 flash patterns including right/left/center arrow flash pattern	Amber dome, amber LED's	48"
TS-MLEDB-48-CA	18 ultra-bright light modules to front and back 13 flash patterns including right/left/center arrow flash pattern	Clear dome, amber LED's	48"

ECCO 12 + ProVantage™

- Bars can be configured w/ 6 different LED auxiliary modules: wide angle or focused warning, stop/tail/turn, worklamp, alley light & take-down light
- Range of strap mounting accessory kits
- 33 flash patterns
- Rated 12-24V
- Size: 11"W x 2.5"H
- Approvals: SAE Class I
- **LED colors available:**



Part Number	Length	Description
EC-12-50087-ES	48"	Chassis, lens & 16 warning modules, amber
EC-12-50067-ES	54"	Chassis, lens & 16 warning modules, 2 worklamps, 2 alley lights & 2 S/T/T, amber
EC-12-50061-ES	60"	Chassis, lens & 16 warning modules, 2 worklamps, 2 alley lights & 2 S/T/T, amber
◀ EC-EZ1202		9 function key pad controller (sold separately)
EC-EZ1210		15 foot controller extension cable

Don't see what you need? Just ask! We are a full line distributor for all of these manufacturers and more, so we'll find you exactly what you need.



Directional Arrows

LED Directional Arrows

LED

Traffic Commander



- Features: aluminum housing, polycarbonate lens, water resistant, 15 flash patterns
- Includes: display controller w/ 9ft. cable
- Approvals: SAE Class I
- Rated: 12-24VDC

Part Number	Size	Description
TS-LEDTA-47	51.81" L x 3.69" H x 2.3" D	LED light
TS-LEDTA-EXT	16.4' controller extension cable	

ECCO Spot/Flood Work Combination LED Utility Bar w/ Safety Director™



- Features: 5-watt LED's, 10 flash patterns
- Includes: weather protected controller connection
- Approvals: SAE Class I
- Rated: 12-24V; 5-10amps
- **LED colors available:**

Part Number	Size	Description
EC-EW3420	51.81" L x 3.69" H x 2.3" D	LED light w/ 15ft. cable

ECCO Safety Director™



- Features: extruded aluminum housing, polycarbonate lens, 8 reflective LED modules w/ 6 LED's, 9 flash patterns
- Includes: controller w/ LED display & 20 amp auxiliary relay
- Approvals: SAE J845 Class I, CE, ECE R10
- Rated: 12 volts; 1.6 amps
- **LED colors available:**

Part Number	Size	Description
EC-3410A	48.1" L x 1.9" H x 2.5" D	LED light w/ 15ft. cable
EC-3435A	48.1" L x 1.9" H x 2.5" D	LED light w/ 35ft. cable
EC-3455A	48.1" L x 1.9" H x 2.5" D	LED light w/ 55ft. cable

ECCO LED Safety Director™



- Features: extruded aluminum housing, polycarbonate lens, 8 reflective LED modules w/ 20 LED's, 9 flash patterns
- Includes: controller w/ LED display & 20 amp auxiliary relay
- Approvals: SAE J595 Class I, R10
- Rated: 12-24 volts; 1.6 amps
- **LED colors available:**

Part Number	Size	Description
EC-ED3315A	48.5" L x 2.0" H x 3.0" D	LED light w/ 15ft. cable
EC-ED3335A	48.5" L x 2.0" H x 3.0" D	LED light w/ 35ft. cable
EC-ED3355A	48.5" L x 2.0" H x 3.0" D	LED light w/ 55ft. cable

LED Directional Arrows, cont'd

LED

ECCO LED Safety Director™ Arrows



- Features: extruded aluminum housing, polycarbonate lens, 16 high powered LED modules w/ 20 LED's, 35 flash patterns
- Includes: in-cab controller
- Approvals: SAE J595 Class I, R10
- Rated: 12-24 volts; 2.8 amps
- **LED colors available:** ●

Part Number	Size	Description
EC-ED3307A	56"L x 22.5"H x 3.2"D	Single arrow w/ 35ft. cable
EC-ED3307SA	Two 28"L x 22.5"H x 3.2"D	Split arrow w/ 35ft. cable

North American Signal Co. Directional Arrow



- Features: 4 flashing modes (single) or 3 flashing modes (split)
- Includes 25ft. cord & switch control box
- Approvals:
- Rated:
- **LED colors available:** ●

Part Number	Size	Description
NA-4WABLED	54"L x 13.3"H x 4.15"D	Single arrow w/ 25ft. cable
NA-4WABSLED	Two 21"L x 13.3"H x 3.75"D	Split arrow w/ 25ft. cable

Strobe Beacons

LED Strobe Beacons

LED

ECCO Low Profile™ - SAE Class I

- Features: eight 3-watt LED's & a parabolic reflector, highly visible 'Pulse8' flash pattern
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J485 Class I
- Size: 3.1"H x 6.4" dia.
- Rated: 12-36 volts; 1 amp
- **LED color:** ○
- **Dome colors available:** ○ ● ● ● ● ●



Part Number	Color	FPM	Mount
EC-7460A	Amber dome, clear LED's	80	3 bolt flange/1" pipe
EC-7460A-VM		80	Vacuum magnet
EC-7460CA	Clear dome, clear LED's	80	3 bolt flange/1" pipe
EC-7460CA-VM		80	Vacuum magnet

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LED Strobe Beacons, cont'd

LED

ECCO Pulse II® - SAE Class I



- Features: poly-carbonate lens, aluminum base, 11 flash patterns
- Vacuum magnet version comes w/cigarette cord & switched plug
- Approvals: SAE J845 Class I
- Size: 6.5" dia.
- Rated: 12-24 volts; 3.6 amps
- **LED color:**
- **Dome colors available:**

Part Number	Color	Height	Mount
EC-7965A	Amber dome, clear LED's	4.9"	3 bolt flange/1" pipe
EC-7965A-VM			Vacuum magnet
EC-7970A	Amber dome, clear LED's	6.7"	3 bolt flange/1" pipe
EC-7970A-VM			Vacuum magnet

ECCO Pulse II® - SAE Class II



- Features: poly-carbonate lens, aluminum base, 11 flash patterns
- Vacuum magnet version comes w/cigarette cord & switched plug
- Approvals: SAE J845 Class II
- Size: 6.5" dia.
- Rated: 12-24 volts; 1.3 amps
- **LED color:**
- **Dome colors available:**

Part Number	Color	Height	Mount
EC-7945A	Amber dome, clear LED's	5"	3 bolt flange/1" pipe
EC-7945A-VM			Vacuum magnet
EC-7950A	Amber dome, clear LED's	7"	3 bolt flange/1" pipe
EC-7950A-VM			Vacuum magnet

ECCO Pulse II® - SAE Class I, Heavy Duty



- Features: aluminum base, encapsulated electronics, 11 flash patterns
- Approvals: SAE J845 Class I
- Size: 4.9"H x 6.5" dia.
- Rated: 12-24 volts; 3.6 amps
- **LED color:**
- **Dome colors available:**






Part Number	Color	Height	Mount
EC-7975A	Amber dome, clear LED's	4.9"	3 bolt flange/1" pipe
EC-7980A			3 bolt flange/1" pipe

LED Strobe Beacons, cont'd

LED


ECCO Pulse® - SAE Class I



- Features: sixteen 3-watt LED's, hi/lo intensity control, thread on poly-carbonate lens, die cast aluminum base
- Vacuum magnet version comes w/cigarette cord & plug
- Approvals: SAE J845 Class I
- Size: 5.6"H x 6.5" dia.
- Rated: 12-24 volts; 3.7 amps
- **LED color:** 
- **Dome colors available:**    

Part Number	Color	FPM	Mount
EC-7960A	Amber dome, clear LED's	80 dbi/65 quad	3 bolt flange/1" pipe
EC-7960A-VM			Vacuum magnet

ECCO Reflex™ - SAE Class I

- Features: hi-intensity LEDs & reflector technology for a bright beam, hi/lo intensity control
- Vacuum magnet version comes w/cigarette cord & plug
- Approvals: SAE J845 Class I
- Size: 3.9"H x 6.5" dia.
- Rated: 12-24 volts; 2.0 amps
- **LED color:** 



- **Dome colors available:**     

Part Number	Color	Mount
EC-7160A	Amber dome, clear LED's	3 bolt flange/1" pipe
EC-7160A-VM		Vacuum magnet

ECCO - SAE Class III

- Features: three 3-watt LED's, poly-carbonate lens, reinforced nylon base, highly visible 'Pulse8' flash pattern
- Size: 4.9"H x 2.8" dia.
- Rated: 12-80 volts; 2.7 amps
- **LED color:** 
- **Dome colors available:**     



Part Number	Color	FPM	Mount
EC-6262A	Amber dome, clear LED's	70	2 bolt flange
EC-6267A			1/2" pipe

ECCO Industrial LED - SAE Class III

- 12-80 VDC, 0.1 Amps, 80 FPMx8
- Pulse8 (8 flash per cycle) flash pattern
- Reinforced-nylon base and polycarbonate lens
- Temperature Range: -22°F to +122°F (-30°C to +50°C)
- Size: 3.9"H x 5.6"W
- **LED color:**     
- **Dome color available:** 



Part Number	Color	FPM	Mount
EC-6465A	Amber	80 x 8	3 bolt flange
EC-6564A-MG	Amber	80 x 8	Magnet

North American Signal - Dual Color

- Features: user selectable flash patterns, incl. alternating two colors or one independent
- Size: 5.5" dia. x 4.5" H
- Rated: 12.8 volts; .5 amps
- **LED colors available:**          
- **Dome color available:** 



Part Number	Color	Mount
NA-LED625-CAG	Clear dome, amber/green LED's	Flange
NA-LED625MX-CAG		Magnet
NA-LED625-CAC	Clear dome, amber/clear LED's	Flange
NA-LED625MX-CAC		Magnet

LED Strobe Beacons, cont'd

LED

Star Warning Systems Halo™ - Dual Color



- Features: thread on polycarbonate lens, polycarbonate base, 12 user selectable flash patterns
- Approvals: SAE Class I
- Size: 6-13/32" dia.
- Rated: 12-24 volts; .7 amps @ 12V
- **LED colors available:**
- **Dome color available:**

Part Number	Color	Height	Mount
ST-258HTDCL-AW	Clear dome, amber/clear LEDs	6-11/16"	Flange
ST-258HTDCLV-AW		6-11/16"	Vacuum magnet
ST-258HTDSL-AW	Clear dome, amber/clear LEDs	4-3/4"	Flange
ST-258HTDSLVAW		4-3/4"	Vacuum magnet

Star Warning Systems Halo™ - Single Color



- Features: thread on polycarbonate lens, polycarbonate base, 24 user selectable flash patterns, hi/lo intensity control
- Approvals: SAE Class I or Class II
- Size: 6-13/32" dia.
- Rated: 12-24 volts; .6 amps @ 12V
- **LED color available:**
- **Dome colors available:**

Part Number	Color	Height	Mount	SAE
ST-255H8TCL-A	Amber	6-11/16"	Flange	Class I
ST-255H8TCLV-A	Amber	6-11/16"	Vacuum magnet	
ST-255H8TSL-A	Amber	4-3/4"	Flange	
ST-255H8TSLV-A	Amber	4-3/4"	Vacuum magnet	
ST-255HTSL-A	Amber	4-3/4"	Flange	Class II
ST-255HTSLV-A	Amber	4-3/4"	Vacuum magnet	

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Surface Mount Strobes

LED Surface Mount Strobes

LED



ECCO 12/18 Diode Low Profile LED Light Heads

- Features: 12 or 18 high intensity, directional, ultra-low profile LED's that can be synchronized with other units for simultaneous or alternating operation
- Temp. range: -40°F to +149°F (-40°C to +65°C)
- Size: 4.75"L x .37"W x 1.40"D
- Rated: 12-24VDC
- **LED colors available:** 



Part Number	Number of LED's	Color	Mount
EC-ED3802AC	12 - High-intensity LEDs	Clear Lens, amber/clear LED's	Surface mount
EC-ED3802AGW	18 - High-intensity LEDs	Clear lens, amber, green, white LED's	Surface mount


ECCO 6 Diode LED Light Heads

- Features: 6 LED's, 13 flash patterns, synchronizable, four mounting options (hardware included), aluminum housing, polycarbonate lens, 180° warning light w/ work light & puddle light combination
- Size: 5.2"L x 1.3"W x 1.5"D
- Approvals: SAE J595 Class I
- Rated: 12-24V, 1.8 amp 
- **LED colors available:** 



Part Number	Color	Mount
EC-ED3777A	Clear lens; amber LEDs	Multi-mount


ECCO 12 Diode LED Light Heads

- Features: 12 hi-intensity LED's (6 of each color), synchronizable, 69 flash patterns, aluminum heat sink housing & polycarbonate lens
- Size: 6.4"L x 1.2"W x 1.4"D
- Approvals: SAE J595 Class I
- Rated: 12-24 volts; 0.8 amps
- **LED colors available:** 



Part Number	Color	Mount
EC-ED3766AC	Clear lens, amber LED's	Surface

ECCO 4/6 Diode LED Light Heads

- Features: 4 & 6 high intensity LED's, synchronization capabilities, 21 flash patterns
- Approvals: SAE J595 Class I
- Size: 1.3"W x 1.1"D
- Rated: 12-24V, 0.7 amps (EC-ED3704), 0.9 amps (EC-ED3705)
- **LED colors available:** 



Part Number	Color	Mount	Length
EC-ED3704AC	Clear lens;	Surface	4.5"
EC-ED3705AC	amber LEDs	Surface	6.2"

LED Surface Mount Strobes, cont'd

LED

ECCO 12 Diode LED Light Heads



- Features: Twelve 1-watt high-intensity LEDs that provide exceptional warning and are synchronizable with additional ED3511s and Hide-A-LEDs. UV-stabilized polycarbonate lens and 36 flash patterns
- Temp. range: -22°F to +122°F (-30°C to +50°C)
- 13" cable
- **LED colors available:**

Part Number	Color	Volts	Mount
EC-3511A	Amber	12-24VDC	Surface
EC-3511AW	Amber/white		

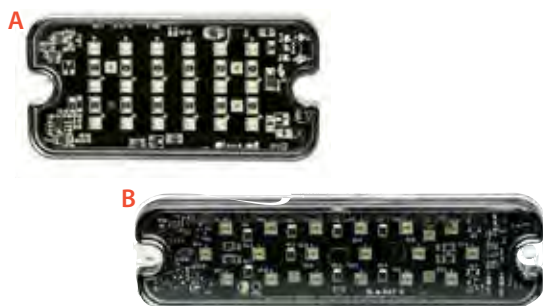
ECCO 20 Diode LED Light Heads



- Features: 20 LED's, 7 flash patterns, synchronization capability
- Polycarbonate housing w/ encapsulated electronics
- Approvals: SAE J595 Class I
- Surface mount size: 5.9"L x 2.1"W x 1.2"D
- Grommet mount size: 6.5"L x 2.1"W x 1.2"D
- Rated: 12-24 volts; .4 amps
- **LED colors available:**

Part Number	Color	Mount
EC-3811A	Clear lens, amber LED's	Surface
EC-3861A	Clear lens, amber LED's	Grommet

ECCO 18 Diode LED Light Heads



- Features: 18 high-intensity LED's, 16 flash patterns
- EC-3931A size: 3.830"L x 1.955"W x .343"D
- EC-3932A size: 5.080"L x 1.480"W x .343"D
- Rated: 12 volts; .9 amps
- **LED colors available:**

Part Number	Color	Mount	Fig.
EC-3931A	Clear lens, amber LED's	Surface	A
EC-3932A	Clear lens, amber LED's	Surface	B

Star Warning Systems 3 Diode LED Light Heads



- Features: 3 LED's, synchronizable, 12 selectable flash patterns, diecast aluminum base
- Size: 1"H x 3 1/16"W x 7/16"D
- Approvals: SAE Class I
- Rated: 10-16 volts; 0.3 amps
- **LED colors available:**

Part Number	Color	Mount
ST-DLIT3S-A	Clear lens, amber LED's	Multiple options

LED Surface Mount Strobes, cont'd

LED

Optronics 6 Diode LED Light Heads



- Meets SAE J595 for Class 1 vehicles
- IP67 rated for dust and water resistance
- Ultrabright LED's
- Surface mount design with gasket
- Operating voltage 10-30 VDC
- Selectable flash patterns/modes
- Meets SAE J595 for Class1 vehicles
- IP67 rated for dust and water resistance s

Part Number	Color	Selectable Modes	Diodes
OT-SLL-17AC1B	Amber	72	6
OT-SLL-17ACC2B	Amber / Clear	92	12

Maxxima 4 Diode LED Light Heads



- Features: 22 flash patterns, synchronizable, polycarbonate lens & housing, resinsealed electronics, ultra low profile, includes black bezel
- Approvals: Class I
- Size: 4.4"L x 1.5"W x .09"D
- Rated: 12 volts; .7 amp
- **LED colors available:**

Part Number	Color	Mount	Fig.
MX-M20384YCL	Amber LED's/Clear lens	Surface	A
MX-M20384WYCL	Amber/white LEDs, clear lens	Surface	B
MX-M50138	Chrome bezel (sold separately)		

Star Warning Systems 42 Diode LED Light Heads



- Features: fully encapsulated circuitry, up to 21 user selectable flash patterns
- Size: 5-3/4"L x 2-1/4"W x 1/2"D
- Rated: 10-16 volts; .3 amps @ 12V
- **LED colors available:**

Part Number	Color	Description	Mount
ST-DLXT-121-AA	Clear lens, amber LED's	Rectangle bezel - black	Surface
ST-DLXT-121-CAA	Clear lens, amber LED's	Rectangle bezel - chrome	Surface
ST-DLXT-124-AA	Clear lens, amber LED's	Oval bezel - Black	Surface
ST-DLXT-124-CAA	Clear lens, amber LED's	Oval bezel - chrome	Surface

LED Grommet Mount Strobes

LED Grommet Mount Strobes

ECCO 16 Diode LED Light Heads

- Features: high output LED's, 8 flash patterns, vibration & shock resistant
- Ultrasonically sealed housing
- Approvals: SAE J595 Class I
- Size: 6.38"L x 2.19"W x 1.5"D
- Rated: 12 volts; .5 amps
- **LED colors available:**



Part Number	Color	Mount
EC-3965A	Clear lens, amber LED's	Grommet (included)

ECCO 56 Diode LED Light Heads

- Features: 56 high-intensity LED's, 15 flash patterns, simple 3-wire hook up
- Size: 6.445"L x 1.955"W x .340"D
- Rated: 12 volts; .8 amps
- **LED colors available:**



Part Number	Color	Mount
EC-3911A	Clear lens, amber LED's	Surface

LED Warning Lamps



- Features: self contained, 8 flash patterns
- Kit includes: snap ring, rubber grommet, AMP sealed connector & pigtail (mating pigtail #OT-A-45PMB, sold separately)

Part Number	Color	Description
TS-LEDW4-A	Clear lens, amber LED's	4" round
TS-LEDWO-A		6" oval

ECCO Hybrid S/T/T, Back-Up & Work Light



- Features: red S/T/T light & white back-up & amber warning light, 69 flash patterns
- Ultrasonically sealed housing, vibration & shock resistant construction
- Approvals: Class I, DOT Cert.
- Rated: 12-24VDC

Part Number	Color	Size	Mount	Connections
EC-ED3040AW	Amber / White	4" Round	Grommet	PI-3 AMP
EC-ED3040AW-AMP				
EC-ED3060AW	Amber / White	6" Oval	Grommet	PI-3 AMP
EC-ED3060AW-AMP				

LED Grommet Mount Strobes, cont'd

LED

Maxxima Hybrid S/T/T, Back-Up & Warning Light



- Features: red stop light (12 LEDs), red tail light (12 LEDs), white back-up light (9 LEDs), amber warning light (9 LEDs)
- Flash patterns: white only, amber only, alternating white & amber
- Includes neoprene gasket & mounting screws
- Approvals: SAE J595 Class I
- Size: 5.5" Dia. x 0.5"D
- Rated: 12 volts; 0.6 amps
- Connection: Seven 10" blunt cut leads

Part Number	Color	Mount
MX-M85427R-YCL	Amber / Red / White	Flange

Maxxima Hybrid Clearance & Warning Light



- Features: 28 flash patterns
- Includes neoprene gasket & mounting screws
- Approvals: SAE J595, Class 2
- Size: 1.75" Dia. x 1.17"D
- Rated: 12 volts; 140 mA
- Connection: Four 7" jacket leads w/ .180" bullets

Part Number	Color	Mount	Fig.
MX-M09450YCL-DC	4 Amber	Flange	A
MX-M09450WYCL-DC	2 Amber / 2 White	Flange	B

LED Concealed Strobe Systems

ECCO Hide-A-LED™ System

LED

- Features: 10" cable, high-intensity LED's
- 29 selectable flash patterns (single color) or 69 selectable flash patterns (dual color) synchronizable, dimmable
- Mounts in 1" dia. hole



- In-line waterproof driver module eliminates the need for a remote power supply
- **LED colors available:**

Part Number	Color	Mount	Rated
EC-ED9040A	Amber	Bracket	12-24V; 1.2A
EC-ED9040AW	Amber/White		12-24V; 0.6A

ECCO Hide-A-LED™ System

LED

- Multiple heads are synchronizable (simultaneous or alternating operation)
- 29 flash patterns (single-color), 69 flash patterns (dual-color)
- Polycarbonate lens and 12" cable




- Temperature Range: -40°F to +149°F (-40°C to +65°C)
- **LED colors available:**

Part Number	Color	Mount	Rated
EC-ED9015A	Amber	Surface	.7A @ 12VDC
EC-ED9015AW	Amber/White		.5A @ 12VDC

LED Concealed Strobe Systems

LED

ECCO Hide-A-LED™ System

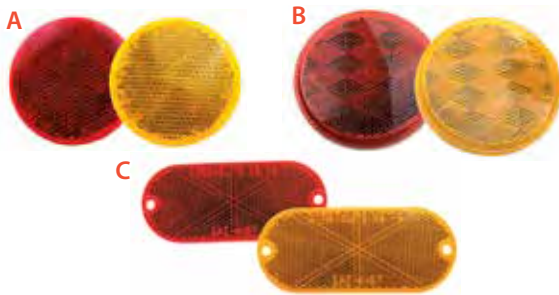
- Features: polycarbonate lens, nickel plated housing, 9ft. cable, high-intensity LED's
- 16 selectable flash patterns, synchronizable
- Mounts in 1" dia. hole
- In-line waterproof driver module eliminates the need for a remote power supply
- **EC-9021CC & EC-9022CC have two light heads connected to a single power supply**
- **LED colors available:** 



Part Number	Heads	Mount	Rated
EC-9011C	1 - clear	Screw-on	12-24V; .35A
EC-9013C	1 - clear	Flange	12-24V; 1.5A
EC-9021CC	2 - clear	Screw-on	12-24V; 1.0A
EC-9031C	1 - clear	Plug-in	12V; .35A
EC-9022CC	2 - clear	Plug-In	12-24V; 1.0A

Reflectors

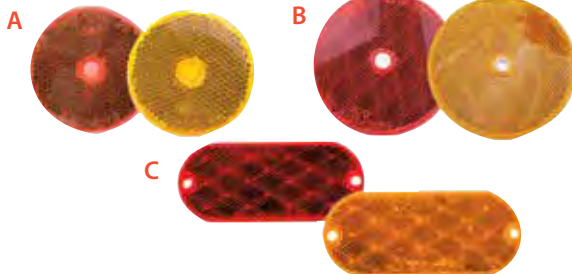
Adhesive Mount Reflectors



Truck-Lite Part Number	Color	Size	Fig.
TL-45	Red	2-3/16" dia.	A
TL-45A	Amber	2-3/16" dia.	A
TL-47	Red	3-3/16" dia.	B
TL-47A	Amber	3-3/16" dia.	B
TL-54	Red	4-3/8" x 1-7/8"	C
TL-54A	Amber	4-3/8" x 1-7/8"	C

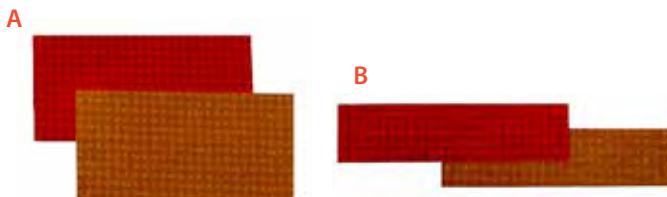
Hole Mount Reflectors

- Mounts w/ #10 screws



TSC Part Number	Truck-Lite Part Number	Color	Size	Fig.
TS-25R	TL-52	Red	2-3/16" dia.	A
TS-25A	TL-52A	Amber	2-3/16" dia.	A
N/A	TL-98006R	Red	3-1/4" dia.	B
N/A	TL-98006Y	Amber	3-1/4" dia.	B
N/A	TL-98031R	Red	4-3/8" x 1-7/8"	C
N/A	TL-98031Y	Amber	4-3/8" x 1-7/8"	C

Industrial Strength Adhesive Reflectors



Part Number	Color	Size	Fig.
REF-24R	Red	2" X 4"	A
REF-24A	Amber	2" X 4"	A
REF-14R	Red	1" X 4"	B
REF-14A	Amber	1" X 4"	B

Replacement Bulbs

Whelen Replacement Bulbs

Snap-In Bulbs



Part Number	Description	Watts	Fig.
WH-H20SN12	Halogen, green dot	20	A
WH-H35SN12	Halogen, horizontal filament, white dot	35	A
WH-STOPSN12	Incandescent, brake/tail/turn, DOT3 systems	27	B

Twist-Lock - 3 Position Connection - Halogen & Strobe Bulbs



Part Number	Description	Watts	Fig.
WH-H35TL12	Halogen	35	A
WH-S30TL	Strobe tube, helix 1-1/2 turn	-	B
1-480305-0	Replacement connector (on light)	-	-
1-480303-0	Replacement connector (mate)	-	-
60620-1	Replacement pin terminal (on light)	-	-
60619-1	Replacement socket terminal (mate)	-	-

ECCO Replacement Bulbs

Strobe Tube



- 6500 Series, models 2350, 5350, 5450

Part Number

EC-R6501FT

Star Warning Systems Replacement Bulbs

Strobe Tube



- 200A series, 200B series, 250A series, 250C series, 250S series, 3940

Part Number

ST-129DH

Strobe Tube



- 200J series, 200Z series, 201Z series, 203MV series, 211R series, 735PS

Part Number

ST-129Z

Strobe Tube



- 200 series, 240 series, 250 series

Part Number

ST-129

Strobe Tube



- SH3904, SH3920, SH3922, 4 Corner Strobe Kit Colors

Part Number

ST-ST3901-A

Strobe Tube



- 9200S series & light bars with 360° strobe heads

Part Number

ST-ST3901-7

Strobe Tube



Part Number

ST-ST3901-12

Towing Warning Devices

Triangle Kit

- Set of three triangles housed in heavy duty plastic reusable storage container
- Meets DOT standards
- High impact weighted plastic base for support
- 14lbs.



Part Number	Description
TS-SL-711-70	15-1/2"H x 17-3/4"W

Heavy Duty Tow Truck Kit

- Two sealed 4" S/T/T's w/ 30ft. of cable w/ 4-pole connector w/ spring
- 80lb. pull magnets in chrome plated housing w/ mylar anti-scratch pads



Part Number	Description
TS-12499	Lighting Kit

For replacement 80lb. pull magnets, order part #TS-MAG-80.



Back-Up Alarms & Switches

Back-Up Alarms

ECCO 500 Series

- Reverse polarity & voltage spike protection
- Glass filled nylon housing w/ epoxy sealed electronics
- Can be installed on positive & negative ground vehicles



Part Number	Decibels	Volts	Amps
EC-505	87	12 - 24VDC	.1A
EC-510	97	12VDC	.2A
EC-520	97	12 - 24VDC	.2A
EC-530	102	12 - 24VDC	.2A
EC-575*	107	12 - 24VDC	.3A

*Has two wire leads instead of stud terminals for connection

Federal Signal Evacuator Plus

- 80 beeps per minute
- Reverse polarity & voltage spike protection
- Can be installed on positive & negative ground vehicles



Part Number	Decibels	Volts	Amps
TT-210330	87	12 - 48VDC	.02A
TT-210331	97	12 - 48VDC	.03A
TT-210333	107	12 - 48VDC	.17A
TT-210335	112	12 - 48VDC	.17A

Back-Up Alarms, cont'd

ECCO 600 Series

- Reverse mounted speaker enhances sound & protects speaker from moisture & dust
- Reinforced nylon housing w/ epoxy sealed electronics
- Can be installed on positive & negative ground vehicles



Part Number	Decibels	Volts	Amps
EC-610N	97	12 - 36VDC	.1A
EC-630N	107	12 - 36VDC	.4A

ECCO 800 Series

- Steel housing & construction for rugged applications
- Sealed in epoxy to protect against dust, moisture & vibration



Part Number	Decibels	Volts	Amps
EC-850N	112	12 - 36VDC	.4A

ECCO Self-Adjusting Smart Alarms®



- Automatically adjust to a minimum of 5dB above background noise
- Reinforced nylon housing w/ epoxy sealed electronics
- Self grounding

Part Number	Decibels	Volts	Amps	Fig.
EC-SA901N	82 - 107	12 - 24VDC	.3A	A
EC-SA917N	87 - 112	12 - 24VDC	.4A	A
EC-SA950	82 - 102	12-24VDC	.4A	B

ECCO 500 Series

- Solid state electronics sealed in urethane
- Features universal mounting brackets
- Meets SAE J944 & OSHA requirements
- Self grounding



Part Number	Decibels	Volts	Amps
EC-505	87	12 - 24VDC	.2
EC-520	97	12 - 24VDC	.2

ECCO Compact Profile Alarm

- Low profile for easy installation
- Meets SAE J944 & OSHA requirements

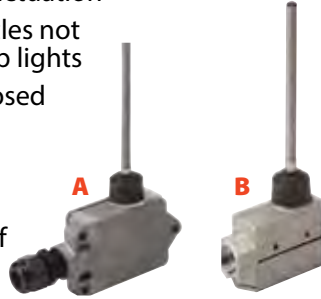


Part Number	Decibels	Volts	Amps
EC-210	97	12VDC	.1

Back-Up Alarm Switches

ECCO Multi-Direction Switch

- Electro-mechanical actuation
- For heavy duty vehicles not equipped w/ back-up lights
- Normally open or closed
- 360° movement
- Metal housing
- Includes mounting bracket & waterproof compression fitting



Part Number	Circuit	Volts	Amps	Fig.
EC-SW30	SPDT	12-80VDC	10A	A
EC-SW15	SPDT	12-80VDC	10A	B

ECCO Single-Direction Switch

- Electro-mechanical actuation
- For light duty vehicles not equipped w/ back-up lights
- Normally open
- Single direction movement
- Weather resistant



Part Number	Circuit	Volts	Amps
EC-SW10	SPST	12-24VDC	0.5A

Federal Signal Multi-Direction Switch

- Activated in all directions
- Installed adjacent to gear shift lever or linkage, switch activates alarm when the actuating shaft is moved



Part Number	Description	Volts	Amps
TT-210298	12V Switch	12VDC	5A
TT-200053-95	Mounting bracket	-	-

TSC Single Direction Switch

- For vehicles not equipped w/ back-up lights
- Normally open, moves in one direction



Part Number	Volts	Amps
TS-136	12VDC	5A

Horns & Audible Warning Devices

Universal Buzzer

- For bus warning signal involving open doors, low air pressure, etc.
- Mounting: three 1/4" mounting holes, 5/8" center to center
- Rated: 12 volts; 2 amps



Part Number	Circuit	Function	Terminal Style
CH-4099	SPST	ON-OFF	2-screw

Dual Alarm

- Combination warning light & buzzer operate simultaneously
- Mounting: 11/16" dia. x 17/32"L mounting stem
- Rated: 12 volts; 2 amps

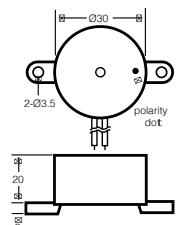


Part Number	Circuit	Function	Terminal Style
CH-4112-RC	SPST	ON-OFF	2-screw

Audio Alarm

- Rated: 12 volts, 10mA
- Continuous buzzer mode

Part Number	Volts	Sound Level	Sound Frequency
TS-PZ90	12	90 dB @ 1ft.	2000 Hz (+/- 25%)



Horns & Audible Warning Devices, cont'd

Hella Relay Warning Buzzer



- Rated: 12 volts
- Dual rated buzzer w/ slow (60 CPM) & fast (120 CPM) buzzer modes
- Ideal for auto applications as a chime warning
- Mates w/ pigtailed SBPT-1, SBPT-1-12, SBPT-2

Part Number	Sound Level	Frequency (Hz)
HE-H35394001	90 dB @ 1ft.	4000 Hz (+/- 20%)

Compressed Air Horns



- Stainless steel, non-corrosive finish
- Size: 16"L x 7-1/2"W x 4-1/8"H"; bell dia.: 3-3/4"

Part Number	Description	Frequency (Hz)	Min dB @ 1m
FM-62000	Horn only	300 - 260	120
FM-62330	Horn w/ 12V compressor kit	300 - 260	114

Freeway Blaster Horns



- Steel housing w/ corrosion resistant finish & plastic projector & copper wire coil motor
- 3-7/8" x 3-3/4" x 3-1/4"
- Comes w/ universal mounting bracket

Part Number	Description	Terminals	Frequency (Hz)	Min dB @ 4"	Volts	Amps
FM-72102	High note	One/two	485	130	12	5
FM-72112	Low note	One/two	405	130	12	5

Trumpet Horns



- Steel housing w/ corrosion resistant finish & plastic projector & copper wire coil motor
- 3-7/8" x 3-3/4" x 3-1/4"
- Comes w/ universal mounting bracket

Part Number	Description	Terminals	Frequency (Hz)	Min dB @ 4"	Volts	Amps
FM-72000	High note	One	485	125	12	5
FM-72010	Low note	One	405	125	12	5

Vibrator Horns



- Steel housing w/ corrosion resistant finish & copper wire coil motor
- 3-5/8" dia. x 2-5/8" depth
- Comes w/ universal mounting bracket

Part Number	Description	Terminals	Frequency (Hz)	Min dB @ 4"	Volts	Amps
FM-40310	High note	One/two	430	130	12	4
FM-73600	Multi-voltage	One/two	430	114 @ 1m	24-48	.9

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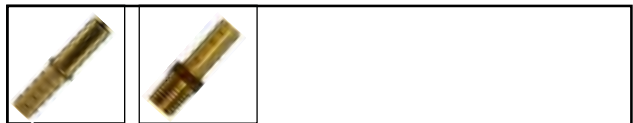
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Brass Connectors

D.O.T. Approved Quick Connect Air Brake

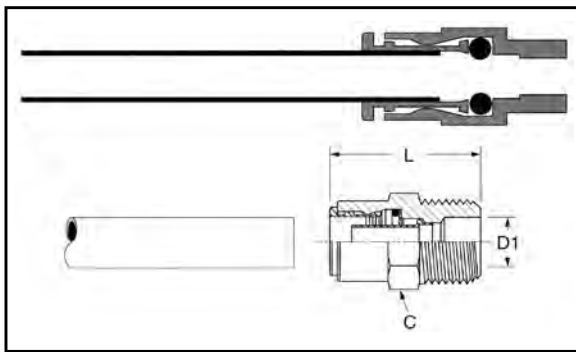
- **Typical Applications:** Air brake systems except where temperatures exceed 200°F or where battery acid can drip on tubing
- **Pressure:** Vacuum to 150psi
- **Vibration:** Moderate resistance
- **Temperature range:** -40°F to 200°F
- **Material:** CA360 brass (body & collet); Ethylene Propylene (o-ring)
- **Used with:** NT100 nylon tubing - SAE J844 Type A & B
- **Advantages:** easy and fast assembly, one piece fitting, reusable
- **Conformances:** Meets SAE J1131 air brake system performance requirements & DOT FMVSS 571.106

Assembly Instructions:

- Using a tube cutter, make a square cut (max 15° angle).
- Insert tubing straight into fitting until a solid stop is felt. The tubing grip & seal (on o-ring) is now accomplished.
- Gently tug on tubing to ensure it is secure.

Disassembly Instructions:

- Check to be sure there isn't any air pressure.
- Depress collet head using fingers or tube release tool (part #W-1800TRK) to release grip on tubing.
- With the collet depressed, pull the tubing from the fitting.



Male Connector

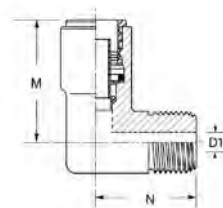
- Reference SAE No. AA0102



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	L
W-1868X2.5X1	5/32	1/16	3/8	.09	.92
W-1868X2.5	5/32	1/8	7/16	.25	.92
W-1868X3	3/16	1/8	1/2	.25	.92
W-1868X4	1/4	1/8	9/16	.19	.95
W-1868X4X4	1/4	1/4	9/16	.34	1.18
W-1868X4X6	1/4	3/8	11/16	.41	1.17
W-1868X6X2	3/8	1/8	11/16	.19	1.33
W-1868X6	3/8	1/4	11/16	.31	1.29
W-1868X6X6	3/8	3/8	11/16	.41	1.27
W-1868X6X8	3/8	1/2	7/8	.53	1.47
W-1868X8X4	1/2	1/4	13/16	.31	1.46
W-1868X8	1/2	3/8	13/16	.41	1.35
W-1868X8X8	1/2	1/2	7/8	.53	1.50
W-1868X10X6	5/8	3/8	1	.41	1.72
W-1868X10	5/8	1/2	1	.53	1.71
W-1868X12	3/4	1/2	1-1/16	.53	1.72

90° Male Elbow

- Reference SAE No. AA0302

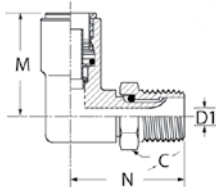


Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1869X2.5X1	5/32	1/16	.13	.75	.59
W-1869X2.5	5/32	1/8	.19	.75	.59
W-1869X3	3/16	1/8	.19	.84	.69
W-1869X4	1/4	1/8	.19	.92	.68
W-1869X4X4	1/4	1/4	.31	.92	.81
W-1869X4X6	1/4	3/8	.41	1.03	.82
W-1869X6X2	3/8	1/8	.19	1.08	.80
W-1869X6	3/8	1/4	.31	1.13	.96
W-1869X6X6	3/8	3/8	.41	1.06	.98
W-1869X6X8	3/8	1/2	.53	1.27	1.07
W-1869X8X4	1/2	1/4	.31	1.23	1.00
W-1869X8	1/2	3/8	.41	1.25	.98
W-1869X8X8	1/2	1/2	.53	1.25	1.11
W-1869X10X6	5/8	3/8	.41	1.44	1.09
W-1869X10	5/8	1/2	.53	1.48	1.22

D.O.T. Approved Quick Connect Air Brake, cont'd

90° Male Elbow w/ Swivel

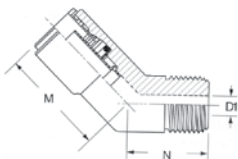
- Reference SAE No. AA02DD



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	N
W-1869X4S	1/4	1/8	7/16	.13	.89	.88
W-1869X4X4S	1/4	1/4	9/16	.22	.99	1.06
W-1869X4X6S	1/4	3/8	11/16	.30	.98	1.06
W-1869X6X2S	3/8	1/8	7/16	.13	1.03	.97
W-1869X6S	3/8	1/4	9/16	.22	1.10	1.14
W-1869X6X6S	3/8	3/8	11/16	.30	1.12	1.15
W-1869X6X8S	3/8	1/2	7/8	.42	1.18	1.40
W-1869X8X4S	1/2	1/4	9/16	.22	1.08	1.20
W-1869X8S	1/2	3/8	11/16	.30	1.13	1.27
W-1869X8X8S	1/2	1/2	7/8	.42	1.20	1.47
1869X10X6S	5/8	3/8	11/16	.42	1.35	1.34
W-1869X10S	5/8	1/2	7/8	.42	1.38	1.54

45° Male Elbow

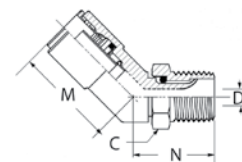
- Reference SAE No. AA0302



Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1880X4	1/4	1/8	.19	.95	.59
W-1880X4X4	1/4	1/4	.31	.95	.59
W-1880X6X2	3/8	1/8	.25	1.05	.48
W-1880X6	3/8	1/4	.31	1.05	.69
W-1880X6X6	3/8	3/8	.41	1.10	.63
W-1880X6X8	3/8	1/2	.53	1.20	.70
W-1880X8X4	1/2	1/4	.31	1.20	.87
W-1880X8	1/2	3/8	.41	1.10	.73
W-1880X8X8	1/2	1/2	.53	1.10	.76
W-1880X10X6	5/8	3/8	.41	1.25	.82
W-1880X10	5/8	1/2	.53	1.39	.90
W-1880X12	3/4	1/2	.53	1.26	.98

45° Male Elbow w/ Swivel

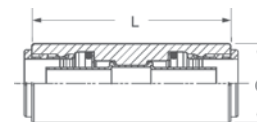
- Reference SAE No. AA03DD



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	N
W-1880X4S	1/4	1/8	7/16	.13	.82	.60
W-1880X4X4S	1/4	1/4	9/16	.22	.98	.60
W-1880X6X2S	3/8	1/8	7/16	.13	1.20	.68
W-1880X6S	3/8	1/4	9/16	.22	1.20	.89
W-1880X6X6S	3/8	3/8	11/16	.30	1.20	.97
W-1880X8X4S	1/2	1/4	9/16	.22	1.20	1.20
W-1880X8S	1/2	3/8	11/16	.30	1.04	1.07
W-1880X8X8S	1/2	1/2	7/8	.42	1.08	1.22

Union

- Reference SAE No. AA0101



Part Number	Tube O.D.	Dia. C	L
W-1862X2.5	5/32	.44	1.41
W-1862X4	1/4	.53	1.62
W-1862X6	3/8	.69	1.94
W-1862X8	1/2	.83	1.96
W-1862X10	5/8	.96	2.51

Quick Connect Air Brake Fittings are used with the Nylon Air Brake Tubing located on page 348.

For an assortment of popular Brass DOT Approved Quick Connect fittings, order part # QCB-KIT-24. The kit includes 60 pcs. of popular unions, male straights, tee's and 90° fittings in a metal compartment drawer.

D.O.T. Approved Quick Connect Air Brake, cont'd

Male Branch Tee

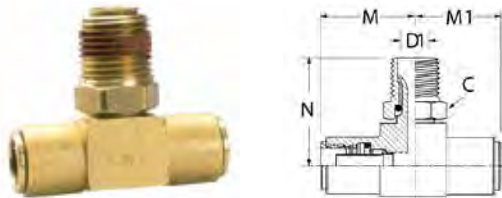
- Reference SAE AA0425



Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1872X3	3/16	1/8	.19	.75	.74	.64
W-1872X4	1/4	1/8	.19	.93	.93	.64
W-1872X4X4	1/4	1/4	.19	.93	.93	.82
W-1872X6	3/8	1/4	.31	1.15	1.15	.91
W-1872X6X6	3/8	3/8	.31	1.15	1.15	.92
W-1872X8X4	1/2	1/4	.31	1.22	1.22	.98
W-1872X8	1/2	3/8	.41	1.24	1.24	.99
W-1872X8X8	1/2	1/2	.53	1.22	1.22	1.12

Male Branch Tee w/ Swivel

- Reference SAE No. AA04FF



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	M1	N
W-1872X4S	1/4	1/8	7/16	.13	.93	.93	.80
W-1872X4X4S	1/4	1/4	9/16	.22	.93	.93	1.04
W-1872X6X2S	3/8	1/8	7/16	.13	1.15	1.15	.94
W-1872X6S	3/8	1/4	9/16	.22	1.15	1.15	1.14
W-1872X6X6S	3/8	3/8	11/16	.30	1.15	1.15	1.17
W-1872X8X4S	1/2	1/4	9/16	.22	1.23	1.23	1.21
W-1872X8S	1/2	3/8	11/16	.30	1.24	1.24	1.24
W-1872X8X8S	1/2	1/2	7/8	.42	1.21	1.19	1.42

Female Branch Tee



Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1877X6	3/8	1/4	1.16	.78

90° Female Elbow

- Reference SAE No. AA0203



Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1870X4	1/4	1/8	1.03	.83
1870X4X4	1/4	1/4	1.04	.78
W-1870X6X2	3/8	1/8	1.13	.96
W-1870X6	3/8	1/4	1.28	1.09
W-1870X6X6	3/8	3/8	1.21	1.07
W-1870X8	1/2	3/8	1.22	1.11
W-1870X8X8	1/2	1/2	1.33	1.07

Union Tee

- Reference SAE No. AA0401



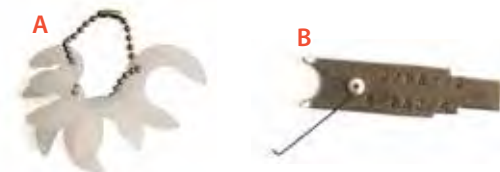
Part Number	Tube O.D.	M	M1	M2
W-1864X4	1/4	.93	.93	.93
W-1864X6	3/8	1.15	1.15	1.15
W-1864X8	1/2	1.22	1.22	1.22

Plug (Nylon)



Part Number	Tube O.D.
W-1829X4	1/4
W-1829X6	3/8
W-1829X8	1/2

Tools



Part Number	Description	Fig.
W-1800TRK	Assists in removing tubing from connectors	A
W-1800-T	Assists in servicing connectors w/ o-rings	B

Composite D.O.T. Approved Quick Connect Air Brake Fitting

- One touch connection reduces installation time & cost
- Rugged UV and vibration resistant composite body
- Meets DOT 106, SAE J1131 & SAEJ2494
- Male pipe threads are pre-sealed

Union



Part Number	Tube O.D.
KV2H01-00	1/8
KV2H03-00	5/32
KV2H05-00	3/16
KV2H07-00	1/4
KV2H11-00	3/8
KV2H13-00	1/2
KV2H15-00	5/8
KV2H19-00	3/4

Union Tee



Part Number	Tube O.D.
KV2T01-00	1/8
KV2T03-00	5/32
KV2T05-00	3/16
KV2T07-00	1/4
KV2T11-00	3/8
KV2T13-00	1/2
KV2T15-00	5/8

90° Male Elbow



Part Number	Tube O.D.	Male Pipe Thread
KV2L01-32S	1/8	1/8
KV2L07-34S	1/4	1/8
KV2L07-35S	1/4	1/4
KV2L07-36S	1/4	3/8
KV2L11-34S	3/8	1/8
KV2L11-35S	3/8	1/4
KV2L11-36S	3/8	3/8
KV2L11-37S	3/8	1/2
KV2L13-35S	1/2	1/4
KV2L13-36S	1/2	3/8
KV2L13-37S	1/2	1/2
KV2L15-36S	5/8	3/8
KV2L15-37S	5/8	1/2

45° Male Elbow



Part Number	Tube O.D.	Male Pipe Thread
KV2K07-34S	1/4	1/8
KV2K07-35S	1/4	1/4
KV2K07-36S	1/4	3/8
KV2K11-34S	3/8	1/8
KV2K11-35S	3/8	1/4
KV2K11-36S	3/8	3/8
KV2K11-37S	3/8	1/2
KV2K13-35S	1/2	1/4
KV2K13-36S	1/2	3/8
KV2K13-37S	1/2	1/2
KV2K15-36S	5/8	3/8
KV2K15-37S	5/8	1/2

Male Connector



Part Number	Tube O.D.	Male Pipe Thread
KV2H01-32S	1/8	1/8
KV2H01-34S	1/8	1/4
KV2H07-34S	1/4	1/8
KV2H07-35S	1/4	1/4
KV2H07-36S	1/4	3/8
KV2H11-34S	3/8	1/8
KV2H11-35S	3/8	1/4
KV2H11-36S	3/8	3/8
KV2H11-37S	3/8	1/2
KV2H13-35S	1/2	1/4
KV2H13-36S	1/2	3/8
KV2H13-37S	1/2	1/2
KV2H15-36S	5/8	3/8
KV2H15-37S	5/8	1/2

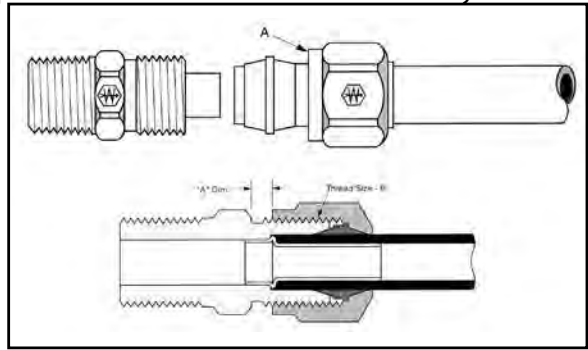
Male Branch Tee



Part Number	Tube O.D.	Male Pipe Thread
KV2T01-32S	1/8	1/8
KV2T07-34S	1/4	1/8
KV2T07-35S	1/4	1/4
KV2T07-36S	1/4	3/8
KV2T11-34S	3/8	1/8
KV2T11-35S	3/8	1/4
KV2T11-36S	3/8	3/8
KV2T11-37S	3/8	1/2
KV2T13-35S	1/2	1/4
KV2T13-36S	1/2	3/8
KV2T13-37S	1/2	1/2
KV2T15-36S	5/8	3/8
KV2T15-37S	5/8	1/2

D.O.T. Approved Air Brake - Nylon Tubing

- **Typical Applications:** Air brake systems except where temperatures exceed 200°F or where battery acid can drip on tubing
- **Pressure:** Maximum operating pressure of 150psi
- **Vibration:** Fair resistance
- **Temperature range:** -40°F to 200°F
- **Material:** CA360 brass
- **Used with:** NT100 nylon tubing - SAE J844 Type A & B
- **Advantages:** Easy to assemble (no tube preparation or flaring required), built-in tube support, may be used w/ copper tubing by replacing nut, sleeve & insert w/ long nut & spherical sleeve, insert should be removed for copper tubing use
- **Conformances:** Meets SAE specifications & DOT FMVSS 571.106



Tube O.D.	B - Thread Size	Torque	A - Dimension
1/4	7/16 - 24	8.5 - 11.5in. lbs.	.085 / .105
3/8	17/32 - 24	12 - 17ft. lbs.	.125 / .145
1/2	11/16 - 20	25 - 33ft. lbs.	.100 / .120
5/8	13/16 - 18	26 - 35ft. lbs.	.115 / .135
3/4	1 - 18	38 - 50ft. lbs.	.180 / .200

Assembly Instructions:

- Cut tubing to desired length.
- Slide nut, then sleeve onto tubing. Threaded end of nut "A" must face toward fitting body.
- Insert tubing into pre-assembled fitting. Be sure tubing is bottomed in fitting.
- Tighten nut to required torque, as indicated on chart at right. Dimension A, also noted in chart, is another check for proper assembly. A gauge ring also assures installation to specification.

Disassembly Instructions:

- Remove nut & pull tubing out of fitting. Insert will remain in tubing.

Reassembly Instructions:

- Push tubing over insert into fitting body until it bottoms. Thread nut onto fitting body & torque as above.

Sleeve

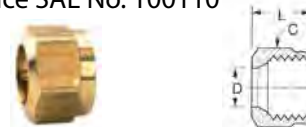
- Reference SAE No. 100115



Part Number	Tube O.D.	Dia. C	D	L
W-1460X4	1/4	.359	.256	.30
W-1460X6	3/8	.479	.384	.39
W-1460X8	1/2	.625	.509	.43
W-1460X10	5/8	.745	.635	.48
W-1460X12	3/4	.922	.760	.53

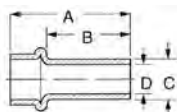
Nut

- Reference SAE No. 100110



Part Number	Tube O.D.	Hex C	D	L
W-1461X4	1/4	9/16	.256	.45
W-1461X6	3/8	5/8	.384	.63
W-1461X8	1/2	13/16	.509	.72
W-1461X10	5/8	15/16	.634	.77
W-1461X12	3/4	1-1/8	.760	.81

Insert (Brass)

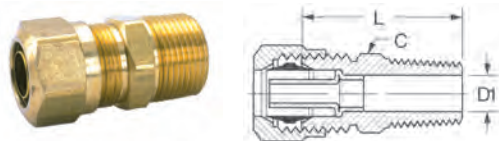


Part Number	Tube O.D.	A	B	C	D
W-1484X4	1/4	.64	.46	.163	.133
W-1484X6	3/8	.76	.58	.245	.215
W-1484X8	1/2	.94	.76	.370	.340
W-1484X10	5/8	1.06	.84	.434	.398
W-1484X12	3/4	1.21	1.00	.559	.523

D.O.T. Approved Air Brake - Nylon Tubing, cont'd

Male Connector

- Reference SAE No. 100102BA



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	L
W-1468X4X1	1/4	1/16	7/16	.125	.90
W-1468X4	1/4	1/8	7/16	.188	.88
W-1468X4X4	1/4	1/4	9/16	.188	1.09
W-1468X4X6	1/4	3/8	11/16	.188	1.12
W-1468X6X2	3/8	1/8	9/16	.188	1.02
W-1468X6	3/8	1/4	9/16	.312	1.20
W-1468X6X6	3/8	3/8	11/16	.312	1.23
W-1468X6X8	3/8	1/2	7/8	.312	1.42
W-1468X8X4	1/2	1/4	11/16	.312	1.32
W-1468X8	1/2	3/8	11/16	.406	1.32
W-1468X8X8	1/2	1/2	7/8	.406	1.51
W-1468X8X12	1/2	3/4	1-1/16	.406	1.57
W-1468X10X6	5/8	3/8	13/16	.406	1.38
W-1468X10	5/8	1/2	7/8	.531	1.57
W-1468X10X12	5/8	3/4	1-1/16	.750	1.63
W-1468X12	3/4	1/2	1	.531	1.67
W-1468X12X12	3/4	3/4	1-1/16	.660	1.70

Union

- Reference SAE No. 100101BA



Part Number	Tube O.D.	Hex C	L
W-1462X4	1/4	7/16	.85
W-1462X6	3/8	9/16	1.10
W-1462X8	1/2	11/16	1.31
W-1462X10	5/8	13/16	1.43
W-1462X12	3/4	1	1.60

Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales rep to find you exactly what you need.

90° Male Elbow

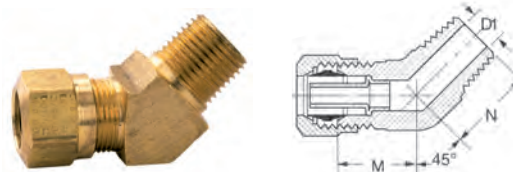
- Reference SAE No. 100202BA



Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1469X4	1/4	1/8	.188	.63	.67
W-1469X4X4	1/4	1/4	.312	.69	.88
W-1469X4X6	1/4	3/8	.406	.74	.87
W-1469X6X2	3/8	1/8	.188	.73	.75
W-1469X6	3/8	1/4	.312	.80	.93
W-1469X6X6	3/8	3/8	.406	.85	.92
W-1469X6X8	3/8	1/2	.531	.95	1.11
W-1469X8X4	1/2	1/4	.312	.87	1.00
W-1469X8	1/2	3/8	.406	.94	1.00
W-1469X8X8	1/2	1/2	.531	1.04	1.19
W-1469X10X6	5/8	3/8	.406	1.01	1.06
W-1469X10	5/8	1/2	.531	1.10	1.25
W-1469X10X12	5/8	3/4	.750	1.21	1.25
W-1469X12	3/4	1/2	.531	1.20	1.34

45° Male Elbow

- Reference SAE No. 100302BA



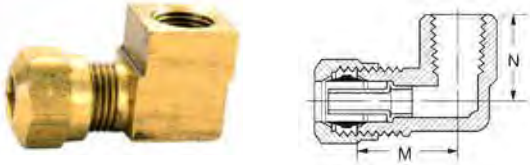
Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1480X4	1/4	1/8	.188	.50	.64
W-1480X4X4	1/4	1/4	.312	.61	.86
W-1480X6	3/8	1/4	.312	.72	.86
W-1480X6X6	3/8	3/8	.406	.76	.95
W-1480X8X4	1/2	1/4	.312	.85	.95
W-1480X8	1/2	3/8	.406	.85	.95
W-1480X8X8	1/2	1/2	.531	.88	1.17
W-1480X10	5/8	1/2	.531	.94	1.17

Always have the brass fitting you need when you order our Air Brake - Nylon Tubing Brass Kit (ABFK-36) on page 464. It has 192 pieces of sleeves, nuts, unions, male connectors & elbows, union tees & inserts in one spot.

D.O.T. Approved Air Brake - Nylon Tubing, cont'd

90° Female Elbow

- Reference SAE No. 100203BA



Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1470X4	1/4	1/8	.70	.54

Male Branch Tee

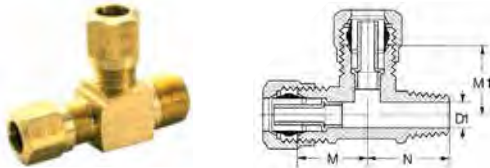
- Reference SAE No. 100425BA



Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1472X4	1/4	1/8	.188	.63	.63	.67
W-1472X6X4X4	3/8x1/4	1/4	.312	.80	.69	.93
W-1472X6	3/8	1/4	.312	.80	.80	.93
W-1472X6X6X6	3/8	3/8	.406	.85	.85	.92
W-1472X8X6X6	1/2x3/8	3/8	.406	.94	.85	1.0
W-1472X8X8X4	1/2	1/4	.312	.87	.87	1.0
W-1472X8	1/2	3/8	.406	.94	.94	1.0

Male Run Tee

- Reference SAE No. 100424BA



Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1471X4	1/4	1/8	.188	.64	.64	.67
W-1471X6X4X4	3/8x1/4	1/4	.312	.72	.69	.88
W-1471X6	3/8	1/4	.312	.80	.80	.93
W-1471X6X6X6	3/8	3/8	.406	.85	.85	.92

Female Branch Tee



Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1477X6	3/8	1/4	.90	.78
W-1477X10X10X4	5/8	1/4	1.04	.89

Female Connector

- Reference SAE No. 100103BA



Part Number	Tube O.D.	Female Pipe Thread	Hex C	L
W-1466X4	1/4	1/8	9/16	.85
W-1466X6	3/8	1/4	11/16	1.19
W-1466X6X6	3/8	3/8	7/8	1.19
W-1466X8	1/2	3/8	7/8	1.28

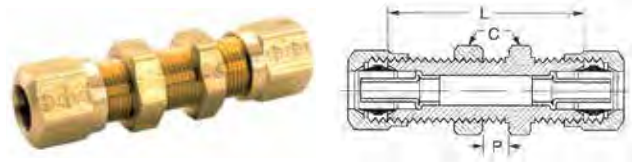
Union Tee

- Reference SAE No. 100401BA



Part Number	Tube O.D.	M	M1	M2
W-1464X4	1/4	.63	.63	.63
W-1464X6X6X4	3/8x3/8x1/4	.72	.72	.69
W-1464X6	3/8	.80	.80	.80
W-1464X8X8X6	1/2x1/2x3/8	.86	.86	.85
W-1464X8	1/2	.94	.94	.94

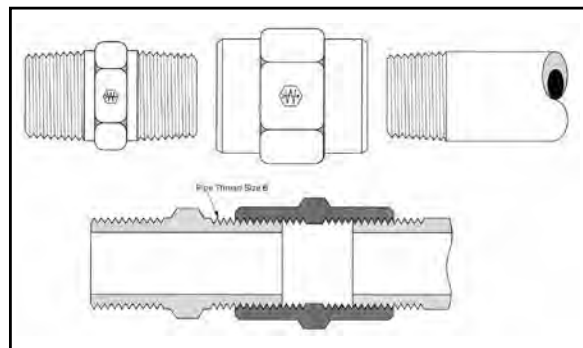
Bulkhead Union



Part Number	Tube O.D.	Hex C	L	Max P
W-1474X4	1/4	9/16	1.38	.25
W-1474X6	3/8	11/16	1.62	.25

Pipe

- **Typical Applications:** Grease, fuels, LP & natural gas (available as special order), refrigeration, instrumentation & hydraulic systems
- **Pressure:** Maximum operating pressure of 1200 psi
- **Vibration:** Fair resistance
- **Temperature range:** -65°F to 250°F
- **Material:** CA360 brass
- **Used with:** Brass, bronze & iron pipe
- **Advantages:** Dryseal pipe threads, large range of sizes & configurations
- **Conformances:** UL Listed (available as special order) for fuel equipment, refrigeration & gas. Meets ASA, ASME & SAE specifications



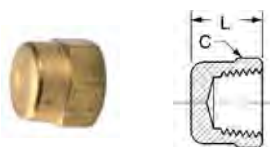
Pipe Size	Thread Size - B
1/16	1/16-27
1/8	1/8-27
1/4	1/4-18

Pipe Size	Thread Size - B
3/8	3/8-18
1/2	1/2-14
3/4	3/4-14

Assembly Instructions:

- Tighten approximately 2-1/2 turns past hand tight.
- Fittings w/ Seal-A-Thread tighten 2 turns past hand tight.
- Brittle materials require special cautions.

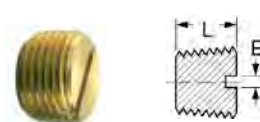
Cap



*PTF Short Thread

Part Number	Female Pipe Thread	Hex C	L
W-3129X2	1/8*	9/16	.50
W-3129X4	1/4*	11/16	.59
W-3129X6	3/8*	13/16	.68

Slotted Plug

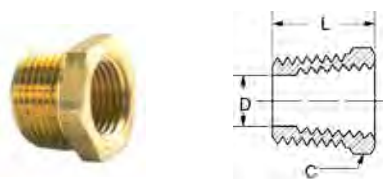


*PTF Short Thread

Part Number	Male Pipe Thread	E	L
W-3150X2	1/8*	.05	.28
W-3150X4	1/4*	.08	.42
W-3150X6	3/8*	.09	.43

Bushing

- Reference SAE No. 130140



*PTF Short Thread **Optional Counterbore

Part Number	Male Pipe Thread	Female Pipe Thread	Hex C	D	L
W-3220X4X2	1/4*	1/8	5/8	.339	.59
W-3220X6X2	3/8	1/8	11/16	.328	.75
W-3220X6X4	3/8*	1/4	11/16	.438	.69
W-3220X8X2	1/2*	1/8	7/8	.530**	.75
W-3220X8X4	1/2*	1/4	7/8	.438**	.75
W-3220X8X6	1/2*	3/8	7/8	.562	.75
W-3220X12X6	3/4*	3/8	1-1/8	.562	.88
W-3220X12X8	3/4*	1/2	1-1/8	.703	.88

Adapter

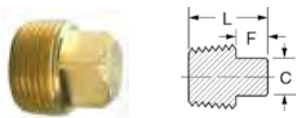
- Reference SAE No. 130139



Part Number	Female Pipe Thread	Male Pipe Thread	Hex C	D	L
W-3200X2	1/8	1/8	9/16	.219	.88
W-3200X4X2	1/4	1/8	3/4	.219	1.06
W-3200X4	1/4	1/4	3/4	.312	1.25
W-3200X6X4	3/8	1/4	7/8	.312	1.25
W-3200X6	3/8	3/8	7/8	.438	1.25
W-3200X8X6	1/2	3/8	1-1/16	.438	1.47
W-3200X12X6	3/4	3/8	1-1/4	.438	1.59
W-3200X12X8	3/4	1/2	1-1/4	.562	1.69

Pipe, cont'd

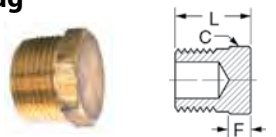
Square Head Plug



*PTF Short Thread

Part Number	Male Pipe Thread	Square C	F	L
W-3151X2	1/8*	.28	.24	.58
W-3151X4	1/4*	.37	.29	.74
W-3151X6	3/8*	.43	.32	.82
W-3151X8	1/2*	.56	.39	.99
W-3151X12	3/4*	.62	.43	1.12

Hex Head Plug



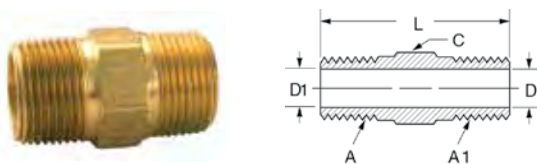
*PTF Short Thread

**PTF Special Short Thread

Part Number	Male Pipe Thread	Hex C	F	L
W-3152X2	1/8*	7/16	.19	.57
W-3152X4	1/4*	9/16	.18	.62
W-3152X6	3/8*	11/16	.22	.72
W-3152X8	1/2*	7/8	.22	.78
W-3152X12	3/4**	1-1/16	.25	.88

Hex Nipple

- Reference SAE No. 130137



*Optional Counterbore .312

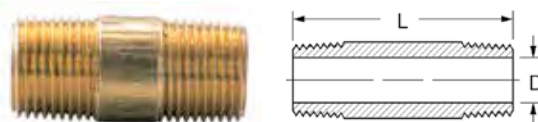
Part Number	Male Pipe Thread A	Male Pipe Thread A1	Hex C	D	D1	L
W-3325X1	1/16	1/16	3/8	.125	.125	.978
W-3325X2	1/8	1/8	7/16	.219	.219	.97
W-3325X2X1	1/8	1/16	7/16	.230	.156	.955
W-3325X4X2	1/4	1/8	9/16	.219	.219*	1.19
W-3325X4	1/4	1/4	9/16	.312	.312	1.38
W-3325X6X2	3/8	1/8	11/16	.219	.438	1.22
W-3325X6X4	3/8	1/4	11/16	.312	.438	1.41
W-3325X6	3/8	3/8	11/16	.438	.438	1.41
W-3325X8	1/2	1/2	7/8	.562	.562	1.81
W-3325X12	3/4	3/4	1-1/8	.750	.750	1.94

Close Nipple



Part Number	Male Pipe Thread	D	L
W-3326X2	1/8	.281	.75
W-3326X4	1/4	.375	.88
W-3326X6	3/8	.500	1.00
W-3326X8	1/2	.625	1.12
W-3326X12	3/4	.750	1.38

Long Nipple



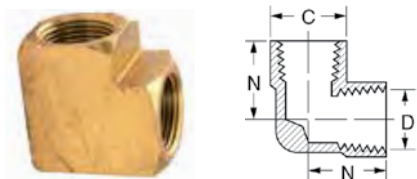
Part Number	Male Pipe Thread	D	L
W-3327X2	1/8	.281	1.50
W-3328X2	1/8	.281	2.00
W-3329X2	1/8	.281	2.50
W-3330X2	1/8	.281	3.00
W-3331X2	1/8	.281	3.50
W-3327X4	1/4	.375	1.50
W-3328X4	1/4	.375	2.00
W-3329X4	1/4	.375	2.50
W-3330X4	1/4	.375	3.00
3331X4	1/4	.375	3.50
W-3327X6	3/8	.480	1.50
W-3328X6	3/8	.490	2.00
W-3329X6	3/8	.480	2.50
W-3330X6	3/8	.480	3.00
3331X6	3/8	.480	3.50
W-3328X8	1/2	.625	2.00
W-3329X8	1/2	.625	2.50
W-3330X8	1/2	.625	3.00
3328X12	3/4	.750	2.00
W-3329X12	3/4	.750	2.50

Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales representative.

Pipe, cont'd

90° Female Elbow

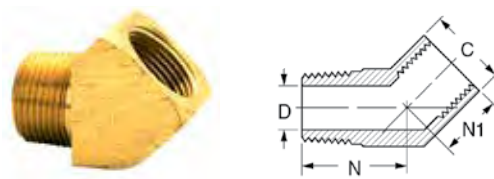
- Reference SAE No. 130238



Part Number	Female Pipe Thread	C	D	N
W-3500X2	1/8	9/16	.339	.55
W-3500X4	1/4	11/16	.438	.78
W-3500X6	3/8	13/16	.562	.84
W-3500X8	1/2	1	.703	1.09
W-3500X12	3/4	1-1/4	.906	1.16

45° Street Elbow

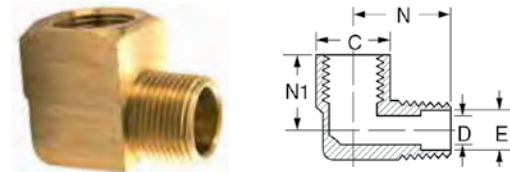
- Reference SAE No. 130339



Part Number	Male Pipe Thread	Female Pipe Thread	C	D	N	N1
W-3350X2	1/8	1/8	9/16	.219	.50	.38
W-3350X4	1/4	1/4	11/16	.312	.74	.56
W-3350X6	3/8	3/8	13/16	.438	.78	.56
W-3350X8	1/2	1/2	1	.562	1.00	.76
W-3350X12	3/4	3/4	1-1/4	.750	1.06	.75

90° Street Elbow

- Reference SAE No. 130239



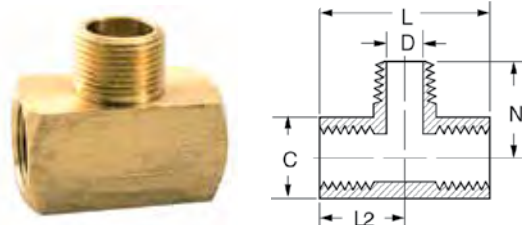
*PTF Short Thread **PTF Special Short Thread

Part Number	Male Pipe Thread	Female Pipe Thread	C	D	E	N	N1
W-3400X2	1/8	1/8	9/16	.219	.25	.66	.47
W-3400X2W	1/8**	1/8*	1/2	.188	.25	.57	.34
W-3400X4X2	1/8	1/4	11/16	.219	--	.72	.53
W-3400X4W	1/4**	1/4*	11/16	.266	.36	.78	.45
W-3400X4	1/4	1/4	11/16	.312	--	.91	.72
W-3400X6	3/8	3/8	13/16	.438	--	.97	.78
W-3400X8	1/2	1/2	1	.562	--	1.25	1.03
W-3400X12	3/4	3/4	1-1/4	.750	--	1.38	1.12

Due to popular demand, we now offer a variety of different Brass Pipe Fitting kits. See page 464 for details on all of our assortments.

Male Branch Tee

- Reference SAE No. 130425



Part Number	Male Pipe Thread	Female Pipe Thread	C	D	L	N	L2
W-3600X2	1/8	1/8	9/16	.219	1.10	.66	.55
W-3600X4	1/4	1/4	11/16	.312	1.56	.91	.78
W-3600X6	3/8	3/8	13/16	.438	1.68	.97	.84
W-3600X8	1/2	1/2	1	.562	2.18	1.25	1.09
W-3600X12	3/4	3/4	1-1/4	.750	2.31	1.38	1.16

Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales representative.

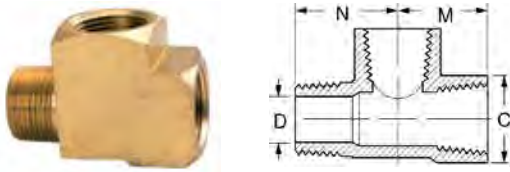
Brass Fitting Sizing Chart						
Use the abbreviations in the chart to determine the size of your brass connector based on the part number.						
Abbreviation	Size	Abbreviation	Size	Abbreviation	Size	
	1	1/16"	6	3/8"	12	3/4"
	2	1/8"	8	1/2"	16	1"
	4	1/4"	10	5/8"	20	1-1/4"

EX: W-1869 X 6 X 2
6 = 3/8" & 2 = 1/8"

Pipe, cont'd

Male Run Tee

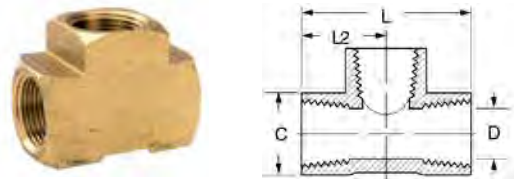
- Reference SAE No. 130424



Part Number	Male Pipe Thread	Female Pipe Thread	C	D	M	N
W-3750X2	1/8	1/8	9/16	.219	.55	.66
W-3750X4	1/4	1/4	11/16	.312	.78	.90
W-3750X6	3/8	3/8	13/16	.438	.84	.97
W-3750X8	1/2	1/2	1	.562	1.09	1.25
W-3750X12	3/4	3/4	1-1/4	.750	1.16	1.38

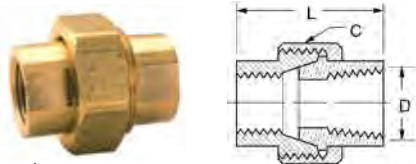
Tee

- Reference SAE No. 130438



Part Number	Female Pipe Thread	C	D	L	L2
W-3700X2	1/8	9/16	.339	1.10	.55
W-3700X4	1/4	11/16	.438	1.56	.78
W-3700X6	3/8	13/16	.562	1.68	.84
W-3700X8	1/2	1	.703	2.18	1.09
W-3700X12	3/4	1-1/4	.906	2.32	1.16

Union



*PTF Short Thread

Part Number	Female Pipe Thread	Hex C	D	L
W-3250X4	1/4*	1-1/16	.438	1.31
W-3250X8	1/2	1-9/16	.703	1.81

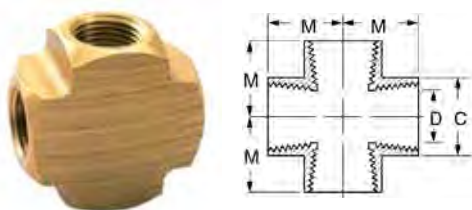
Coupling

- Reference SAE No. 130138



Part Number	Female Pipe Thread	Hex C	D	L
W-3300X1	1/16	7/16	.339	.75
W-3300X2	1/8	9/16	.339	.75
W-3300X4	1/4	3/4	.438	1.12
W-3300X6	3/8	7/8	.578	1.12
W-3300X8	1/2	1-1/16	.703	1.50
W-3300X12	3/4	1-1/4	.906	1.94

Cross



Part Number	Female Pipe Thread	C	D	M
W-3950X2	1/8	1/2	.339	.50
W-3950X4	1/4	11/16	.438	.75
W-3950X6	3/8	7/8	.562	.81
W-3950X8	1/2	1	.703	1.09

Reducer Coupling

- Reference SAE No. 130138



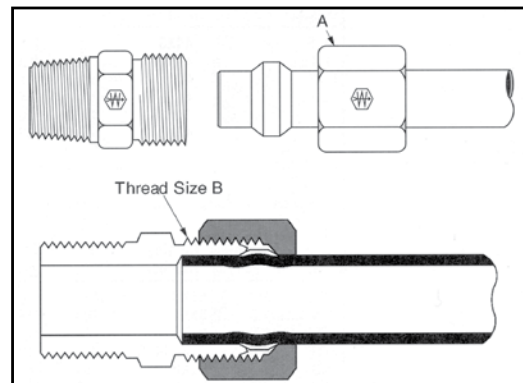
Part Number	Female Pipe Thread A	Female Pipe Thread A1	Hex C	D	L
W-3300X4X2	1/4	1/8	3/4	.339	.96
W-3300X6X2	3/8	1/8	7/8	.339	.94
W-3300X6X4	3/8	1/4	7/8	.438	1.19
W-3300X8X6	1/2	3/8	1-1/16	.562	1.38

Compression

- **Typical Applications:** Instrumentation, hydraulic & pneumatic systems
- **Pressure:** Maximum operating pressure of 2000 psi w/ a 4:1 safety factor depending on tube size. When using plastic tubing, use the working pressure for type used.
- **Vibration:** Fair resistance, use long nut when greater vibration resistance is needed
- **Temperature range:** -65°F to 250°F
- **Material:** CA360 brass
- **Used with:** Aluminum, copper & plastic tubing. Plastic tubing, except for PT230 requires 2030X insert. Not recommended for steel tubing.
- **Advantages:** Low cost, easy to assemble, no flaring, available w/ long or short nut, broad selection of styles & sizes
- **Conformances:** UL Listed (available as special order) for flammable liquids, meets ASA, ASME & SAE specifications

Assembly Instructions:

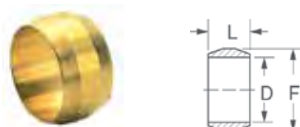
- Cut tubing to desired length
- Slide nut, then sleeve on tube. Threaded end "A" of nut must face toward fitting.
- Insert tubing into fitting body. Be sure tubing is bottomed on fitting shoulder.
- Lubricate threads & assemble nut to fitting body.
- Tighten nut hand tight. From that point, tighten nut w/ a wrench the number of turns indicated in the chart to the right. **DO NOT OVER TIGHTEN.**



Tube O.D.	Thread Size - B	Wrench Turn From Hand Tight
1/8	5/16 - 24	
3/16	3/8 - 24	1-1/4
1/4	7/16 - 24	
5/16	1/2 - 24	1-3/4
3/8	9/16 - 24	
7/16	5/8 - 24	
1/2	11/16 - 20	
5/8	13/16 - 18	2-1/4
3/4	1-18	
1	1-1/4 - 18	

Compression Sleeve

- Reference SAE No. 060115



Part Number	Tube O.D.	D	F	L
W-60X2	1/8	.13	.19	.19
W-60X3	3/16	.19	.27	.22
W-60X4	1/4	.26	.34	.25
W-60X5	5/16	.32	.41	.25
W-60X6	3/8	.38	.47	.25
W-60X7	7/16	.44	.53	.31
W-60X8	1/2	.51	.59	.38
W-60X10	5/8	.63	.72	.38

Nut

- Reference SAE No. 060110



Part Number	Tube O.D.	C	D	L
W-61X2	1/8	3/8	.13	.38
W-61X3	3/16	7/16	.19	.41
W-61X4	1/4	1/2	.26	.44
W-61X5	5/16	9/16	.32	.44
W-61X6	3/8	5/8	.38	.47
W-61X7	7/16	11/16	.44	.50
W-61X8	1/2	13/16	.51	.62
W-61X10	5/8	15/16	.63	.62

Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales rep to find you exactly what you need.

Compression, cont'd

Tube Support For Plastic Tubing

- Use only w/ PT200 & PT240 tubing



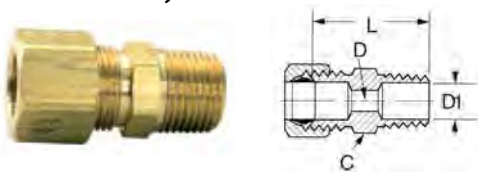
*For tubing w/ .126 I.D. / .062 wall thickness

**For tubing w/ .170 I.D. / .040 wall thickness

Part Number	Tube O.D.	A	B	C	D
W-2030X4*	1/4	1/8	3/32	11/64	19/32
W-2030X44**	1/4	11/64	9/64	7/32	17/32
W-2030X5	5/16	3/16	5/32	15/64	5/8
W-2030X6	3/8	1/4	7/32	11/32	41/64
W-2030X8	1/2	3/8	11/32	7/16	13/16
W-2030X10	5/8	1/2	29/64	35/64	13/16
W-2030X12	3/4	9/16	33/64	11/16	1-1/32

Male Connector

- Reference SAE No. 060102BA
- For assembly w/ long nut, use W-168X
- Other counter bore (D1) options are available by special order only



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D	L
W-68X2X1	1/8	1/16	3/8	.094	.78
W-68X2	1/8	1/8	7/16	.094	.78
W-68X3	3/16	1/8	7/16	.125	.84
W-68X4	1/4	1/8	7/16	.188	.88
W-68X4X4	1/4	1/4	9/16	.188	1.06
W-68X5	5/16	1/8	1/2	.250	.91
W-68X5X4	5/16	1/4	9/16	.250	1.09
W-68X6X2	3/8	1/8	9/16	.312	.97
W-68X6	3/8	1/4	9/16	.312	1.17
W-68X6X6	3/8	3/8	11/16	.312	1.16
W-68X6X8	3/8	1/2	7/8	.312	1.34
W-68X8X4	1/2	1/4	11/16	.406	1.22
W-68X8	1/2	3/8	11/16	.406	1.22
W-68X8X8	1/2	1/2	7/8	.406	1.41
W-68X10	5/8	1/2	7/8	.500	1.50

Female Connector

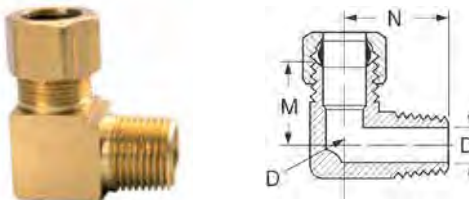
- Reference SAE No. 060103BA
- For assembly w/ long nut, use W-166X



Part Number	Tube O.D.	Female Pipe Thread	Hex C	D	L
W-66X2	1/8	1/8	9/16	.094	.75
W-66X3	3/16	1/8	9/16	.125	.78
W-66X4	1/4	1/8	9/16	.188	.78
W-66X4X4	1/4	1/4	11/16	.188	1.03
W-66X5	5/16	1/8	9/16	.250	.81
W-66X6X2	3/8	1/8	9/16	.312	.84
W-66X6	3/8	1/4	11/16	.312	1.06
W-66X8	1/2	3/8	13/16	.406	1.12

90° Male Elbow

- Reference SAE No. 060202BA
- For assembly w/ long nut, use W-169X



Part Number	Tube O.D.	Male Pipe Thread	D	D1	M	N
W-69X2X1	1/8	1/16	.104	.125	.54	.66
W-69X2	1/8	1/8	.094	.219	.60	.67
W-69X3	3/16	1/8	.125	.219	.62	.69
W-69X4	1/4	1/8	.188	.219	.62	.75
W-69X4X4	1/4	1/4	.188	.188	.62	.75
W-69X5	5/16	1/8	.250	.234	.62	.75
W-69X5X4	5/16	1/4	.250	.312	.69	.84
W-69X6X2	3/8	1/8	.312	.234	.69	.69
W-69X6	3/8	1/4	.312	.344	.75	.94
W-69X6X6	3/8	3/8	.312	.438	.84	.94
W-69X6X8	3/8	1/2	.312	.531	1.06	1.12
W-69X8X4	1/2	1/4	.406	.312	.84	.94
W-69X8	1/2	3/8	.406	.406	.94	1.12
W-69X8X8	1/2	1/2	.406	.531	.94	1.31
W-69X10	5/8	1/2	.500	.562	1.06	1.31

Compression, cont'd

Union

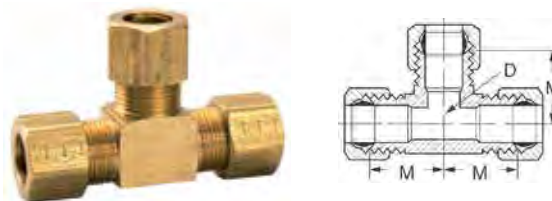
- Reference SAE No. 060101BA
- For assembly w/ long nut, use W-162X



Part Number	Tube O.D.	Hex C	D	L
W-62X2	1/8	5/16	.094	.66
W-62X3	3/16	3/8	.125	.76
W-62X4	1/4	7/16	.188	.79
W-62X5	5/16	1/2	.250	.88
W-62X6	3/8	9/16	.312	.97
W-62X8	1/2	11/16	.406	1.10
W-62X10	5/8	13/16	.500	1.25

Union Tee

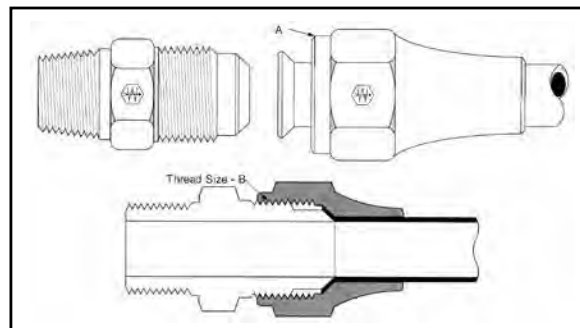
- Reference SAE No. 060401BA
- For assembly w/ long nut, use W-164X



Part Number	Tube O.D.	D	M
W-64X3	3/16	.125	.60
W-64X4	1/4	.188	.62
W-64X5	5/16	.250	.60
W-64X6	3/8	.312	.73
W-64X8	1/2	.406	.94

SAE 45° Flare

- **Typical Applications:** LP & natural gas, flammable liquids, instrumentation, refrigeration, power steering, hydraulic & pneumatic systems
- **Pressure:** Working pressure up to 2000 psi depending on tube size. Will withstand burst pressure of standard tubing, up to 5000 psi w/ body-weld (double flared) & 3500 psi w/ copper tubing, depending on size
- **Vibration:** Good resistance, use long nut when greater vibration resistance is needed
- **Temperature range:** -65°F to 250°F
- **Material:** CA360 brass
- **Used with:** Copper, brass, aluminum & steel hydraulic tubing that can be flared
- **Advantages:** Low cost, reusability w/ long or short nut, good resistance to vibration
- **Conformances:** UL Listed (available as special order) for flammable liquids, refrigeration & gas. Meets ASA, ASME, SAE & MS specifications



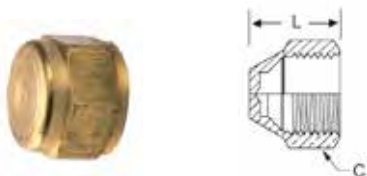
Assembly Instructions:

- Cut tubing to desired length. Make sure burrs are removed & ends are cut square.
- Slide nut on tube. Threaded end "A" of nut must face out.
- Flare end of tube with a 45° flaring tool. Measure flare diameter. Examine flare for excessive thin out.
- Lubricate threads & assemble to fitting body. Nut should be turned hand tight.
- Tighten assembly with a wrench until a solid feeling is encountered. From that point, apply a one-sixth turn. **Do not over torque as it may damage the fitting or split the tubing at the flare.**

Tube O.D.	Thread Size - B
1/8	5/16 - 24
3/16	3/8 - 24
1/4	7/16 - 20
5/16	1/2 - 20
3/8	5/8 - 18
7/16	11/16 - 16
1/2	3/4 - 16
5/8	7/8 - 14
3/4	1-1/16 - 14

SAE 45° Flare, cont'd

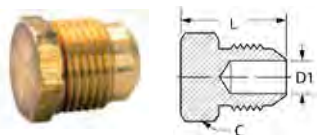
Cap



Part Number	Tube O.D.	Hex C	L
W-40X2	1/8	7/16	.40
W-40X3	3/16	1/2	.47
W-40X4	1/4	7/16	.53
W-40X5	5/16	5/8	.62
W-40X6	3/8	3/4	.69
W-40X8	1/2	7/8	.84
W-40X10	5/8	1-1/16	.97
W-40X12	3/4	1-5/16	1.09

Plug

- Reference SAE No. 010109
- Other counter bore (D1) options are available by special order only



Part Number	Tube O.D.	Hex C	L
W-39X2	1/8	5/16	.47
W-39X3	3/16	3/8	.58
W-39X4	1/4	7/16	.69
W-39X5	5/16	1/2	.79
W-39X6	3/8	5/8	.88
W-39X8	1/2	3/4	1.06
W-39X10	5/8	7/8	1.19
W-39X12	3/4	1-1/16	1.31

Long Nut

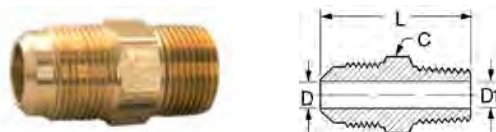
- Reference SAE No. 010111



Part Number	Tube O.D.	Hex C	D	L
W-41X3	3/16	7/16	.195	.81
W-41X4	1/4	9/16	.258	.94
W-41X5	5/16	5/8	.320	1.12
W-41X6	3/8	3/4	.383	1.31
W-41X8	1/2	7/8	.508	1.62

Male Connector

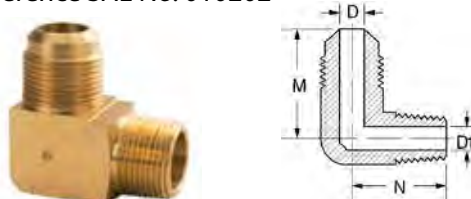
- Reference SAE No. 010102



Part Number	Tube O.D.	Male Pipe Thread	Hex C	D	D1	L
W-48X2	1/8	1/8	7/16	.078	.219	.90
W-48X3	3/16	1/8	7/16	.125	.219	1.00
W-48X4	1/4	1/8	7/16	.188	.188	1.06
W-48X4x4	1/4	1/4	9/16	.188	.188	1.26
W-48X5	5/16	1/8	1/2	.219	.219	1.16
W-48X5x4	5/16	1/4	9/16	.219	.219	1.34
W-48X6x2	3/8	1/8	5/8	.281	.219	1.25
W-48X6	3/8	1/4	5/8	.281	.281	1.44
W-48X6x6	3/8	3/8	11/16	.281	.281	1.44
W-48X6x8	3/8	1/2	7/8	.281	.562*	1.69
W-48X8x4	1/2	1/4	3/4	.406	.312	1.62
W-48X8	1/2	3/8	3/4	.406	.406	1.62
W-48X8x8	1/2	1/2	7/8	.406	.562	1.81
W-48X10x6	5/8	3/8	7/8	.500	.406	1.81
W-48X10	5/8	1/2	7/8	.500	.500	2.00
W-48X12	3/4	1/2	1-1/16	.625	.562	2.18
W-48X12x12	3/4	3/4	1-1/16	.625	.625	2.18

90° Male Elbow

- Reference SAE No. 010202

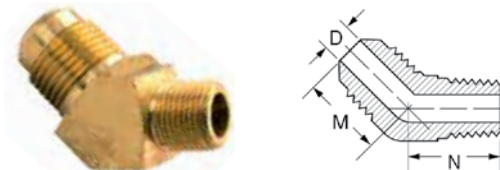


Part Number	Tube O.D.	Male Pipe Thread	D	D1	M	N
W-49X4	1/4	1/8	.188	.219	.81	.76
W-49X4X4	1/4	1/4	.188	.312	.88	.94
W-49X4X6	1/4	3/8	.188	.375	.94	1.03
W-49X5	5/16	1/8	.219	.219	.91	.78
W-49X6	3/8	1/4	.281	.312	.97	1.06
W-49X6X6	3/8	3/8	.281	.406	1.06	1.09
W-49X6X8	3/8	1/2	.281	.438	1.16	1.28
W-49X8	1/2	3/8	.406	.406	1.22	1.12
W-49X10	5/8	1/2	.500	.562	1.41	1.38
W-49X12X12	3/4	3/4	.625	.750	1.59	1.62

SAE 45° Flare, cont'd

45° Male Elbow

- Reference SAE No. 010302



Part Number	Tube O.D.	Male Pipe Thread	D	M	N
W-54X4	1/4	1/8	.188	.67	.64
W-54X4X4	1/4	1/4	.188	.73	.87
W-54X5	5/16	1/8	.219	.78	.64
W-54X6	3/8	1/4	.281	.89	.86
W-54X8	1/2	3/8	.406	1.06	.95
W-54X8X8	1/2	1/2	.406	1.12	1.17
W-54X10	5/8	1/2	.500	1.23	1.17
W-54X10X6	5/8	3/8	.500	1.23	.98

Union

- Reference SAE No. 010101



Part Number	Tube O.D.	Hex C	D	L
W-42X3	3/16	3/8	.125	1.06
W-42X4	1/4	7/16	.188	1.19
W-42X5	5/16	1/2	.219	1.34
W-42X6	3/8	5/8	.281	1.50
W-42X8	1/2	3/4	.406	1.81
W-42X10	5/8	7/8	.500	2.12

Rubber Hose Air Brake Fittings

Hose Nut



Part Number	Hose Size
990038	3/8
990012	1/2

Hose Sleeve



Part Number	Hose Size
993610	3/8
993801	1/2

Female Swivel With Adapter



With Adapter Part Number	Hose Size	Pipe Size	Straight Thread
7726293	3/8	1/4	3/4 - 20
7733808	3/8	3/8	3/4 - 20
7733608	3/8	1/2	3/4 - 20
7733882	1/2	3/8	7/8 - 20
7733809	1/2	1/2	7/8 - 20

Female Swivel (Body Only)



Part Number	Hose Size	Pipe Size	Straight Thread
773800IS	3/8	3/8	3/4 - 20
771200IS	1/2	1/2	3/4 - 20

Female Swivel Without Adapter



Part Number	Hose Size	Straight Thread
7726292	3/8	3/4 - 20
7733881	1/2	3/4 - 20

Adapter



Part Number	Hose Size	Pipe Size	Straight Thread
A64	3/8	1/4	3/4 - 20
A66	3/8	3/8	3/4 - 20
A68	3/8	1/2	3/4 - 20
A86	1/2	3/8	7/8 - 20
A88	1/2	1/2	7/8 - 20

Rubber Hose Air Brake Fittings are used with the Rubber Air Brake Hose located on page 349.

Rubber Hose Air Brake Fittings, cont'd

Male Connector

Complete



Body Only



Complete Part Number	Body Only Part Number	Hose Size	Pipe Size
883814	993814	3/8	1/4
883838	993838	3/8	3/8
883812	993812	3/8	1/2
881238	991238	1/2	3/8
881212	991212	1/2	1/2

Male Connector With Spring Guard



Part Number	Hose Size	Pipe Size
883814S	3/8	1/4
883838S	3/8	3/8
883812S	3/8	1/2
881238S	1/2	3/8
881212S	1/2	1/2

Spring Guard



Guard w/ Nut Part Number	Guard Only Part Number	Nut Only Part Number	Hose Size
99S3800	991045	990038S	3/8
99S1200	993804	990012S	1/2

Union

Complete



Body Only



Complete Part Number	Body Only Part Number	Hose Size	Straight Thread
770038	770038I	3/8	3/4 - 20
770012	770012I	1/2	3/4 - 20

Air Brake Hose End Kits

Nylon & Brass Repair Kit

- Meets the requirements of DOT 106 & SAE J1402
- Swivel ends reduce residual torque for longer life- no need to disconnect both ends to service brake system
- Components in contact with the air are made of corrosion resistant brass & nylon



Part Number	Description
31402	2 end fittings: 3/8" NPT female
31403	2 end fittings: 1/2" NPT female
31410	One 3/8" end fitting + 1/4" NPTF adaptor + 1/2" NPTF reducer and a 3/8" x 3/8" NPTF coupler

All Brass Air Break Hose Ends Repair Kit for 1/2" Rubber Hose

- Made in the USA
- Durable all-brass construction
- Meets DOT 106 & SAE J1402 requirements
- Features pre-applied thread sealant and greased barbs
- One pack will repair two damaged 1/2" rubber air brake lines



Part Number	Description
431408	3/8" NPTF brass quick-fix kit
431410	1/2" NPTF brass quick-fix kit

Air Couplers & Plugs

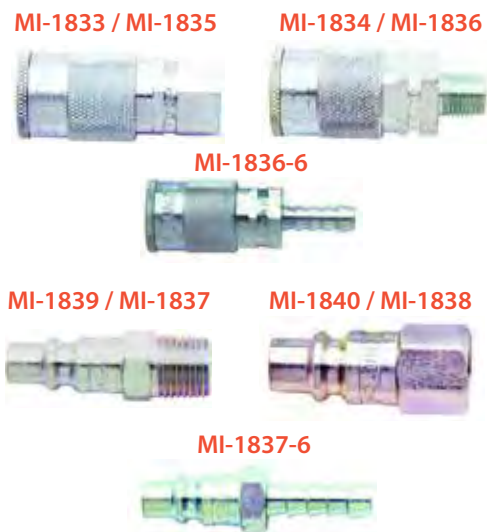
M-Style Industrial Interchange Series - 1/4" Basic Size



	Part Number	Connection
Couplers	MI-715	1/4" NPT female
	MI-716	1/4" NPT male
	MI-718	3/8" NPT female
	MI-719	3/8" NPT male
	MI-717	1/4" hose barb
	MI-717-6	3/8" hose barb
	MI-1717-4	1/4" push-on & lock hose barb
Plugs	MI-1717-6	3/8" push-on & lock hose barb
	MI-728	1/4" NPT female
	MI-727	1/4" NPT male
	MI-732	3/8" NPT female
	MI-733	3/8" NPT male
	MI-736	1/4" hose barb
	MI-736-6	3/8" hose barb
Plugs	MI-1736-4	1/4" push-on & lock hose barb
	MI-1736-6	3/8" push-on & lock hose barb

- Couplers & plugs interchange with manufacturers who comply with dimensional requirements of MIL-C-4109
- Coupler bodies are brass with brass sleeves
- Hose barb couplers have case hardened steel drag guard
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 40 SCFM
- **WARNING:** for use with shop air only

H-Style Industrial Interchange Series - 3/8" Basic Size



	Part Number	Connection
Couplers	MI-1833	1/4" NPT female
	MI-1834	1/4" NPT male
	MI-1835	3/8" NPT female
	MI-1836	3/8" NPT male
	MI-1836-6	3/8" hose barb
	Plugs	MI-1840
MI-1839		1/4" NPT male
MI-1838		3/8" NPT female
MI-1837		3/8" NPT male
MI-1837-6		3/8" hose barb

- Coupler bodies are steel, plated to resist rust
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 67 SCFM
- **WARNING:** for use with shop air only

Get a variety of different plugs and couplers, sizes 1/4", 3/8" & 1/2", when you order our Milton Air Coupler Kit (#MILAC-KIT).

Air Couplers & Plugs, cont'd

P-Style Tru-Flate / Parker Interchange Series - 3/8" Basic Size

MI-1803 / MI-1805



MI-1804 / MI-1806



MI-1810 / MI-1808



MI-1809 / MI-1807

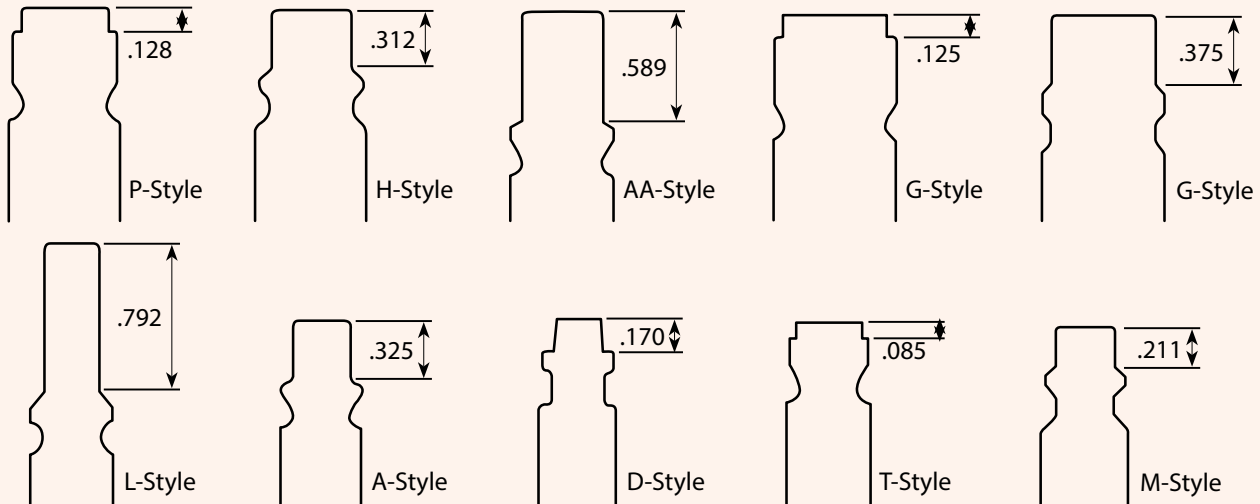


	Part Number	Connection
Couplers	MI-1803	1/4" NPT female
	MI-1804	1/4" NPT male
	MI-1805	3/8" NPT female
	MI-1806	3/8" NPT male
Plugs	MI-1810	1/4" NPT female
	MI-1809	1/4" NPT male
	MI-1807	3/8" NPT male

- Coupler bodies are heavy duty steel
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 68 SCFM
- **WARNING:** for use with shop air only

How To Identify an Unknown Plug Style

The drawings below are true to size. To identify the type of plug you have, just lay your plug on top of the drawing to see which one is the same. Although we only show four styles (P, H, G & M), all of those below are available, just contact your sales rep or customer service for more info. Minimums may apply.



G-Style Industrial Interchange Series - 1/2" Basic Size

MI-1813 / MI-1815



MI-1814 / MI-1816



MI-1860 / MI-1858



MI-1859 / MI-1857



	Part Number	Connection
Couplers	MI-1813	3/8" NPT female
	MI-1814	3/8" NPT male
	MI-1815	1/2" NPT female
	MI-1816	1/2" NPT male
Plugs	MI-1860	3/8" NPT female
	MI-1859	3/8" NPT male
	MI-1857	1/2" NPT male

- Coupler bodies are steel, plated to resist rust
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 99 SCFM
- **WARNING:** for use with shop air only

Air Couplers & Plugs, cont'd

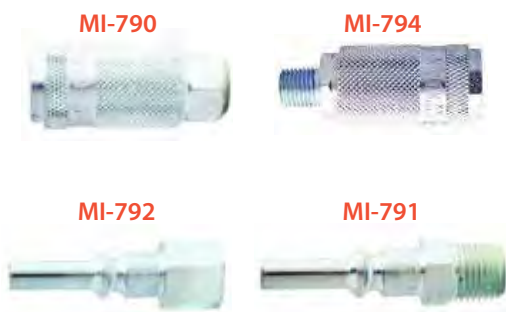
T-Style Industrial Interchange Series - 1/4" Basic Size



	Part Number	Connection
Couplers	MI-785	1/4" NPT female
	MI-786	1/4" NPT male
	MI-788	3/8" NPT female
	MI-789	3/8" NPT male
	MI-786-6	3/8" hose barb
	Plugs	MI-784
MI-783		1/4" NPT male
MI-783-6		3/8" hose barb

- Coupler bodies are brass
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 40 SCFM
- **WARNING:** for use with shop air only

L-Style Industrial Interchange Series - 1/4" Basic Size



	Part Number	Connection
Couplers	MI-790	1/4" NPT female
	MI-794	1/4" NPT male
Plugs	MI-792	1/4" NPT female
	MI-791	1/4" NPT male

- Coupler bodies are steel, plated to resist rust
- Plugs are case hardened steel, plated to resist rust
- Seals are BUNA-N
- Max inlet pressure: 300 PSI
- Max temp: 250°F
- Air flow: 32 SCFM
- **WARNING:** for use with shop air only

Valve Cap Covers



Part Number	TR Number	Description	Thread Size	Fig.
MI-439	TR-VC8	Dome shape, standard valve cap	.305-32 Thread	A
MI-437	TR-VC2	Screwdriver type	.305-32 Thread	B
MI-434	N/A	Knurled cap, heat resistant sealing washer	.305-32 Thread	C

Drain Cocks

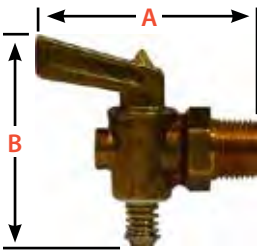
Self Sealing Air Tank Drain Valve w/ Pull Cable



- For use with low pressure air, water & fluids
- Designed for working pressure of 150° PSI @ 250°F
- Not intended for natural gas, LPG, nuclear or aircraft applications

Part Number	Size	Description
MM-39-595	1/4" male	Air valve w/ 5ft. nylon coated pull cable
MM-39-596	1/4" male	Air valve w/ 4ft. nylon coated pull cable
MM-39-597	1/4" male	Air valve w/ 3ft. nylon coated pull cable
MM-39-600	1/4" male	Air valve only

Lever Handle

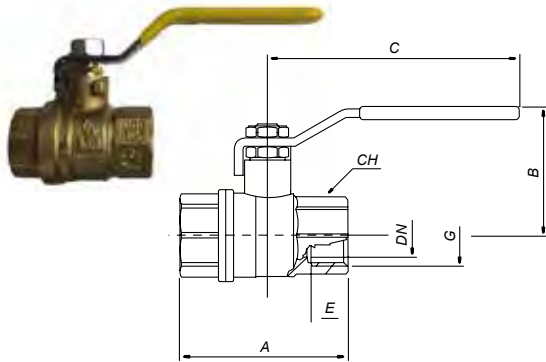


- For use w/ low pressure air, water & fluids
- Designed for working pressure of 150° psi @ 250°F
- Hand tightening provides a metal to metal seal
- Not intended for natural gas, LPG, nuclear or aircraft applications

Part Number	Male Pipe	A	B	Hex
MM-46-070	1/8	1.99	1.80	0.62
MM-46-071	1/4	2.06	1.81	0.62
MM-46-072	3/8	2.30	2.29	0.81
MM-46-073	1/2	3.00	2.50	0.87

Full Port 600WOG Forged Brass Ball Valve

- Approvals: CSA 5 PSIG; UL-842, UL-258, UL125, FM
- 1/4" to 2" rated 600 psi non-shock cold water, gas, oil & 150 psi saturated steam
- Virgin TFE stem packing seal, thrust washer & seats
- Operating temp: -22° to 302°F
- Hard chromium plated brass ball
- Adjustable stem packing gland
- Threaded ends to ANSI B1.20.1
- Bottom entry, blow-out proof stem



Part Number	Size G	DN	A	B	C	E	CH
MM-940-171	1/4	.39	1.75	1.27	3.54	.46	.78
MM-940-172	3/8	.41	1.75	1.27	3.54	.46	.78
MM-940-173	1/2	.58	2.05	1.92	3.54	.52	.98
MM-940-174	3/4	.75	2.36	2.08	3.78	.56	1.20
MM-940-175	1	.94	3.75	2.56	4.52	.66	1.50
MM-940-176	1-1/4	1.26	3.30	2.95	4.52	.70	1.82
MM-940-177	1-1/2	1.57	3.66	3.34	5.51	.72	2.09
MM-940-178	2	1.97	4.18	3.68	5.51	.74	2.62

Terminal Supply also stocks many other different types of valves. Some of the types are listed below. For more information on these, please contact your sales rep or customer service.

Gas ball valves	Needle valves	High pressure check valves	6 port valves
Stainless steel ball valves	Toggle shut-off valves	Brass check valves	Solid bottom valves
Side outlet 3-way ball valves	3 & 4-way selector valves	Micro-metering valves	Brass truck valves

Steel Pipe Fittings

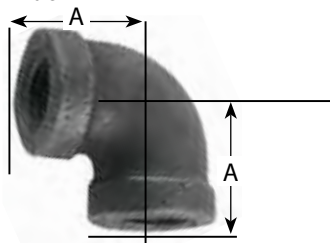
- Made of black welded steel
- Product complies with ASTM A-53, A-733 & ANSI B1.20.1 for threading, dimensions & pipe
- Pipe complies with ASTM A-53 milltested schedule 40 & 80, meets ANSI B36.1, all pipe is hydrostatic tested
- Many more sizes available. Please contact customer service or your local sales rep for more details.

Merchant Couplings



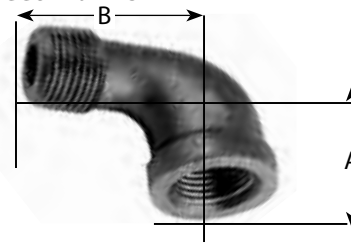
Black Part Number	Size (inches)
MM-65-770	1/8
MM-65-771	1/4
MM-65-772	3/8
MM-65-773	1/2
MM-65-774	3/4
MM-65-775	1

90° Elbows



Black Part Number	Size (inches)	A (inches)
MM-65-100	1/8	.69
MM-65-101	1/4	.81
MM-65-102	3/8	.95
MM-65-103	1/2	1.12
MM-65-104	3/4	1.31
MM-65-105	1	1.50

90° Street Elbows



Black Part Number	Size (inches)	A (inches)	B (inches)
MM-65-160	1/8	.69	1.00
MM-65-161	1/4	.80	1.17
MM-65-162	3/8	.95	1.48
MM-65-163	1/2	1.10	1.59
MM-65-164	3/4	1.28	1.85
MM-65-165	1	1.47	2.10

Steel Nipples



Black Part Number	Size (inches)	A (inches)
MM-57-020	7/8	1/4
MM-57-021	1-1/2	
MM-57-022	2	
MM-57-023	2-1/2	
MM-57-024	3	
MM-57-040	1	3/8
MM-57-041	1-1/2	
MM-57-042	2	
MM-57-043	2-1/2	
MM-57-044	3	
MM-57-045	3-1/2	
MM-57-046	4	
MM-57-047	4-1/2	1/2
MM-57-048	5	
MM-57-049	5-1/2	
MM-57-050	6	
MM-57-060	1-1/8	
MM-57-061	1-1/2	
MM-57-062	2	
MM-57-063	2-1/2	

Black Part Number	Size (inches)	A (inches)
MM-57-064	3	1/2
MM-57-065	3-1/2	
MM-57-066	4	
MM-57-067	4-1/2	
MM-57-068	5	
MM-57-069	5-1/2	3/4
MM-57-070	6	
MM-57-080	1-3/8	
MM-57-081	1-1/2	
MM-57-082	2	
MM-57-083	2-1/2	
MM-57-084	3	
MM-57-085	3-1/2	1
MM-57-086	4	
MM-57-087	4-1/2	
MM-57-088	5	
MM-57-089	5-1/2	
MM-57-090	6	
MM-57-101	2	
MM-57-103	3	

Black Part Number	Size (inches)	A (inches)
MM-57-105	4	1
MM-57-109	6	
MM-57-111	8	
MM-57-113	10	
MM-57-115	12	

Caps



Black Part Number	Size (inches)	A (inches)
MM-65-472	3/8	.62
MM-65-473	1/2	.74
MM-65-474	3/4	.87
MM-65-475	1	.97

Brass Hose Barb Fitting

- **Temperature & working pressure range:**
-40° to 160°F @ 150 psi maximum

Note: These fittings are intended for use with a hose clamp. See the Securing Products section of the TSC Catalog

Splices/Menders



Part Number	Hose ID	Part Number	Hose ID
MM-32-091	1/8"	MM-32-095	3/8"
MM-32-092	3/16"	MM-32-096	1/2"
MM-32-093	1/4"	MM-32-097	5/8"
MM-32-094	5/16"	MM-32-098	3/4"

Rigid Male Adapters



Part Number	Hose ID	Male Pipe Thread NPTF	Part Number	Hose ID	Male Pipe Thread NPTF	Part Number	Hose ID	Male Pipe Thread NPTF
MM-32-001	1/8"	1/8"	MM-32-009	5/16"	1/4"	MM-32-017	1/2"	1/2"
MM-32-002	3/16"	1/8"	MM-32-010	5/16"	3/8"	MM-32-018	1/2"	3/4"
MM-32-003	3/16"	1/4"	MM-32-011	3/8"	1/8"	MM-32-019	5/8"	3/8"
MM-32-004	1/4"	1/8"	MM-32-012	3/8"	1/4"	MM-32-020	5/8"	1/2"
MM-32-005	1/4"	1/4"	MM-32-013	3/8"	3/8"	MM-32-021	5/8"	3/4"
MM-32-006	1/4"	3/8"	MM-32-014	3/8"	1/2"	MM-32-022	3/4"	1/2"
MM-32-007	1/4"	1/2"	MM-32-015	1/2"	1/4"	MM-32-023	3/4"	3/4"
MM-32-008	5/16"	1/8"	MM-32-016	1/2"	3/8"			

Industrial Tubing

Nylon Air Brake

- For typical use in air brake systems where temps exceed 200°F or battery acid can drip on tubing
- Nylon core w/ polyamide fiber braid (braid only in 3/8 & larger) & a nylon jacket
- D.O.T. FMVSS 571.106: 3/16, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4
- SAE J844 Type A (not reinforced): 1/8, 5/32, 3/16, 1/4, 5/16; SAE J844 Type B (reinforced): 3/8, 1/2, 5/8, 3/4
- Withstands temperatures -40° to 200°F
- Contains ultra-violet stabilizer in all colors
- Part numbers below are for black tubing. Also available in red, blue, green, orange, silver, yellow & brown. Not all colors available in all lengths. Please inquire.
- To order the correct part number, choose the length you need from the chart below and add it to the end of the part number, i.e. W-4245-0250BK100



Part Number	Tube O.D.	Tube Wall	Max Work Pressure PST 75°F	Min Work Pressure PST 75°F	Min Bend Radius 70°F	Lbs./100ft.	Lengths Available (feet)
W4245-0220	1/8	.023	150	1000	.33	0.4	100, 1000
W4245-0250	5/32	.032	150	1000	.41	0.4	100, 1000
W4245-0330	3/16	.035	150	1000	.71	0.6	100
W4245-0410	1/4	.040	150	1200	1.19	1.2	100, 500, 1000
W4245-0520	5/16	.040	150	1000	1.25	1.8	100, 500, 1000
W3270-0610	3/8	.050	150	1000	1.5	2.9	100, 500, 1000
W3270-0810	1/2	.040	150	1000	2.0	3.8	100, 500, 1000
W3270-1010	5/8	.092	150	900	2.5	6.8	100, 250
W3270-1210	3/4	.092	150	800	3.0	8.4	100, 250

Impact Tool Air

- For tough service station & shop applications
- EPDM tube & cover reinforced with 4-spiral polyester
- Pressure rating: 250lbs.
- Remains flexible at extreme temps



Part Number	I.D.	Length	Fits Hose Ends
ITA-38-25	3/8"	25'	1/4" NPT
ITA-38-50	3/8"	50'	1/4" NPT
ITA-38-100	3/8"	100'	1/4" NPT
ITA-12-25	1/2"	25'	3/8" NPT
ITA-12-50	1/2"	50'	3/8" NPT
ITA-12-100	1/2"	100'	3/8" NPT

Heater

- For normal duty service on most cars & trucks
- Withstands temperatures -40° to 212°F
- EPDM hose is reinforced with 2-spiral polyester
- Weather & abrasion resistant



Part Number	I.D.	Length
HEAT-12-50	1/2"	50'
HEAT-58-50	5/8"	50'
HEAT-34-50	3/4"	50'
HEAT-1-50	1"	50'

High Temp Heater

- Meets the most heavy duty truck & special equipment applications
- High burst strength
- Withstands temperatures -65° to 347°F
- Silicone hose is reinforced with 2-spiral polyester



Part Number	I.D.	Length
HEAT-HT-14-50	1/4"	50'
HEAT-HT-38-50	3/8"	50'
HEAT-HT-12-50	1/2"	50'
HEAT-HT-58-50	5/8"	50'
HEAT-HT-34-50	3/4"	50'
HEAT-HT-1-50	1"	50'

Air Brake

- For conveying air in truck brake systems
- Withstands temperatures -40° to 212°F
- Meets SAE J1402 & D.O.T. FMVSS 106 specifications
- SORC (Synthetic Oil Resistant Compound) tube & cover reinforced with 4-spiral polyester
- Virtually kink-proof & stays flexible in extreme temps



Part Number	I.D.	Length
ABT-38-50	3/8"	50'
ABT-38-250	3/8"	250'
ABT-38-500	3/8"	500'
ABT-12-50	1/2"	50'
ABT-12-250	1/2"	250'

Hybrid Air Hose

- For general purpose applications
- Blended material makes it lighter than rubber & more flexible than PVC.
- Pressure rating: 300lbs.
- Remains flexible in cold temperatures, bend restrictors reduce kinking



Part Number	I.D.	Length	Fits hose ends
TS-573-50A	1/2"	50'	3/8"MNPT
TS-575-50A	3/8"	50'	1/4"MNPT

Note: Works with Air Couplers & Plugs located on pages 343-345.

Fuel Injector

- Designed for the extremely high temperatures of fuel injected engines
- Handles E-85, diesel, bio-diesel extended gasolines, resisting sour gas smell
- Burst pressure rating of 900 psi
- Withstands temperatures -29° to 275°F
- Fluoroelastomer hose is reinforced with 2-spiral aramid fiber



Part Number	I.D.	Length
FJ-14-25	1/4"	25'
FJ-14-250	1/4"	250'
FJ-516-25	5/16"	25'
FJ-516-250	5/16"	250'
FJ-38-10	3/8"	10'
FJ-38-25	3/8"	25'
FJ-38-250	3/8"	250'

Fuel Line

- For conveying most modern fuels in cars, trucks, buses, etc.
- Withstands temperatures -40° to 212°F
- Exceeds SAE 30R6 specifications
- PVC cover & nitrile tube reinforced with 2-spiral polyester



Part Number	I.D.	Length
FUEL-316-25	3/16"	25'
FUEL-316-50	3/16"	50'
FUEL-14-25	1/4"	25'
FUEL-14-50	1/4"	50'
FUEL-516-25	5/16"	25'
FUEL-516-50	5/16"	50'
FUEL-38-25	3/8"	25'
FUEL-38-50	3/8"	50'
FUEL-716-25	7/16"	25'

Vacuum

- For windshield washer, vacuum operated accessories & emission control applications
- Low pressure EPDM tube
- Meets SAE J1037 Specifications
- Withstands heat, weather & ozone, maintains flexibility at low temps



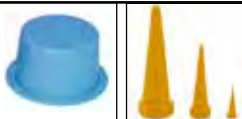
Part Number	I.D.	Length
VACT-332-50	3/32"	50'
VACT-532-50	5/32"	50'
VACT-732-50	7/32"	50'
VACT-932-50	9/32"	50'

Contents



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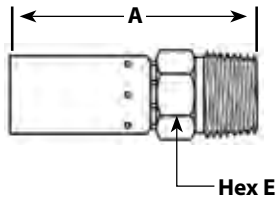
REFERENCE	
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Coll-O-Crimp Couplings

U Series

- **Typical Applications:** General purpose low, medium & high pressure hydraulic
- **Pressure:** Determined by max working pressure for hose size & hose end configuration, whichever is lesser
- **Material:** Low carbon steel
- **Plating:** Zinc; clear trivalent chromate finish
- **Advantages:** Wide selection of hose & end configurations allowing a diverse number of applications
- **Compatible Hose:** W-H039, W-H104, W-H245, W-H425, for more options please contact customer service or your local sales rep
- **Assemble With:** T-420 press located on page 375. Please contact your local sales rep, for more information.

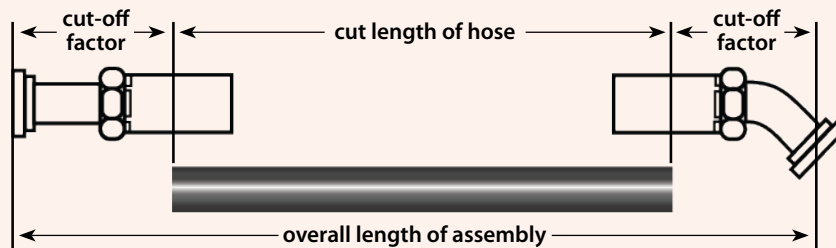
Male Pipe Rigid



Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-102	1/4	1/8	1/8-27	.75	.16	2.31	9/16
W-04U-104		1/4	1/4-18	.94	.16	2.49	9/16
W-04U-106		3/8	3/8-18	1.00	.16	2.52	11/16
W-04U-108		1/2	1/2-14	1.06	.16	2.77	7/8
W-06U-104	3/8	1/4	1/4-18	1.00	.25	2.52	11/16
W-06U-106		3/8	3/8-18	1.00	.25	2.52	11/16
W-06U-108		1/2	1/2-14	1.25	.25	2.77	7/8
W-08U-104	1/2	1/4	1/4-18	.88	.28	2.56	13/16
W-08U-106		3/8	3/8-18	1.14	.36	2.57	3/4
W-08U-108		1/2	1/2-14	1.31	.36	2.75	13/16
W-08U-112		3/4	3/4-14	1.28	.36	2.83	1-1/16
W-10U-106	5/8	3/8	3/8-18	1.13	.48	3.12	15/16
W-10U-112		3/4	3/4-14	1.30	.48	3.31	1-1/16
W-12U-108	3/4	1/2	1/2-14	1.44	.61	3.62	1
W-12U-112		3/4	3/4-12	1.44	.61	3.61	1-1/16
W-12U-116		1	1-11/2	1.69	.61	3.84	1-3/8
W-16U-112	1	3/4	3/4-14	1.88	.81	4.23	1-1/4
W-16U-116		1	1-11/2	1.69	.81	3.90	1-3/8
W-20U-120	1-1/4	1-1/4	11/4-111/2	2.31	1.02	4.61	1-11/16

Hose Cut-Off Factor

Select the proper hose & ends & cut hose to length. To determine the cut length of the hose subtract the cut-off factor for each end from the overall length of the assembly. See all part listings for individual cut-off factors.



U Series, cont'd

Male Pipe Swivel

- Note: Swivel for installation purposes only
- Not for temperatures above 212°F



Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-J04	1/4	1/4	1/4-18	1.88	.16	3.38	5/8	13/16
W-06U-J04		1/4	1/4-18	1.94	.28	3.40	11/16	13/16
W-06U-J06	3/8	3/8	3/8-18	1.94	.25	3.38	11/16	7/8
W-06U-J08		1/2	1/2-14	2.13	.25	3.60	3/4	7/8
W-08U-J06		3/8	3/8-18	2.00	.36	3.45	13/16	7/8
W-08U-J08	1/2	1/2	1/2-14	2.19	.36	3.60	13/16	7/8
W-12U-J12	3/4	3/4	3/4-14	2.56	.61	4.73	1	1-1/4
W-16U-J16	1	1	1-11/2	2.63	.80	4.83	1-1/4	1-3/8

SAE 37° Male Rigid

Also Known as: JIC 37°



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-504		1/4	7/16-20	1.00	.16	2.48	1/2
W-04U-505	1/4	5/16	1/2-20	1.00	.16	2.51	9/16
W-04U-506		3/8	9/16-18	1.00	.16	2.55	5/8
W-06U-506		3/8	9/16-18	1.00	.25	2.54	11/16
W-06U-508	3/8	1/2	3/4-16	1.25	.25	2.67	13/16
W-06U-510		5/8	7/8-14	1.31	.25	2.83	15/16
W-08U-508		1/2	3/4-16	1.19	.38	2.70	13/16
W-08U-510	1/2	5/8	7/8-14	1.31	.36	2.83	15/16
W-08U-512		3/4	11/16-12	1.44	.36	2.87	1-1/8
W-10U-508		1/2	3/4-16	1.31	.39	3.22	15/16
W-10U-510	5/8	5/8	7/8-14	1.38	.48	3.32	15/16
W-10U-512		3/4	11/16-12	1.44	.48	3.42	1-1/8
W-12U-510		5/8	7/8-14	1.44	.43	3.64	1
W-12U-512		3/4	11/16-12	1.56	.61	3.74	1-1/16
W-12U-514	3/4	7/8	13/16-12	1.63	.61	3.81	1-1/4
W-12U-516		1	15/16-12	1.63	.61	3.81	1-3/8
W-16U-514		7/8	13/16-12	1.94	.72	4.18	1-1/4
W-16U-516	1	1	15/16-12	2.00	.81	4.20	1-3/8
W-20U-520	1-1/4	1-1/4	15/8-12	2.31	1.02	4.60	1-11/16

For plugs & caps to fit the SAE 37° Fittings, see page 368.

Hydraulic Fitting Sizing Chart

Use the abbreviations in the chart to determine the size of your brass connector based on the part number.

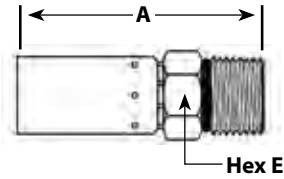
EX: W-1869 X 6 X 2
6 = 3/8" & 2 = 1/8"

Abbreviation	Size	Abbreviation	Size	Abbreviation	Size
1	1/16"	6	3/8"	12	3/4"
2	1/8"	8	1/2"	16	1"
4	1/4"	10	5/8"	20	1-1/4"

U Series, cont'd

Male Straight Thread O-Ring Rigid

- Includes Buna-N, 90 durometer o-ring. See page 364 for replacement hydraulic o-rings



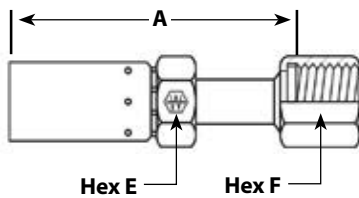
Part Number	Hose I.D.	Port Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-P04		1/4	7/16-20	.81	.16	2.29	9/16
W-04U-P05	1/4	5/16	1/2-20	.88	.16	2.32	5/8
W-04U-P06		3/8	9/16-18	.88	.16	2.35	11/16
W-06U-P06		3/8	9/16-18	.94	.25	2.35	11/16
W-06U-P08	3/8	1/2	3/4-16	1.06	.25	2.46	7/8
W-06U-P10		5/8	7/8-14	1.13	.25	2.57	1
W-08U-P08		1/2	3/4-16	1.06	.36	2.46	7/8
W-08U-P10	1/2	5/8	7/8-14	1.13	.36	2.55	1
W-08U-P12		3/4	1 1/16-12	1.25	.36	2.66	1-1/4
W-10U-P08		1/2	3/4-16	1.13	.48	3.00	15/16
W-10U-P10	5/8	5/8	7/8-14	1.13	.48	3.06	1
W-10U-P12		3/4	1 1/16-12	1.25	.48	3.15	1-1/4
W-12U-P10		5/8	7/8-14	1.19	.50	3.36	1
W-12U-P12	3/4	3/4	1 1/16-12	1.31	.61	3.49	1-1/4
W-16U-P16	1	1	1 5/8-12	1.44	.81	3.63	1-1/2
W-20U-P20	1-1/4	1-1/4	1 5/8-12	1.94	1.02	4.23	1-7/8

For plugs & caps to fit the O-Ring Fittings, see page 368.

Female FOR-SEAL Swivel Straight

*Crimp nut design

Also Known as: Flat Face



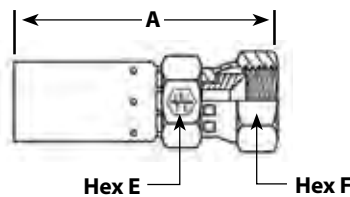
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-S64		1/4	9/16-18	1.08	.16	2.56	9/16	11/16
W-04U-S66	1/4	3/8	11/16-16	1.37	.26	2.85	9/16	13/16
W-04U-S68		1/2	13/16-16	1.75	.36	3.19	11/16	15/16
W-06U-S64		1/4	9/16-18	1.38	.16	2.81	11/16	5/8
W-06U-S66	3/8	3/8	11/16-16	1.21	.26	2.64	11/16	13/16
W-06U-S68		1/2	13/16-16	1.37	.28	2.80	11/16	15/16
W-08U-S66		3/8	11/16-16	1.32	.26	2.75	13/16	13/16
W-08U-S68	1/2	1/2	13/16-16	1.37	.36	2.80	13/16	15/16
W-08U-S70		5/8	1-14	1.87	.46	3.30	13/16	1-1/8
W-08U-S72		3/4	1 3/16-12	1.94	.36	3.38	1	1-3/8
W-10U-S70	5/8	5/8	1-14	1.60	.48	3.53	15/16	1-1/8
W-10U-S72		3/4	1 3/16-12	1.94	.55	3.84	1	1-3/8
W-12U-S70		5/8	1-14	1.70	.46	3.85	1	1-1/8
W-12U-S72	3/4	3/4	1 3/16-12	1.80	.61	3.95	1-1/8	1-3/8
W-12U-S76		1	1 7/16-12	2.81	.61	4.78	1-1/4	1-5/8
W-16U-S76	1	1	1 7/16-12	2.04	.78	4.24	1-1/4	1-5/8
W-16U-S80		1-1/4	1 11/16-12	2.00	.81	4.20	1-1/2	1-7/8
W-20U-S80	1-1/4	1-1/4	1 11/16-12	2.25	1.04	4.54	1-5/8	1-7/8

U Series, cont'd

SAE 37° Female Swivel

* Swivel nuts on these parts are universal, both SAE 37° & 45° connections

Also Known as: JIC 37°



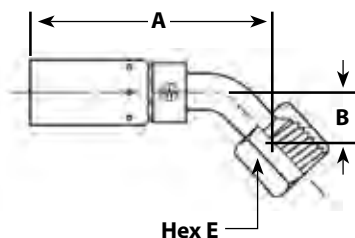
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-604*	1/4	1/4	7/16-20	1.13	.16	2.61	9/16	9/16
W-04U-605*		5/16	1/2-20	1.18	.16	2.67	9/16	5/8
W-04U-606		3/8	9/16-18	1.25	.16	2.72	9/16	11/16
W-06U-604*		1/4	7/16-20	1.25	.16	2.66	11/16	9/16
W-06U-606		3/8	9/16-18	1.31	.25	2.77	11/16	11/16
W-06U-608*	3/8	1/2	3/4-16	1.44	.25	2.86	11/16	7/8
W-06U-610*		5/8	7/8-14	1.56	.25	3.00	7/8	1
W-06U-612		3/4	11/16-12	1.69	.25	3.15	1	1-1/4
W-08U-606		3/8	9/16-18	1.25	.30	2.68	13/16	11/16
W-08U-608*		1/2	3/4-16	1.38	.36	2.79	13/16	7/8
W-08U-610*	1/2	5/8	7/8-14	1.56	.36	3.00	13/16	1
W-08U-612		3/4	11/16-12	1.44	.36	3.12	1	1-1/4
W-08U-616		1	15/16-12	1.75	.36	3.17	1-1/4	1-1/2
W-10U-608*		1/2	3/4-16	1.56	.39	3.48	15/16	7/8
W-10U-610*		5/8	5/8	7/8-14	1.63	.48	3.53	15/16
W-10U-612		3/4	11/16-12	1.75	.48	3.64	1	1-1/4
W-12U-610*		3/4	5/8	7/8-14	1.56	.48	3.75	1
W-12U-612		3/4	11/16-12	1.69	.61	3.86	1	1-1/4
W-12U-614		7/8	13/16-12	1.69	.61	3.88	1-1/8	1-3/8
W-12U-616		1	15/16-12	1.88	.61	4.07	1-1/4	1-1/2
W-16U-612		3/4	11/16-12	2.13	.61	4.37	1-1/4	1-1/4
W-16U-616	1	1	15/16-12	2.25	.81	4.46	1-1/4	1-1/2
W-16U-620		1-1/4	15/8-12	2.19	.81	4.30	1-5/8	2
W-20U-620		1-1/4	1-1/4	15/8-12	2.63	1.02	4.90	1-11/16

For plugs & caps to fit the SAE 37° Fittings, see page 368.

SAE 37° Female Swivel 45° Tube Elbow

* Swivel nuts on these parts are universal, both SAE 37° & 45° connections

Also Known as: JIC 37°

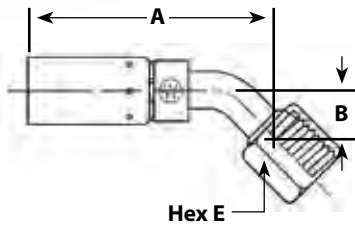


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-684*	1/4	1/4	7/16-20	1.50	.15	2.98	.33	9/16
W-04U-685*		5/16	1/2-20	1.69	.21	3.14	.36	5/8
W-06U-684*	3/8	1/4	7/16-20	1.69	.15	3.08	.33	9/16
W-06U-686		3/8	9/16-18	1.75	.25	3.17	.39	11/16
W-06U-688*		1/2	3/4-16	2.08	.25	3.51	.55	7/8
W-08U-688*		1/2	1/2	3/4-16	2.08	.35	3.51	.55
W-08U-690*		5/8	7/8-14	2.31	.36	3.76	.63	1
W-10U-690		5/8	5/8	7/8-14	2.22	.48	4.22	.63
W-10U-692		3/4	11/16-12	2.44	.48	4.37	.78	1-1/4
W-12U-692		3/4	3/4	11/16-12	2.64	.59	4.79	.78
W-12U-696		1	15/16-12	3.00	.61	5.18	1.10	1-1/2
W-16U-696		1	1	15/16-12	3.06	.76	5.28	1.10

U Series, cont'd

Female FOR-SEAL Swivel 45° Tube Elbow

Also Known as: Flat Face



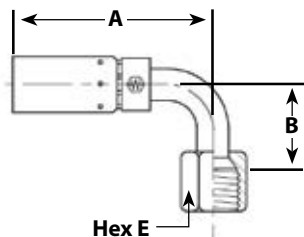
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-L64	1/4	1/4	9/16-18	1.68	.16	3.14	.41	11/16
W-04U-L66		3/8	11/16-16	1.75	.16	3.24	.43	13/16
W-06U-L66	3/8	3/8	11/16-16	1.81	.26	3.26	.43	13/16
W-06U-L68		1/2	13/16-16	2.15	.26	3.58	.60	15/16
W-08U-L66	1/2	3/8	11/16-16	1.88	.26	3.32	.43	13/16
W-08U-L68		1/2	13/16-16	2.13	.36	3.56	.60	15/16
W-08U-L70	5/8	5/8	1-14	2.25	.36	3.67	.65	1-1/8
W-10U-L70		5/8	1-14	2.19	.46	4.13	.65	1-1/8
W-10U-L72	3/4	3/4	13/16-12	2.63	.48	4.53	.84	1-3/8
W-12U-L70		5/8	1-14	2.31	.46	4.49	.65	1-1/8
W-12U-L72	3/4	3/4	13/16-12	2.81	.59	4.96	.84	1-3/8
W-12U-L76		1	17/16-12	3.13	.76	5.29	.94	1-5/8
W-16U-L76	1	1	17/16-12	3.06	.76	5.29	.95	1-5/8
W-20U-L80	1-1/4	1-1/4	11/16-12	2.85	1.01	5.15	1.05	1-7/8

SAE 37° Female Swivel 90° Tube Elbow

* Swivel nuts on these parts are universal, both SAE 37° & 45° connections

**Crimp nut design

Also Known as: JIC 37°



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-664*	1/4	1/4	7/16-20	1.44	.15	2.90	.68	9/16
W-04U-665*		5/16	1/2-20	1.63	.21	3.09	.77	5/8
W-04U-666		3/8	9/16-18	1.63	.25	3.16	.85	11/16
W-06U-664*	3/8	1/4	7/16-20	1.44	.15	2.85	.68	9/16
W-06U-666		3/8	9/16-18	1.75	.25	3.20	.85	11/16
W-06U-668*		1/2	3/4-16	1.75	.33	3.27	1.09	7/8
W-08U-668*	1/2	1/2	3/4-16	1.88	.33	3.33	1.09	7/8
W-08U-670*		5/8	7/8-14	2.50	.36	3.92	1.23	1
W-10U-670*	5/8	5/8	7/8-14	2.44	.46	4.36	1.23	1
W-10U-672		3/4	11/16-12	3.00	.48	4.96	1.82	1-1/4
W-12U-670*	3/4	5/8	7/8-14	2.14	.46	4.29	1.23	1
W-12U-672		3/4	11/16-12	2.63	.58	4.76	1.82	1-1/4
W-16U-676	1	1	15/16-12	2.81	.76	5.03	2.14	1-1/2
W-20U-677**	1-1/4	1-1/4	15/8-12	2.99	1.01	5.29	3.34	2

For plugs & caps to fit the SAE 37° Fittings, see page 368.

Z Series

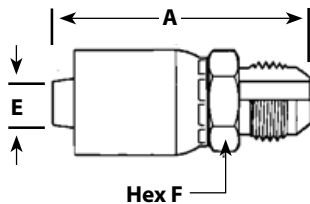
- **Typical Applications:** General purpose low, medium & high pressure hydraulic
- **Pressure:** Determined by max working pressure for hose size & hose end configuration, whichever is lesser
- **Material:** Low carbon steel
- **Plating:** Clear silver hexavalent chromium free
- **Advantages:** Higher operating & burst pressure, eliminates cool down leakage, flat crimp for easier routing & compatible w/ most hose styles
- **Compatible Hose:** W-H104, W-H145R, W-H245, W-H280, W-H290, W-H345, W-H425, for more options please contact customer service or your local sales rep
- **Assemble With:** T-420 press located on page 375. Please contact your local sales rep. for more information.

SAE 37° Male Rigid

* Fittings should only be used with one wire braided hose

** Fittings should only be used with two wire braided hose

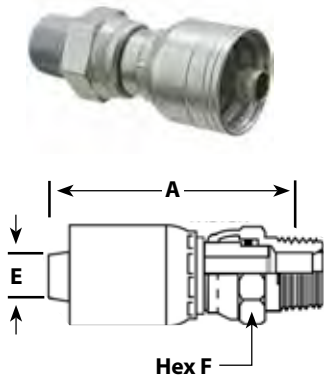
Also known as: JIC 37°



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-504		1/4	7/16-20	1.07	.17	2.00	9/16
W-04Z-505	1/4	5/16	1/2-20	.92	.17	1.84	9/16
W-04Z-506		3/8	9/16-18	.93	.17	1.85	5/8
W-06Z-506		3/8	9/16-18	1.17	.26	2.16	11/16
W-06Z-508	3/8	1/2	3/4-16	1.11	.26	2.10	13/16
W-06Z-510		5/8	7/8-14	1.21	.26	2.10	15/16
W-08Z-508		1/2	3/4-16	1.41	.38	2.57	13/16
W-08Z-510	1/2	5/8	7/8-14	1.26	.38	2.42	15/16
W-08Z-512		3/4	11/16-12	1.42	.38	2.59	1-1/8
W-10Z-508		1/2	3/4-16	1.41	.50	2.43	15/16
W-10Z-510	5/8	5/8	7/8-14	1.57	.48	2.73	15/16
W-10Z-512		3/4	11/16-12	1.43	.50	2.59	1-1/8
W-12Z-510		5/8	7/8-14	1.59	.48	2.78	1-1/8
W-12Z-512		3/4	11/16-12	1.75	.61	2.94	1-1/8
W-12Z-514	3/4	7/8	13/16-12	1.54	.61	2.73	1-1/4
W-12Z-516		1	15/16-12	1.56	.61	2.75	1-3/8
W-16Z-514		7/8	13/16-12	1.80	.72	3.11	1-3/8
W-16Z-516	1	1	15/16-12	1.90	.82	3.25	1-3/8
W-16Z-520		1-1/4	15/8-12	1.71	.81	3.03	1-11/16
W-20Z-520**		1-1/4	15/8-12	2.16	1.05	3.89	1-3/4
W-20ZA-520*	1-1/4	1-1/4	15/8-12	2.16	1.05	3.89	1-3/4
W-24Z-524	1-1/2	1-1/2	17/8-12	2.49	1.26	4.31	2

Z Series, cont'd

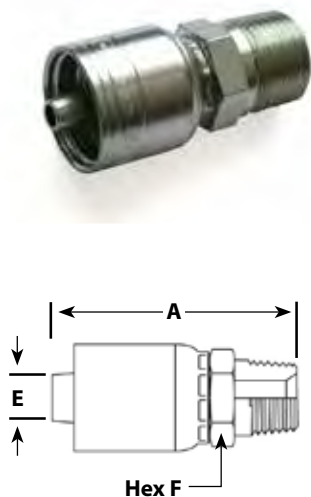
Male Pipe Swivel



Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-J04	1/4	1/4	1/4-18	1.62	.17	2.54	3/4
W-06Z-J04		1/4	1/4-18	1.67	.26	2.54	3/4
W-06Z-J06	3/8	3/8	3/8-18	1.67	.26	2.66	7/8
W-06Z-J08		1/2	1/2-14	1.85	.26	2.85	7/8
W-08Z-J06	1/2	3/8	3/8-18	1.71	.38	2.88	7/8
W-08Z-J08		1/2	1/2-14	1.96	.38	3.13	15/16
W-12Z-J12	3/4	3/4	3/4-14	2.05	.61	3.24	1-3/8
W-16Z-J16	1	1	1-11/2	2.53	.81	3.88	1-1/2

Male Pipe Rigid

* Fittings should only be used with one wire braided hose
 ** Fittings should only be used with two wire braided hose



Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-102		1/8	1/8-27	.92	.17	1.84	9/16
W-04Z-104	1/4	1/4	1/4-18	1.14	.17	2.06	9/16
W-04Z-106		3/8	3/8-18	.98	.17	1.90	11/16
W-06Z-104		1/4	1/4-18	1.18	.26	2.18	11/16
W-06Z-106	3/8	3/8	3/8-18	1.28	.26	2.27	11/16
W-06Z-108		1/2	1/2-14	1.28	.16	2.27	7/8
W-08Z-104		1/4	1/4-18	1.23	.30	2.40	13/16
W-08Z-106	1/2	3/8	3/8-18	1.32	.38	2.49	13/16
W-08Z-108		1/2	1/2-14	1.56	.38	2.74	7/8
W-08Z-112		3/4	3/4-14	1.39	.38	2.56	1-1/16
W-10Z-108	5/8	1/2	1/2-14	1.58	.50	2.74	15/16
W-10Z-112		3/4	3/4-14	1.40	.50	2.56	1-1/16
W-12Z-108		1/2	1/2-14	1.60	.56	2.78	1-1/8
W-12Z-112	3/4	3/4	3/4-14	1.65	.61	2.84	1-1/8
W-12Z-116		1	1-11/2	1.61	.61	2.80	1-3/8
W-16Z-112		3/4	3/4-14	1.67	.76	3.02	1-3/8
W-16Z-116	1	1	1-11/2	1.86	.82	3.22	1-3/8
W-16Z-120		1-1/4	1-1/4-11/2	1.72	.82	3.08	1-11/16
W-20Z-116**	1-1/4	1	1-11/2	1.93	.95	3.66	1-3/4
W-20Z-120**		1-1/4	1-1/4-11/2	1.79	1.05	3.52	1-13/16
W-24Z-124	1-1/2	1-1/2	1-1/2-11/2	2.36	1.26	4.18	2
W-32Z-132	2	2	2-11/2	2.61	1.75	4.59	2-1/2

What you see here in our Terminal supply catalog is only a small sampling of the Weatherhead Hydraulic products available. If you don't see exactly the connections, hose or tooling you need for your specific application, please let us know. Customer service will find something that will work for you perfectly!

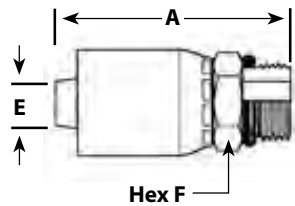
Z Series, cont'd

Male Straight Thread O-Ring Rigid

* Fittings should only be used with one wire braided hose

** Fittings should only be used with two wire braided hose

- Includes Buna-N, 90 durometer o-ring. See page 364 for replacement hydraulic o-rings



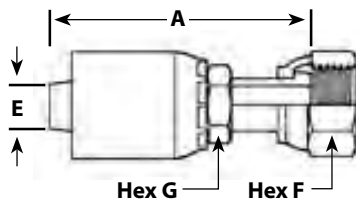
Part Number	Hose I.D.	Port Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-P04	1/4	1/4	7/16-20	.92	.17	1.84	9/16
W-04Z-P05		5/16	1/2-20	.92	.17	1.84	5/8
W-04Z-P06		3/8	9/16-18	.86	.17	1.78	11/16
W-06Z-P06	3/8	3/8	9/16-18	1.00	.26	2.00	11/16
W-06Z-P08		1/2	3/4-16	.98	.26	1.97	7/8
W-08Z-P08	1/2	1/2	3/4-16	1.19	.38	2.36	7/8
W-08Z-P10		5/8	7/8-14	1.09	.38	2.26	1
W-08Z-P12		3/4	1 1/16-12	1.22	.38	2.39	1-1/4
W-10Z-P10	5/8	5/8	7/8-14	1.31	.50	2.47	1
W-10Z-P12		3/4	1 1/16-12	1.23	.50	2.39	1-1/4
W-12Z-P12	3/4	3/4	1 1/16-12	1.25	.61	2.44	1-1/4
W-12Z-P16		1	1 5/16-12	1.37	.61	2.56	1-1/2
W-16Z-P16	1	1	1 5/16-12	1.39	.82	2.74	1-1/2
W-20Z-P20**	1-1/4	1-1/4	1 5/8-12	1.90	1.05	3.63	1-7/8
W-24Z-P24	1-1/2	1-1/2	1 7/8-12	1.81	1.26	3.63	2-1/8

Female FOR-SEAL Swivel Straight

* Fittings should only be used with one wire braided hose

** Fittings should only be used with two wire braided hose

Also known as: Flat Face



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F	Hex G
W-04Z-S64	1/4	1/4	9/16-18	1.03	.17	1.95	11/16	9/16
W-04Z-S66		3/8	11/16-16	1.12	.17	2.04	13/16	5/8
W-06Z-S64	3/8	1/4	9/16-18	1.15	.17	2.14	11/16	11/16
W-06Z-S66		3/8	11/16-16	1.24	.26	2.23	13/16	11/16
W-06Z-S68		1/2	13/16-16	1.32	.26	2.32	15/16	13/16
W-08Z-S66	1/2	3/8	11/16-16	1.34	.26	2.51	13/16	7/8
W-08Z-S68		1/2	13/16-16	1.50	.38	2.67	15/16	7/8
W-08Z-S70		5/8	1-14	1.47	.38	2.64	1-1/8	15/16
W-08Z-S72		3/4	1 3/16-12	1.63	.38	2.80	1-3/8	1-1/8
W-10Z-S68	5/8	1/2	13/16-16	1.51	.38	2.67	15/16	15/16
W-10Z-S70		5/8	1-14	1.61	.48	2.76	1-1/8	15/16
W-10Z-S72		3/4	1 3/16-12	1.63	.50	2.79	1-3/8	1-1/8
W-12Z-S70	3/4	5/8	1-14	1.62	.48	2.81	1-1/8	1-1/8
W-12Z-S72		3/4	1 3/16-12	1.72	.61	2.91	1-3/8	1-1/8
W-12Z-S76		1	1 7/16-12	1.79	.61	2.98	1-5/8	1-3/8
W-16Z-S72		3/4	1 3/16-12	1.86	.61	3.22	1-3/8	1-3/8
W-16Z-S76	1	1	1 7/16-12	1.94	.81	3.29	1-5/8	1-3/8
W-16Z-S80		1-1/4	1 11/16-12	1.90	.81	3.25	1-7/8	1-5/8
W-20Z-S80**		1-1/4	1-1/4	1 11/16-12	2.33	1.02	4.07	1-7/8

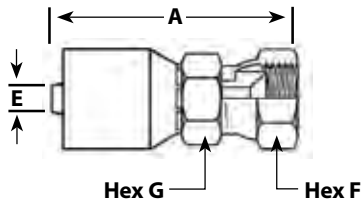
Z Series, cont'd

SAE 37° Female Swivel

* Fittings should only be used with one wire braided hose

** Fittings should only be used with two wire braided hose

Also known as: JIC 37°



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F	Hex G
W-04Z-603	1/4	3/16	3/8-24	1.02	.13	1.94	1/2	9/16
W-04Z-604		1/4	7/16-20	1.07	.17	2.00	9/16	9/16
W-04Z-605		5/16	1/2-20	1.06	.17	1.98	5/8	9/16
W-04Z-606		3/8	9/16-18	1.11	.17	2.03	11/16	9/16
W-06Z-604	3/8	1/4	7/16-20	1.19	.17	2.19	9/16	11/16
W-06Z-605		5/16	1/2-20	1.24	.23	2.24	5/8	11/16
W-06Z-606		3/8	9/16-18	1.28	.26	2.28	11/16	11/16
W-06Z-608		1/2	3/4-16	1.31	.26	2.31	7/8	11/16
W-08Z-608	1/2	1/2	3/4-16	1.46	.38	2.63	7/8	13/16
W-08Z-610		5/8	7/8-14	1.47	.38	2.64	1	13/16
W-08Z-612		3/4	11/16-12	1.56	.38	2.73	1-1/4	1
W-08Z-616		1	15/16-12	1.89	.38	3.06	1-1/2	1-1/4
W-10Z-608	5/8	1/2	3/4-16	1.50	.39	2.65	7/8	15/16
W-10Z-610		5/8	7/8-14	1.61	.50	2.77	1	15/16
W-10Z-612		3/4	11/16-12	1.57	.50	2.72	1-1/4	1
W-12Z-610	3/4	5/8	7/8-14	1.63	.48	2.81	1	1-1/8
W-12Z-612		3/4	11/16-12	1.65	.61	2.84	1-1/4	1-1/8
W-12Z-614		7/8	13/16-12	1.65	.61	2.84	1-3/8	1-1/8
W-12Z-616		1	15/16-12	1.72	.61	2.91	1-1/2	1-1/4
W-16Z-612	1	3/4	11/16-12	1.80	.61	3.15	1-1/4	1-3/8
W-16Z-616		1	15/16-12	1.93	.81	3.29	1-1/2	1-3/8
W-16Z-620		1-1/4	15/8-12	1.81	.81	3.17	2	-
W-20Z-616**		1-1/4	1	15/16-12	1.73	.85	3.46	1-1/2
W-20Z-620**	1-1/4		15/8-12	1.88	1.05	3.61	2	-
W-24Z-624	1-1/2	1-1/2	17/8-12	20.7	1.26	3.90	2-1/4	-
W-32Z-632	2	2	21/2-12	2.39	1.75	4.34	2-7/8	-

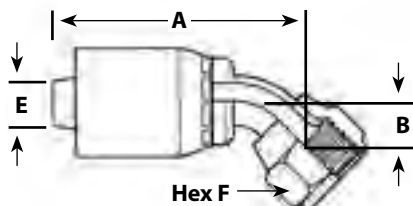
SAE 37° Female Swivel 45° Tube Elbow

* Swivel nuts on these parts are universal, both SAE 37° & 45° connections

** Fittings should only be used with one wire braided hose

*** Fittings should only be used with two wire braided hose

Also known as: JIC 37°

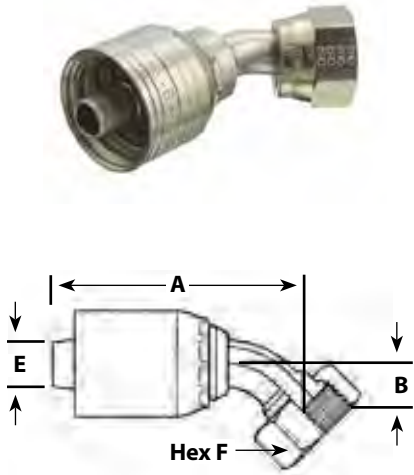


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-684*	1/4	1/4	7/16-20	1.04	.15	1.96	.33	9/16
W-04Z-685*		5/16	1/2-20	1.12	.17	2.04	.37	5/8
W-04Z-686		3/8	9/16-18	1.17	.17	2.09	.39	11/16
W-06Z-686	3/8	3/8	9/16-18	1.31	.24	2.31	.39	11/16
W-06Z-688*		1/2	3/4-16	1.66	.26	2.65	.55	7/8
W-08Z-688*	1/2	1/2	3/4-16	1.65	.37	2.82	.55	7/8
W-08Z-690*		5/8	7/8-14	1.86	.38	3.03	.59	1
W-10Z-690*	5/8	5/8	7/8-14	1.79	.46	2.94	.59	1
W-10Z-692		3/4	11/16-12	2.22	.50	3.38	.78	1-1/4
W-12Z-692	3/4	3/4	11/16-12	2.24	.58	3.43	.78	1-1/4
W-16Z-696	1	1	15/16-12	2.39	.76	3.74	1.07	1-1/2
W-20Z-697***	1-1/4	1-1/4	15/8-12	2.71	1.01	4.44	1.22	2

Z Series, cont'd

Female FOR-SEAL Swivel 45° Tube Elbow

Also known as: Flat Face



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-L64	1/4	1/4	9/16-18	1.20	.17	2.12	.40	11/16
W-04Z-L66		3/8	11/16-16	1.38	.17	2.30	.43	13/16
W-06Z-L64	3/8	1/4	9/16-18	1.30	.17	2.30	.41	11/16
W-06Z-L66		3/8	11/16-16	1.43	.26	2.43	.43	13/16
W-06Z-L68		1/2	13/16-16	1.74	.26	2.74	.59	15/16
W-08Z-L66	1/2	3/8	11/16-16	1.48	.26	2.65	.43	13/16
W-08Z-L68		1/2	13/16-16	1.79	.36	2.96	.59	15/16
W-08Z-L70		5/8	1-14	2.01	.38	3.18	.65	1-1/8
W-08Z-L72		3/4	13/16-12	2.34	.38	3.51	.83	1-3/8
W-10Z-L70	5/8	5/8	1-14	2.01	.45	3.05	.65	1-1/8
W-10Z-L72		3/4	13/16-12	2.36	.50	3.52	.83	1-3/8
W-12Z-L72	3/4	3/4	13/16-12	2.38	.55	3.57	.83	1-3/8
W-12Z-L76		1	17/16-12	2.85	.61	4.04	.94	1-5/8
W-16Z-L76	1	1	17/16-12	2.88	.78	4.23	.94	1-5/8
W-20Z-L80	1-1/4	1-1/4	11/16-12	3.37	1.02	5.10	1.00	1-7/8
W-20Z-L84		1-1/2	2-12	3.76	1.01	5.49	1.07	2-1/4
W-24Z-L84	1-1/2	1-1/2	2-12	2.71	1.26	4.54	1.07	2-1/4

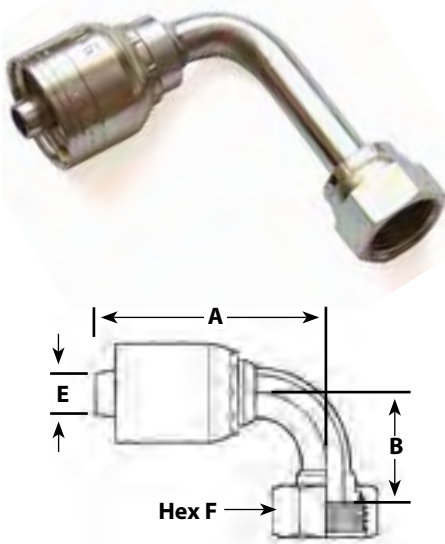
Female FOR-SEAL Swivel Short Drop 90° Tube Elbow

* Fittings should only be used with one wire braided hose

** Fittings should only be used with two wire braided hose

Also known as: Flat Face

- Swivel long drop also available, please contact customer service or your local sales rep for more info



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-A24	1/4	1/4	9/16-18	1.17	.17	2.09	.82	11/16
W-04Z-A26		3/8	11/16-16	1.30	.17	2.22	.90	13/16
W-06Z-A24	3/8	1/4	9/16-18	1.21	.17	2.21	.82	11/16
W-06Z-A26		3/8	11/16-16	1.34	.26	2.34	.90	13/16
W-06Z-A28		1/2	13/16-16	1.62	.26	2.62	1.15	15/16
W-08Z-A26	1/2	3/8	11/16-16	1.39	.26	2.56	.90	13/16
W-08Z-A28		1/2	13/16-16	1.67	.36	2.84	1.15	15/16
W-08Z-A30		5/8	1-14	1.91	.38	3.07	1.27	1-1/8
W-08Z-A32		3/4	13/16-12	2.28	.38	3.45	1.88	1-3/8
W-10Z-A30	5/8	5/8	1-14	1.91	.45	3.07	1.27	1-1/8
W-10Z-A32		3/4	13/16-12	2.29	.50	3.44	1.88	1-3/8
W-12Z-A30	3/4	5/8	1-14	1.93	.45	3.11	1.27	1-1/8
W-12Z-A32		3/4	13/16-12	2.30	.55	3.49	1.88	1-3/8
W-12Z-A36		1	17/16-12	2.85	.61	4.04	2.21	1-5/8
W-16Z-A36	1	1	17/16-12	2.87	.81	4.22	2.21	1-5/8
W-16Z-A40		1-1/4	11/16-12	3.50	.81	4.85	2.51	1-7/8
W-20Z-A40**	1-1/4	1-1/4	11/16-12	3.57	1.02	5.30	2.51	1-7/8

Z Series, cont'd

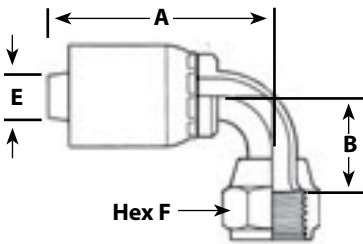
SAE 37° Female Swivel 90° Tube Elbow

* Swivel nuts on these parts are universal, both SAE 37° & 45° connections

*** Fittings should only be used with two wire braided hose

** Fittings should only be used with one wire braided hose

Also known as: JIC 37°

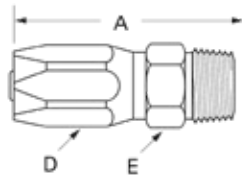


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-664*		1/4	7/16-20	.92	.15	1.84	.68	9/16
W-04Z-665*	1/4	5/16	1/2-20	1.00	.17	1.92	.76	5/8
W-04Z-666		3/8	9/16-18	1.08	.17	2.00	.84	11/16
W-06Z-666		3/8	9/16-18	1.22	.24	2.21	.84	11/16
W-06Z-668*	3/8	1/2	3/4-16	1.42	.26	2.42	1.09	7/8
W-08Z-666		3/8	9/16-18	1.26	.24	2.43	.84	11/16
W-08Z-668*	1/2	1/2	3/4-16	1.42	.37	2.59	1.09	7/8
W-08Z-670*		5/8	7/8-14	1.61	.38	2.78	1.19	1
W-10Z-670*		5/8	7/8-14	1.55	.45	2.70	1.19	1
W-10Z-672	5/8	3/4	1 1/16-12	2.16	.50	3.31	1.80	1-1/4
W-12Z-672		3/4	1 1/16-12	2.17	.58	3.36	1.80	1-1/4
W-12Z-676	3/4	1	1 5/16-12	2.18	.61	3.37	2.39	1-1/2
W-16Z-676	1	1	1 5/16-12	2.20	.76	3.56	2.39	1-1/2
W-20Z-677***	1-1/4	1-1/4	1 5/8-12	2.52	1.01	4.25	2.75	2
W-24Z-678	1-1/2	1-1/2	1 7/8-12	2.81	1.26	4.63	3.17	2-1/4

Field Attachable Series

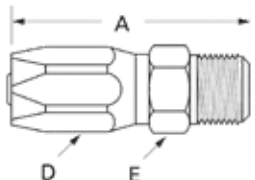
- **Applications:** Medium pressure and high temperature hose lines for a variety of applications including truck, industrial, and small engine where temperature may be a problem.
- **Compatible hose:** H059, H069, H166, H169, H229, H366, H569
- **Material:** AISI/SAE 12L14 carbon steel
- **Pressure:** Determined by maximum working pressure for hose size and hose end configuration whichever is lesser.
- **Advantages:** Very popular in heavy-duty truck markets. Good selection of fittings. Compatible with a wide variety of hose types allowing for a diverse number of applications. Non-mandrel assembly.

Male Pipe Rigid



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Total Length A	Hex D	Hex E
W-24704N-104	3/16	1/4	7/16-20	1.13	1.84	5/8	1/2
W-24705N-105	1/4	1/4	1/4-18	1.25	1.96	11/16	9/16
W-24706N-104		1/4	1/4-18	1.25	2.08	13/16	9/16
W-24706N-106	5/16	3/8	3/8-18	1.25	2.11	13/16	11/16
W-24710N-108		1/2	1/2-14	1.63	2.88	1-1/8	7/8
W-24710N-112	1/2	3/4	3/4-14	1.69	2.94	1-1/8	1-1/8
W-24712N-112	5/8	3/4	3/4-14	1.67	3.24	1-1/4	1-1/4

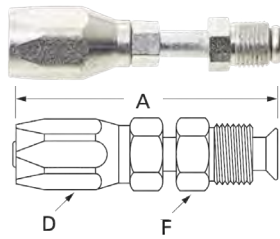
JIC 37° Male Rigid



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Total Length A	Hex D	Hex E
W-24704N-504	3/16	1/4	7/16-20	1.10	1.85	5/8	1/2
W-24705N-505	1/4	5/16	1/2-20	1.19	2.01	11/16	9/16
W-24706N-506	5/16	3/8	9/16-18	1.25	2.13	13/16	5/8
W-24708N-508	13/32	1/2	3/4-16	1.56	2.64	15/16	13/16
W-24710N-510	1/2	5/8	7/8-14	1.69	2.92	1-1/8	15/16
W-24712N-512	5/8	3/4	1 1/16-12	1.81	3.32	1-1/8	1-1/8
W-24716N-516	7/8	1	1 5/16-12	1.81	2.97	1-7/16	1-3/8

Field Attachable Series, cont'd

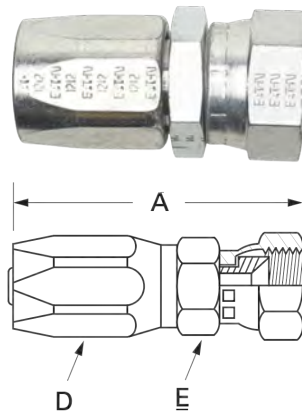
Inverted Male Swivel Straight



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Total Length A	Hex D	Hex E
W-24704N-B04	3/16	1/4	7/16-24	1.81	2.54	5/8	7/16
W-24705N-B05	1/4	5/16	1/2-20	2.00	2.75	11/16	1/2
W-24706N-B06	5/16	3/8	5/8-18	2.00	2.91	13/16	5/8
W-24708N-B08	13/32	1/2	3/4-18	2.50	3.36	15/16	3/4

JIC 37° Female Swivel

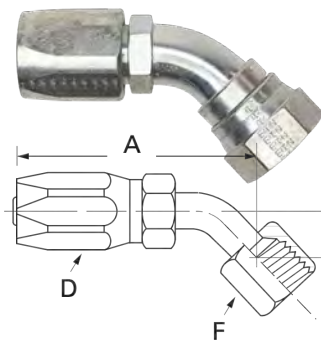
*Swivel nuts on these parts are universal, both SAE 37° & 45° connections



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Total Length A	Hex D	Hex E
W-24704N-604*	3/16	1/4	7/16-20	1.31	2.01	5/8	9/16
W-24705N-605*	1/4	5/16	7/16-20	1.50	2.19	11/16	5/8
W-24706N-604*		1/4	1/2-20	1.31	2.19	13/16	9/16
W-24706N-605*	5/16	5/16	9/16-18	1.50	2.38	13/16	5/8
W-24706N-606		3/8	3/4-16	1.50	2.35	13/16	11/16
W-24706N-608*		1/2	3/4-16	1.56	2.45	15/16	7/8
W-24708N-608*	13/32	1/2	3/4-16	1.75	2.82	1-1/8	7/8
W-24710N-608*		1/2	7/8-14	1.75	3.04	1-1/8	7/8
W-24710N-610*	1/2	5/8	1 1/8-12	1.75	3.04	1-1/8	1
W-24712N-612	5/8	3/4	1 1/8-12	1.94	3.46	1-1/4	1-1/4
W-24716N-616	7/8	1		2.00	3.21	1-7/16	1-1/2

JIC 37° Female Swivel 45° Tube Elbow

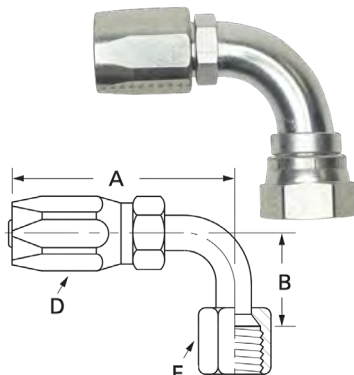
*Swivel nuts on these parts are universal, both SAE 37° & 45° connections



Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	A	B	Hex D	Hex F
W-24704N-684*	3/16	1/4	7/16-20	1.10	1.85	.33	5/8	9/16
W-24705N-685*	1/4	5/16	1/2-20	1.29	2.07	.36	11/16	5/8
W-24706N-686	5/16	3/8	9/16-18	1.33	2.29	.39	13/16	11/16
W-24708N-688*	13/32	1/2	3/4-16	1.84	2.99	.55	15/16	7/8
W-24710N-690*	1/2	5/8	7/8-14	1.95	3.24	.63	1-1/8	1
W-24712N-692	5/8	3/4	1 1/8-12	2.21	3.778	.78	1-1/4	1-1/4
W-24716N-696	7/8	1	1 1/8-12	2.85	4.21	1.07	1-7/16	1-7/16

JIC 37° Female Swivel 90° Tube Elbow

*Swivel nuts on these parts are universal, both SAE 37° & 45° connections



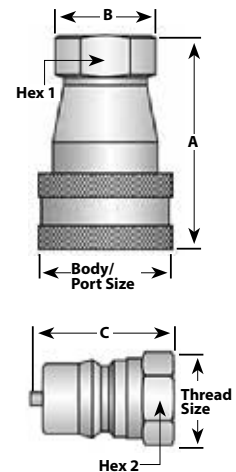
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	A	B	Hex D	Hex F
W-24704N-664*	3/16	1/4	7/16-20	.99	1.74	.68	5/8	9/16
W-24705N-665*	1/4	5/16	1/2-20	1.18	1.96	.77	11/16	5/8
W-24706N-666	5/16	3/8	9/16-18	1.23	2.13	.85	13/16	11/16
W-24708N-668*	13/32	1/2	3/4-16	1.61	2.76	1.09	15/16	7/8
W-24710N-668*	1/2	1/2	3/4-16	1.62	2.91	1.09	15/16	7/8
W-24710N-670*	1/2	5/8	7/8-14	1.65	2.94	1.23	1-1/8	1
W-24712N-762	5/8	3/4	1 1/8-12	2.17	3.74	1.82	1-1/4	1-1/4
W-24716N-676	7/8	1	1 1/8-12	2.28	3.55	3.39	1-7/16	1-1/2

Note: TSC offers many other styles and sizes of all fittings listed. If you are not finding the size you require for your application, please contact your local sales rep or customer service for assistance.

Quick Disconnect Couplings

Hansen HK Series (Carbon Steel Body)

- **Typical Applications:** Hydraulic, fluid transfer, agriculture, construction, transportation, chemical, oil & gas
- **Temperature range:** -40°F to 250°F for o-ring
- **Material:** High resistance carbon steel w/ zinc trivalent chromate plating (body); Stainless steel (spring, balls & retaining ring); Brass (poppet guide in 1/8" couplings only); Buna-N (o-ring)
- **Valve Type:** Self sealing poppet valve
- **Thread Type:** Female NPT
- **Vacuum:** 8 inches/Hg
- **Advantages:** PUSH-PULL™ ball latch design allows quick & easy connection & disconnection of hose lines, self-sealing poppet valve design provides excellent high & low pressure sealing
- **Series Interchange:** ISO 7241/1 Series B



Female (Socket) Part Number	A (in)	B (in)	Hex 1 (in)	Male (Plug) Part Number	C (in)	Hex 2 (in)	Body / Port Size (in)	Thread Size (in)	Max Oper. Pressure (psi)
W-1H11	1.91	.98	.56	W-1K11	1.26	.56	1/8"	1/8-27	4000
W-2H16	2.26	1.14	.75	W-2K16	1.52	.75	1/4"	1/4-18	5000
W-3H21	2.56	1.42	.88	W-3K21	1.76	.88	3/8"	3/8-18	3700
W-4HP26	2.96	1.86	1.13	W-4KP26	2.03	1.13	1/2"	1/2-14	5000
W-6HP31	3.48	2.22	1.31	W-6KP31	2.36	1.31	3/4"	3/4-14	4000
W-8HP36	4.13	2.61	1.71	W-8KP36	2.85	1.63	1"	1-11 1/2	4000

Hansen HK Series Accessories

Vinyl Dust Plugs for Sockets



Part Number	Size
W-PSDC1HK	1/8"
W-PSDC2HK	1/4"
W-PSDC3HK	3/8"
W-PSDC4HK	1/2"
W-PSDC6HK	3/4"
W-PSDC8HK	1"

Vinyl Dust Caps for Plugs

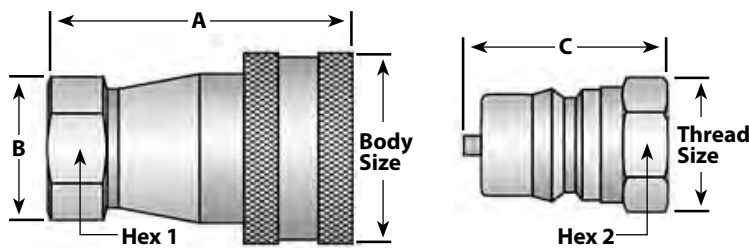


Part Number	Size
W-PPDC1HK	1/8"
W-PPDC2HK	1/4"
W-PPDC3HK	3/8"
W-PPDC4HK	1/2"
W-PPDC6HK	3/4"
W-PPDC8HK	1"

Quick Disconnect Couplings, cont'd

S10 Series (Stainless Steel Body)

- **Typical Applications:** Primarily used for the transfer of hydraulic fluid, but can also be used with water, steam, chemicals & some gases
- **Temperature range:** -40°F to 250°F
- **Material:** 303 Stainless steel (body); Buna-N (o-ring)
- **Valve Type:** Poppet (o-ring seal)
- **Thread Type:** Female NPT
- **Advantages:** Ball lock design allows quick & easy connection & disconnection of hose lines, full-flow design for optimum system performance, 100% leak tested
- **Series Interchange:** ISO 7241/1 Series B
- **Max operating pressure rating is based on non-pulsating, low cycle applications w/ essentially steady pressure during the operating cycle**



Female Part Number	A (in)	B (in)	Hex 1 (in)	Male Part Number	C (in)	Hex 2 (in)	Body/Thread Size (in)	Max Operating Pressure (psi)
SH-SS105-4	2.8	1.76	1.2	SH-SS101-4	1.88	1.06	1/2	5000
SH-SS105-6	3.37	2.13	1.31	SH-SS101-6	2.26	1.31	3/4	3000
SH-SS105-8	3.94	2.51	1.62	SH-SS101-8	2.69	1.63	1	2000

NEW PRODUCTS COMING SOON!

NEW & EXCITING PRODUCTS ARE COMING IN FASTER THAN WE CAN PUT THEM IN THE CATALOG. TO FIND OUT ALL ABOUT THEM:

1. ASK YOUR LOCAL SALES REP
2. CHECK OUT OUR YOUTUBE CHANNEL: [TERMINALSUPPLYCO](#)
3. GO TO WWW.GO2TSC.COM

WHETHER YOU SEE IT IN OUR CATALOG OR NOT, WE'LL BE ABLE TO FIND SOMETHING TO FIT YOUR EXACT NEEDS!

WE'VE GOT IT. WE'LL BUILD IT. WE'LL SOLVE IT.

Hydraulic Steel Adapters

Pipe To Pipe

- Carbon steel with clear trivalent chromate zinc plating
- Temperature Rating: -65° to 400°F
- Meets SAE specifications (reference numbers shown below)

Female Swivel to Male Pipe

- Ref: SAE 140130



Part Number	Female Thread NPSM	Male Thread NPTF
W-2045-4-4S	1/4"	1/4"
W-2045-6-6S	3/8"	3/8"
W-2045-8-8S	1/2"	1/2"
W-2045-16-16S	1"	1"

Female Swivel to Female Pipe

- Ref: SAE 140131



Part Number	Female Thread NPSM	Male Thread NPTF
W-2046-4-4S	1/4"	1/4"
W-2046-6-6S	3/8"	3/8"
W-2046-8-8S	1/2"	1/2"
W-2046-12-12S	3/4"	3/4"
W-2046-16-16S	1	1

90° Male Elbow

- Ref: SAE 140237



Part Number	Male Thread NPTF
W-2085-4-4S	1/4"
W-2085-6-6S	3/8"
W-2085-8-8S	1/2"
W-2085-12-12S	3/4"
W-2085-16-16S	1

45° Male Elbow

- Ref: SAE 140337



Part Number	Male Thread NPTF
W-2247-4-4S	1/4"
W-2247-6-6S	3/8"
W-2247-8-8S	1/2"
W-2247-12-12S	3/4"
W-2247-16-16S	1

Hex Nipple

- Ref: SAE 140137



Part Number	Male Thread NPTF
W-2083-4-4S	1/4"
W-2083-6-6S	3/8"
W-2083-8-8S	1/2"
W-2083-12-12S	3/4"
W-2083-16-16S	1

Coupling

- Ref: SAE 140138



Part Number	Male Thread NPTF
W-2096-4-4S	1/4"
W-2096-6-6S	3/8"
W-2096-8-8S	1/2"
W-2096-12-12S	3/4"
W-2096-16-16S	1

Note: More options available, contact customer service or your sales rep for more details.

Pipe To Pipe, cont'd

Hex Reducer Bushing


- Ref: SAE 140140



Part Number	Female Thread NPTF	Male Thread NPTF
W-2081-4-2S	1/8"	1/4"
W-2081-6-2S	1/8"	3/8"
W-2081-6-4S	1/4"	3/8"
W-2081-8-2S	1/8"	1/2"
W-2081-8-4S	1/4"	1/2"
W-2081-8-6S	3/8"	1/2"
W-2081-12-4S	1/4"	3/4"
W-2081-12-6S	3/8"	3/4"
W-2081-12-8S	1/2"	3/4"
W-2081-16-6S	3/8"	1"
W-2081-16-8S	1/2"	1"
W-2081-16-12S	3/4"	1"

Hex Head Pipe Plug

- Ref: SAE 140139



Part Number	Male Thread NPTF
W-2082-2S	1/8"
W-2082-4S	1/4"
W-2082-6S	3/8"
W-2082-8S	1/2"
W-2082-12S	3/4"
W-2082-16S	1"
W-2082-20S	1-1/4"
W-2082-24S	1-1/2"
W-2082-32S	2"

SAE / JIC 37° Flare-Twin

- Carbon steel with clear trivalent chromate zinc plating
- Temperature Rating: -65° to 400°F
- Meets SAE specifications (reference numbers shown below)

Male Connector

- Ref: SAE 070102



Part Number	Male Pipe Thread NPTF	Male Pipe Thread SAE/JIC
W-2021-4-4S	1/4"-18	7/16"-20
W-2021-4-8S	1/4"-18	3/4"-16
W-2021-6-6S	3/8"-18	9/16"-18
W-2021-6-8S	3/8"-18	3/4"-16
W-2021-8-8S	1/2"-14	3/4"-16
W-2021-8-12S	1/2"-14	1-1/16"-12
W-2021-12-12S	3/4"-14	1-1/16"-12
W-2021-12-14S	3/4"-14	1-3/16"-12
W-2021-16-16S	1"-11-1/2	1-5/16"-12
W-2021-16-20S	1"-11-1/2	1-5/8"-12
W-2021-20-20S	1-1/4"-11-1/2	1-5/8"-12

45° Male Elbow

- Ref: SAE 070302



Part Number	Male Pipe Thread NPTF	Male Pipe Thread SAE/JIC
W-2023-2-4S	1/8"-27	7/16"-20
W-2023-4-4S	1/4"-18	7/16"-20
W-2023-6-6S	3/8"-18	9/16"-18
W-2023-8-8S	1/2"-14	3/4"-16
W-2023-12-12S	3/4"-14	1-1/16"-12
W-2023-16-16S	1"-11-1/2	1-5/16"-12

Note: Caps & plugs for these fittings are found in the Brass Section of the TSC Catalog. Other sizes & fittings available, contact customer service or your sales rep for more details.

SAE / JIC 37° Flare-Twin, cont'd

90° Male Elbow

- Ref: SAE 070202



Part Number	Male Pipe Thread NPTF	Male Pipe Thread SAE/JIC
W-2024-2-4S	1/8"-27	7/16"-20
W-2024-2-5S	1/8"-27	1/2"-20
W-2024-4-4S	1/4"-18	7/16"-20
W-2024-4-6S	1/4"-18	9/16"-18
W-2024-4-8S	1/4"-18	3/4"-16
W-2024-6-6S	3/8"-18	9/16"-18
W-2024-6-8S	3/8"-18	3/4"-16
W-2024-6-10S	3/8"-18	7/8"-14
W-2024-8-6S	1/2"-14	9/16"-18
W-2024-8-8S	1/2"-14	3/4"-16
W-2024-8-10S	1/2"-14	7/8"-14
W-2024-8-12S	1/2"-14	1-1/16"-12
W-2024-12-8S	3/4"-14	3/4"-16
W-2024-12-10S	3/4"-14	7/8"-14
W-2024-12-12S	3/4"-14	1-1/16"-12
W-2024-16-12S	1"-11-1/2	1-1/16"-12
W-2018-16-16S	1"-11-1/2	1-5/16"-12

Male Pipe to Female SAE/JIC 37° Swivel



Part Number	Male Pipe Thread MNPT	Male Pipe Thread SAE/JIC
W-2018-4-4S	1/4"-18	7/16"-20
W-2018-6-6S	3/8"-18	9/16"-18
W-2018-6-8S	3/8"-18	3/4"-16
W-2018-8-8S	1/2"-14	3/4"-16
W-2018-8-10S	1/2"-14	7/8"-14
W-2018-8-12S	1/2"-14	1-1/16"-12
W-2018-12-12S	3/4"-14	1-1/16"-12
W-2018-16-16S	1"-11-1/2	1-5/16"-12

Swivel Female Pipe Female SAE/JIC 37°



Part Number	Female Pipe Thread FNPT	Female Pipe Thread SAE/JIC
W-2242-2-4S	1/8"-27	7/16"-20
W-2242-4-4S	1/4"-18	7/16"-20
W-2242-6-6S	3/8"-18	9/16"-18
W-2242-8-8S	1/2"-14	3/4"-16
W-2242-12-12S	3/4"-14	1-1/16"-12
W-2242-16-16S	1"-11-1/2	1-5/16"-12

Steel Caps and Plugs

SAE 37° Flare Twin

- Made of carbon steel - AISI/SAR 12L14
- Typical applications: hydraulic, instrumentation & chemical processing systems
- Pressure: up to 10000 PSI
- Temperature: -65° to 400°F
- Works w/ all U & Z Series SAE 37° fittings

O-Ring Hex Head Plug



Part Number	Port Size
W-900598-4S	1/4"
W-900598-6S	3/8"
W-900598-8S	1/2"
W-900598-10S	5/8"
W-900598-12S	3/4"
W-900598-16S	1"

Plug



Part Number	Port Size
W-900599-4S	1/4"
W-900599-6S	3/8"
W-900599-8S	1/2"
W-900599-10S	5/8"
W-900599-12S	3/4"
W-900599-16S	1"

Cap



Part Number	Port Size
W-210292-4S	1/4"
W-210292-6S	3/8"
W-210292-8S	1/2"
W-210292-10S	5/8"
W-210292-12S	3/4"
W-210292-16S	1"

Steel Caps and Plugs, cont'd

For-Seal®

- Made of carbon steel - 12L14
- Typical applications: high pressure, hydraulic, pneumatic & chemical processing
- Pressure: up to 6000 PSI
- Temperature: -65° to 250°F
- Works w/ all U & Z Series FOR-SEAL fittings

Plug



Part Number	Tube O.D.
W-FF9767T04-S	1/4"
W-FF9767T06-S	3/8"
W-FF9767T08-S	1/2"
W-FF9767T10-S	5/8"
W-FF9767T12-S	3/4"
W-FF9767T16-S	1"

Cap



Part Number	Tube O.D.
W-FF9863-04S	1/4"
W-FF9863-06S	3/8"
W-FF9863-08S	1/2"
W-FF9863-10S	5/8"
W-FF9863-12S	3/4"
W-FF9863-16S	1"

Cap/Plugs



- Designed to plug multiple inner diameters & cap multiple outer diameters
- Made of low density polyethylene

Tapered Cap/Plugs

Part Number	Cap Fits (O.D.)	Plug Fits (I.D.)	Overall Height
CPL-5	.175 - .240	.302 - .240	.375
CPL-7	.234 - .301	.365 - .300	.375
CPL-9	.299 - .365	.428 - .360	.375
CPL-10	.325 - .396	.460 - .390	.375
CPL-11	.356 - .421	.485 - .420	.375
CPL-12	.385 - .448	.512 - .447	.406
CPL-13	.409 - .485	.547 - .490	.500
CPL-16	.468 - .555	.620 - .531	.500

Part Number	Cap Fits (O.D.)	Plug Fits (I.D.)	Overall Height
CPL-17	.485 - .568	.634 - .550	.500
CPL-18	.520 - .605	.675 - .580	.531
CPL-21	.575 - .665	.728 - .641	.500
CPL-26	.662 - .760	.825 - .725	.500
CPL-27	.686 - .777	.848 - .750	.625
CPL-29	.754 - .868	.931 - .820	.625
CPL-35	.832 - .975	1.040 - .895	.750
CPL-41	.938 - 1.079	1.145 - 1.002	.750
CPL-44	1.090 - 1.205	1.292 - 1.165	.750
CPL-46	1.140 - 1.295	1.350 - 1.235	.750
CPL-54	1.456 - 1.537	1.602 - 1.520	.750
CPL-55	1.497 - 1.620	1.673 - 1.560	.750

Industrial Service Plugs

- Made of chemical & acid resistant rubber, plugs do not contain silicone
- Operating temperature: 15° to 195°F
- Suitable for use in non-pressurized systems
- Prevents oil & chemical spills, leakage & contamination (always clean before reuse to prevent contamination to new or current application)
- Temperature range: -13° to 194°F

Part Number	Description	Size Range
TSP-MICRO	Micro plug	.04 - .40"
TSP-STD	Standard plug	.16 - .91"
TSP-XL	Extra large plug	.47 - 1.70"
TSP-SM	Small plug	1.40 - 3.10"
TSP-XXL	Extra-extra large plug	2.40 - 5.10"



Hydraulic Hose

Hose Protection

Hose Protectors

- Guards hoses & cables against abrasion & scuffing & protects it from sharp edges
- Extends hose life & reduces the need for changes & repairs
- Installs in minutes, no need to remove hose
- Resists solvents, oils, grease & gas
- Operating temp: -40° to 430°F
- Black in color

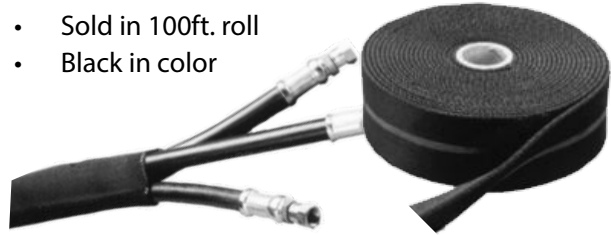


Part Number	Length	Width	Hose O.D.
HP4-BLK	4"	2.50"	0.25" - 1.00"
HP6-BLK	6"	3.25"	0.75" - 1.25"
HP8-BLK	8"	3.50"	1.00" - 1.50"
HP10-BLK	10"	4.50"	1.25" - 2.25"
HP12-BLK	12"	5.00"	1.50" - 2.50"

For a variety of hose protectors in all sizes order our Hose Protector Kit: HP-KIT-LG

Abrasion Sleeve

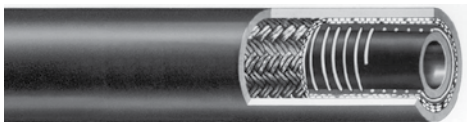
- Guards hoses from abrasion & cuts
- Can bundle two or more hose assemblies together, adding to it's protective qualities
- Made from bulk continuous filament nylon, with a .090" thick wall
- Sold in 100ft. roll
- Black in color



Part Number	Sleeve I.D.	Flat I.D.
W-A3900	0.90"	1.32 - 1.51"
W-A3901	1.06"	1.57 - 1.76"
W-A3902	1.22"	1.82 - 2.01"
W-A3903	1.35"	2.03 - 2.21"
W-A3905	1.81"	2.75 - 2.94"
W-A3906	2.19"	3.43 - 3.53"
W-A3907	2.62"	4.02 - 4.21"
W-A3908	2.80"	4.43 - 4.62"

Low Pressure Hose

Suction Hose



- **Typical Applications:** Hydraulic suction hose
- **Hose Ends:** U Series (page 353), Z Series (page 357) others series are compatible, contact customer service for more info
- **Inner Tube:** CPE

- **Reinforcement:** 1 helical cable wire between 2 textile layers, 1 fiber braid
- **Cover:** Neoprene
- **Temperature Range:** -40°F to 275°F
- **Meets: MSHA & ABS; marine application J1942/1, hydraulic only**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H03912-150R

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H03912	3/4	1-9/32	300	1200	2.5	44	100, 150
W-H03916	1	1-1/2	250	1000	3.0	52	100, 150
W-H03920	1-1/4	1-53/64	200	800	4.0	75	100, 150
W-H03924	1-1/2	2-5/64	150	600	5.0	85	100, 150
W-H03932	2	2-39/64	150	400	6.0	116	100, 150

Are you tired of overpaying for your hose assemblies?

Ask about our hydraulics packages!



PLUS

**72 Compartment
Bin & Base
72B12 & 364-BASE
Collet Package
Part #: W-T420TP-1001**



Let Terminal Supply Co. save you time & money by furnishing your organization with the above hydraulic crimping machine. We will also include a stand up storage bin filled with a customized package of hydraulic fitting to meet your specific needs. Contact your sales rep for more information.

What you see here in our Terminal supply catalog is only a small sampling of the Weatherhead Hydraulic products available. If you don't see exactly the connections, hose or tooling you need for your specific application, please let us know. Customer service will find something that will work for you perfectly!

High Pressure Hose

Hi-R FLEX™ High Pressure Hydraulic Hose



- **Typical Applications:** Lines on off-road construction equipment, farm equipment & other high pressure applications. Works with: water/glycol, water, hydraulic fluids & diesel fuel
- **Hose Ends:** U Series (page 353), Z Series (page 357), others series are compatible, contact customer service for more info

- **Inner Tube:** Nitrile blend
- **Reinforcement:** 2 steel braids
- **Cover:** Neoprene
- **Temperature Range:** -40°F to 212°F
- **Meets: MSHA; ABS; marine application J1942/1, fuel & lube service**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H24504-250R

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H24504	1/4	17/32	5000	20000	2.0	19	250
W-H24506	3/8	11/16	4000	16000	2.5	29	250
W-H24508	1/2	13/16	3500	14000	3.5	36	250
W-H24510	5/8	15/16	2750	11000	4.0	42	250
W-H24512	3/4	1-3/32	2250	9000	4.75	54	250
W-H24516	1	1-13/32	2000	8000	6.0	81	250

High Pressure Hose, cont'd

Pressure Washer Hose



- **Typical Applications:** Lines on off-road construction equipment, farm equipment & other high pressure applications. Works with: water/glycol, water, hydraulic fluids & diesel fuel
- **Hose Ends:** Z Series (page 357), others series are compatible, contact customer service for more info

- **Inner Tube:** Nitrile
- **Reinforcement:** 1 steel braid
- **Cover:** Blue vinyl nitrile
- **Temperature Range:** -40°F to 250°F (hydraulic), up to 200°F (pressure washer)
- **Exceeds: SAE 100R1**
- **Length*:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H34504-250R
*Only 50ft. & 100ft. rolls are continuous lengths

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H34504	1/4	31/64	3000	12000	2.0	13	100, 250, 500
W-H34506	3/8	41/64	3000	12000	2.5	18	100, 250, 500
W-H34508	1/2	25/32	3000	12000	3.5	28	100, 250, 500

High Pressure Hydraulic Hose



- **Typical Applications:** Lines on off-road construction equipment, farm equipment & other high pressure applications
- **Hose Ends:** U Series (page 353), Z Series (page 357), others series are compatible, contact customer service for more info

- **Inner Tube:** Nitrile, neoprene (-4 size only)
- **Reinforcement:** 2 steel braids
- **Cover:** Neoprene
- **Temperature Range:** -40°F to 212°F
- **Meets: MSHA; marine application J1942/1, fuel (-4 thru -20)& hydraulic (-4 thru -32)service**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H42504-500R

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H42504	1/4	19/32	5000	20000	4.0	28	500
W-H42506	3/8	3/4	4000	16000	5.0	38	400
W-H42508	1/2	7/8	3500	14000	7.0	45	300
W-H42510	5/8	1	2750	11000	8.0	51	250
W-H42512	3/4	1-5/32	2250	9000	9.5	66	200
W-H42516	1	1-1/2	2000	8000	12.0	95	200

Premium WeatherSHIELD™ Hose

High Pressure Hydraulic Hose



- **Typical Applications:** General industrial and hydraulic system service with petroleum and water-base fluids
- **Hose Ends:** Z Series (page 357), others series are compatible, contact customer service for more info
- **Inner Tube:** Synthetic rubber
- **Reinforcement:** 2 steel braids

- **Cover:** WeatherSHIELD™ synthetic rubber
- **Temperature Range:** -40°F to 260°F (petroleum based fluids); -40° to 158°F (water based fluids)
- **Meets & Exceeds: MSHA**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H28004-250R

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H28004	1/4	17/32	6500	26000	2.0	22	250, 500
W-H28006	3/8	11/16	5300	21200	2.5	29	250, 500
W-H28008	1/2	13/16	4500	18000	3.5	39	250, 500
W-H28010	5/8	15/16	4000	16000	4.0	44	250
W-H28012	3/4	1-3/32	3500	14000	4.75	53	250
W-H28016	1	1-13/32	3000	12000	6.0	72	250
W-H28020	1-1/4	1-13/20	2500	10000	8.25	109	150
W-H28024	1-1/2	2	2000	8000	10.0	140	150
W-H28032	2	2-1/2	1600	6400	12.5	190	-

High Pressure Hydraulic Hose



- **Typical Applications:** General industrial and hydraulic system service with petroleum and water-base fluids
- **Hose Ends:** Z Series (page 357), others series are compatible, contact customer service for more info
- **Inner Tube:** Synthetic rubber
- **Reinforcement:** 2 steel braids

- **Cover:** WeatherSHIELD™ synthetic rubber
- **Temperature Range:** -40°F to 260°F (petroleum based fluids); -40° to 158°F (water based fluids)
- **Meets & Exceeds: MSHA**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H29004-250R

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H29004	1/4	19/32	6500	26000	4.0	26	250, 500
W-H29006	3/8	3/4	5800	23200	5.0	38	250, 500
W-H29008	1/2	7/8	5000	20000	7.0	46	250, 500
W-H29010	5/8	1	4000	16000	8.0	54	250
W-H29012	3/4	1-5/32	3500	14000	9.5	66	250
W-H29016	1	1-1/2	3000	12000	12.0	101	250
W-H29020	1-1/4	1-7/8	2500	10000	16.5	154	150
W-H29024	1-1/2	2-5/32	2000	8000	20.0	168	100

Premium WeatherSHIELD™ Hose, cont'd

High Pressure Spiral Hydraulic Hose



- **Typical Applications:** Lines on construction, mining, farm equipment & other very high pressure applications
- **Hose Ends:** 4S/6S fitting

- **Inner Tube:** Synthetic rubber
- **Reinforcement:** 4 spiral steel plies
- **Cover:** WeatherSHIELD™ synthetic rubber
- **Temperature Range:** -40°F to 260°F
- **Meets: MSHA; marine application J1942/1 hydraulic (-4 thru -32)service**
- **Length:** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H43006-100R

Note: 4S/6S not shown in this catalog. Please contact your local sales rep or customer service department for more information.

Part Number	Hose I.D. (inches)	Hose O.D. (inches)	Working Pressure (psi)	Min Burst Pressure (psi)	Min Bend (inches)	Pounds / 100ft.	Other Lengths Available (feet)
W-H43006	3/8	53/64	6500	26000	2.50	47	100
W-H43008	1/2	15/16	6000	24000	3.50	59	100, 150
W-H43010	5/8	1-7/64	6000	24000	4.00	69	-
W-H43012	3/4	1-7/32	5500	22000	4.75	92	100, 150
W-H43016	1	1-33/64	5100	20400	6.00	122	100, 150
W-H43020	1-1/4	1-7/8	4500	18000	8.25	164	100, 150
W-H43024	1-1/2	2-1/8	4000	16000	10.00	210	100, 150
W-H43032	2	2-21/32"	4000	16000	12.50	281	100

Fire Sleeve

- A fire sleeve is required for a hose in a marine application when used in a fuel application
- Flame-resistant sheathing constructed of tightly-woven fiberglass coated with a specialty compound & highly temperature resistant silicone rubber
- Fiberglass offers protection in hostile environments w/ heat extremes not compatible w/ hydrocarbon
- Temperature range: 500°F for continuous exposure, 2000°F for 15-20min durations & 3000°F for 15-30 second durations



Part Number	Sleeve I.D.	Roll Length	Used With Hoses
W-A6910	5/8"	100ft.	W-H104, W-H245, W-H425
W-A6912	3/4"	100ft.	W-H104, W-H245, W-H425, W-H569, W-H069
W-A6914	7/8"	100ft.	W-H104, W-H245, W-H425, W-H145, W-H569, W-H069
W-A6916	1"	100ft.	W-H104, W-H245, W-H425, W-H145, W-H569, W-H069
W-A6920	1-1/4"	100ft.	W-H104, W-H245, W-H425, W-H430, W-H145, W-H569, W-H069
W-A6924	1-1/2"	100ft.	W-H104, W-H245, W-H425, W-H430, W-H145, W-H039, W-H569, W-H069
W-A6928	1-3/4"	100ft.	W-H104, W-H245, W-H425, W-H430, W-H039, W-H569, W-H069
W-A6932	2"	50ft.	W-H104, W-H245, W-H425, W-H039, W-H569, W-H069

Hydraulic Tooling

Coll-O-Crimp Super I T-420 Press, Pump & Collet Options

- **Capacity:** 3/16" I.D. 1 fiber braid through 1-1/4" I.D. 6 spiral hose; for hoses other than 4 and 6 spiral, conversion tooling is required
- **Mounting:** Bench
- **Size:** 22"H x 10"W x 20-1/2"D; 210lbs.
- **Z Series Collet Capabilities:** Crimps -4 to -16 Z Series and -8 to -20 size 4S/6S Series fittings



Part Number	Description
T-420-110-Z-SP	Hydraulic pump & press

Weatherhead recommends that a filter, regulator, lubricator & air pressure gauge be installed upstream from the pump. Filter, regulator & lubricator units are not included.

- Note:** 1. All machines are refurbished. If you are interested in a new machine, please inquire with you local sales rep.
2. Hydraulic pump and press only. Collets are sold separately.

Collet Package

**Standard Collet package for the hydraulic press above - part number T-420-110-Z-SP, the hose - part number W-H280 and the corresponding Z fitting.*

Features & Benefits:

- Fitting locators are built into the collets
- Dies are designed for a specific fitting series
- Fitting locators are built into the collets



Part Number	Description
W-T420TP-1001	Z Series tooling kit ▶

Part Number	Collet Hose Size	Collet Color	Works with
W-ET425DC-4Z	1/4"	Red	Z Series
W-ET425DC-6Z	3/8"	Yellow	Z Series
W-ET425DC-8Z	1/2"	Blue	Z Series
W-ET425DC-12Z	3/4"	Green	Z Series
W-ET425DC-16Z	1"	Black	Z Series
W-ET425AR-14			Bowl
W-ET425SR-105			Spacer Ring
W-ET425DC-4S8	1/2"	Blue	45 Series
W-ET425DC-4S12	3/4"	Green	45 Series
W-ET425DC-4S16	1"	Black	45 Series
W-ET425DC-4S20	1-1/4"	Dark Red	45 Series
Additional Collets Sold Separately			
W-ET425DC-10Z	5/8"	Orange	Z Series
W-ET425DC-20Z	1-1/4"	White	Z Series

Additional collet's and spacer rings may be needed when using any additional hoses. Please inquire with you local sales rep or customer service rep for more information.

Hydraulic Tooling, cont'd

Portable Light Duty Hydraulic Press and Pump

- **Capacity:** crimps steel-braided hose from 1/4" to 1"; Synflex® thermoplastic hose assemblies from 1/4" to 3/4", and H430 4-spiral hose from 3/8" to 1".
- Does not come with collets and spacers – tooling is dependent on range of hoses and fittings used
- **Z Series Package Capabilities:** Crimping (-4) through (-10) Z-Series fittings requires purchase of adapter rings
- Supplied with a standard air/hydraulic pump. Requires a minimum of 100psi to operate at maximum efficiency. **Size:** 16-1/4"H x 8"W x 21-3/4"D; 113lbs.
- **Specifications Crimper Dimensions:** 22" tall x 16" width x 14" deep Weight: 70 lbs. (machine & stand only)



Part Number	Description
ET-1000-AH-SP	Portable Hydraulic Pump and Press Only

Note: 1. All machines are refurbished. If you are interested in a new machine, please inquire with you local sales rep.
2. Hydraulic pump and press only. Collets are sold separately.

Collet Package

*Standard Collet package for the hydraulic press above - part number ET-10009-AH-SP, the hose - part number W-H280 and the corresponding Z fitting.



Part Number	Description
W-ET1000TP-1001	Z Series tooling kit ▶

Part Number	Collet Hose Size	Collet Color	Works with
W-ET313DC-4Z	1/4"	Red	Z Series
W-ET313DC-6Z	3/8"	Yellow	Z Series
W-ET313DC-8Z	1/2"	Blue	Z Series
W-ET1000DC-12Z	3/4"	Green	Z Series
W-ET1000DC-16Z	1"	Black	Z Series
W-ET313SR-090A			Spacer ring for W-H180 hose, 4,6,8
W-ET425SR-150A			Spacer ring for W-H180 hose, 12,16
W-ET313DC-4S8	1/2"	Blue	45 Series
W-ET1000DC-4S12	3/4"	Green	45 Series
W-ET1000DC-4S16	1"	Black	45 Series
Additional Collets Sold Separately			
W-ET313DC-10Z	5/8"	Orange	Z Series
W-ET1000DC-M475S*	1-1/4"	White	Z Series

Collets can be ordered in a package or singly by using the part number shown in the listing.

* Requires spacer ring - Part Number W-T420-29 for Z series.

Additional collet's and spacer rings may be needed when using any additional hoses. Please inquire with you local sales rep or customer service rep for more information.

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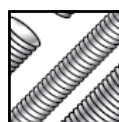
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Standard Fasteners



Bolts / Cap Screws - Zinc Plated



Hex						
Grade 5 USS / Coarse Part Number	Grade 5 SAE / Fine Part Number	Grade 8 USS / Coarse Part Number	Grade 8 SAE / Fine Part Number	Length	Standard Package	Dia.
CSC5-1412	CSF5-1412	CSC8-1412	CSF8-1412	1/2	100	
CSC5-1458	CSF5-1458	CSC8-1458	CSF8-1458	5/8	100	
CSC5-1434	CSF5-1434	CSC8-1434	CSF8-1434	3/4	100	
CSC5-1478	CSF5-1478	CSC8-1478	CSF8-1478	7/8	100	
CSC5-141	CSF5-141	CSC8-141	CSF8-141	1	100	
CSC5-14114	CSF5-14114	CSC8-14114	CSF8-14114	1-1/4	100	
CSC5-14112	CSF5-14112	CSC8-14112	CSF8-14112	1-1/2	100	
CSC5-14134	CSF5-14134	CSC8-14134	CSF8-14134	1-3/4	100	
CSC5-142	CSF5-142	CSC8-142	CSF8-142	2	50	
CSC5-14214	CSF5-14214	CSC8-14214	CSF8-14214	2-1/4	50	
CSC5-14212	CSF5-14212	CSC8-14212	CSF8-14212	2-1/2	50	1/4
CSC5-14234	CSF5-14234	CSC8-14234	CSF8-14234	2-3/4	50	
CSC5-143	CSF5-143	CSC8-143	CSF8-143	3	50	
CSC5-14314	N/A	CSC8-14314*	CSF8-14314	3-1/4	25	
CSC5-14312	CSF5-14312	CSC8-14312	CSF8-14312	3-1/2	25	
CSC5-14334	CSF5-14334	CSC8-14334*	CSF8-14334*	3-3/4	25	
CSC5-144	CSF5-144	CSC8-144	CSF8-144	4	25	
CSC5-14412	CSF5-14412	CSC8-14412	CSF8-14412	4-1/2	25	
CSC5-145	CSF5-145	CSC8-145	CSF8-145	5	25	
CSC5-14512	CSF5-14512	CSC8-14512	CSF8-14512	5-1/2	25	
CSC5-146	CSF5-146	CSC8-146	CSF8-146	6	25	
CSC5-51612	CSF5-51612	CSC8-51612	CSF8-51612	1/2	100	
CSC5-51658	CSF5-51658	CSC8-51658	CSF8-51658	5/8	100	
CSC5-51634	CSF5-51634	CSC8-51634	CSF8-51634	3/4	100	
CSC5-51678	CSF5-51678	CSC8-51678	CSF8-51678	7/8	100	
CSC5-5161	CSF5-5161	CSC8-5161	CSF8-5161	1	100	
CSC5-516114	CSF5-516114	CSC8-516114	CSF8-516114	1-1/4	100	
CSC5-516112	CSF5-516112	CSC8-516112	CSF8-516112	1-1/2	100	
CSC5-516134	CSF5-516134	CSC8-516134	CSF8-516134	1-3/4	100	
CSC5-5162	CSF5-5162	CSC8-5162	CSF8-5162	2	50	
CSC5-516214	CSF5-516214	CSC8-516214	CSF8-516214	2-1/4	25	
CSC5-516212	CSF5-516212	CSC8-516212	CSF8-516212	2-1/2	25	5/16
CSC5-516234	CSF5-516234	CSC8-516234	CSF8-516234	2-3/4	25	
CSC5-5163	CSF5-5163	CSC8-5163	CSF8-5163	3	25	
CSC5-516314	CSF5-516314	CSC8-516314	CSF8-516314	3-1/4	25	
CSC5-516312	CSF5-516312	CSC8-516312	CSF8-516312	3-1/2	25	
CSC5-516334	CSF5-516334	CSC8-516334	CSF8-516334	3-3/4	25	
CSC5-5164	CSF5-5164	CSC8-5164	CSF8-5164	4	25	
CSC5-516412	CSF5-516412	CSC8-516412	CSF8-516412	4-1/2	25	
CSC5-5165	CSF5-5165	CSC8-5165	CSF8-5165	5	25	
CSC5-516512	CSF5-516512	CSC8-516512	CSF8-516512	5-1/2	25	
CSC5-5166	CSF5-5166	CSC8-5166	CSF8-5166	6	25	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Bolts / Cap Screws - Zinc Plated, cont'd

Hex

Grade 5 USS / Coarse Part Number	Grade 5 SAE / Fine Part Number	Grade 8 USS / Coarse Part Number	Grade 8 SAE / Fine Part Number	Length	Standard Package	Dia.
CSC5-3812	CSF5-3812	CSC8-3812	CSF8-3812	1/2	100	3/8
CSC5-3858	CSF5-3858	CSC8-3858	CSF8-3858	5/8	100	
CSC5-3834	CSF5-3834	CSC8-3834	CSF8-3834	3/4	100	
CSC5-3878	CSF5-3878	CSC8-3878	CSF8-3878	7/8	100	
CSC5-381	CSF5-381	CSC8-381	CSF8-381	1	100	
CSC5-38114	CSF5-38114	CSC8-38114	CSF8-38114	1-1/4	100	
CSC5-38112	CSF5-38112	CSC8-38112	CSF8-38112	1-1/2	100	
CSC5-38134	CSF5-38134	CSC8-38134	CSF8-38134	1-3/4	100	
CSC5-382	CSF5-382	CSC8-382	CSF8-382	2	50	
CSC5-38214	CSF5-38214	CSC8-38214	CSF8-38214	2-1/4	25	
CSC5-38212	CSF5-38212	CSC8-38212	CSF8-38212	2-1/2	25	
CSC5-38234	CSF5-38234	CSC8-38234	CSF8-38234	2-3/4	25	
CSC5-383	CSF5-383	CSC8-383	CSF8-383	3	25	
CSC5-38314	CSF5-38314	CSC8-38314	CSF8-38314	3-1/4	25	
CSC5-38312	CSF5-38312	CSC8-38312	CSF8-38312	3-1/2	25	
CSC5-38334	CSF5-38334	CSC8-38334	CSF8-38334	3-3/4	25	
CSC5-384	CSF5-384	CSC8-384	CSF8-384	4	25	
CSC5-38412	CSF5-38412	CSC8-38412	CSF8-38412	4-1/2	25	
CSC5-385	CSF5-385	CSC8-385	CSF8-385	5	25	
CSC5-38512	CSF5-38512	CSC8-38512	CSF8-38512	5-1/2	25	
CSC5-386	CSF5-386	CSC8-386	CSF8-386	6	25	
CSC5-38612	CSF5-38612*	CSC8-38612*	CSF8-38612*	6-1/2	10	
CSC5-387	CSF5-387*	CSC8-387*	CSF8-387*	7	25	
CSC5-71634	CSF5-71634	CSC8-71634	CSF8-71634	3/4	100	
CSC5-7161	CSF5-7161	CSC8-7161	CSF8-7161	1	50	
CSC5-716114	CSF5-716114	CSC8-716114	CSF8-716114	1-1/4	50	
CSC5-716112	CSF5-716112	CSC8-716112	CSF8-716112	1-1/2	50	
CSC5-716134	CSF5-716134	CSC8-716134	CSF8-716134	1-3/4	50	
CSC5-7162	CSF5-7162	CSC8-7162	CSF8-7162	2	25	
CSC5-716214	CSF5-716214	CSC8-716214	CSF8-716214	2-1/4	25	
CSC5-716212	CSF5-716212	CSC8-716212	CSF8-716212	2-1/2	25	
CSC5-716234	CSF5-716234	CSC8-716234	CSF8-716234	2-3/4	25	
CSC5-7163	CSF5-7163	CSC8-7163	CSF8-7163	3	25	
CSC5-716314*	CSF5-716314	CSC8-716314*	CSF8-716314*	3-1/4	25	
CSC5-716312	CSF5-716312	CSC8-716312	CSF8-716312	3-1/2	25	
CSC5-716334*	CSF5-716334	CSC8-716334*	CSF8-716334*	3-3/4	25	
CSC5-7164	CSF5-7164	CSC8-7164	CSF8-7164	4	10	
CSC5-716412	CSF5-716412	CSC8-716412	CSF8-716412	4-1/2	10	
CSC5-7165	CSF5-7165	CSC8-7165	CSF8-7165	5	10	
CSC5-716512	CSF5-716512	CSC8-716512	CSF8-716512	5-1/2	10	
CSC5-7166	CSF5-7166	CSC8-7166	CSF8-7166	6	10	
CSC5-1234	CSF5-1234*	CSC8-1234	CSF8-1234	3/4	50	1/2
CSC5-121	CSF5-121	CSC8-121	CSF8-121	1	50	
CSC5-12114	CSF5-12114	CSC8-12114	CSF8-12114	1-1/4	25	
CSC5-12112	CSF5-12112	CSC8-12112	CSF8-12112	1-1/2	25	

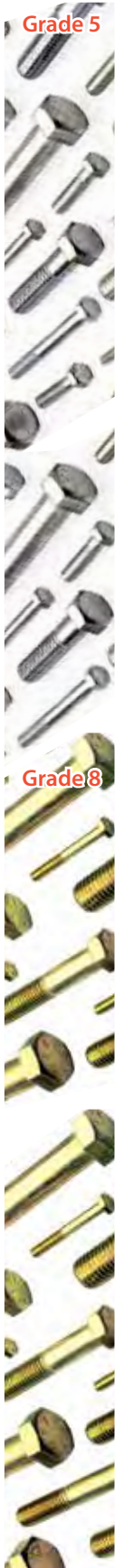
Grade 5

Grade 8



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Bolts / Cap Screws - Zinc Plated, cont'd



Hex

Grade 5 USS / Coarse Part Number	Grade 5 SAE / Fine Part Number	Grade 8 USS / Coarse Part Number	Grade 8 SAE / Fine Part Number	Length	Standard Package	Dia.
CSC5-12134	CSF5-12134	CSC8-12134	CSF8-12134	1-3/4	25	
CSC5-122	CSF5-122	CSC8-122	CSF8-122	2	25	
CSC5-12214	CSF5-12214	CSC8-12214	CSF8-12214	2-1/4	25	
CSC5-12212	CSF5-12212	CSC8-12212	CSF8-12212	2-1/2	25	
CSC5-12234	CSF5-12234	CSC8-12234	CSF8-12234	2-3/4	25	
CSC5-123	CSF5-123	CSC8-123	CSF8-123	3	25	
CSC5-12314	CSF5-12314	CSC8-12314	CSF8-12314	3-1/4	10	
CSC5-12312	CSF5-12312	CSC8-12312	CSF8-12312	3-1/2	10	
CSC5-12334	CSF5-12334	CSC8-12334*	CSF8-12334	3-3/4	10	1/2
CSC5-124	CSF5-124	CSC8-124	CSF8-124	4	10	
CSC5-12412	CSF5-12412	CSC8-12412	CSF8-12412	4-1/2	10	
CSC5-125	CSF5-125	CSC8-125	CSF8-125	5	10	
CSC5-12512	CSF5-12512	CSC8-12512	CSF8-12512	5-1/2	10	
CSC5-126	CSF5-126	CSC8-126	CSF8-126	6	10	
CSC5-12612	CSF5-12612	CSC8-12612	CSF8-12612	6-1/2	10	
CSC5-127	CSF5-127	CSC8-127	CSF8-127*	7	10	
CSC5-128	CSF5-128*	CSC8-128*	CSF8-128*	8	10	
CSC5-9161	CSF5-9161	CSC8-9161	CSF8-9161	1	25	
CSC5-916114	CSF5-916114	CSC8-916114	CSF8-916114	1-1/4	25	
CSC5-916112	CSF5-916112	CSC8-916112	CSF8-916112	1-1/2	25	
CSC5-916134	CSF5-916134	CSC8-916134	CSF8-916134	1-3/4	25	
CSC5-9162	CSF5-9162	CSC8-9162	CSF8-9162	2	25	
CSC5-916214	CSF5-916214	CSC8-916214	CSF8-916214	2-1/4	10	
CSC5-916212	CSF5-916212	CSC8-916212	CSF8-916212	2-1/2	10	
CSC5-916234	CSF5-916234	CSC8-916234*	CSF8-916234*	2-3/4	10	9/16
CSC5-9163	CSF5-9163	CSC8-9163	CSF8-9163	3	10	
CSC5-916312	CSF5-916312	CSC8-916312	CSF8-916312	3-1/2	10	
CSC5-9164	CSF5-9164	CSC8-9164	CSF8-9164	4	10	
CSC5-916412	CSF5-916412	CSC8-916412	CSF8-916412	4-1/2	10	
CSC5-9165	CSF5-9165	CSC8-9165	CSF8-9165	5	10	
CSC5-916512	CSF5-916512	CSC8-916512	CSF8-916512	5-1/2	10	
CSC5-9166	CSF5-9166	CSC8-9166	CSF8-9166	6	10	
CSC5-581	CSF5-581	CSC8-581	CSF8-581	1	25	
CSC5-58114	CSF5-58114	CSC8-58114	CSF8-58114	1-1/4	25	
CSC5-58112	CSF5-58112	CSC8-58112	CSF8-58112	1-1/2	25	
CSC5-58134	CSF5-58134	CSC8-58134	CSF8-58134	1-3/4	25	
CSC5-582	CSF5-582	CSC8-582	CSF8-582	2	25	
CSC5-58214	CSF5-58214	CSC8-58214	CSF8-58214	2-1/4	10	
CSC5-58212	CSF5-58212	CSC8-58212	CSF8-58212	2-1/2	10	5/8
CSC5-58234	CSF5-58234*	N/A	CSF8-58234	2-3/4	10	
CSC5-583	CSF5-583	CSC8-583	CSF8-583	3	10	
CSC5-58314	CSF5-58314	CSC8-58314	CSF8-58314*	3-1/4	10	
CSC5-58312	CSF5-58312	CSC8-58312	CSF8-58312	3-1/2	10	
CSC5-58334	CSF5-58334*	CSC8-58334*	CSF8-58334*	3-3/4	10	

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Bolts / Cap Screws - Zinc Plated, cont'd

Hex

Grade 5 USS / Coarse Part Number	Grade 5 SAE / Fine Part Number	Grade 8 USS / Coarse Part Number	Grade 8 SAE / Fine Part Number	Length	Standard Package	Dia.
CSC5-584	CSF5-584	CSC8-584	CSF8-584	4	10	5/8
CSC5-58412	CSF5-58412	CSC8-58412	CSF8-58412	4-1/2	10	
CSC5-585	CSF5-585	CSC8-585	CSF8-585	5	10	
CSC5-58512	CSF5-58512	CSC8-58512	CSF8-58512	5-1/2	10	
CSC5-586	CSF5-586	CSC8-586	CSF8-586	6	10	
CSC5-58612	CSF5-58612	CSC8-58612*	CSF8-58612*	6-1/2	10	
CSC5-587	CSF5-587	CSC8-587	CSF8-587*	7	10	
CSC5-58712	CSF5-58712	CSC8-58712*	CSF8-58712*	7-1/2	10	
CSC5-588	CSF5-588	CSC8-588	CSF8-588*	8	10	
CSC5-34114	CSF5-34114	CSC8-34114	CSF8-34114	1-1/4	10	3/4
CSC5-34112	CSF5-34112	CSC8-34112	CSF8-34112	1-1/2	10	
CSC5-34134	CSF5-34134	CSC8-34134	CSF8-34134	1-3/4	10	
CSC5-342	CSF5-342	CSC8-342	CSF8-342	2	10	
CSC5-34214	CSF5-34214	CSC8-34214	CSF8-34214	2-1/4	10	
CSC5-34212	CSF5-34212	CSC8-34212	CSF8-34212	2-1/2	10	
CSC5-34234	CSF5-34234	CSC8-34234	CSF8-34234	2-3/4	10	
CSC5-343	CSF5-343	CSC8-343	CSF8-343	3	10	
CSC5-34314	CSF5-34314	CSC8-34314*	CSF8-34314	3-1/4	10	
CSC5-34312	CSF5-34312	CSC8-34312	CSF8-34312	3-1/2	10	
CSC5-34334	CSF5-34334	CSC8-34334	CSF8-34334	3-3/4	10	
CSC5-344	CSF5-344	CSC8-344	CSF8-344	4	10	
CSC5-34412	CSF5-34412	CSC8-34412	CSF8-34412	4-1/2	10	
CSC5-345	CSF5-345	CSC8-345	CSF8-345	5	10	
CSC5-34512	CSF5-34512	CSC8-34512	CSF8-34512	5-1/2	10	
CSC5-346	CSF5-346	CSC8-346	CSF8-346	6	10	
CSC5-34612	CSF5-34612	CSC8-34612	CSF8-34612*	6-1/2	10	
CSC5-347	CSF5-347	CSC8-347	CSF8-347*	7	10	
CSC5-34712	CSF5-34712	CSC8-34712*	CSF8-34712*	7-1/2	10	
CSC5-348*	CSF5-348	CSC8-348*	CSF8-348*	8	10	
CSC5-78112*	CSF5-78112*	CSC8-78112	CSF8-78112*	1-1/2	10	7/8
CSC5-782*	CSF5-782*	CSC8-782	CSF8-782*	2	5	
CSC5-78214*	CSF5-78214*	CSC8-78214	CSF8-78214*	2-1/4	5	
CSC5-78212*	CSF5-78212*	CSC8-78212	CSF8-78212*	2-1/2	5	
CSC5-78234*	CSF5-78234*	CSC8-78234	CSF8-78234*	2-3/4	5	
CSC5-783*	CSF5-783*	CSC8-783	CSF8-783*	3	5	
CSC5-78314*	CSF5-78314*	CSC8-78314	CSF8-78314*	3-1/4	5	
CSC5-78312*	CSF5-78312*	CSC8-78312	CSF8-78312*	3-1/2	5	
CSC5-784*	CSF5-784*	CSC8-784	CSF8-784*	4	5	
CSC5-78412*	CSF5-78412*	CSC8-78412	CSF8-78412*	4-1/2	5	
CSC5-785*	CSF5-785*	CSC8-785	CSF8-785*	5	5	
CSC5-78512*	CSF5-78512*	CSC8-78512	CSF8-78512*	5-1/2	5	
CSC5-786*	CSF5-786*	CSC8-786	CSF8-786*	6	5	
CSC5-787*	CSF5-787*	CSC8-787	CSF8-787*	7	5	
CSC5-788*	CSF5-788*	CSC8-788	CSF8-788*	8	5	

Grade 5

Grade 8



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Nuts - Standard

Hex Nuts - Grade 5 & Grade 8



	Grade 5 Part Number	Grade 8 Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	HNC5-1/4	HNC8-1/4	1/4-20	100
	HNC5-5/16	HNC8-5/16	5/16-18	100
	HNC5-3/8	HNC8-3/8	3/8-16	100
	HNC5-7/16	HNC8-7/16	7/16-14	50
	HNC5-1/2	HNC8-1/2	1/2-13	50
	HNC5-9/16	HNC8-9/16	9/16-12	25
	HNC5-5/8	HNC8-5/8	5/8-11	25
	HNC5-3/4	HNC8-3/4	3/4-10	20
	HNC5-7/8	HNC8-7/8	7/8-9	15
	HNC5-1	HNC8-1	1-8	10

	Grade 5 Part Number	Grade 8 Part Number	Fits Bolt Dia.	Standard Package
SAE / Fine	HNF5-1/4	HNF8-1/4	1/4-28	100
	HNF5-5/16	HNF8-5/16	5/16-24	100
	HNF5-3/8	HNF8-3/8	3/8-24	100
	HNF5-7/16	HNF8-7/16	7/16-20	50
	HNF5-1/2	HNF8-1/2	1/2-20	50
	HNF5-9/16	HNF8-9/16	9/16-18	25
	HNF5-5/8	HNF8-5/8	5/8-18	25
	HNF5-3/4	HNF8-3/4	3/4-16	20
	HNF5-7/8	HNF8-7/8	7/8-14	15
	HNF5-1	HNF8-1	1-14	10



Standard Nylon Lock Nuts - Grade 5 & Grade 8

	Grade 5 Part Number	Grade 8 Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	NNC-4	N/A	4-40	100
	NNC-6	N/A	6-32	100
	NNC-8	N/A	8-32	100
	NNC-10	N/A	10-24	100
	NNC-1/4	NNC8-1/4	1/4-20	100
	NNC-5/16	NNC8-5/16	5/16-18	100
	NNC-3/8	NNC8-3/8	3/8-16	100
	NNC-7/16	NNC8-7/16	7/16-14	50
	NNC-1/2	NNC8-1/2	1/2-13	50
	NNC-9/16	NNC8-9/16	9/16-12	50
	NNC-5/8	NNC8-5/8	5/8-11	25
	NNC-3/4	NNC8-3/4	3/4-10	20
	NNC-7/8	NNC8-7/8	7/8-9	15
	NNC-1	NNC8-1	1-8	10

	Grade 5 Part Number	Grade 8 Part Number	Fits Bolt Dia.	Standard Package
SAE / Fine	NNF-10	N/A	10-32	100
	NNF-1/4	NNF8-1/4	1/4-28	100
	NNF-5/16	NNF8-5/16	5/16-24	100
	NNF-3/8	NNF8-3/8	3/8-24	100
	NNF-7/16	NNF8-7/16	7/16-20	50
	NNF-1/2	NNF8-1/2	1/2-20	50
	NNF-9/16	NNF8-9/16	9/16-18	50
	NNF-5/8	NNF8-5/8	5/8-18	25
	NNF-3/4	NNF8-3/4	3/4-16	20
	NNF-7/8	NNF8-7/8	7/8-14	15
	NNF-1	NNF8-1	1-14	10






All Steel Lock Nuts - Grade C

	Coarse Grade C Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	CLNC-1/4	1/4-20	100
	CLNC-5/16	5/16-18	100
	CLNC-3/8	3/8-16	100
	CLNC-7/16	7/16-14	50
	CLNC-1/2	1/2-13	50
	CLNC-9/16	9/16-12	50
	CLNC-5/8	5/8-11	25
	CLNC-3/4	3/4-10	20
	CLNC-7/8	7/8-9	15
	CLNC-1	1-8	10

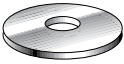
	Fine Grade C Part Number	Fits Bolt Dia.	Standard Package
SAE / Fine	CLNF-1/4	1/4-28	100
	CLNF-5/16	5/16-24	100
	CLNF-3/8	3/8-24	100
	CLNF-7/16	7/16-20	50
	CLNF-1/2	1/2-20	50
	CLNF-9/16	9/16-18	50
	CLNF-5/8	5/8-18	25
	CLNF-3/4	3/4-16	20
	CLNF-7/8	7/8-14	15
	CLNF-1	1-14	10

Washers - Standard

Flat Washers - Grade 5 & Grade 8

	 Grade 5	 Grade 8	 Grade 8 - Extra Thick					
	Grade 5 Part Number	Grade 8 Part Number	Grade 8 Extra Thick Part Number	Thickness Range (inches)	Fits Bolt Dia.	I.D.	O.D.	Standard Package
USS	FW-USS-1/4	FW8-USS-1/4	ETW8-USS-1/4	.064 - .080	1/4	5/16	3/4	100
	FW-USS-5/16	FW8-USS-5/16	ETW8-USS-5/16	.079 - .093	5/16	3/8	7/8	100
	FW-USS-3/8	FW8-USS-3/8	ETW8-USS-3/8	.079 - .098	3/8	7/16	1	100
	FW-USS-7/16	FW8-USS-7/16	ETW8-USS-7/16	.090 - .106	7/16	1/2	1-1/4	50
	FW-USS-1/2	FW8-USS-1/2	ETW8-USS-1/2	.122 - .146	1/2	9/16	1-3/8	50
	FW-USS-9/16	FW8-USS-9/16	ETW8-USS-9/16	.122 - .146	9/16	5/8	1-1/2	50
	FW-USS-5/8	FW8-USS-5/8	ETW8-USS-5/8	.136 - .160	5/8	11/16	1-3/4	25
	FW-USS-3/4	FW8-USS-3/4	ETW8-USS-3/4	.136 - .160	3/4	13/16	2	20
	FW-USS-7/8	FW8-USS-7/8	ETW8-USS-7/8	.136 - .160	7/8	15/16	2-1/4	15
	FW-USS-1	FW8-USS-1	ETW8-USS-1	.136 - .160	1	1-1/16	2-1/2	10
SAE	FW-SAE-4	N/A	N/A	-	4	1/8	5/16	100
	FW-SAE-6	N/A	N/A	-	6	5/32	3/8	100
	FW-SAE-8	N/A	N/A	-	8	3/16	7/16	100
	FW-SAE-10	N/A	N/A	-	10	7/32	1/2	100
	FW-SAE-12	N/A	N/A	-	12	1/4	9/16	100
	FW-SAE-1/4	FW8-SAE-1/4	ETW8-SAE-1/4	.064 - .088	1/4	9/32	5/8	100
	FW-SAE-5/16	FW8-SAE-5/16	ETW8-SAE-5/16	.079 - .093	5/16	11/32	11/16	100
	FW-SAE-3/8	FW8-SAE-3/8	ETW8-SAE-3/8	.079 - .093	3/8	13/32	13/16	100
	FW-SAE-7/16	FW8-SAE-7/16	ETW8-SAE-7/16	.090 - .106	7/16	15/32	59/64	50
	FW-SAE-1/2	FW8-SAE-1/2	ETW8-SAE-1/2	.122 - .146	1/2	17/32	1-1/16	50
	FW-SAE-9/16	FW8-SAE-9/16	ETW8-SAE-9/16	.122 - .146	9/16	19/32	1-3/16	50
	FW-SAE-5/8	FW8-SAE-5/8	ETW8-SAE-5/8	.136 - .160	5/8	21/32	1-5/16	50
	FW-SAE-3/4	FW8-SAE-3/4	ETW8-SAE-3/4	.136 - .160	3/4	13/16	1-1/2	25
	FW-SAE-7/8	FW8-SAE-7/8	ETW8-SAE-7/8	.136 - .160	7/8	15/16	1-3/4	15
	FW-SAE-1	FW8-SAE-1	ETW8-SAE-1	.136 - .160	1	1-1/16	2	10

Fender Washers - Grade 5

									
	Grade 5 Part Number	I.D.	O.D.	Standard Package	Grade 5 Part Number	I.D.	O.D.	Standard Package	
SAE	FENW-3/16X1	3/16	1	100	SAE	FENW-5/16X1-1/2	5/16	1-1/2	100
	FENW-3/16X1-1/4	3/16	1-1/4	100		FENW-3/8X1-1/4	3/8	1-1/4	100
	FENW-1/4X1	1/4	1	100		FENW-3/8X1-1/2	3/8	1-1/2	100
	FENW-1/4X1-1/4	1/4	1-1/4	100		FENW-3/8X1-5/8	3/8	1-5/8	100
	FENW-1/4X1-1/2	1/4	1-1/2	100		FENW-3/8X2	3/8	2	100
	FENW-1/4X2	1/4	2	100		FENW-1/2X1-1/2	1/2	1-1/2	100
	FENW-5/16X1-1/4	5/16	1-1/4	100		FENW-1/2X2	1/2	2	100

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Washers - Standard, cont'd

Countersunk Washers - Grade 5



Grade 5 Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FINW-6	6	.173	15/32	100
FINW-8	8	.209	17/32	100
FINW-10	10	.269	19/32	100

Grade 5 Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FINW-12	12	.275	21/32	100
FINW-14	1/4	.324	25/32	100

Use with flat headed machine screws and sheet metal screws

Lock Washers - Grade 5 & Grade 8



Grade 5 Split Lock Washer Part Number	Grade 8 Split Lock Washer Part Number	External Tooth Lock Washer Part Number	Internal Tooth Lock Washer Part Number	High Collar Lock Washer Part Number	Fits Bolt Dia.	Standard Package
LW-4	N/A	LWE-4	LWI-4	N/A	4	100
LW-6	N/A	LWE-6	LWI-6	HCLW-6	6	100
LW-8	N/A	LWE-8	LWI-8	HCLW-8	8	100
LW-10	N/A	LWE-10	LWI-10	HCLW-10	10	100
LW-12	N/A	LWE-12	LWI-12	HCLW-12	12	100
LW-1/4	LW8-1/4	LWE-1/4	LWI-1/4	HCLW-1/4	1/4	100
LW-5/16	LW8-5/16	LWE-5/16	LWI-5/16	HCLW-5/16	5/16	100
LW-3/8	LW8-3/8	LWE-3/8	LWI-3/8	HCLW-3/8	3/8	100
LW-7/16	LW8-7/16	LWE-7/16	LWI-7/16	HCLW-7/16	7/16	50
LW-1/2	LW8-1/2	LWE-1/2	LWI-1/2	HCLW-1/2	1/2	50
LW-9/16	LW8-9/16	LWE-9/16	LWI-9/16	HCLW-9/16	9/16	50
LW-5/8	LW8-5/8	LWE-5/8	LWI-5/8	HCLW-5/8	5/8	50
LW-3/4	LW8-3/4	LWE-3/4	LWI-3/4	HCLW-3/4	3/4	25
LW-7/8	LW8-7/8	LWE-7/8	LWI-7/8	HCLW-7/8	7/8	15
LW-1	LW8-1	LWE-1	LWI-1	HCLW-1	1	10

Make a complete set when you order our Nut Kit (NUT-KIT) with machine, keps & wing nuts in a variety of sizes along with our Washer Kit (WASHER-KIT) with an assortment of flat, lock, internal & external tooth washers.

Threads Per Inch Chart



Dia.	USS Coarse	SAE Fine	Dia.	USS Coarse	SAE Fine	Dia.	USS Coarse	SAE Fine	Dia.	USS Coarse	SAE Fine
#4	40	48	#10	24	32	3/8"	16	24	5/8"	11	18
#5	40	44	#12	24	28	7/16"	14	20	3/4"	10	16
#6	32	40	1/4"	20	28	1/2"	13	20	7/8"	9	14
#8	32	36	5/16"	18	24	9/16"	12	18	1"	8	14

For sizes larger than 1", please inquire.

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Hex Flange Bolts - Unplated

Hex Washer

Grade 8 USS / Coarse Part Number		Grade 8 SAE / Fine Part Number		Length	Standard Package	Dia.
HFLBC-3834		N/A		3/4		
HFLBC-381		N/A		1		3/8
HFLBC-38114		N/A		1-1/4		
HFLBC-12112		HFLBF-12112		1-1/2		
HFLBC-122		HFLBF-122		2	25	
HFLBC-12212		HFLBF-12212		2-1/2	25	1/2
HFLBC-123		HFLBF-123		3	25	
HFLBC-58112		N/A				
HFLBC-582		HFLBF-582		2	25	
HFLBC-58214		HFLBF-58214		2-1/4	25	5/8
HFLBC-58212		HFLBF-58212		2-1/2	25	
HFLBC-583		HFLBF-583		3	25	
HFLBC-342		HFLBF-342		2	10	
HFLBC-34212		HFLBF-34212		2-1/2	10	3/4
HFLBC-343		HFLBF-343		3	10	



Nuts - Hex Flange

Hex Flange Lock Nuts - Unplated



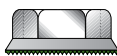
	Grade 8 Coarse Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	HFLNC-1/2	1/2-13	25
	HFLNC-5/8	5/8-11	25
	HFLNC-3/4	3/4-10	10
SAE / Fine	HFLNF-1/2	1/2-20	25
	HFLNF-5/8	5/8-18	25
	HFLNF-3/4	3/4-16	10

Hex Flange Nuts - Unplated

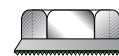


	Grade 8 Coarse Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	HFNC-1/2	1/2-13	25
	HFNC-5/8	5/8-11	25
	HFNC-3/4	3/4-10	10
SAE / Fine	HFNF-1/2	1/2-20	25
	HFNF-5/8	5/8-18	25
	HFNF-3/4	3/4-16	10

Serrated Flange Hex Nuts



	Grade 5 Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	SFHN-632	6-32	100
	SFHN-832	8-32	100
	SFHN-1024	10-24	100
	SFHN-1420	1/4-20	100
	SFHN-51618	5/16-18	100
	SFHN-3816	3/8-16	100
	SFHN-71614	7/16-14	50
	SFHN-1213	1/2-13	50
	SFHN-5811	5/8-11	25




	Grade 5 Part Number	Fits Bolt Dia.	Standard Package
SAE / Fine	SFHN-1032	10-32	100
	SFHN-1428	1/4-28	100
	SFHN-51624	5/16-24	100
	SFHN-3824	3/8-24	100
	SFHN-71620	7/16-20	50
	SFHN-1220	1/2-20	50
	SFHN-5818	5/8-18	25

Self Drilling Plated Tek Screws - Plated




Hex Washer


Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHW-638	3/8	100	6
TSHW-612	1/2	100	
TSHW-658	5/8	100	
TSHW-634	3/4	100	
TSHW-61	1	100	
TSHW-812	1/2	100	
TSHW-858	5/8	100	8
TSHW-834	3/4	100	
TSHW-81	1	100	
TSHW-8114	1-1/4	100	
TSHW-8112	1-1/2	100	
TSHW-8134	1-3/4	100	
TSHW-1012	1/2	100	10
TSHW-1058	5/8	100	
TSHW-1034	3/4	100	
TSHW-101	1	100	
TSHW-10114	1-1/4	100	
TSHW-10112	1-1/2	100	




Phillips

Pan Head Part Number 	Length	Standard Package	Dia.
TSPP-638	3/8	100	6
TSPP-612	1/2	100	
TSPP-658	5/8	100	
TSPP-634	3/4	100	
TSPP-61	1	100	
TSPP-6112	1-1/2	100	
TSPP-812	1/2	100	8
TSPP-858	5/8	100	
TSPP-834	3/4	100	
TSPP-81	1	100	








Hex Washer

Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHW-10134	1-3/4	100	10
TSHW-102	2	100	
TSHW-10212	2-1/2	100	
TSHW-1234	3/4	100	12
TSHW-121	1	100	
TSHW-12114	1-1/4	100	
TSHW-12112	1-1/2	100	
TSHW-12134	1-3/4	100	
TSHW-122	2	100	
TSHW-1434	3/4	50	1/4
TSHW-141	1	50	
TSHW-14114	1-1/4	50	
TSHW-14112	1-1/2	50	
TSHW-14134	1-3/4	50	
TSHW-142	2	50	
TSHW-14212	2-1/2	50	
TSHW-143	3	50	
TSHW-144	4	50	

Phillips





Pan Head Part Number 	Length	Standard Package	Dia.	
TSPP-8114	1-1/4	100	8	
TSPP-8112	1-1/2	100		
TSPP-1012	1/2	100	10	
TSPP-1058	5/8	100		
TSPP-1034	3/4	100		
TSPP-101	1	100		
TSPP-10114	1-1/4	100		
TSPP-10112	1-1/2	100		
TSPP-102	2	100		
TSPP-1434	3/4	100		1/4

Fastener Head Examples

Flat Head 	Round Head 	Oval Washer Head 	Hex Washer Head 
Pan Head 	Oval Head 	Hex Head 	

Sheet Metal Screws - Plated

✱ Phillips ✱





Flat Head Part Number 	Pan Head Part Number 	Oval Head Part Number 	Oval Washer Part Number 	Length	Standard Package	Dia.
SMSFP-414*	SMSPP-414	N/A	N/A	1/4	100	4
SMSFP-438	SMSPP-438	SMSOP-438	N/A	3/8	100	
N/A	N/A	SMSOP-412	N/A	1/2	100	
SMSFP-458	N/A	SMSOP-458	N/A	5/8	100	
SMSFP-434	N/A	SMSOP-434	N/A	3/4	100	
SMSFP-614*	SMSPP-614	N/A	N/A	1/4	100	6
SMSFP-638	SMSPP-638	SMSOP-638	N/A	3/8	100	
SMSFP-612	SMSPP-612	SMSOP-612	N/A	1/2	100	
SMSFP-658	SMSPP-658	SMSOP-658	SMSOWP-658	5/8	100	
SMSFP-634	SMSPP-634	SMSOP-634	SMSOWP-634	3/4	100	
SMSFP-61	SMSPP-61	SMSOP-61	SMSOWP-61	1	100	
SMSFP-6114	SMSPP-6114	SMSOP-6114	N/A	1-1/4	100	
SMSFP-6112	SMSPP-6112	SMSOP-6112	N/A	1-1/2	100	
SMSFP-838*	SMSPP-838	N/A	N/A	3/8	100	8
SMSFP-812	SMSPP-812	SMSOP-812	N/A	1/2	100	
N/A	SMSPP-858	N/A	SMSOWP-858	5/8	100	
SMSFP-834	SMSPP-834	SMSOP-834	SMSOWP-834	3/4	100	
SMSFP-81	SMSPP-81	SMSOP-81	SMSOWP-81	1	100	
SMSFP-8114	SMSPP-8114	SMSOP-8114	SMSOWP-8114	1-1/4	100	
SMSFP-8112	SMSPP-8112	SMSOP-8112	SMSOWP-8112	1-1/2	100	
SMSFP-8134	SMSPP-8134	SMSOP-8134	N/A	1-3/4	100	
SMSFP-82	SMSPP-82	SMSOP-82	N/A	2	100	
SMSFP-1038*	SMSPP-1038	SMSOP-1038*	N/A	3/8	100	10
N/A	SMSPP-1012	N/A	N/A	1/2	100	
SMSFP-1058	SMSPP-1058	SMSOP-1058	SMSOWP-1058	5/8	100	
SMSFP-1034	SMSPP-1034	SMSOP-1034	SMSOWP-1034	3/4	100	
SMSFP-1078*	SMSPP-1078	SMSOP-1078*	N/A	7/8	100	
SMSFP-101	SMSPP-101	SMSOP-101	SMSOWP-101	1	100	
SMSFP-10114	SMSPP-10114	SMSOP-10114	SMSOWP-10114	1-1/4	100	
SMSFP-10112	SMSPP-10112	SMSOP-10112	N/A	1-1/2	100	
SMSFP-10134	SMSPP-10134	SMSOP-10134	N/A	1-3/4	100	
SMSFP-102	SMSPP-102	SMSOP-102	N/A	2	100	
SMSFP-10212	SMSPP-10212	SMSOP-10212*	N/A	2-1/2	100	
SMSFP-103	SMSPP-103	N/A	N/A	3	100	
N/A	SMSPP-1212	SMSOP-1212	N/A	1/2	100	12
SMSFP-1258	SMSPP-1258	N/A	N/A	5/8	100	
SMSFP-1234	SMSPP-1234	SMSOP-1234	N/A	3/4	100	
SMSFP-121	SMSPP-121	SMSOP-121	N/A	1	100	
SMSFP-12114	SMSPP-12114	SMSOP-12114	N/A	1-1/4	100	
SMSFP-12112	SMSPP-12112	SMSOP-12112	N/A	1-1/2	100	
SMSFP-12134	SMSPP-12134	SMSOP-12134	N/A	1-3/4	100	
SMSFP-122	SMSPP-122	SMSOP-122	N/A	2	100	
SMSFP-12212	SMSPP-12212	N/A	N/A	2-1/2	100	
SMSFP-123	SMSPP-123	N/A	N/A	3	100	



Sheet Metal Screws - Plated, cont'd




✱ Phillips ✱


Flat Head Part Number 	Pan Head Part Number 	Oval Head Part Number 	Oval Washer Part Number 	Length	Standard Package	Dia.
N/A	SMSPP-1412	N/A	N/A	1/2	100	1/4
N/A	SMSPP-1458	N/A	N/A	5/8	100	
N/A	SMSPP-1434	N/A	N/A	3/4	100	
SMSFP-141	SMSPP-141	N/A	N/A	1	100	
SMSFP-14114	SMSPP-14114	SMSOP-14114	N/A	1-1/4	100	
SMSFP-14112	SMSPP-14112	SMSOP-14112	N/A	1-1/2	100	
SMSFP-14134	SMSPP-14134	N/A	N/A	1-3/4	100	
SMSFP-142	SMSPP-142	SMSOP-142	N/A	2	100	
N/A	SMSPP-14212	N/A	N/A	2-1/2	100	
SMSFP-143	SMSPP-143	N/A	N/A	3	100	

We offer Sheet Metal Screw Kits in many varieties seen here: Slotted Pan Head (SMSPP-KIT-LG), Slotted Hex Washer Head (SMSHWS-KIT-LG) & Phillips Pan Head (SMSPP-KIT-LG). See them all on page 393.



◆ Hex ◆

Hex Head Part Number 	Length	Standard Package	Dia.
SMSH-51634	3/4	50	5/16
SMSH-5161	1	25	
SMSH-516114	1-1/4	25	
SMSH-516112	1-1/2	25	

◆ Hex ◆

Hex Head Part Number 	Length	Standard Package	Dia.
SMSH-3834	3/4	50	3/8
SMSH-381	1	25	
SMSH-38114	1-1/4	25	
SMSH-38112	1-1/2	25	
SMSH-382	1-3/4	25	



◊ Slotted ◊

Pan Head Part Number 	Hex Washer Part Number 	Length	Standard Package	Dia.
N/A	SMSHWS-438*	3/8	100	4
N/A	SMSHWS-412*	1/2	100	
N/A	SMSHWS-434*	3/4	100	
SMSPS-41	SMSHWS-41*	1	100	
N/A	N/A	1/4	100	6
N/A	SMSHWS-638	3/8	100	
SMSPS-612	SMSHWS-612	1/2	100	
N/A	SMSHWS-658	5/8	100	
SMSPS-634	N/A	3/4	100	
SMSPS-678	N/A	7/8	100	
SMSPS-61	SMSHWS-61	1	100	
SMSPS-6114	SMSHWS-6114	1-1/4	100	
SMSPS-6112	SMSHWS-6112	1-1/2	100	
SMSPS-62	SMSHWS-62*	2	100	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Sheet Metal Screws - Plated, cont'd

 Slotted 

Pan Head Part Number 	Hex Washer Part Number 	Length	Standard Package	Dia.	
N/A	SMSHWS-814*	1/4	100	8	
SMSPS-838	SMSHWS-838	3/8	100		
SMSPS-812	SMSHWS-812	1/2	100		
SMSPS-858	SMSHWS-858	5/8	100		
N/A	SMSHWS-834	3/4	100		
SMSPS-878	SMSHWS-878*	7/8	100		
SMSPS-81	SMSHWS-81	1	100		
SMSPS-8114	SMSHWS-8114	1-1/4	100		
SMSPS-8112	SMSHWS-8112	1-1/2	100		
SMSPS-8134	N/A	1-3/4	100		
SMSPS-82	SMSHWS-82	2	100		
N/A	N/A	3/8	100		10
N/A	SMSHWS-1012	1/2	100		
SMSPS-1058	N/A	5/8	100		
SMSPS-1034	SMSHWS-1034	3/4	100		
SMSPS-1078	N/A	7/8	100		
SMSPS-101	SMSHWS-101	1	100		
SMSPS-10114	SMSHWS-10114	1-1/4	100		
SMSPS-10112	SMSHWS-10112	1-1/2	100		
N/A	N/A	1-3/4	100		
SMSPS-102	SMSHWS-102	2	100		
SMSPS-10212	SMSHWS-10212	2-1/2	100		
SMSPS-103	SMSHWS-103	3	100		
SMSPS-1212	SMSHWS-1212	1/2	100	12	
SMSPS-1258	SMSHWS-1258	5/8	100		
SMSPS-1234	SMSHWS-1234	3/4	100		
N/A	SMSHWS-1278*	7/8	100		
SMSPS-121	SMSHWS-121	1	100		
SMSPS-12114	SMSHWS-12114	1-1/4	100		
SMSPS-12112	SMSHWS-12112	1-1/2	100		
SMSPS-122	SMSHWS-122	2	100		
N/A	SMSHWS-12212	2-1/2	100		
SMSPS-123	SMSHWS-123	3	100		
SMSPS-1412	SMSHWS-1412	1/2	50		1/4
SMSPS-1458	N/A	5/8	50		
SMSPS-1434	SMSHWS-1434	3/4	50		
N/A	SMSHWS-1478*	7/8	50		
SMSPS-141	SMSHWS-141	1	50		
SMSPS-14114	SMSHWS-14114	1-1/4	50		
SMSPS-14112	SMSHWS-14112	1-1/2	50		
SMSPS-14134	SMSHWS-14134	1-3/4	50		
SMSPS-142	SMSHWS-142	2	50		
SMSPS-14212	SMSHWS-14212	2-1/2	50		
SMSPS-143	SMSHWS-143	3	50		



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Machine Screws - Plated






⊕ Phillips ⊕




Flat Head Part Number	Pan Head Part Number	Oval Head Part Number	Length	Standard Package	Dia. & Thread Type
MSCFP-414	MSCPP-414	MSCOP-414*	1/4	100	4 - 40 Coarse Thread
MSCFP-4516	MSCPP-4516	MSCOP-4516*	5/16	100	
MSCFP-438	MSCPP-438	MSCOP-438*	3/8	100	
MSCFP-412	MSCPP-412	MSCOP-412*	1/2	100	
MSCFP-458	MSCPP-458	MSCOP-458*	5/8	100	
MSCFP-434	MSCPP-434	MSCOP-434*	3/4	100	
MSCFP-41*	MSCPP-41	MSCOP-41*	1	100	
MSCFP-614	MSCPP-614	MSCOP-614*	1/4	100	6 - 32 Coarse Thread
MSCFP-6516	MSCPP-6516*	MSCOP-6516*	5/16	100	
MSCFP-638	MSCPP-638	N/A	3/8	100	
MSCFP-612	MSCPP-612	N/A	1/2	100	
MSCFP-658	MSCPP-658	N/A	5/8	100	
MSCFP-634	MSCPP-634	N/A	3/4	100	
MSCFP-61	MSCPP-61	N/A	1	100	
MSCFP-6114	MSCPP-6114	N/A	1-1/4	100	
MSCFP-814	MSCPP-814	MSCOP-814*	1/4	100	8 - 32 Coarse Thread
MSCFP-8516*	MSCPP-8516	N/A	5/16	100	
MSCFP-838	MSCPP-838	MSCOP-838	3/8	100	
MSCFP-812	MSCPP-812	N/A	1/2	100	
MSCFP-858	MSCPP-858	N/A	5/8	100	
MSCFP-834	MSCPP-834	N/A	3/4	100	
MSCFP-878	MSCPP-878	MSCOP-878*	7/8	100	
MSCFP-81	MSCPP-81	N/A	1	100	
MSCFP-8114*	MSCPP-8114	N/A	1-1/4	100	
MSCFP-8112*	MSCPP-8112	N/A	1-1/2	100	
N/A	N/A	MSCOP-8134	1-3/4	100	
MSCFP-82*	MSCPP-82	MSCOP-82*	2	100	
MSCFP-10516*	N/A	N/A	5/16	100	10 - 24 Coarse Thread
MSCFP-1038	MSCPP-1038	N/A	3/8	100	
MSCFP-1012	MSCPP-1012	N/A	1/2	100	
MSCFP-1058	MSCPP-1058	MSCOP-1058*	5/8	100	
MSCFP-1034	MSCPP-1034	MSCOP-1034	3/4	100	
MSCFP-1078	MSCPP-1078	MSCOP-1078*	7/8	100	
MSCFP-101	MSCPP-101	MSCOP-101	1	100	
MSCFP-10114*	MSCPP-10114	MSCOP-10114	1-1/4	100	
MSCFP-10112*	MSCPP-10112	N/A	1-1/2	100	
MSCFP-102*	MSCPP-102	MSCOP-102*	2	100	
MSFFP-10516*	MSFPP-10516	N/A	5/16	100	10 - 32 Fine Thread
MSFFP-1038	MSFPP-1038	MSFOP-1038	3/8	100	
MSFFP-1012	MSFPP-1012	MSFOP-1012	1/2	100	
MSFFP-1058	MSFPP-1058	MSFOP-1058*	5/8	100	
MSFFP-1034	MSFPP-1034	N/A	3/4	100	
MSFFP-1078	MSFPP-1078	N/A	7/8	100	
MSFFP-101	MSFPP-101	N/A	1	100	
MSFFP-10114*	MSFPP-10114	N/A	1-1/4	100	
MSFFP-10112*	MSFPP-10112	MSFOP-10112	1-1/2	100	

Machine Screws - Plated, cont'd

⊕ Phillips ⊕

Flat Head Part Number 	Pan Head Part Number 	Oval Head Part Number 	Length	Standard Package	Dia. & Thread Type
MSCFP-1438*	MSCPP-1438	N/A	3/8	100	1/4 - 20 Coarse Thread
MSCFP-1412	MSCPP-1412	N/A	1/2	100	
MSCFP-1458	MSCPP-1458	MSCOP-1458*	5/8	100	
MSCFP-1434	MSCPP-1434	MSCOP-1434	3/4	100	
MSCFP-1478*	MSCPP-1478	N/A	7/8	100	
MSCFP-141	MSCPP-141	MSCOP-141	1	100	
MSCFP-14114	MSCPP-14114	MSCOP-14114	1-1/4	100	
MSCFP-14112	MSCPP-14112	N/A	1-1/2	100	
MSCFP-14134*	MSCPP-14134	MSCOP-14134	1-3/4	100	
MSCFP-142	MSCPP-142	N/A	2	100	
MSCFP-14212	MSCPP-14212	MSCOP-14212*	2-1/2	100	
MSCFP-143	MSCPP-143	N/A	3	100	

⊖ Slotted ⊖

Flat Head Part Number 	Pan Head Part Number 	Round Head Part Number 	Length	Standard Package	Dia. & Thread Type
MSCFS-414	MSCPS-414	MSCRS-414	1/4	100	4 - 40 Coarse Thread
MSCFS-4516	MSCPS-4516	MSCRS-4516	5/16	100	
MSCFS-438	MSCPS-438	MSCRS-438	3/8	100	
MSCFS-412	MSCPS-412	MSCRS-412	1/2	100	
MSCFS-434	MSCPS-434	MSCRS-434	3/4	100	
MSCFS-41	MSCPS-41	MSCRS-41	1	100	
MSCFS-614	MSCPS-614	MSCRS-614	1/4	100	6 - 32 Coarse Thread
MSCFS-638	MSCPS-638	MSCRS-638	3/8	100	
MSCFS-612	MSCPS-612	MSCRS-612	1/2	100	
MSCFS-658	MSCPS-658	MSCRS-658	5/8	100	
MSCFS-634	MSCPS-634	MSCRS-634	3/4	100	
MSCFS-678	MSCPS-678	MSCRS-678	7/8	100	
MSCFS-61	MSCPS-61	MSCRS-61	1	100	
MSCFS-6114	MSCPS-6114	MSCRS-6114	1-1/4	100	
MSCFS-6112	MSCPS-6112	MSCRS-6112	1-1/2	100	
MSCFS-6134	MSCPS-6134*	N/A	1-3/4	100	
MSCFS-62	MSCPS-62	MSCRS-62	2	100	
MSCFS-814	MSCPS-814	MSCRS-814	1/4	100	8 - 32 Coarse Thread
MSCFS-8516	MSCPS-8516	MSCRS-8516	5/16	100	
MSCFS-838	MSCPS-838	MSCRS-838	3/8	100	
MSCFS-812	MSCPS-812	MSCRS-812	1/2	100	
MSCFS-858	MSCPS-858	MSCRS-858	5/8	100	
MSCFS-834	MSCPS-834	MSCRS-834	3/4	100	
MSCFS-878	MSCPS-878	MSCRS-878	7/8	100	
MSCFS-81	MSCPS-81	MSCRS-81	1	100	
MSCFS-8114	MSCPS-8114	MSCRS-8114	1-1/4	100	
MSCFS-8112	MSCPS-8112	MSCRS-8112	1-1/2	100	
MSCFS-8134	MSCPS-8134	MSCRS-8134	1-3/4	100	
MSCFS-82	MSCPS-82	MSCRS-82	2	100	
MSCFS-83*	MSCPS-83*	MSCRS-83	3	100	



Machine Screws - Plated, cont'd



Slotted




Flat Head Part Number	Pan Head Part Number	Round Head Part Number	Length	Standard Package	Dia. & Thread Type	
MSCFS-1014	MSCPS-1014	MSCRS-1014	1/4	100	10 - 24 Coarse Thread	
MSCFS-10516	MSCPS-10516	MSCRS-10516	5/16	100		
MSCFS-1038	MSCPS-1038	MSCRS-1038	3/8	100		
MSCFS-1012	MSCPS-1012	MSCRS-1012	1/2	100		
MSCFS-1058	MSCPS-1058	MSCRS-1058	5/8	100		
MSCFS-1034	MSCPS-1034	MSCRS-1034	3/4	100		
MSCFS-1078	MSCPS-1078	MSCRS-1078	7/8	100		
MSCFS-101	MSCPS-101	MSCRS-101	1	100		
MSCFS-10114	MSCPS-10114	MSCRS-10114	1-1/4	100		
MSCFS-10112	MSCPS-10112	MSCRS-10112	1-1/2	100		
MSCFS-10134	MSCPS-10134	MSCRS-10134	1-3/4	100		
MSCFS-102	MSCPS-102	MSCRS-102	2	100		
MSCFS-10212*	MSCPS-10212*	MSCRS-10212	2-1/2	50		
MSCFS-103*	MSCPS-103*	MSCRS-103	3	50		
MSFFS-1014	MSFPS-1014	MSFRS-1014	1/4	100		10 - 32 Fine Thread
MSFFS-10516	MSFPS-10516	MSFRS-10516	5/16	100		
MSFFS-1038	N/A	MSFRS-1038	3/8	100		
MSFFS-1012	MSFPS-1012	MSFRS-1012	1/2	100		
MSFFS-1058	N/A	MSFRS-1058	5/8	100		
MSFFS-1034	MSFPS-1034	MSFRS-1034	3/4	100		
MSFFS-1078	MSFPS-1078	MSFRS-1078	7/8	100		
MSFFS-101	MSFPS-101	MSFRS-101	1	100		
MSFFS-10114	N/A	MSFRS-10114	1-1/4	100		
MSFFS-10112	MSFPS-10112	MSFRS-10112	1-1/2	100		
MSFFS-10134	MSFPS-10134	MSFRS-10134	1-3/4	100		
MSFFS-102	MSFPS-102	MSFRS-102	2	100		
MSFFS-10212*	MSFPS-10212*	MSFRS-10212	2-1/2	100		
MSFFS-103*	MSFPS-103*	N/A	3	100		
N/A	MSCPS-1214*	MSCRS-1214	1/4	100	12 - 24 Coarse Thread	
MSCFS-1238	N/A	MSCRS-1238	3/8	100		
MSCFS-1212	MSCPS-1212	MSCRS-1212	1/2	100		
MSCFS-1234	N/A	MSCRS-1234	3/4	100		
MSCFS-121	MSCPS-121*	MSCRS-121	1	100		
MSCFS-12114	N/A	MSCRS-12114	1-1/4	100		
MSCFS-12112	N/A	MSCRS-12112	1-1/2	100		
MSCFS-12134	MSCPS-12134	MSCRS-12134	1-3/4	100		
MSCFS-122	MSCPS-122	MSCRS-122	2	50		

Get 19 different sizes of Pan Head Machine Screws & 5 different sizes of Machine Nuts in our Pan Head Machine Screw Kit (MSPP-KIT-LG).

Need Round Head Machine Screws? Get a variety of our most popular, along with their matching Machine Nuts when you order our Round Head Machine Screw Kit (MSRS-KIT-LG)

Machine Screws - Plated, cont'd




Slotted

Flat Head Part Number 	Pan Head Part Number 	Round Head Part Number 	Length	Standard Package	Dia. & Thread Type
MSCFS-14516*	MSCPS-14516*	MSCRS-14516	5/16	100	1/4 - 20 Coarse Thread
MSCFS-1438	MSCPS-1438	MSCRS-1438	3/8	100	
MSCFS-1412	MSCPS-1412	MSCRS-1412	1/2	100	
MSCFS-1458	N/A	MSCRS-1458	5/8	100	
MSCFS-1434	MSCPS-1434	MSCRS-1434	3/4	100	
MSCFS-1478	MSCPS-1478	MSCRS-1478	7/8	100	
MSCFS-141	MSCPS-141	MSCRS-141	1	100	
MSCFS-14114	MSCPS-14114	MSCRS-14114	1-1/4	100	
MSCFS-14112	MSCPS-14112	MSCRS-14112	1-1/2	100	
MSCFS-14134	MSCPS-14134	MSCRS-14134	1-3/4	100	
MSCFS-142	MSCPS-142	MSCRS-142	2	50	
MSCFS-14212*	MSCPS-14212	MSCRS-14212	2-1/2	50	
MSCFS-143*	MSCPS-143	MSCRS-143	3	50	
MSCFS-51634	MSCPS-51634	MSCRS-51634	3/4	50	
MSCFS-5161	N/A	MSCRS-5161	1	50	
MSCFS-516114	MSCPS-516114*	MSCRS-516114	1-1/4	50	
MSCFS-516112	MSCPS-516112	MSCRS-516112	1-1/2	50	
MSCFS-516134	N/A	N/A	1-3/4	50	
MSCFS-5162	N/A	MSCRS-5162	2	50	



Nuts

Nuts - Plated

	MHN 	KNC 	WNC 	Fits Bolt Dia.	Standard Package
Machine Nuts Part Number	Keps Nuts Part Number	Wing Nuts Part Number			
MHN-440	KNC-4	N/A		4 - 40	100
MHN-540	KNC-5*	N/A		5 - 40	100
MHN-632	KNC-6	WNC-6		6 - 32	100
MHN-832	KNC-8	WNC-8		8 - 32	100
MHN-1024	KNC-10	WNC-10		10 - 24	100
MHN-1224	KNC-12*	WNC-12*		12 - 24	100
MHN-1420	KNC-1/4	WNC-1/4		1/4 - 20	100
MHN-51618	KNC-5/16	WNC-5/16		5/16 - 18	50
MHN-3816	KNC-3/8	WNC-3/8		3/8 - 16	50
MHN-71614*	N/A	WNC-7/16		7/16 - 14	25
MHN-1213*	N/A	WNC-1/2		1/2 - 13	25
SAE/ Fine	MHN-1032	KNF-10	WNF-10	10 - 32	100
	MHN-1428	KNF-1/4	N/A	1/4 - 28	100

Washers

Flat Washers



	Grade 5 Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
USS	FW-USS-1/4	1/4	5/16	3/4	100
	FW-USS-5/16	5/16	3/8	7/8	100
	FW-USS-3/8	3/8	7/16	1	100
	FW-USS-7/16	7/16	1/2	1-1/4	50
	FW-USS-1/2	1/2	9/16	1-3/8	50
	FW-USS-9/16	9/16	5/8	1-1/2	50
	FW-USS-5/8	5/8	11/16	1-3/4	25
	FW-USS-3/4	3/4	13/16	2	20
	FW-USS-7/8	7/8	15/16	2-1/4	15
	FW-USS-1	1	1-1/16	2-1/2	10

Flat Washers



	Grade 5 Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
SAE	FW-SAE-4	4	1/8	5/16	100
	FW-SAE-6	6	5/32	3/8	100
	FW-SAE-8	8	3/16	7/16	100
	FW-SAE-10	10	7/32	1/2	100
	FW-SAE-12	12	1/4	9/16	100
	FW-SAE-1/4	1/4	9/32	5/8	100
	FW-SAE-5/16	5/16	11/32	11/16	100
	FW-SAE-3/8	3/8	13/32	13/16	100
	FW-SAE-7/16	7/16	15/32	59/64	50
	FW-SAE-1/2	1/2	17/32	1-1/16	50
	FW-SAE-9/16	9/16	19/32	1-3/16	50
	FW-SAE-5/8	5/8	21/32	1-5/16	50
	FW-SAE-3/4	3/4	13/16	1-1/2	25
	FW-SAE-7/8	7/8	15/16	1-3/4	15
	FW-SAE-1	1	1-1/16	2	10

Lock Washers



Grade 5 Split Lock Washer Part Number	External Tooth Lock Washer Part Number	Internal Tooth Lock Washer Part Number	High Collar Lock Washer Part Number	Fits Bolt Dia.	Standard Package
LW-4	LWE-4	LWI-4	N/A	4	100
LW-6	LWE-6	LWI-6	HCLW-6	6	100
LW-8	LWE-8	LWI-8	HCLW-8	8	100
LW-10	LWE-10	LWI-10	HCLW-10	10	100
LW-12	LWE-12	LWI-12	HCLW-12	12	100
LW-1/4	LWE-1/4	LWI-1/4	HCLW-1/4	1/4	100
LW-5/16	LWE-5/16	LWI-5/16	HCLW-5/16	5/16	100
LW-3/8	LWE-3/8	LWI-3/8	HCLW-3/8	3/8	100
LW-7/16	LWE-7/16	LWI-7/16	HCLW-7/16	7/16	50
LW-1/2	LWE-1/2	LWI-1/2	HCLW-1/2	1/2	50
LW-9/16	LWE-9/16	LWI-9/16	HCLW-9/16	9/16	50
LW-5/8	LWE-5/8	LWI-5/8	HCLW-5/8	5/8	50
LW-3/4	LWE-3/4	LWI-3/4	HCLW-3/4	3/4	25
LW-7/8	LWE-7/8	LWI-7/8	HCLW-7/8	7/8	15
LW-1	LWE-1	LWI-1	HCLW-1	1	10

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Metric Fasteners

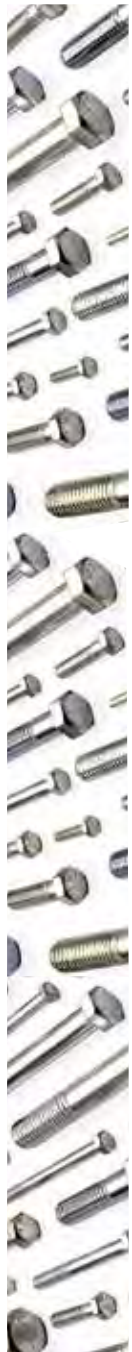
Bolts / Cap Screws, DIN 931 - Zinc Plated Steel Alloy - Metric

Hex

Grade 8.8 Part Number	 Grade 10.9 Part Number	Length	Standard Package	Hex	Diameter - Pitch
CSM-610010	CSM-610010109	10mm	100		
CSM-610012	CSM-610012109	12mm	100		
CSM-610016	CSM-610016109	16mm	100		
CSM-610020	CSM-610020109	20mm	100		
CSM-610025	CSM-610025109	25mm	100		
CSM-610030	CSM-610030109	30mm	100		
CSM-610035	CSM-610035109	35mm	100		
CSM-610040	CSM-610040109	40mm	50	10mm	6mm - 1.00
CSM-610045	CSM-610045109	45mm	50		
CSM-610050	CSM-610050109	50mm	50		
CSM-610055	CSM-610055109*	55mm	50		
CSM-610060	CSM-610060109*	60mm	50		
CSM-610065	CSM-610065109*	65mm	50		
CSM-610070	CSM-610070109*	70mm	50		
CSM-610075	CSM-610075109*	75mm	50		
CSM-710040	N/A	40mm	50	11mm	7mm - 1.00
CSM-710050	N/A	50mm	50		
CSM-812516	CSM-812516109	16mm	50		
CSM-812520	CSM-812520109	20mm	50		
CSM-812525	CSM-812525109	25mm	50		
CSM-812530	CSM-812530109	30mm	50		
CSM-812535	CSM-812535109	35mm	50		
CSM-812540	CSM-812540109	40mm	50		
CSM-812545	CSM-812545109	45mm	50		
CSM-812550	CSM-812550109	50mm	50		
CSM-812555	CSM-812555109	55mm	50	13mm	8mm - 1.25
CSM-812560	CSM-812560109	60mm	25		
CSM-812565	CSM-812565109	65mm	25		
CSM-812570	CSM-812570109	70mm	25		
CSM-812575	CSM-812575109*	75mm	25		
CSM-812580	CSM-812580109*	80mm	25		
CSM-812590	N/A	90mm	25		
CSM-8125100	N/A	100mm	25		
CSM-8125110	N/A	110mm	25		
CSM-1015020	CSM-1015020109	20mm	25		
CSM-1015025	CSM-1015025109	25mm	25		
CSM-1015030	CSM-1015030109	30mm	25		
CSM-1015035	CSM-1015035109	35mm	25		
CSM-1015040	CSM-1015040109	40mm	25		
CSM-1015045	CSM-1015045109	45mm	25		
CSM-1015050	CSM-1015050109	50mm	25	17mm	10mm - 1.50
CSM-1015055	CSM-1015055109	55mm	25		
CSM-1015060	CSM-1015060109	60mm	25		
CSM-1015065	CSM-1015065109	65mm	25		
CSM-1015070	CSM-1015070109	70mm	25		
CSM-1015075	CSM-1015075109	75mm	25		
CSM-1015080	CSM-1015080109*	80mm	25		



Bolts / Cap Screws, DIN 931 - Zinc Plated Steel Alloy - Metric, cont'd



Hex

Grade 8.8 Part Number	Grade 10.9 Part Number	Length	Standard Package	Hex	Diameter - Pitch
CSM-1015085	CSM-1015085109*	85mm	25	17mm	10mm - 1.50
CSM-1015090	CSM-1015090109*	90mm	25		
CSM-10150100	CSM-10150100109*	100mm	25		
CSM-10150110	N/A	110mm	25		
CSM-10150120	N/A	120mm	25		
CSM-1217525	CSM-1217525109	25mm	25	19mm	12mm - 1.75
CSM-1217530	CSM-1217530109	30mm	25		
CSM-1217535	CSM-1217535109	35mm	25		
CSM-1217540	CSM-1217540109	40mm	25		
CSM-1217550	CSM-1217550109	50mm	25		
CSM-1217555	CSM-1217555109	55mm	25		
CSM-1217560	CSM-1217560109	60mm	25		
CSM-1217565	CSM-1217565109	65mm	25		
CSM-1217570	CSM-1217570109	70mm	25		
CSM-1217575	CSM-1217575109	75mm	25		
CSM-1217580	CSM-1217580109	80mm	25		
CSM-1217590	CSM-1217590109	90mm	25		
CSM-12175100	CSM-12175100109*	100mm	25		
CSM-12175110	CSM-12175110109*	110mm	25		
CSM-12175120	CSM-12175120109*	120mm	25		
CSM-12175130	N/A	130mm	15		
CSM-1420050	CSM-1420050109	50mm	25	22mm	14mm - 2.00
CSM-1420060	CSM-1420060109	60mm	25		
CSM-1420070	CSM-1420070109	70mm	25		
CSM-1420080	CSM-1420080109	80mm	25		
CSM-1420090	CSM-1420090109	90mm	25		
CSM-14200100	CSM-14200100109	100mm	25		
CSM-1620050	CSM-1620050109*	50mm	25	24mm	16mm - 2.00
CSM-1620070	CSM-1620070109	70mm	25		
CSM-1620075	CSM-1620075109	75mm	25		
CSM-1620080	CSM-1620080109	80mm	25		
CSM-1620090	CSM-1620090109	90mm	25		
CSM-16200100	CSM-16200100109	100mm	25		
CSM-16200110	CSM-16200110109	110mm	10		
CSM-16200120	CSM-16200120109	120mm	10		
CSM-16200130	CSM-16200130109	130mm	10		

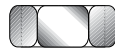
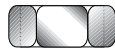
Metric Mechanical Specifications

Manufactured to DIN 933/931 specifications for coarse thread & DIN 961/960 for fine & extra-fine thread. Zinc/clear chromate plating.

Metric Property Class	Material	Size Range	Min Proof Strength (MPa)	Min Tensile Strength (MPa)	Core Hardness Rockwell		Min Yield Strength (MPa)
					Min	Max	
8.8	Medium carbon steel: quenched & tempered	M5 - M16	580	800	C22	C32	640
		M18 - M36	600	830	C23	C34	660
10.9	Low carbon alloyed steel, quenched & tempered	M5 - M36	830	1040	C32	C39	940

Nuts - Metric

Hex & Jam Nuts - Zinc Plated Steel - Metric



Grade 8.8 Hex Nuts DIN 934 Part Number	Grade 10.9 Hex Nuts DIN 934 Part Number	Jam Nuts DIN 439 Part Number	Fits Bolt Dia.	Pitch	Hex	Standard Package
HNM-580	HNM-580109	JNM-580	5mm	.80	8mm	100
HNM-6100	HNM-6100109	JNM-6100	6mm	1.00	10mm	100
HNM-7100	N/A	N/A	7mm	1.00	11mm	100
HNM-8125	HNM-8125109	JNM-8125	8mm	1.25	13mm	100
HNM-10150	HNM-10150109	JNM-10150	10mm	1.50	17mm	100
HNM-12175	HNM-12175109	JNM-12175	12mm	1.75	19mm	50
HNM-14200	HNM-14200109	JNM-14200	14mm	2.00	22mm	50
HNM-16200	HNM-16200109	JNM-16200	16mm	2.00	24mm	50
HNM-18250	HNM-18250109	JNM-18250	18mm	2.50	27mm	25
HNM-20250	HNM-20250109	JNM-20250	20mm	2.50	30mm	25

Nuts w/ Nylon Insert - Zinc Plated Steel - Metric



Grade 8.8 Nylon Nuts DIN 985 Part Number	Grade 10.9 Nylon Nuts DIN 985 Part Number	Fits Bolt Dia.	Pitch	Hex	Standard Package
NNM-580	NNM-580109	5mm	.80	8mm	100
NNM-6100	NNM-6100109	6mm	1.00	10mm	100
NNM-7100	N/A	7mm	1.00	11mm	100
NNM-8125	NNM-8125109	8mm	1.25	13mm	100
NNM-10150	NNM-10150109	10mm	1.50	17mm	100
NNM-12175	NNM-12175109	12mm	1.75	19mm	50
NNM-14200	NNM-14200109	14mm	2.00	22mm	50
NNM-16200	NNM-16200109	16mm	2.00	24mm	50
NNM-18250	NNM-18250109	18mm	2.50	27mm	25
NNM-20250	NNM-20250109	20mm	2.50	30mm	25

Washers - Metric

Washers - Zinc Plated Steel - Metric



	Grade 8.8 Part Number	Grade 10.9 Part Number	Fits Bolt Dia.	I.D.	O.D.	Thickness	Standard Package
Flat Washers DIN 125-1A	FWM-5	FWM-5-109	5mm	5.3mm	10mm	1mm	100
	FWM-6	FWM-6-109	6mm	6.4mm	12mm	1.6mm	100
	FWM-7	N/A	7mm	7.4mm	14mm	1.6mm	100
	FWM-8	FWM-8-109	8mm	8.4mm	16mm	1.6mm	100
	FWM-10	FWM-10-109	10mm	10.5mm	20mm	2mm	100
	FWM-12	FWM-12-109	12mm	13mm	24mm	2.5mm	50
	FWM-14	FWM-14-109	14mm	15mm	28mm	2.5mm	50
	FWM-16	FWM-16-109	16mm	17mm	30mm	3mm	50
	FWM-18	FWM-18-109	18mm	19mm	34mm	3mm	25
	FWM-20	FWM-20-109	20mm	21mm	37mm	3mm	25

Washers - Metric, cont'd

Washers - Zinc Plated Steel - Metric



	Grade 8.8 Part Number	Grade 10.9 Part Number	Fits Bolt Dia.	I.D.	O.D.	Thickness	Standard Package
Lock Washers DIN 127B	LWM-5	N/A	5mm	5.1mm	8.2mm	1.2mm	100
	LWM-6	N/A	6mm	6.1mm	11.8mm	1.6mm	100
	LWM-7	N/A	7mm	7.1mm	12.8mm	1.6mm	100
	LWM-8	N/A	8mm	8.1mm	14.8mm	2mm	100
	LWM-10	N/A	10mm	10.2mm	18.1mm	2.2mm	100
	LWM-12	N/A	12mm	12.2mm	21.1mm	2.5mm	50
	LWM-14	N/A	14mm	14.2mm	24.1mm	3mm	50
	LWM-16	N/A	16mm	16.2mm	27.4mm	3.5mm	50
	LWM-18	N/A	18mm	18.2mm	29.4mm	3.5mm	25
	LWM-20	N/A	20mm	20.2mm	33.6mm	4mm	25
Fender Washers DIN 9021	FENWM-5	N/A	5mm	5.3mm	15mm	1.2mm	100
	FENWM-6	N/A	6mm	6.4mm	18mm	1.6mm	100
	FENWM-7	N/A	7mm	7.4mm	22mm	2mm	100
	FENWM-8	N/A	8mm	8.4mm	24mm	2mm	100
	FENWM-10	N/A	10mm	10.5mm	30mm	2.5mm	100
	FENWM-12	N/A	12mm	13mm	37mm	3mm	50
	FENWM-14	N/A	14mm	15mm	44mm	3mm	50
	FENWM-16	N/A	16mm	17mm	50mm	3mm	50
	FENWM-20	N/A	20mm	22mm	60mm	4mm	25

Socket Head Cap Screw, DIN 912 - Unplated Steel Alloy - Metric



○ Socket ○

Grade 12.9 Part Number	Length	Std Pkg	Diameter - Pitch
SHCSM-610010	10mm	100	6mm - 1.00
SHCSM-610012	12mm	100	
SHCSM-610014	14mm	100	
SHCSM-610015	15mm	100	
SHCSM-610016	16mm	100	
SHCSM-610018	18mm	100	
SHCSM-610020	20mm	100	
SHCSM-610022	22mm	100	
SHCSM-610025	25mm	100	
SHCSM-610030	30mm	100	
SHCSM-610035	35mm	100	
SHCSM-610040	40mm	100	
SHCSM-610045	45mm	100	
SHCSM-610050	50mm	100	
SHCSM-610055	55mm	100	
SHCSM-610060	60mm	100	

○ Socket ○

Grade 12.9 Part Number	Length	Std Pkg	Diameter - Pitch
SHCSM-610065	65mm	100	6mm - 1.00
SHCSM-610070	70mm	100	
SHCSM-610075	75mm	100	
SHCSM-610080	80mm	100	
SHCSM-812510	10mm	100	8mm - 1.25
SHCSM-812512	12mm	100	
SHCSM-812514	14mm	100	
SHCSM-812515	15mm	100	
SHCSM-812516	16mm	100	
SHCSM-812518	18mm	100	
SHCSM-812520	20mm	100	
SHCSM-812522	22mm	100	
SHCSM-812525	25mm	100	
SHCSM-812530	30mm	100	
SHCSM-812535	35mm	100	
SHCSM-812540	40mm	100	

Socket Head Cap Screw, DIN 912 - Unplated Steel Alloy - Metric, cont'd

Socket				Socket			
Grade 12.9 Part Number	Length	Std Pkg	Diameter - Pitch	Grade 12.9 Part Number	Length	Std Pkg	Diameter - Pitch
SHCSM-812545	45mm	100	8mm - 1.25	SHCSM-10150100	100mm	50	12mm - 1.75
SHCSM-812550	50mm	100		SHCSM-10150110	110mm	50	
SHCSM-812555	55mm	100		SHCSM-10150120	120mm	50	
SHCSM-812560	60mm	100		SHCSM-10150130	130mm	50	
SHCSM-812565	65mm	100		SHCSM-10150140	140mm	50	
SHCSM-812570	70mm	100		SHCSM-10150150	150mm	50	
SHCSM-812575	75mm	100		SHCSM-1217520	20mm	50	
SHCSM-812580	80mm	100		SHCSM-1217522	22mm	50	
SHCSM-1015010	10mm	100	10mm - 1.50	SHCSM-1217525	25mm	50	
SHCSM-1015012	12mm	100		SHCSM-1217530	30mm	50	
SHCSM-1015014	14mm	100		SHCSM-1217535	35mm	50	
SHCSM-1015015	15mm	100		SHCSM-1217540	40mm	50	
SHCSM-1015016	16mm	100		SHCSM-1217545	45mm	50	
SHCSM-1015018	18mm	100		SHCSM-1217550	50mm	50	
SHCSM-1015020	20mm	100		SHCSM-1217555	55mm	50	
SHCSM-1015022	22mm	100		SHCSM-1217560	60mm	50	
SHCSM-1015025	25mm	100		SHCSM-1217565	65mm	50	
SHCSM-1015030	30mm	100		SHCSM-1217570	70mm	25	
SHCSM-1015035	35mm	100		SHCSM-1217575	75mm	25	
SHCSM-1015040	40mm	100		SHCSM-1217580	80mm	25	
SHCSM-1015045	45mm	50		SHCSM-1217590	90mm	25	
SHCSM-1015050	50mm	50		SHCSM-12175100	100mm	25	
SHCSM-1015055	55mm	50		SHCSM-12175110	110mm	25	
SHCSM-1015060	60mm	50		SHCSM-12175120	120mm	25	
SHCSM-1015065	65mm	50		SHCSM-12175130	130mm	25	
SHCSM-1015070	70mm	50		SHCSM-12175140	140mm	25	
SHCSM-1015075	75mm	50	SHCSM-12175150	150mm	25		
SHCSM-1015080	80mm	50	SHCSM-12175160	160mm	25		
SHCSM-1015090	90mm	50					



Black Oxide Fasteners

Sheet Metal Screws - Black Oxide

✳️ Phillips ✳️





Flat Head Part Number	Pan Head Part Number	Oval Head Part Number	Oval Washer Part Number	Length	Standard Package	Dia.
SMSFPB-438	SMSPPB-438	N/A	N/A	3/8	100	4
N/A	SMSPPB-412	N/A	N/A	1/2	100	
SMSFPB-434*	SMSPPB-434	N/A	N/A	3/4	100	
N/A	SMSPPB-614	N/A	N/A	1/4	100	6
N/A	SMSPPB-638	SMSOPB-638	N/A	3/8	100	



Sheet Metal Screws - Black Oxide, cont'd




✪ Phillips ✪

Flat Head Part Number 	Pan Head Part Number 	Oval Head Part Number 	Oval Washer Part Number 	Length	Standard Package	Dia.
SMSFPB-612	SMSPPB-612	N/A	N/A	1/2	100	
SMSFPB-658	N/A	SMSOPB-658	SMSOWPB-658	5/8	100	
SMSFPB-634	SMSPPB-634	SMSOPB-634	SMSOWPB-634	3/4	100	6
SMSFPB-61	N/A	SMSOPB-61	SMSOWPB-61	1	100	
N/A	SMSPPB-6114	SMSOPB-6114	N/A	1-1/4	100	
N/A	SMSPPB-838	N/A	N/A	3/8	100	
SMSFPB-812	SMSPPB-812	SMSOPB-812	SMSOWPB-812	1/2	100	
SMSFPB-858	SMSPPB-858	N/A	SMSOWPB-858	5/8	100	
SMSFPB-834	SMSPPB-834	N/A	SMSOWPB-834	3/4	100	
SMSFPB-81	SMSPPB-81	SMSOPB-81	SMSOWPB-81	1	100	8
SMSFPB-8114	SMSPPB-8114	SMSOPB-8114	SMSOWPB-8114	1-1/4	100	
N/A	N/A	SMSOPB-8112	N/A	1-1/2	100	
N/A	N/A	N/A	N/A	1-3/4	100	
N/A	SMSPPB-82	N/A	N/A	2	100	
SMSFPB-1038*	N/A	N/A	N/A	3/8	100	
SMSFPB-1012	SMSPPB-1012	N/A	N/A	1/2	100	
SMSFPB-1058	N/A	SMSOPB-1058	SMSOWPB-1058	5/8	100	
SMSFPB-1034	SMSPPB-1034	SMSOPB-1034	SMSOWPB-1034	3/4	100	
SMSFPB-101*	SMSPPB-101	SMSOPB-101	SMSOWPB-101	1	100	10
N/A	N/A	SMSOPB-10114	N/A	1-1/4	100	
N/A	N/A	SMSOPB-10112	N/A	1-1/2	100	
SMSFPB-10134*	SMSPPB-10134	SMSOPB-10134	N/A	1-3/4	100	
N/A	SMSPPB-102	SMSOPB-102	N/A	2	100	
N/A	SMSPPB-1212	SMSOPB-1212	N/A	1/2	100	
N/A	SMSPPB-1258	N/A	N/A	5/8	100	
N/A	SMSPPB-1234	SMSOPB-1234	N/A	3/4	100	
N/A	SMSPPB-121	SMSOPB-121	N/A	1	100	12
N/A	SMSPPB-12114	N/A	N/A	1-1/4	100	
N/A	SMSPPB-12112	N/A	N/A	1-1/2	100	
N/A	SMSPPB-1412	N/A	N/A	1/2	100	
N/A	SMSPPB-1434	N/A	N/A	3/4	100	1/4
N/A	SMSPPB-141	N/A	N/A	1	100	


Self Drilling Tek Screws - Black Oxide



⦿ Hex Washer ⦿


Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWB-612	1/2	100	6
TSHWB-812	1/2	100	
TSHWB-834	3/4	100	8
TSHWB-81	1	100	

⦿ Hex Washer ⦿


Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWB-8114	1-1/4	100	
TSHWB-8112	1-1/2	100	8
TSHWB-8134	1-3/4	100	

Self Drilling Tek Screws - Black Oxide, cont'd


⦿ **Hex Washer** ⦿

Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWB-1012	1/2	100	10
TSHWB-1058	5/8	100	
TSHWB-1034	3/4	100	
TSHWB-101	1	100	
TSHWB-10114	1-1/4	100	
TSHWB-10112	1-1/2	100	
TSHWB-10134	1-3/4	100	
TSHWB-102	2	100	12
TSHWB-1234	3/4	100	
TSHWB-121	1	100	


⦿ **Hex Washer** ⦿

Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWB-12114	1-1/4	100	12
TSHWB-12112	1-1/2	100	
TSHWB-12134	1-3/4	100	
TSHWB-122	2	100	
TSHWB-1434	3/4	50	1/4
TSHWB-141	1	50	
TSHWB-14114	1-1/4	50	
TSHWB-14112	1-1/2	50	
TSHWB-14134	1-3/4	50	
TSHWB-142	2	50	

✱ **Phillips** ✱

Pan Head Part Number 	Length	Standard Package	Dia.
TSPPB-638	3/8	100	6
TSPPB-612	1/2	100	
TSPPB-658	5/8	100	
TSPPB-634	3/4	100	
TSPPB-61	1	100	
TSPPB-812	1/2	100	8
TSPPB-858	5/8	100	
TSPPB-834	3/4	100	

✱ **Phillips** ✱

Pan Head Part Number 	Length	Standard Package	Dia.
TSPPB-81	1	100	8
TSPPB-8114	1-1/4	100	
TSPPB-8112	1-1/2	100	
TSPPB-1012	1/2	100	10
TSPPB-1058	5/8	100	
TSPPB-1034	3/4	100	
TSPPB-101	1	100	





Stainless Steel Fasteners

Machine Screws - Stainless Steel

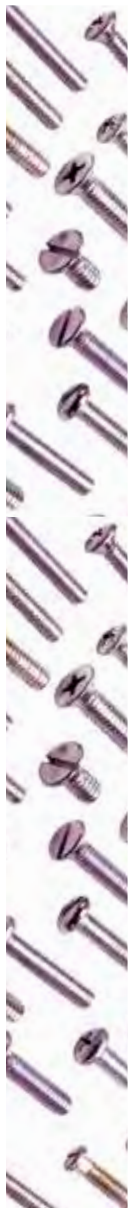


✱ **Phillips** ✱



Pan Head Part Number 	Oval Head Part Number 	Length	Standard Package	Dia. & Thread Type
MSCPPSS-614	MSCOPSS-614*	1/4	100	6 - 32 Coarse Thread
MSCPPSS-612	MSCOPSS-612*	1/2	100	
MSCPPSS-658	MSCOPSS-658*	5/8	100	
MSCPPSS-634	MSCOPSS-634*	3/4	100	
MSCPPSS-61	MSCOPSS-61*	1	100	
MSCPPSS-6114	MSCOPSS-6114*	1-1/4	100	
MSCPPSS-814	N/A	1/4	100	8 - 32 Coarse Thread
MSCPPSS-838	MSCOPSS-838*	3/8	100	
MSCPPSS-812	MSCOPSS-812	1/2	100	
MSCPPSS-858	MSCOPSS-858*	5/8	100	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Machine Screws - Stainless Steel, cont'd




⊕ Phillips ⊕

Pan Head Part Number		Oval Head Part Number		Length	Standard Package	Dia. & Thread Type
MSCPPSS-834		MSCOPSS-834		3/4	100	8 - 32 Coarse Thread
MSCPPSS-81		MSCOPSS-81		1	100	
MSCPPSS-8114		MSCOPSS-8114		1-1/4	100	
MSCPPSS-8112		MSCOPSS-8112		1-1/2	100	
MSCPPSS-1014		N/A		1/4	100	10 - 24 Coarse Thread
MSCPPSS-1038		MSCOPSS-1038*		3/8	100	
MSCPPSS-1012		MSCOPSS-1012		1/2	100	
MSCPPSS-1058		MSCOPSS-1058*		5/8	100	
MSCPPSS-1034		MSCOPSS-1034		3/4	100	
MSCPPSS-101		MSCOPSS-101		1	100	
MSCPPSS-10114		MSCOPSS-10114		1-1/4	100	
MSCPPSS-10112		MSCOPSS-10112		1-1/2	100	
MSCPPSS-10134		MSCOPSS-10134*		1-3/4	100	10 - 32 Fine Thread
MSCPPSS-102		MSCOPSS-102		2	100	
MSFPPSS-1038		MSFOPSS-1038*		3/8	100	
MSFPPSS-1012		MSFOPSS-1012		1/2	100	
MSFPPSS-1058		MSFOPSS-1058*		5/8	100	
MSFPPSS-1034		MSFOPSS-1034		3/4	100	
MSFPPSS-101		MSFOPSS-101		1	100	
MSFPPSS-10114		MSFOPSS-10114*		1-1/4	100	
MSFPPSS-10112		MSFOPSS-10112		1-1/2	100	1/4 - 20 Coarse Thread
MSCPPSS-1412		MSCOPSS-1412*		1/2	100	
MSCPPSS-1434		MSCOPSS-1434*		3/4	100	
MSCPPSS-1478		MSCOPSS-1478*		7/8	100	
MSCPPSS-141		MSCOPSS-141		1	100	
MSCPPSS-14114		MSCOPSS-14114		1-1/4	100	
MSCPPSS-14112		MSCOPSS-14112		1-1/2	100	
MSCPPSS-142		MSCOPSS-142		2	100	
MSCPPSS-14212		MSCOPSS-14212		2-1/2	100	100
MSCPPSS-143		MSCOPSS-143		3	100	


Sheet Metal Screws - Stainless Steel



⊖ Slotted ⊖

Hex Washer Part Number		Length	Standard Package	Dia.
SMSHWSSS-1034		3/4	100	10




⊖ Slotted ⊖

Hex Washer Part Number		Length	Standard Package	Dia.
SMSHWSSS-14114		1-1/4	50	1/4
SMSHWSSS-14112		1-1/2	50	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Sheet Metal Screws - Stainless Steel, cont'd

✪ Phillips ✪

Flat Head Part Number 	Pan Head Part Number 	Oval Head Part Number 	Length	Standard Package	Dia.
SMSFPSS-438*	SMSPPSS-438*	SMSOPSS-438	3/8	100	4
SMSFPSS-638*	SMSPPSS-638	SMSOPSS-638*	3/8	100	
SMSFPSS-612*	SMSPPSS-612	SMSOPSS-612	1/2	100	
SMSFPSS-658*	SMSPPSS-658	SMSOPSS-658	5/8	100	
SMSFPSS-634*	SMSPPSS-634	SMSOPSS-634	3/4	100	6
SMSFPSS-61*	SMSPPSS-61	SMSOPSS-61	1	100	
SMSFPSS-6114*	SMSPPSS-6114	SMSOPSS-6114	1-1/4	100	
SMSFPSS-6112*	SMSPPSS-6112	SMSOPSS-6112	1-1/2	100	
SMSFPSS-838*	SMSPPSS-838	N/A	3/8	100	
SMSFPSS-812*	SMSPPSS-812	SMSOPSS-812	1/2	100	
SMSFPSS-858*	SMSPPSS-858	SMSOPSS-858	5/8	100	
SMSFPSS-834	SMSPPSS-834	SMSOPSS-834	3/4	100	
SMSFPSS-81	SMSPPSS-81	SMSOPSS-81	1	100	8
SMSFPSS-8114*	SMSPPSS-8114	SMSOPSS-8114	1-1/4	100	
SMSFPSS-8112*	SMSPPSS-8112	SMSOPSS-8112	1-1/2	100	
SMSFPSS-8134	SMSPPSS-8134	N/A	1-3/4	100	
SMSFPSS-82	SMSPPSS-82	SMSOPSS-82	2	100	
N/A	SMSPPSS-1038	N/A	3/8	100	
SMSFPSS--1012*	SMSPPSS-1012	SMSOPSS-1012	1/2	100	
SMSFPSS-1058*	SMSPPSS-1058	SMSOPSS-1058*	5/8	100	
SMSFPSS-1034	SMSPPSS-1034	SMSOPSS-1034	3/4	100	
SMSFPSS-101	SMSPPSS-101	SMSOPSS-101	1	100	10
SMSFPSS-10114*	SMSPPSS-10114	SMSOPSS-10114	1-1/4	100	
SMSFPSS-10112	SMSPPSS-10112	SMSOPSS-10112	1-1/2	100	
SMSFPSS-102*	SMSPPSS-102	SMSOPSS-102	2	100	
SMSFPSS-10212*	SMSPPSS-10212	SMSOPSS-10212	2-1/2	100	
N/A	SMSPPSS-1212	SMSOPSS-1212	1/2	100	
SMSFPSS-1234*	SMSPPSS-1234	SMSOPSS-1234	3/4	100	
SMSFPSS-121*	SMSPPSS-121	SMSOPSS-121	1	100	
SMSFPSS-12114*	SMSPPSS-12114	SMSOPSS-12114	1-1/4	100	
SMSFPSS-12112*	SMSPPSS-12112	SMSOPSS-12112	1-1/2	100	12
SMSFPSS-12134*	SMSPPSS-12134*	SMSOPSS-12134	1-3/4	100	
SMSFPSS-122*	SMSPPSS-122	SMSOPSS-122	2	100	
SMSFPSS-12212*	SMSPPSS-12212	N/A	2-1/2	100	
N/A	SMSPPSS-1412	N/A	1/2	100	
N/A	SMSPPSS-1458	N/A	5/8	100	
SMSFPSS-1434*	SMSPPSS-1434	N/A	3/4	100	
SMSFPSS-141*	SMSPPSS-141	SMSOPSS-141*	1	100	
SMSFPSS-14114*	SMSPPSS-14114	SMSOPSS-14114*	1-1/4	100	1/4
SMSFPSS-14112*	SMSPPSS-14112	SMSOPSS-14112*	1-1/2	100	
SMSFPSS-14134*	SMSPPSS-14134	SMSOPSS-14134	1-3/4	100	
SMSFPSS-142*	SMSPPSS-142	SMSOPSS-142	2	100	
SMSFPSS-14212*	SMSPPSS-14212	SMSOPSS-14212	2-1/2	100	
SMSFPSS-143*	SMSPPSS-143	SMSOPSS-143	3	100	




Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.


Self Drilling Tek Screws - Stainless Steel




Hex Washer

Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWSS-638	3/8	100	6
TSHWSS-612	1/2	100	
TSHWSS-658	5/8	100	
TSHWSS-634	3/4	100	
TSHWSS-61	1	100	
TSHWSS-6112	1-1/2	100	
TSHWSS-812	1/2	100	8
TSHWSS-858	5/8	100	
TSHWSS-834	3/4	100	
TSHWSS-81	1	100	
TSHWSS-8114	1-1/4	100	
TSHWSS-8112	1-1/2	100	
TSHWSS-8134	1-3/4	100	10
TSHWSS-1012	1/2	100	
TSHWSS-1058	5/8	100	
TSHWSS-1034	3/4	100	
TSHWSS-101	1	100	
TSHWSS-10114	1-1/4	100	
TSHWSS-10112	1-1/2	100	


Hex Washer

Hex Washer Head Part Number 	Length	Standard Package	Dia.
TSHWSS-10134	1-3/4	100	10
TSHWSS-102	2	100	
TSHWSS-10212	2-1/2	100	
TSHWSS-1234	3/4	100	12
TSHWSS-121	1	100	
TSHWSS-12114	1-1/4	100	
TSHWSS-12112	1-1/2	100	
TSHWSS-12134	1-3/4	100	
TSHWSS-122	2	100	
TSHWSS-1434	3/4	50	1/4
TSHWSS-141	1	50	
TSHWSS-14114	1-1/4	50	
TSHWSS-14112	1-1/2	50	
TSHWSS-14134	1-3/4	50	
TSHWSS-142	2	50	
TSHWSS-14212	2-1/2	50	
TSHWSS-143	3	50	

Phillips

Pan Head Part Number 	Length	Standard Package	Dia.
TSPSS-812	1/2	100	8
TSPSS-834	3/4	100	
TSPSS-1012	1/2	100	10
TSPSS-1034	3/4	100	
TSPSS-101	1	100	


Phillips

Pan Head Part Number 	Length	Standard Package	Dia.
TSPSS-10114	1-1/4	100	10
TSPSS-10112	1-1/2	100	
TSPSS-12114	1-1/4	100	12


Cap Screws - Stainless Steel



Hex

Hex Head Part Number 	Length	Standard Package	Dia. & Thread Type
CSCSS-1412	1/2	100	1/4 - 20 Coarse Thread
CSCSS-1434	3/4	100	
CSCSS-141	1	100	
CSCSS-14114	1-1/4	100	
CSCSS-14112	1-1/2	100	
CSCSS-142	2	50	

Hex

Hex Head Part Number 	Length	Standard Package	Dia. & Thread Type
CSCSS-51612	1/2	100	5/16 - 18 Coarse Thread
CSCSS-51634	3/4	100	
CSCSS-5161	1	100	
CSCSS-516114	1-1/4	100	
CSCSS-516112	1-1/2	100	
CSCSS-5162	2	50	
CSCSS-516212	2-1/2	25	
CSCSS-5163	3	25	

Cap Screws - Stainless Steel, cont'd

Hex

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
CSCSS-3812	1/2	100	3/8 - 16 Coarse Thread
CSCSS-3834	3/4	50	
CSCSS-381	1	50	
CSCSS-38114	1-1/4	50	
CSCSS-38112	1-1/2	50	
CSCSS-382	2	50	
CSCSS-38212	2-1/2	25	
CSCSS-71634	3/4	50	7/16 - 14 Coarse Thread
CSCSS-7161	1	50	
CSCSS-716114	1-1/4	25	
CSCSS-716112	1-1/2	25	
CSCSS-7162	2	25	
CSCSS-716212	2-1/2	25	

Hex

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
CSCSS-1212	1/2	50	1/2 - 13 Coarse Thread
CSCSS-1234	3/4	50	
CSCSS-121	1	25	
CSCSS-12114	1-1/4	25	
CSCSS-12112	1-1/2	25	
CSCSS-12134	1-3/4	25	
CSCSS-122	2	25	
CSCSS-12214	2-1/4	25	
CSCSS-12212	2-1/2	25	
CSCSS-123	3	25	



We have a Stainless Cap Screw assortment to meet the needs of every shop. Order one in large (CSCSS-KIT-LG) or extra large (CSCSS-KIT-40B9).

Nuts - Stainless Steel

Nuts - Stainless Steel

	MHNSS Machine Nuts Part Number	KNSS Keps Nuts Part Number	Fits Bolt Dia.	Standard Package
USS/ Coarse	MHNSS-632	KNSS-6	6 - 32	100
	MHNSS-832	KNSS-8	8 - 32	100
	MHNSS-1024	KNSS-10	10 - 24	100
	MHNSS-1224	N/A	12 - 24	100
SAE/ Fine	MHNSS-1032	KNFSS-10*	10 - 32	100

All Steel Lock Nuts - Stainless Steel - Grade C

	Grade C Part Number	Fits Bolt Dia.	Standard Package
USS/ Coarse	CLNCSS-1/4	1/4-20	100

Nylon Lock Nuts - Stainless Steel

	Nylon Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	NNCSS-6	6-32	100
	NNCSS-8	8-32	100
	NNCSS-10	10-24	100
	NNCSS-1/4	1/4-20	100
	NNCSS-5/16	5/16-18	100
	NNCSS-3/8	3/8-16	100
	NNCSS-7/16	7/16-14	50
SAE / Fine	NNCSS-1/2	1/2-13	50
	NNFSS-10	10-32	100
	NNFSS-1/4	1/4-28	100
	NNFSS-5/16	5/16-24	100
	NNFSS-3/8	3/8-24	100

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Nuts - Stainless Steel, cont'd

Hex Nuts - Stainless Steel



	Nylon Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	HNCSS-1/4	1/4-20	100
	HNCSS-5/16	5/16-18	100
	HNCSS-3/8	3/8-16	100
	HNCSS-7/16	7/16-14	50
	HNCSS-1/2	1/2-13	50
	HNCSS-9/16	9/16-12	25
	HNCSS-5/8	5/8-11	25
	HNCSS-3/4	3/4-10	20
	HNCSS-7/8	7/8-9	15
HNCSS-1	1-8	10	
SAE / Fine	HNFSS-1/4	1/8-28	100
	HNFSS-5/16	5/16-24	100
	HNFSS-3/8	3/8-24	100

Acorn Nuts - Stainless Steel



	Nylon Part Number	Fits Bolt Dia.	Standard Package
USS / Coarse	ACNCSS-6	6-32	100
	ACNCSS-8	8-32	100
	ACNCSS-10	10-24	100
	ACNCSS-1/4	1/4-20	100
	ACNCSS-5/16	5/16-18	100
	ACNCSS-3/8	3/8-16	100
	ACNCSS-1/2	1/2-13	50
	ACNFSS-10	10-32	100
SAE / Fine	ACNFSS-1/4	1/4-28	100
	ACNFSS-5/16	5/16-24	100
	ACNFSS-3/8	3/8-24	100
	ACNFSS-1/2	1/2-20	50

Washers - Stainless Steel

USS Flat Washers - Stainless Steel



Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FWSS-USS-6	6	.149	.375	100
FWSS-USS-8	8	.174	.375	100
FWSS-USS-10	10	.203	.437	100
FWSS-USS-12	12	.250	.562	100
FWSS-USS-1/4	1/4	.281	.625	100
FWSS-USS-5/16	5/16	.343	.750	100
FWSS-USS-3/8	3/8	.406	.875	100
FWSS-USS-7/16	7/16	.500	1.125	50
FWSS-USS-1/2	1/2	.531	1.250	50
FWSS-USS-5/8	5/8	.687	1.500	50
FWSS-USS-1	1	1.062	2.00	10

Washers - Stainless Steel, cont'd

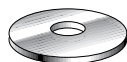


SAE Flat Washers - Stainless Steel

Flat Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FWSS-SAE-6	6	5/32	3/8	100
FWSS-SAE-8	8	3/16	7/16	100
FWSS-SAE-10	10	7/32	1/2	100
FWSS-SAE-12	12	1/4	9/16	100
FWSS-SAE-1/4	1/4	9/32	5/8	100
FWSS-SAE-5/16	5/16	11/32	11/16	100

Flat Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FWSS-SAE-3/8	3/8	13/32	13/16	100
FWSS-SAE-7/16	7/16	15/32	59/64	50
FWSS-SAE-1/2	1/2	17/32	1-1/16	50
FWSS-SAE-5/8	5/8	21/32	1-5/16	50
FWSS-SAE-1	1	1-1/16	2	10

SAE Fender Washers - Stainless Steel



Fender Part Number	I.D.	O.D.	Standard Package
FENWSS-316X1	3/16	1	100
FENWSS-14X1	1/4	1	100
FENWSS-14X114	1/4	1-1/4	100
FENWSS-14X112	1/4	1-1/2	100
FENWSS-516X112	5/16	1-1/2	100
FENWSS-38X112	3/8	1-1/2	100
FENWSS-12X2	1/2	2	100

Countersunk Washers - Stainless Steel



Countersunk Part Number	Fits Bolt Dia.	I.D.	O.D.	Standard Package
FINWSS-6	6	.173	15/32	100
FINWSS-8	8	.209	17/32	100
FINWSS-10	10	.269	19/32	100
FINWSS-12	12	.275	21/32	100
FINWSS-14	1/4	.324	25/32	100

Use with flat headed machine screws and sheet metal screws



Lock Washers - Stainless Steel

Split Lock Part Number	External Tooth Lock Part Number	Fits Bolt Dia.	Standard Package
LWSS-4	LWESS-4*	4	100
LWSS-6	LWESS-6*	6	100
LWSS-8	LWESS-8*	8	100
LWSS-10	LWESS-10	10	100
LWSS-12	LWESS-12*	12	100
LWSS-1/4	LWESS-1/4*	1/4	100
LWSS-5/16	LWESS-5/16*	5/16	100

Split Lock Part Number	External Tooth Lock Part Number	Fits Bolt Dia.	Standard Package
LWSS-3/8	LWESS-3/8*	3/8	100
LWSS-7/16	N/A	7/16	50
LWSS-1/2	LWESS-1/2*	1/2	50
LWSS-5/8	LWESS-5/8*	5/8	50
LWSS-3/4	LWESS-3/4*	3/4	25
LWSS-7/8	LWESS-7/8*	7/8	15
LWSS-1	LWESS-1*	1	10

Stainless Steel Mechanical Specifications

300 Series Austenitic Stainless: Accounts for 85-90% of stainless fasteners, best corrosion resistance of stainless alloys, non-magnetic before cold working, low heat conductivity, good strength at higher temps, will not harden with heat treatment.

Type: 18.8 Grade, also referred to as 300 Series

Chromium: 17-20%, usually 17-19%

Nickel: 8-13%, usually 8-10.5%

Max Carbon: .08%, usually .03-.05%

Max Manganese: 2%

Max Phosphorus: 2%, usually .045%

Max Sulfur: .03-15%, usually .03%

Max Silicon: 1%

Copper: 0-4%, usually 2-3%

Tensile: 80,000-150,000 usual range. After cold work: 100,000-125,000 typical for 1/4" to 5/8" dia.; 100,000 typical for 3/4" to 1" dia.; 80,000-90,000 typical over 1" dia.

Yield: 40,000 min. After cold work: 80,000-90,000 typical for 1/4" to 5/8" dia.; 45,000 to 70,000 typical over 3/4" dia.

Approximate hardness: 885-95

Special characteristics: Most common designation for non-magnetic stainless fasteners, encompasses 30 to 40 various mixtures of 301, 302, 303, 304, 305 & XM7

Socket Head Cap Screws - Unplated Steel Alloy

○ Socket ○



USS / Coarse Part Number	SAE / Fine Part Number	Key Size	Length	Standard Package	Dia.
SHCSC-1038	SHCSF-1038	5/32	3/8	100	10
SHCSC-1012	SHCSF-1012	5/32	1/2	100	
SHCSC-1058	SHCSF-1058	5/32	5/8	100	
SHCSC-1034	SHCSF-1034	5/32	3/4	100	
SHCSC-1078	SHCSF-1078	5/32	7/8	100	
SHCSC-101	SHCSF-101	5/32	1	100	
SHCSC-10114	SHCSF-10114	5/32	1-1/4	100	
SHCSC-10112	SHCSF-10112	5/32	1-1/2	100	
SHCSC-10134	SHCSF-10134	5/32	1-3/4	50	
SHCSC-102	SHCSF-102	5/32	2	50	
SHCSC-1438	SHCSF-1438	3/16	3/8	100	1/4
SHCSC-1412	SHCSF-1412	3/16	1/2	100	
SHCSC-1458	SHCSF-1458	3/16	5/8	100	
SHCSC-1434	SHCSF-1434	3/16	3/4	100	
SHCSC-1478	SHCSF-1478	3/16	7/8	100	
SHCSC-141	SHCSF-141	3/16	1	100	
SHCSC-14114	SHCSF-14114	3/16	1-1/4	100	
SHCSC-14112	SHCSF-14112	3/16	1-1/2	100	
SHCSC-14134	SHCSF-14134	3/16	1-3/4	50	
SHCSC-142	SHCSF-142	3/16	2	50	
SHCSC-14214	SHCSF-14214	3/16	2-1/4	50	5/16
SHCSC-14212	N/A	3/16	2-1/2	50	
SHCSC-14234	N/A	3/16	2-3/4	50	
SHCSC-143	N/A	3/16	3	50	
SHCSC-51638	SHCSF-51638*	1/4	3/8	100	
SHCSC-51612	SHCSF-51612	1/4	1/2	100	
SHCSC-51658	SHCSF-51658	1/4	5/8	100	
SHCSC-51634	SHCSF-51634	1/4	3/4	100	
SHCSC-51678	SHCSF-51678	1/4	7/8	100	
SHCSC-5161	SHCSF-5161	1/4	1	100	
SHCSC-516114	SHCSF-516114	1/4	1-1/4	100	
SHCSC-516112	SHCSF-516112	1/4	1-1/2	100	
SHCSC-516134	SHCSF-516134	1/4	1-3/4	50	
SHCSC-5162	SHCSF-5162	1/4	2	50	
SHCSC-516214	SHCSF-516214	1/4	2-1/4	50	
SHCSC-516212	SHCSF-516212	1/4	2-1/2	50	
SHCSC-516234	N/A	1/4	2-3/4	50	
SHCSC-5163	N/A	1/4	3	50	
SHCSC-516314	N/A	1/4	3-1/4	50	
SHCSC-516312	N/A	1/4	3-1/2	25	
SHCSC-3812	SHCSF-3812	5/16	1/2	100	3/8
SHCSC-3858	SHCSF-3858	5/16	5/8	100	
SHCSC-3834	SHCSF-3834	5/16	3/4	100	
SHCSC-3878	SHCSF-3878	5/16	7/8	100	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Socket Head Cap Screws - Unplated Steel Alloy, cont'd

○ Socket ○



USS / Coarse Part Number	SAE / Fine Part Number	Key Size	Length	Standard Package	Dia.
SHCSC-381	SHCSF-381	5/16	1	100	3/8
SHCSC-38114	SHCSF-38114	5/16	1-1/4	100	
SHCSC-38112	SHCSF-38112	5/16	1-1/2	100	
SHCSC-38134	SHCSF-38134	5/16	1-3/4	50	
SHCSC-382	SHCSF-382	5/16	2	50	
SHCSC-38214	SHCSF-38214	5/16	2-1/4	25	
SHCSC-38212	SHCSF-38212	5/16	2-1/2	25	
SHCSC-38234	SHCSF-38234*	5/16	2-3/4	25	
SHCSC-383	SHCSF-383	5/16	3	25	
SHCSC-38314	N/A	5/16	3-1/4	25	
SHCSC-38312	SHCSF-38312*	5/16	3-1/2	25	
SHCSC-384	N/A	5/16	4	25	
SHCSC-38412	N/A	5/16	4-1/2	25	
SHCSC-385	SHCSF-385*	5/16	5	25	
SHCSC-71634	N/A	3/8	3/4	100	
SHCSC-71678	N/A	3/8	7/8	100	
SHCSC-7161	SHCSF-7161	3/8	1	100	
SHCSC-716114	SHCSF-716114	3/8	1-1/4	50	
SHCSC-716112	SHCSF-716112	3/8	1-1/2	50	
SHCSC-716134	N/A	3/8	1-3/4	50	
SHCSC-7162	SHCSF-7162	3/8	2	25	
SHCSC-716214	N/A	3/8	2-1/4	50	
SHCSC-716212	N/A	3/8	2-1/2	50	
SHCSC-716234	N/A	3/8	2-3/4	50	
SHCSC-7163	N/A	3/8	3	50	
SHCSC-716314	N/A	3/8	3-1/4	25	
SHCSC-716312	N/A	3/8	3-1/2	25	
SHCSC-7164	N/A	3/8	4	25	
SHCSC-1234	N/A	3/8	3/4	50	1/2
SHCSC-1278	N/A	3/8	7/8	50	
SHCSC-121	SHCSF-121	3/8	1	50	
SHCSC-12114	SHCSF-12114	3/8	1-1/4	50	
SHCSC-12112	SHCSF-12112	3/8	1-1/2	50	
SHCSC-12134	SHCSF-12134	3/8	1-3/4	50	
SHCSC-122	SHCSF-122	3/8	2	25	
SHCSC-12214	SHCSF-12214	3/8	2-1/4	25	
SHCSC-12212	SHCSF-12212	3/8	2-1/2	25	
SHCSC-12234	SHCSF-12234*	3/8	2-3/4	50	
SHCSC-123	SHCSF-123	3/8	3	25	
SHCSC-12314	N/A	3/8	3-1/4	25	
SHCSC-12312	SHCSF-12312*	3/8	3-1/2	25	
SHCSC-124	N/A	3/8	4	25	
SHCSC-12412	N/A	3/8	4-1/2	25	
SHCSC-125	N/A	3/8	5	25	
SHCSC-12512	N/A	3/8	5-1/2	25	
SHCSC-126	N/A	3/8	6	25	



Carriage Bolts, USS - Plated

● Round ●



Grade 5 Part Number		Grade 2 Part Number		Length	Standard Package	Dia.
N/A		CB-1012		1/2	100	10 - 24 Coarse Thread
N/A		CB-1058		5/8	100	
N/A		CB-1034		3/4	100	
N/A		CB-101		1	100	
N/A		CB-10114		1-1/4	100	
N/A		CB-10112		1-1/2	100	
N/A		CB-10134		1-3/4	100	
N/A		CB-102		2	50	
N/A		CB-10212		2-1/2	50	
N/A		CB-103		3	50	
N/A		CB-10312		3-1/2	50	
N/A		CB-104		4	50	
CB5-1412		CB-1412		1/2	100	
CB5-1434		CB-1434		3/4	100	
CB5-141		CB-141		1	100	
CB5-14114		CB-14114		1-1/4	100	
CB5-14112		CB-14112		1-1/2	100	
CB5-14134		CB-14134		1-3/4	50	
CB5-142		CB-142		2	50	
CB5-14214		CB-14214		2-1/4	50	
CB5-14212		CB-14212		2-1/2	25	
CB5-14234		CB-14234		2-3/4	25	
CB5-143		CB-143		3	25	
CB5-144		CB-144		4	25	
CB5-51634		CB-51634		3/4	100	5/16 - 18 Coarse Thread
CB5-5161		CB-5161		1	100	
CB5-516114		CB-516114		1-1/4	50	
CB5-516112		CB-516112		1-1/2	50	
CB5-5162		CB-5162		2	25	
CB5-516212		CB-516212		2-1/2	25	
CB5-5163		CB-5163		3	25	
CB5-5164		CB-5164		4	25	
CB5-381		CB-381		1	50	3/8 - 16 Coarse Thread
CB5-38114		CB-38114		1-1/4	50	
CB5-38112		CB-38112		1-1/2	50	
CB5-382		CB-382		2	25	
CB5-38212		CB-38212		2-1/2	25	
CB5-383		CB-383		3	25	
CB5-384		CB-384		4	25	
CB5-7161		CB-7161		1	50	7/16 - 14 Coarse Thread
CB5-716114		CB-716114		1-1/4	50	
CB5-716112		CB-716112		1-1/2	50	
CB5-7162		CB-7162		2	25	
CB5-716212		CB-716212		2-1/2	25	
CB5-7163		CB-7163		3	25	
CB5-7164		CB-7164		4	25	

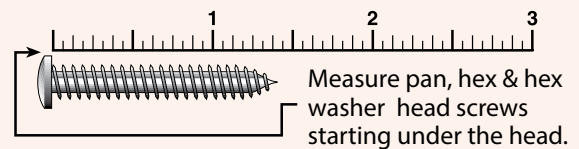
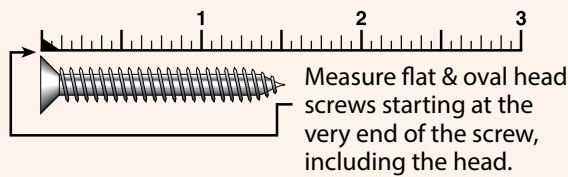
Carriage Bolts, USS - Plated, cont'd

● **Round** ●

Grade 5 Part Number	Grade 2 Part Number	Length	Standard Package	Dia.
CB5-121	CB-121	1	50	1/2 - 13 Coarse Thread
CB5-12114	CB-12114	1-1/4	50	
CB5-12112	CB-12112	1-1/2	50	
CB5-12134	CB-12134	1-3/4	25	
CB5-122	CB-122	2	25	
CB5-12214	CB-12214	2-1/4	25	
CB5-12212	CB-12212	2-1/2	25	
CB5-12234	CB-12234	2-3/4	25	
CB5-123	CB-123	3	25	
CB5-12312	CB-12312	3-1/2	25	
CB5-124	CB-124	4	25	



How To Determine Screw Length



Cup Point Set Screws - Black Oxide

○ **Hex Drive** ○

	Part Number	Length	Std. Pkg.	Dia.
USS / Coarse	SSSC-6-32X1/4	1/4	50	6-32
	SSSC-6-32X3/8	3/8	50	
	SSSC-8-32X1/4	1/4	50	8-32
	SSSC-8-32X3/8	3/8	50	
	SSSC-10-24X1/4	1/4	50	10-24
	SSSC-10-24X3/8	3/8	50	
	SSSC-1/4-20X1/4	1/4	25	1/4-20
	SSSC-1/4-20X3/8	3/8	25	
	SSSC-1/4-20X1/2	1/2	25	
	SSSC-516-18X3/8	3/8	25	5/16-18
	SSSC-516-18X1/2	1/2	25	
	SSSC-3/8-16X3/8	3/8	25	3/8-16
	SSSC-3/8-16X1/2	1/2	25	
	SSSC-3/8-16X3/4	3/4	25	
	SSSC-716-14X1/2	1/2	10	7/16-14
	SSSC-716-14X3/4	3/4	10	
SSSC-1/2-13X1/2	1/2	10	1/2-13	
SSSC-1/2-13X5/8	5/8	10		

○ **Hex Drive** ○

	Part Number	Length	Std. Pkg.	Dia.
SAE / Fine	SSSF-10-32X1/4	1/4	50	10-32
	SSSF-10-32X3/8	3/8	50	
	SSSF-10-32X1/2	1/2	50	
	SSSF-10-32X3/4	3/4	50	1/4-28
	SSSF-1/4-28X1/4	1/4	50	
	SSSF-1/4-28X5/16	5/16	50	
	SSSF-1/4-28X3/8	3/8	50	5/16-24
	SSSF-1/4-28X1/2	1/2	50	
	SSSF-516-24X5/16	5/16	25	
	SSSF-516-24X3/8	3/8	25	3/8-24
	SSSF-516-24X1/2	1/2	25	
	SSSF-516-24X5/8	5/8	25	
	SSSF-3/8-24X1/4	1/4	25	1/2-20
	SSSF-3/8-24X3/8	3/8	25	
	SSSF-3/8-24X1/2	1/2	25	
	SSSF-3/8-24X3/4	3/4	25	1/2-20
SSSF-1/2-20X1/2	1/2	10		
SSSF-1/2-20X3/4	3/4	10		



Quadrex Drive Screws - Plated

The unique Quadrex® head is already becoming the fastener of choice for its quality, reliability & ease of operation. They are used in the automotive, RV, woodworking & appliance industries. *Sizes not shown are available, subject to min. quantities.*



We offer different versions of Quadrex® screws with different plating. The part numbers correspond to the plating, so please be aware of them when you are ordering your parts:

23FSB: 2/3 Twinfast Bronze **ASB:** Type A Stat Bronze **FSB:** Twinfast Stat Bronze **AZ:** Type A Zinc
AB: Type A Yellow Zinc **T2Z:** Type 2 Zinc **23FZ:** 2/3 Twinfast Zinc **FZ:** Twinfast Zinc

Quadrex® - Pan Head

Type A Stat Bronze Part Number	Type A Zinc Part Number	Type 2 Zinc Part Number	Twinfast Zinc Part Number	Length	Standard Package	Dia.
N/A	PQAZ-6112	N/A	N/A	1-1/2	100	6
N/A	PQAZ-812	PQT2Z-812	N/A	1/2	100	8
PQASB-834	PQAZ-834	PQT2Z-834	N/A	3/4	100	
PQASB-81	PQAZ-81	PQT2Z-81	N/A	1	100	
N/A	N/A	N/A	PQFZ-8114	1-1/4	100	
N/A	N/A	N/A	PQFZ-8112	1-1/2	100	
N/A	PQAZ-82	N/A	N/A	2	100	
N/A	PQAZ-1034	N/A	N/A	3/4	100	
N/A	PQAZ-101	N/A	N/A	1	100	
N/A	PQAZ-10114	N/A	N/A	1-1/4	100	
N/A	PQAZ-10112	N/A	N/A	1-1/2	100	
N/A	PQAZ-102	N/A	N/A	2	100	

Quadrex® - Round Washer Head

2/3 Twinfast Bronze Part Number	Stat Bronze Part Number	Twinfast Zinc Part Number	Length	Standard Package	Dia.
N/A	RWQASB-812	N/A	1/2	100	8
N/A	RWQFSB-834	RWQFZ-834	3/4	100	
N/A	N/A	RWQFZ-81	1	100	
RWQ23FSB-8114	N/A	RWQ23FZ-8114	1-1/4	100	
RWQ23FSB-8112	N/A	RWQ23FZ-8112	1-1/2	100	
N/A	N/A	N/A	2	100	
RWQ23FSB-8212	N/A	RWQ23FZ-8212	2-1/2	100	
N/A	N/A	N/A	3	100	

Heavy Duty Snow Plow Bolts - Plain Steel



Round

Grade 8 Part Number	Length	Standard Package	Dia. & Thread Type
PB8-582	2	25	5/8 - 11 Coarse Thread
PB8-58214	2-1/4	25	
PB8-58212	2-1/2	25	
PB8-583	3	25	
PB8-58312	3-1/2	25	
PB8-584	4	25	


Round

Grade 8 Part Number	Length	Standard Package	Dia. & Thread Type
PB8-58412	4-1/2	25	5/8 - 11 Coarse Thread
PB8-586	6	10	


For an organized assortment of most of the sizes seen here as well as the associated nuts & washers, order our brand new Plow Bolt Kit: PB8-KIT.

Hex Tap Bolts (Full Threaded) - Zinc Plated Steel

◆ Hex ◆

Grade 2 Hex Head Part Number 	Length	Standard Package	Dia. & Thread Type	
TB-141	1	100		
TB-14114	1-1/4	100		
TB-14112	1-1/2	100		
TB-14134	1-3/4	100		
TB-142	2	100	1/4 - 20 Coarse Thread	
TB-14214	2-1/4	100		
TB-14212	2-1/2	100		
TB-14234	2-3/4	100		
TB-143	3	100		
TB-14312	3-1/2	100		
TB-144	4	100		
TB-5161	1	100		5/16 - 18 Coarse Thread
TB-516114	1-1/4	100		
TB-516112	1-1/2	100		
TB-516134	1-3/4	100		
TB-5162	2	100		

◆ Hex ◆

Grade 2 Hex Head Part Number 	Length	Standard Package	Dia. & Thread Type
TB-516214	2-1/4	100	
TB-516212	2-1/2	100	
TB-516234	2-3/4	100	5/16 - 18 Coarse Thread
TB-5163	3	100	
TB-516312	3-1/2	50	
TB-5164	4	50	
TB-38114	1-1/4	100	
TB-38112	1-1/2	100	
TB-38134	1-3/4	100	
TB-382	2	100	3/8 - 16 Coarse Thread
TB-38214	2-1/4	50	
TB-38212	2-1/2	50	
TB-38234	2-3/4	50	
TB-383	3	50	
TB-38312	3-1/2	50	
TB-384	4	50	



Floor Board Screws - Unplated

See page 489 for our screw driver bits. Use TORXB-71530 for 1/4" screws & TORXB-71540 for 5/16".

◆ Torx ◆

Part Number	Length	Standard Package	Dia. & Thread Type
FBS-14112	1-1/2	25	
FBS-14134	1-3/4	25	
FBS-142	2	25	1/4 - 20 Coarse Thread
FBS-14214	2-1/4	25	
FBS-14212	2-1/2	25	
FBS-143	3	25	

◆ Torx ◆

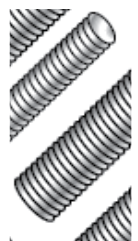
Part Number	Length	Standard Package	Dia. & Thread Type
FBS-516112	1-1/2	25	
FBS-516134	1-3/4	25	
FBS-5162	2	25	5/16 - 18 Coarse Thread
FBS-516214	2-1/4	25	
FBS-516212	2-1/2	25	
FBS-5163	3	25	








Fully Threaded Rods - Zinc Plated Steel

Part Number	Length	Standard Package	Dia. & Thread Type
TRC-14X36	36"	1	1/4 - 20
TRC-516X36	36"	1	5/16 - 18
TRC-38X36	36"	1	3/8 - 16
TRC-716X36	36"	1	7/16 - 14
TRC-12X36	36"	1	1/2 - 13

Part Number	Length	Standard Package	Dia. & Thread Type
TRC-58X36	36"	1	5/8 - 11
TRC-34X36	36"	1	3/4 - 10
TRC-78X36	36"	1	7/8 - 9
TRC-1X36	36"	1	1 - 8



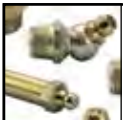




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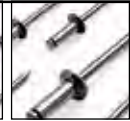



				
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Cotter Pins



Zinc Plated Part Number	Stainless Steel Part Number	Length	Std. Pkg.	Dia. Size
CP-116X12	CPSS-116X12	1/2	100	
CP-116X34	CPSS-116X34	3/4	100	
CP-116X1	CPSS-116X1	1	100	
CP-116X114	CPSS-116X114	1-1/4	100	1/16
CP-116X112	CPSS-116X112	1-1/2	100	
CP-116X134	CPSS-116X134	1-3/4	100	
CP-116X2	CPSS-116X2	2	100	
CP-332X12	CPSS-332X12	1/2	100	
CP-332X34	CPSS-332X34	3/4	100	
CP-332X1	CPSS-332X1	1	100	
CP-332X114	CPSS-332X114	1-1/4	100	
CP-332X112	N/A	1-1/2	100	3/32
CP-332X134	CPSS-332X134	1-3/4	100	
CP-332X2	CPSS-332X2	2	100	
CP-332X214	CPSS-332X214	2-1/4	100	
CP-332X212	CPSS-332X212	2-1/2	100	
CP-18X12	CPSS-18X12	1/2	100	
CP-18X34	CPSS-18X34	3/4	100	
CP-18X1	CPSS-18X1	1	100	
CP-18X114	CPSS-18X114	1-1/4	100	
CP-18X112	CPSS-18X112	1-1/2	100	1/8
CP-18X134	CPSS-18X134	1-3/4	100	
CP-18X2	CPSS-18X2	2	100	
CP-18X214	CPSS-18X214	2-1/4	100	
CP-18X212	CPSS-18X212	2-1/2	100	
CP-18X3	CPSS-18X3	3	100	
CP-532X34	CPSS-532X34	3/4	100	
CP-532X1	CPSS-532X1	1	100	
CP-532X114	CPSS-532X114	1-1/4	100	
CP-532X112	CPSS-532X112	1-1/2	100	
CP-532X134	CPSS-532X134	1-3/4	100	5/32
CP-532X2	CPSS-532X2	2	100	
CP-532X214	CPSS-532X214	2-1/4	100	
CP-532X212	CPSS-532X212	2-1/2	100	
CP-532X3	CPSS-532X3	3	100	

Zinc Plated Part Number	Stainless Steel Part Number	Length	Std. Pkg.	Dia. Size
CP-316X34	CPSS-316X34	3/4	100	
CP-316X1	CPSS-316X1	1	100	
CP-316X114	CPSS-316X114	1-1/4	100	
CP-316X112	CPSS-316X112	1-1/2	100	
CP-316X134	CPSS-316X134	1-3/4	100	
CP-316X2	CPSS-316X2	2	100	3/16
CP-316X214	CPSS-316X214	2-1/4	50	
CP-316X212	CPSS-316X212	2-1/2	50	
CP-316X3	CPSS-316X3	3	50	
CP-316X312	CPSS-316X312	3-1/2	50	
CP-316X4	CPSS-316X4	4	50	
CP-14X1	CPSS-14X1	1	50	
CP-14X114	CPSS-14X114	1-1/4	50	
CP-14X112	CPSS-14X112	1-1/2	50	
CP-14X134	CPSS-14X134	1-3/4	50	
CP-14X2	CPSS-14X2	2	50	1/4
CP-14X214	CPSS-14X214	2-1/4	50	
CP-14X212	CPSS-14X212	2-1/2	50	
CP-14X3	CPSS-14X3	3	50	
CP-14X312	CPSS-14X312	3-1/2	25	
CP-14X4	CPSS-14X4	4	25	
CP-516X1	CPSS-516X1	1	25	
CP-516X114	CPSS-516X114	1-1/4	25	
CP-516X112	CPSS-516X112	1-1/2	25	
CP-516X134	CPSS-516X134	1-3/4	25	
CP-516X2	CPSS-516X2	2	25	
CP-516X214	CPSS-516X214	2-1/4	25	5/16
CP-516X212	CPSS-516X212	2-1/2	25	
CP-516X3	CPSS-516X3	3	25	
CP-516X312	CPSS-516X312	3-1/2	25	
CP-516X4	CPSS-516X4	4	25	
CP-516X5	N/A	5	25	
CP-38X112	CPSS-38X112	1-1/2	25	
CP-38X2	CPSS-38X2	2	25	
CP-38X212	CPSS-38X212	2-1/2	25	
CP-38X3	CPSS-38X3	3	25	3/8
CP-38X312	CPSS-38X312	3-1/2	25	
CP-38X4	CPSS-38X4	4	25	
CP-38X5	CPSS-38X5	5	25	
CP-38X6	CPSS-38X6	6	25	

Our Zinc Plated Cotter Pin Kit comes in two sizes, small (CP-KIT-SM) & large (CP-KIT-LG). Each stocked with our most popular cotter pins in a variety of sizes. See page 466 for all of the details.

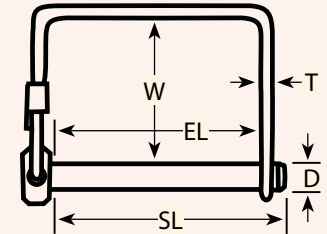
We offer more sizes in many of our hardware lines. If you do not see the size you need, contact customer service or your local sales rep & they will be glad to locate the product that will best meet your needs.

Double Wire Snapper Pins



Part Number	Handle Style	Effective Length (EL)	Shank Length (SL)	Wire Dia. (T)	Wire Clearance (W)	Nominal Dia. (D)
SNAP-250-1750R	Round	1-3/4	2			
SNAP-250-2250S	Square	2-1/4	2-1/2	.091	1.625	1/4
SNAP-250-2500R	Round	2-1/2	2-3/4			
SNAP-250-2500S	Square	2-1/2	2-3/4			
SNAP-312-1750R	Round	1-3/4	2			
SNAP-312-2250S	Square	2-1/4	2-1/2	.091	1.75	5/16
SNAP-312-2250R	Round	2-1/4	2-1/2			
SNAP-312-2500S	Square	2-1/2	2-3/4			
SNAP-375-1500R	Round	1-1/2	1-3/4			
SNAP-375-1750R	Round	1-3/4	2	.091	1.5	3/8
SNAP-375-2250S	Square	2-1/4	2-1/2			
SNAP-375-2500S	Square	2-1/2	2-3/4			

Dimensions Explanation For Double Wire Snapper Pins

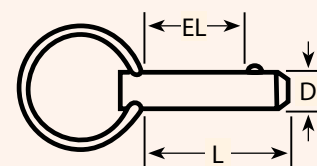


Detent Pins



Part Number	Effective Length (EL)	Overall Length (L)	Nominal Dia. (D)
DTP-0250-1000	1	1-1/4	
DTP-0250-1500	1-1/2	1-3/4	1/4
DTP-0250-2000	2	2-1/4	
DTP-0312-1000	1	1-3/8	
DTP-0312-1500	1-1/2	1-7/8	5/16
DTP-0312-2000	2	2-3/8	
DTP-0375-2000	2	2-3/8	
DTP-0375-3000	3	3-3/8	3/8
DTP-0375-4000	4	4-3/4	
DTP-0500-2000	2	2-1/2	
DTP-0500-3000	3	3-1/2	1/2
DTP-0500-4000	4	4-1/2	

Dimensions Explanation For Detent Pins



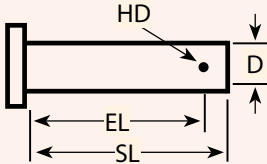
For a great selection of Double Wire Snapper Pins, Detent Pins & Lynch Pins, try out our Specialty Pin Kit (SP-KIT).

We offer more sizes in many of our hardware lines. If you do not see the size you need, contact customer service or your local sales rep & they will be glad to locate the product that will best meet your needs.

Clevis Pins



Dimensions Explanation For Clevis Pins



Part Number	Head Dia. (H)	Shank Length (SL)	Effective Length (EL)	Hole Dia. (HD)	Outside Dia. (D)
CLP-0250-2000	.370	2.000	1.859	.094	1/4
CLP-0312-1000	.434	1.000	.781	.141	
CLP-0312-1750	.434	1.750	1.531	.141	5/16
CLP-0312-2000	.434	2.000	1.781	.141	
CLP-0375-1375	.500	1.375	1.141	.156	
CLP-0375-2000	.500	2.000	1.766	.156	3/8
CLP-0437-1250	.560	1.250	1.016	.156	
CLP-0437-1750	.560	1.750	1.516	.156	7/16
CLP-0437-2000	.560	2.000	1.766	.156	
CLP-0500-1500	.620	1.500	1.266	.156	
CLP-0500-2000	.620	2.000	1.766	.156	1/2

Universal Clevis Pins

- Made of low carbon steel w/ zinc clear finish



Part Number	Head Dia. (H)	Shank Length (SL)	Overall Dia.	Hole Dia. (HD)	Number of Holes
UCP-142	.370	2.000	1/4"	7/64"	6
UCP-5162	.434	2.000	5/16"	7/64"	6
UCP-382	.500	2.000	3/8"	9/64"	6
UCP-716212	.560	2.500	7/16"	5/32"	7
UCP-122	.620	2.000	1/2"	5/32"	6
UCP-12212	.620	2.500	1/2"	5/32"	7
UCP-123	.620	3.000	1/2"	5/32"	7

Bent Pins

- Made of low carbon steel w/ zinc clear finish



Part Number	O.D.	O.D. Min.	O.D. Max	Effective Length	Hole Dia.
BTP-0625-4000	5/8"	.616	.621"	4"	3/16"
BTP-0625-5000	5/8"	.616	.621"	5"	3/16"

Quick Links

- Made of low carbon steel w/ zinc clear finish
- No tools required, easily tightened with fingers

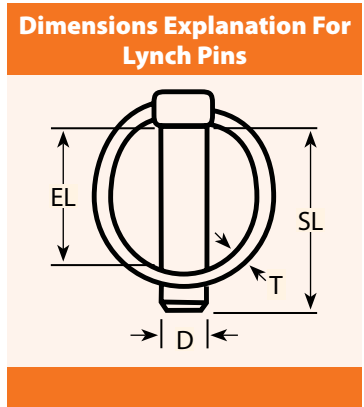


Part Number	Chain Size	Length	Inside Width	Working Load Limit
7350-3/16	3/16"	1.938"	1/2"	660lbs.
7350-1/4	1/4"	2.25"	17/32"	880lbs.
7350-5/16	5/16"	2.875"	23/64"	1760lbs.
7350-1/2	1/2"	4.156"	27/32"	3300lbs.

Lynch Pins



Part Number	Effective Length	Shank Length	Wire Dia.	Nominal Dia.
LP-187-1250	1-1/4	1-9/16	.138	3/16
LP-187-1312	1-5/16	1-9/16		
LP-250-1250	1-1/4	1-9/16	.138	1/4
LP-250-1312	1-5/16	1-3/4		
LP-312-1375	1-3/8	1-3/4	.138	5/16
LP-312-1750	1-3/4	2		
LP-437-1343	1-11/32	1-9/16	.138	7/16
LP-437-1375	1-3/8	1-3/4		
LP-437-1625	1-5/8	1-15/16		

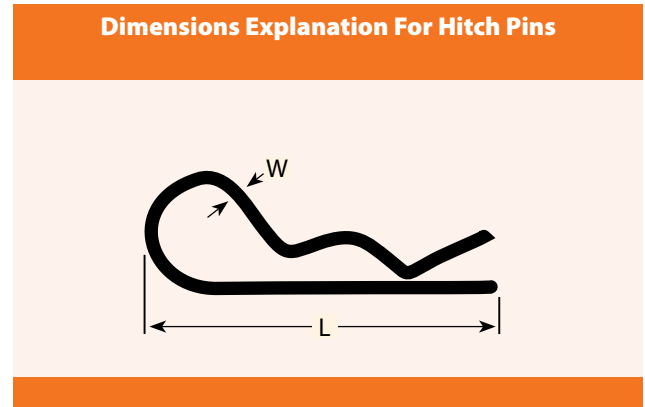


Hitch Pins



Part Number	Wire Dia. (W)	Length (L)
BP-203	3/32	1-5/8
BP-206	3/16	3-1/4
BP-207	3/32	2-5/16
BP-208	3/16	3-1/4
BP-209	.148	3-5/16
BP-210	5/32	2-15/16
BP-211	1/8	2-9/16
BP-214	1/2	2-1/2
BP-215	1/8	1-9/16
BP-216	1/8	1-15/16
BP-219	1/4	3-1/4
BP-220	.310	4-1/16
BP-221	3/64	19/32
BP-222	1/16	1-5/16
BP-223	.042	1
BP-224	3/64	1-9/16
BP-225	5/64	1-3/32
BP-230	7/64	1-1/4

Part Number	Wire Dia. (W)	Length (L)
BP-231	.028	39/64
BP-232	.042	7/16
BP-235	.243	5-1/8
BP-236	1/16	3-1/4
BP-237	.054	7/8
BP-239	23/32	1-7/8



Spring Pins



Standard

Carbon Steel Part Number	Stainless Steel Part Number	Length (L)	Outside Dia. (OD)	Wall Thickness (WT)
SP-062-0250	SPSP-062-0250	1/4"	1/16"	.012"
SP-062-0312	SPSP-062-0312	5/16"		
SP-062-0375	SPSP-062-0375	3/8"		
SP-062-0437	SPSP-062-0437	7/16"		
SP-062-0500	SPSP-062-0500	1/2"		
SP-062-0750	SPSP-062-0750	3/4"		
SP-062-0875	N/A	7/8"		
SP-078-0250	N/A	1/4"	5/64"	.018"
SP-078-0312	SPSP-078-0312	5/16"		
SP-078-0375	SPSP-078-0375	3/8"		
SP-078-0437	N/A	7/16"		
SP-078-0500	SPSP-078-0500	1/2"		
SP-078-0750	SPSP-078-0750	3/4"		
SP-078-0875	SPSP-078-0875	7/8"		
SP-078-1000	SPSP-078-1000	1"		
SP-078-1500	SPSP-078-1500	1-1/2"		
SP-093-0500	SPSP-093-0500	1/2"		
SP-093-0625	SPSP-093-0625	5/8"		
SP-093-0750	SPSP-093-0750	3/4"		
SP-093-1000	SPSP-093-1000	1"		
SP-093-1250	N/A	1-1/4"		
SP-093-1375	N/A	1-3/8"		
SP-093-1500	SPSP-093-1500	1-1/2"		
SP-125-0500	SPSP-125-0500	1/2"	1/8"	.028"
SP-125-0625	SPSP-125-0625	5/8"		
SP-125-0750	SPSP-125-0750	3/4"		
SP-125-1000	SPSP-125-1000	1"		
SP-125-1250	N/A	1-1/4"		
SP-125-1375	SPSP-125-1375	1-3/8"		
SP-125-1500	SPSP-125-1500	1-1/2"		
SP-125-2000	SPSP-125-2000	2"		
SP-156-0750	SPSP-156-0750	3/4"	5/32"	.032"
SP-156-1000	SPSP-156-1000	1"		
SP-156-1250	N/A	1-1/4"		
SP-156-1375	N/A	1-3/8"		
SP-156-1500	SPSP-156-1500	1-1/2"		
SP-156-1625	SPSP-156-1625	1-5/8"		
SP-156-1750	N/A	1-3/4"		
SP-156-2000	SPSP-156-2000	2"		
SP-156-2500	SPSP-156-2500	2-1/2"		

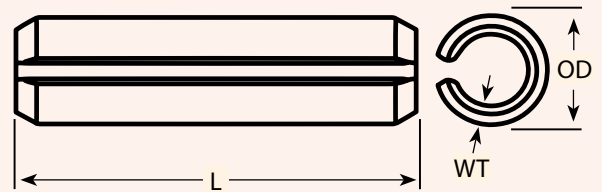
Carbon Steel Part Number	Stainless Steel Part Number	Length (L)	Outside Dia. (OD)	Wall Thickness (WT)
SP-187-0750	SPSP-187-0750	3/4"	3/16"	.040"
SP-187-1000	SPSP-187-1000	1"		
SP-187-1250	SPSP-187-1250	1-1/4"		
SP-187-1375	N/A	1-3/8"		
SP-187-1500	SPSP-187-1500	1-1/2"		
SP-187-1625	SPSP-187-1625	1-5/8"		
SP-187-1750	N/A	1-3/4"		
SP-187-2000	SPSP-187-2000	2"		
SP-187-2500	SPSP-187-2500	2-1/2"		
SP-218-1000	SPSP-218-1000	1"		
SP-218-1250	N/A	1-1/4"		
SP-218-1375	N/A	1-3/8"		
SP-218-1500	SPSP-218-1500	1-1/2"		
SP-218-1625	N/A	1-5/8"		
SP-218-1750	N/A	1-3/4"		
SP-218-2000	SPSP-218-2000	2"		
SP-218-2500	SPSP-218-2500	2-1/2"		
SP-250-1000	SPSP-250-1000	1"	1/4"	.048"
SP-250-1250	SPSP-250-1250	1-1/4"		
SP-250-1375	SPSP-250-1375	1-3/8"		
SP-250-1500	SPSP-250-1500	1-1/2"		
SP-250-1625	SPSP-250-1625	1-5/8"		
SP-250-1750	N/A	1-3/4"		
SP-250-2000	SPSP-250-2000	2"		
SP-250-2250	N/A	2-1/4"		
SP-250-2500	SPSP-250-2500	2-1/2"		
SP-312-1000	SPSP-312-1000	1"	5/16"	.063"
SP-312-1500	SPSP-312-1500	1-1/2"		
SP-312-1625	N/A	1-5/8"		
SP-312-1750	SPSP-312-1750	1-3/4"		
SP-312-1875	N/A	1-7/8"		
SP-312-2000	SPSP-312-2000	2"		
SP-312-2500	SPSP-312-2500	2-1/2"		
SP-375-1000	SPSP-375-1000	1"	3/8"	.077"
SP-375-1250	SPSP-375-1250	1-1/4"		
SP-375-1500	SPSP-375-1500	1-1/2"		
SP-375-1750	N/A	1-3/4"		
SP-375-2000	SPSP-375-2000	2"		
SP-375-2250	SPSP-375-2250	2-1/4"		
SP-375-2500	SPSP-375-2500	2-1/2"		
SP-375-2750	SPSP-375-2750	2-3/4"		

Metric

Carbon Steel Part Number	Length (L)	Outside Dia. (OD)	Wall Thickness (WT)
SPM-015-010-A	10mm	1.5mm	.35mm
SPM-015-016-A	16mm		
SPM-020-010-A	10mm	2mm	.45mm
SPM-020-020-A	20mm		
SPM-025-016-A	16mm	2.5mm	.55mm
SPM-025-026-A	26mm		
SPM-030-016-A	16mm	3mm	.65mm
SPM-030-026-A	26mm		
SPM-030-040-A	40mm		
SPM-040-024-A	24mm	4mm	.80mm
SPM-040-028-A	28mm		
SPM-040-035-A	35mm		
SPM-040-040-A	40mm		
SPM-050-026-A	26mm	5mm	1mm
SPM-050-032-A	32mm		
SPM-050-045-A	45mm		

Carbon Steel Part Number	Length (L)	Outside Dia. (OD)	Wall Thickness (WT)
SPM-060-030-A	30mm	6mm	1.2mm
SPM-060-036-A	36mm		
SPM-060-050-A	50mm		
SPM-080-028-A	28mm	8mm	1.6mm
SPM-080-040-A	40mm		

Dimensions Explanation For Spring Pins



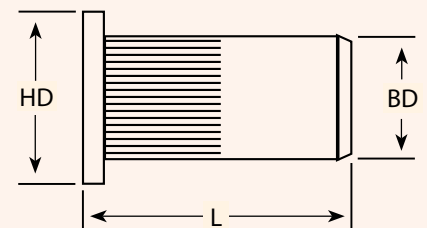
Steel Ribbed Nut Serts

Standard Ribbed Nut Serts



Part Number	Thread Size	Grip Range	Head Dia. (HD)	Body Dia. (BD)	Length (L)	Hole Size
RNS-632-080	6-32	.020 - .080"	.390"	.265"	.420"	.266"
RNS-632-130	6-32	.080 - .130"	.390"	.265"	.470"	.266"
RNS-832-080	8-32	.020 - .080"	.390"	.265"	.420"	.266"
RNS-832-130	8-32	.080 - .130"	.390"	.265"	.470"	.266"
RNS-1024-130	10-24	.020 - .130"	.415"	.296"	.475"	.297"
RNS-1024-225	10-24	.130 - .225"	.415"	.296"	.585"	.297"
RNS-1032-130	10-32	.020 - .130"	.415"	.296"	.475"	.297"
RNS-1032-225	10-32	.130 - .225"	.415"	.296"	.585"	.297"
RNS-2520-165	1/4-20	.027 - .165"	.500"	.390"	.580"	.391"
RNS-2520-260	1/4-20	.165 - .260"	.500"	.390"	.680"	.391"
RNS-51618-15	5/16-18	.027 - .150"	.685"	.530"	.690"	.531"
RNS-51618-31	5/16-18	.150 - .312"	.685"	.530"	.805"	.531"
RNS-3816-150	3/8-16	.027 - .150"	.685"	.530"	.690"	.531"
RNS-3816-312	3/8-16	.150 - .312"	.685"	.530"	.805"	.531"
RNS-5013-200	1/2-13	.063 - .200"	.865"	.685"	1.150"	.688"
RNS-5013-350	1/2-13	.200 - .350"	.865"	.685"	1.300"	.688"

Dimensions Explanation For Nut Serts



Need a tool for your Nut Serts? Order part # AU-11806 or RNT-39300.

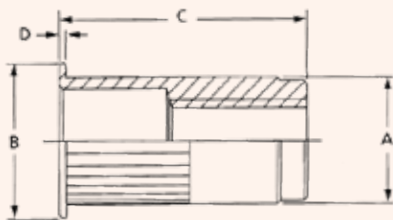


We offer more sizes in many of our hardware lines. If you do not see the size you need, contact customer service or your local sales rep & they will be glad to locate the product that will best meet your needs.

Metric Ribbed Nut Serts



Dimensions Explanation For Ribbed Nut Serts



Part Number	Thread Size/ Pitch	Grip Range	Head Dia. (B)	Body Dia. (A)	Length (C)	Hole Dia.
RNSM-470-200	4Mx0.7	.50-2.00MM	9.50	6.75	11.70	6.8
RNSM-470-330	4Mx0.7	2.00-3.30MM	9.50	6.75	13.00	6.8
RNSM-580-330	5Mx0.8	.50-3.30MM	10.10	7.55	13.10	7.6
RNSM-580-570	5Mx0.8	3.30-5.70MM	10.10	7.55	15.90	7.6
RNSM-6100-420	6Mx1.0	.70-4.20MM	12.70	9.90	15.75	10.0
RNSM-6100-660	6Mx1.0	4.20-6.30MM	12.70	9.90	18.30	10.0
RNSM-8125-380	8Mx1.25	.70-3.80MM	17.00	13.45	18.65	13.5
RNSM-8125-790	8Mx1.25	3.80-7.50MM	17.00	13.45	21.60	13.5
RNSM-10150-380	10Mx1.50	.70-3.80MM	17.00	13.45	18.65	13.5
RNSM-10150-790	10Mx1.50	3.80-7.90MM	17.00	13.45	21.60	13.5
RNSM-12175-510	12Mx1.75	1.60-5.10MM	21.97	17.40	29.21	17.45
RNSM-12175-890	12Mx1.75	5.10-8.90MM	21.97	17.40	33.02	17.45

Liquid Tight Breakthrough Plugs



- Provides liquid tight closure when used as a plug
- When pierced, functions as a liquid tight bushing that convert raw edged holes to smooth, neat insulated holes
- Insulate & mechanically protect electrical & telecommunications cable, tubing, hose, rope & utility lines
- Locking fingers (in fractional increments up to max panel thickness) snap into holes with fingertip pressure
- Withstands a push back force of greater than 35lbs.
- IP 67/68 rating; UL 635 certified

Part Number	Cable O.D.	Panel Thickness	Mounting Hole Dia.
LTPH-200	.080 - .200	.063 - .250	.500
LTPH-375	.130 - .375	.063 - .250	.625
LTPH-400	.175 - .400	.063 - .250	.750
LTPH-450	.130 - .450	.063 - .250	.875
LTPH-715	.200 - .715	.063 - .250	1.00
LTPH-765	.250 - .765	.063 - .250	1.093
LTPH-950	.300 - .950	.063 - .250	1.375
LTPH-1060	.375 - 1.060	.063 - .250	1.50
LTPL-200	.080-.200	.063 max	.500
LTPL-375	.130-.375	.063 max	.500
LTPL-400	.175-.400	.063 max	.750
LTPL-450	.130-.450	.063 max	.875
LTPL-715	.200-.715	.063 max	1.00
LTPL-765	.250-.765	.063 max	1.093

Don't need just one LTP Plug? We offer all of the most popular sizes in one convenient 16-compartment box. For details on ordering our Liquid Tight Plug Kit (LTP-KIT), see page 467.

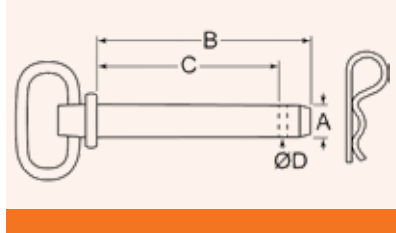
We offer more sizes in many of our hardware lines, if you don't see the size you need, contact customer service or your local sales rep & we'll be glad to locate the product that will best meet your needs.

Hitch Pin w/ Handle

Part Number	O.D. Dia. (A)	Shank Length (B)	Effective Length (C)	Hold Dia. (D)
HPH-375-3000R	3/8" = .375"	3-3/8 = 3.375"	3" = 3.00"	5/32" = .156"
HPH-375-4000R		4-3/8" = .375"	4" = 4.00"	
HPH-375-4250R		4-5/8" = 4.625"	4-1/4 = 4.25"	
HPH-500-3500R	1/2" = .500"	4-1/4" = 4.250"	3-1/2 = 3.500"	13/64" = .203"
HPH-500-4000R		4-3/4" = 4.750"	4" = 4.000"	
HPH-500-4250R		5" = 5.00"	4-1/2" = 4.250"	
HPH-625-4000R	5/8" = .625"	4-3/4" = 4.750"	4" = 4.000"	13/64" = .203"
HPH-625-4250R		5" = 5.000"	4-1/4" = 4.250"	
HPH-625-4500R		5-1/4" = 5.250"	4-1/2" = 4.500"	
HPH-625-5000R	5/8" = .625"	5-3/4" = 5.750"	5" = 5.000"	13/64" = .203"
HPH-625-5750R		6-1/2" = 6.500"	5-3/4" = 5.750"	
HPH-625-6000R		6-3/4" = 6.750"	6" = 6.000"	
HPH-750-4000R	3/4" = .750"	4-3/4" = 4.750"	4" = 4.000"	13/64" = .203"
HPH-750-4250R		5" = 5.000"	4-1/4" = 4.250"	
HPH-750-4500R		5-1/4" = 5.250"	4-1/2" = 4.500"	
HPH-750-6000R		6-3/4" = 6.750"	6" = 6.000"	



Dimensions Explanation For Hitch Pin



Grease Fittings



Metric Thread

Part Number	Description	Height	Shank	Hex	Size
GF-6MM	Straight	19/32	1/4	7mm	6mm
GF-6MM-45	45° angle	13/16	7/32	10mm	
GF-6MM-90	90° angle	3/4	7/32	10mm	
GF-8MM	Straight	5/8	1/4	9mm	8mm
GF-8MM-45	45° angle	13/16	7/32	9mm	
GF-8MM-90	90° angle	45/64	7/32	9mm	
GF-10MM	Straight	5/8	1/4	11mm	10mm
GF-10MM-45	45° angle	13/16	7/32	11mm	
GF-10MM-90	90° angle	45/64	7/32	11mm	

Need a variety of grease fittings? We offer all of our most popular types & sizes in one convenient box. For details on ordering our Grease Fitting Kit (GREASE-FIT-KIT), see page 466.

All of our grease fittings are packaged in quantities of 25.

Pipe Thread

Part Number	Description	Height	Shank	Hex	Size
GF-18	Straight	11/16	19/64	7/16	1/8
GF-18L	Str. / long	1-1/4	25/32	7/16	
GF-18XL	Str. / x-long	1-3/4	1-17/64	7/16	
GF-18-45	45° angle	57/64	19/64	7/16	
GF-18-90	90° angle	37/32	19/64	7/16	
GF-14	Straight	7/8	27/64	9/16	

Taper Thread

Part Number	Description	Height	Shank	Hex	Size
GF-14T	Straight	35/64	3/16	5/16	1/4
GF-14TL	Str. / long	11/16	23/64	5/16	
GF-14T-45	45° angle	13/16	13/64	3/8	
GF-14T-90	90° angle	3/4	13/64	3/8	-28

Grease Fittings, cont'd

Thread Forming

Part Number	Description	Height	Shank	Hex	Size
GF-18TF	Straight	35/64	3/16	5/16	1/8 NPT
GF-14TF	Str. / long	11/16	23/64	5/16	1/4-28 NPT
GF-14TF-90	90° angle	3/4	13/64	3/8	

Drive Fitting

Part Number	Description	Height	Shank	Hex	Size
GF-316D	Straight	33/64	1/4	5/16	3/16
GF-14D	Straight	35/64	1/4	11/32	1/4
GF-516D	Straight	35/64	1/4	3/8	5/16

Blind Rivets



BRAA Part Number	BRAS Part Number	BRSS Part Number	Mandrel Dia.	Flange Dia.	Barrel Length	Grip Range	Rivet Size
BRAA-42D	BRAS-42D	BRSS-42D	.076	.250	.275	.020-.125	1/8
BRAA-43D	BRAS-43D	BRSS-43D	.076	.250	.337	.126-.187	
BRAA-44D	BRAS-44D	BRSS-44D	.076	.250	.400	.188-.250	
BRAA-45D	BRAS-45D	BRSS-45D	.076	.250	.462	.251-.312	
BRAA-46D	BRAS-46D	BRSS-46D	.076	.250	.525	.313-.375	
BRAA-48D	BRAS-48D	BRSS-48D	.076	.250	.650	.376-.500	
BRAA-44DL	N/A	N/A	.076	.390	.400	.188-.250	1/8 Large Flange
N/A	BRAS-46DL	N/A	.076	.390	.525	.313-.375	
N/A	BRAS-48DL	N/A	.076	.390	.650	.376-.500	
BRAA-52D	BRAS-52D	BRSS-52D	.095	.312	.300	.020-.125	5/32
BRAA-54D	BRAS-54D	BRSS-54D	.095	.312	.425	.125-.250	
BRAA-56D	BRAS-56D	BRSS-56D	.095	.312	.550	.251-.375	
BRAA-62D	BRAS-62D	BRSS-62D	.114	.375	.325	.020-.125	3/16
BRAA-64D	BRAS-64D	BRSS-64D	.114	.375	.450	.126-.250	
BRAA-66D	BRAS-66D	BRSS-66D	.114	.375	.575	.251-.375	
BRAA-68D	BRAS-68D	BRSS-68D	.114	.375	.700	.376-.500	
BRAA-610D	BRAS-610D	BRSS-610D	.114	.375	.825	.501-.625	
BRAA-64DL	BRAS-64DL	BRSS-64DL	.114	.650	.450	.126-.250	
BRAA-66DL	BRAS-66DL	BRSS-66DL	.114	.650	.575	.251-.375	
BRAA-68DL	BRAS-68DL	BRSS-68DL	.114	.650	.700	.376-.500	
BRAA-610DL	BRAS-610DL	BRSS-610DL	.114	.650	.825	.501-.625	
N/A	N/A	BRSS-86D	.125	.500	.625	.251-.375	1/4
N/A	N/A	BRSS-88D	.125	.500	.750	.376-.500	
N/A	N/A	BRSS-812D	.125	.500	1.00	.626-.750	

Terminal Supply carries three types of blind rivets in a wide variety of sizes, one to fit all of your applications:

BRAA: Aluminum Rivet / Aluminum Mandrel

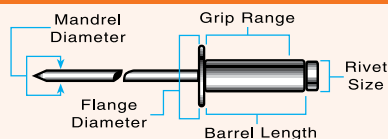
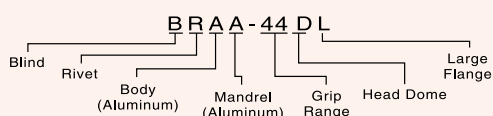
BRAS: Aluminum Rivet / Steel Mandrel

BRSS: Steel Rivet / Steel Mandrel

We offer an assortment for every type of rivet you see here. Aluminum/Aluminum (BRAA-KIT), Aluminum/Steel (BRAS-KIT) & Steel/Steel (BRSS-KIT). For additional information on our Rivets Kits see page 466.

For the perfect tool to pull all rivets listed, order our Cast Aluminum Blind Rivet Tool (RT-18) shown on page 481.

Part Number & Dimensions Explanation For Blind Rivets



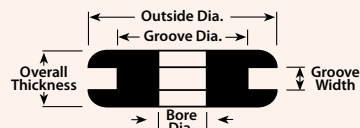
Rubber Grommets



Part Number	Bore Dia.	Groove Width	Groove Dia.	Outside Dia.	Overall Thickness
RG-54G	1/8	1/16	1/4	11/32	3/16
RG-1734	3/16	3/32	9/32	7/16	7/32
RG-2286	3/16	1/16	5/16	7/16	3/16
RG-2852	3/16	1/8	5/16	7/16	1/4
RG-97	1/4	1/16	7/16	5/8	3/16
RG-2755	1/4	3/16	1	1-1/4	3/8
RG-2901	1/4	3/32	3/8	1/2	1/4
RG-2902	1/4	1/16	3/8	1/2	7/32
RG-2903	1/4	1/8	3/8	1/2	9/32
RG-5436	1/4	1/16	55/64	1-3/64 (cone)	11/16
RG-263	5/16	1/16	7/16	9/16	3/16
RG-2113	5/16	1/16	9/16	13/16	5/16
RG-2280	5/16	1/16	3/4	1	5/16
RG-2538	5/16	3/32	7/16	5/8	5/16
RG-230	3/8	1/16	1/2	5/8	1/4
RG-545	3/8	1/8	1/2	5/8	13/32
RG-828	3/8	1/4	1/2	3/4	1/2
RG-2281	3/8	1/16	5/8	7/8	5/16
RG-2558	3/8	1/4	5/8	7/8	1/2
RG-2758	3/8	3/16	5/8	7/8	7/16
RG-2858	3/8	1/8	5/8	7/8	3/8
RG-560	7/16	3/16	9/16	11/16	3/8
RG-1787	7/16	1/16	9/16	3/4	1/4
RG-2426	1/2	1/16	1	1-1/4	1/4
RG-653	1/2	1/8	3/4	1	1/2
RG-1862	1/2	3/32	3/4	31/32	9/32
RG-2283	1/2	1/16	13/16	1-1/16	5/16
RG-2561	1/2	1/4	13/16	1-1/16	1/2
RG-2341	1/2	3/32	25/32	1	11/32
RG-1720	9/16	1/16	3/4	7/8	15/64
RG-2295	9/16	1/16	13/16	1-1/16	5/16

Part Number	Bore Dia.	Groove Width	Groove Dia.	Outside Dia.	Overall Thickness
RG-2285	5/8	1/16	7/8	1-1/8	5/16
RG-2564	5/8	1/4	7/8	1-1/8	1/2
RG-2764	5/8	3/16	7/8	1-1/8	7/16
RG-2864	5/8	1/8	7/8	1-1/8	3/8
RG-2273	11/16	1/16	1	1-5/16	3/8
RG-2766	11/16	3/16	1	1-5/16	1/2
RG-804	3/4	1/16	1-1/16	1-3/8	3/8
RG-2274	3/4	1/16	1-1/4	1-5/8	1/4
RG-2567	3/4	1/4	1-1/16	1-3/8	9/16
RG-2870	7/8	1/8	1-1/4	1-5/8	1/2
RG-2035	1	1/4	1-1/4	1-1/2	1/2
RG-2277	1	1/16	1-3/8	1-3/4	7/16
RG-2572	1	1/4	1-3/8	1-3/4	5/8
RG-2092	1-1/8	1/16	1-1/2	1-7/8	3/8
RG-2802	1-5/16	1/8	1-5/8	2	7/16
RG-2803	1-5/16	1/16	1-5/8	2	3/8
RG-2034	1-1/2	1/4	1-3/4	2	1/2
RG-2875	1-1/2	1/8	1-3/4	2-1/8	1/2
RG-2775	1-1/2	3/16	1-3/4	2-1/8	9/16
RG-2804	2-1/8	1/8	2-1/2	2-7/8	1/2
RG-2805	2-1/8	1/16	2-1/2	2-7/8	7/16

Dimensions Explanation For Rubber Grommets



Need more than one size of rubber grommet? Order our Rubber Grommet Kit (GROMMET-KIT) and get 32 different sizes in one box! See page 466 for info.

We offer more sizes in many of our hardware lines. If you do not see the size you need, contact customer service or your local sales rep & they will be glad to locate the product that will best meet your needs.

Snap Bushings - Nylon



- Converts raw-edged holes to neat insulated holes
- Locking "fingers" snap in holes w/ fingertip pressure
- Withstands a push back force of 35 pounds
- Protects & insulates cables, tubing, hose, rope & utility lines
- Available to fit 1/4" (6.4mm) to 6" (152.4mm) dia. holes

Part Number	Max Thickness	Mounting Dia.	Inside Dia.	Head Dia.	Overall Height
SB-2000	.062	.250	.125	.312	.312
SB-2010	.062	.312	.187	.375	.312
SB-2020	.125	.375	.187	.468	.406
SB-2030	.125	.375	.250	.468	.406
SB-2017	.172	.375	.281	.468	.406
SB-2038	.125	.437	.270	.531	.406
SB-2043	.125	.437	.312	.531	.406
SB-2058	.125	.500	.250	.578	.406
SB-2049	.125	.500	.312	.578	.406
SB-2053	.125	.500	.391	.578	.406
SB-2060	.125	.562	.312	.656	.406
SB-2063	.125	.562	.391	.656	.406
SB-2066	.125	.562	.437	.656	.406
SB-2075	.125	.625	.250	.718	.406
SB-2070	.125	.625	.437	.718	.406
SB-2073	.125	.625	.500	.718	.406
SB-2830	.250	.625	.500	.703	.531
SB-2083	.125	.687	.500	.781	.406
SB-2086	.125	.687	.562	.781	.406
SB-2090	.125	.750	.391	.843	.406
SB-2092	.125	.750	.500	.843	.406
SB-2093	.125	.750	.562	.843	.406
SB-2096	.125	.750	.609	.843	.406
SB-2840	.250	.750	.625	.828	.531
SB-2100	.125	.812	.562	.890	.406
SB-2103	.125	.812	.625	.890	.406
SB-2110	.125	.875	.375	.953	.453

Part Number	Max Thickness	Mounting Dia.	Inside Dia.	Head Dia.	Overall Height
SB-2113	.125	.875	.437	.953	.453
SB-2116	.125	.875	.500	.953	.453
SB-2120	.125	.875	.562	.953	.453
SB-2123	.125	.875	.625	.953	.453
SB-2126	.125	.875	.687	.953	.453
SB-2140	.125	1.000	.766	1.125	.453
SB-2160	.125	1.125	.812	1.218	.453
SB-2163	.125	1.125	.875	1.218	.453
SB-2166	.125	1.125	.937	1.218	.453
SB-2182	.125	1.187	.937	1.312	.453
SB-2198	.125	1.250	.937	1.359	.453
SB-2201	.125	1.250	1.000	1.310	.453
SB-2210	.125	1.375	1.000	1.468	.453
SB-2233	.125	1.500	10.62	1.609	.453
SB-2236	.125	1.500	1.125	1.609	.453
SB-2240	.125	1.500	1.312	1.609	.453
SB-2300	.125	1.750	1.375	1.875	.453
SB-2400	.125	2.000	1.640	1.125	.453
SB-2406	.125	2.000	1.750	2.125	.453
SB-2417	.250	2.250	1.860	2.480	.720
SB-2420	.250	2.500	1.970	2.660	.720
SB-2461	.250	3.000	2.470	3.160	.720

Dimensions Explanation For Snap Bushings



Do you need an assortment of snap bushings? Consider one of our Snap Bushing Kits. We have a 230 piece kit (SB-KIT-LG) & a 110 piece kit (SB-KIT-SM), one to fit every need!

We offer more sizes in many of our hardware lines. If you do not see the size you need, contact customer service or your local sales rep & they will be glad to locate the product that will best meet your needs.

O-Rings



Standard O-Rings

- Material: Nitrile (Buna N) B46-70
- Hardness: 70 Shore A Durometer
- Temp Range: -40° to 275°F
- Performs satisfactorily in petroleum lubricants & hydraulic oils, gasoline, water & alcohol
- UL Listed

Part Number	I.D.	O.D.	Cross Section
OR-006	1/8	1/4	
OR-007	5/32	9/32	
OR-008	3/16	5/16	
OR-009	7/32	11/32	
OR-010	1/4	3/8	
OR-011	5/16	7/16	
OR-012	3/8	1/2	
OR-013	7/16	9/16	
OR-014	1/2	5/8	1/16
OR-015	9/16	11/16	
OR-016	5/8	3/4	
OR-017	11/16	13/16	
OR-018	3/4	7/8	
OR-019	13/16	15/16	
OR-020	7/8	1	
OR-021	15/16	1-1/16	
OR-022	1	1-1/8	

Part Number	I.D.	O.D.	Cross Section
OR-023	1-1/16	1-3/16	
OR-024	1-1/8	1-1/4	
OR-025	1-3/16	1-5/16	1/16
OR-026	1-1/4	1-3/8	
OR-027	1-5/16	1-7/16	
OR-028	1-3/8	1-1/2	
OR-110	3/8	9/16	
OR-111	7/16	5/8	
OR-112	1/2	11/16	
OR-113	9/16	3/4	3/32
OR-114	5/8	13/16	
OR-115	11/16	7/8	
OR-116	3/4	15/16	
OR-210	3/4	1	
OR-211	13/16	1-1/16	1/8
OR-212	7/8	1-1/8	
OR-213	15/16	1-3/16	

Part Number	I.D.	O.D.	Cross Section
OR-214	1	1-1/4	
OR-215	1-1/16	1-5/16	
OR-216	1-1/8	1-3/8	
OR-217	1-3/16	1-7/16	
OR-218	1-1/4	1-1/2	
OR-219	1-5/16	1-9/16	
OR-220	1-3/8	1-5/8	1/8
OR-221	1-7/16	1-11/16	
OR-222	1-1/2	1-3/4	
OR-223	1-5/8	1-7/8	
OR-224	1-3/4	2	
OR-225	1-7/8	2-1/8	
OR-226	2	2-1/4	
OR-325	1-1/2	1-7/8	
OR-326	1-5/8	2	3/16
OR-327	1-3/4	2-1/8	

Hydraulic O-Rings

- Material: Nitrile (Buna N)
- Hardness: 90 Durometer
- Temp Range: -40° to 250°F
- Performs satisfactorily in all hydraulic applications
- SAE J515 Type CH

Part Number	I.D.	Cross Section
W-252X8	.734	
W-252X12	.984	
W-252X16	1.296	.139
W-252X20	1.489	
W-252X24	1.859	
W-252X32	2.656	
W-4629X4	.301	
W-4629X6	.364	.070
W-4629X8	.489	
W-4629X10	.614	

Part Number	I.D.	Cross Section
W-4629X12	.739	
W-4629X16	.926	.070
W-4629X20	1.176	
W-4629X24	1.489	
W-7629X4	.351	.072
W-7629X5	.414	
W-22617-6	.468	.078
W-7629X8	.644	.087
W-7629X10	.755	.097
W-7629X12	.924	.116

Part Number	I.D.	Cross Section
W-7629X16	1.171	.116
W-7629X20	1.475	
W-7629X24	1.720	.118
W-7629X32	2.337	

Need some of everything?
Order our Hydraulic O-Ring Kit (#W-TSOR-24). It contains 288 pieces of all of the o-rings you see here in a 24 compartment small metal box.

Galvanized Wire Rope Without Coating



Part Number	O.D.	Aluminum Sleeve Size	Stranding	Breaking Strength	Standard Spool Sizes
GWR-1/16	1/16"	1/16"	7X7	480lbs.	100/500
GWR-3/32	3/32"	3/32"	7X7	650lbs.	100/500
GWR-1/8	1/8"	1/8"	7X19	2000lbs.	100/500
GWR-3/16	3/16"	3/16"	7X19	4200lbs.	100/500
GWR-1/4	1/4"	1/4"	7X19	7000lbs.	100/500

Galvanized Wire Rope With Coating



Part Number	O.D.	Aluminum Sleeve Size	Stranding	Breaking Strength	Standard Spool Sizes
GWRC-1/16	1/16"	1/16"	7X7	480lbs.	100/500
GWRC-3/32	3/32"	3/32"	7X7	650lbs.	100/500
GWRC-1/8	1/8"	1/8"	7X19	2000lbs.	100/500
GWRC-3/16	3/16"	3/16"	7X19	4200lbs.	100/500
GWRC-1/4	1/4"	1/4"	7X19	7000lbs.	100/500

Aluminum Loop Sleeves



Part Number	Size	External Height	External Width	I.D.	After Crimping Dia.
ALS-1/16	1/16"	11/64"	1/4"	5/64"	.187"
ALS-3/32	3/32"	9/32"	13/32"	1/8"	.281"
ALS-1/8	1/8"	1/2"	5/32"	5/32"	.312"
ALS-3/16	3/16"	7/16"	21/32"	7/32"	.437"
ALS-1/4	1/4"	17/32"	13/16"	9/32"	.563"
ALS-3/8	3/8"	3/4"	1-5/32"	7/16"	.812"

Wire Rope Cable Cutters and Crimpers

Cable Cutters



Part Number	Description	Cuts Cable Up To	Overall Length	Fig.
TS-C-7	One hand cutter	5/32" dia	7.5"	A
TS-C-16	Two hand cutter	5/8" dia.	23"	B

Crimper / Swagging Tools



Part Number	Crimps Cable Sizes	Overall Length	Fig.
TS-5CST	1/16", 3/32", 1/8", 5/32" & 3/16"	24"	A
TS-HST-1/4	1/4"	30"	B

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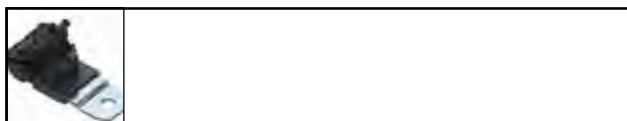
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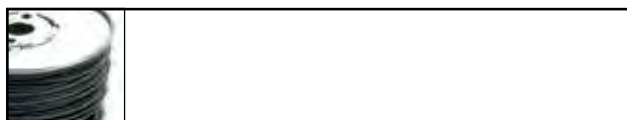
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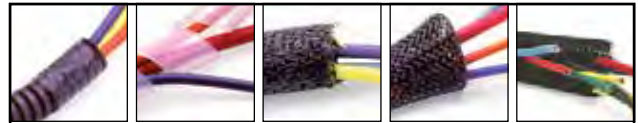
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Cable Ties & Mounts

HellermannTyton Cable Ties

- Standard color is natural. To order colors add the color's abbreviation to end of the part number. EX: TRS-BLU
- Please note that manufacturer minimums may apply with ALL colored ties
- Black cable ties are UV resistant

Colors			
Natural	none	Orange	ORG
Black	BLK	Purple	PUR
Blue	BLU	Red	RED
Brown	BRN	Telco Gray	TGY
Green	GRN	White	WHT
Slate Gray	GRY	Yellow	YEL

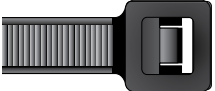

Best Selling Standard Cable Ties

- Suggested tools: GRN-45300, EVO-9

	Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	Natural	BLK	BLU	BRN	GRN	GRY	ORG	PUR	RED	TGY	WHT	YEL
	TRS-BLK	18lbs.	3/4"	4"	.10"	X	X	X	X	X	X	X	X	X		X	X
 <i>Mounts with a #4 screw</i>	TRS-35-BLK	18lbs.	3/4"	4-1/4"	.10"	X	X										
	TRM-24-BLK	30lbs.	1-1/4"	6"	.14"	X	X	X	X	X	X	X	X	X		X	X
	TRM-BLK	50lbs.	1-3/4"	8"	.18"	X	X	X	X	X	X	X	X	X	X	X	X
 <i>Mounts with a #10 screw</i>	TRM-35-BLK	50lbs.	1-3/4"	8-1/2"	.18"	X	X										
	TRL-11-BLK	50lbs.	3"	11-3/4"	.18"	X	X	X	X	X	X			X		X	X
	TRL-BLK	50lbs.	4"	15-1/2"	.18"	X	X	X	X	X		X	X	X	X	X	X

Heavy Duty Cable Ties

- Suggested tool: EVO-9

	Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	Natural	BLK	BLU	BRN	GRN	GRY	ORG	PUR	RED	TGY	WHT	YEL
	TRL-HD-BLK	120lbs.	4"	15-1/4"	.30"	X	X		X	X	X			X	X	X	X
 <i>Mounts with a 1/4" screw</i>	TRL-HD-35-BLK	120lbs.	4"	16-1/4"	.30"	X	X										

Cable ties similar to our TRS, TRM-24, TRM, TRL-11, TRL & TRL-HD are now available in OEM Bulk Packs. These general purpose ties are value priced & packed in various quantities. For more info contact your sales rep or customer service.

An assortment of TSC cable ties are available in our Cable Tie Kit, natural (TIE-RAP-KIT) or black (TIE-RAP-KIT-BLK). All come packed in one box, with 4-way mounts. See page 468 for details.

HellermannTyton Cable Ties, cont'd

Standard Cable Ties

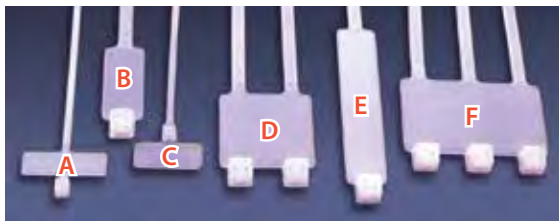
- Suggested tools: TWT-1, EVO-7, EVO-9, GRN-45300
- Standard color is natural. To order black add -BLK to end of the part number, EX: T-18S-BLK
- Black cable ties are UV resistant



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
T-18S	18lbs.	.625"	3.375"	.09"
T-18I	18lbs.	1.25"	5.667"	.1"
T-18L	18lbs.	2.17"	8"	.1"
T-30L	30lbs.	1.97"	7.48"	.14"
T-30LL	30lbs.	3.15"	11.42"	.14"
T-30XL	30lbs.	4.13"	14.37"	.14"
T-40R	40lbs.	2"	8.5"	.15"
T-40I	40lbs.	3"	11.5"	.15"
T-40L	40lbs.	4"	14.5"	.15"
T-50S	50lbs.	1.25"	6.5"	.18"

Identification Cable Ties

- Suggested tools: TWT-1, EVO-9
- Standard color is natural
- Large, flat area for imprinting or writing to identify & tie cables in one operation



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	Fig.
IT-18R	18lbs.	.75"	4"	.1"	A
IT-18FL	18lbs.	.75"	4.25"	.1"	C
IT-50R	50lbs.	1.75"	8"	.18"	B
IT-50RD	50lbs.	1.75"	8"	.18"	D
IT-50L	50lbs.	4"	15"	.18"	E
IT-50RT	50lbs.	1.75"	8"	.18"	F

Heavy Duty Cable Ties

- Suggested tools: EVO-9
- Standard color is natural. To order black add -BLK to end of the part number, EX: T-120S-BLK
- Black cable ties are UV resistant
- T-150XL is available in orange, to order use -ORG



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	Fig.
T-120S	120lbs.	2"	8.875"	.3"	A
T-120I	120lbs.	3"	11.875"	.3"	A
T-120L	120lbs.	8.75"	29.75"	.3"	A
T-150R	175lbs.	4"	15"	.35"	A
T-150M	175lbs.	6"	21"	.35"	A
T-150L	175lbs.	9"	32"	.35"	A
T-150LL	175lbs.	11"	36"	.35"	A
T-150XL	175lbs.	13"	43"	.35"	A
T-250S	250lbs.	2"	9"	.5"	B
T-250R	250lbs.	5.71"	20.47"	.5"	B
T-250M	250lbs.	6"	23"	.5"	B
T-250I	250lbs.	8"	29"	.5"	B
T-250L	250lbs.	10"	35"	.5"	B
T-250XL	250lbs.	12"	40"	.5"	B

Releasable Cable Ties

- Standard color is natural. To order black add -BLK to end of the part number, EX: RT-40R-BLK
- Black cable ties are UV resistant
- Perfect for prototype construction & service requiring addition of wires to existing harness



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
RT-40R	40lbs.	2"	8.5"	.16"
RT-50S	50lbs.	1.375"	6.5"	.18"
RT-50LL	50lbs.	4"	15.5"	.18"

HellermannTyton Cable Ties, cont'd

Button Head Cable Ties

- Suggested tools: T-150HD
- Standard color is black
- Black cable ties are UV resistant
- Two piece tie that provides parallel entry & exits through the head
- Operating temp: -44° to 221°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
BT-105R	105lbs.	2.625"	9.625"	.22"
BT-105L	105lbs.	4.3125	15"	.22"

Dual Clamp Cable Ties

- Suggested tool: TWT-1
- Standard color is black
- Black cable ties are UV resistant
- Prevents hoses from rubbing together
- 1/4" stud mount to secure bundle along chassis
- Releasable & adjustable
- Operating temp: -40° to 230°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
DCT-13	150lbs.	1.3" per side	12.9"	.5"
DCT-19	150lbs.	2.3" per side	19.2"	.5"

Fir Tree Push Mount Cable Ties

- Suggested tools: EVO-7, EVO-9, TWT-1
- Standard color is black
- Black cable ties are UV resistant & heat stabilized
- Fir tree is 1/4" dia. works w/ mount hole .25-.26" dia. Will work w/ metal, wood or plastic with a panel thickness .05-.28"
- Operating temp: -44° to 221°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
T-50RTM	50lbs.	2"	8.39"	.18"

Aerial Support Spacer Cable Ties

- Suggested tools: EVO-9, T-250-TOOL
- Standard color is black
- Ties are UV, saltwater & chemical resistant
- One piece tie designed for standard spacing applications
- Operating temp: -40° to 230°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
TAS-100L	100lbs.	4.5"	16"	.5"

Clamp Cable Ties

- Suggested tool: EVO-7, EVO-9
- Standard color is natural. To order black add -BLK to end of the part number. EX: CTT-60R-BLK
- Black cable ties are UV resistant
- Features a curved head for securing low pressure hoses
- Operating temp: -40° to 185°F (221°F for black)



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
CTT-20R	20lbs.	.5"	4"	.10"
CTT-60R	60lbs.	1.75"	8"	.18"

Wide Strap Cable Ties

- Suggested tools: EVO-9
- Standard color: black
- UV, heat & impact resistant
- Wider & thinner strap design increases flexibility & minimizes bundle pinching
- Operating temp: -40° to 221°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
WSCT-9-BLK	120lbs.	2.3"	9.1"	.5"
WSCT-12-BLK	120lbs.	3.4"	12.1"	.5"
WSCT-15-BLK	120lbs.	4.1"	15.1"	.5"

HellermannTyton Cable Ties, cont'd

Off-Set Cable Ties

- Operating temperature: -40° to 221°F
- Polyimide 6.6, heat & UV stabilized
- Route & position bundles away from a mounting hole
- Eliminates potential bending of cables once installed



Part Number	Fir Tree Mounting Dia.	Fir Tree Panel Thickness	Length	Width	Tensile Strength	Disc Dia.	Bundle Dia.	Color	Fig.
28-0950	.24"	.02" - .30"	9.1"	.20"	50lbs	.75"	.08" - 1.97"	Black	A
28-1024	.24"	.02" - .26"	8.5"	.19"	50lbs	.59"	.08" - 1.97"	Gray	B

Pipe Mount Cable Ties

- Operating temperature: -40° to 221°F
- Polyimide 6.6, heat & UV stabilized
- Bundle can rotate to any orientation, regardless of mounting point
- Reusable for simple relocation or adjustments

Part Number	Pipe Dia.	Length	Width	Tensile Strength	Bundle Dia.	Color
28-1025A	.59" - .71"	6.1"	.19"	50lbs	.08" - 1.4"	Black



HellermannTyton Cable Tie Mounts

Saddle Mounts

- Secures multiple bundles to separate them & prevent chafing & wear
- Made from high impact modified, heat stabilized, UV resistant black nylon 6/6 material
- Works with any cable tie .18" - .5" in width
- Operating temp: -40° to 221°F



Part Number	Mounting Hole	Panel Thickness	Standoff Height	Max Bundle Dia.
S3STM-50	.50"	.075" - .515"	1.3"	1.5" - 5"
S2HM-250	.25"	.16" - .75"	.90"	3.5"

Fir Tree Mounts

- Grips inside of a hole in sheet metal, wood & cast iron
- Works w/ any cable tie up to .20" wide
- Made of UV resistant, 6/6 black nylon
- Operating temp: -40° to 230°F
- FT-10-TRM comes supplied w/ a TRM-BLK



Part Number	Mounting Hole	Panel Thickness	Length	Width
FT-6	.256" - .276"	.028" - .193"	.53"	.63"
FT-10-TRM	0.382" - 0.394"	.031" - .197"	.75"	.71"

High Bond Heavy Duty Harness Clips

- Extremely durable adhesive achieves high pull-off force
- Two-piece ratcheting wedge design allows for easy size adjustment
- Made from polyamide 6.6, heat stabilized, glass fiber reinforced material
- Operating temp: -40° to 284°F



Part Number	Panel Thickness	Size (L x W x H)	Color
151-01565	.20"		Black/green
151-01566	.16" - .35"	1.21" x 1.13" x 1.7"	Black
151-01567	.31" - .51"		Black/gray

Low Profile Mounts

- Secures bundles where space is limited
- Standard color: natural
- Operating temp: -44° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
MB-2	T18 thru T50	#8 screw	.810"	.495"

HellermannTyton Cable Tie Mounts, cont'd

Single Screw Mounts

- Secured with single screw
- Standard color is white. To order black add -BLK to end of the part number. EX: CTM-0-BLK
- Operating temp: -40° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
CTM-0	T18 thru T50	#6 screw	.6"	.38"
CTM-1	T18 thru T50	#8 screw	.6"	.38"
CTM-2	T18 thru T120	#8 screw	.857"	.605"
CTM-3	T18 thru T120	#10 screw	.858"	.609"
CTM-4	T18 thru T120	.25" screw	.864"	.616"

2-Way Mounting Bases

- Ties can be inserted from two sides
- Standard color is white. To order black add -BLK to end of the part number. EX: MB-4A/SH-BLK
- Operating temp: -40° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
MB-4A/SH	T18 thru T50	Adhesive	1.125"	1.125"

Wide Strap Mounting Bases

- Ties can be inserted from two sides
- Standard color is black



Part Number	Cable Tie Series	Mounting	Length	Width
WSCTM-BLK	WSCT	Adhesive	1.49"	1.49"

Anchor Mounts

- Ties can be inserted from any side, so mount can be placed parallel or perpendicular to wires
- Standard color is white. To order black add -BLK to end of the part number. EX: CTAM-1-BLK
- Operating temp: -44° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
CTAM-1	T18 thru T50	#8 screw	.8"	.4"
CTAM-2	T18 thru T50	#10 screw	.8"	.4"

Push Mounts

- Once installed in pre-drilled hole, the mount locks into place
- Max panel thickness: .134"
- Operating temp: -40° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
TM1/SF	T18 thru T50	.250" hole	.62"	.4"

4-Way Mounting Bases

- Ties can be inserted from two sides
- Standard color is white. To order black add -BLK to end of the part number. EX: MB-3-BLK
- Operating temp: -40° to 185°F



Part Number	Cable Tie Series	Mounting	Length	Width
MB-3	T18 thru T30	#4 screw	.75"	.75"
TRMP-SM	T18 thru T30	Adhesive	.75"	.75"
MB-4	T18 thru T50	#8 screw	1.125"	1.125"
TRMP	T18 thru T50	Adhesive	1.125"	1.125"
MB-5	T18 thru T150	#8 screw	1.5"	1.5"
TRMP-HD	T18 thru T150	Adhesive	1.5"	1.5"

High Bond 4-Way Mounting Bases

- Extremely durable adhesive achieves high pull-off force
- Ties can be inserted from two sides
- Standard color is black
- Operating temp: -40° to 176°F



Part Number	Cable Tie Series	Mounting	Length	Width
TRMP-VHB	T18 thru T50	Adhesive	1.12"	1.12"

Heavy Duty Stud Mounts

- Tab inside mounting hole temporarily engages threads in order to pre-install the mount on a stud before securing with a washer & nut
- Works with cable ties up to .5" wide
- Made of UV resistant, 6/6 black nylon
- Operating temp: -40° to 176°F



Part Number	Washer/Socket Dia.	Mounting Stud Size	Length	Width
HDM-190HIR	.73" max	#10	1.43"	.76"
HDM-250HIR	.73" max	1/4"	1.43"	.76"
HDM-3120HIR	.73" max	5/16"	1.43"	.76"

Thomas & Betts Cable Ties

Standard Cable Ties

- Standard color is natural. To order black add -BLK to end of the part number. EX: TY-23M-BLK
- Low profile head, easy to install, adjustable
- Stainless steel lock & unique stippled back for stronger hold & less slippage
- MIL-SPEC MS3367-40
- Operating temp: -40° to 185°F



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
TY-23M	18lbs.	.625"	3.62"	.091"
TY-24M	40lbs.	1.125"	5.5"	.14"
TY-25M	50lbs.	1.17"	7.31"	.184"
TY-26M	40lbs.	3"	11.1"	.14"
TY-27M	120lbs.	3.5"	13.4"	.27"
TY-28M	50lbs.	4"	14.2"	.184"

Clamps

Cable Clamps

Nylon Cable Clamps

- Suitable for outdoor applications
- Standard color is white. To order black add -BLK to end of the part number. EX: 6B-1/8-BLK
- Operating temp: -40° to 221°F

Part Number	Clamping Diameter	Width	Hole Size	Qty
6B-1/8	1/8	3/8	13/64	100
6B-3/16	3/16	1/2	13/64	100
6B-1/4	1/4	1/2	13/64	100
6B-5/16	5/16	1/2	13/64	100
6B-3/8	3/8	1/2	13/64	100



Part Number	Clamping Diameter	Width	Hole Size	Qty
6B-1/2	1/2	1/2	13/64	100
6B-5/8	5/8	1/2	13/64	100
6B-3/4	3/4	1/2	13/64	100
6B-1	1	1/2	13/64	50
6B-1-1/4	1-1/4	1/2	13/64	50

Nylon Snapper Clamps

- Light weight, reusable, corrosion resistant, works well in diverse environments
- Can be installed with hose in place
- Material is a glass filled nylon
- Temperature range: -40° to 221°F
- Standard color is white. To order black add -BLK to end of the part number. EX: SNP-1.25-BLK



Part Number	Min Dia.	Max Dia.
SNP-1.25	.269"	.291"
SNP-6	.449"	.511"
SNP-12	.616"	.707"
SNP-14	.702"	.801"
SNP-18	.779"	.899"
SNP-19	.859"	.989"

Adhesive Cable Clamps

- Features exclusive quick lock/release & an adhesive backing
- Standard color is gray
- Operating temp: -40° to 150°F



Part Number	Max Bundle Dia.	Length	Width
12-0188	.188"	.62"	.735"
12-0250	.25"	.855"	1"
12-0375	.375"	.98"	1"
12-0500	.5"	1.215"	.99"
12-0750	.75"	1.468"	1.165"

Push On Frame Clips

- Heat treated spring steel with black, corrosion resistant finish

Standard Clips



Part Number	Clamping Diameter	Frame Width	Frame Type	Qty
BCS	3/16	3/20	Small	100
BCM	1/4	1/4	Medium	100
BCL	3/8	1/4	Large	100

Plastic Dipped Clips

- Tips covered with plastic coating for added protection, grip & cushion



Part Number	Clamping Diameter	Frame Width	Frame Type	Qty
BCS-PD	3/16	3/20	Small	50/100
BCM-PD	1/4	1/4	Medium	50/100
BCL-PD	3/8	1/4	Large	50/100

Vinyl Insulated Clamps

- Clamp is steel with zinc plated finish & has an elongated bottom hole
- Insulation is black vinyl, 1/32" thick
- Temp rating: -30° to 180°F



Round Clamps

Part Number	Clamping Diameter	Width	Hole Size	Qty	Bulk Qty
RBC-3/16	3/16	1/2	9/32	50/100	1000
RBC-1/4	1/4	1/2	9/32	50/100	1000
RBC-5/16	5/16	1/2	9/32	50/100	1000
RBC-3/8	3/8	3/4	13/32	25/50	500
RBC-1/2	1/2	3/4	13/32	10/25/50	500
RBC-5/8	5/8	3/4	13/32	10/25/50	500
RBC-3/4	3/4	3/4	13/32	10/25/50	500
RBC-7/8	7/8	3/4	13/32	15/25	500
RBC-1	1	3/4	13/32	10/15/25	500
RBC-1-1/4	1-1/4	3/4	13/32	10/15/25	500
RBC-1-1/2	1-1/2	3/4	13/32	10/15/25	350
RBC-2	2	3/4	13/32	10/15	250
RBC-2-1/2	2-1/2	3/4	13/32	10	250
RBC-3	3	3/4	13/32	10	200

To order bulk quantity, just add -BULK to the end of the part number, following this example: RBC-7/8-BULK

Check out our Vinyl Insulated Clamp Kits (RBC-KIT & RBC-1/4-KIT). Both come in metal box with adjustable drawers. See all of the details on page 467.

Half Clamps



Part Number	Clamping Diameter	Width	Hole Size	Qty
H-RBC-1/4	1/4	1/2	9/32	50/100
H-RBC-5/16	5/16	5/8	9/32	50/100
H-RBC-3/8	3/8	5/8	9/32	50/100
H-RBC-1/2	1/2	5/8	9/32	50/100
H-RBC-5/8	5/8	5/8	9/32	50/100
H-RBC-3/4	3/4	5/8	9/32	50/100
H-RBC-1	1	3/4	9/32	50/100

- Clamp is steel with zinc plated finish & has an elongated bottom hole
- Insulation is black vinyl, 14/32" thick
- Temp rating: -30° to 180°F



Narrow Band Round Clamps

Part Number	Clamping Diameter	Width	Hole Size	Qty
RBC-3/8-W-1/4	3/8		1/4	25/50
RBC-1/2-W-1/4	1/2		1/4	10/25/100
RBC-5/8-W-1/4	5/8		1/4	10/25/100
RBC-3/4-W-1/4	3/4	1/2	1/4	10/25/50/100
RBC-7/8-W-1/4	7/8		1/4	10/15/25
RBC-1-W-1/4	1		1/4	10/15/25
RBC-1-1/4-W-1/4	1-1/4		1/4	10/15/25
RBC-1-1/2-W-1/2	1-1/2		1/4	10/15/25

To order add the quantity at the end of the part number, following this example: RBC-3/8-W-1/4-25

Rubber Cushion Clamps

- Clamp is covered with a black rubber jacket for cushion & added protection

To order bulk quantity, just add -BK or -BULK to the end of the part number, following this example:

RCCSS-1414-BK or RCC-1414-BULK



Stainless Steel

Part Number	Clamping Diameter	Width	Hole Size	Qty	Bulk Qty
RCCSS-1414	1/4	1/2	1/4	50/100	1000
RCCSS-3814	3/8	1/2	1/4	25/50	1000
RCCSS-1214	1/2	1/2	1/4	25/50	500
RCCSS-5814	5/8	1/2	1/4	25/50	500
RCCSS-3414	3/4	1/2	1/4	25/50	500
RCCSS-7814	7/8	1/2	1/4	15/25	500
RCCSS-114	1	1/2	1/4	15/25	500
RCCSS-11814	1-1/8	1/2	1/4	15/25	500
RCCSS-11414	1-1/4	1/2	1/4	15/25	500
RCCSS-13814	1-3/8	1/2	1/4	15/25	400
RCCSS-11214	1-1/2	1/2	1/4	15/25	300
RCCSS-15814	1-5/8	1/2	1/4	15	300
RCCSS-13414	1-3/4	1/2	1/4	15	200
RCCSS-17814	1-7/8	1/2	1/4	15	200
RCCSS-214	2	1/2	1/4	15	200

Want to stay organized? Purchase our Rubber Cushion Clamp kits in steel (RCC-KIT) or stainless steel (RCCSS-KIT-LG) to get a large assortment in one box.

Steel

Part Number	Clamping Diameter	Width	Hole Size	Qty	Bulk Qty
RCC-31614	3/16	1/2	1/4	50/100	1000
RCC-1414	1/4	1/2	1/4	50/100	1000
RCC-3814	3/8	1/2	1/4	25/50	1000
RCC-1214	1/2	1/2	1/4	25/50	500
RCC-5814	5/8	1/2	1/4	25/50	500
RCC-3414	3/4	1/2	1/4	25/50	500
RCC-7814	7/8	1/2	1/4	15/25	500
RCC-114	1	1/2	1/4	15/25	500
RCC-11814	1-1/8	1/2	1/4	15/25	500
RCC-11414	1-1/4	1/2	1/4	15/25	500
RCC-13814	1-3/8	1/2	1/4	15/25	400
RCC-11214	1-1/2	1/2	1/4	15/25	300
RCC-15814	1-5/8	1/2	1/4	15	300
RCC-13414	1-3/4	1/2	1/4	15	200
RCC-17814	1-7/8	1/2	1/4	15	200
RCC-214	2	1/2	1/4	15	200
RCC-21814	2-1/8	1/2	1/4	10	200
RCC-21414	2-1/4	1/2	1/4	10	200
RCC-23814	2-3/8	1/2	1/4	10	200
RCC-21214	2-1/2	1/2	1/4	10	200
RCC-314	3	1/2	1/4	10	200
RCC-1438	1/4	3/4	3/8	50/100	1000
RCC-3838	3/8	3/4	3/8	25/50	1000
RCC-1238	1/2	3/4	3/8	25/50	500
RCC-5838	5/8	3/4	3/8	25/50	500
RCC-3438	3/4	3/4	3/8	25/50	500
RCC-7838	7/8	3/4	3/8	15/25	500
RCC-138	1	3/4	3/8	15/25	500
RCC-11838	1-1/8	3/4	3/8	15/25	500
RCC-11438	1-1/4	3/4	3/8	15/25	500
RCC-13838	1-3/8	3/4	3/8	15/25	400
RCC-11238	1-1/2	3/4	3/8	15/25	300
RCC-15838	1-5/8	3/4	3/8	15	300
RCC-13438	1-3/4	3/4	3/8	15	200
RCC-17838	1-7/8	3/4	3/8	15	200
RCC-238	2	3/4	3/8	15	200

Hose Clamps

Micro Hose Clamps

- Used in confined areas, marine, agricultural, industrial & automotive applications
- 1/4" hex head screw, 5/16" band
- Stainless steel band & housing. Plated part numbers have plated screws & stainless part numbers have stainless steel
- Other sizes are available. Please contact your sales rep. or customer service for details



Plated Part Number	Stainless Part Number	Diameter	
		Min	Max
M4	MS4	1/4"	5/8"
M6	MS6	5/16"	7/8"
M8	MS8	3/8"	1"
M10	MS10	3/8"	1-1/16"
M12	MS12	1/2"	1-1/4"
M16	MS16	1/2"	1-1/2"

Plated Part Number	Stainless Part Number	Diameter	
		Min	Max
M20	MS20	3/4"	1-3/4"
M24	MS24	1"	2"
M28	MS28	1-1/4"	2-1/4"
M32	MS32	1-1/2"	2-1/2"
M36	N/A	1-3/4"	2-3/4"

General Purpose Hose Clamps

- Used in: automotive, home, garden & plumbing, marine, agricultural & industrial applications
- 5/16" hex head screw, 1/2" band
- Stainless steel band & housing. Plated part numbers have plated screws & stainless part numbers have stainless steel
- Other sizes are available. Please contact your sales rep or customer service for details



Plated Part Number	Stainless Part Number	Diameter	
		Min	Max
6H	6HS	3/8"	7/8"
8H	8HS	7/16"	1"
10H	10HS	1/2"	1-1/16"
12H	12HS	1/2"	1-1/4"
16H	16HS	11/16"	1-1/2"
20H	20HS	3/4"	1-3/4"
24H	24HS	1"	2"
28H	28HS	1-1/4"	2-1/4"
32H	32HS	1-1/2"	2-1/2"
36H	36HS	1-3/4"	2-3/4"
40H	40HS	2"	3"

Plated Part Number	Stainless Part Number	Diameter	
		Min	Max
44H	44HS	2-1/4"	3-1/4"
48H	48HS	2-1/2"	3-1/2"
52H	52HS	2-3/4"	3-3/4"
56H	56HS	3"	4"
60H	60HS	3-1/4"	4-1/4"
72H	72HS	3"	5"
80H	80HS	3-1/2"	5-1/2"
88H	88HS	4"	6"
96H	96HS	4-1/2"	6-1/2"
104H	104HS	5"	7"

T-Bolt Hose Clamps

- Used in heavy duty vehicle, construction, military & commercial applications
- Other sizes are available. Please contact your sales rep. or customer service for details
- Plated screws, carbon steel bolt & nut
- 3/4" band



Part Number	Diameter	
	Min	Max
TB-125	1-1/4"	1-13/32"
TB-138	1-3/8"	1-9/16"
TB-150	1-1/2"	1-5/8"
TB-163	1-5/8"	1-7/8"
TB-175	1-3/4"	2"
TB-188	1-7/8"	2-3/16"
TB-200	2"	2-5/16"
TB-213	2-1/8"	2-7/16"
TB-225	2-1/4"	2-9/16"
TB-238	2-3/8"	2-11/16"
TB-250	2-1/2"	2-13/16"
TB-263	2-5/8"	2-15/16"
TB-275	2-3/4"	3-1/16"
TB-288	2-7/8"	3-3/16"

Part Number	Diameter	
	Min	Max
TB-300	3"	3-5/16"
TB-313	3-1/8"	3-7/16"
TB-325	3-1/4"	3-9/16"
TB-338	3-3/8"	3-11/16"
TB-350	3-1/2"	3-13/16"
TB-363	3-5/8"	3-15/16"
TB-375	3-3/4"	4-1/16"
TB-400	4"	4-5/16"
TB-425	4-1/4"	4-9/16"
TB-450	4-1/2"	4-13/16"
TB-475	4-3/4"	5-1/16"
TB-500	5"	5-5/16"
TB-525	5-1/4"	5-9/16"
TB-550	5-1/2"	5-13/16"

Part Number	Diameter	
	Min	Max
TB-575	5-3/4"	6-1/16"
TB-600	6"	6-5/16"
TB-625	6-1/4"	6-9/16"
TB-650	6-1/2"	6-13/16"
TB-675	6-3/4"	7-1/16"
TB-700	7"	7-5/16"
TB-725	7-1/4"	7-9/16"
TB-750	7-1/2"	7-13/16"
TB-775	7-3/4"	8-1/16"
TB-800	8"	8-5/16"
TB-825	8-1/4"	8-9/16"
TB-850	8-1/2"	8-13/16"

Spring Loaded T-Bolt Hose Clamps

- Used in industrial, marine & vehicle applications to compensate for thermal expansion of hose or fitting connections
- Plated screws, carbon steel bolt & nut
- 3/4" band



Standard Part Number	Heavy Duty Part Number	Diameter	
		Min	Max
B9224-0306	B9226-0306	3.06"	3.38"
B9224-0356	B9226-0356	3.56"	3.88"
B9224-0406	B9226-0406	4.06"	4.38"
B9224-0456	B9226-0456	4.56"	4.88"

Liner Hose Clamps

- Used in trucks, diesel engines, agricultural, marine & aviation equipment
- Designed for use on silicone rubber hose. Will not seep through band serrations
- 5/16" stainless hex head screw & 9/16" stainless band & liner
- Other sizes are available. Please contact your sales rep or customer service for details



Stainless Steel Screws

- Stainless steel band, housing & screws

Part Number	Diameter		Part Number	Diameter		Part Number	Diameter	
	Min	Max		Min	Max		Min	Max
8HL	5/8"	1"	28HL	1-5/16"	2-1/4"	52HL	2-13/16"	3-3/4"
10HL	3/4"	1-1/16"	32HL	1-9/16"	2-1/2"	56HL	3-1/16"	4"
12HL	7/8"	1-1/4"	36HL	1-13/16"	2-3/4"	60HL	3-5/16"	4-1/4"
16HL	1"	1-1/2"	40HL	2-1/16"	3"	64HL	3-9/16"	4-1/2"
20HL	1-1/8"	1-3/4"	44HL	2-5/16"	3-1/4"	72HL	4-1/16"	5"
24HL	1-1/4"	2"	48HL	2-9/16"	3-1/2"			

Constant-Torque® Hose Clamps

- All stainless steel
- Automatically increases or decreases its own diameter due to changes in operational or environmental temperatures, eliminating "cold flow" leaks



Part Number	Band Width	Diameter		Part Number	Band Width	Diameter	
		Min	Max			Min	Max
CT9410	9/16"	9/16"	1-1/16"	CT200L-SS	5/8"	1-1/4"	2-1/8"
CT9412		11/16"	1-1/4"	CT250L-SS		1-3/4"	2-5/8"
CT9416		13/16"	1-1/2"	CT300L-SS		2-1/4"	3-1/8"
CT9420		13/16"	1-3/4"	CT350L-SS		2-3/4"	3-5/8"
CT9424		1-1/16"	2"	CT400L-SS		3-1/4"	4-1/8"
CT9428		1-5/16"	2-1/4"	CT450L-SS		3-3/4"	4-5/8"
CT9432		1-9/16"	2-1/2"	CT500L-SS		4-1/4"	5-1/8"
CT9436		1-13/16"	2-3/4"	CT550L-SS		4-3/4"	5-5/8"
CT9440		2-1/16"	3"				
CT9444		2-5/16"	3-1/4"				
CT9448		2-9/16"	3-1/2"				

V-Band Clamps

- Used to hold almost any flanged joint together, including in diesel engines, turbochargers, pumps & tubing, etc.
- Also available in 2.88" thru 8.38" dia., minimums may apply

Part Number	Nominal Dia.	V-Insert Measurements		Band Width
		Width	Height	
VT10406	4.06"	.239"	.281"	.875"
VT10419	4.19"	.400"	.281"	.875"
VT10461	4.61"	.156"	.218"	.750"
VT10475	4.75"	.400"	.281"	.875"
VT10525	5.25"	.262"	.141"	.750"



Two Eared Clamps

- Provides positive clamping action & tamper proof seal
- Made of zinc plated steel



Part Number	Nominal Dia.	Band Width	Closed-Open Range
OTC-004	1/4"	.236"	.875"
OTC-005	5/16"	.276"	.875"
OTC-006	3/8"	.276"	.750"
OTC-008	1/2"	.276"	.875"
OTC-010	5/8"	.315"	.750"
OTC-012	3/4"	.335"	

Part Number	Nominal Dia.	Band Width	Closed-Open Range
OTC-014	7/8"	.354"	.748 - .906"
OTC-016	1"	.394"	.886 - 1.063"
OTC-018	1-1/8"	.294"	1.035 - 1.221"
OTC-021	1-5/16"	.394"	1.154 - 1.339"
OTC-024	1-1/2"	.394"	1.378 - 1.575"

Two Eared Clamp Crimper

- Compound action for easier pinching
- Wide bi-material grips distribute hand pressure and increase support
- Single handed use
- Straight handles work easily with left or right hand

Part Number	Description	Fig.
OTC-496	Pincer w/ straight jaws	A
OTC-498	Pincer w/ side jaws for limited spaces	B



Hose Clamp Racks

Large Hose Clamp Assortment

- Durable, heavy duty epoxy steel rack
- Free-standing or wall-mountable
- Customizable w/ movable clamp hooks
- Accommodates overstocked boxed clamps
- Fits most popular sizes



Part Number	Description
HCR-6000	Empty rack (22-3/4"H x 21-1/2"W x 8"D)
HCR-62440	440 piece rack assortment

Small Hose Clamp Assortment

- Durable, heavy duty chrome epoxy steel rack
- Free-standing or wall-mountable
- Fits most popular sizes



Part Number	Description
HCR-6200	Empty rack (22-3/4"H x 21-1/2"W x 8"D)
HCR-6210	200 piece standard assortment
HCRSS-6210	200 piece stainless steel assortment

Ratchet P Clamps

- Standard color: black
- Easy release feature for quick adjustments
- Steel mounting plates
- Heat, UV & impact resistant
- Operating temp: -40° to 221°F



Part Number	Bundle Dia.	Size	Mounting Hole Dia.
RPC-24-54	.24" - .54"	4.57" x 1.37"	.327"
RPC-52-77	.52" - .77"	4.57" x 1.37"	.327"
RPC-76-142	.76" - 1.42"	6.15" x 1.37"	.327"
RPC-138-201	1.38" - 2.10"	7.15" x 1.37"	.327"

Need more than one clamp? Purchase our Ratchet P Clamp kit (TS-RPC-KIT) to get some of every size we offer in one box.

Mechanics Wire



- Thousands of uses for a wide variety of applications. Solid stranded, single conductor with black finish
- 5lbs. per spool

Part Number	Wire Gauge	Nominal O.D.	Reel Qty.
MW-18	18	.048"	830'
MW-16	16	.060"	480'
MW-14	14	.073"	295'

Loom

Convoluted Split Loom & Accessories

Loom

- Nylon loom holds groups of wires in position & protects against abrasion & crushing
- Slit for easy wire insertion. Stays closed when bent or twisted
- Temperature rating: -40° to 300°F
- Standard color: black
- Standard 100' lengths are shipped coiled

To order 100' lengths spooled, add -SPOOL to the end of the part number. EX: PLS-3/8-SPOOL



To order correct length, add the desired length or -BOXED for the boxed bulk qty. to the end of the part number. EX: PLS-1/4-100

Part Number	Nominal I.D.	Spooled Qtys. Available	Boxed Bulk Qty.
PLS-1/4	1/4"	100', 250', 500'	3200'
PLS-3/8	3/8"	100', 250', 500'	1900'
PLS-7/16	7/16"	100', 250', 500'	1500'
PLS-1/2	1/2"	100', 250', 500'	1100'
PLS-5/8	5/8"	100'	800'
PLS-3/4	3/4"	100'	600'
PLS-7/8	7/8"	100'	400'
PLS-1	1"	100'	400'
PLS-1-1/8	1-1/8"	100'	250'
PLS-1-1/4	1-1/4"	100'	250'
PLS-1-1/2	1-1/2"	100'	150'
PLS-2	2"	100'	100'

Loom Tees Black nylon loom tees are strong, secure & flexible

- Easily snaps onto convoluted split loom (PLS) to make your own harness faster & cleaner
- Suitable for higher temperature & under-hood conditions, resistant to heat aging



Part Number	Left End	Loom Size Branch	Right End
NT-502537	1/2"	1/4"	3/8"
NT-373725	3/8"	3/8"	1/4"
NT-253725	1/4"	3/8"	1/4"
NT-503737	1/2"	3/8"	3/8"
NT-753775	3/4"	3/8"	3/4"
NT-373737	3/8"	3/8"	3/8"

Need an assortment of loom tees for your shop? Order our loom tee kit (PLS-T-KIT) to get some of everything you see here and always be prepared.

Make easy work of inserting wire into PLS loom with our loom installation tool (PLST-1 thru -4). See page 482 for more info.

Loom Mounting Clips

- Secures loom ends & provides a quick mount
- Snaps into a 1/4" dia. hole in up to 12.5mm thick material



Part Number	Loom Size
12040984	3/8"
12084887	1/2"
12176839	5/8"
12160374	3/4"
12064897	1"

Loom Outlet Unions

- Holds loom tight at the breakout points



Part Number	Loom Size
8905924	3/8"
8905793	1/2"
8911289	5/8"

Loom Outlet Rings

- Secures loom ends



Part Number	Loom Size
8911378	3/8"
8911377	1/2"

Spiral Cut Loom

- Spiral cut polyethylene tubing used to bundle wires, protect tubing & control rods from abrasion & noise
- Breakouts or tape off connections can be made through the openings of the wrap
- Temperature rating: -104° to 213°F
- Standard color is natural.



Part Number	Nominal I.D.	Expansion Size Min	Expansion Size Max	Standard Qty.
SW-1/8	1/8"	1/8"	1/2"	100' / 500'
SW-1/4	1/4"	1/4"	1"	100' / 500'
SW-3/8	3/8"	3/8"	3"	100' / 250'
SW-1/2	1/2"	1/2"	4"	100' / 250'
SW-3/4	3/4"	3/4"	5"	100'
SW-1	1"	1"	7"	100'

To order black, add -BLK to end of the part number, along with desired footage. EX: SW-1/8-100-BLK

Fabric Loom

- Bituminous coated woven loom protects wire, air brake tubing, fuel lines & control rods from abrasion, noise & short circuits
- Temperature rating: to 350°F
- Standard color: black



Part Number	Nominal I.D.	Standard Qty.	Spooled Up To
FL-1/4	1/4"	100'	500'
FL-3/8	3/8"	100'	500'
FL-1/2	1/2"	100'	250'
FL-5/8	5/8"	100'	100'
FL-3/4	3/4"	100'	100'
FL-1	1"	100'	100'

To order correct footage, add the desired length to the end of the part number, EX: FL-3/8-100

Expandable Self-Fitting Loom

- Made of flexible & lightweight polyester filaments resistant to gasoline, engine chemical, cleaning solvents, cuts & abrasion
- Temperature rating: -94° to 257°F, 446°F short term
- FMZSS 302 Approved
- Standard color: black
- May be cut to length



Part Number	Nominal I.D.	Expansion Size Min	Expansion Size Max	Standard Qty.
XS-100-1/8	1/8"	3/32"	1/8"	25' / 50' / 100'
XS-100-1/4	1/4"	1/8"	3/8"	25' / 50' / 100'
XS-100-3/8	3/8"	3/16"	5/8"	25' / 50' / 100'
XS-100-1/2	1/2"	1/4"	3/4"	25' / 50' / 100'
XS-100-5/8	5/8"	3/8"	1"	25' / 50' / 100'
XS-100-3/4	3/4"	1/2"	1-1/4"	25' / 50' / 100'
XS-100-1	1"	5/8"	1-5/8"	25' / 50' / 100'
XS-100-1-1/4	1-1/4"	3/4"	1-1/2"	25' / 50' / 100'
XS-100-1-1/2	1-1/2"	1"	2-1/2"	25' / 50' / 100'
XS-100-1-3/4	1-3/4"	1-1/4"	2-3/4"	25' / 50' / 100'
XS-100-2	2"	1-1/2"	3"	25' / 50' / 100'
XS-100-2-1/2	2-1/2"	1-3/4"	3-1/2"	25' / 50' / 100'

Are you looking to have your wire assemblies custom made to your exact specifications? Our in-house Manufacturing Department can do it for you! See page 236 for details on our capabilities and contact your local sales rep or customer service to get started.

Split Semi-Rigid Sleeving

- Wrapable, split tube made of 10mil PET braid
- Temperature rating: -103° to 257°F. Will retain shape & rigidity while remaining flexible. Melt temp is 482°F
- Standard color is black
- May be cut to length. The lateral slit allows the tube to accommodate a wide variety of bundling requirements without the need for additional fasteners



Part Number	Nominal I.D.	Boxed Bulk Qty.
F6-1/8	1/8"	400'
F6-1/4	1/4"	200'
F6-1/2	1/2"	150'
F6-3/4	3/4"	100'
F6-1	1"	100'
F6-1-1/2	1-1/2"	75'
F6-2	2"	50'

To order boxed bulk qty., add -BOX to the end of the part number. EX: F6-1/8-BOX

Liquid Tight Strain Relief Cordgrips

- For use in clearance or threaded holes
- All nylon construction with TPE sealing glands resists salt water, weak acids, gas, alcohol, oil, grease & common solvents
- Acme threads on body prevent skipping and will speed up installation

- IP 68 rated
- We recommend using the fitting with the smallest maximum diameter that will fit your application

NPT Threaded Hub Cordgrips

- Lock nuts not included



PG Threaded Hub Cordgrips

- Unassembled lock nuts included



Note: European pipe thread not NPT compatible

Part Number	Cable Dia.	Clearance Hole Dia.	Description
HEY-3458	.069 - .187"	.670"	RLTF 3/8
HEY-3228	.115 - .312"	.670"	LTF 3/8
HEY-3231	.170 - .450"	.875"	LTF 1/2
HEY-3200	.230 - .546"	.875"	LLTF 1/2
HEY-3204	.250 - .485"	.875"	MRLTF 1/2
HEY-3202	.450 - .709"	.875"	MLTF 1/2
HEY-3460	.250 - .485"	1.068"	RLTF 3/4
HEY-3234	.450 - .709"	1.068"	LTF 3/4
HEY-8437	.590 - 1.000"	1.350"	LTF 1

Part Number	Cable Dia.	Clearance Hole Dia.	Description
HEY-3444	.064 - .210"	.492"	RLTF 7
HEY-3207	.114 - .250"	.492"	LTF 7
HEY-3446	.069 - .187"	.599"	RLTF 9
HEY-3210	.181 - .312"	.599"	LTF 9
HEY-3448	.069 - .260"	.733"	RLTF 11
HEY-3213	.230 - .395"	.733"	LTF 11
HEY-3216	.170 - .450"	.804"	LTF 13.5
HEY-3219	.230 - .546"	.886"	LTF 16
HEY-3454	.250 - .485"	1.115"	RLTF 21
HEY-3222	.450 - .709"	1.115"	LTF 21
HEY-3225	.590 - .990"	1.470"	LTF 29

NPT Nylon Lock Nuts & Sealing Washers

Lock Nut Part Number	Washer Part Number	Size
HEY-8461	HEY-SW-3/8	3/8" NPT
HEY-8463	HEY-SW-1/2	1/2" NPT
HEY-8465	HEY-SW-3/4	3/4" NPT
HEY-8467	HEY-SW-1	1" NPT

PG Nylon Lock Nuts & Sealing Washers

Lock Nut Part Number	Washer Part Number	Size
HEY-3165	OR-07-BN	PG 7
HEY-3167	OR-09-BN	PG 9
HEY-3169	OR-11-BN	PG 11
HEY-3171	OR-13-BN	PG 13
HEY-3173	OR-16-BN	PG 16
HEY-3175	OR-21-BN	PG 21
HEY-3177	OR-29-BN	PG 29

Shrink Tubing

Non-Adhesive Lined Shrink Tubing

Polyolefin - Multi Purpose

- Shrink temperature: +212°F (shrink ratio: 2:1 @ 249°F)
- Continuous operating temperature: -67° to 275°F
- Applications: Insulation of terminals, cable jacketing, wire bundling, color coding
- Features: general purpose, irradiated, flexible, flame-retardant (except clear)
- Colors: black (BK), blue (BU), clear (CL), green (GN), red (RD), white (WH), yellow (YE). **TSC-221-2 comes only in black & red**
- Minimums may apply on all colors

To order correct color, add abbreviation to the end of the part number, EX: TSC-221-3/64-BU

4' Lengths



Small Spools



Large Spools



4ft. Length Part Number	Small Spool Part Number	Spool Length	Large Spool Part Number	Spool Length	Supplied I.D.	Shrink I.D.	Nominal Recovered Wall Thickness
TSC-221-3/64	SS-221-3/64	100'	LS-221-3/64	1320'	3/64"	1/64"	.0102"
TSC-221-1/16	SS-221-1/16	100'	LS-221-1/16	1320'	1/16"	1/32"	.017"
TSC-221-3/32	SS-221-3/32	100'	LS-221-3/32	1320'	3/32"	3/64"	.02"
TSC-221-1/8	SS-221-1/8	100'	LS-221-1/8	1320'	1/8"	1/16"	.02"
TSC-221-3/16	SS-221-3/16	100'	LS-221-3/16	330'	3/16"	3/32"	.02"
TSC-221-1/4	SS-221-1/4	100'	LS-221-1/4	330'	1/4"	1/8"	.025"
TSC-221-3/8	SS-221-3/8	100'	LS-221-3/8	330'	3/8"	3/16"	.025"
TSC-221-1/2	SS-221-1/2	100'	LS-221-1/2	330'	1/2"	1/4"	.025"
TSC-221-3/4	SS-221-3/4	100'	LS-221-3/4	330'	3/4"	3/8"	.03"
TSC-221-1	N/A	-	LS-221-1	165'	1"	1/2"	.035"
TSC-221-1-1/2	N/A	-	LS-221-1-1/2	82'	1-1/2"	3/4"	.04"
TSC-221-2	N/A	-	LS-221-2	82'	2"	1"	.045"
TSC-221-3	N/A	-	LS-221-3	82'	3"	1-1/2"	.05"
TSC-221-4	N/A	-	LS-221-4	82'	4"	2"	.055"

Although we offer many standard shrink tubing kits, we understand that you may have specific needs for your application. Contact your sales rep or customer service so that we can put together a custom shrink tube assortment with the particular lengths & varieties to meet your needs.

To learn more about all of the kinds of shrink tubing we offer and what variety will best meet your needs, log on to:
www.Go2TSC.com/ShrinkTubing.aspx

Non-Adhesive Lined Shrink Tubing, cont'd

PVC - Cut to Length

- Shrink temperature: +110°F (shrink ratio: 2:1 @ 230°F)
- Continuous operating temperature: -22° to 221°F
- Applications: Light duty harness jacketing, covering handles, capacitors & terminals
- Features: cost effective, general purpose, irradiated, flexible, flame-retardant, oil & chemical resistant
- Lengths: 3/64" to 3/4" available on 100ft. spools, all can be cut to custom lengths
- Colors: black



Part Number	Supplied I.D.	Shrink I.D.	Nominal Recovered Wall Thickness
TSC-105-3/64	3/64"	1/64"	.02"
TSC-105-1/16	1/16"	1/32"	.02"
TSC-105-3/32	3/32"	3/64"	.02"
TSC-105-1/8	1/8"	1/16"	.025"
TSC-105-3/16	3/16"	3/32"	.025"
TSC-105-1/4	1/4"	1/8"	.025"
TSC-105-3/8	3/8"	3/16"	.03"
TSC-105-1/2	1/2"	1/4"	.03"
TSC-105-3/4	3/4"	3/8"	.035"
TSC-105-1	1"	1/2"	.04"
TSC-105-1-1/2	1-1/2"	3/4"	.045"
TSC-105-2	2"	1"	.05"

Adhesive Lined Shrink Tubing

Polyolefin - Heavy Wall w/ Sealant

- Shrink temperature: +248°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -40° to 230°F
- Features: waterproof mastic coating, suitable for direct burial, URD & submersion, flame retardant, rated at 1000V
- Lengths: 12" is standard

To order in 48" pieces, add a -4' to the end of the part number. EX: TSC-700-18B-4'

- Standard color is black (B) or red (R). (minimums may apply for red, please inquire)

To order, add the color abbreviation to the end of the part number. EX: TSC-700-18R



- We also offer 3/4" & 1-7/64" in red & black in handy 1.5" pieces.

Part Number	Supplied I.D.	Shrink I.D.	Nominal Recovered Wall Thickness
TSC-700-18	5/16"	7/64"	.06"
TSC-700-19	13/32"	9/64"	.06"
TSC-700-20	1/2"	11/64"	.055"
TSC-700-21	3/4"	13/64"	.11"
TSC-700-22	1-7/64"	5/16"	.17"
TSC-700-23	1-1/2"	1/2"	.17"
TSC-700-24	2"	21/32"	.17"
TSC-700-25	3-1/32"	1"	.17"
TSC-700-26	4-1/2"	1-1/2"	.17"

Need your shrink tube cut to a length for a specific job you're working on? Just ask! All of our shrink tube can be cut to your requirements. Minimums & lead times may apply, please contact customer service or your sales rep for more info.

Adhesive Lined Shrink Tubing, cont'd

Polyolefin - Thin Wall w/ Sealant

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67° to 230°F
- Features: protects against moisture & corrosion, flexible, self-extinguishing
- Lengths: 12" is standard.

To order in 48" pieces, add a -4' to the end of the part number. EX: TSC-750-3-4'

- Colors: black is standard.

To order in red, add an 'R' to the end of the part number. EX: TSC-750-3R



Part Number	Supplied I.D.	Shrink I.D.	Nominal Recovered Wall Thickness
TSC-750-3	1/4"	.125"	.030"
TSC-750-4	3/8"	.187"	.031"
TSC-750-12	1/2"	.250"	.032"
TSC-750-14	3/4"	.313"	.065"
TSC-750-16	1"	.4"	.075"

Polyolefin - Thin Multiple Wall

- Shrink temperature: +275°F (shrink ratio: 3:1 @ 275°F)
- Continuous operating temperature: -67° to 230°F
- Features: semi-rigid heavy wall protection, highly flexible, flame retardant, low shrink temp, abrasion resistant
- Length: 6" is standard.
- Colors: black

To order in 48" pieces, add a -4' to the end of the part number. EX: ST-300-1-4'



Part Number	Supplied I.D.	Shrink I.D.	Nominal Recovered Wall Thickness
ST-300-1/8	1/8"	1/64"	.038"
ST-300-3/16	3/16"	1/16"	.043"
ST-300-1/4	1/4"	3/32"	.047"
ST-300-3/8	3/8"	9/64"	.05"
ST-300-1/2	1/2"	3/16"	.055"
ST-300-3/4	3/4"	5/16"	.065"
ST-300-1	1"	13/32"	.075"

Terminal Supply also offers a wide selection of torches & heat guns perfect for creating moisture proof seals with your shrink tube. See pages 486 & 487 of our catalog for all of the details

Shrink Tubing Sizing Chart

You already ordered your terminals, now you just need to find which size shrink tube will fit them perfectly. Refer to the chart below to see just what you need.

		Terminal Sizes				
		Non-Insulated Terminals	Nylon / PVC Terminals	Copper Lugs (BCL)	Heavy Duty Lugs (HDL)	Battery Terminals (SBT - ST - SBTF)
Shrink Tube Supplied I.D.	3/32"	26-24ga.				
	1/8"	22-18ga.	26-24ga.			
	3/16"	16-14ga.	22-18ga.			
	1/4"	12-10ga.	16-14ga.			
	3/8"	8 - 6ga.	16-14ga. HD & 12-10ga.	8 - 6ga.	8 - 4ga.	
	1/2"	4 - 2ga.	8 - 6ga.	4 - 1/0ga.	1ga.	4ga.
	3/4"	1/0ga. - 3/0ga.	4ga. - 1/0ga.	2/0ga. - 4/0ga.	1/0ga. - 3/0ga.	1ga. - 3/0ga.
	1"		2/0 - 3/0ga.	250 MCM	4/0ga.	4/0ga.

Adhesive Lined Shrink Tubing, cont'd

Polyolefin - Thin Wall

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67° to 230°F
- Features: bonds to plastics, rubber, neoprene, steel & polyethylene, superior sealing against moisture & contaminants, great coverage of irregularly shaped objects

Colors: black is standard. (MWS-07-12S & MWS-09-12S are not available in red)

To order in red, add an -RED to the end of the part number. EX: MWS-01-06S-RED



Part Number	Supplied I.D.	Shrink I.D.	Length
MWS-01-06S	1/8"	1/32"	6"
MWS-1.5-06S	3/16"	1/16"	6"
MWS-02-06S	1/4"	3/32"	6"
MWS-03-06S	3/8"	1/8"	6"
MWS-05-06S	1/2"	5/32"	6"
MWS-07-12S	25/32"	1/4"	12"
MWS-09-12S	1-1/4"	7/16"	12"

Polyolefin - Clear Thin Wall

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67° to 230°F
- Features: superior sealing against water, moisture & contaminants

- Length: 6" is standard
- Colors: clear

To order in 48" pieces, add a -4' to the end of the part number. EX: TWC-1/8-4'



Part Number	Supplied I.D.	Shrink I.D.
TWC-1/8	1/8"	.04"
TWC-3/16	3/16"	.06"
TWC-1/4	1/4"	.08"
TWC-3/8	3/8"	.125"
TWC-1/2	1/2"	.160"
TWC-3/4	3/4"	.250"
TWC-1	1"	.320"
TWC-1-1/4	1-1/4"	.416"

Shrink Tubing Colors

Need a specific color of shrink tubing? Refer to the chart below to see which colors each of our shrink tube varieties is available in. Please note that minimums may apply for all colors, other than black. Please contact your sales rep or customer service for more details.

Available Colors	Non-Adhesive Lined Shrink Tube					Adhesive Lined Shrink Tube							
	TSC-221	SM-221	LG-221 3/64" thru 1"	LG-221 1-1/2" thru 4"	TSC-105	TSC-750	TSC-700	MWS	ST-300	ST-RED	ST-BLUE	ST-YELLOW	TWC
	Black	X	X	X	X	X	X	X	X	X			
Blue	X		X	X							X		
Clear	X	X	X	X									X
Green	X		X										
Red	X		X	X		X	X	X		X			
White	X		X	X									
Yellow	X		X	X								X	

Adhesive Lined Shrink Tubing, cont'd

Polyolefin - Cross-Linked Thin Wall

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67° to 230°F
- Features: bonds to plastics, rubber, neoprene, steel & polyethylene, superior sealing against moisture & contaminants, great coverage of irregularly shaped objects
- Length: 12" is standard.

To order in 48" pieces, add a -4' to the end of the part number. EX: CPA-100-1/8-4'

- Colors: black is standard. To order red, add an R to the end of the part number. EX: CPA-100-1/8R



Part Number	Supplied I.D.	Shrink I.D.
CPA-100-1/8	.125"	.040"
CPA-100-3/16	.188"	.060"
CPA-100-1/4	.250"	.080"
CPA-100-3/8	.375"	.125"
CPA-100-1/2	.500"	.160"
CPA-100-3/4	.750"	.250"
CPA-100-1	1.00"	.320"

Polyolefin - Color Coded

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67° to 230°F
- Features: easy identification, double wall thickness
- Length: 6"



Part Number	Supplied I.D.	Shrink I.D.	Application
ST-RED	3/16"	1/64"	22-18ga. wire
ST-BLUE	1/4"	3/64"	16-14ga. wire
ST-YELLOW	5/16"	1/16"	12-10ga. wire

Pre-Cut Polyolefin Thin-Wall

- Shrink temperature: +230°F (shrink ratio: 3:1 @ 248°F)
- Continuous operating temperature: -67 to 230°F
- Features: UL/CUL Rated, flexible, halogen-free & flame-retardant
- Package Sizes: standard & bulk (SP). To order standard EX: MW3-150-1/8-SP



Part Number	Supplied I.D.	Shrink I.D.	Length	Std. Pack	Bulk Pack
MW3-150-1/8	1/8"	1/32"	1.5"	25	1000
MW3-150-3/16	1/16"	1/16"	1.5"	25	1000
MW3-150-1/4	1/4"	3/32"	1.5"	25	1000
MW3-150-3/8	3/8"	1/8"	1.5"	25	500
MW3-150-1/2	1/2"	5/32"	1.5"	25	500

Adhesive Clips

- Continuous operating temperature: -40° to 221°F
- Chemical & fuel resistant
- Attaches to single wires & provides longitudinal water sealing for small wire bundles sealed in adhesive lined shrink tube without gaps
- Adheres to PVC, VLPE & PP-EPDM wire insulating materials



Part Number	I.D.	O.D.	Opening	Length	Wire Gauge
AC-1	.106"	.217"	.047"	.197"	20-12
AC-2	.138"	.295"	.055"	.197"	16-8

Tape & Sealant

Duct Tape

Waterproof Patch & Seal Tape

- Instantly seals out water, air & moisture
- Extra thick adhesive layer and UV resistant backing forms a permanent bond indoors and out, even under water
- Operating temp range: -70°-200°F



Part Number	Description	Width	Length	Packaged As
GPT-BLK	Black	4"	10'	Single or 18/case
GPT-WHT	White			

Gorilla Tape

- Twice the tensile strength & adhesive thickness as other duct tapes
- Adheres to smooth & rough surfaces
- Operating temp range: 0°-200°F



Part Number	Description	Width	Length	Packaged As
GDT-260	Black	2"	35yd.	Single or 18/case
GCT-XW	Clear	2.83"	15yd.	
GD-DXX	Gray, double sided	1.41"	8yd.	

Duct Tape

- Features: excellent adhesion, strong, pliable, waterproof & can be easily torn from the side
- Operating temp range: 32°-160°F



Part Number	Width	Length	Packaged As
DT-210	2"	30'	Single or 12/case
DT-345	2"	180'	
DT-345-BLACK	2"	180'	
DT-345-ORANGE	2"	180'	
DT-345-BLUE	2"	180'	
DT-345-WHITE	2"	180'	

Splicing Tape

Linerless Rubber Splicing Tape

- 30 mil bonding, linerless rubber splicing tape
- Features: flame retardant, self extinguishing
- Operating temp range: up to 194°F (266°F intermittent)



Part Number	Width	Length	Packaged As
130C-TAPE-3/4	3/4"	30'	Single
130C-TAPE-1	1"	30'	
130C-TAPE-1-1/2	1-1/2"	30'	
130C-TAPE-2	2"	30'	

Self-Fusing Rubber Splicing Tape

- 30 mil self-fusing rubber splicing tape
- Features: void-free, moisture resistant insulation
- Operating temp range: up to 194°F (266°F intermittent)



Part Number	Width	Length	Packaged As
23-TAPE-3/4	3/4"	30'	Single
23-TAPE-1	1"	30'	
23-TAPE-2	2"	30'	

We have a wide range of adhesives available, something to secure almost anything to almost anything else! For more of what we stock, please see our Chemicals, Cleaners & Paint section beginning on page 505-516.

Electrical Tape

Liquid Electrical Tape



- Heavy bodied, black insulating coating replaces insulating tape when wrap around tape cannot be applied
- Dries quickly to a strong, pliable finish that will not crack, peel or chip
- Water, oil & weather proof
- Rated to 700V
- Operating temp range: -30°-200°F (Fully cured)

Part Number	Description	Size	Packaged As
LET-2	Bottle w/ brush	2oz.	Single or 12/case
LET-4	Jar w/ brush	4oz.	

Economy Electrical Tape

- 7 mil thick general purpose grade, lead free and flame retardant for indoor and outdoor use
- EV 570C is UL listed and CSA approved.
- Features: resistant to UV, corrosive chemicals, acids, moisture, alkalines & oils
- Operating temp range: 32°-176°F
- To order pack of 10 add -10 to the end of the part number. EX: J-60UL-RED-10



Part Number	Width	Color	Length	Packaged As
J-60UL	3/4"	Black	66'	Single or 10/pack
J-60UL-RED	3/4"	Red	66'	
J-60UL-ORANGE	3/4"	Orange	66'	
J-60UL-YELLOW	3/4"	Yellow	66'	
J-60UL-WHITE	3/4"	White	66'	
J-60UL-BLUE	3/4"	Blue	66'	
J-60UL-GRAY	3/4"	Gray	66'	
J-60UL-VIOLET	3/4"	Violet	66'	
J-60UL-GREEN	3/4"	Green	66'	
J-60UL-BROWN	3/4"	Brown	66'	

All Purpose Electrical Tape

- 7 mil thick all-weather PVC
- Features: resistant to flame, abrasion, moisture, alkalines, solvents & oils
- Operating temp range: 0°-220°F



Part Number	Width	Length	Packaged As
ST-33	3/4"	66'	Single, 10/box or 100/case
ST-33-20	3/4"	20'	

Premium Electrical Tape

- 8.5 mil premium vinyl
- Features: rated to 600V, resists UV rays, flame, abrasion, corrosion, alkaline & acids
- Operating temp range: 0°-220°F



Part Number	Width	Length	Packaged As
ST-88	3/4"	66'	Single, 10/pack or 100/case
ST-88-2"	2"	36yd.	

We carry a wide variety of tapes & sealants, if you don't see something here to meet your needs, we'll find the perfect match for you!

Electrical Tape, cont'd

Colored All Purpose Electrical Tape

- 7 mil thick all-weather PVC
- Features: resistant to flame, abrasion, moisture, alkalines, solvents & oils
- Operating temp range: 32°-220°F



Part Number	Width	Length	Packaged As
35-TAPE-BLUE	3/4"	66'	Single, 10/box or 100/case
35-TAPE-BROWN	3/4"	66'	
35-TAPE-GREEN	3/4"	66'	
35-TAPE-GREY	3/4"	66'	
35-TAPE-ORANGE	3/4"	66'	
35-TAPE-RED	3/4"	66'	
35-TAPE-YELLOW	3/4"	66'	
35-TAPE-VIOLET	3/4"	66'	
35-TAPE-WHITE	3/4"	66'	

3M All Purpose PVC Tape - Made in the USA

- 7 mil thick general purpose PVC w/ maximum adhesive quality perfect for indoor applications
- Features: strong, flexible, flame retardant
- Operating temp. range: 32°-176°F



Part Number	Width	Length	Packaged As
1776-TAPE	3/4"	60'	10/pack

Black Fleece Harness Wrap

- Friction resistant
- Noise reducing
- High temp, resistance to 220°F



Part Number	Width	Length	Packaged As
ET950	25mm	25M	Single

Anti-Abrasion Harness Tape

- Superior protection & flexibility on small diameter harnesses
- Advanced acrylic adhesive with minimal contact to wires for flexibility



Part Number	Width	Length	Packaged As
AAT-1925	19mm	25M	Single

Each member of our outside service team drives a fully stocked vehicle to offer you on the spot VMI. We have a rotating selection to keep you up to date on the latest products that affect your industry. From building custom kits, labeling bins or getting an emergency order delivered to your door, our staff will provide the service necessary to get the job done.



Miscellaneous Tape

Aluminum Foil Tape

- Rated E84 for flame spread & smoke development
- Strong adhesive blocks odors & moisture
- Operating temp range: 40°-225°F (250°F intermittent)



Part Number	Width	Length	Packaged As
AFT-250	2"	150'	Single or 24/case

Double Coated Foam Tape

- 1/16" thick
- Polyethylene foam with acrylic based adhesive for general purpose mounting



Part Number	Width	Length	Packaged As
DCFT-3/4	3/4"	108'	Single or 16/case
DCFT-1	1"	108'	Single or 12/case

Cold Shrink Tape

- Provides a neat, void-free continuous wrapping without the need for external heat or pressure
- Features: durable, moisture proof, weather resistant, solidifies in 4 hours
- Operating temp range: -40° to 212°F



Part Number	Width	Length	Packaged As
CST-110	1"	10'	Single or 225/case
CST-130	1"	30'	Single or 36/case
CST-130-HD	1-1/2"	30'	Single or 24/case

Non Adhesive Wire Harness Tape

- Defined unwinding strength
- Extremely soft & flexible



Part Number	Width	Length	Packaged As
EE-101	1"	100'	Single or 150/case

Teflon Tape

- Pipe thread seal tape
- Features: chemically inert, resists corrosion, insures leak-proof joints
- MIL-T-27730A
- Operating temp range: -150° to 500°F



Part Number	Width	Length	Packaged As
TT-260	1/2"	260'	Single or 200/case
TT-520	1/2"	520'	
TT-260-1	1"	260'	

Glass Cloth Tape

- 7 mil glass cloth tape
- Excellent for hot spot applications
- Features: high temperature & abrasion resistant
- Operating temp range: 32° to 302°F



Part Number	Width	Length	Packaged As
27-TAPE-1/2	1/2"	66'	Single, 10/pack
27-TAPE-3/4	3/4"	66'	

Masking Tape

- Utility grade masking tape
- Features: excellent adhesion, long shelf life, clean, smooth appearance
- Not recommended for bake painting



Part Number	Width	Length	Packaged As
MT-3460	3/4"	180'	Single or 48/case
MT-160	1"	180'	Single or 36/case
MT-260	2"	180'	Single or 24/case

Miscellaneous Tape, cont'd

Friction Tape

- For over wrapping low voltage splices, cable harnessing & other electrical & mechanical applications



Part Number	Width	Length	Packaged As
FT	3/4"	60'	Single, 10/pack or 100/case

Carton Sealing Tape

- 2 mil clear PVC
- Temp rating: 151°F short term



Part Number	Width	Length	Packaged As
CST-2110	1-4/5"	109yd.	Single or 36/case

Scotch Fill Tape

- Electrical grade, rubber based elastic putty in tape form
- Good around irregular shapes
- Must be wrapped w/ 23-TAPE or 130C-TAPE for permanent bond
- Operating temp range: 32°-176°F



Part Number	Width	Length	Packaged As
SCOTCH FILL	1-1/2"	60'	Single or 50/case

We also stock a wide range of conspicuity, safety strip & traction tape to keep you, your vehicle & your workplace safe. See a small portion of what we stock on page 205.

Electrical Moisture Sealant

- 45 mil rubber based mastic w/ all-weather vinyl backing
- Ideal for marine & automotive applications up to 600V
- Features: self-fusing mastic forms moisture tight seal
- Operating temp range: 32° to 100°F



Part Number	Width	Length	Packaged As
6147	2-1/2"	10'	Single or 10/case
6149	2-1/2"	2-1/2"	25/box or 10 boxes/case

Adhesive Sealant

- Features: tough, abrasion resistant, flexible, non-corrosive
- Full cure time: 24 hrs. for thin film, 48-72 hrs. for thick film
- Adheres to glass, metal, plastic, wood & more
- Paintable with water or oil based paints
- Operating temp range: -40° to 150°F



Part Number	Color	Size	Description	Packaged As
E-6000-TUBE-BK	Black	3.7 oz. tube	Self-leveling formula	Single or 12/case
E-6000-TUBE-CL	Clear	3.7 oz. tube		
E-6000-CART-BK	Black	10.2 oz. cartridge	Non-sag formula	
E-6000-CART-CL	Clear	10.2 oz. cartridge		

Hook & Loop

Velcro® Brand Hook & Loop

- Adhesive backed, nylon hook & loop fastening system
- For various applications on clean, smooth & dry surfaces



Part Number	Size	Color	Temp Range
TS-88-HOOK	1" x 75'		
TS-1000-LOOP	1" x 75'	Black	-70° to 200°F
TS-2-HOOK	2" x 75'		
TS-2-LOOP	2" x 75'		
MP-3526/27B	1" x 15'	Black	-20° to 120°F
MP-3526/27W	1" x 15'	White	

One-Wrap® Straps - Roll

- Back-to-back fastening system
- Polyethylene hook laminated to nylon loop
- Ideal for cord & cable control
- Other widths can be special ordered and minimums may apply. Please inquire



Part Number	Size	Color	Temp Range
1-WRAP-12"	1" x 12"		
1-WRAP-25'	1" x 25'	Black	0° to 222°F
1-WRAP-50'	1" x 50'		
1-WRAP-75'	1" x 75'		

3M™ Brand Dual Lock™

- Rubber adhesive backed, nylon dual lock fastening system
- For various applications on clean, smooth & dry surfaces



Part Number	Size	Color	Temp Range
MP-3541/42	1" x 15'	Black	-20° to 158°F

One-Wrap® Straps - Tie Wraps

- Back-to-back fastening system
- Polyethylene hook laminated to nylon loop
- Ideal for cord & cable control
- Can be used hundreds of times



Part Number	Size	Color	Temp Range
1-WRAP-345	3/4" x 5"		
1-WRAP-346	3/4" x 6"	Black	0° to 220°F
1-WRAP-18	1" x 8"		

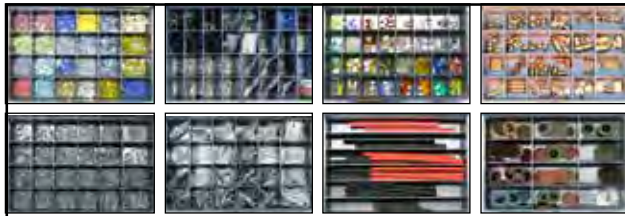
Arrowhead Design Hook



- 180 molded nylon arrowhead hooks per sq. inch
- Pressure sensitive acrylic adhesive backed
- For use in applications that require high strength fastening, limited cyclability, i.e., installing interior carpets
- Compatible with most of our standard loops

Part Number	Size	Color	Temp Range
TS-HOOK-C4"	1" x 4"		
TS-HOOK-C25	1" x 25yd.	Black	0 to 225°F

Contents



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Kits

Terminal Kits

Large Auto Kit - Nylon

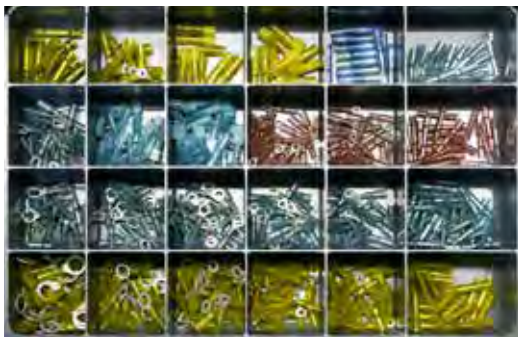
- 22-10 ga. nylon terminals, splices & quick disconnects



Part Number	Total Pieces	Metal Drawer
AUTO KIT-LG-N	912	LMB-24

Shrink Terminal Kit

- 22-10 ga. adhesive lined terminals, splices & quick disconnects



Part Number	Total Pieces	Metal Drawer
PERMA SEAL KIT	532	LMB-24

Master Shrink Terminal Kit

- 22-8 ga. adhesive lined terminals, splices & quick disconnects



Part Number	Total Pieces	Metal Drawer
MSK-24	205	LMB-24

Large Maintenance Kit - Nylon

- 16-6 ga. nylon terminals, splices & spades



Part Number	Total Pieces	Metal Drawer
MAINT-KIT-LG-N	730	LMB-24

Master Shrink Terminal Kit - Lg

- 22-8 ga. adhesive lined terminals, splices & quick disconnects



Part Number	Total Pieces	Metal Drawer
MSK-32	495	LMB-32

Other Available Terminal Kits
 PVC Terminal Kits (AUTO-KIT-LG-P), High Temperature Terminal Kits (HTT-KIT-SM), Solder Terminal Kit (SOLDER-T-KIT)

Shrink Butt Connector Kit

- 22-10 ga. shrink butt & step down butt connectors



Part Number	Total Pieces	Plastic Box
STC-KIT-SM	65	SPB-5

Terminal Kits, cont'd

Clear Adhesive Shrink Terminal Kit with Crimper

- 22-10 ga. clear adhesive shrink terminals
- Rings, splices and quick disconnects
- Includes a ratchet crimper that is designed for shrink terminals 22-8 ga.



Part Number	Total Pieces	Metal Drawer
OPTK-WTR50	151	LMB-21

Connector Kits

Weather Pack Connector Kit

- Housings, terminals, crimper, removal tool & cable ties



Part Number	Total Pieces	Metal Drawer
WP-2003	405	LMB-21

Metri-Pack 150 Series Kit

- Sealed connectors, terminals & seals



Part Number	Total Pieces	Metal Drawer
MP-150-KIT	355	LMB-32

Metri-Pack 280 Series Kit

- Sealed connectors, terminals & seals



Part Number	Total Pieces	Metal Drawer
MP-280-KIT	420	LMB-32

Deutsch Kit

- Connectors, terminals, locks & seals



Part Number	Total Pieces	Metal Drawer
DE-DTO-KIT	164	LMB-32
DE-DT-KIT	165 (w/ crimper)	LMB-32

Connector Kits, cont'd

AMP Superseal 1.5 Connector Kit

- Connectors, terminals & seals



Part Number	Total Pieces	Metal Drawer
AMP-SS-KIT	211	LMB-16

Harness Repair Kit

- 22-10 ga. open barrel style terminals for sealed and unsealed Delphi, Amp and Deutsch connectors
- Pins, sockets and seals
- Includes removal tool



Part Number	Total Pieces	Metal Drawer
DDT-KIT-32	157	LMB-32

Battery Product Kits

Copper Lug Kit

- 6 - 4/0 ga. copper lugs

Part Number	Total Pieces	Metal Drawer
BCLS-KIT	118	LMB-24



Other Available Connector Kits

- Metri-Pack 480 Series Kit (MP-480-KIT)
- Metri-Pack 630 Series Kit (MP-630-KIT)
- Weather Pack Kit (WEATHER-PAK-KIT)
- Weather Pack Pigtail Kit (WPPT-KIT)
- Molex Connector Kit (MOLEX-KIT-LG & MOLEX-KIT-SM)
- AMP Connector Kit (AMP-MNL-KIT-LG & AMP-MNL-KIT-SM)
- Deutsch DT Series Field Kit (DT-FIELD-KIT-SM)
- Deutsch DT Series Pigtail Kit (DTPT-KIT)

Deutsch and Weather Pack Pigtail Kit

- Deutsch: 2, 3 & 4 wire premade connectors using 16 ga. GXL wire
- Weather Pack: 2, 3 & 4 wire premade connectors using 14 ga. GXL wire



Part Number	Total Pieces	Metal Drawer
DADPT-KIT	24	LMB-6

Battery Product Kits, cont'd

Heavy Duty Terminal Lug Kit

- 6 - 4/0 ga. terminal lugs



Part Number	Total Pieces	Metal Drawer
HDL-KIT	170	LMB-12

Heavy Duty Lug and Solder Kit

- 4 - 4/0 ga. lugs with sizes of 5/16, 3/8 & 1/2
- Includes solder slugs and shrink tubing to match



Part Number	Total Pieces	Metal Drawer
HDLS-KIT	121	LMB-21

Other Available Battery Product Kits

- Non-Insulated Lug Kit - (TERMINAL-KIT-24)
- Battery Terminal Kit - (BATT-TERM-KIT)
- Tinned Copper Lug Kit - (BCLT-KIT)

Wire Kits

Wire Cabinet Kits

Contains:

- 100' spools of 14 ga. GXL in red, black, green, brown, blue & yellow
- 100' spool of 12 ga. GXL in white
- Terminal kit of your choice (see below)



Part Number	Description	Total Pieces	Metal Housing
WCAB-1-KIT	With AUTO KIT-SM-NAB (22-18 & 16-14ga. nylon terminals)	7 spools of wire / 444 terminals	WCAB-H
WCAB-2-KIT	With AUTO KIT-SM-NBC (16-14 & 12-10ga. nylon terminals)	7 spools of wire / 354 terminals	WCAB-H
WCAB-3-KIT	With WP-KIT-SM (Weather Pack connectors & terminals)	7 spools of wire / 449 conn/term	WCAB-H
WCAB-4-KIT	With STK-ABC-SM-12 (22-18, 16-14 & 12-10ga. shrink terminals)	7 spools of wire / 120 terminals	WCAB-H

Fuse Kits

LED ATO Fuse Kit

- 3 - 30 amp ATO-LED fuses w/ LED to indicate bad fuses



Part Number	Total Pieces	Plastic Box
ATO-LED-KIT-SM	80	SPB-9

Miniature Fuse Kit

- 3 - 30 amp MINI fuses



Part Number	Total Pieces	Plastic Box
MINI-FUSE-KIT	58	SPB-9

JCASE Fuse Kit

- 20 - 60 amp JCASE fuses



Part Number	Total Pieces	Plastic Box
JCAS-FUSE-KIT	25	K203

Large ATO Fuse Kit

- 1 - 30 amp ATO fuses & fuse tester/puller



Part Number	Total Pieces	Plastic Box
ATO-KIT-LARGE	166	PB-12

Master Fuse Kit

- 1 - 40 amp ATO, 2-30 amp MINI and 20-80 amp MAXI fuses.
- Includes tester/puller



Part Number	Total Pieces	Metal Drawer
TS-MFK	258	LMB-32

Other Available Fuse Kits

Maxi Fuse Kit (MAXI-FUSE-KIT)

ATO & MINI LED Fuse Kit (ATO/MIN-LED-KIT)

PAL Fuse Kit (PAL-FUSE-KIT)

Low Profile Mini Fuse Kit (ATM-LP-KIT)

Glass Fuse Kit

- 2 - 30amp AGC fuses, 9 - 20 amp SFE fuses & fuse taps



Part Number	Total Pieces	Plastic Box
GLASS FUSE-KIT	300	PB-12

Fuse Kits, cont'd

Micro Fuse Kit - Small

- 5 - 40 amp ATL, ATR & FMM fuses

Part Number	Total Pieces	Metal Drawer
MFUSE-KIT-SM	120	SMB-16



ATO, Mini & Maxi Fuse Holder Kit

- Selection of weather resistant and environmentally sealed fuse holders
- In line both with and without a bracket to fit most applications
- Wire gauges range from 16 - 6 ga. depending on the Max Amp load and style of the fuse holder

Part Number	Total Pieces	Metal Drawer
AMM-FH-KIT	21	LMB-6



Automotive Fuse Super Kit

- Includes housing and four drawers with the following kits:
 - *JCPAL-KIT* JCASE & PAL Fuse Kit
 - *TS-MFK* Master Fuse Kit (blade fuses)
 - *AT-KIT-32* Micro & Low Profile Fuse Kit
 - *FH-KIT-LG* Fuse Holder & Pigtail Kit



Part Number	Total Pieces	Metal Drawers & Metal Housing
MAXIM-KIT	447	(3) LMB-32, (1) LMB-6 & (1) LMB-H

KITS & STORAGE UNITS

Whether you need one kit or enough kits to fill a shop, Terminal Supply can perfectly meet your inventory needs & keep you organized at the same time. Let us know how we can help you, contact customer service or your local sales rep.



Brass Kits

Air Brake-Nylon Tubing Brass Kit

- Sleeves, nuts, unions, male connectors, male elbows, union tees & inserts



Part Number	Total Pieces	Metal Bin
ABFK-36	192	MB-36

Brass Pipe Fitting Kit

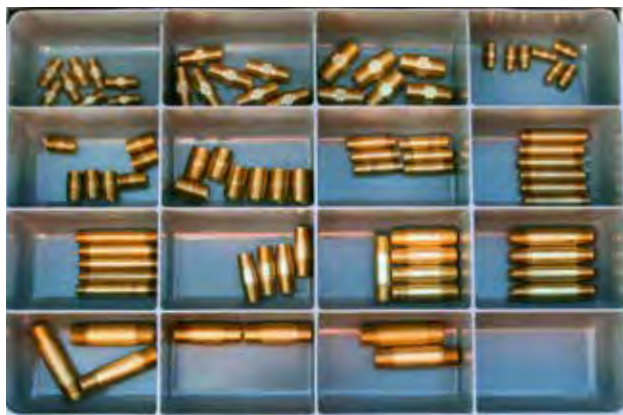
- Bushings, hex head plugs, long & close nipples, couplings, & 90° street elbows



Part Number	Total Pieces	Metal Drawer
BPF-KIT-24	110	LMB-24

Brass Pipe Nipple Kit

- Close & long nipples in 1/8" to 3/4" pipe thread



Part Number	Total Pieces	Metal Drawer
BPN-KIT-16	79	LMB-16

Quick Connect Air Brake Brass Fitting Kit

- Unions, union tees, male connectors & 90° male elbows



Part Number	Total Pieces	Metal Drawer
QCB-KIT-24	60	LMB-24

Other Available Brass / Hydraulic Kits

Brass Compression Kit (BCF-KIT-24), Brass Pipe Accessory Kit (BPCBA-KIT-20), Industrial Push-to-Connect Kit (IPC-KIT-24), Milton Air Coupler Kit (MILAC-KIT), Weatherhead U Series Straight Thread Kit (WUST-KIT-12)

Fastener Kits

Self Drilling Tek Screw Kit

- Pan phillips & hex washer head tek screws



Part Number	Total Pieces	Metal Drawer
TK-KIT-LG	570	LMB-24
TK-KIT-BLK	570 (black)	LMB-24

Sheet Metal Screw Kit

- Pan phillips head sheet metal screws, 1/4" - 1-1/2" in length



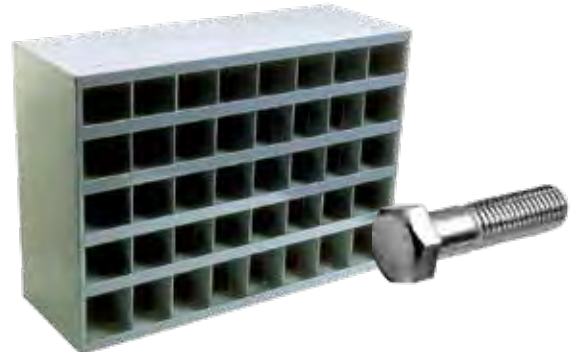
Part Number	Total Pieces	Metal Drawer
SMSPP-KIT-LG	1200	LMB-24

Other Available Fastener Kits

Stainless Steel Cap Screw Kits
(CSCSS-KIT-LG & CSCSS-KIT-40B9)
Machine Screw Kits
(MSPP-KIT-LG & MSRS-KIT-LG)
Coarse Socket Head Screw Kit
(SHCSC-MB36)
Fender Washer Kit
(FEN-WASH-KIT)
Misc. Nuts Kit
(NUT-KIT)

Metric Cap Screw Kit

- Screws, hex nuts, flat & lock washers in 8.8 or 10.9 grade



Part Number	Total Pieces	Metal Bin	Grade
CAPM-40B12	1125	40B12	8.8
CAPM109-40B12	1125	40B12	10.9

Standard Cap Screw Kits

- Screws, hex nuts, flat & lock washers

	Grade 5 Part Number	Grade 8 Part Number	Total Pieces	Metal Bin
USS	40B12-AST-5	40B12-AST-8	2300	40B12
	72B12-AST-5	72B12-AST-8	2625	72B12
SAE	40B12-AST-5F	40B12-AST-8F	2300	40B12
	72B12-AST-5F	72B12-AST-8F	2625	72B12



Hardware Kits

Grease Fitting Kit

- Metric & standard sizes in straight, 45° & 90° angle



Part Number	Total Pieces	Metal Drawer
GREASE-FIT-KIT	360	LMB-24

Hitch Pin Kit

- Sizes 3/4" to 3-1/4"



Part Number	Total Pieces	Metal Drawer
HIPC-KIT	210	LMB-12

Rivet Kits

- Various sizes, 1/8" - 3/16"



Part Number	Total Pieces	Metal Drawer
BRAA-KIT	1400 aluminum	LMB-16
BRAS-KIT	1200 alum/steel	LMB-12

Cotter Pin Kit

- Cotter pins ranging from 1/16" x 1" to 3/8" x 2-1/2"



Part Number	Total Pieces	Metal Drawer
CP-KIT-LG	1135	LMB-24

Rubber Grommet Kit

- 1/8" to 1" bore diameter



Part Number	Total Pieces	Metal Drawer
GROMMET-KIT	579	LMB-32

O-Ring Kit

- Standard: 1/8" - 1-3/4" I.D.
- Metric: 3mm - 44mm I.D.



Part Number	Total Pieces	Plastic Box
OR-KIT	382 (std)	Custom
MOR-KIT	385 (metric)	Custom

Custom Kits

Terminal Supply Co. is proud to offer custom kits for our customers. We can let you arrange a kit with exactly the parts you need and we'll include custom designed labels so you can stay organized. Whatever you need, we can make! Call your local sales rep or customer service to get the process started and we'll create an elaborate kit for you & your customers.

Hardware Kits, cont'd

Liquid Tight Plug Kit

- Breakthrough bushings /liquid tight plugs in 14 sizes



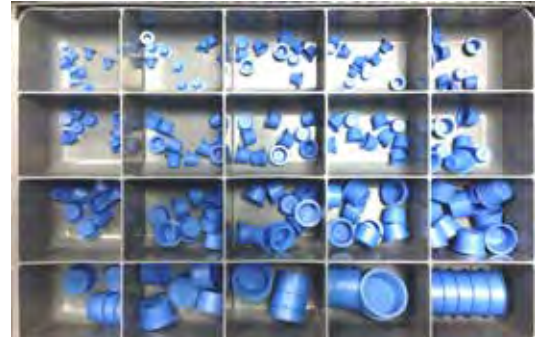
Part Number	Total Pieces	Metal Drawer
LTP-KIT	56	LMB-16

Other Available Hardware Kits

Lynch, Snapper & Detent Pin Kit (SP-KIT)
 Hydraulic O-Ring Kit (W-TSOR-24)
 Snap Bushing Kits (SB-KIT-LG & SB-KIT-SM)

Tapered/Standard Cap/Plug Kit

- 20 sizes, .175" - 1.673"



Part Number	Total Pieces	Metal Drawer
CAPLUG-KIT	175	LMB-20

Securing Product Kits

Hose Clamp Kit

- Sizes ranging from 3/8" to 1-9/16" inside dia.



Part Number	Total Pieces	Metal Drawer
HC-KIT-H	175	LMB-12

Other Available Securing Product Kits

Shrink Tube Kit - 3" pcs. (TS-105-KIT)
 Medium Cable Shrink Tube Kit (MWS-KIT)
 Cable Tie Mount Kit (RAIL-KIT-1 & RAIL-KIT-2)
 Loom Tee Kit (PLS-T-KIT)
 Hose Protector Kit (HP-KIT-LG)
 Stainless Steel Hose Clamp Kit (HCSS-KIT-H)

Vinyl Coated Clamp Kit

- RBC clamps in sizes ranging from 3/16" to 2"



Part Number	Total Pieces	Metal Drawer
RBC-KIT	220	LMB-12

Adhesive Lined Shrink Tube Kit

- 7 different sizes to handle 18ga. to 2/0ga. wires



Part Number	Total Pieces	Metal Drawer
ST-KIT-42	42	LMB-6

Black Nylon Standard Cable Tie Bin Kit

- Contains 5 industry standard ties - 15-1/2"(standard), 15-1/4"(heavy duty), 11-3/4"(standard), 8"(standard), 4"(standard)



Part Number	Total Pieces	Metal Bin
CT-BIN-500	500	CT-BIN

KITS & STORAGE UNITS

Securing Product Kits, cont'd

Black & Natural Cable Tie Kits

- 4-1/16" to 15-1/2" in length ties
- 4-way mounts w/ adhesive mounts



Part Number	Total Pieces	Metal Drawer
TIE-RAP-KIT-BLK	650 (black)	LMB-6
TIE-RAP-KIT	650 (natural)	LMB-6

Colored 8" Cable Tie Kit

- 8" lengths in 11 colors



Part Number	Total Pieces	Metal Drawer
TRMC-KIT	275	LMB-6

Tool Kits & Abrasives

Abrasive Kit

- Surface conditioning discs, sanding discs & cut off wheels



Part Number	Total Pieces	Metal Drawer
TS-ABRASIVE-KIT	63	LMB-12

Insertion & Removal Tool Kit

- Packard, Deutsch, Molex & AMP insertion & removal tools



Part Number	Total Pieces	Plastic Box
INS-REM-KIT	13	PB-6

Other Available Tool Kits

Drill Bit Kits, see pages 497 & 499 for all of the drill bit kits we offer.

Storage Units

SPB Series: Plastic Boxes

- 7" x 1-1/4" x 3-3/4"



Part Number	Slots
SPB-5	5
SPB-9	9

PB Series: Plastic Boxes

- High strength oil resistant polypropylene
- 11" x 1-3/4" x 6-3/4"



Part Number	Slots
PB-6	6
PB-12	12
PB-13	13
PB-18	18

Storage Units, cont

SMB Series: Metal Drawers

- 13-3/8" x 2" x 9-1/4"



Part Number	Slots
SMB-12	12
SMB-16	16
SMB-20	20
SMB-21	21
SMB-24	24

LMB Series: Metal Drawers

- 18" x 3" x 12"



Part Number	Slots
LMB-6	6
LMB-12	12
LMB-16	16
LMB-20	20
LMB-21	21
LMB-24	24
LMB-32	32
LMB-ADJ	Adjustable, w/ 9 dividers
120-95	Pack of 9 LMB-ADJ dividers

LPB Series: Plastic Drawers

- 18-1/2" x 3" x 13"



Part Number	Slots
LPB-16	Up to 16 / adjustable
6014DP	Pack of 12 LPB-16 dividers
LPB-21	21 / not adjustable
LPB-24	24 / not adjustable
LPB-32	Up to 32 / adjustable
6013DP	Pack of 12 LPB-32 dividers

LPB boxes do not fit in the Metal Housings pictured on page 470.

LMB Series: Metal Boxes

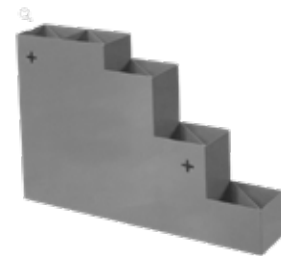
- 18" x 3" x 12"



Part Number	Slots	Fig.
LMB-6-117	6	A
LMB-ADJ-099	Adjustable w/ 12 dividers	B

Steel Cable Tie Bin

- 18-5/32" x 12-1/4" x 3"



Part Number	Slots
CT-BIN	10

Adjustable Parts Bins

- Internal slots are: 3-7/8"W x 3-3/4"H x 4-5/8"D



Part Number	Slots	Dimensions (W x D x H)
MB-36	36	23-3/4" x 4-3/4" x 23-3/4"

Aerosol Can Caddy

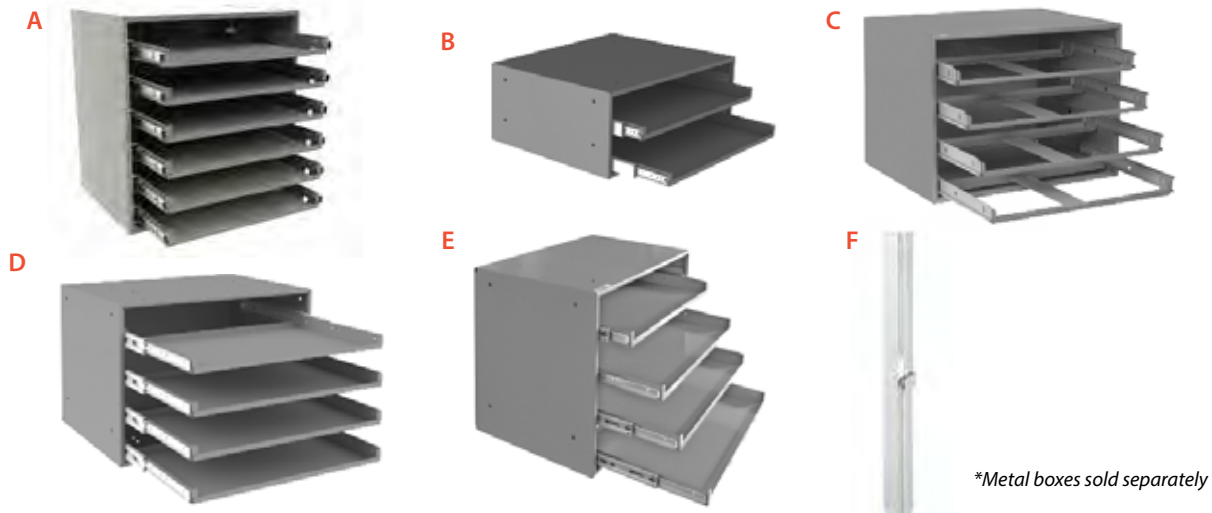


*Cans sold separately on pg. 505

Part Number	Holds	Dimensions (W x D x H)
CAN CADDY	6 cans	21-1/2" x 3-1/8" x 5-1/4"

Storage Units, cont'd

Metal Housing Storage Racks



*Metal boxes sold separately

Part Number	Drawers	Max Drawer Weight	Dimensions (W x D x H)	Fig.	Accommodates Drawer Size
SMB-H	6	40lbs.	15-1/4" x 11-3/4" x 16-3/8"	A	SMB
LMB-2D-H	2	40lbs.	20" x 15-3/4" x 8-1/8"	B	LMB
LMB-H	4	40lbs.	20" x 15-3/4" x 15"	C	
LMB-H-HD	4	75lbs.	20" x 15-3/4" x 15"	D	
LMB-H-VAN	4	75lbs.	20" x 12-1/2" x 15"	E	
312-95	Locking hinge for SMB-H, LMB-H, LMB-H-HD & LMB-H-VAN			F	

Heavy Duty Bins



Rack & Bin Bases

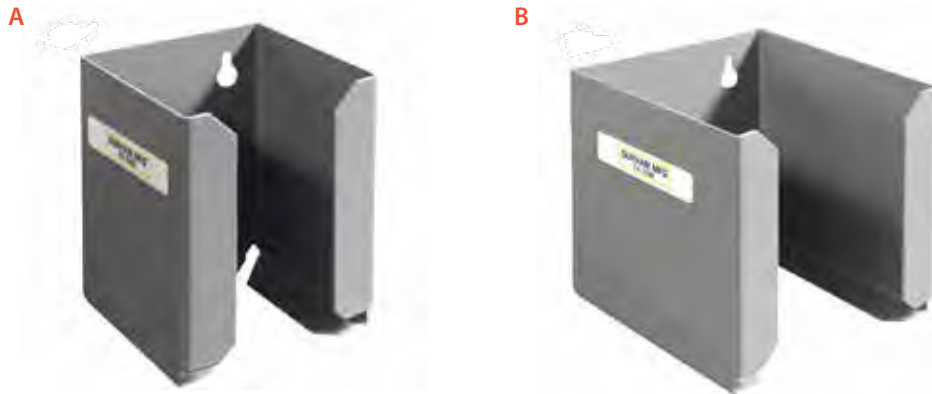


Part Number	Slots	Dimensions (W x D x H)
18B12	18	33-3/4" x 12" x 19-1/4"
24B12	24	33-3/4" x 12" x 23-7/8"
32B12	32	33-3/4" x 12" x 19-1/4"
40B12	40	33-3/4" x 12" x 23-7/8"
56B12	56	33-3/4" x 12" x 42"
72B12	72	33-3/4" x 12" x 42"
32B9	32	33-3/4" x 8-1/2" x 19-1/4"
40B9	40	33-3/4" x 8-1/2" x 22-1/4"
72B9	72	33-3/4" x 8-1/2" x 42"

Part Number	Type	Dimensions (W x D x H)
315-BASE	SMB-H	15-1/2" x 12-1/8" x 15-1/8"
304-BASE	LMB Series	20-9/16" x 16-1/8" x 15-1/8"
382-BASE	8-1/2" bin	33-3/4" x 9" x 5-3/4"
364-BASE	12" bin	33-3/4" x 12-1/4" x 5-3/4"

Storage Units, cont'd

3" and 4" Cut off Wheel Dispenser Wall Mountable Storage



Part Number	Description	Size	Fig.
COWD-3	3" Cut Off Wheel Dispenser	3-1/8"W X 3-1/8" D X 4-1/4" H	A
COWD-4	4" Cut Off Wheel Dispenser	4-1/8"W X 4-1/8" D X 4-1/4" H	B

Gravity Feed Dispenser with Lid



Part Number	Description	Size
GFD-6	Gravity feed dispenser with lid , wall mountable and 6 Compartments	20-3/4"W X 7-1/2"D X 17-5/8" H

NEW PRODUCTS COMING SOON!

NEW & EXCITING PRODUCTS ARE COMING IN FASTER THAN WE CAN PUT THEM IN THE CATALOG.
TO FIND OUT ALL ABOUT THEM:

1. ASK YOUR LOCAL SALES REP
2. CHECK OUT OUR YOUTUBE CHANNEL: [TERMINALSUPPLYCO](#)
3. GO TO WWW.GO2TSC.COM

WHETHER YOU SEE IT IN OUR CATALOG OR NOT, WE'LL BE ABLE TO FIND SOMETHING TO FIT YOUR EXACT NEEDS!
WE'VE GOT IT. WE'LL BUILD IT. WE'LL SOLVE IT.

Storage Units, cont'd

Threaded Rod Rack

- Openings are 2-1/16" dia.



Part Number	Description	Dimensions (W x D x H)
TRR-18	18 openings	24-1/8" x 6-7/8" x 24"

Metal Drawer Cabinets

- Drawers are 5-3/8"W x 11-1/4"D x 2-3/4"H
- Other configurations available



Part Number	Racks	Dimensions (W x D x H)
DRC-12	12	33-3/4" x 11-5/8" x 7-3/8"
DRC-18	18	33-3/4" x 11-5/8" x 10-7/8"
DRC-24	24	33-3/4" x 11-5/8" x 14-3/4"
DRC-30	30	33-3/4" x 11-5/8" x 17-3/4"
010-95	Pack of 12 drawer dividers	

Wire Spool Racks

- 5/8" dia. steel rods
- WSR holds spools up to 10" dia.,
- WSR-2 ideal for counter top use,
- WSR-1 has a handle for on the road use



Part Number	Rods	Dimensions (W x H x D)
WSR-1	1	26-1/8" x 10-3/8" x 6"
WSR-2	2	26-1/8" x 17-7/8" x 6"
WSR	4	26-1/8" x 37-1/8" x 6"

Wire Storage Cabinet

- Stores up to 24 3-1/2" spools of wire
- Pullout drawer on top has 21 small compartments & a lockable top



Part Number	Dimensions (W x H x D)
WCAB-H	15-3/16" x 16-7/16" x 11-7/8"

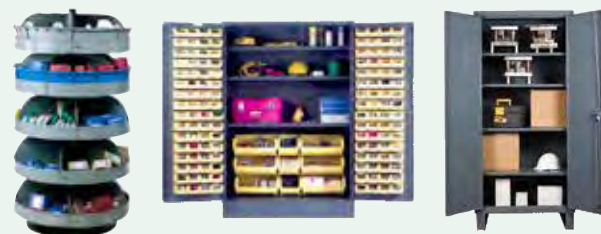
Wire Holders

- All steel welded frames
- Pinless design eliminates loose parts



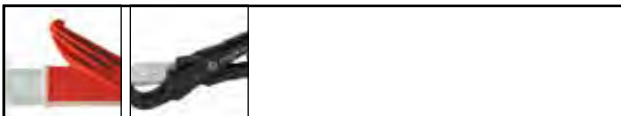
Part Number	Size (L x W x H)	Max Spool Size	Fig.
GRN-909	39"L x 30"W x 31"H	18" dia. x 13"W	A
GRN-9505	48"L x 28-1/4"H	7.5" dia. x 18"W	B


Terminal Supply Co. has access to a huge variety of storage units. We can find a container to store just about any item you need to put away. If you do not see what you're looking for in our catalog, contact customer service or your local sales rep and they will help you find something to meet your exact needs.



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Hand Tools

Wire Strippers



Part Number	Description	Fig.
GRN-45000	Strips: 34-10 ga. wire. Self-adjusts to different wire gauges. Front entry jaws w/ adjustable strip length guide.	A
GRN-20243	Replacement blades for GRN-45000	-
1003	Strips: 26-12 ga. wire. Without spring. Compact tool w/ convenient hole for looping or bending wire.	B
1004	Strips: 26-12 ga. wire. With spring. Compact tool w/ convenient hole for looping or bending wire.	C
3000	Strips: 22-10 ga. wire Versatile wire stripper.	D
L-4421	Replacement blades for 3000	-
45-671	Strips 22-16 ga. wire. Wire gripper holds wire centered in hole.	E
LB-1001	Replacement blades for 45-671	-
KL-11045	Strips 18-10 ga. wire. Spring loaded action for easy operation. Features narrow nose & holes for looping wire.	F

Wire Stripper / Crimper



Part Number	Description	Fig.
RAR-100	Wire range 26 - 10 ga. Crimps insulated & non-insulated terminals 22-10 ga. & ignition terminals 7- 8mm. Brass adjustment knob.	A
LI-68280	Cuts & strips 14-8 ga. wire. Crimps 14-8 ga. insulated & non insulated terminals	B
LI-68250	Cuts & strips 24-14 ga. wire. Crimps 24-14 ga. insulated & non insulated terminals	B
KL-2005N	Cuts & strips 18-10 ga. wire. Crimps 22-10 ga. insulated & non insulated terminals	C
TH-450	Strips 26-8 ga. wire. Crimps 26-6 ga. insulated & non-insulated terminals	D

Hand Tools, cont'd

Cable Strippers



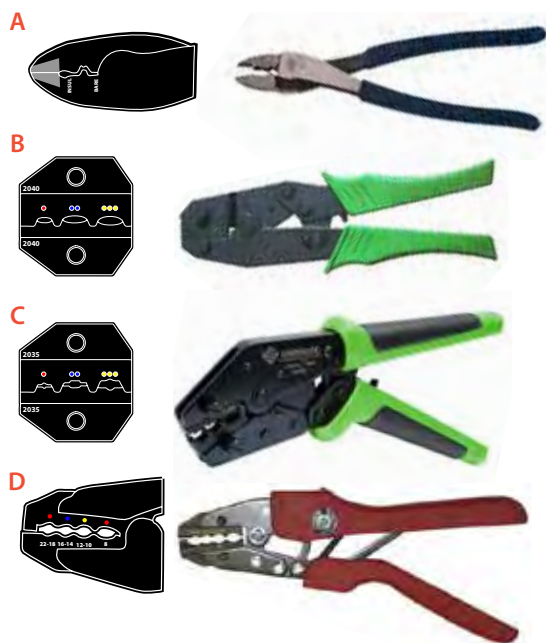
Part Number	Description
45-128	Strips 1/4" - 3/4" O.D. wire, insulation to 5/32" thick. PVC rubber, neoprene, teflon, polyethylene, nylon, kapton, fiberglass, fabric, etc.
4216-001	Replacement blades

Coaxial Wire Strippers



Part Number	Description
PA-1255	Adjustable blade, 2 & 3-level strip: .315 outer jacket & .157 inner dielectric. For use w/ RG58, RG59 & RG6 coaxial cable.

Insulated Crimpers



Part Number	Description	Fig.
WT-111K	Crimps 22-10 ga. insulated & non-insulated terminals even in close quarters.	A
PA-1308	Crimps 22-12 ga. Makes precise, "ovalized" barrel primary & secondary crimps to NEC specifications. Color coded dies.	B
PA-2040	Replacement dies for PA-1308	-
PA-8021	Crimps 22-10 ga. Used for large professional terminals, Panduit, T&B, etc.	C
PA-2035	Replacement die for PA-8021	-
TR-50	Crimps 22-8 ga. Ratchet crimp tool designed for heat shrink terminals	D

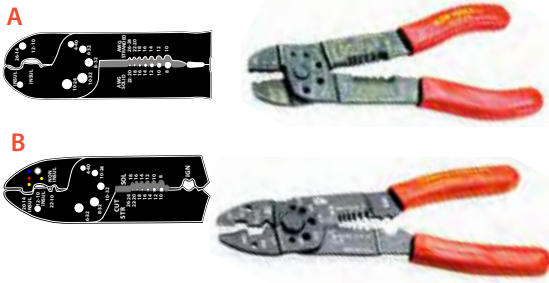
Quick Change Ratcheting Crimper Kit

Part Number	Kit Includes
TA-18980	Racheting crimper, 9 dies & custom plastic box
TA-18921	Die for 22-10 ga. insulated terminals
TA-18922	Die for 22-10 ga. non-insulated sealed open barrel terminals
TA-18923	Die for 22-10 ga. fully insulated quick disconnect terminals
TA-18924	Die for 22-8 ga. non-insulated terminals
TA-18925	Die for 26-16 ga. miniature insulated ring, spade & butt splices
TA-18928	Die for RG-6 & RG-59 coaxial cable
TA-18929	Die for 8mm & 8.5mm spiral core spark plug wire
TA-18937	Die for 30-18 ga. non-insulated open barrel terminals
TA-18938	Die for 22-14 ga. insulated flag terminals
TA-18972	Quick change ratcheting terminal crimper handle (no dies)



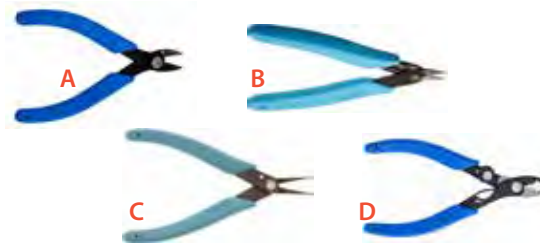
Hand Tools, cont'd

Insulated Crimper/Cutters



Part Number	Description	Fig.
1000	Crimps 26-10 ga., solid wire 22-8ga. Cuts bolts 4-40 to 10-24. Re-threads bolts. Confined crimping dies for 26-14 & 12-10ga. Separate dies for noninsulated & ignition terminals.	A
1002	Crimps 22-10 ga. Cuts bolts 4-40 thru 10-24. Crimps insulated & noninsulated terminals, lugs & 7mm ignition terminals	B

Cutting Tools & Pliers



Part Number	Description	Fig.
XR-2275	Cable tie (up to 1/4" wide)	A
XR-440	High precision mini shears	B
XR-450-S	Tweezer nose pliers	C
XR-501	Adjustable wire stripper/cutter	D

Non-Insulated Crimpers



Part Number	Description	Fig.
WT-111M	Crimps 22-10 ga. noninsulated, solderless terminals. Specially hardened wire cutter w/ tapered nose cuts in confined spaces.	A
GRN-45505G	Crimps 22-6 ga. Used for standard noninsulated terminals.	B
TCP-251B	Crimps 22-6 ga. Used for standard noninsulated terminals.	C

Indent Crimper



Part Number	Description	Fig.
HDT-48-00	Crimps 20-12 ga. solid contacts. Eight indent Deutsch crimper.	A
0426-209-0000	Replacement screw for HDT-48-00	-
PA-1461	Crimps 18-14 ga. solid contacts. Four indent. Built-in locator for fast, precise connector alignment.	B
PA-1462	Crimps 22-20 ga. solid contacts. Four indent. Built-in locator for fast, precise connector alignment.	B

Hand Tools, cont'd

Open Barrel Crimpers

Part Number	Description	Fig.
OB-2210	Crimps 22-14 ga. (2 different dies). General purpose plier type crimping tool for occasional or light duty use.	A
OBT-1028CT	Crimps 24-14 ga. AMP, Molex, Packard unsealed open barrel terminals. 5 precision crimp nests wire.	B
OBTs-1028S	Crimps 24-14 ga. Weather Pack & Metri Pack 150 & 280 Series sealed open barrel terminals. (Comes with blue handles)	C
OBS-3016	Crimps 30-16 ga. automotive OEM terminals	D
PA-1306	Crimps 22-12 ga. Amp, Molex, TRW, Cinch open barrel terminals. Ratchet style crimper.	E
PA-2033	Replacement die for PA-1306	-
PA-1631	Crimps 24-14 ga. open barrel terminals, spring contacts, pins & sockets. Makes electrical & mechanical crimps simultaneously. No replacement dies available.	F
PA-1645	Crimps 30-18 ga. open barrel terminals, spring contacts, pins & sockets. Makes electrical & mechanical crimps simultaneously. No replacement dies available.	F

Deutsch Service Kits

Part Number	Kit Includes	Fig.
DTA-18650	Release tools for 16-14 ga. (gold), 18-16 ga. (blue) & 24-20 ga. (red) terminals Open barrel crimper for 24-14 ga. terminals Closed barrel crimper for 18-14 ga. terminals Closed barrel crimper for 22-20 ga. terminals	A
DTA-18700	Release tools for 6 ga. (green), 10-8 ga. (gray), 16-14 ga. (gold), 18-16 ga. (blue) & 24-20 ga. (red) Deutsch terminals Release tool for Weather Pack terminals Open barrel crimper for 24-14 ga. Deutsch terminals Closed barrel crimper for 12 ga. Deutsch terminals Closed barrel crimper for 18-14 ga. Deutsch terminals Closed barrel crimper for 22-14 ga. Delphi terminals	B

Hand Tools, cont'd

Rennsteig Hand Crimping Tool and Dies

- The PEW12 Hand Crimp Tool Frame from Rennsteig is a high-precision ratchet parallel crimper that is used in all wire and interconnect industries.
- The parallel crimping jaws have a quick-change system that allows the user to quickly change out dies for different applications.
- It can be used with over 1,000 dies, so you no longer need to own multiple crimpers, only different dies
- Includes: tool frame and die installation tools

Open Barrel Terminal Crimping Dies

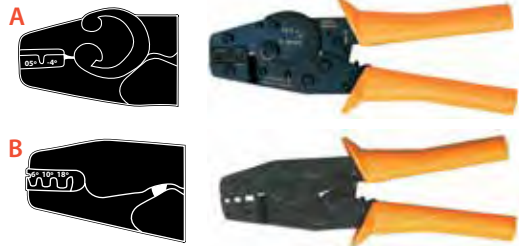


Part Number		Description		
REN-PEW12		Includes: Tool frame and die installation tools		
TSC Part Number	Rennsteig Part Number	Wire Gauge	Rennsteig Part Number	Die Locator Part number
REN-1667	Apes 2.5 series sealed	Female, 20-14 ga.	624 1667 3 0 RT	Includes die set, stop/locator
REN-1669		Male, 20-14 ga.	624 1669 3 0 RT	
REN-1627	Deutsch	Male, female contact size 12, wire range 12,14 ga.	624 1627 3 01 RT	
REN-1632		Male/female contact size 16, wire range 16-12 ga.	624 1632 3 01 RT	
REN-1631		Male/female contact size 20, wire range 20,18,16 ga.	624 1631 3 01 RT	
REN-1489	GT 150 series sealed	GT 150 series, sealed male/female 22-16 ga.	624 1489 3 012 RT	
REN-1502		Female, 22-16 ga.	624 1502 3 012 RT	
REN-1503		Female/male, 22-12 ga.	624 1503 3 012 RT	
REN-1498	Metri-Pack 280 series sealed	Female, 14-10 ga.	624 1498 3 012 RT	Includes die set, stop/locator
REN-1529		Male, 22-16 ga.	624 1529 3 012 RT	
REN-1513		Male, 18 ga.	624 1513 3 012 RT	
REN-1486	GT 280 series sealed	GT 280 series, sealed male/female 16-22 ga.	624 1486 3 012 RT	
REN-1492	GT 280 series sealed	GT 280 series, sealed male/female 10-14 ga.	624 1492 3 012 RT	
REN-1476	Weather Pack sealed	Male/female 12-16 ga.	624 1476 3 012 RT	
REN-1528		Male/female 22-18 ga.	624 1528 3 012 RT	

Note: all dies are sold separately. If you do not see the crimping die you require, please inquire with your local sales rep or contact customer service for assistance .

Hand Tools, cont'd

Wire Ferrule Crimpers



Part Number	Description	Fig.
PA-1648	Crimps 20-12 ga. Features full ratchet cycle, manual ratchet release & adjustable crimp tension.	A
PA-1649	Crimps 10-6 ga. Features full ratchet cycle, manual ratchet release & adjustable crimp tension.	B

Communication Connector Crimper



Part Number	Description
E-9Y	Crimps UR, UY, UG & UB connectors (see terminal section). Stepped jaw crimping tool.

Coaxial Crimpers



Part Number	Description
PA-1317	Crimps coax RG58, RG59, 62AU, BNC & TNC 3-piece type connectors
PA-2034	Replacement die for PA-1317
PA-1302	Replacement frame for PA-1317
PA-2303	Replacement die screws for PA-1317

Ignition Terminal Crimper



Part Number	Description
TH-550	Crimps 90° distributor clips, all common spark plug & distributor terminals. Strips ignition cables: suppression, copper, steel, carbon & magnet wire & cuts to proper length

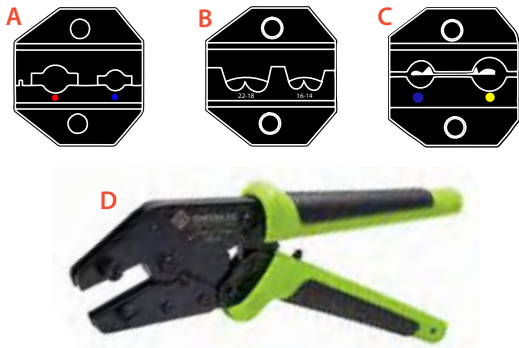
Large Lug Crimpers



Part Number	Description	Fig.
SKT-840	Crimps 8-4/0 ga. terminals & splices. Indent type crimp. Use w/ standard hammer or vice	A
TS-1080	Crimps 8-1/0 ga. Compression type crimp. 16" long	B
TS-1090	Crimps 8-4/0 ga. Compression type crimp. 25" long	C

Hand Tools, cont'd

Flag Terminal Crimping Dies



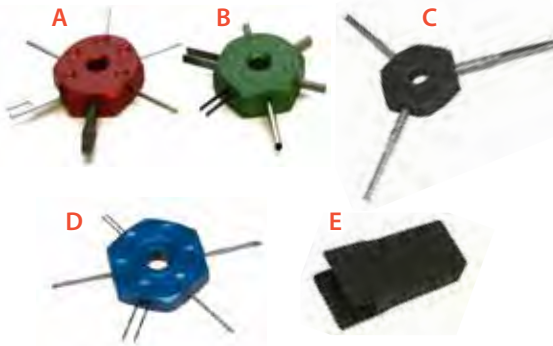
Part Number	Description	Fig.
CT-300-070	Crimps 22-14 ga. insulated flag terminals.	A
CT-300-071	Crimps 22-14 ga. non insulated flag terminals.	B
CT-9PK-3003D42	Crimps 16-10 ga. insulated flag terminals	C
PA-8000	Crimper frame	D

Side Cutting Pliers



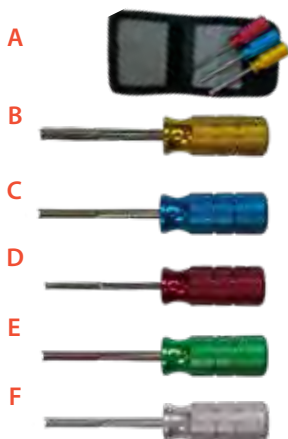
Part Number	Description
KL-D213-9NECR	Crimps noninsulated connectors, lugs & terminals. High leverage design. Sure-gripping, cross-hatched knurled jaws.

Terminal Tools



Part Number	Description	Fig.
LI-14900	Removes terminals from AMP/Tyco, Molex & Delphi connectors . Retrieves trouble codes from late model GM engine computers.	A
LI-56500	Removes 24-14 ga. / 20-14 contact size terminals from Deutsch connectors.	B
LI-59600	Removes Ford terminals. Releases wires without damage to wires or terminal blocks	C
LI-57780	Removes Ford terminals. Releases wires without damage to wires or terminal blocks	D
LI-57790	Handle works with LI-14900, LI-56500 & Li-57780	E

Deutsch Removal Tool Kits



Part Number	Kit Includes	Fig.
DTA-18550	Removal tools for 16-14 ga. (gold), 18-16 ga. (blue) & 24-20 ga. (red) terminals	A
DTA-18551	Removal tool for 16-14 ga. (contact size 12) terminals (yellow handle)	B
DTA-18552	Removal tool for 18-16 ga. (contact size 16) terminals (blue handle)	C
DTA-18553	Removal tool for 24-20 ga. (contact size 20) terminals (red handle)	D
DTA-18560	Removal tool for 6 ga. (contact size 4) terminals (green handle)	E
DTA-18570	Removal tool for 10-8 ga. (contact size 8) terminals (gray handle)	F

Hand Tools, cont'd

Cable Cutters



Part Number	Description	Fig.
UPB-41	Cuts copper cable only up to 2/0ga.	A
KL-63050	Cuts aluminum cable up to 4/0ga. & copper cable up to 2/0ga. Cable gripping shear type jaws. 9-1/2" long.	B
TS-4285	Cuts copper cable up to 250MCM. 1075 carbon steel blades are removable for sharpening. 22" long handles.	C
GRN-759	Cuts aluminum cable up to 750MCM & copper cable up to 500MCM. 10-1/2" long. Single speed ratchet mechanism	D

Blind Rivet Hand Tool



Part Number	Description
RT-18	Heavy duty cast aluminum construction for pulling all rivets up to & including 3/16"

Nut Setter Tool/Crimper



Installation Tool

Mandrel

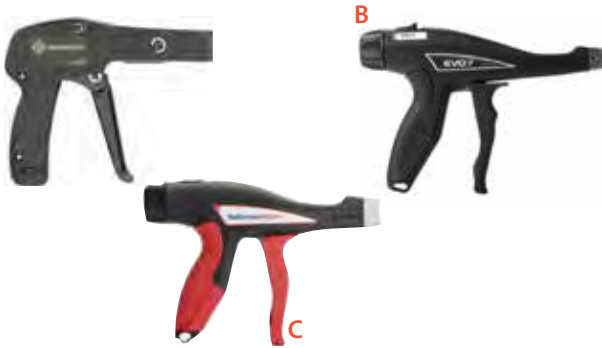
Nosepiece



Part Number	Description	
RNT-39300	Nut setter tool and comes with the following: 8-32,10-24,10-32 mandrels, nose pieces and service wrench	
Additional Mandrel		
RN-M39354	#6-32 Mandrel	
RN-M39355	#8-32 Mandrel	
RN-M39356	#10-24 Mandrel	
RN-M39357	#10-32 Mandrel	
RN-M39358	1/4"-20 Mandrel	
RN-M39366	M4 Mandrel	
RN-M39367	M5 Mandrel	
RN-M39368	M6 Mandrel	
Additional Nosepieces		
Recommended Drill Part Number's		
RN-39361	#6-32 Nosepiece	175AG-16/64
RN-39362	#8-32 Nosepiece	175AG-25/64
RN-39363	#10-24 & #10-32 Nosepiece	175AG-19/64
RN-39379	1/4"-20 Nosepiece	175AG-25/64
RN-39374	M4 Nosepiece	175AG-17/64
RN-39373	M5 Nosepiece	170AG-7.60
RN-39375	M6 Nosepiece	170AG-8.00

Hand Tools, cont'd

Cable Tie Tools



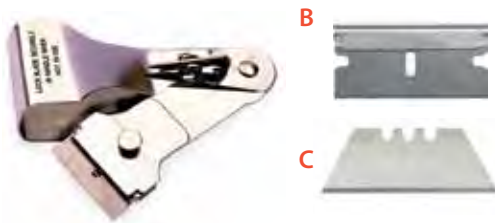
Part Number	Description	Fig.
GRN-45300	Works with: TRS to TRL cable ties, 18-50lbs. Tension adjustment adapts the tool to the size of the tie. Auto cut-off eliminates sharp ends.	A
EVO-7	Works with: TRS to TRL cable ties, 18-80lbs. Durable, light weight, adjustable & user friendly.	B
EVO-9	Works with: TRS to TRL-HD cable ties, 50-250lbs. Durable, light weight, adjustable & user friendly.	C

Snapper Clamp Tool



Part Number	Description
SNP-T-170	Works with: nylon snapper clamps (see securing section). Designed to increase reliability & reduce installation time.

Retractable Scraper



Part Number	Description	Fig.
13626-TOOL	Holder tilts blade to get into tight corners, folds 180° into handle & locks when not in use.	A
13625-BLADE	Replacement single edge razor blades, 100/pk	B
TS-852100	Replacement trapezoid utility blades, 100/pk	C

Wire Insertion Tool



Part Number	Description
LI-61030	Set includes 1/4" & 3/8" O.D. tools for installing wires for audio electronics, aftermarket lighting, alarm systems, etc. Provides extra leverage to pierce through fire wall, rubber grommets & panels.

Loom Tools

PLS Loom Installation Tool



- Easily secure your wiring in our PLS loom
- Made of ABS plastic
- Easy to use, instructions included

Part Number	Loom Size
PLST-1	1/4" - 7/16"
PLST-2	1/2" - 5/8"
PLST-3	3/4" - 7/8"
PLST-4	1" - 1-1/4"

Loom & Plastic Tubing Cutter



- Durable & dependable, with a clean cut every time

Part Number	Loom Size
GRN-862	Cuts flexible plastic pipe & nylon loom up to 1-3/8" O.D.

Cleaning Tools

Stainless Steel Twisted Bore Brushes



- Includes: 8mm, 10mm, 12mm, 15mm, 17mm & 19mm brushes w/ a 1/4" hex shank

Part Number	Description
IPA-8080	6 piece set

Master Trailer Cleaner Set



- Includes: 4/5 pin, 6 round pin, 7 flat pin, 7 round pin cleaners, cotton swabs & DeoxIT® contact cleaner in a premium holster

Part Number	Description
IPA-8044	8 piece set

HD Electrical Terminal Maintenance Set



- Includes: diamond-tip terminal cleaners, 7 round pin terminal cleaners, micro round files, bullet connector cleaner & DeoxIT® contact cleaner in a premium holster

Part Number	Description
IPA-8048	17 piece set

Light-Duty Truck & Trailer Connector Cleaners



- Includes: 4/5 pin, 6 round pin, 7 flat pin cleaners

Part Number	Description
IPA-8025	4 piece set

Micro Bore Stainless Steel Brush Set

- 9" length w/ flexible shaft for accessing hard-to-reach areas
- 3" long brush
- Durable twisted wire for increased cleaning function
- Extra-large finger loop for enhanced control

Part Number	Kit Includes
IPA-8087	1/8", 5/32", 13/64", 1/4", 5/16", 3/8", 7/16" & 1/2" dia. brushes



Stumpy 2-in-1 Hub & Stud Cleaner Kit

- Pad uses a set screw to attach to the tool
- Inside brush which cleans the studs is replaceable when worn
- Tough, hard coated anodized billet aluminum body
- Uses Long-Life Strip-Brite material for hub cleaning
- Works on 1/2" impact gun at 10,000 RPM
- Does both light trucks and cars



Part Number	Description
TS-77301	Kit comes with a 2-in-1 hub & stud cleaner tool, 1- storage nylon case and pad & wire brush insert (one for light duty trucks - 9/16" - 5/8" and one for passenger cars - 7/16" - 1/2")
Replacement Pads	
TS-77302	4 replacement pads and wire brushes for light duty trucks (9/16" - 5/8") - 8 Pieces
TS-77303	4 replacement pads and 4 wire brushes for passenger cCars (7/16" - 1/2")
TS-77306	1 wire brush insert for [assenger cars (7/16" - 1/2")
TS-77307	1 wire bBrush insert for light duty trucks (9/16" - 5/8")
TS-77308	4 replacement pads passenger cars (7/16" - 1/2")
TS-77311	4 replacement pads light duty trucks (9/16" - 5/8")



Cleaning Tools, cont'd

7 Round Pin Trailer Terminal Connector Cleaner



- Includes: male & female terminal cleaners that also resize & gauge for wear

Part Number	Description
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IPA-8024	2 piece set
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Electrical Pin Cleaner & Wear Gauge



- Includes: single pole cleaners designed for precise removal of corrosion & debris
- Comes with a premium holster

Part Number	Description
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IPA-8071	3 piece set
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Plow Terminal Cleaner

- Includes: tools to clean & restore male & female electrical plow connectors
- Comes with a premium holster



Part Number	Description
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IPA-8045	3 piece set
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Diamond Tip Electrical Terminal Cleaners



- Includes: 3 sizes of tools custom engineered to fit & clean most male/female flat pin-type connectors
- Comes with a premium holster

Part Number	Description
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IPA-8040	3 piece set
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Diamond Micro Round Files



- Includes: 10 sizes of super-hard, flexible & diamond coated files for cleaning small, round female electrical pins
- Comes with a premium holster

Part Number	Description
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IPA-8042	12 piece set
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Grease Fitting Tools

Grease Joint Rejuvenator®

- Forces light oil into a grease fitting, flushing out old hardened grease & allowing new grease to be pushed through
- Lubricates & unclogs bearings, control arms, king pins, piston arms, packaging, shafts & bushings



Part Number	Description
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IPA-7862	Grease Joint Rejuvenator®
----------	---------------------------

Testers & Gauges

Circuit Testers



Part Number	Description	Fig.
LI-28640	Tests up to 28V. Plastic construction w/ 8ft. coiled cord & 50 amp ground clamp.	A
LI-28760	Replacement bulb for LI-28640	-
TS-27000	Tests up to 12V. 5ft. heavy duty rubber insulated wire, ground clip & insulator.	B

Non-Contact Voltage Tester



- Bright LEDs flash & audible alarm sounds if AC voltage is present
- Silent mode for use in quiet areas
- Automatic shut-off extends battery life (AAA batteries included)

Part Number	Kit Includes
GRN-GT-12A	50 VAC -1000 VAC voltage detector

Multimeters



Part Number	Description	Fig.
MM-300	Measures AC/DC voltage (up to 600V), DC current & resistance (10A). Includes test leads & battery. Tests batteries, diodes & continuity. Manual ranging.	A
MM-400	Measures AC/DC voltage (up to 600V), AC/DC current, resistance (10A), capacitance, temperature & frequency, test diodes & continuity. Auto-ranging.	B
B/9V-ALK	Replacement battery	-

Pressure Gauges

Tire Pressure Gauges



Part Number	Description	Fig.
MI-S-932	45° dial type gauge w/ angled single head chuck. 0-60 psi in 1lb. increments or 0-400 kPa.	A
MI-S-927	Pencil type gauge w/ dual chuck. 4 sided indicator bar: 2 sides 20-120 psi in 2lb. increments & 2 sides 120-820 kPa in 20 kPa units.	B
MI-S-925	Pencil type gauge w/ single chuck & deflator valve. 4 sided indicator bar: 2 sides 20-120 psi in 2lb. increments & 2 sides 120-820 kPa in 20 kPa units.	C
MI-976	Service gauge w/ dual head chuck. 4 sided indicator bar: calibrated 2 sides 10-160 psi in 2lb. increments & 2 sides 80-1100 kPa in 20 kPa units.	D
MI-S986	Straight foot service gauge w/ dual chuck. 4 sided indicator bar: 2 sides 20-160 psi in 2lb. increments & 2 sides 80-1100 kPa in 20 kPa units.	E

Pressure Gauges, cont'd

Tire Inflator / Pressure Gauge



Part Number	Description
MI-98-A1-501	Heavy duty inflator w/ dual foot, large bore locking chuck & 15 ft. hose. 10 - 160 psi. Conforms to Military Spec GG-G-91D, Type III, Style 2

Blo-Guns

Full-Flow Safety Lever Blo-Gun



Part Number	Description
MI-150	150 psi max working pressure. SCFM 10.0 @ 100 psi. 1/4" NPT air inlet, 7/16"-27 nozzle thread size, 1/2"-27 body outlet thread size. OSHA compliant

Heat Sources

Heat Guns



Part Number	Description	Fig.
HG-501D	Temp. range 500°-750°. Air flow 23 CFM. 1680W, 14 amps, 120 volts. UL & CSA Listed. Pivots in stand.	A
PH-1400	Temp. range 130°-1000°F. Air flow: 4-16 CFM. 1410W, 11 amps, 120 volts. UL & CSA Listed. LCD display & built-in stand.	B
PH-1400K	Kit includes PH-1400 heat gun, 5 attachments & case	-
EC-100	Temp. 500° & 1000°F. Air flow 7 & 9 CFM. 1200W, 10 amps, 120 volts. UL Listed. Built-in stand & hand guard.	C
EC-100K	Kit includes: EC-100 heat gun, 4 attachments & case	-
8200	Soldering gun w/ tin plated copper tip for superior heat transfer. Instant heat when trigger is pulled. Dual temp 140/100W	D
8200-TIP	Replacement solder tip for 8200	-

Torches

Butane Torches



Part Number	Description	Fig.
TS-4000-HG*	Burn time: 30 minutes. Features: refillable, super slim design & convenient pull down stand.	A
GT-70	Max temp: 2500°F. Burn time: 30 minutes. Features: refillable, self-igniting & adjustable flame.	B
MT-51	Max temp: 2500°F. Burn time: up to 2 hours. Features: refillable, hands-free base & flame control adjustment.	C
MT-70	Max temp: 2500°F. Burn time: up to 1 hour. Features: refillable, hands-free lock & flame control adjustment.	D
GB-2001*	Max temp: 2500°F. Burn time: up to 1 hour. Features: refillable, detachable stand & flame control adjustment	E
BT-2500*	Max temp: 2500°F. Burn time: up to 1 hour. Features: refillable & table top stand	F

*These products will incur extra HAZ-MAT shipping charges

Torch Kits



Part Number	Description	Fig.
UT-100SI	Self-igniting, flameless heat tool w/ soldering tip, heat tip & shrink tube attachment. (other tips available) Burn time 4 hours.	A
PRO-120K	Self-igniting butane torch w/ a heat reflector, tube of 60/40 rosin core solder & cooling sponge. Max temp 2400°F as torch, 500°F for hot knife or soldering iron.	B

Torch Refill Butane Gas



Part Number	Description	Size
CAN-B	Comes w/ 6 refill adaptors	9oz.

ORM-D & HAZ-MAT Shipping Fees

Many of the torches in this section are marked **HAZ-MAT** due to changes in the laws for shipping potentially dangerous chemicals. Please note that although torches may not come filled with fuel, they are all tested prior to sale and therefore may contain traces of fuel, deeming them hazardous. These will incur an extra delivery charge. If you have any questions regarding this, please contact your local sales rep or customer service at 800-989-9632.

Saws

Hacksaw Blades

- High speed steel edged blade resists breakage for longer life



Part Number	Teeth / Inch	Dimensions (L x W x T)
FV51-HS-1224	24	12" x .5" x .025"
FV51-HS-1232	32	12" x .5" x .025"
FV51-HS-1024	24	10" x .5" x .025"

Saws, cont'd

Reciprocating Blades - For Metal

- Bi-metal construction for maximum flexibility, break resistance & lasting sharpness
- Exclusive plunge tip makes starting cuts faster & easier



Part Number	Teeth / Inch	Dimensions (L x W x T)	Type	Qty./ Pack
GRN-353-123	Progressive	6" x 3/4" x .035"	Straight	5
GRN-353-614	14	6" x 3/4" x .035"	Straight	5
GRN-353-624	24	6" x 3/4" x .035"	Straight	5
GRN-353-814	14	8" x 3/4" x .050"	Straight	2
GRN-353-818	18	8" x 3/4" x .050"	Straight	2

Hole Saws

- Bi-metal construction will outlast other blades
- Steam oxide finish allows blade to run cooler for longer life & better performance



Part Number	Description
GRN-825-3/4	3/4" hole saw
GRN-825-7/8	7/8" hole saw
GRN-825-1	1" hole saw
GRN-825-1-1/8	1-1/8" hole saw
GRN-825-1-3/8	1-3/8" hole saw
GRN-825-1-1/2	1-1/2" hole saw
GRN-825-1-3/4	1-3/4" hole saw
GRN-825-2	2" hole saw
GRN-825-2-1/4	2-1/4" hole saw
GRN-825-2-1/2	2-1/2" hole saw
GRN-825-3	3" hole saw
GRN-825-3-1/4	3-1/4" hole saw
GRN-825-3-5/8	3-5/8" hole saw

Part Number	Description
GRN-825-3-3/4	3-3/4" hole saw
GRN-825-4-1/8	4-1/8" hole saw
GRN-825-4-1/2	4-1/2" hole saw
GRN-825-4-3/4	4-3/4" hole saw

Arbors & Pilot Drills

Part Number	Shank Size	Works With Saws
GRN-38522	5/16"	
GRN-37157	1/4"	9/16" - 1-3/16"
GRN-37155	7/16"	
GRN-37156B	7/16"	1-1/4" - 6"
GRN-38526	1/4"	Pilot drill

Kits

Part Number	Description
GRN-830	Hole saw kit: 1/2" to 2" sizes
GRN-834	Hole saw kit: 2-1/2" to 4" sizes
GRN-835	Hole saw kit: 1/2" to 4" sizes
GRN-889	Plumber's hole saw kit: 3/4" to 2-1/4"
GRN-890	Industrial hole saw kit: 3/4" to 4-3/4"
GRN-891	Electrician/Plumber's hole saw kit: 3/4" to 2-1/2" sizes

Screw Driver Bits

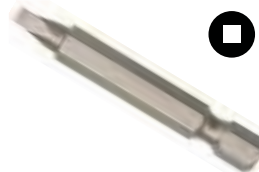
Magnetic Power Nutsetters

- 1/4" hex drive hardened steel



Part Number	Size
MAG CHUCK-1/4	1/4"
MAG CHUCK-5/16	5/16"
MAG CHUCK-3/8	3/8"


Square Recess Power Bits



Part Number	Size
SRPB-KW40-93211	1
SRPB-KW40-93213	2
SRPB-KW40-93215	3


Screw Driver Bits, cont'd

Square Recess Insert Bits




Part Number	Size	
SRIB-KW40-92201	0	1/4" shank 1" length
SRIB-KW40-92203	1	
SRIB-KW40-92205	2	
SRIB-KW40-92207	3	

Slotted Power Bits With Finder




Part Number	Size	
SLPB-KW40-93191	#5-6	1/4" shank 2-5/32" length
SLPB-KW40-93193	#6-8	
SLPB-KW40-93195	#10-12	

Pozidriv Power Bits




Part Number	Size	
POZPB-KN5474203	1x2	1/4" shank
POZPB-KN5474207	1x3-1/2	
POZPB-KN5474212	2x2	
POZPB-KN5474216	2x3-1/2	
POZPB-KN5474221	3x2	
POZPB-KN5474225	3x3-1/2	

TORX Insert Bits




Part Number	Size		
TORXB-71505	T5	1/4" shank 1" length	
TORXB-71506	T6		
TORXB-71507	T7		
TORXB-71508	T8		
TORXB-71509	T9		
TORXB-71510	T10		
TORXB-71515	T15		
TORXB-71520	T20		
TORXB-71525	T25		
TORXB-71527	T27		
TORXB-71530	T30		
TORXB-71540	T40		
TORXB-71545	T45		5/16" shank 1-3/8" length
TORXB-71550	T50		
TORXB-71555	T55		

Phillips Insert Bits



Part Number	Size	
PIB-KW40-92001	0	1/4" shank 1" length
PIB-KW40-92005	1	
PIB-KW40-92011	2	
PIB-KW40-92019	3	

Metric Socket Head Insert Bits



Part Number	Size	
SHMBKN54-71315	6mm	1/4" shank 1-1/4" length
SHMBKN54-71318	8mm	
SHMBKN54-71321	10mm	
SHMBKN54-71324	12mm	

Ratchet Screw Driver Set

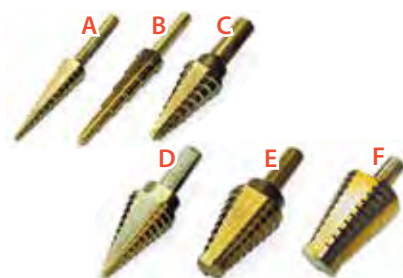
- Includes: phillips bits, square bits, star bits, Pozidriv bits, hex bits, clutch bits, tri-wing bits, torq bits, spanner bits, slotted bits, ratchet screwdriver & much more



Part Number	Description
TS-2841	135 piece set

Drill Bits

Unibit Step Drills



Part Number	# of Hole Sizes	Hole Range	Shank Size	Step Increments	Step Thickness	Fig.
UNI-00700	13	1/8" to 1/2"	1/4	1/32	1/8	A
UNI-00701	6	3/16" to 1/2"	1/4	1/16	3/8	B
UNI-00702	12	3/16" to 7/8"	3/8	1/16	1/8	C
UNI-00703	9	1/4" to 3/4"	3/8	1/16	5/32	D
UNI-00704	8	9/16" to 1"	3/8	1/16	5/32	E
UNI-00710	10	13/16" to 1-3/8"	3/8	1/16	5/32	F

Drill Bits, cont'd

Our super premium, high performance drill & taps offer:

- A substantially longer cutting life
- Cuts harder materials
- Stops drill walking
- Holds tighter hole size
- Outstanding quality appearance
- Runs cooler, uses less torque

Standard Drills & Taps

Type 175AG: Mechanics Length Drills

- 3 flats on shank, 1/4" & larger



Part # - Dia.	Length	Part # - Dia.	Length
175AG-1/16	1-7/8"	175AG-19/64	3-7/8"
175AG-5/64	2"	175AG-5/16	4"
175AG-3/32	2-1/4"	175AG-21/64	4-1/16"
175AG-7/64	2-3/8"	175AG-11/32	4-1/8"
175AG-1/8	2-1/2"	175AG-23/64	4-3/16"
175AG-9/64	2-5/8"	175AG-3/8	4-1/4"
175AG-5/32	2-3/4"	175AG-25/64	4-5/16"
175AG-11/64	2-7/8"	175AG-13/32	4-3/8"
175AG-3/16	3"	175AG-27/64	4-7/16"
175AG-13/64	3-1/8"	175AG-7/16	4-1/2"
175AG-7/32	3-1/4"	175AG-29/64	4-5/8"
175AG-15/64	3-3/8"	175AG-15/32	4-3/4"
175AG-1/4	3-1/2"	175AG-31/64	4-7/8"
175AG-17/64	3-5/8"	175AG-1/2	5"
175AG-9/32	3-3/4"		

Type 175VT: Mechanics Length Drill

- Unique tip geometry reduces heat generation & cutting tool wear increasing tool life
- Easily enlarges existing holes without damaging the point



Drill Bit Part #	Dia.	Drill Bit Part #	Dia.
175VT-1/16	1/16"	175VT-5/16	5/16"
175VT-5/64	5/64"	175VT-21/64	21/64"
175VT-3/32	3/32"	175VT-11/32	11/32"
175VT-7/64	7/64"	175VT-23/64	23/64"
175VT-1/8	1/8"	175VT-3/8	3/8"
175VT-9/64	9/64"	175VT-25/64	25/64"
175VT-5/32	5/32"	175VT-13/32	13/32"
175VT-11/64	11/64"	175VT-27/64	27/64"
175VT-7/32	7/32"	175VT-7/16	7/16"
175VT-15/64	15/64"	175VT-29/64	29/64"
175VT-1/4	1/4"	175VT-15/32	15/32"
175VT-9/32	9/32"	175VT-31/64	31/64"
175VT-19/64	19/64"	175VT-1/2	1/2"

Type 130AG: 1/2" Shank Drills



Part # - Dia.	Length	Part # - Dia.	Length
130AG-33/64	6"	130AG-55/64	6"
130AG-17/32	6"	130AG-7/8	6"
130AG-35/64	6"	130AG-57/64	6"
130AG-9/16	6"	130AG-29/32	6"
130AG-37/64	6"	130AG-59/64	6"
130AG-19/32	6"	130AG-15/16	6"
130AG-39/64	6"	130AG-61/64	6"
130AG-5/8	6"	130AG-31/32	6"
130AG-41/64	6"	130AG-63/64	6"
130AG-21/32	6"	130AG-1	6"
130AG-43/64	6"	130AG-1-1/32	6"
130AG-11/16	6"	130AG-1-1/16	6"
130AG-45/64	6"	130AG-1-3/32	6"
130AG-23/32	6"	130AG-1-1/8	6"
130AG-47/64	6"	130AG-1-5/32	6"
130AG-3/4	6"	130AG-1-3/16	6"
130AG-49/64	6"	130AG-1-7/32	6"
130AG-25/32	6"	130AG-1-1/4	6"
130AG-51/64	6"	130AG-1-5/16	6"
130AG-13/16	6"	130AG-1-3/8	6"
130AG-53/64	6"	130AG-1-7/16	6"
130AG-27/32	6"	130AG-1-1/2	6"

Standard Drills & Taps, cont'd

Type 190AG: Jobbers Length Drills



Part # - Dia.	Length	Part # - Dia.	Length
190AG-1/16	1-7/8"	190AG-19/64	4-3/8"
190AG-5/64	2"	190AG-5/16	4-1/2"
190AG-3/32	2-1/4"	190AG-21/64	4-5/8"
190AG-7/64	2-5/8"	190AG-11/32	4-3/4"
190AG-1/8	2-3/4"	190AG-23/64	4-7/8"
190AG-9/64	2-7/8"	190AG-3/8	5"
190AG-5/32	3-1/8"	190AG-25/64	5-1/8"
190AG-11/64	3-1/4"	190AG-13/32	5-1/4"
190AG-3/16	3-1/2"	190AG-27/64	5-3/8"
190AG-13/64	3-5/8"	190AG-7/16	5-1/2"
190AG-7/32	3-3/4"	190AG-29/64	5-5/8"
190AG-15/64	3-7/8"	190AG-15/32	5-3/4"
190AG-1/4	4"	190AG-31/64	5-7/8"
190AG-17/64	4-1/8"	190AG-1/2	6"
190AG-9/32	4-1/4"		

Type 190AG: Jobbers Length Drills - Wire



Part # - Wire Ga.	Length	Part # - Wire Ga.	Length
190AG-1	3-7/8"	190AG-31	2-3/4"
190AG-2	3-7/8"	190AG-32	2-3/4"
190AG-3	3-3/4"	190AG-33	2-5/8"
190AG-4	3-3/4"	190AG-34	2-5/8"
190AG-5	3-3/4"	190AG-35	2-5/8"
190AG-6	3-3/4"	190AG-36	2-1/2"
190AG-7	3-5/8"	190AG-37	2-1/2"
190AG-8	3-5/8"	190AG-38	2-1/2"
190AG-9	3-5/8"	190AG-39	2-3/8"
190AG-10	3-5/8"	190AG-40	2-3/8"
190AG-11	3-1/2"	190AG-41	2-3/8"
190AG-12	3-1/2"	190AG-42	2-1/4"
190AG-13	3-1/2"	190AG-43	2-1/4"
190AG-14	3-3/8"	190AG-44	2-1/8"
190AG-15	3-3/8"	190AG-45	2-1/8"
190AG-16	3-3/8"	190AG-46	2-1/8"
190AG-17	3-3/8"	190AG-47	2"
190AG-18	3-1/4"	190AG-48	2"
190AG-19	3-1/4"	190AG-49	2"
190AG-20	3-1/4"	190AG-50	2"
190AG-21	3-1/4"	190AG-51	2"
190AG-22	3-1/8"	190AG-52	1-7/8"
190AG-23	3-1/8"	190AG-53	1-7/8"
190AG-24	3-1/8"	190AG-54	1-7/8"
190AG-25	3"	190AG-55	1-7/8"
190AG-26	3"	190AG-56	1-3/4"
190AG-27	3"	190AG-57	1-3/4"
190AG-28	2-7/8"	190AG-58	1-5/8"
190AG-29	2-7/8"	190AG-59	1-5/8"
190AG-30	2-3/4"	190AG-60	1-5/8"

Type 190AG: Jobbers Length Drills - Letter



Part # - Letter Size	Length	Part # - Letter Size	Length
190AG-A	3-7/8"	190AG-N	4-3/8"
190AG-B	4"	190AG-O	4-1/2"
190AG-C	4"	190AG-P	4-5/8"
190AG-D	4"	190AG-Q	4-3/4"
190AG-E	4"	190AG-R	4-3/4"
190AG-F	4-1/8"	190AG-S	4-7/8"
190AG-G	4-1/8"	190AG-T	4-7/8"
190AG-H	4-1/8"	190AG-U	5"
190AG-I	4-1/8"	190AG-V	5"
190AG-J	4-1/8"	190AG-W	5-1/8"
190AG-K	4-1/4"	190AG-X	5-1/8"
190AG-L	4-1/4"	190AG-Y	5-1/4"
190AG-M	4-3/8"	190AG-Z	5-1/4"

Type 128AG: 3/8" Shank Drills



Part # - Dia.	Length	Part # - Dia.	Length
128AG-25/64	5-1/8"	128AG-31/64	5-7/8"
128AG-13/32	5-1/4"	128AG-1/2	6"
128AG-27/64	5-3/8"	128AG-17/32	6"
128AG-7/16	5-1/2"	128AG-9/16	6"
128AG-29/64	5-5/8"	128AG-19/32	6"
128AG-15/32	5-3/4"	128AG-5/8	6"

Standard Drills & Taps, cont'd

Type 190CN: Heavy Duty Cryo-Tech Drills

- Made in the USA
- 135° split point
- Drills 3/16" & longer have 3 flats on shank to prevent slippage
- Nitride coating creates a case hardened surface that is resistant to rust, heat & extends tool life



Part # - Dia.	Length	Part # - Dia.	Length	Part # - Dia.	Length	Part # - Dia.	Length
190CN-1/16	1-7/8"	190CN-3/16	3-1/2"	190CN-19/64	4-3/8"	190CN-13/32	5-1/4"
190CN-5/64	1-3/8"	190CN-13/64	3-5/8"	190CN-5/16	4-1/3"	190CN-27/64	5-3/8"
190CN-3/32	1-3/4"	190CN-7/32	3-3/4"	190CN-21/64	4-5/8"	190CN-7/16	5-1/2"
190CN-7/64	1-7/8"	190CN-15/64	3-7/8"	190CN-11/32	4-3/4"	190CN-29/64	5-5/8"
190CN-1/8	2"	190CN-1/4	4"	190CN-23/64	4-7/8"	190CN-15/32	5-3/4"
190CN-9/64	2-1/4"	190CN-17/64	4-1/8"	190CN-3/8	5"	190CN-31/64	5-7/8"
190CN-5/32	3-1/8"	190CN-9/32	4-1/4"	190CN-25/64	5-1/8"	190CN-1/2	6"
190CN-11/64	3-1/4"						

Type 140G: Twin End Drills - Magnum Super Premium



Part # - Dia.	Length	Part # - Dia.	Length
140G-3/32	1-3/4"	140G-5/32	2-1/8"
140G-7/64	1-15/16"	140G-3/16	2-5/16"
140G-1/8	1-15/16"	140G-7/32	2-9/16"
140G-9/64	2"	140G-1/4	2-5/8"

Type 14 & 14L: Annular Cutters

- High tungsten content increases abrasion resistance resulting in a tough tool w/ long lasting durability
- 6% cobalt for high heat resistance

14



14L



	1" Cutter	2" Cutter	Dia.	1" Cutter	2" Cutter	Dia.
	14-7/16	14L-7/16	7/16"	14-1-3/8	14L-1-3/8	1-3/8"
	14-1/2	14L-1/2	1/2"	14-1-7/16	14L-1-7/16	1-7/16"
	14-9/16	14L-9/16	9/16"	14-1-1/2	14L-1-1/2	1-1/2"
	14-5/8	14L-5/8	5/8"	14-1-9/16	14L-1-9/16	1-9/16"
	14-11/16	14L-11/16	11/16"	14-1-5/8	14L-1-5/8	1-5/8"
	14-3/4	14-3/4	3/4"	14-1-11/16	14L-1-11/16	1-11/16"
	14-13/16	14L-13/16	13/16"	14-1-3/4	14L-1-3/4	1-3/4"
	14-7/8	14L-7/8	7/8"	14-1-13/16	14L-1-13/16	1-13/16"
	14-15/16	14L-15/16	15/16"	14-1-7/8	14L-1-7/8	1-7/8"
	14-1	14L-1	1"	14-1-15/16	14L-1-15/16	1-15/16"
	14-1-1/16	14L-1-1/16	1-1/16	14-2	14L-2	2"
	14-1-1/8	14L-1-1/8	1-1/8"	14-2-1/16	14L-2-1/16	2-1/16"
	14-1-3/16	14L-1-3/16	1-1/4"	11/64" dia. Pilot Pins		
	14-1-1/4	14L-1-1/4	4-1/8"	13710	For 1" cutter	
	14-1-5/16	14L-1-5/16	1-5/16"	13720	For 2" cutter	

Standard Drills & Taps, cont'd

Type 115: Economy Jobbers Length Drills



Part # - Dia.	Length	Part # - Dia.	Length
115-1/64	3/4"	115-17/64	4-1/8"
115-1/32	1-3/8"	115-9/32	4-1/4"
115-3/64	1-3/4"	115-19/64	4-3/8"
115-1/16	1-7/8"	115-5/16	4-1/2"
115-5/64	2"	115-21/64	4-5/8"
115-3/32	2-1/4"	115-11/32	4-3/4"
115-7/64	2-5/8"	115-23/64	4-7/8"
115-1/8	2-3/4"	115-3/8	5"
115-9/64	2-7/8"	115-25/64	5-1/8"
115-5/32	3-1/8"	115-13/32	5-1/4"
115-11/64	3-1/4"	115-27/64	5-3/8"
115-3/16	3-1/2"	115-7/16	5-1/2"
115-13/64	3-5/8"	115-29/64	5-5/8"
115-7/32	3-3/4"	115-15/32	5-3/4"
115-15/64	3-7/8"	115-31/64	5-7/8"
115-1/4	4"	115-1/2	6"

Type 115: Economy Jobbers Length Drills - Letter



Part # - Letter Size	Length	Part # - Letter Size	Length
115-A	3-7/8"	115-N	4-3/8"
115-B	4"	115-O	4-1/2"
115-C	4"	115-P	4-5/8"
115-D	4"	115-Q	4-3/4"
115-E	4"	115-R	4-3/4"
115-F	4-1/8"	115-S	4-7/8"
115-G	4-1/8"	115-T	4-7/8"
115-H	4-1/8"	115-U	5"
115-I	4-1/8"	115-V	5"
115-J	4-1/8"	115-W	5-1/8"
115-K	4-1/4"	115-X	5-1/8"
115-L	4-1/4"	115-Y	5-1/4"
115-M	4-3/8"	115-Z	5-1/4"

Type 115: Economy Jobbers Length Drills - Wire



Part # - Wire Ga.	Length	Part # - Wire Ga.	Length
115-1	3-7/8"	115-31	2-3/4"
115-2	3-7/8"	115-32	2-3/4"
115-3	3-3/4"	115-33	2-5/8"
115-4	3-3/4"	115-34	2-5/8"
115-5	3-3/4"	115-35	2-5/8"
115-6	3-3/4"	115-36	2-1/2"
115-7	3-5/8"	115-37	2-1/2"
115-8	3-5/8"	115-38	2-1/2"
115-9	3-5/8"	115-39	2-3/8"
115-10	3-5/8"	115-40	2-3/8"
115-11	3-1/2"	115-41	2-3/8"
115-12	3-1/2"	115-42	2-1/4"
115-13	3-1/2"	115-43	2-1/4"
115-14	3-3/8"	115-44	2-1/8"
115-15	3-3/8"	115-45	2-1/8"
115-16	3-3/8"	115-46	2-1/8"
115-17	3-3/8"	115-47	2"
115-18	3-1/4"	115-48	2"
115-19	3-1/4"	115-49	2"
115-20	3-1/4"	115-50	2"
115-21	3-1/4"	115-51	2"
115-22	3-1/8"	115-52	1-7/8"
115-23	3-1/8"	115-53	1-7/8"
115-24	3-1/8"	115-54	1-7/8"
115-25	3"	115-55	1-7/8"
115-26	3"	115-56	1-3/4"
115-27	3"	115-57	1-3/4"
115-28	2-7/8"	115-58	1-5/8"
115-29	2-7/8"	115-59	1-5/8"
115-30	2-3/4"	115-60	1-5/8"

Standard Drills & Taps, cont'd

Type QR-AG: 1/4" Quick Release Drills



Part # - Dia.	Length	Part # - Dia.	Length
QR-AG-1/16	2-5/8"	QR-AG-5/16	4"
QR-AG-3/32	3-1/4"	QR-AG-11/32	4-7/32"
QR-AG-1/8	3-1/2"	QR-AG-3/8	4-1/4"
QR-AG-5/32	3-1/2"	QR-AG-13/32"	4-1/2"
QR-AG-3/16	3-3/4"	QR-AG-7/16	4-1/2"
QR-AG-7/32	4"	QR-AG-15/32	4-7/8"
QR-AG-1/4	4-1/2"	QR-AG-1/2	5"
QR-AG-9/32	3-13/16"		

For an assortment of the most popular QR-AG drills all in one convenient box, pick up our Quick Release Drill Bit Assortment (QR-12).

Type 50AG: Spiral Flute Car Reamers



Part # - Dia.	Min. Starting Hole	Shank Dia.	Length
50AG-3/8	5/16"	3/8"	4-5/8"
50AG-1/2	3/8"	1/2"	5-7/8"
50AG-9/16	7/16"	1/2"	5-7/8"
50AG-5/8	7/16"	1/2"	6-3/8"
50AG-11/16	15/32"	1/2"	6-3/8"
50AG-3/4	1/2"	1/2"	6-7/8"
50AG-1	7/8"	1/2"	6-7/8"

Type 135AG: Stub Length Drills



Part # - Dia.	Length	Part # - Dia.	Length
135AG-1/16	1-5/8"	135AG-19/64	2-3/4"
135AG-5/64	1-11/16"	135AG-5/16	2-13/16"
135AG-3/32	1-3/4"	135AG-21/64	2-15/16"
135AG-7/64	1-13/16"	135AG-11/32	3"
135AG-1/8	1-7/8"	135AG-23/64	3-1/16"
135AG-9/64	1-15/16"	135AG-3/8	3-1/8"
135AG-5/32	2-1/16"	135AG-25/64	3-1/4"
135AG-11/64	2-1/8"	135AG-13/32	3-5/16"
135AG-3/16	2-3/16"	135AG-27/64	3-3/8"
135AG-13/64	2-1/4"	135AG-7/16	3-7/16"
135AG-7/32	2-3/8"	135AG-29/64	3-9/16"
135AG-15/64	2-7/16"	135AG-15/32	3-5/8"
135AG-1/4	2-1/2"	135AG-31/64	3-11/16"
135AG-17/64	2-5/8"	135AG-1/2	3-3/4"
135AG-9/32	2-11/16"		

Type 25AG: Straight Flute Bottoming Style Taps



Part # - Dia. - Thread	# of Flutes	Part # - Dia. - Thread	# of Flutes
25AG-2-56	3	25AG-1/2-20	4
25AG-3-48	3	25AG-9/16-12	4
25AG-4-40	3	25AG-9/16-18	4
25AG-5-40	3	25AG-5/8-11	4
25AG-6-32	3	25AG-5/8-18	4
25AG-6-40	3	25AG-3/4-10	4
25AG-8-32	4	25AG-3/4-16	4
25AG-8-36	4	25AG-7/8-9	4
25AG-10-24	4	25AG-7/8-14	4
25AG-10-32	4	25AG-1-8	4
25AG-12-24	4	25AG-1-12	4
25AG-12-28	4	25AG-1-14	4
25AG-1/4-20	4	25AG-1-1/8-7	4
25AG-1/4-28	4	25AG-1-1/8-12	4
25AG-5/16-18	4	25AG-1-1/4-7	4
25AG-5/16-24	4	25AG-1-1/4-12	6
25AG-3/8-16	4	25AG-1-3/8-6	4
25AG-3/8-24	4	25AG-1-3/8-12	6
25AG-7/16-14	4	25AG-1-1/2-6	4
25AG-7/16-20	4	25AG-1-1/2-12	6
25AG-1/2-13	4		

Standard Drills & Taps, cont'd

Type 190AL: Left Hand Spiral Drills



Part # - Dia.	Length	Part # - Dia.	Length
190AL-1/16	1-7/8"	190AL-19/64	4-3/8"
190AL-5/64	2"	190AL-5/16	4-1/2"
190AL-3/32	2-1/4"	190AL-21/64	4-5/8"
190AL-7/64	2-5/8"	190AL-11/32	4-3/4"
190AL-1/8	2-3/4"	190AL-23/64	4-7/8"
190AL-9/64	2-7/8"	190AL-3/8	5"
190AL-5/32	3-1/8"	190AL-25/64	5-1/8"
190AL-11/64	3-1/4"	190AL-13/32	5-1/4"
190AL-3/16	3-1/2"	190AL-27/64	5-3/8"
190AL-13/64	3-5/8"	190AL-7/16	5-1/2"
190AL-7/32	3-3/4"	190AL-29/64	5-5/8"
190AL-15/64	3-7/8"	190AL-15/32	5-3/4"
190AL-1/4	4"	190AL-31/64	5-7/8"
190AL-17/64	4-1/8"	190AL-1/2	6"
190AL-9/32	4-1/4"		

Type 20AG: Spiral Pointed Plug Style Taps



Part # - Dia. - Thread	# of Flutes	Part # - Dia. - Thread	# of Flutes
20AG-6-32	2	20AG-5/16-24	2
20AG-6-40	2	20AG-3/8-16	3
20AG-8-32	2	20AG-3/8-24	3
20AG-8-36	2	20AG-7/16-14	3
20AG-10-24	2	20AG-7/16-20	3
20AG-10-32	2	20AG-1/2-13	3
20AG-12-24	2	20AG-1/2-20	3
20AG-12-28	2	20AG-5/8-11	3
20AG-1/4-20	2	20AG-5/8-18	3
20AG-1/4-28	2	20AG-3/4-10	3
20AG-5/16-18	2	20AG-3/4-16	3

Type 23AG: Straight Flute Taper Style Taps



Part # - Dia. - Thread	# of Flutes	Part # - Dia. - Thread	# of Flutes
23AG-2-56	3	23AG-1/2-20	4
23AG-3-48	3	23AG-9/16-12	4
23AG-4-40	3	23AG-9/16-18	4
23AG-5-40	3	23AG-5/8-11	4
23AG-6-32	3	23AG-5/8-18	4
23AG-6-40	3	23AG-3/4-10	4
23AG-8-32	4	23AG-3/4-16	4
23AG-8-36	4	23AG-7/8-9	4
23AG-10-24	4	23AG-7/8-14	4
23AG-10-32	4	23AG-1-8	4
23AG-12-24	4	23AG-1-12	4
23AG-12-28	4	23AG-1-14	4
23AG-1/4-20	4	23AG-1-1/8-7	4
23AG-1/4-28	4	23AG-1-1/8-12	4
23AG-5/16-18	4	23AG-1-1/4-7	4
23AG-5/16-24	4	23AG-1-1/4-12	6
23AG-3/8-16	4	23AG-1-3/8-6	4
23AG-3/8-24	4	23AG-1-3/8-12	6
23AG-7/16-14	4	23AG-1-1/2-6	4
23AG-7/16-20	4	23AG-1-1/2-12	6
23AG-1/2-13	4		

Type 24AG: Straight Flute Plug Style Taps



Part # - Dia. - Thread	# of Flutes	Part # - Dia. - Thread	# of Flutes
24AG-2-56	3	24AG-1/2-20	4
24AG-3-48	3	24AG-9/16-12	4
24AG-4-40	3	24AG-9/16-18	4
24AG-5-40	3	24AG-5/8-11	4
24AG-6-32	3	24AG-5/8-18	4
24AG-6-40	3	24AG-3/4-10	4
24AG-8-32	4	24AG-3/4-16	4
24AG-8-36	4	24AG-7/8-9	4
24AG-10-24	4	24AG-7/8-14	4
24AG-10-32	4	24AG-1-8	4
24AG-12-24	4	24AG-1-12	4
24AG-12-28	4	24AG-1-14	4
24AG-1/4-20	4	24AG-1-1/8-7	4
24AG-1/4-28	4	24AG-1-1/8-12	4
24AG-5/16-18	4	24AG-1-1/4-7	4
24AG-5/16-24	4	24AG-1-1/4-12	6
24AG-3/8-16	4	24AG-1-3/8-6	4
24AG-3/8-24	4	24AG-1-3/8-12	6
24AG-7/16-14	4	24AG-1-1/2-6	4
24AG-7/16-20	4	24AG-1-1/2-12	6
24AG-1/2-13	4		

Standard Drills & Taps, cont'd

1/4" Quick Release Combination Drill/Tap Combo

- Hi-Molybdenum tool steel ensures longer tool life.
- Combination drill and taps are ideally suited for on-site tapping in construction, maintenance and repair, assembly, production environments.
- The self-centering split point provides excellent drilling precision and accuracy.



Part Number	Size	Max Material Thickness	Thread Length
40QR-6-32	6-32 NC	.170	.283
40QR-8-32	8-32 NC	.200	.283
40QR-10-24	10-24 NC	.200	.363
40QR-10-32	10-32 NF	.200	.363
40QR-12-24	12-24 NC	.200	.369
40QR-1/4-20	1/4-20 NC	.230	.326
40QR-1/4-28	1/4-28 NF	.230	.326
40QR-5/16-18	5/16-18 NC	.480	.614
40QR-3/8-16	3/8-16 NC	.480	.585

Get an assortment of the most popular quick release tap and drill combination drills in one convenient box by ordering part number (40QR-DTs-KIT). See page 498 for additional information

1/4" Quick Release Extensions

- Patented All Hex connection system will hold any 1/4" hex shape including Power Groove and notched product
- Patented All Hex connection system holds the accessory without any wobble or play
- Made in the U.S.A.
- Not intended for impact tools



Part Number	Net Weight
QR-AG-EXT-3	3" quick release extension
QR-AG-EXT-6	6" quick release extension
QR-AG-EXT-12	12" quick release extension

Metric Drills & Taps

Type 170AG: Metric Jobber Length Drills



Part # - Dia.	Length	Part # - Dia.	Length
170AG-1.0	41mm	170AG-7.5	111mm
170AG-1.5	48mm	170AG-8.0	114mm
170AG-2.0	51mm	170AG-8.5	121mm
170AG-2.5	60mm	170AG-9.0	124mm
170AG-3.0	70mm	170AG-9.5	127mm
170AG-3.5	73mm	170AG-10.0	130mm
170AG-4.0	83mm	170AG-10.5	133mm
170AG-4.5	86mm	170AG-11.0	140mm
170AG-5.0	92mm	170AG-11.5	143mm
170AG-5.5	95mm	170AG-12.0	149mm
170AG-6.0	102mm	170AG-12.5	152mm
170AG-6.5	105mm	170AG-13.0	152mm
170AG-7.0	105mm		

Type 780: Metric Hi-Carbon Steel Plug Style Taps



Part # - Size - Pitch	# of Flutes	Part # - Size - Pitch	# of Flutes
780-3X0.50	4	780-10X1.50	4
780-3X0.60	4	780-11X1.50	4
780-4X0.70	4	780-12X1.25	4
780-4X0.75	4	780-12X1.50	4
780-5X0.80	4	780-12X1.75	4
780-5X0.90	4	780-14X1.25	4
780-6X1.00	4	780-14X1.50	4
780-7X1.00	4	780-14X2.00	4
780-8X1.00	4	780-16X1.50	4
780-8X1.25	4	780-16X2.00	4
780-9X1.00	4	780-18X1.50	4
780-9X1.25	4	780-18X2.00	4
780-10X1.00	4	780-18X2.50	4
780-10X1.25	4		

Metric Drills & Taps, cont'd

Type 21AG: Metric Spiral Pointed Plug Style Taps



Part #-Size-Pitch	# of Flutes	Part #-Size-Pitch	# of Flutes
21AG-2.5-0.45	2	21AG-5.0-0.80	2
21AG-3.0-0.50	2	21AG-6.0-1.00	2
21AG-3.5-0.60	2	21AG-8.0-1.25	2
21AG-4.0-0.70	2		

Drill & Tap Sets

Stud Out Bolt Remover Sets



Part Number	# of Drills	Sizes / Contents
BR-8	8	Type 420EX: 1, 2, 3, 4 Type 190AL: 3/32, 1/8, 3/16, 1/4
BR-10	10	Type 420EX: 1, 2, 3, 4, 5 Type 190AL: 3/32, 1/8, 3/16, 1/4, 5/16

1/2 Shank Silver & Deming Drill Set



Part Number	# of Drills	Sizes / Contents
SD-4SP	4	9/16", 5/8", 3/4", 1"

Mechanics Length Drill Sets - Small



Part Number	# of Drills	Sizes / Contents
SPM-13	13	Type 175AG: 1/16 - 1/4 by 64ths
SPM-15	15	Type 175AG: 1/16 - 1/2 by 32nds
SPM-21	21	Type 175AG: 1/16 - 3/8 by 64ths
SPM-29	29	Type 175AG: 1/16 - 1/2 by 64ths
I295P		Replacement box for SPM-29

Left-Hand Spiral Drill Sets



Part Number	# of Drills	Sizes / Contents
LF-8-SET	8	Type 190AL: 1/16 - 1/2 by 16ths
LF-12-SET	12	Type 190AL: 1/16 - 5/16 by 32nds, 3/8, 7/16, 1/2

Drill & Tap Sets, cont'd

Tap & Drill Sets



Part Number	# of Drills	Sizes / Contents
SP-12TD	12	Type 190AG: 36, 29, 25, 21, 7, F Type 20AG: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18. Box: I-12TD
SP-18TD	18	Type 190AG: 36, 29, 25, 21, 7, F, 5/16, U, 27/64 Type 20AG: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13. Box: I-18TD
SF-18TDC	18	Type 190AG: 36, 29, 25, 21, 7, F, 5/16, U, 27/64 Type 24AG: 6-32, 8-32, 10-24, 10-32, 1/4-20, 5/16-18, 3/8-16, 7/16-14, 1/2-13. Box: I-18TDC
SF-18TDF	18	Type 190AG: 33, 29, 25, 21, 3, 1, Q, 25/64, 29/64 Type 24AG: 6-40, 8-36, 10-24, 10-32, 1/4-28, 5/16-24, 3/8-24, 7/16-20, 1/2-20. Box: I-18TDF

Mechanics Length Drill Set

- Comes in a weatherproof, watertight reliable plastic container



Part Number	Description	# of Drills	Sizes / Contents
SPM-29P	Super premium mechanics drills	29	Type 175AG: 1/16 - 1/2 by 64ths
VT-29P	Vortex Point mechanics drills	29	Type 175AG: 1/16 - 1/2 by 64ths

Combination Drill & Tap Combo Set



Part Number	# of Taps	Sizes / Contents
40QR-DT5-KIT	5	6-32, 8-32, 10-24, 10-32, 1/4-20

Type 50AG Magnum Super Premium Car Reamer Set



Part Number	# of Drills	Sizes / Contents
CR-4SP	4	Type 50AG: 3/8", 1/2", 5/8", 3/4"

Drills & Taps Sets, cont'd

Large 3 Drawer Drill Kits



Part Number	Description	# of Drills	Sizes / Contents
MDK-51	Super premium mechanics drills	51	Type 175AG: 1/16 - 1/2 by 64ths
MDK-51-VT	Vortex Point mechanics length drills	51	Type 175VT: 1/16 - 1/2 by 64ths
MDK-51-115	General purpose jobber length drills	51	Type 115: 1/16 - 1/2 by 64ths
MDK-51-CN	CN-TECH cryogenic jobber drills	51	Type 190CN: 1/16 - 1/2 by 64ths
DF-29	Replacement 3 drawer metal housing		
MDK-51-REFILL	Type 175AG refill drills for MDK-51-KIT		

High Performance Cutting Tool Lubricant



- Refined, no-run formula
- Smoke free, non-flammable & non-toxic
- No methyl chloroform (1,1,1-trichloroethane) or other ozone depleting substances
- Extends tool life & reduces chip welding

Part Number	Net Weight
CL-4	4oz.
CL-16	16oz.

Each member of our outside service team drives a fully stocked vehicle to offer you on the spot VMI. We have a rotating selection to keep you up to date on the latest products that affect your industry. From building custom kits, labeling bins or getting an emergency order delivered to your door, our staff will provide the service necessary to get the job done.



Abrasives

Terminal Supply Co. Abrasives



Aluminum Oxide Resin Bonded Cut Off Wheels

- 54 Grade
- Sold individually,
- Sizes available up to 14", please inquire. Mins may apply.



Part Number	Dia.	Thickness	Arbor	Max RPM
TS-COW-2116x14	2"	1/16"	1/4"	30,558
TS-COW-2116x38	2"	1/16"	3/8"	30,558
TS-COW-218x14	2"	1/8"	1/4"	45,000
TS-COW-218x38	2"	1/8"	3/8"	45,000
TS-COW-3132x14	3"	1/32"	1/4"	25,000
TS-COW-3132x38	3"	1/32"	3/8"	25,000
TS-COW-3116x14	3"	1/16"	1/4"	25,000
TS-COW-3116x38	3"	1/16"	3/8"	25,000
TS-COW-318x38	3"	1/8"	3/8"	25,000

TS-ARBOR-32 Arbor - works with 1/4" & 3/8"

Star-Brite Surface Conditioning Discs

- For use in gasket removal, paint & rust removal, bead sanding, body scuffing & paint prep



Part Number	Color	Grade	Dia.
TS-SC2-VFINE	Gray	Very fine	2"
TS-SC2-FINE	Blue	Fine	2"
TS-SC2-MEDIUM	Burgundy	Medium	2"
TS-SC2-COARSE	Brown	Coarse	2"
TS-SC3-VFINE	Gray	Very fine	3"
TS-SC3-FINE	Blue	Fine	3"
TS-SC3-MEDIUM	Burgundy	Medium	3"
TS-SC3-COARSE	Brown	Coarse	3"

Aluminum Oxide Sanding Discs

- For use in light welds, blending surfaces, paint prep, sanding & breaking edge applications



Part Number	Grade	Dia.
TS-SP2-24	24	2"
TS-SP2-36	36	2"
TS-SP2-50	50	2"
TS-SP2-80	80	2"
TS-SP2-120	120	2"
TS-TL-PAD-2	2" back-up pad w/ 1/4" shaft	

Part Number	Grade	Dia.
TS-SP3-24	24	3"
TS-SP3-36	36	3"
TS-SP3-50	50	3"
TS-SP3-80	80	3"
TS-SP3-120	120	3"
TS-TL-PAD-3	3" back-up pad w/ 1/4" shaft	

Star-Brite Surface Conditioning Discs

- Used for paint or coating removal without damaging metal
- Open-web construction impregnated w/ silicon carbide to provide aggressive & long lasting performance
- SAIT-LOK-R threads allows for easy change-over



Part Number	Color	Grade	Dia.
TS-6206	Black	For least aggressive grinding	2"
TS-16201	Red	For medium life grinding	2"
TS-16210	Purple	For longest life grinding	2"

Auto Body Pin Stripe Eraser



- Quick, effective removal of pin striping without paint damage
- Effective spoke design

Part Number	Color	Size
TS-18060	Eraser	4" dia. x 11/16" thick
TS-18062	Mandrel	2"

3M Abrasives

Cut-Off Wheels

- Designed to provide high cut rates & long life on most materials



Part Number	Dia.	Thickness	Arbor	Max RPM
3M-66514	3"	1/32"	3/8"	35,000
3M-66513	3"	1/32"	1/4"	35,000
3M-66516	3"	1/16"	3/8"	28,000
3M-66518	4"	1/32"	3/8"	26,250
3M-66520	4"	1/16"	3/8"	21,000

Roloc Surface Conditioning Discs

- For cleaning & removal of light rust, oxides & coatings



Part Number	Grade / Color	Dia.
3M-15393	36 / Brown	1"
3M-05528	36 / Brown	2"
3M-05532	36 / Brown	3"
3M-12954	36 / Brown	4"
3M-15392	60 / Maroon	1"
3M-05527	60 / Maroon	2"
3M-05531	60 / Maroon	3"
3M-12953	60 / Maroon	4"
3M-15391	80 / Blue	1"
3M-05523	80 / Blue	2"
3M-05530	80 / Blue	3"
3M-12952	80 / Blue	4"

Scotch-Brite™ Hand Pads

- For cleaning, deburring & finishing various metals & surfaces
- Will not rust



Part Number	Grade /Color	Qty.
3M-04051	Coarse / Gray	10
3M-04029	Medium / Maroon	20
3M-04028	Fine / Lt. Gray	20

Utility Roll

- For countour sanding, deburring & rust removal
- Color may vary
- 50 yard rolls



Part Number	Grade	Width	Part Number	Grade	Width
3M-19792	80	1"	3M-19808	150	1-1/2"
3M-19811	80	1-1/2"	3M-19820	150	2"
3M-19823	80	2"	3M-19788	180	1"
3M-19791	100	1"	3M-19807	180	1-1/2"
3M-19810	100	1-1/2"	3M-19787	220	1"
3M-19822	100	2"	3M-19806	220	1-1/2"
3M-19790	120	1"	3M-19805	240	1-1/2"
3M-19809	120	1-1/2"	3M-19785	280	1"
3M-19821	120	2"	3M-19816	280	2"
3M-19789	150	1"			

Roloc Discs - 777F

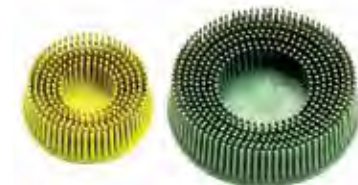
- Ideal for air tools to provide fast deburring, blending & finishing of all types of metal



Part Number	Grade / Color	Dia.
3M-76629	36 / Black	2"
3M-76631	36 / Black	3"
3M-76628	60 / Rust	1-1/2"
3M-76433	60 / Rust	2"
3M-76633	60 / Rust	3"
3M-14660	80 / Yellow	1-1/2"
3M-14661	80 / Yellow	2"
3M-76634	80 / Yellow	3"

Roloc Bristle Discs

- For cleaning, finishing, blending & deburring where extra conforming is needed



Part Number	Grade / Color	Dia.
3M-18730	50 / Green	2"
3M-18734	50 / Green	3"
3M-18732	80 / Yellow	2"
3M-18736	80 / Yellow	3"
3M-18733	120 / White	2"

Roloc Rubber Backup Pads

- Female threaded to accept any 1/4"-20 threaded shaft



Part Number	Grade	Dia.
3M-45101	Medium	1"
3M-45095	Medium	2"
3M-45092	Medium	3"
3M-45096	Hard	2"
3M-45091	Hard	3"
3M-45102	1/4"-20 threaded shaft	

SAIT United Abrasives Abrasives

Mini Encore Flap Discs

- Used for blending, finishing & grinding ferrous & non-ferrous metals, stainless steel, high tensile steel & titanium
- For use on a portable grinder in confined spaces
- More material, longer life than a single layer laminated disc
- SAIT-LOK-R threads allows for easy change-over →



Part Number	Grade	Dia.
UA-74820	40	2"
UA-74830	40	3"
UA-74822	60	2"
UA-74832	60	3"
UA-74823	80	2"
UA-74833	80	3"
UA-74824	120	2"
UA-74835	120	3"

Aluminum Oxide Flap Wheels

- Excellent choice for cleaning, deburring, polishing & blending
- 1" wide; 1/4" straight shank



Part Number	Grade	Dia.
UA-70010	60	1"
UA-70040	60	1-1/2"
UA-70050	60	2"
UA-70070	60	2-1/2"
UA-70100	60	3"
UA-70011	80	1"
UA-70041	80	1-1/2"
UA-70051	80	2"

Part Number	Grade	Dia.
UA-70071	80	2-1/2"
UA-70101	80	3"
UA-70012	120	1"
UA-70042	120	1-1/2"
UA-70052	120	2"
UA-70072	120	2-1/2"
UA-70102	120	3"

A24 Aluminum Oxide Depressed Grinding Center Wheels

- Fast Grinding (A24N) wheels are used for grinding ferrous metals & low grade stainless steel
- Long Life (A24R) wheels are used for grinding ferrous metals



Fast Grinding Part Number	Long Life Part Number	Dia.	Width	Bore
UA-20015	UA-20013	4"	1/4"	5/8"
UA-20050	N/A	4-1/2"	3/16"	7/8"
UA-20150	N/A	4-1/2"	3/16"	5/8"-11
UA-20060	UA-20063	4-1/2"	1/4"	7/8"
UA-20160	UA-20163	4-1/2"	1/4"	5/8"-11
UA-20070	UA-20073	5"	1/4"	7/8"
UA-20170	UA-20173	5"	1/4"	5/8"-11
UA-20078	UA-20079	6"	1/4"	7/8"
UA-20178	UA-20076	6"	1/4"	5/8"-11
UA-20081	UA-20080	7"	1/4"	7/8"

Premium Zirconium Ovation™ Flap Discs

- High density design for softer, cushioned grinding, blending & finishing



Part Number	Grade	Dia.	Arbor
UA-78005		4-1/2"	7/8"
UA-78105	36	4-1/2"	5/8"-11
UA-78035		6"	7/8"
UA-78045		7"	7/8"
UA-78006		4-1/2"	5/8"-11
UA-78006	40	4-1/2"	7/8"
UA-78006		5"	7/8"
UA-78008		4-1/2"	7/8"
UA-78048	60	7"	7/8"
UA-78009		4-1/2"	7/8"
UA-78049	80	7"	7/8"

SAIT United Abrasives Abrasives, cont'd

Type 1 Thin High Speed Cut-Off Wheels

- **A** - Fast cutting A36T- hard bond for aggressive cutting on rough applications
- Type 1/Type 41 shape for square, burr-free cutting
- Externally reinforced with fiberglass layers to provide ultimate safety in a thin wheel
- Cuts ferrous metals (iron,steel Welds ect.) including stainless steel
- **B** - Ultimate performance - high performance, ceramic aluminum oxide grain
- Very uniform, high density grain structure is extremely durable and self sharpening for long life and cooler cut
- Cuts ferrous and non-ferrous metals including stainless steel

Part Number	Description	Dia.	Thickness	Arbor	Fig.
UA-23040	A36T fast cutting	3"	1/16"	3/8"	A
UA-23050	A36T fast cutting	3"	.035"		A
UA-23065	A36T fast cutting	4"	1/16"		A
UA-23069	A36T fast cutting	4"	.035"		A
UA-23150	Ultimate performance	3"	.035"		B
UA-23169	Ultimate performance	4"	.035"		B



Type 1 Aluminum Oxide Cutting Wheels

- Type 1 wheels are extremely durable and self sharpening for long life & a cooler cut

Part Number	Description	Dia.	Width	Bore
UA-23174	Type 1	4-1/2"	.045"	7/8"



Type 27 Aluminum Oxide Cutting Wheels

- Type 27 wheels have special aluminum oxide formulation for fast cutting & durability
- General purpose cutting wheels
- Works with ferrous and /or non-ferrous metals (iron, steel, welds, etc.)
- Proprietary bonding system allows for faster burr free cuts

Part Number	Description	Dia.	Width	Bore
UA-22011	A60S Type 27 (depressed center)	4"	.045"	5/8" - 11
UA-22021	A60S Type 27 (depressed center)	4-1/2"		7/8"
UA-23318	A60S Type 27 (depressed center)	4-1/2"		5/8" - 11
UA-22071	A60S Type 27 (depressed center)	5"		7/8"
UA-23305	A60S Type 27 (depressed center)	5"		5/8" - 11
UA-22047	A60S Type 27 (depressed center)	6"		7/8"
UA-22053	A60S Type 27 (depressed center)	7"	7/8"	



SAIT United Abrasives Abrasives, cont'd

Wire End Brushes

- For use on portable power tools to clean & finish recessed areas or pipes
- 1/4" shank diameter



Part Number	Dia.	Wire Style	Overall Length
UA-06701	1"	.020" knot type	2-5/8"
UA-06709	1"	.020" crimped type	2-5/8"
UA-06704	1"	.020" stainless knot type	2-5/8"
UA-06702	3/4"	.014 crimped type	2-5/8"
UA-06703	3/4"	.014" knot type	2-5/8"
UA-06710	1-1/2"	.012" circular flared crimped type	1-3/4"
UA-06705	2-1/2"	.014" circular flared type	1-3/4"
UA-06712	2"	.014" crimped wheel type	1-1/4"
UA-06711	3"	.014" stainless steel circular flared crimped type	1-3/4"
UA-06713	3"	.014" crimped wheel type	1-1/4"
UA-06714	3"	.014" stainless steel crimped wheel type	1-1/4"

Carbide Burs

- Manufactured with cuts made on the left and right spirals. This design results in a finer finish on material producing smaller chips and slivers
- The double cut offers much smoother operation and greater tool control
- Excellent for confined or hard-to-reach areas
- Use for deburring, finishing, shaping and enlarging holes, removing welds, and smoothing castings

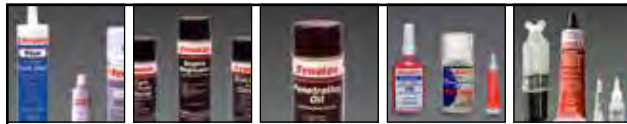


Part Number	Dia.	Length	Shank Dia.	Fig.
UA-45001	3/8"	3/4"		SA
UA-45002	1/2"	1"		SA
UA-45004	3/8"	3/4"		SB
UA-45113	1/2"	1"		SB
UA-45006	3/8"	3/4"		SC
UA-45007	1/2"	1"		SC
UA-45011	3/8"	5/16"		SD
UA-45012	1/2"	7/16"	1/4"	SD
UA-45016	1/2"	7/8"		SE
UA-45021	3/8"	3/4"		SF
UA-45022	1/2"	1"		SF
UA-45031	3/8"	3/4"		SG
UA-45032	1/2"	1"		SG
UA-45116	5/16"	3/4"		SH
UA-45117	1/2"	1-1/4"		SH

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Cyclo Service Aids

Made in the
USA

Professional RTV Gasket Makers



- 100% silicone, no fillers added
- Oxygen sensor safe
- Pressure resistant
- Low volatile formula meets GM 9985443 spec
- Forms leak proof seal
- Great adhesive for metal, plastic, wood & more

Part Number	Description	Color	Net Weight	Case Qty.
CY-C-999	OEM, hi-temp silicone	Gray-OX	13.0oz.	6

Cleaners



Part Number	Description	Net Weight	Case Qty.
CY-C-1	Carb Clean®	12.5oz.	12
CY-C-5	Carb Clean®	19oz.	12
CY-C-30	Engine Clean®: HD degreaser	16oz.	12
CY-C-111C	Brakes & Parts Clean: non-chlorinated	14oz.	12
CY-C-32	Brake & Parts Clean: non-flammable	18oz.	12
CY-C-331	Glass Cleaner	19oz.	12

Lubricants



Part Number	Description	Net Weight	Case Qty.
CY-C-10	Break Away: fast penetrating oil	13oz.	12
CY-C-33	Silicone Spray: extra heavy duty	10oz.	12
CY-C-34	White Grease: with teflon	11.5oz.	12
CY-C-661	Heavy Duty Chain & Cable Lube	11oz.	6

Fluids



Part Number	Description	Net Weight	Case Qty.
CY-C-56	DOT3 Super Heavy Duty Brake Fluid	32oz.	12

Specialty Products



Part Number	Description	Net Weight	Case Qty.
CY-C-35	Under Coating: rubberized	16oz.	12
CY-C-87	Quick Dry Electronic Cleaner	11oz.	12
CY-C-121	Battery Protector	11oz.	12

Dynatex Service Aids

RTV Silicone



Part Number	Description	Color	Net Weight	Case Qty.
DY-49200	Gasket maker, tube (carded)	Black	3oz.	12
DY-49271	Gasket maker, pressurized can	Black	8oz.	12
DY-49272	Gasket maker, pressurized can	Red	8oz.	12
DY-49203	Gasket maker, oxygen sensor safe, tube (boxed)	Blue	3oz.	12
DY-49276	Gasket maker, oxygen sensor safe, pressurized can	Blue	8oz.	12
DY-49293	Gasket maker, oxygen sensor safe, cartridge	Blue	300mL	12
DY-49204	Adhesive / sealant, tube (carded)	Clear	3oz.	12
DY-49274	Adhesive / sealant, pressurized can	Clear	8oz.	12
DY-49285	Industrial grade sealant, cartridge	White	11oz.	12
DY-49297	Industrial grade sealant, cartridge	Black	11oz.	12

ORM-D & HAZ-MAT Shipping Fees

All of the chemicals in this section are considered **ORM-D** due to changes in the laws for shipping potentially dangerous chemicals. All quantities shown in this catalog (singles & cases) will not incur any extra shipping charges. Larger quantities, however, may. If you have any questions regarding this, please contact your local sales rep or customer service at 800-989-9632.

CHEMICALS, CLEANERS & PAINT

Cleaners



Part Number	Description	Net Weight	Case Qty.
DY-52105	Carb & Choke Cleaner	12oz.	12
DY-49665	Brake & Parts Cleaner: non-chlorinated	14oz.	12

Lubricants



Part Number	Description	Net Weight	Case Qty.
DY-49596	White Lithium Grease	10.5oz.	12
DY-49634	Dielectric Grease, tube (carded)	.33oz.	12
DY-49635	Dielectric Grease, tube (boxed)	5oz.	12
DY-49550	Alum. Anti-Seize & Lubricating Compound, brush-top	4oz.	24
DY-49576	Anti-Seize & Lubricating Compound, aerosol	12oz.	12
DY-49593	Brake System Silicone Compound, tube (boxed)	5.3oz.	12
DY-49611	Red Grease, aerosol	11oz.	12

Threadlockers / Anaerobic



Part Number	Description	Net Weight	Case Qty.
DY-49442	Boltlocker, blue medium strength, bottle (carded)	24ml	6
DY-49452	Boltlocker, red high strength, bottle (carded)	24ml	6
DY-49494	Thread Sealant w/ Teflon, brush-top	4oz.	12
DY-49495	Thread Sealant w/ Teflon, brush-top	16oz.	6

Are you looking for Battery Service Aids? Go to our Battery Products section starting on page 114 to see the wide array of battery related chemicals we offer. Or contact customer service & we can find you exactly what you need.

*These items sold in case quantities only

Sealants / Repair Adhesives



Part Number	Description	Net Weight	Case Qty.
DY-39358	Hi-Tack Gasket Spray, aerosol	9oz.	12
DY-49401	Rear View Mirror Adhesive, includes primer, bottle (carded)	6ml	12
DY-49403	Super Glue, tube (carded)	3gr.	12
DY-49431	Super Glue, bottle w/applicator tip (carded)	20gr.	10
DY-49433	Super Glue Gel, tube (carded)	2gr.	12
DY-49409A	4 Minute Epoxy	1oz.	12
DY-49390	GTX Multi-Seal, black, cartridge	10.1oz.	12
DY-49391	GTX Multi-Seal, white, cartridge	10.1oz.	12*
DY-49392	GTX Multi-Seal, gray, cartridge	10.1oz.	12*

B'laster Service Aids



Part Number	Description	Net Weight	Case Qty.
CBD-16	Citrus Based Degreaser	11oz.	12
ATC-16	Air Tool Conditioner	12oz.	12
ATL-16-LUBE	Air Tool Lubricant	16oz.	12
GDL-16	Garage Door Lube	12oz.	12
BLAST-16-DS	PB Penetrating Catalyst	12oz.	12
PB-50	All-Purpose Lubricant	8oz.	12

Seymour Service Aids



Part Number	Description	Net Weight	Case Qty.
SSP-20-146	Rapid Seal Rubberized Sealant	20oz.	12
SSP-620-1502	Chain & Cable Lube	20oz.	6
SSP-620-1505	Dry Moly Lube	20oz.	6
SSP-620-1506	Dry Graphite	20oz.	6
SSP-620-1507	Heavy Duty Anti-Seize	20oz.	6
SSP-620-1543	Super Strength Penetrating Oil	20oz.	6
SSP-620-1557	Tool Cutting Oil	20oz.	6

*These items sold in case quantities only

Vibra-Tite Service Aids

Threadlockers



Part Number	Description	Net Weight
VT-12102	Blue medium strength threadlocker, tube	1.8ml
VT-12150	Blue medium strength threadlocker, bottle	50ml
VT-12506BC	Gel, blue medium strength threadlocker, tube	6ml
VT-12535	Gel, blue medium strength threadlocker, pump	35ml
VT-14002	Red high strength threadlocker, tube	1.8ml
VT-14050	Red high strength threadlocker, bottle	50ml
VT-13506BC	Gel, red high strength threadlocker, tube	6ml
VT-13535	Gel, red high strength threadlocker, pump	35ml
VT-48008	White PTFE non-hardening and non-toxic thread sealant for use in potable water systems	8oz. jar w/brush
VT-46050	White high temp. stainless steel thread locker	50ml
VT-13150	Red high strength anaerobic threadlocker designed to permanently lock fasteners up to 1" in diameter	50ml
VT-44050	Purple thread sealant for pneumatic/hydraulic sealant for fluids, power and gas system connections	50ml
VT-44025		250ml
VT-2130	VC-3 Threadmate reusable/adjustable/removal threadlocker, tube (vibration & shock resistant)	5ml
VT-21330	VC-3 Threadmate reusable/adjustable/removal threadlocker, bottle (vibration & shock resistant)	30ml
VT-42050	Pipe fitting teflon thread sealant, tube	50ml

Vibra-Tite Bench Pack

- A handy assortment of popular threadlockers, a retaining compound, and DriveGrip anti cam-out fluid, in a light weight, plastic container.

Part Number	Description
VT-27005	Includes: Vibra-Tite 121 – Medium/Removable Strength Threadlocker Vibra-Tite 140 – High Strength Threadlocker Vibra-Tite 150 – Wicking Grade/Medium Strength Threadlocker Vibra-Tite 541 – High Strength Retaining Compound Vibra-Tite DriveGrip – Anti cam-out Fluid



Anti Seize Lubricants

- Prevents seizing, galling, pitting, excessive wear & corrosion
- Will not wash off, squeeze or burn out at elevated temperatures & pressure

Part Number	Used For	Description	Net Weight
VT-90706	All metal	Aluminum, brush-top can	16oz.
VT-90708	All metal	Aluminum, brush-top can	8oz.
VT-90718	High temp & harsh conditions	Copper, brush-top can	8oz.
VT-90728		Nickel, brush-top can	8oz.



RTV Silicone

- Creates a permanent waterproof bond for sealing & insulating
- Withstands solvents, heat & vibration
- For maintenance & general repair, bonds plastics, metal, glass & vinyl

Part Number	Description	Net Weight
VT-99530	RTV silicone gasket maker, clear, cartridge	300ml
VT-99830	RTV silicone gasket maker, black, cartridge	300ml
VT-99930	RTV silicone gasket maker, gray, cartridge	300ml
VT-73050	Red, flexible solvent resistant gasket maker suitable for aluminum and rigid machined flanges	50ml tube



Vibra-Tite Service Aids, cont

Adhesives

Part Number	Works On	Description	Net Weight
VT-30120	Wood, leather, fiberglass	Super glue, tube	20gm
VT-30410	Metals, rubber, plastics	Super glue, tube	1/3oz.
VT-35403	Porous materials	Super glue, hi-viscosity gel, tube	3gm
VT-989004	Wood, metal, glass, stone, brick, fiberglass, carbon, foam	Polyurethane adhesive, sandable, paintable, stainable, low foam bottle	4oz.



Epoxy Putty Sticks

- Epoxy dough-like kit that is activated by hand mixing the material
- Cures in 5 minutes, hardens like steel in 20 minutes, even underwater
- Can be drilled, filed, tapped or sanded in 1 hour

Part Number	Color	Net Weight
VT-PS034B	Black	4oz.
VT-PS014G	Gray	4oz.
VT-PS024W	White	4oz.



Viz-Torque Tamper Detection Marker

- Visually detect torque movement due to vibratory loosening or tampering of fittings, assemblies, nuts, bolts & studs
- Dries in 20 minutes & is fully cured in 24 hours
- Compatible w/ most metals, paints & plastics when applied to a clean, dry surface

Part Number	Color	Net Weight
VT-20211	Orange	1oz.
VT-20231	Blue	1oz.
VT-20271	Yellow	1oz.



Hand Cleaners

Liquid Hand Cleaners



Part Number	Description	Size	Case Qty.
GLK-11-4400	Citrus Lotion	4000ml	4
GLK-12-4400	Pumicized Citrus Lotion	4000ml	4
GLK-14-4400	Premium Blue™ Hand & Body Soap	4000ml	4
GLK-20-4400	Pumicized Turbo™ Cherry Enriched	4000ml	4
GLK-0-5000	Dispenser / Reservoir		

Cleaning Wipes

- Removes dirt, grease & grime
- Features: texturized, easy dispensing lid



Part Number	Size	Qty./Pkg.	Fig.
GLK-21-9060	10" x 12"	90	A
SURGE-HT	12" x 8"	75	B

Washable Microfiber Grab-A-Rags

- Pop-up dispenser
- Edgeless technology for scratch free cleaning
- Machine washable & reusable
- Colors may vary

Part Number	Description	Size
TS-MRAG	50 count box	12" x 12"



Industrial Maintenance Paints

Spray Paints

Industrial Paints & Primers

- High solids paint does not run or sag
- Gives twice the coverage of conventional spray paint
- Resists oil, gas, heat & sunlight
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-620-1407	Red oxide	20oz.
SSP-620-1411	Aluminum	20oz.
SSP-620-1412	Flat white	20oz.
SSP-620-1413	Gloss white	20oz.
SSP-620-1415	Gloss black	20oz.
SSP-620-1416	ANSI 61 Gray	20oz.
SSP-620-1417	ANSI 49 Dark gray	20oz.
SSP-620-1418	ANSI 70 Light gray	20oz.
SSP-620-1419	Safety yellow	20oz.
SSP-620-1423	Safety red	20oz.

Part Number	Color	Net Weight
SSP-620-1427	Safety blue	20oz.
SSP-620-1430	Lift blue	20oz.
SSP-620-1431	Lt. gray primer	20oz.
SSP-620-1432	Sky Jack orange	20oz.
SSP-620-1433	Flat black	20oz.
SSP-620-1436	JL orange	20oz.
SSP-620-1435	Tan	20oz.
SSP-620-1437	Waste Management green	20oz.
SSP-620-1441	IHC red	20oz.
SSP-620-1443	New equipment yellow	20oz.
SSP-620-1449	Dark green	20oz.
SSP-620-1450	Omaha orange	20oz.
SSP-620-1452	Safety green	20oz.
SSP-16-805	White primer	16oz.
SSP-16-807	Red iron oxide primer	16oz.
SSP-16-828	Black primer	16oz.

Spray Paints, cont'd

General Use Enamel Paints & Primers

- For indoor / outdoor use
- Does not include lead, CFC's or chlorinated solvents
- Designed for close-up spraying (8-10")
- Eliminates wasted paint, over-spraying & sag
- Sold single or in cases of 12



Part Number	Color	Net Weight
SSP-98-2	Gloss white	16oz.
SSP-98-3	Gloss black	16oz.
SSP-98-4	Cherry red	16oz.
SSP-98-10	Flat black	16oz.
SSP-98-12	Flat white	16oz.
SSP-98-15	Light gray primer	16oz.
SSP-98-24	Satin black	16oz.
SSP-98-26	Red oxide primer	16oz.
SSP-98-34	Gloss light yellow	16oz.
SSP-98-35	Gloss medium blue	16oz.
SSP-98-88	Gloss bright green	16oz.

Farm & Industry Enamel Paint

- For indoor / outdoor use
- Inhibits rust, resists heat & gasoline
- Hides well, dries fast, resists chipping & peeling
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-16-213	New Caterpillar yellow	16oz.
SSP-16-212	Old Caterpillar yellow	16oz.
SSP-16-214	International Harvester red	16oz.
SSP-16-266	New John Deere yellow	16oz.
SSP-16-268	New John Deere green	16oz.
SSP-20-1686	School bus yellow	20oz.

Inverted Marking Paint

- Produces vivid marks
- Does not clog
- Safe for grass
- VOC compliant
- Water based
- Sold single or in cases of 12



Part Number	Color	Net Weight
SSP-20-652	White	20oz.
SSP-20-653	Precaution Blue	20oz.
SSP-20-657	Fluorescent orange	20oz.
SSP-20-658	Fluorescent red / orange	20oz.
SSP-20-670	Alert orange	20oz.
SSP-20-676	Hi-Vis yellow	20oz.
SSP-20-679	Fluorescent Pink	20oz.

Rust Converter & Primer

- Penetrates rust on any iron or steel surface & turns it into a protective black coating
- Compatible with most top coats
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-16-045	Black	16oz.

Weldable Primer

- Zinc enhanced coating
- Less smoke & electrode wearing when welding
- Cuts faster than 100% zinc rich coatings
- Stops rust creepage
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-20-1675	Gray	20oz.

Spray Paints, cont'd

Professional Trim Paint

- Formulated using an acrylic resin that resists fading from UV light & degradation from chemicals
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-20-1679	Semi-gloss black	16oz.

Easy Trigger Spray Gun

- Attaches to any standard spray paint can
- Holds down spray head for no more sore fingers
- Paint not included



Part Number	Color
SSP-Z-13	Spray trigger gun

Hi-Heat Coating

- Withstands temps up to 1200°F on a continuous basis
- Creates porcelain-like bond at high temps
- Resists peeling, loss of adhesion & blistering
- Sold single or in cases of 6



Part Number	Color	Net Weight
SSP-16-1201	Aluminum	16oz.
SSP-16-1203	Black	16oz.

Inverted Paint Marking Wand

- Lightweight tool is ideal for a wide range of precise marking applications
- Paint not included



Part Number	Color
SSP-Z-606	Inverted paint marker

Keep your shop in order by making sure that every can of paint, cleaner or lubricant has its place. Go to page 469 for all of the different storage options we have in stock today.

Paint Markers

Bullet Tip Paint Markers

- Indoor & outdoor use
- Permanent fade & abrasion resistant, waterproof & quick drying
- Oil based opaque paint
- Writes on metal & most surfaces



Part Number	Color	Part Number	Color
PM-16-BLK	Black	PM-16-RED	Red
PM-16-BLU	Blue	PM-16-WHT	White
PM-16-GRN	Green	PM-16-YEL	Yellow

Rolling Ball Steel Tip Paint Markers

- Indoor & outdoor use
- Will withstand extreme weather conditions, washing, oil, grease & rubbing
- Bright, opaque & sharply defined marks
- Glides effortlessly on any surface



Part Number	Color	Part Number	Color
MM-66-BLK	Black	MM-66-RED	Red
MM-66-BLU	Blue	MM-66-WHT	White
MM-66-GRN	Green	MM-66-YEL	Yellow

Trusted Manufacturers

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Able 2 Products
American Superlite
Anderson Power Products
Antigravity Batteries
AU - VE - CO
Bayco Products
Betts Industries
B'laster
Bosch
CEC Industries
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DSG-CANUSA
Durham
Dynatex
East Penn Manufacturing
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Ericson Manufacturing
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FTZ
Gent-L-Kleen
Greenlee Tools

Grote Industries
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Hella
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Star Warning Systems
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Sureflex
TechFlex
Temco Communications
The Gorilla Glue Co.
Thomas & Betts
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Tridon
Truck-Lite
Trux Accessories
United Abrasive/Sait
Unity Manufacturing
Velcro
Velvac
Vibra-Tite
Wagner Lighting
Whelen

World Headquarters

1800 Thunderbird Troy, MI 48084

Branch Locations

Chicago, IL
Cleveland, OH

Grand Rapids, MI
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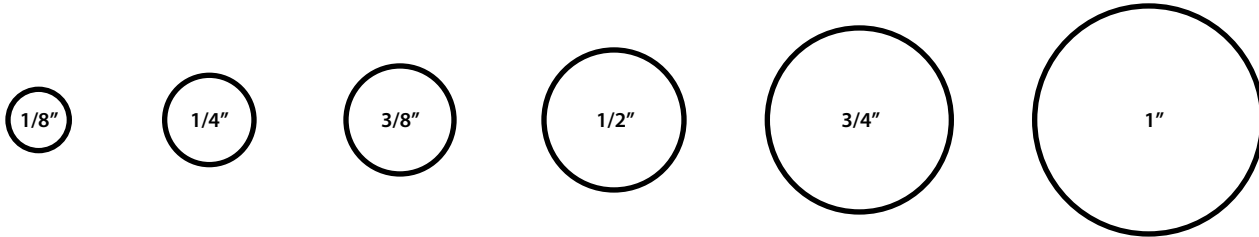
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W-ET313DC-8Z	376	WH-H205B12	320						
W-ET313SR-090A	376	WH-H335N12	320						
W-ET420DC-M4805	376	WH-H35TL12	320						
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W-ET425DC-10Z	375	WH-NP6BW	255						
W-ET425DC-12Z	375	WH-QFFORD1S	306						
W-ET425DC-16Z	375	WH-QFGM1S	306						
W-ET425DC-20Z	375	WH-S30TL	320						
W-ET425DC-4S12	375	WH-STOPSN12	320						
W-ET425DC-4S16	375	WM-12P	88						

PART NUMBER INDEX

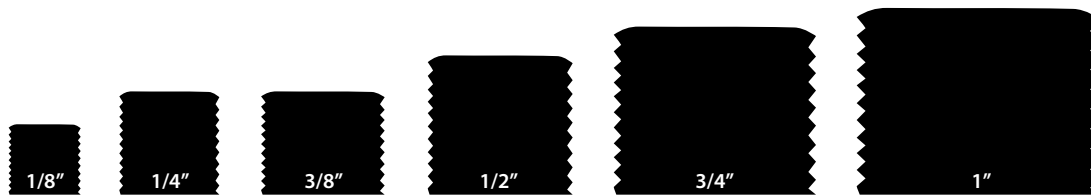
Brass Fitting Thread Profiles

Pipe Threads

Actual outside diameters of pipe threads

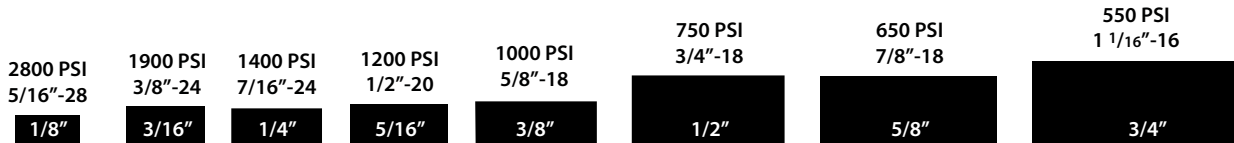


Actual male thread profiles



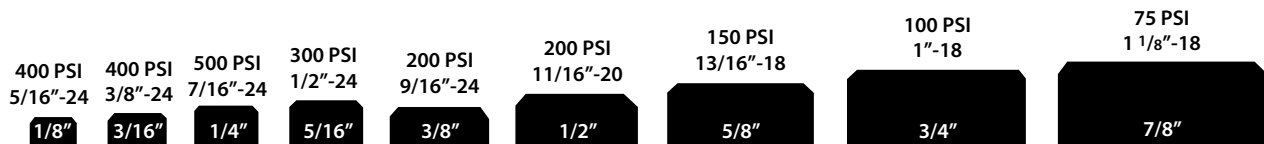
Inverted Flare

Actual outside diameters of male inverted flare threads

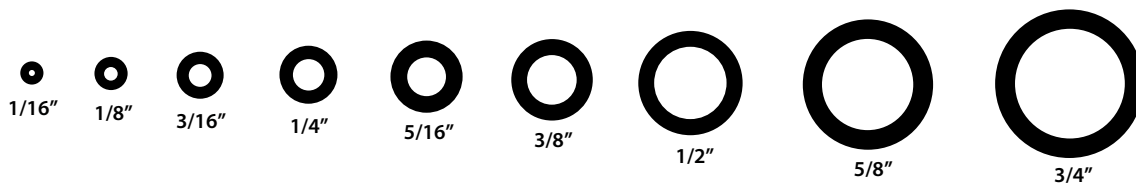


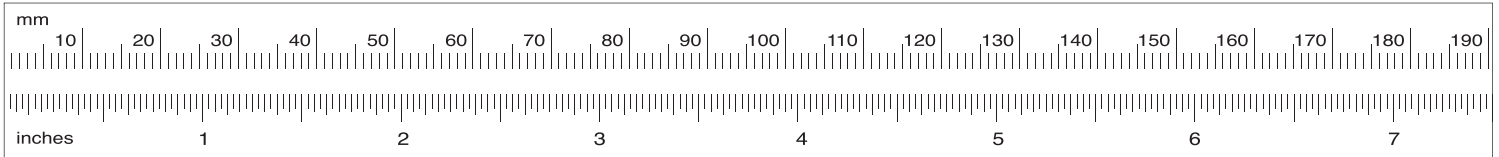
Compression

Actual profile of compression threads



Tube O.D. Size





Temperature Conversions			
°C	°F	°C	°F
-100	-148	+220	+428
-95	-139	+225	+437
-90	-130	+230	+446
-85	-121	+235	+455
-80	-112	+240	+464
-75	-103	+245	+473
-70	-94	+250	+482
-65	-85	+255	+491
-60	-76	+260	+500
-55	-67	+265	+509
-50	-58	+270	+518
-45	-49	+275	+527
-40	-40	+280	+536
-35	-31	+285	+545
-30	-22	+290	+554
-25	-13	+295	+563
-20	-4	+300	+572
-15	+5	+305	+581
-10	+14	+310	+590
-5	+23	+315	+599
+0	+32	+320	+608
+5	+41	+325	+617
+10	+50	+330	+626
+15	+59	+335	+635
+20	+68	+340	+644
+25	+77	+345	+653
+30	+86	+350	+662
+35	+95	+355	+671
+40	+104	+360	+680
+45	+113	+365	+689
+50	+122	+370	+698
+55	+131	+375	+707
+60	+140	+380	+716
+65	+149	+385	+725
+70	+158	+390	+734
+75	+167	+395	+743
+80	+176	+400	+752
+85	+185	+405	+761
+90	+194	+410	+770
+95	+203	+415	+779
+100	+212	+420	+788
+105	+221	+425	+797
+110	+230	+430	+806
+115	+239	+435	+815
+120	+248	+440	+824
+125	+257	+445	+833
+130	+266	+450	+842
+135	+275	+455	+851
+140	+284	+460	+860
+145	+293	+465	+869
+150	+302	+470	+878
+155	+311	+475	+887
+160	+320	+480	+896
+165	+329	+485	+905
+170	+338	+490	+914
+175	+347	+495	+923
+180	+356	+500	+932
+185	+365	+505	+941
+190	+374	+510	+950
+195	+383	+515	+959
+200	+392	+520	+968
+205	+401	+525	+977
+210	+410	+530	+986
+215	+419	+535	+995

Conversion Chart for Fraction / Decimal / Millimeter					
Fraction	Decimal	Millimeter	Fraction	Decimal	Millimeter
1/64"	.0156	0.397	33/64"	.5156	13.097
1/32"	.0312	0.794	17/32"	.5312	13.494
3/64"	.0468	1.191	35/64"	.5468	13.891
1/16"	.0625	1.588	9/16"	.5625	14.288
5/64"	.0781	1.984	37/64"	.5781	14.684
3/32"	.0937	2.381	19/32"	.5937	15.081
7/64"	.1093	2.778	39/64"	.6093	15.478
1/8"	.1250	3.175	5/8"	.6250	15.875
9/64"	.1406	3.572	41/64"	.6406	16.272
5/32"	.1562	3.969	21/32"	.6562	16.669
11/64"	.1718	4.366	43/64"	.6718	17.066
3/16"	.1875	4.763	11/16"	.6875	17.463
13/64"	.2031	5.159	45/64"	.7031	17.859
7/32"	.2187	5.556	23/32"	.7187	18.256
15/64"	.2343	5.954	47/64"	.7343	18.653
1/4"	.2500	6.350	3/4"	.7500	19.050
17/64"	.2656	6.747	49/64"	.7656	19.447
9/32"	.2812	7.144	25/32"	.7812	19.844
19/64"	.2968	7.541	51/64"	.7968	20.241
5/16"	.3125	7.938	13/16"	.8125	20.638
21/64"	.3281	8.334	53/64"	.8281	21.034
11/32"	.3437	8.731	27/32"	.8437	21.431
26/64"	.3593	9.128	55/64"	.8593	21.828
3/8"	.3750	9.525	7/8"	.8750	22.225
25/64"	.3906	9.922	57/64"	.8906	22.622
13/32"	.4062	10.319	29/32"	.9062	23.019
27/64"	.4218	10.716	59/64"	.9218	23.416
7/16"	.4375	11.113	15/16"	.9375	23.813
29/64"	.4531	11.509	64/54"	.9531	24.209
15/32"	.4687	11.906	31/32"	.9687	24.606
31/64"	.4843	12.303	63/64"	.9843	25.003
1/2"	.5000	12.700	1"	1.000	25.400

Conversion Chart for Stud Size / Screw Dia.		
Standard Stud Size	Screw Dia.	
●	#2	.086
●	#4	.112
●	#6	.138
●	#8	.164
●	#10	.190
●	1/4"	.250
●	5/16"	.312
●	3/8"	.375
●	7/16"	.437
●	1/2"	.500
●	5/8"	.625
●	3/4"	.750
●	7/8"	.875

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