TERMINAL SUPPLY CO.

2011/2012 Product Catalog



TERMINAL SUPPLY CO. Since 1966

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

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

This 2011/2012 catalog is dedicated to all of the members of Terminal Supply Company. From our beginnings in 1966, when our founder Dave Leslie laid the foundation of providing a level of service that was unmatched in the industry, Terminal Supply has grown to over 150 employees. Each one of us understands that our customer's satisfaction is our primary goal and each day we strive to exceed your expectations.

A few of us have dedicated over 30 years to Terminal Supply, including general manager John DeBrincat , office manager Kim Grant, warehouse manager Melissa Wichman as well as Mary Bey in packaging. Out in the field, our sales staff also has the experience and knowledge that only years of servicing customers can provide. In a world that often views employees as a burden, they are our greatest asset and are ready to help you, our customer, any way they can.

Please take a moment to review our latest catalog. With over 150 pages of expanded products, we are constantly striving to keep pace with your needs, as well as our vendor's latest offering. From all of us at Terminal Supply, we truly appreciate your interest and wish you all the best.

Sincerely,

Scott Leslie

President





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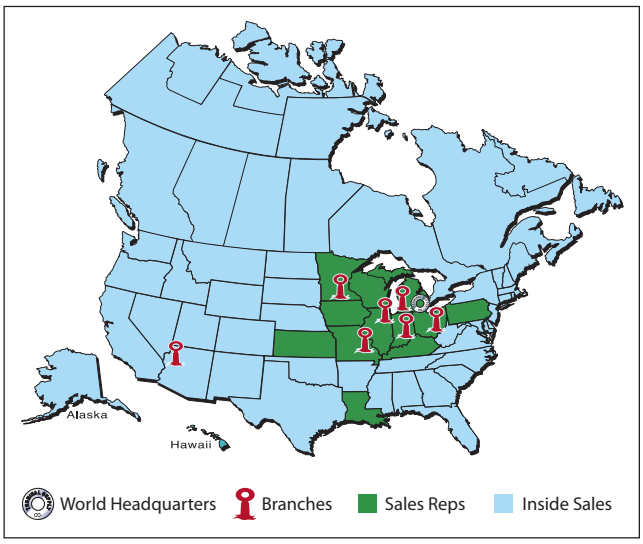
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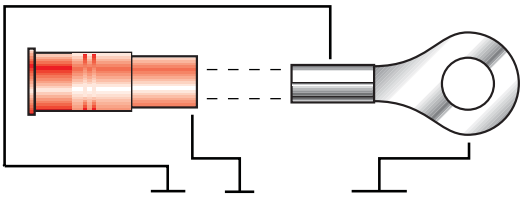
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Part Number Explanation for Ring, Spade, Hook & Splice Terminals



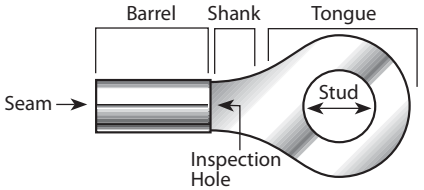
A - 521 - 08

Letters indicate wire gauge & insulation color.		
M	26 - 24	Yellow
A	22 - 18	Red
B	16 - 14	Blue
C	12 - 10	Yellow
D	8	Red
E	6	Blue
F	4	Yellow
G	2	Red
H	1/0	Blue
J	2/0	Yellow
K	3/0	Red
L	4/0	Blue
P	14-12	Yellow

The first number specifies the barrel style & type of insulation. The second & third numbers indicate head design.		
1	Non-Insulated / Butted Seam	26ga. - 10ga.
2	Insulated / PVC Jacket	22ga. to 10ga.
3	Non-Insulated / Brazed Seam	22ga. - 4/0ga.
4	Non-Insulated / Support Sleeve	22ga. - 14ga.
5	Insulated / Nylon Molded	22ga. - 10ga.
6	Insulated / PVC Brazed Seam	8ga. - 3/0ga.
8	Insulated / Nylon Extruded	22ga. - 10ga.
9	Insulated / Nylon Support Sleeve	26ga. - 10ga.

Last numbers indicate the stud size.	
02	#2
04	#4
06	#6
08	#8
10	#10
14	1/4"
56	5/16"
38	3/8"
76	7/16"
12	1/2"
58	5/8"
34	3/4"
78	7/8"

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



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 Terminals

	M-1113-02	M-1113-04	M-1113-06	M-1118-08	M-1118-10	M-1116-02	M-1121-04	M-1120-06
.020 stock								
stud size	#2	#4	#6	#8	#10	#2	#4	#6

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for a wide variety of options.

	Quick Disconnects		Butt Connectors	
	M-1130	M-1136	60-NB	KSM-2422*
.020 stock				
tab size	.110"	.187"	(nylon)	

*This terminal accepts 24-22ga.

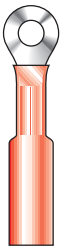
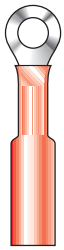
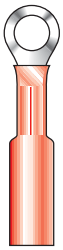
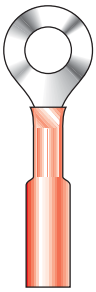
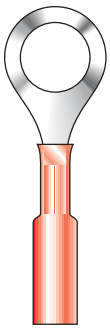
22-18 Gauge Terminals

- 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

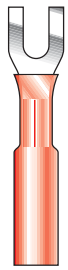
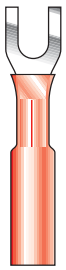
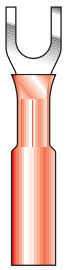
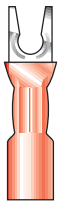
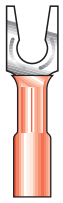
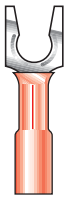
If you're looking for an assortment of shrink terminals, check out our Master Shrink Terminal Kit (MSK-32) on page 390.

Shrink terminals require a crimper & a torch, see our tool section starting on page 399 for these & other tooling options.

	SA-221-06	SA-221-08	SA-221-10	SA-222-14	SA-226-38
.032 stock					
stud size	#6	#8	#10	1/4"	3/8"

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

Snap Spades

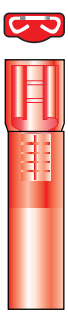
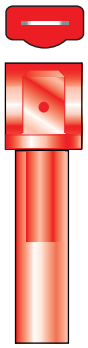
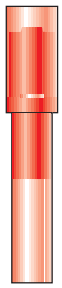
	SA-235-06	SA-235-08	SA-235-10	SA-2193-06	SA-2194-08	SA-2195-10
.032 stock						
stud size	#6	#8	#10	#6	#8	#10

For proper termination of our adhesive lined shrink terminals, first, use an insulated crimping tool (not an anvil die), see page 401 for a variety of tooling options. Then, apply heat, with one of our torches on page 406, to melt the tubing & adhesive.

Fully Insulated Quick Disconnects

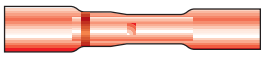
Quick Disconnects

Bullet Connectors

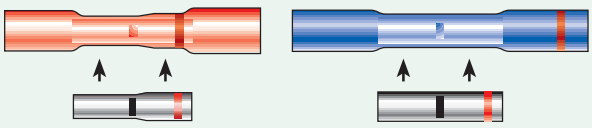
	SAA-9261	SAA-9260	STA-MCT	SAA-2140	SSLA-96	SA-269
front view						
.032 stock						
tab size	.250"	.250"	.250"	.250"	diameter	.156"	.156"

Butt Connector

Step Down Connectors

	STC-A	NSAM-648	SBA-631	NSBA-631
.032 stock				
		20-18ga. to 22-22ga.	16-14ga. to 22-18ga.	16-14ga. to 22-18ga.

The step down connectors beginning with NS "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.



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).

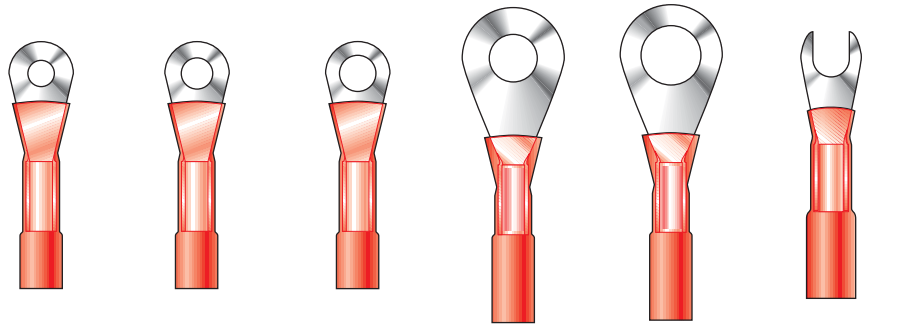
The only tool needed for our Solder/Shrink Terminals is a heat source, check out our TS-4000-HG torch on page 406.

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

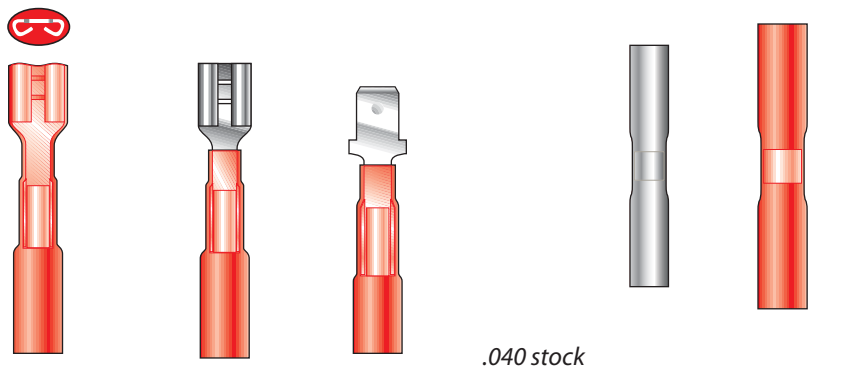
Easy installation with pre-measured solder takes the guess work out of the soldering process. Solder contains rosin flux.

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

	SSA-221-06	SSA-221-08	SSA-221-10	SSA-222-14	SSA-222-56	SSA-235-10
.040 stock stud size	#6	#8	#10	1/4"	5/16"	#10



	Fully Insulated = Quick Disconnect =	Insulated Support Sleeve = Quick Disconnects =		= Butt Connectors =	
	SSA-850	SSA-2410	SSA-MCT	SSA-2422*	SSA-2218
front view / .032 stock tab size	.250"	.250"	.250"	.040 stock	

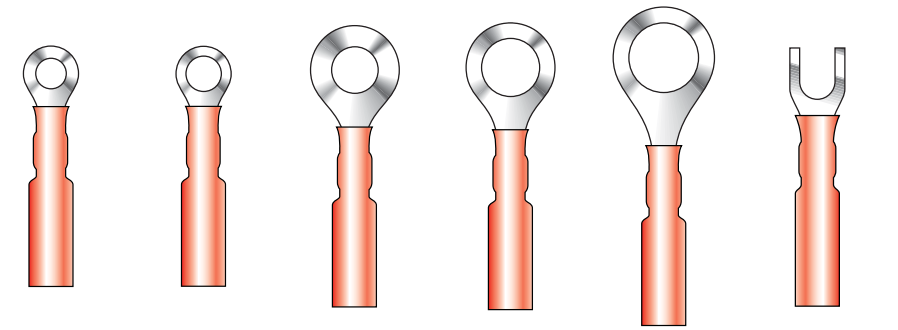


*This terminal accepts 24-22ga.

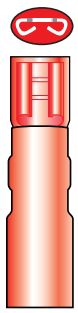
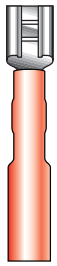
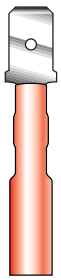
20-18 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals

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 tooling options, check out page 406.

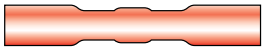
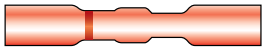
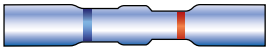
	KSA-21-08	KSA-21-10	KSA-21-14	KSA-21-56	KSA-21-38	KSA-22-10
.032 stock stud size	#8	#10	1/4"	5/16"	3/8"	#10



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

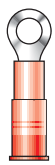
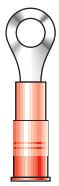
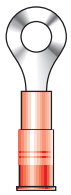
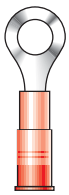
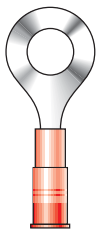
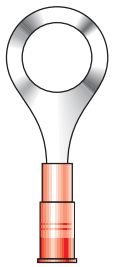
	Fully Insulated Quick Disconnect	Quick Disconnects	
	KSA-850	KSA-2120	KSA-MCT
front view			
.032 stock			
tab size	*.250″*	*.250″*	*.250″*

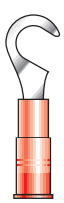
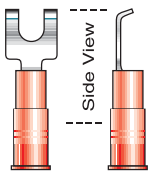
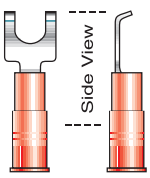
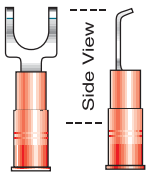
These terminals feature the reliability of a mechanical crimp with the strength & conductivity of solder. Shrink temperature is 275ºF.

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

**This terminal accepts 24-22ga.*

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*		*#10*	*#6*		*#10*

22-18 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

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

For best crimping results, we recommend crimper PA-1308. See page 401 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.

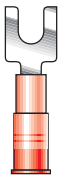
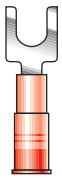
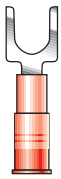
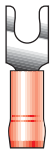
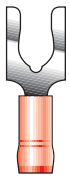
Be sure to check the front view of your **fully insulated connectors** before ordering. Some manufacturers designs may vary. If you don't see what you need, let us know!

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

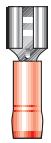
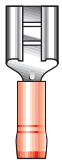
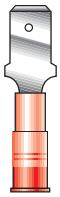
Support sleeves are used to give the insulation & crimp extra support in a heavy duty or high vibration situation.

For a wide range of nylon terminals in one box, check out our Auto Nylon Terminal Kit (AUTO-KIT-LG-N) on page 390.

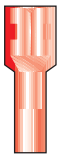
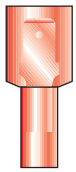
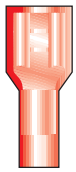
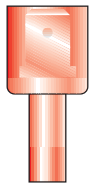
Block Spades / Snap Spades

	A-534-06	A-534-08	A-534-10	AA-8704-06	AA-8714-08	AA-8715-10
.032 stock						
stud size	#6	#8	#10	#6	#8	#10

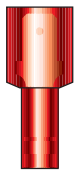
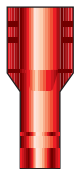
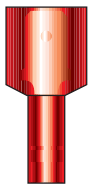
Insulated Support Sleeve Quick Disconnects

	AA-8131	AA-8137	MCT-A-587	AA-8134	AA-8140	MCT-5A
.020 stock / .032 stock						
tab size	.110"	.187"	.187"	.110"	.250"	.250"

Fully Insulated Quick Disconnects w/o Support Sleeve

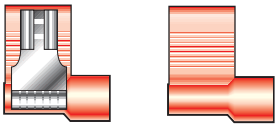
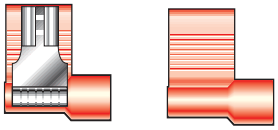
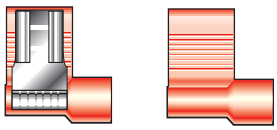
	A-887	MCT-A-887	A-850	MCT-A-850
front view				
.020 stock / .032 stock				
tab size	.187"	.187"	.250"	.250"

Fully Insulated Quick Disconnects

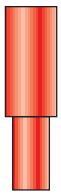
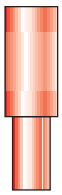
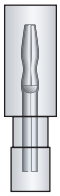
	71F-187-20-NBL	71M-187-20-NBL	71F-250-32-NBL	71M-250-32-NBL
front view				
.020 stock / .032 stock				
tab size	.187"	.187"	.250"	.250"

22-18 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

Fully Insulated Female Flag Quick Disconnects

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

Bullet Connector

	BLT-R	A-589	BLT-RF	A-579	PC2005-F*	PC2005-M*
						
diameter	.156″	.156″	.180″	.180″	.210″	.210″

*These connectors accept 20-18ga.

Need a versatile tool? Check out our crimper/wire stripper (RAR-100) on page 400. It crimps, cuts & strips a wide variety of terminals & wire.

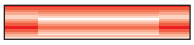
Parallel Connector

ASN-302



Butt Connector

ASN-345



.020 stock

Butted Seam Funnel Entry Butt Connector

A-945-DK



Seamless Funnel Entry Butt Connector

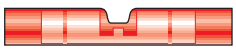
AS-932



Funnel entry butt connectors are the perfect solution when using wire with thick insulation, such as our GXL wire on page 9.

Aircraft Window Splice

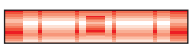
AW-542



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

Moisture Resistant Butt Connector

A-500-G



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

Heavy Duty Butt Connector

A-845



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

Cool Seal Butt Connector

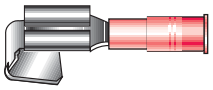
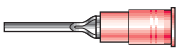
COOLSEAL-A



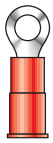
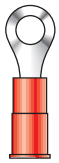
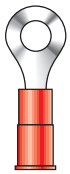
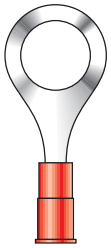
A Cool Seal® butt connector is a heatless & solderless, fully sealed connection. Activate the sealant by simply crimping the terminal.

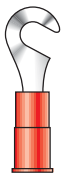
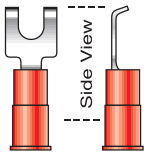
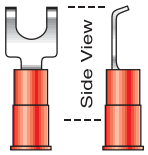
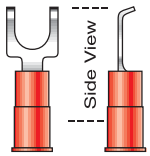
22-18 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

Piggy back terminals work with one female & one male quick disconnect terminal. See page 11 for all of your options in 22-18ga. nylon.

	Piggy Back Terminal	Pin Terminal
	PBT-2A	TMDNTC-125
		
.032 stock tab size	.250"	
diameter		.08"

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

					Flange Spades			
	A-210-06	A-210-08	A-235-06	A-235-08	A-235-10	A-215-06	A-215-08	A-215-10
								
.032 stock stud size	#6	#8	#6	#8	#10	#6	#8	#10

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

Check out our Auto PVC Terminal Kit (AUTO-KIT-LG-P) on page 390 for a wide selection of PVC terminals in one organized location.

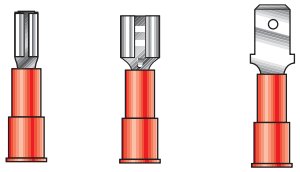
For best crimping results, we recommend crimper PA-1308. See page 401 for more info.

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

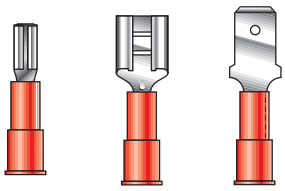
22-18 Gauge: PVC Terminals, cont'd

Quick Disconnects

	AA-2131	AA-2137	MCT-A-287
.020 stock tab size	.110"	.187"	.187"

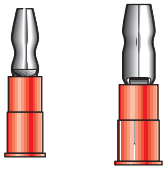


	AA-2134	AA-2140	MCT-2A
.032 stock tab size	.110"	.250"	.250"



Bullet Connectors

	A-289	A-279
diameter	.156"	.180"



Parallel Connector

	A-202
.032 stock	



Butt Connector

	A-245



Step Down Connector

	BA-631
	16-14 to 22-18ga.



Vinyl Step Down Connectors

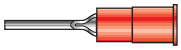
	NAM-648	NBA-631
.032 stock		
	22-18 to 24-22ga.	16-14 to 22-18ga.



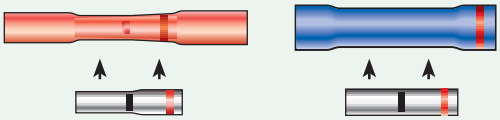


Pin Terminal

	TMETC-125
diameter	.08"

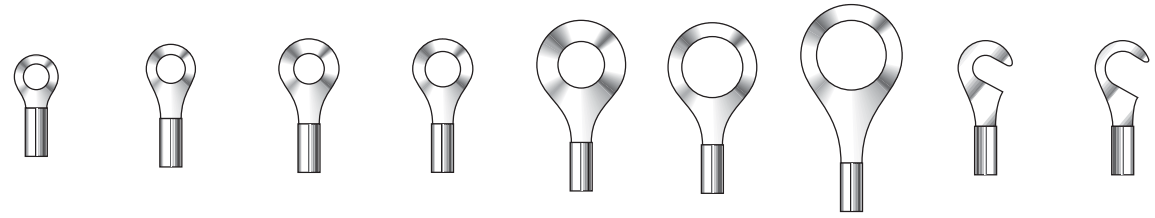


The step down connectors beginning with N "step down" using ends that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger wire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



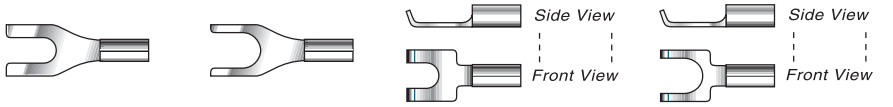
22-18 Gauge: Non-Insulated Terminals

	A-320-06	A-332-06	A-321-08	A-321-10	A-322-14	A-322-56	A-326-38	A-310-06	A-310-08
.032 stock stud size	#6	#6	#8	#10	1/4"	5/16"	3/8"	#6	#8



Flange Spades

	A-335-06	A-335-10	A-115-06	A-115-10
.032 stock				
stud size	#6	#10	#6	#10



The suggested crimper for these terminals is the WT-111M, or if you're looking for a ratchet style crimper PA-8024 located on page 401.

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

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

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection.

Block Spades / Snap Spades

	A-134-06	A-134-08	A-134-10	AA-1704-06	AA-1714-08	AA-1715-10
.032 stock stud size	#6	#8	#10	#6	#8	#10

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-174	A-187	A-175
.020 stock tab size	.187"	.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"	.250"

Bullet Connectors

	A-189	A-179
diameter	.156"	.180"

Parallel Connector

	AS-302
.032 stock	

Butt Connector

	AS-345

Step Down Connectors

	NAM-331	BA-331	NBA-331
.032 stock	22-18 to 24-22ga.	16-14 to 22-18ga.	16-14 to 22-18ga.

Pin & Socket Terminals

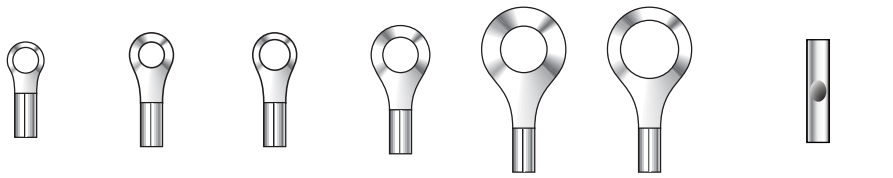
	TC-125	BP-129*	BS-129*
diameter	.08"	.093"	.093"

*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.

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
							
.032 stock stud size	#6	#6	#8	#10	1/4"	5/16"	

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

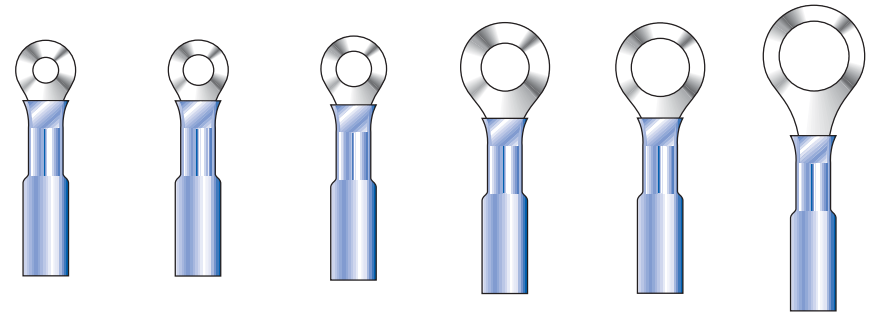
The suggested crimper for non-insulated terminals is the WT-111M, located on page 401.

Our **high temp terminals** are rated up to 900ºF.

16-14 Gauge Terminals

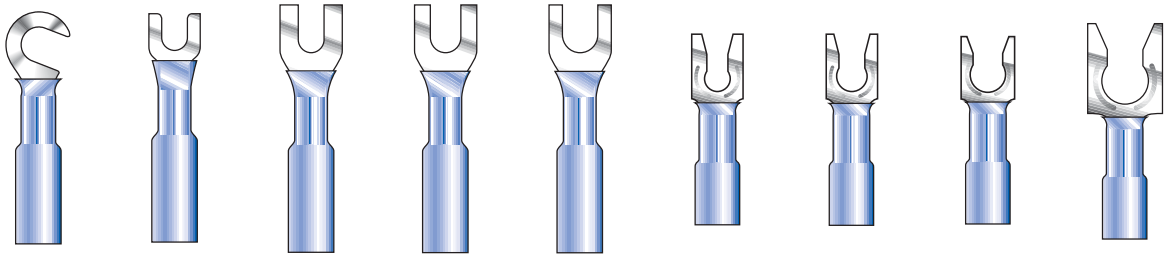
- Most of our 16-14ga. terminals have a 1/4" barrel length.
- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 16-14ga. terminals are shown actual size
- Most of these terminals are sold in packages of 100, please inquire for details

16-14 Gauge: Adhesive Lined Shrink Terminals

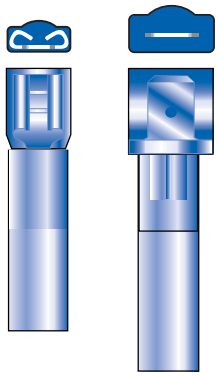
	SB-237-06	SB-237-08	SB-239-10	SB-225-14	SB-225-56	SB-218-38
						
.032 stock stud size	#6	#8	#10	1/4"	5/16"	3/8"

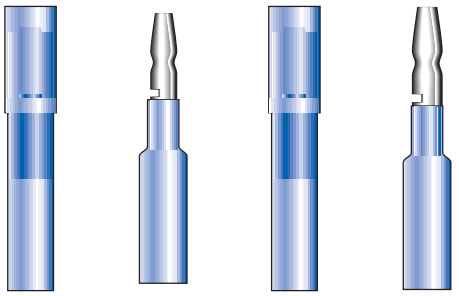
For proper termination of our adhesive lined shrink terminal, first, use an insulated crimping tool (not an anvil die) we recommend tool #WT-111K. Then use a heat source, like torch GB-2001 on page 406 to melt the adhesive lined shrink tubing.

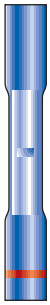
Snap Spades

	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
									
.032 stock stud size	#10	#6	#6	#8	#10	#6	#8	#10	1/4"

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

	Fully Insulated Quick Disconnects		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"

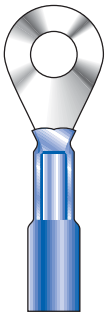
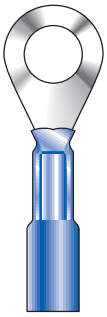
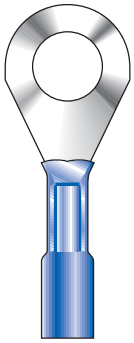
	Butt Connector	Step Down Connectors			
	STC-B	SBA-631	NSBA-631	SCB-646	NSCB-646
					
.032 stock		16-14ga. to 22-18ga.	16-14ga. to 22-18ga.	12-10ga. to 16-14ga.	12-10ga. to 16-14ga.

Only need butt connectors & step down connectors? Take a look at our Shrink Butt Connector Kit (STC-KIT-SM) on page 390.

The step down connectors beginning with NS "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.



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
.040 stock						
stud size	#8	#10	1/4″	5/16″	3/8″	#10

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

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

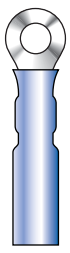
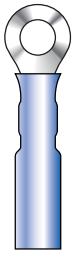
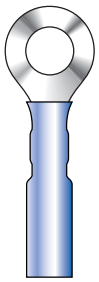
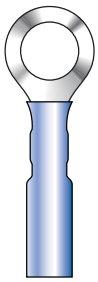
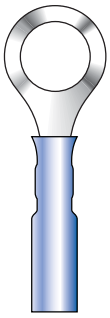
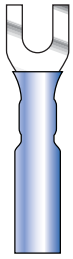
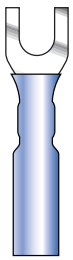
The solder melting temp is 295°F. Shrink tubing temp range is -67°F to 230°F.

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

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 page 406.

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
.032 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.

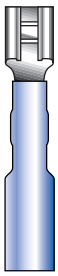
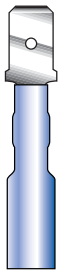
Shrink temperature is 275°F.

To perfectly crimp these terminals we recommend crimper PA-1308 on page 401. For the perfect torch, see our many options on page 406.

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

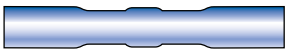
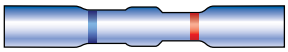
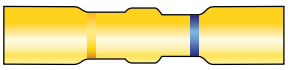
Fully Insulated Quick Disconnect

Insulated Support Sleeve Quick Disconnects

	KSB-850	KSB-3120	KSB-MCT
front view			
.032 stock tab size	.250″	.250″	.250″

Butt Connector

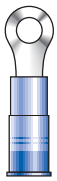
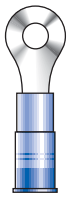
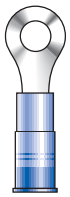
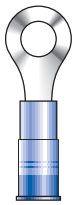
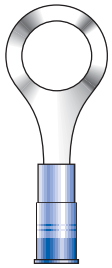
Step Down Connectors

	KSB-1614	KSBA-631	KSCB-646
.032 stock			
		16-14ga. to 20-18ga.	12-10ga. to 16-14ga.

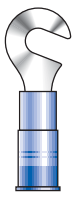
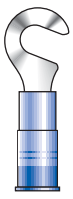
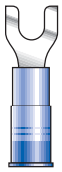
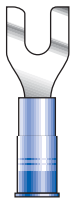
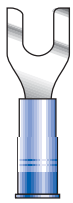
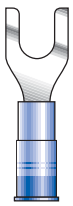
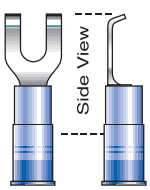
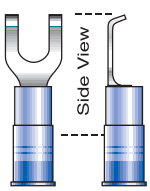
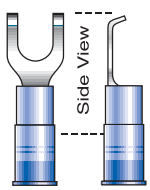
16-14 Gauge: Nylon Terminals w/ Support Sleeve

For a range of nylon terminals in one box, see our Auto Nylon Terminal Kit (AUTO-KIT-LG-N) on page 390.

We recommend crimper PA-1308 for use with our nylon terminals. See page 406 for more info.

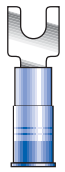
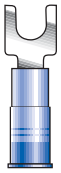
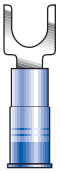
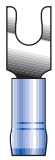
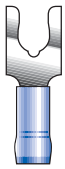
	B-523-06	B-537-06	B-537-08	B-539-10	B-525-14	B-525-56	B-518-38
.032 stock							
stud size	#6	#6	#8	#10	1/4″	5/16″	3/8″

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

16-14 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

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″	.110″	.205″	.250″	.250″
.032 stock							
tab size				.110″	.205″	.250″	.250″

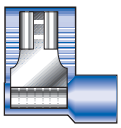
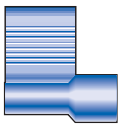
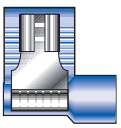
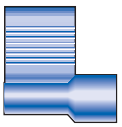
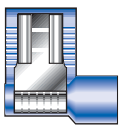
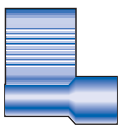
Fully Insulated Quick Disconnects w/o Support Sleeve

	B-887	MCT-887	B-850	MCT-850
front view				
.020 stock				
tab size	.187″	.187″	.250″	.250″
.032 stock				
tab size				

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						
tab size	.187″	.187″	.187″	.250″	.250″	.250″
.032 stock						
tab size						

Fully Insulated Female Flag Quick Disconnects

	BB-2224		BB-2225		B-975	
	inside	outside	inside	outside	inside	outside
.020 stock						
tab size	.187″					
.032 stock						
tab size			.187″		.250″	

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

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

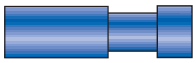
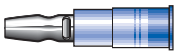
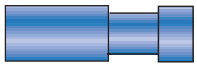
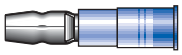
Be sure to check the front view of your **fully insulated connectors** before ordering. Some manufacturers designs may vary. If you don't see what you need here, let us know!

Need a versatile tool? Check out our wire stripper/crimper (RAR-100) on page 400. It crimps, cuts & strips a wide variety of terminals & wire.

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

16-14 Gauge: Nylon Terminals w/ Support Sleeve, cont'd

Bullet Connectors

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

Parallel Connector

BSN-304



Butt Connector

BSN-331



.032 stock

Funnel entry butt connectors are the perfect solution when using wire with thick insulation, such as our GXL wire on page 99.

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

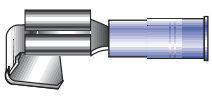
COOLSEAL-B



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

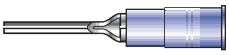


.032 stock

tab size .250″

Pin Terminal

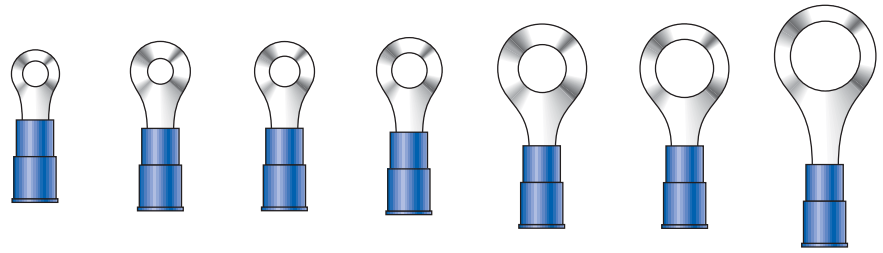
TMDNTC-200



diameter .08″

16-14 Gauge: PVC Terminals

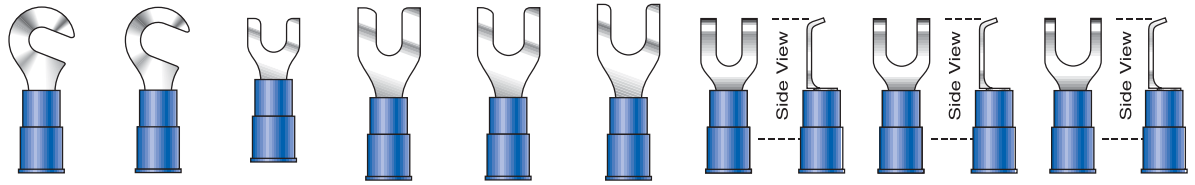
	B-223-06	B-237-06	B-237-08	B-239-10	B-225-14	B-225-56	B-218-38
.032 stock							
stud size	#6	#6	#8	#10	1/4"	5/16"	3/8"



Check out our Auto PVC Terminal Kit (AUTO-KIT-LG-P) on page 390 for a wide selection of PVC terminals in one organized location.

Flange Spades

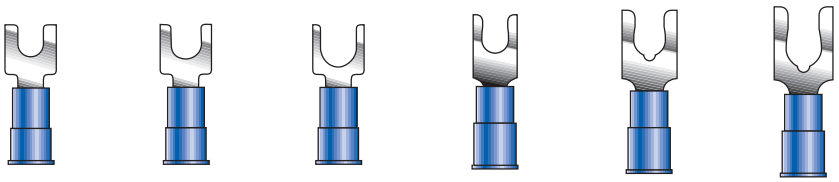
	B-219-06	B-219-08	B-224-06	B-227-06	B-227-08	B-227-10	B-216-06	B-216-08	B-216-10
.032 stock									
stud size	#6	#8	#6	#6	#8	#10	#6	#8	#10



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

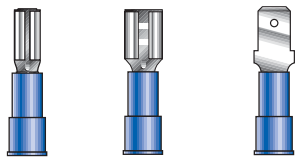
Block Spades | **Snap Spades**

	B-2781-06	B-2781-08	B-2781-10	BB-2707-06	BB-2716-08	BB-2717-10
.032 stock						
stud size	#6	#8	#10	#6	#8	#10

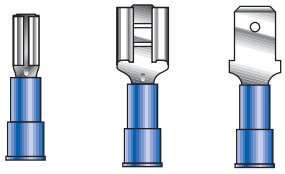


Quick Disconnects

	BB-2132	BB-2138	MCT-287
.020 stock			
tab size	.110"	.187"	.187"

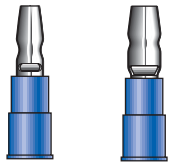


	BB-2135	BB-2141	MCT-2
.032 stock			
tab size	.110"	.250"	.250"

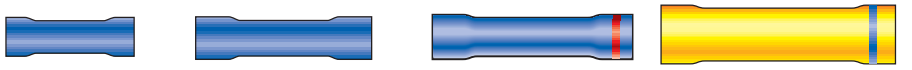


Bullet Connectors

	B-289	B-279
diameter	.156"	.180"



	Parallel Connector	Butt Connector	Step Down Connectors	
	B-204	B-231	BA-631	CB-646
.032 stock				
			16-14 to 22-18ga.	12-10 to 16-14ga.



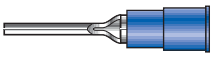
Step down connectors are used to connect wires of different gauge sizes. They can also be substituted for 3-way "Y" connectors when connecting 3 wires.

16-14 Gauge: PVC Terminals, cont'd

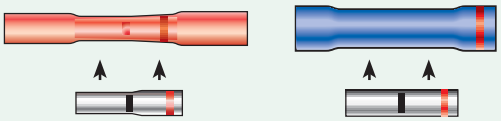
Vinyl Step Down Connectors

	NBA-631	NCB-646
.032 stock		
	16-14 to 22-18ga.	12-10 to 16-14ga.

Pin Terminal

	TMETC-200
	
diameter	.08"

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.

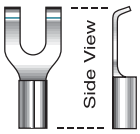
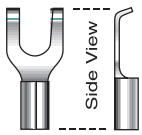
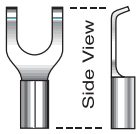


16-14 Gauge: Non-Insulated Terminals

The suggested crimper for non-insulated terminals is the WT-111M, located on page 401.

	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-324-06	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

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

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

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

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 379 & 380 for our wide selection.

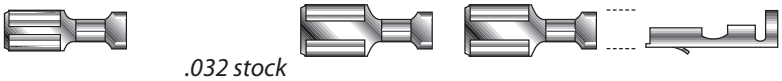
Flag Female Quick Disconnects

	FFT-187	B-187	FFT-1	B-175	FFT-250
.020 stock tab size	.187"	.187"			
.032 stock tab size			.250"	.250"	.250"



Female Quick Disconnects w/ Vibration Support

	BB-4174	BB-4177	BB-4177-TAB
.020 stock tab size	.187"		
.032 stock tab size		.250"	.250"



Bullet Connectors

	B-189	B-179
diameter	.156"	.180"



Parallel Connector

	BS-304
.032 stock	



Butt Connector

	BS-331
.032 stock	



Step Down Connectors

	BA-331	NBA-331	CB-346	NCB-346
.032 stock	16-14 to 22-18ga.	16-14 to 22-18ga.	12-10 to 16-14ga.	12-10 to 16-14ga.



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.

Butted Seam Flag Terminals

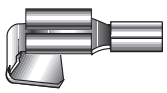
	B-143-08	B-143-10	B-148-08	B-148-10
.032 stock stud size	#8	#10	#8	#10



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

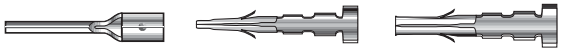
Piggy Back Terminal

	PBT
.032 stock tab size	.250"



Pin Terminals

	TC-200	BP-129*	BS-129*
diameter	.08"	.093"	.093"



*These terminals can 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 401.

Our **high temp terminals** are rated up to 900ºF.

Check out page 100 to see our selection of Tefzel high temp wire.

	BS-23-06	BS-37-06	BS-37-08	BS-37-10
				
.032 stock stud size	#6	#6	#8	#10

	BS-25-14	BS-25-56	BS-27-10	BS-32-10
				
.032 stock stud size	1/4″	5/16″	#10	#10

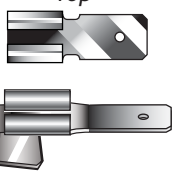
Butt Connector

BS-31

.032 stock

Piggy back terminals work with one female & one male quick disconnect terminal. See the quick disconnects to the right for all of your options .

Piggy Back Terminal

VWA-O-HT
Top 
.032 stock tab size .250″

Quick Disconnects

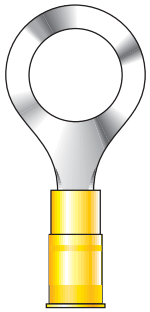
B-171-HT	B-172-HT	B-175-HT	MCT-1-HT
			
.032 stock tab size .187″	.250″	.250″	.250″

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

We recommend crimper PA-1308, on page 401, for use with heavy duty terminals. **Be sure to use a 12-10ga. crimping die.**

	B-536-06HD	B-536-08HD	B-528-08HD	B-528-10HD	B-530-14HD	B-530-56HD
						
.050 stock stud size	#6	#8	#8	#10	1/4″	5/16″

16-14 Gauge: HEAVY DUTY Nylon Terminals, cont'd

	B-540-56HD	B-540-38HD	B-501-76HD	B-501-12HD
.050 stock				
stud size	*5/16″*	*3/8″*	*7/16″*	*1/2″*

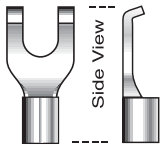
Heavy duty terminals are designed to resist fractures under heavy vibration.

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.

16-14 Gauge: Non-Insulated HEAVY DUTY Terminals

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

═Flange Spade═

	B-140-56HD	B-340-38HD	B-101-76HD	B-101-12HD	B-141-06HD	B-141-10HD	B-117-10HD
.050 stock							
stud size	*5/16″*	*3/8″*	*7/16″*	*1/2″*	*#6*	*#10*	*#10*

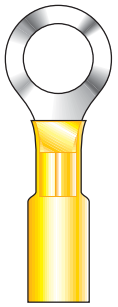
The suggested crimper for non-insulated terminals is the WT-111M, located on page 401. However, be sure to use a 12-10ga. die when crimping the 16-14ga. heavy duty terminals.

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 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
							
.040 stock stud size	#6	#8	#10	1/4"	5/16"	3/8"	1/2"

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

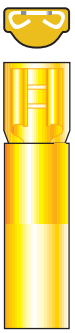
The perfect tool for these terminals is the WT-111K crimper.

Snap Spades

	SC-241-06	SC-241-08	SC-241-10	SC-268-14	SC-2195-08	SC-2195-10	SC-2196-14
							
.040 stock stud size	#6	#8	#10	1/4"	#8	#10	1/4"

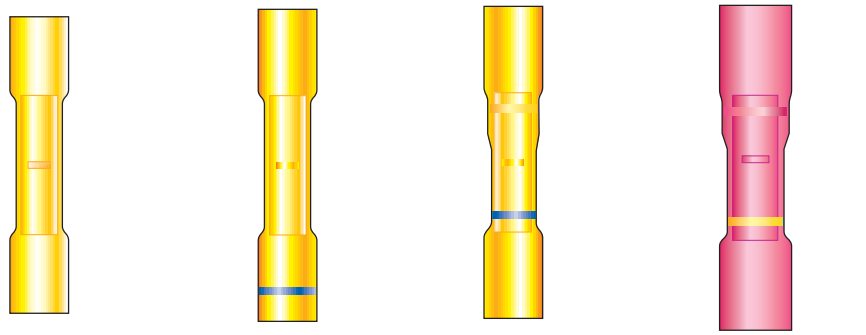
For proper termination of our adhesive lined shrink terminals, first, use an insulated crimping tool (not an anvil die). Then, apply heat to melt the tubing & adhesive.

Fully Insulated Quick Disconnects | **Quick Disconnects**

	SC-9281	SC-9280	SC-2149	STC-MCT
front view				
.040 stock tab size	.250"	.250"	.250"	.250"

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

	Butt Connector	Step Down Connectors		
	STC-C	SCB-646	NSCB-646	NSDC-108
.040 stock				
		12-10ga. to 16-14ga.	*12-10ga. to 16-14ga.*	*8ga. to 12-10ga.*



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

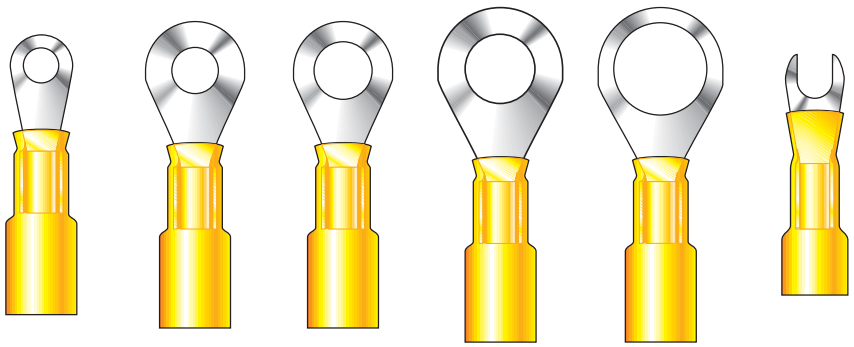
When crimping a **step down connector**, use a die that matches the larger gauge on both ends.

The step down connectors beginning with NS "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.



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 page 406.

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

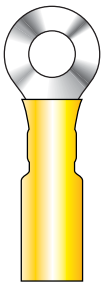
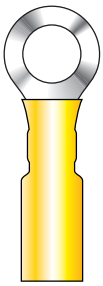
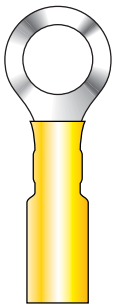
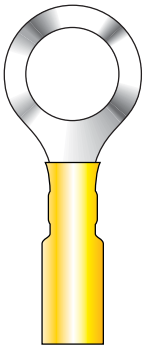
Our **solder / shrink terminals** are rated at 600V & are UL listed.

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		Butt Connector
	SSC-850	SSC-2143	SSC-MCT	SSC-1210
front view				
.032 stock				*.040 stock*
tab size	*.250″*	*.250″*	*.250″*	

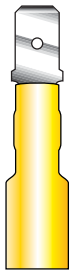
12-10 Gauge: Crimp / Solder / Shrink Adhesive Lined Terminals

	KSC-41-10	KSC-41-14	KSC-41-56	KSC-41-38	KSC-41-12	KSC-42-08	KSC-42-10
							
.032 stock							
stud size	*#10*	*1/4″*	*5/16″*	*3/8″*	*1/2″*	*#8*	*#10*

Only a heat source is needed for installation. See all of the torches we offer on page 406.

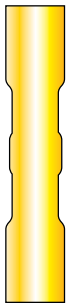
This terminal line features the reliability of a mechanical crimp with the strength & conductivity of solder.

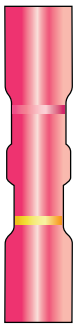
Shrink temperature is 275°F.

	Fully Insulated Quick Disconnect	Quick Disconnects	
	KSC-850	KSC-4120	KSC-MCT
front view			
.032 stock			
tab size	*.250″*	*.250″*	*.250″*

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

	Butt Connector	Step Down Connectors	
	KSC-1210	KSCB-646	KSDC-108
.032 stock		12-10ga. to 16-14ga.	8ga. to 12-10ga.



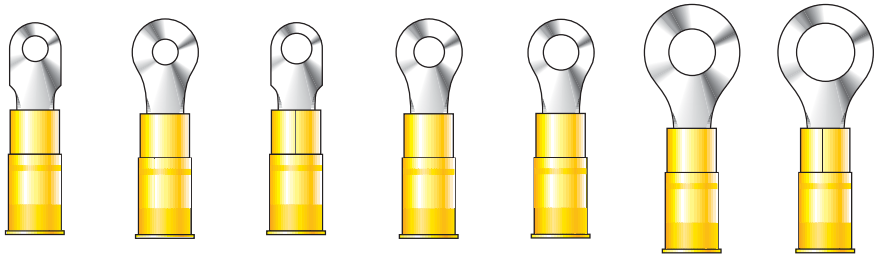


For a wide range of nylon terminals in one box, check out our Maintenance Nylon Terminal Kit (MAINT-KIT-LG-N) on page 390.

For best installation results, we recommend crimper PA-1308 on page 401 & torch GB-2001 on page 406.

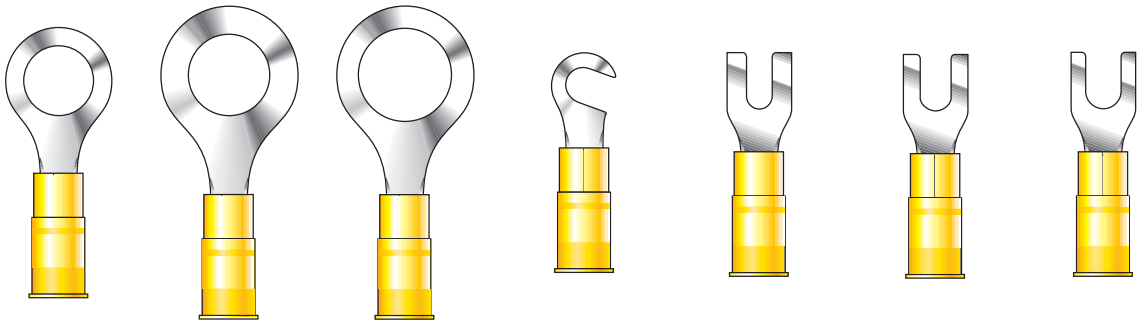
12-10 Gauge: Nylon Terminals w/ Support Sleeve

	C-536-06	C-528-06	C-536-08	C-528-08	C-528-10	C-530-14	C-530-56
.040 stock stud size	#6	#6	#8	#8	#10	1/4"	5/16"



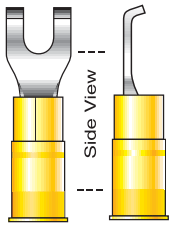
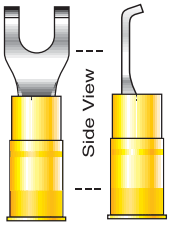
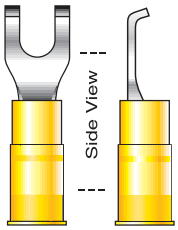
Our terminals are made with 100% electrolytic copper because of it's very high conductive properties. They are then electroplated with tin for corrosion resistance.

	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

	C-517-06	C-517-08	C-517-10
.040 stock			
stud size	#6	#8	#10

Block Spades

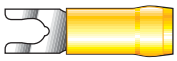
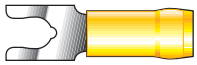
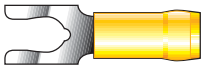
	C-5105-06	C-5105-08	C-5105-10
			
	#6	#8	#10

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

Need the perfect tool? Check out our PA-1308 on page 401.

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
.040 stock			
stud size	#6	#8	#10

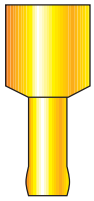
Quick Disconnects

	P-8139	P-8142	C-572	MCT-5C	CP-808
					
.032 stock					
tab size	.187″	.250″	.250″	.250″	.375″

Fully Insulated Quick Disconnects w/o Support Sleeve

	C-850	MCT-C-850	C-2265	C-2264
front view				
.032 stock				
tab size	.250″	.250″	.250″	.250″

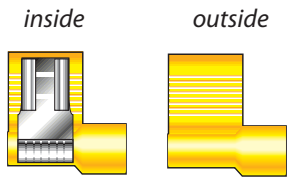
Fully Insulated Quick Disconnects

	73F-250-20-NBL	73M-250-32-NBL
		
		
	.250″	.250″

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

Fully Insulated Female Flag Quick Disconnects

C-975



.032 stock tab size: .250″

Bullet Connector

C-589



diameter: .156″

Parallel Connector

CSN-303



.040 stock

Butt Connector

CSN-346



Butted Seam Funnel Entry Butt Connector

C-946-DK



Seamless Funnel Entry Butt Connector

CS-952



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 99.

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

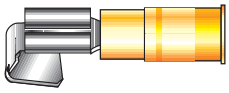
Moisture resistant butt connectors are filled with an anti-corrosive grease to keep the elements out of the terminal barrel.

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.

Piggy Back Terminal

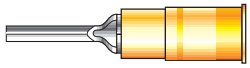
PBT-2C



.032 stock tab size: .250″

Pin Terminal

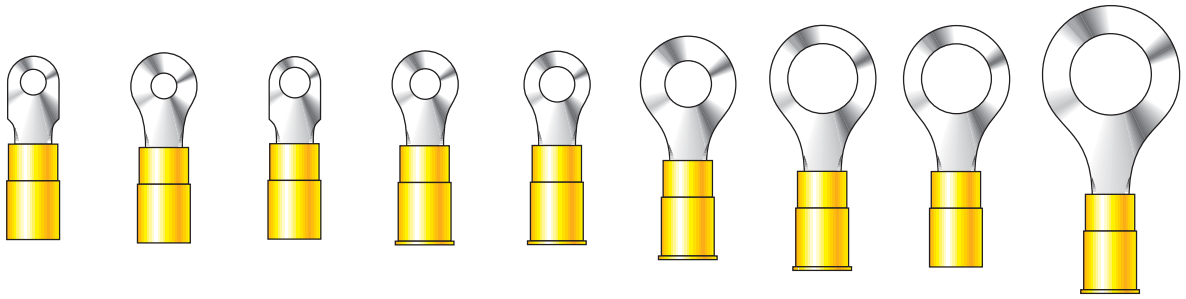
TMDNTC-550



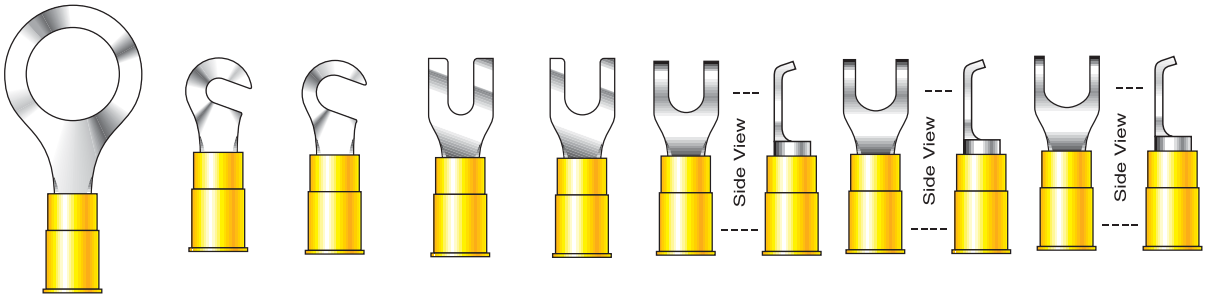
diameter: .12″

Piggy back terminals work with one female & one male quick disconnect terminal. See page 31 for all of your quick disconnect options in 12-10ga. nylon.

12-10 Gauge: PVC Terminals

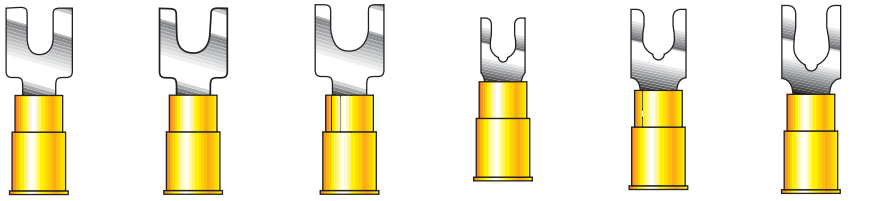
	C-236-06	C-228-06	C-236-08	C-228-08	C-228-10	C-230-14	C-230-56	C-240-38	C-201-76
.040 stock									
stud size	#6	#6	#8	#8	#10	1/4″	5/16″	3/8″	7/16″

Flange Spade

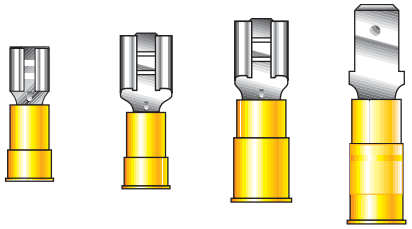
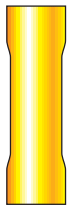
	C-201-12	C-211-06	C-211-10	C-241-06	C-241-10	C-217-06	C-217-08	C-217-10
.040 stock								
stud size	1/2″	#6	#10	#6	#10	#6	#10	#10

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

Block Spades | **Snap Spades**

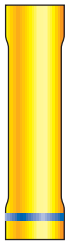
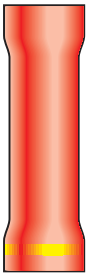
	C-2105-06	C-2105-08	C-2105-10	C-2710-06	C-2718-08	C-2719-10
.040 stock						
stud size	#6	#8	#10	#6	#8	#10

Quick Disconnects

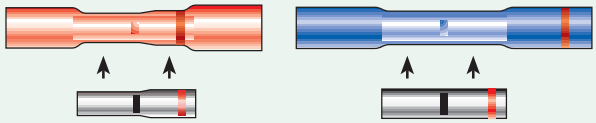
	P-2139*	P-2142*	C-272	CP-814	**Bullet = Connector =** C-289	**Parallel = Connector =** C-203	**Butt = Connector =** C-246
.032 stock							
tab size	.187″	.250″	.250″	.250″	diameter .156″		
.040 stock							

*These terminals are actually 14-12ga.

12-10 Gauge: PVC Terminals, cont'd

	Step Down Connectors		Vinyl Step Down Connectors		Pin Terminal
	CB-646	DC-654	NCB-646	NDC-654	TMETC-550
.040 stock					
	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 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.



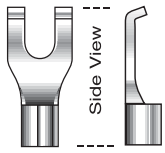
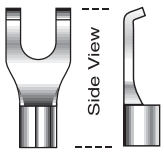
12-10 Gauge: Non-Insulated Terminals

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

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

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

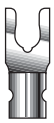
Flange Spades

C-317-08	C-317-10
	
.040 stock	
#8	#10

Block Spades

C-1105-06	C-1105-08	C-1105-10
		
.040 stock		
#6	#8	#10

Snap Spades

C-1710-06	C-1718-08	C-1719-10
		
.040 stock		
#6	#8	#10

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

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection.

The suggested crimper for non-insulated terminals is the WT-111M, located on page 401.

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.

Butted Seam Quick Disconnects

P-1139*	P-1142*	C-172	MCT-1C
			
.032 stock			
.187"	.250"	.250"	.250"

Flag Female Quick Disconnects

B-175-ETC*	C-1012
	
.032 stock	
.250"	.250"

*These terminals are actually 14-12ga.

Bullet Connector

C-189

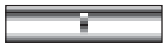
diameter
.156"

Parallel Connector

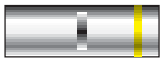
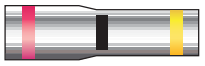
CS-303

.040 stock

Butt Connector

CS-346


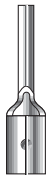
Step Down Connectors

CB-346	NCB-346	DC-354	NDC-354
			
.040 stock			
12-10 to 16-14ga.	12-10 to 16-14ga.	8 to 12-10ga.	8 to 12-10ga.

Butted Seam Flag Terminals

C-144-08	C-144-10	C-149-08
		
.040 stock		
#8	#10	#8

Pin Terminal

TC-550

diameter
.12"

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
.040 stock stud size	#6	#8	#10	1/4"

	CS-30-56	CS-40-38
.040 stock stud size	5/16"	3/8"

Butt Connector

	CS-46
.040 stock	

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 401.

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

Check out page 100 to see our selection of Tefzel high temp wire.

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

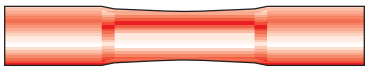
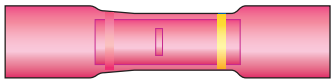
8 Gauge: Adhesive Lined Shrink Terminals

	SD-810	SD-814	SD-8516	SD-838	SD-812
.045 stock stud size	#10	1/4"	5/16"	3/8"	1/2"

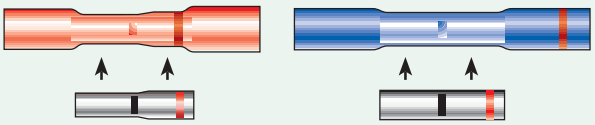
For proper termination of our adhesive lined shrink terminals, first, use an insulated crimping tool (not an anvil die). Then, apply heat to melt the tubing & adhesive.

For the heavy duty version of our 8ga. shrink terminals, see page 40.

8 Gauge: Adhesive Lined Shrink Terminals, cont'd

	Butt Connector	Step Down Connectors	
	SD-8	SDC-108	NSDC-108
.045 stock			
		8ga. to 12-10ga.	*8ga. to 12-10ga.*

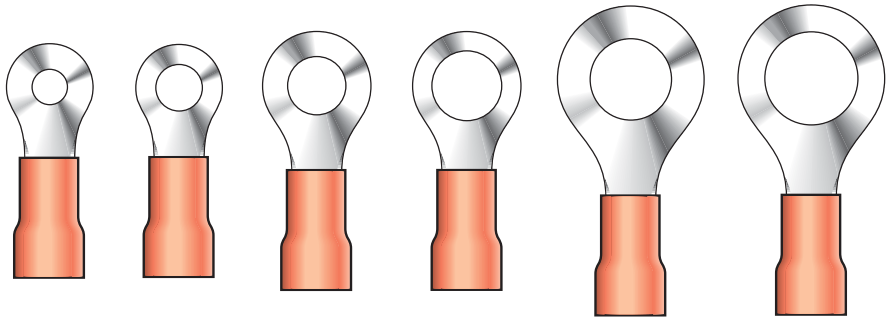
The step down connectors beginning with NS "step down" using ends that are true wire gauges & are crimped with two different sized dies. Our standard step down connectors "step down" using a sleeve in one end of the connector to fit the smaller wire gauge & are crimped with a die matching the larger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

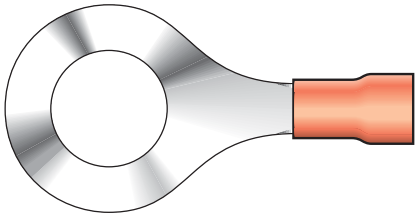


8 Gauge: Nylon Terminals

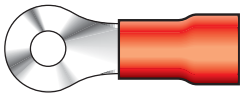
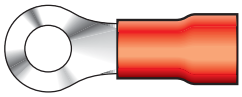
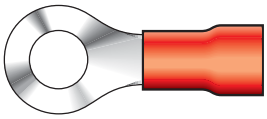
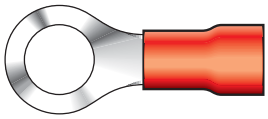
For a wide range of nylon terminals in one box, check out our Auto Nylon Terminal Kit (AUTO-KIT-LG-N) on page 390.

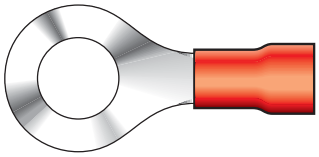
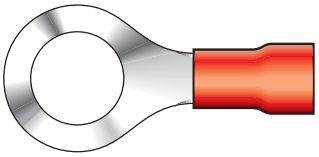
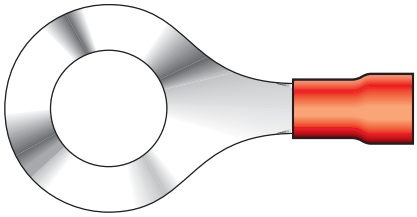
Our terminals are made with 100% electrolytic copper because of it's very high conductive properties. They are then electroplated with tin for corrosion resistance.

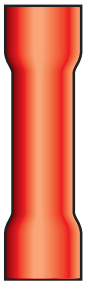
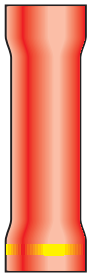
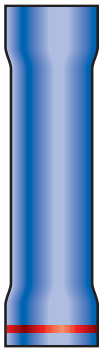
	D-950-10	D-950-14	D-951-56	D-951-38	D-952-76	D-952-12
.050 stock						
stud size	*#10*	*1/4"*	*5/16"*	*3/8"*	*7/16"*	*1/2"*

	D-953-58	Butt Connector D-754
.050 stock		
stud size	*5/18"*	

8 Gauge: PVC Terminals

	D-650-10	D-650-14	D-651-56	D-651-38
				
.050 stock				
stud size	#10	1/4″	5/16″	3/8″

	D-652-76	D-652-12	D-653-58
			
.050 stock			
stud size	7/16″	1/2″	5/8″

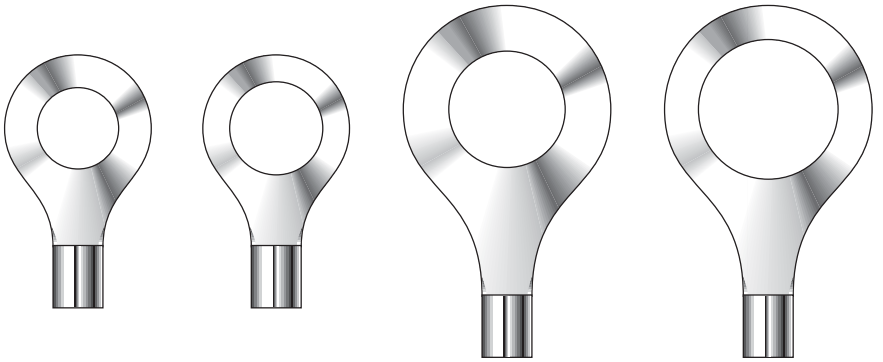
	Parallel Connector	Butt Connector	Step Down Connectors		Vinyl Step Down Connector
	D-655	D-654	DC-654	ED-662	NDC-654
					
.050 stock					
			8ga. to 12-10ga.	6ga. to 8ga.	8ga. to 12-10ga.

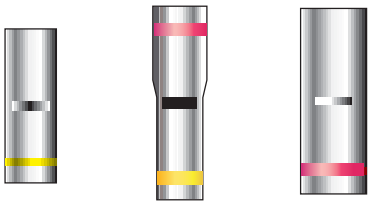
8 Gauge: Non-Insulated Terminals

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

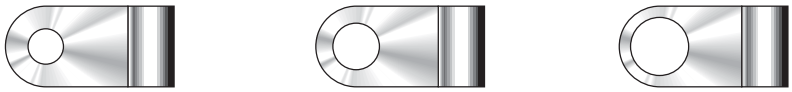
8 Gauge: Non-Insulated Terminals, cont'd

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection.

	D-352-76	D-352-12	D-353-58	D-353-34
				
.050 stock stud size	7/16"	1/2"	5/8"	3/4"

	Parallel Connector	Butt Connector	Step Down Connectors		
	D-355	D-354	DC-354	NDC-354	ED-362
					
.050 stock			8 to 12-10ga.	8 to 12-10ga.	6 to 8ga.

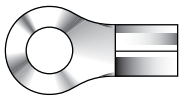
Butted Seam Flag Terminals

	D-10-F	D-14-F	D-56-F
			
.040 stock stud size	#10	1/4"	5/16"

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.

8 Gauge: Non-Insulated HIGH TEMP Terminals

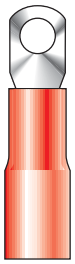
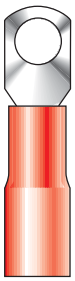
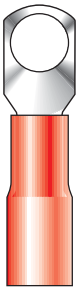
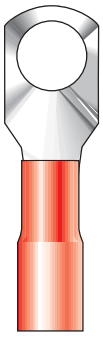
- All high temp terminals are nickel plated steel alloy

	D-350-14HT
	
.050 stock stud size	1/4"

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

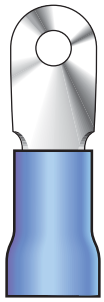
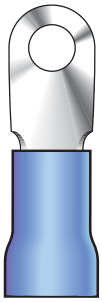
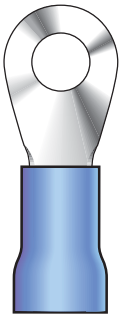
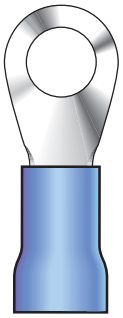
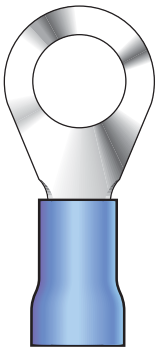
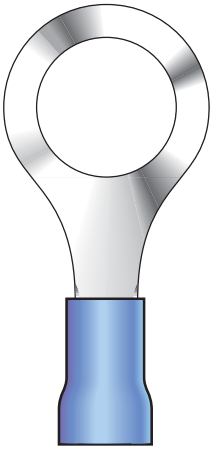
	SD-810HD	SD-814HD	SD-8516HD	SD-838HD
				
.070 stock stud size	*#10*	*1/4"*	*5/16"*	*3/8"*

Our **heavy duty 8ga. shrink terminals** are similar to our tinned BCL Lugs located on page 84.

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

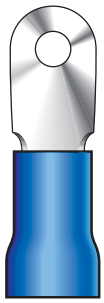
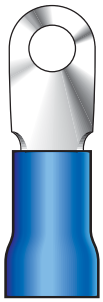
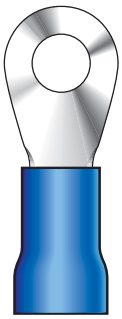
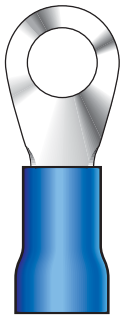
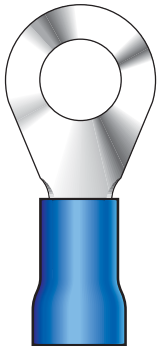
6 Gauge: Nylon Terminals

	E-960-10	E-960-14	E-957-56	E-957-38	E-958-12	E-959-34
						
.057 stock stud size	*#10*	*1/4"*	*5/16"*	*3/8"*	*1/2"*	*3/4"*

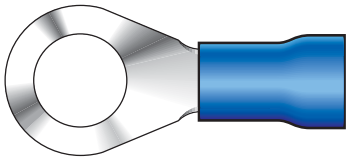
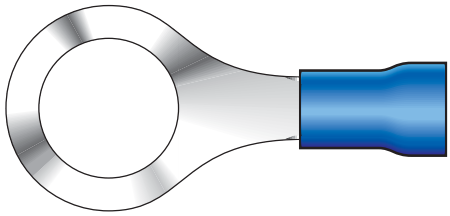
	Parallel Connector	Butt Connector
	E-761	E-762
		
.057 stock		

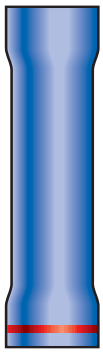
For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our 6 gauge terminals. See page 402 for more info on these & others.

6 Gauge: PVC Terminals

	E-660-10	E-660-14	E-657-56	E-657-38	E-658-76
					
.057 stock					
stud size	#10	1/4"	5/16"	3/8"	7/16"

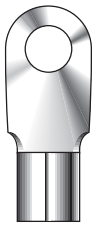
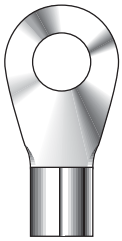
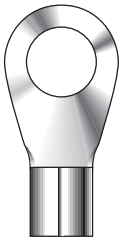
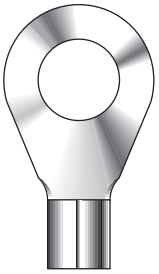
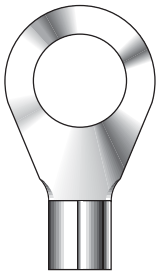
Our terminals are made with 100% electrolytic copper because of it's very high conductive properties. They are then electroplated with tin for corrosion resistance.

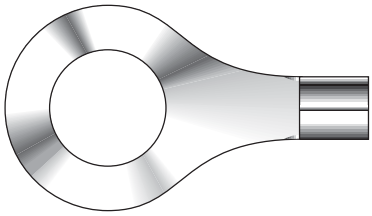
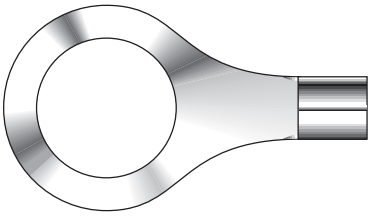
	E-658-12	E-659-34
		
.057 stock		
stud size	1/2"	3/4"

Parallel Connector	Butt Connector	Step Down Connector
E-661	E-662	ED-662
		
.057 stock		
		6ga. to 8ga.

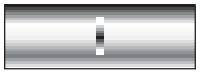
Step down connectors are used to connect wires of different gauge sizes. They can also be a substitute for 3-way "Y" connectors when connecting three wires.

6 Gauge: Non-Insulated Terminals

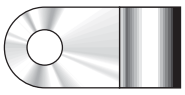
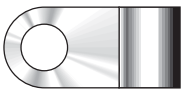
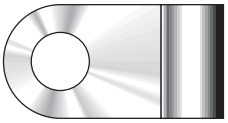
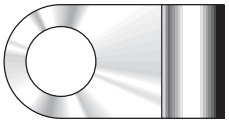
	E-360-10	E-360-14	E-357-56	E-357-38	E-358-76	E-358-12
.057 stock						
stud size	#10	1/4″	5/16″	3/8″	7/16″	1/2″

	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 402 for more info on these & others.

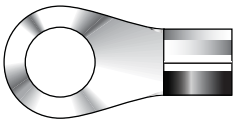
	Parallel Connector	Butt Connector	Step Down Connector
	E-361	E-362	ED-362
.057 stock			
			6ga. to 8ga.

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

	Butted Seam Flag Terminals			
	E-10-F	E-14-F	E-56-F	E-38-F
.050 stock				
stud size	#10	1/4″	5/16″	3/8″

6 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

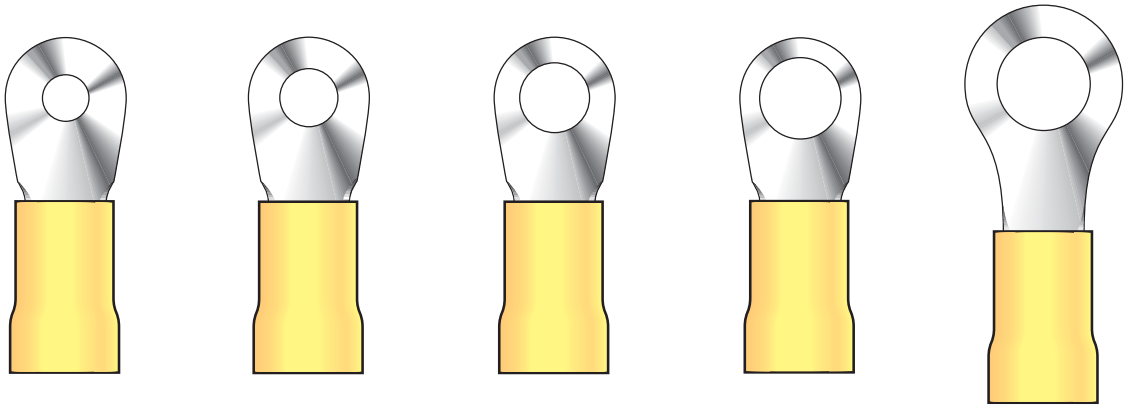
	E-357-38HT
.057 stock	
stud size	3/8″

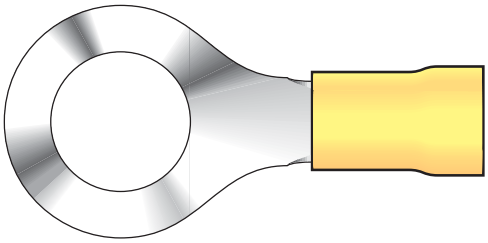
Our **high temp terminals** are rated up to 900°F.

4 Gauge Terminals

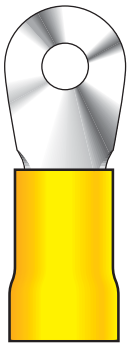
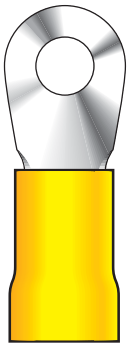
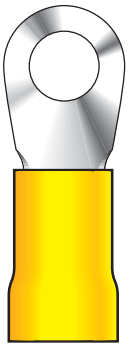
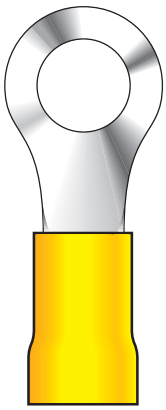
- All terminals are copper with tin electroplate, unless otherwise noted
- All of our 4ga. terminals are shown actual size
- Most of these terminals are sold in packages of 25, please inquire for details

4 Gauge: Nylon Terminals

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

	F-970-34	Butt Connector F-764
		
.075 stock stud size	3/4"	.075 stock

4 Gauge: PVC Terminals

	F-666-14	F-666-56	F-666-38	F-666-12
				
.075 stock stud size	*1/4″*	*5/16″*	*3/8″*	*1/2″*

Parallel Connector

F-665

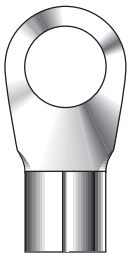
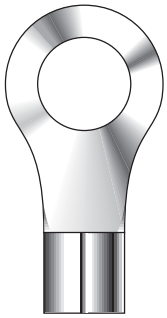

Butt Connector

F-664


.075 stock

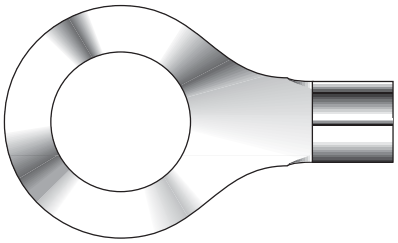
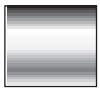
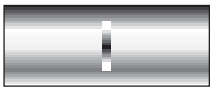
For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our 4 gauge terminals. See page 402 for more info on these & others.

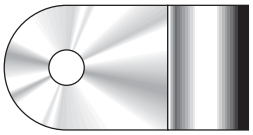
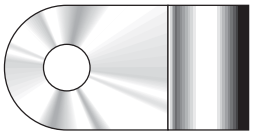
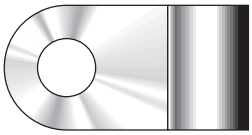
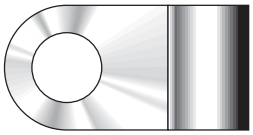
4 Gauge: Non-Insulated Terminals

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

4 Gauge: Non-Insulated Terminals, cont'd

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection of shrink tube & page 406 for the heat source to complete the package.

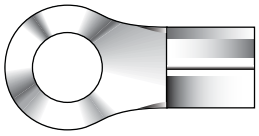
		Parallel Connector	Butt Connector
	F-370-34		
			
.075 stock stud size	3/4″		

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

4 Gauge: Non-Insulated HIGH TEMP Terminals

- All high temp terminals are nickel plated steel alloy

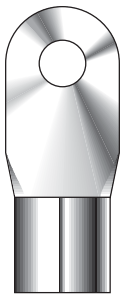
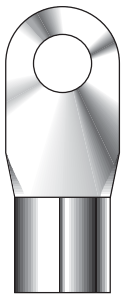
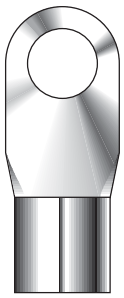
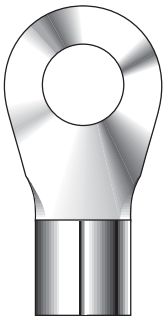
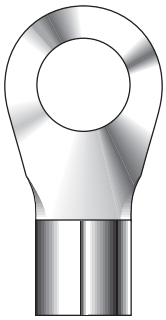
Our **high temp terminals** are rated up to 900ºF.

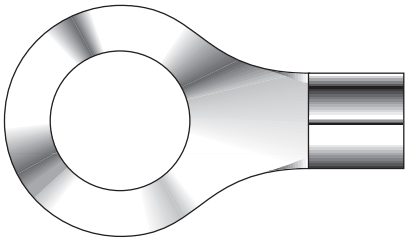
	F-366-38HT
	
.075 stock stud size	3/8″

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

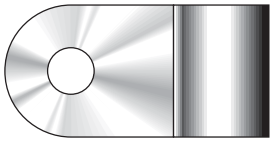
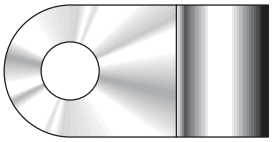
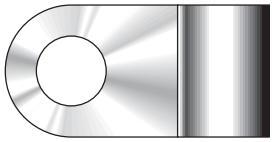
2 Gauge: Non-Insulated Terminals

	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"

	G-377-34	Parallel Connector G-373	Butt Connector G-372
			
.075 stock stud size	3/4"		

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection. When using shrink tubing, don't forget to check out our heat sources on page 406.

Butted Seam Flag Terminals

	G-14-F	G-56-F	G-38-F
			
.071 stock stud size	1/4"	5/16"	3/8"

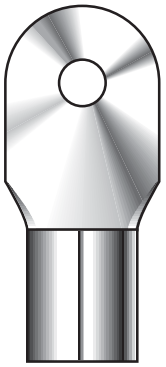
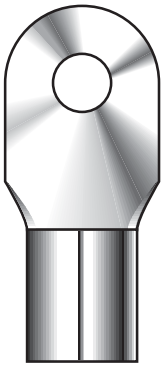
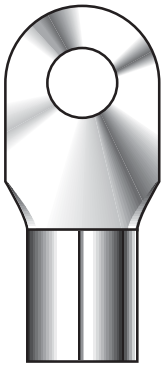
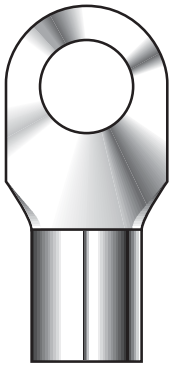
1/0 Gauge Terminals

- 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

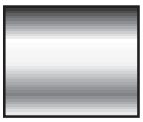
1/0 Gauge: Non-Insulated Terminals

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.

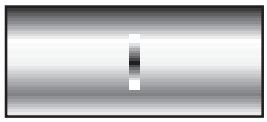
For best crimping results, we recommend crimpers TS-1080 or TS-1090 for use with all of our large gauge terminals. See page 402 for more info on these & other tooling options.

	H-381-14	H-381-56	H-381-38	H-380-12
				
.075 stock stud size	1/4"	5/16"	3/8"	1/2"

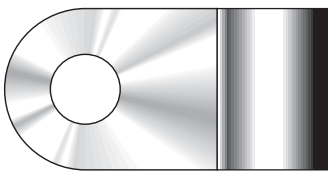
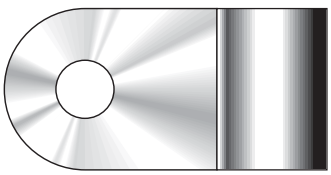
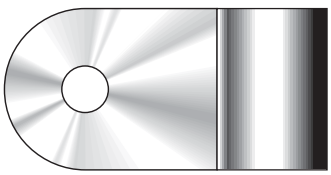
Parallel Connector

H-384


Butt Connector

H-383


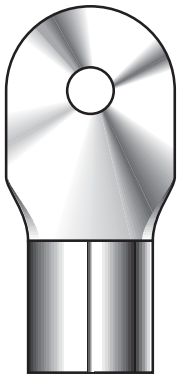
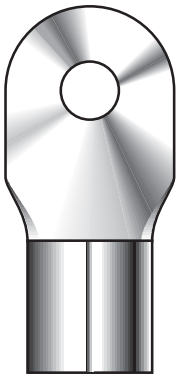
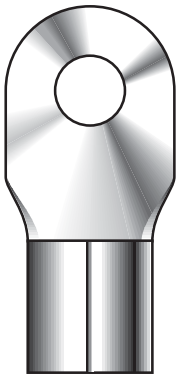
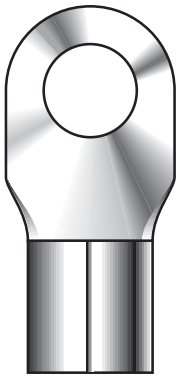
Butted Seam Flag Terminals

	H-14-F	H-56-F	H-38-F
			
.079 stock stud size	1/4"	5/16"	3/8"

2/0 Gauge Terminals

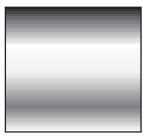
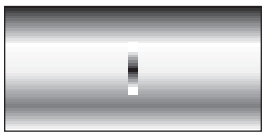
- All terminals are copper with tin electroplate
- All of our 2/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 10, please inquire for details

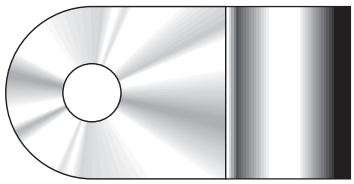
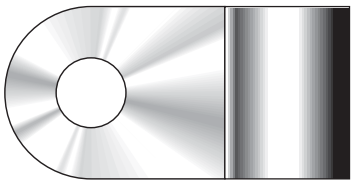
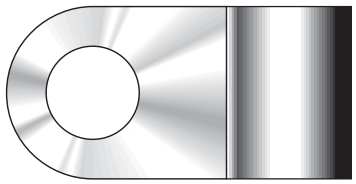
2/0 Gauge: Non-Insulated Terminals

	J-385-14	J-385-56	J-385-38	J-385-12
.083 stock				
stud size	1/4"	5/16"	3/8"	1/2"

The suggested crimper for our 2/0, 3/0 & 4/0 gauge non-insulated terminals is the TS-1090, located on page 402.

Shrink tubing is recommended when using non-insulated terminals in corrosive & high vibration applications. See pages 379 & 380 for our wide selection. And don't forget to check out our heat sources on pages 405 & 406.

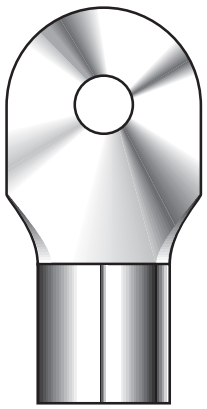
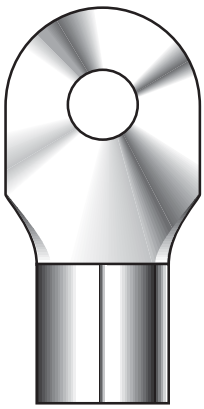
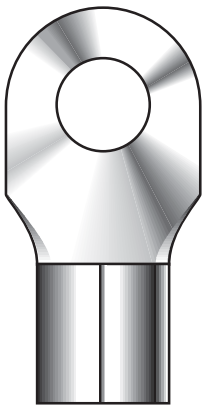
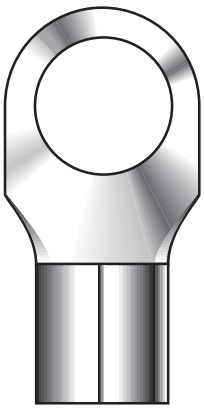
	Parallel Connector	Butt Connector
	J-389	J-388
.083 stock		

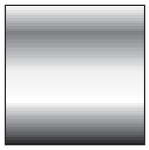
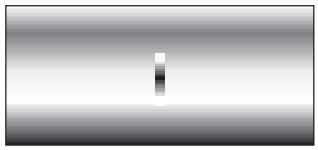
	Butted Seam Flag Terminals		
	J-56-F	J-38-F	J-12-F
.079 stock			
stud size	5/16"	3/8"	1/2"

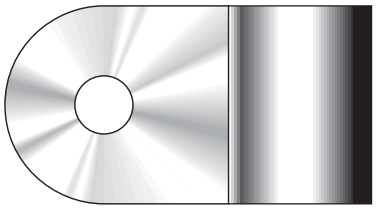
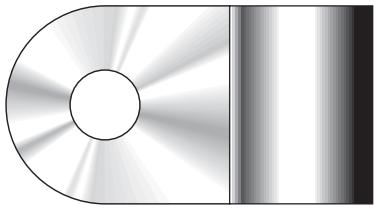
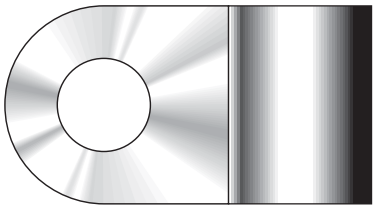
3/0 Gauge Terminals

- 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
				
.095 stock stud size	5/16″	3/8″	1/2″	3/4″

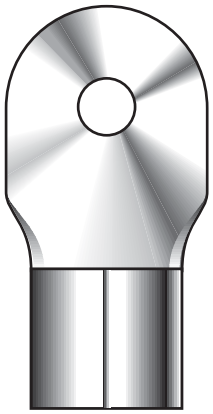
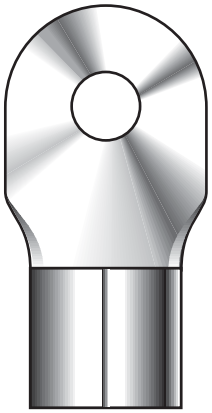
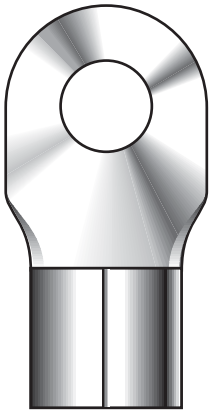
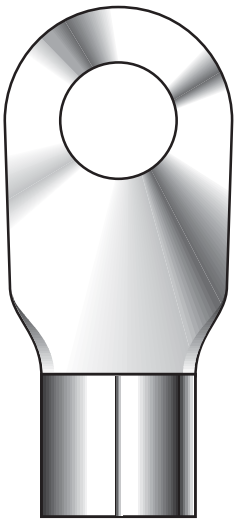
Parallel Connector	Butt Connector
K-394	K-393
	
.095 stock	

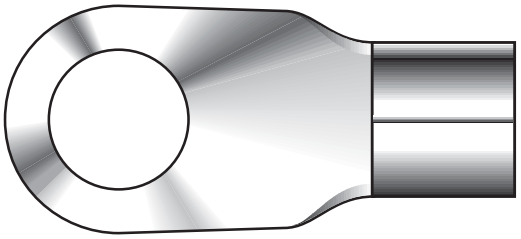
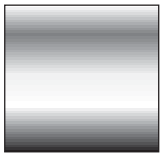
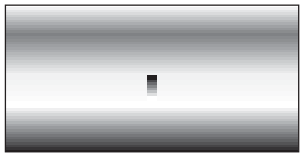
Butted Seam Flag Terminals		
K-56-F	K-38-F	K-12-F
		
.090 stock stud size	5/16″	3/8″	1/2″

4/0 Gauge Terminals

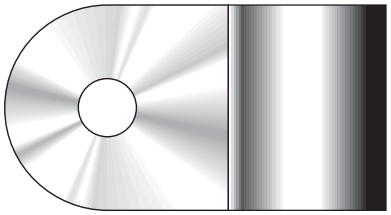
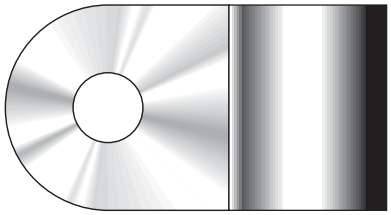
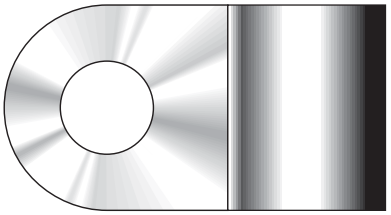
- All terminals are copper with tin electroplate
- All of our 4/0ga. terminals are shown actual size
- Most of these terminals are sold in packages of 10, please inquire for details

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

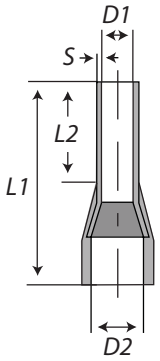
	L-56-F	L-38-F	L-12-F
			
.102 stock stud size	*5/16″*	*3/8″*	*1/2″*

Wire Ferrules

- All of our wire ferrules are shown actual size
- Wire ferrules sold in packages of 100

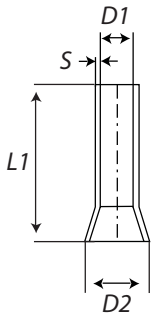
Wire Ferrules: Nylon Insulated

Part Number	Wire Gauge	S (mm)	L2 (mm)	L1 (mm)	D1 (mm)	D2 (mm)	Color
FRL-22N	22	0.15	8.0	14.5	1.1	2.6	White
FRL-20N	20	0.15	8.0	14.5	1.3	2.8	Blue
FRL-18N	18	0.15	8.0	14.5	1.5	3.0	Red
FRL-16N	16	0.15	8.0	14.5	1.8	3.5	Black
FRL-14N	14	0.15	8.0	15.0	2.3	4.2	Gray
FRL-12N	12	0.15	10.0	17.0	2.9	4.8	Orange
FRL-10N	10	0.15	12.0	20.0	3.6	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



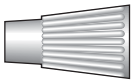
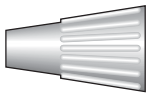
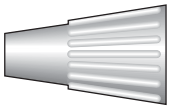
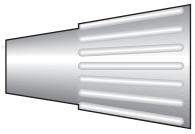
For the best results, use the Paladin crimpers PA-1648 (20-12ga.) & PA-1649 (10-6ga.), located on page 402, with both our insulated & non-insulated wire ferrules.

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

Wire Connectors

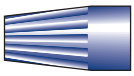
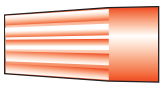
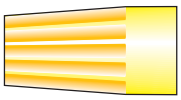
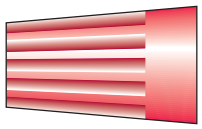
High Temp Porcelain Wire Nut Connectors

- All of our high temp wire nuts are shown actual size
- 1900ºF max temperature
- Rated at 300 volts max

	HI-1	HI-5	HI-7	HI-8
				
Min	*2 to 4 - 18ga.*	*2 to 4 - 18ga.*	*2 to 5 - 18ga.*	*2 - 14ga.*
Max	*1 - 16ga. & 1 - 14ga.*	*2 - 18ga. & 1 - 14ga.*	*1 - 12ga. & 1 - 16ga.*	*3 - 14ga.*

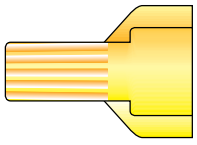
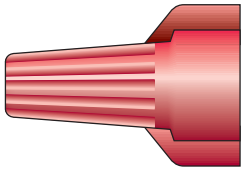
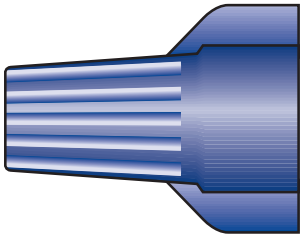
Wire Nut Connectors

- UL Listed & CSA Certified
- All of our wire nuts are shown actual size.
- Thermoplastic
- 221ºF max temperature
- 71B & 72B are rated at 300 volts max
- 73B, 74B & 76B are rated at 600 volts for buildings & 1000 volts max for signs or fixtures

	71B	72B	73B	74B	76B
					
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.*

Wing Nut Wire Connectors

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

	451	452	454
			
Min	*2 - 18ga.*	*2 - 14ga.*	*3 - 12ga.*
Max	*3 - 12ga.*	*5 - 12ga.*	*1 - 6ga. & 2 - 8ga.*

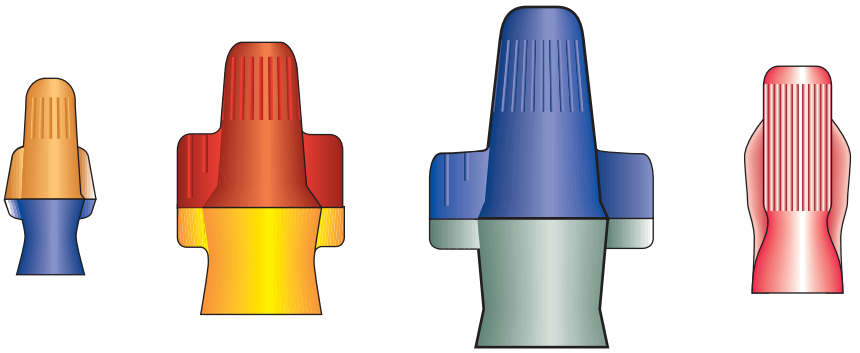
The quick spin wing design makes installing the last one as easy as installing the first one of the day with less stress on your fingers.

Skirted Wing Nut 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!

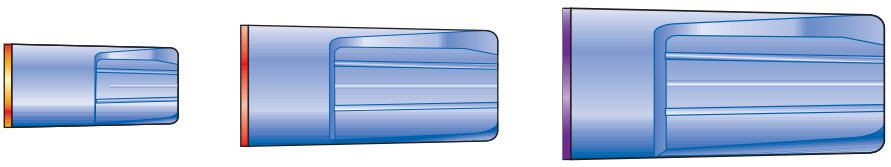
The soft & flexible design of the **SL-R** won't cut or abrade wires & the torque fins allow for a comfortable, yet secure grip on the wires.

	O/B	R/Y	B/G	SL-R
				
Min	*2 - 22ga.*	*2 - 18ga.*	*4 - 14ga.*	*1 to 9 - 18ga.*
Max	*2 - 12ga.*	*2 - 8ga.*	*5 - 10ga.*	*1 to 3 - 10ga.*

Sealed Waterproof Connectors

- All of our sealed waterproof connectors are shown actual size
- 221ºF max temperature
- Pre-filled custom sealant locks out moisture & air between -45ºF to 400ºF
- 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
			
Min	*3 - 22ga.*	*6 - 22ga.*	*4 - 14ga.*
Max	*2 - 14ga.*	*4 - 14ga.*	*2 - 6ga. & 1 - 12ga.*

Open Barrel Splices

- All of our open barrel splices are shown actual size
- Perfect for crimping multiple wires
- Soldering after crimping is recommended

	12064904	00821240	12064905	01839906	2962985
					
Min	*4 - 16ga. to 2-14ga.*	*2 - 14ga. to 2-12ga.*	*2 - 14ga. to 2-12ga.*	*4 - 14ga. to 3-12ga.*	*4-12ga.*
Max	*6 - 18ga.*	*5 - 16ga.*	*5 - 16ga.*	*8 - 16ga.*	*6 - 10ga.*

Nylon Insulated Closed-End Connectors

- All of our closed end connectors are shown actual size
- Rated at 600 volts max

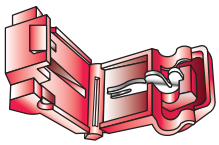
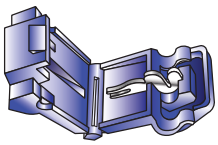
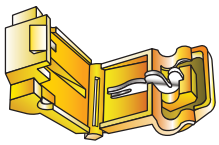
	NC-2214	NC-2016	NC-1610	NC-1010
				
Min	*2 - 22ga.*	*2 - 18ga.*	*2 - 16ga.*	*1 - 12ga. & 1 - 14ga.*
Max	*2 - 18ga.*	*1 - 16ga. & 1 - 18ga.*	*1 - 12ga. & 1 - 16ga.*	*1 - 10ga. & 1 - 14ga.*

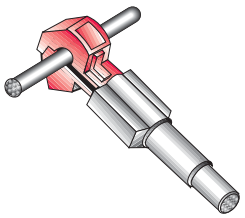
These have a smooth floored wire entry make for faster wire installation. Just insert wire & crimp for a rugged & resilient nylon insulator.

For the perfect crimp, use our Paladin crimper PA-1308, located on page 401.

Female Tap Connectors, Self Stripping

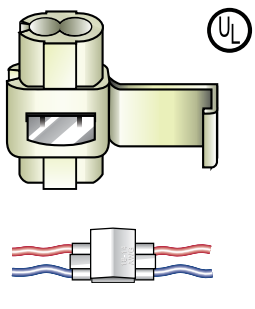
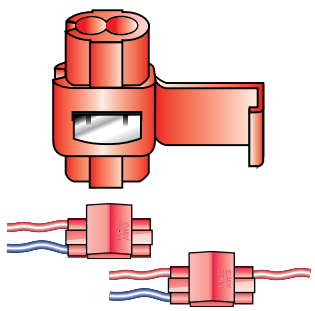
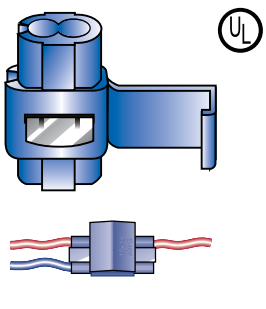
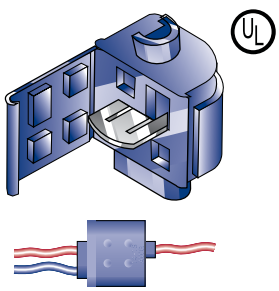
- UL Listed & CSA Certified
- All of our female tap connectors are shown actual size
- Designed for mid-span taps & can be disconnected

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

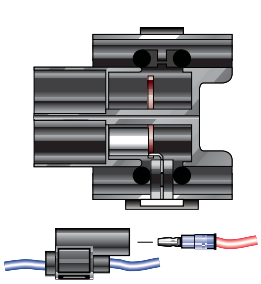
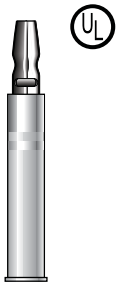
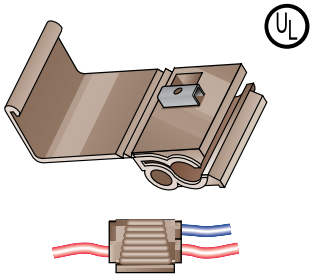
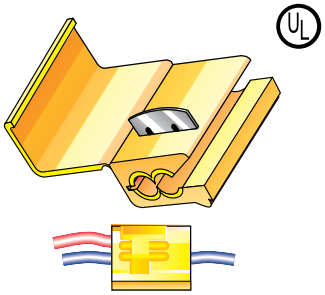


Displacement Connectors, Self Stripping

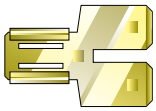
- Rated at 300 volts max
- Most are UL Listed

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

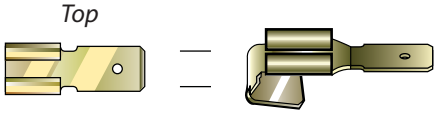
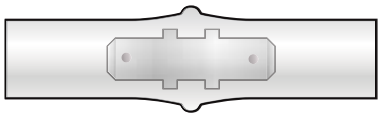
T-5	T-90-3	T-6	T-7
			
18-14ga. mates w/ T-90-3	*16-14ga.*	*18-10ga. with stop*	*12-10ga. with stop*

Disconnect Adapters

MMFA-JR	MMFA	VWA-O
		Top 
converts 1 - .187" male tab to 2 male tabs	*converts 1 - .250" male tab to 2 male tabs*	*two .250" male tabs bent at angles: 10° up & 120° back*

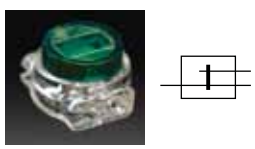
Great for connections of 2 or 3 circuits. These can also be useful for expanding connectors for switches.

We offer a variety of quick disconnects to mate with these adapters in many sizes & insulations.

250-03Z	PVC Insulated Tab Receptacle MMRC
Top 	
converts 1 - .250" male tab to 2 male tabs	*connects 2 - .250" x .032" female quick disconnects*

Communication Connectors

Moisture Resistant Seal

UB2A	UG	UR	UY
			
0.082" max insulation *19-26ga. solid wire*	*0.066" max insulation* *19-26ga. solid wire*	*0.066" max insulation* *19-26ga. solid wire*	*0.060" max insulation* *22-26ga. solid wire*

Electrical Pigtail Connectors, Self Stripping

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

TS-314	TS-314U
	
22-14ga.	*22-14ga.*
grease filled, water resistant	*ungreased*

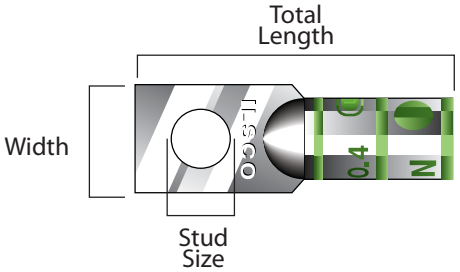
Ilsco Connectors

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

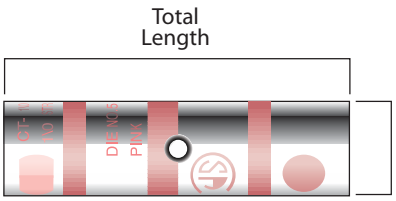


- UL 486A 194ºF Listed & CSA Certified for 600 volts
- Constructed from high strength seamless copper tubing
- Supplied with a sight hole for visual inspection of proper cable insertion
- Electro-tin plated
- Sight hole & chambered barrel for visual inspection of proper cable insertion
- For copper conductor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



Ilsco Copper Compression Sleeves

- UL 486A 194ºF 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

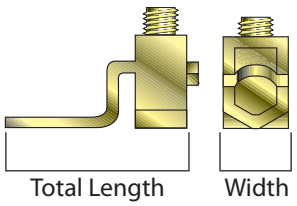
The color codes to the left refer to Ilsco brand tools. To assure the perfect tool crimp for ever gauge of your Ilsco lugs, see page 402 for everything we have to offer.

Ilsco Copper Single Hole Mechanical Lugs





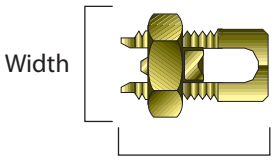
- UL E6207 Listed & CSA Certified
- Rated to 600 volts
- Constructed from seamless copper for high conductivity & efficiency
- Wires are wedged between arched pressure bar & v-bottom collar, establishing positive contact & a firm, permanent grip
- Easy to install with slotted screwdriver or allen wrench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

Ilsco Copper Split Bolts



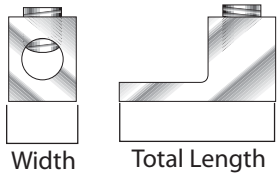


- UL E6207 Listed, CSA Certified & RoHS Compliant
- Rated to 600 volts
- Constructed from high strength copper alloy, allowing maximum pressure on conductors
- Highly resistant to seasonal cracking & corrosion
- Precision tooled threads allow maximum torque to assure a cool & safe connection

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-4/0	2SOL - 4/0STR	6SOL	2.16	1.00

Ilsco Aluminum Single Hole Mechanical Lugs





- UL 486B 194ºF 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 Ilsco for over 25 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

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

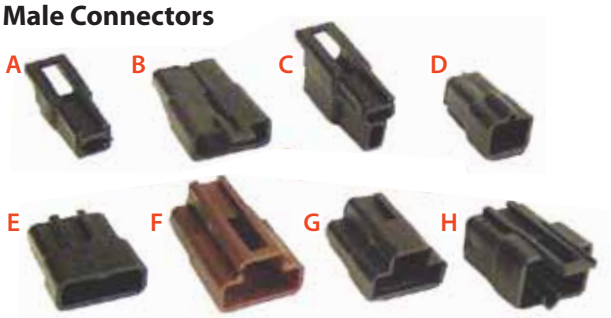


Female Connectors



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

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

Female Terminals



Part Number	Wire Gauge
2962508*	20-18
2965141	20-18
2962447*	16-14
2965142	16-14
2962544*	12
2965143	12
6288913	10

**Terminals are made from non-plated brass*

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

Male Terminals



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

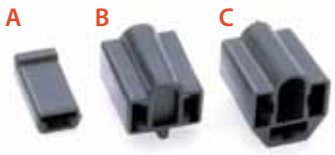
Get everything you need to make complete connections all in one box with our Delphi 56 Series Connector Kit (56-SERIES-KIT).

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



Female Connectors



Part Number	No. of Cavities	Color	Figure
2977878	1	Black	A
2965809	2	Black	B
2965810	3	Black	C

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
6294063	12-10

Male Terminals



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

Delphi 56 & 59 Series: Tools



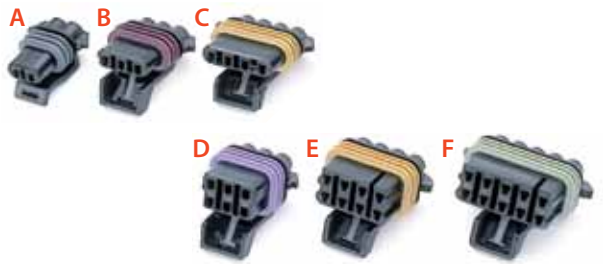
Part Number	Description	Fig.
12085271	Two step crimper for 20-14ga. wire. Unsealed connectors only.	A
6285847	Two step crimper for 12-10ga. wire. Unsealed connectors only.	B
8913440	One step crimper for 20-14ga. wire. Unsealed connectors only.	C
12094430	Removal tool	D

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 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	18	Dk. Red
15324976	16	White

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

Cavity Plug



Part Number	Color
12059168	Dk. Red

We also offer a 365 piece Metri-Pack 150 Series Kit (MP-150-KIT), complete with all of the connectors, terminals & seals you'll need. See page 390 for more details.

Connector Position Assurance (CPA)



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

Delphi makes a precision screw driver set, specifically for their Metri-Pack series connectors. To order, just ask for part#: 12032198

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 Connectors



Part Number	No. of Contacts	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 Contacts	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

Male Terminals



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

Metri-Pack 150 Series: Tools



Part Number	Description	Fig.
12039500	Two step crimper for 22-16ga. wire. Unsealed connectors only.	A
12155975	Two step crimper for 20-14ga. wire. Sealed connectors only.	B
12094429	Removal tool	C

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

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.

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)
- 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
12040977	3	C	12034145
12129565	4	D	15300016
12084891	5	E	15324857

Male Connectors





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

Female Terminals



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

Male Terminals



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

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 390 has everything you'll need to make complete connections.

Connector Position Assurance (CPA)



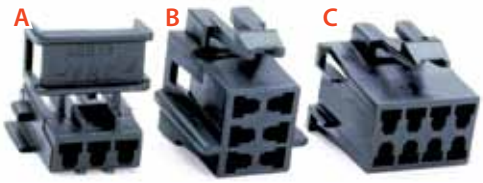
Part Number	Description	Fig.
12052834	For use on all 280 Series sealed, 1 cavity connections	A
12020833	For use on all 280 Series sealed, 3-5 cavity connections	B

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)



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

Metri-Pack 280 Series: 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
12094430	Removal tool	C

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

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



Female Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12052613	2	A	12059897

Male Connectors



Part Number	No. of Cavities	Fig.	Secondary Lock (TPA)
12065863	2	A	12059897

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

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
12066082	Green

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

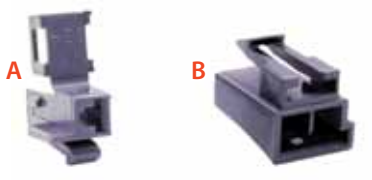
Female connectors accept female terminals & male connectors accept male terminals.

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)

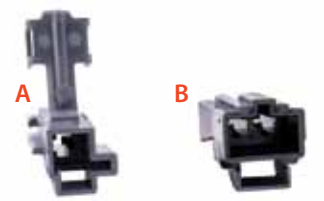


Female Connectors



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
12066269	22-20
12020119	20-18
12020120	16-14
12052827	12
12033820	12-10

Metri-Pack 480 Series: Tools



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

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



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*

Male Connectors



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

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

Cable Seals



Part Number	Wire Gauge	Color
12077759	20-18	Tan
12052388	16-14	Dk. Red
15324994	14	Lt. Gray
15324996	12	Blue
12052386	10	Green

Cavity Plug



Part Number	Color
12059255	Lt. Green

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

Connector Position Assurance (CPA)



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

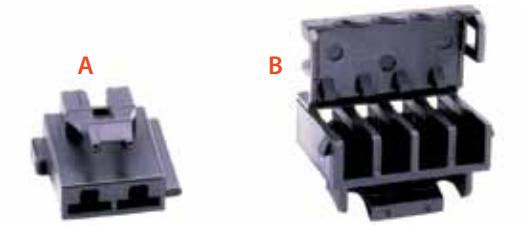
For an assortment of 630 Series connectors, terminal & seals, order our Metri-Pack 630 Series Sealed Connector Kit (MP-630-KIT),

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)



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

Metri-Pack 630 Series: Tools



Part Number	Description	Fig.
12039500	Two step crimper for 22-16ga. wire. Unsealed connectors only.	A
12071687	Two step crimper for 12-10ga. wire. Sealed connectors only.	B
12094430	Removal tool	C

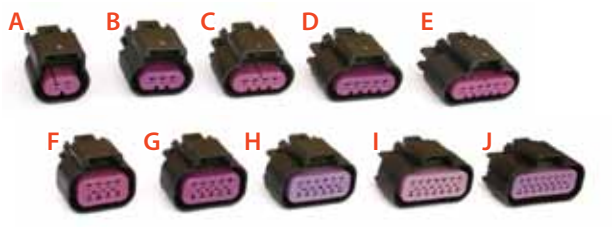
A Metri-Pack crimping tool is required to assure a satisfactory seal.

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)
- Cavity plugs are required for each unused cavity
- Primary Lock Reinforcement (PLR) is included with all of these connectors

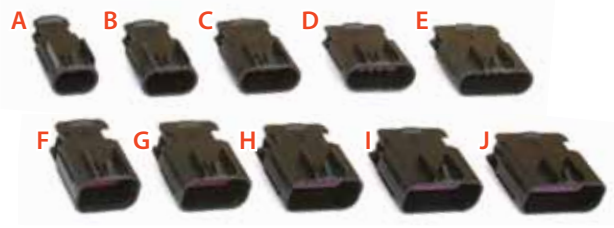
Delphi's GT Series of terminals & connectors use a smaller, 2-rib seal that saves on size & material without loss of performance.

Female Connectors



Part Number	No. of Cavities	Fig.
13510085	2	A
13519047	3	B
15487756	4	C
13519051	5	D
15397577	6	E
15326835	8	F
15326842	10	G
13530777	12	H
15326856	14	I
15326863	16	J

Male Connectors



Part Number	No. of Cavities	Fig.
13510099	2	A
13519049	3	B
15487755	4	C
13519053	5	D
15397579	6	E
15326840	8	F
15326847	10	G
15326854	12	H
15326861	14	I
15326868	16	J

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)

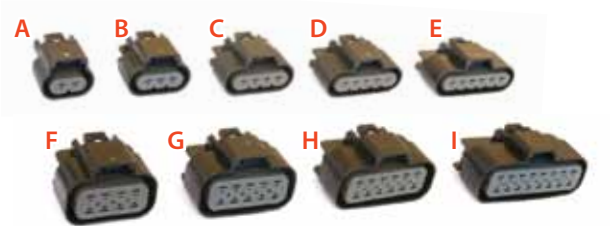


Part Number	Description
15317832	For use on all GT-150 Series sealed connections

GT-280 Series: Sealed Connectors

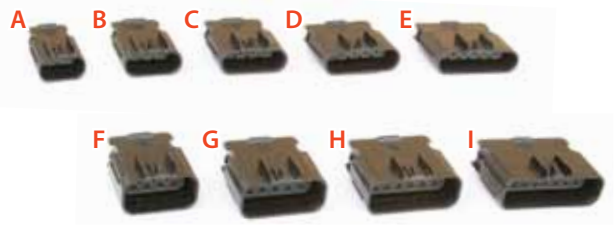
- Current capability: 0-25 amps
- One terminal & one cable seal are required for each cavity (all must be ordered separately)
- Cavity plugs are required for each unused cavity
- Primary Lock Reinforcement (PLR) is included with all of these connectors

Female Connectors



Part Number	No. of Cavities	Fig.
13518845	2	A
13521455	3	B
13521459	4	C
13521463	5	D
13521467	6	E
15326654	8	F
15326660	10	G
15326910	12	H
15326666	16	I

Male Connectors



Part Number	No. of Cavities	Fig.
13518847	2	A
13521457	3	B
13521461	4	C
13521465	5	D
13521469	6	E
15326655	8	F
15326661	10	G
15326915	12	H
15326667	16	J

Female Terminals



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

Male Terminals



Part Number	Wire Gauge
15304730	22-20
15304731	18-16
15304732	14-12

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-150 Series sealed 8-16 cavity connections

GT-150 & GT-280 Series: Tools



Part Number	Description	Fig.
12155975	Two step crimper for 20-14ga. wire. Sealed connectors only.	A
12094430	Removal tool	B

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
12015793	3	1 0 1	C
12015798	4	1 2 2 0	D
12015797	4	1 0 0 1	E
12015799	6	0 1 0 0 0 1	F
15492531	22	N/A	G

Male Connectors





Part Number	No. of Contacts	Index Code	Fig.
12010996	1	1	A
12010973	2	1 0	B
12010717	3	1 0 1	C
12015024	4	4 1 0 4	D
12010974	4	1 0 0 1	E
12010975	6	1 0 0 0 1 0	F
15492521	22	N/A	G

Male Terminals



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

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

Female Terminals



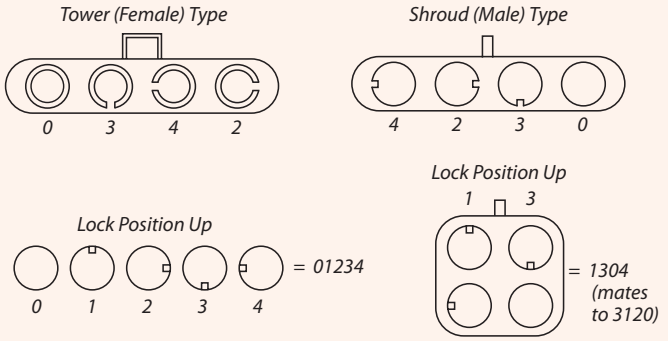
Part Number	Wire Gauge
12020801	22
12089188	20-18
12124580	16-14
12124581	12

Get everything you need in one box! Check out the Delphi Weather Pack Connector Kit (WP-2003) on page 390.

Weather Pack Series: Sealed Connectors, cont'd

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 it's 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.



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	Size (mm)
12047835	12.2L x 23.8H x 8.4W

For your convenience, we also offer pre-made Weather Pack pigtails. For all of the sizes and details see page 220.

Weather Pack Series: Tools



Part Number	Description	Fig.
12085270	Two step crimper for 16-12ga. wire	A
12014254	One step crimper for 20-14ga. wire	B
12014012	Removal tool	C
12033495	Cable seal insertion tool	D

How To Assemble Most Sealed Delphi Connectors

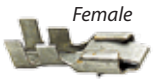
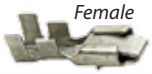
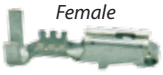


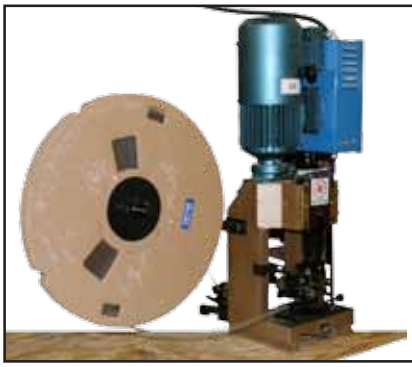
Before stripping your wire, be sure to slide the cable seal onto the wire, behind the portion to be stripped. After stripping, align seal with cable installation.



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.

Delphi Reel Terminals

Part Number	Series	Wire Gauge	Qty. Per Reel	
2965141-REEL	56 Series Unsealed - Female	20-18	1500	
2965142-REEL	56 Series Unsealed - Female	16-14	1500	 Female
2965143-REEL	56 Series Unsealed - Female	12	1500	
2965481-REEL	56 Series Unsealed - Male	20-18	4000	 Male
2971962-REEL	56 Series Unsealed - Male	16-14	2000	
2971859-REEL	56 Series Unsealed - Male	12	2000	
2973216-REEL	59 Series Unsealed - Female	16-14	1500	 Female  Male
8905807-REEL	59 Series Unsealed - Male	16-14	3500	
12084200-REEL	150 Series Sealed - Female	22-20	3000	 Female
12048074-REEL	150 Series Sealed - Female	18-16	3000	
12077628-REEL	150 Series Sealed - Male	22-20	2800	 Male
12045773-REEL	150 Series Sealed - Male	18-16	3000	
12064971-REEL	150 Series Unsealed - Female	22-20	4500	 Female
12047767-REEL	150 Series Unsealed - Female	18-16	4500	
12059894-REEL	150 Series Unsealed - Male	22-20	5000	 Male
12047581-REEL	150 Series Unsealed - Male	18-16	5000	
12084201-REEL	280 Series Sealed - Female	22-20	2200	
12077411-REEL	280 Series Sealed - Female	18-16	2300	 Female
12129493-REEL	280 Series Sealed - Female	14-12	2300	
12124977-REEL	280 Series Sealed - Male	22-20	2000	 Male
12048159-REEL	280 Series Sealed - Male	18-16	2200	
12129497-REEL	280 Series Sealed - Male	14-12	2000	
12034046-REEL	280 Series Unsealed - Female	20-18	2500	 Female
12066214-REEL	280 Series Unsealed - Female	16-14	2500	
12034047-REEL	280 Series Unsealed - Male	20-18	3500	 Male
12020116-REEL	280 Series Unsealed - Male	16-14	3000	
12089040-REEL	Weather Pack - Female	20-18	2200	
12124582-REEL	Weather Pack - Female	16-14	2200	 Female
12124587-REEL	Weather Pack - Female	12	2200	
12089188-REEL	Weather Pack - Male	20-18	2200	 Male
12124580-REEL	Weather Pack - Male	16-14	2200	
12124581-REEL	Weather Pack - Male	12	2200	



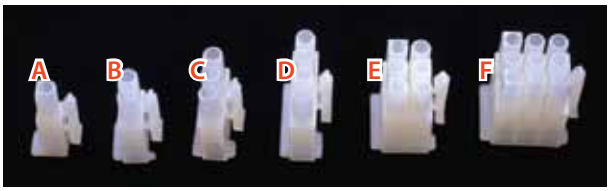
We also offer the necessary tooling to go along with these Delphi reel terminals. For more information, talk to your local sales rep or customer service.

Molex

.093" Pin & Socket: Connectors

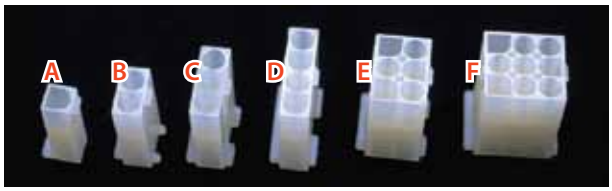
- Current capability: 9-12 amps
- Operating voltage: 600 volts
- Nylon housings, with a flammability rating of UL94V-2
- Fully isolated terminals
- UL File #E29179, CSA File #LR19980

Receptacle Connectors



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

Plug Connectors



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

Pin Terminals



Part Number	Wire Gauge
02-09-2137	24-22
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
02-09-1139	24-22
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: Tools



Part Number	Description	Fig.
PA-1631	Makes mechanical & electrical crimps simultaneously. For 24-14ga. wire.	A
PA-1645	Makes mechanical & electrical crimps simultaneously. For 30-18ga. wire.	B
11-03-0006	Extraction tool for 24-14ga. wire.	C

AMP / Tyco

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 221ºF
- 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

Pin Terminals



Part Number	Wire Gauge
60618-1	24-18
60620-1	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.

Socket Terminals



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

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

MATE-N-LOK®: Tools



Part Number	Description	Fig.
PA-1631	Makes mechanical & electrical crimps simultaneously. For 24-14ga. wire.	A
PA-1645	Makes mechanical & electrical crimps simultaneously. For 30-18ga. wire.	B
465644-1	Extraction tool for pins & sockets.	C
455830-1	Insertion tool	D
305183	Extraction tool for 20-16ga., .062 pin dia.	E
305183-7	Extraction tool for 20-16ga., .093 pin dia.	E

Deutsch

DTM Series: Connectors

- Current capability: 7.5 amps
- Thermoplastic housings & wedge locks, rated at -67ºF to 257ºF
- 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.

Receptacle Connectors



Part Number	No. of Cavities	Wedge Locks	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
DTM04-08P	8	WM-8P	E
DTM04-12P	12	WM-12P	F

Receptacle connectors accept pin terminals & have green secondary locks.

Plug Connectors



Part Number	No. of Cavities	Wedge Locks	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
DTM06-08S	8	WM-8S	E
DTM06-12S	12	WM-12S	F

Plug connectors accept socket terminals & have orange secondary locks.

Solid Pin Terminals



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

Solid Socket Terminals



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

Open Barrel Pin Terminals



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

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

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



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

DT Series: Connectors

- Current capability: 13 amps
- Thermoplastic housings & wedge locks, rated at -67ºF to 257ºF
- 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.

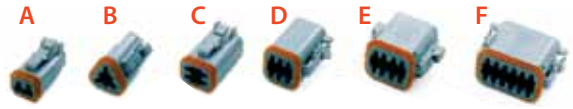
Receptacle Connectors



Part Number	No. of Cavities	Wedge Lock	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.

Plug Connectors



Part Number	No. of Cavities	Wedge Lock	Repl. Seal	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.

Solid Pin Terminals



Part Number	Contact Size	Wire Gauge
0460-202-16141	16	18-16
0460-215-16141	16	16-14

Solid Socket Terminals



Part Number	Contact Size	Wire Gauge
0462-201-16141	16	18-16
0462-209-16141	16	16-14

Open Barrel Pin Terminals



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

Open Barrel Socket Terminals



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

Sealing Plugs



Part Number	Contact Size
114017	16-12

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

You'll always need more than one of these versatile connectors, so think about one of our kits. Our DT Series Deutsch Connector Kit (DE-DT-KIT) on page 391 has everything you'll need, including the tools!

DTP Series: Connectors

- Current capability: 25 amps
- Thermoplastic housings & wedge locks, rated at -67ºF to 257ºF
- Silicone elastomer seals create a 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

Receptacle Connectors



Part Number	No. of Cavities	Wedge Locks	Fig.
DTP04-2P	2	WP-2P	A
DTP04-4P	4	WP-4P	B

Receptacle connectors accept pin terminals & have green secondary locks.

Plug Connectors



Part Number	No. of Cavities	Wedge Locks	Fig.
DTP06-2S	2	WP-2S	A
DTP06-4S	4	WP-4S	B

Plug connectors accept socket terminals & have orange secondary locks.

Solid Pin Terminals



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

Solid Socket Terminals



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

Open Barrel Pin Terminals



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

Open Barrel Socket Terminals



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

Sealing Plugs



Part Number	Contact Size
114017	16-12

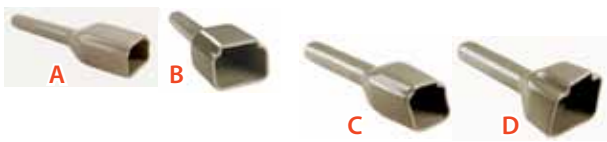
DTP Series connectors will only accept contact size 20 terminals & plugs.

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

Boots



Part Number	Description	Fig.
DTP2P-BT	2-way receptacle boot	A
DTP2S-BT	2-way plug boot	B
DTP4P-BT	4-way receptacle boot	C
DTP4S-BT	4-way plug boot	D

HD10 Series: Connectors

- Current capability: 13 amps
- Thermoplastic housings & silicone rubber grommets, rated at -67ºF to 257ºF
- 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



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

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

Protective Plug Caps



Part Number	Used For
HDC14-3	3 cavity plugs
HDC14-6	6 cavity plugs
HDC14-9	9 cavity plugs

Protective Receptacle Caps



Part Number	Used For
HDC16-3	3 cavity receptacles
HDC16-5	5 cavity receptacles
HDC16-6	6 cavity receptacles
HDC16-9	9 cavity receptacles

Solid Pin Terminals



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

Solid Socket Terminals



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

Sealing Plugs



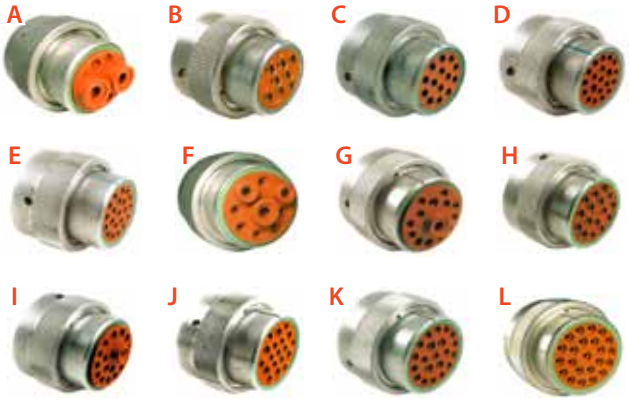
Part Number	Contact Size
114017	16-12

HD10 Series connectors only accept contact size 16 terminals & plugs. Connectors &accessories are not interchangeable with the HD30 or HDP30 Series.

HD30 Series: Connectors

- Current capability: 100 amps
- 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 - size16	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 - size16	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



Part Number	Shell Size
HDC36-18	18
HDC36-24	24

Protective Receptacle Caps



Part Number	Shell Size
HDC34-18	18
HDC34-24	24

Sealing Plugs



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

Panel Nuts & Lockwashers



	Part Number	Description	Shell Size	Fig.
A	114020-90	Nut	18	A
A	112263-90	Nut	24	A
B	114021	Washer	18	B
B	112264	Washer	24	B

Strain Relief Brackets



Part Number	Description	Shell Size	Fig.
WHDS-18-1	Straight	18	A
WHDS-24-1	Straight	24	A
WHDS-18-2	90°	18	B
WHDS-24-2	90°	24	B

HD30 Series: Connectors, cont'd

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
0460-204-04141	4	6

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

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
1060-12-0122	12	14-12

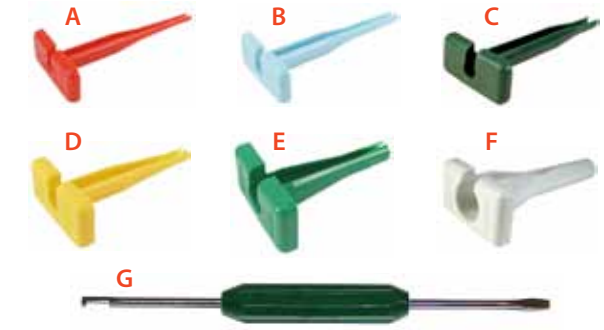
Open Barrel Socket Terminals



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

Deutsch: 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	12-14	D
114008	8	10-8	E
114009	4	6	F
DT-RT-1	N/A	N/A	G

Solid Contact Crimping Tools



Part Number	Description	Wire Gauge	Fig.
PA-1461	4 indent	20-12	A
HDT-48-00	8 indent	20-12	B
0426-209-0000	Repl. screw	N/A	C

Open Barrel Contact Crimping Tools



Part Number	Contact Size	Wire Gauge
DTT-20-02	20	22-16
DTT-16-00	16	18-16
DTT-12-00	12	14-12

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REFERENCE

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Battery Lugs & Terminals

Copper Lugs

- 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	.465
	BCL-8-14	8	1/4	.070	.465
W	BCL-8-56	8	5/16	.070	.465
W	BCL-8-38	8	3/8	.065	.570
	BCL-6-10	6	10	.070	.465
W	BCL-6-14	6	1/4	.070	.540
W	BCL-6-56	6	5/16	.065	.540
W	BCL-6-38	6	3/8	.065	.540
W	BCL-6-12	6	1/2	.050	.670
	BCL-4-10	4	10	.075	.545
	BCL-4-14	4	1/4	.075	.545
W	BCL-4-56	4	5/16	.075	.545
W	BCL-4-38	4	3/8	.075	.570
	BCL-4-12	4	1/2	.065	.670
	BCL-2-14	2	1/4	.100	.650
	BCL-2-56	2	5/16	.100	.650
W	BCL-2-38	2	3/8	.095	.650
W	BCL-2-12	2	1/2	.090	.650
	BCL-1-14	1	1/4	.100	.645
W	BCL-1-56	1	5/16	.095	.645
W	BCL-1-38	1	3/8	.095	.695

	Part Number	Wire Gauge	Stud Size	Stock Thickness	Pad Width
W	BCL-1-12	1	1/2	.090	.750
	BCL-1/0-14	1/0	1/4	.100	.725
	BCL-1/0-56	1/0	5/16	.095	.725
W	BCL-1/0-38	1/0	3/8	.095	.725
W	BCL-1/0-12	1/0	1/2	.090	.825
	BCL-2/0-14	2/0	1/4	.100	.825
	BCL-2/0-56	2/0	5/16	.095	.825
	BCL-2/0-38	2/0	3/8	.095	.825
	BCL-2/0-12	2/0	1/2	.090	.825
	BCL-3/0-14	3/0	1/4	.100	.910
	BCL-3/0-56	3/0	5/16	.100	.910
	BCL-3/0-38	3/0	3/8	.100	.910
W	BCL-3/0-12	3/0	1/2	.100	.910
	BCL-4/0-14	4/0	1/4	.100	1.015
	BCL-4/0-56	4/0	5/16	.100	1.015
W	BCL-4/0-38	4/0	3/8	.100	1.015
	BCL-4/0-12	4/0	1/2	.100	1.015
	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 (COPPER-LUG-KIT) on page 391. 226 different sized lugs come housed in one of our handy metal boxes.

To ensure the perfect crimp, we recommend the TS-1090 crimper for 6-1/0ga. or the TS-1080 crimper for all 6-4/0ga. BCL & HDL lugs. For more information, see page 402.

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



Check out our Heavy Duty Lug Kit (HDL-KIT) on page 391. It features 170 of these heavy duty lugs and has everything you'll need.

Part Number	Wire Gauge	Stud Size	Stock Thickness
HDL-8-14	8	1/4	.075
HDL-8-38	8	3/8	.060
HDL-6-14	6	1/4	.100
HDL-6-56	6	5/16	.075
HDL-6-38	6	3/8	.075
HDL-6-12	6	1/2	.065
HDL-4-14	4	1/4	.150
HDL-4-56	4	5/16	.110
HDL-4-38	4	3/8	.110
HDL-4-12	4	1/2	.110
HDL-1-14	1-2	1/4	.130
HDL-1-56	1-2	5/16	.130
HDL-1-38	1-2	3/8	.130
HDL-1-12	1-2	1/2	.130

Part Number	Wire Gauge	Stud Size	Stock Thickness
HDL-100-56	1/0	5/16	.135
HDL-100-38	1/0	3/8	.135
HDL-100-12	1/0	1/2	.135
HDL-200-14	2/0	1/4	.170
HDL-200-56	2/0	5/16	.170
HDL-200-38	2/0	3/8	.170
HDL-200-12	2/0	1/2	.170
HDL-300-56	3/0	5/16	.175
HDL-300-38	3/0	3/8	.175
HDL-300-12	3/0	1/2	.175
HDL-400-38	4/0	3/8	.180
HDL-400-56	4/0	5/16	.180
HDL-400-12	4/0	1/2	.180

90º 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

45º 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

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

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

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

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 402.

For longer service life on all of your battery cable connections, we recommend our 700 Series shrink tubing (see page 380 for specs). For your convenience, we now offer it cut into 1-1/2" pieces. Please contact customer service for more details.

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	Post Type	Wire Gauge
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*

Field Serviceable Compression Battery Terminals

- Made from tin plated copper alloy
- Installs with common hand tools, screw in, quick connect
- Available in other sizes, please inquire for details

Straight Clamp Terminal



Part Number	Wire Gauge
TC-50-4	4
TC-25-2	2
TC-200-2/0	2/0

Heavy Wall Terminal



Part Number	Wire Gauge	Stud Size
TE-50-4	4	1/2
TE-25-2	2	1/2
TE-200-2/0	2/0	1/2

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

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

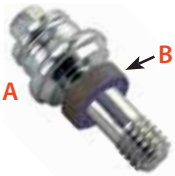


Part Number	Description
SMBA-S	1.125" total length, 3/8-16 thread

Side Mount Accessory Adapters

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

Long Side Mount Adapter



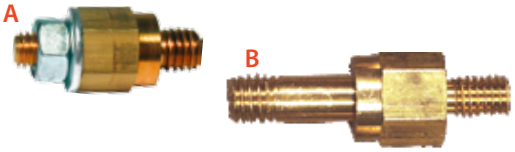
Part Number	Description	Fig.
SMBA-L	1" total length, 3/8-16 thread. Zinc plated	A
6706-010	Optional spacer	B

Extra Long Side Mount Adapter



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

Heavy Duty Side Mount Adapter



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"		B

Top Mount Accessory Adapters

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

Heavy Duty Top Mount Adapter



Part Number	Description
ADN-14	1.610" total length, 5/16-18 stud & 1/4-20 accessory post
ADN-516	1.870" total length, 3/8-16 stud & 5/16-18 accessory post
ADN-38	1.875" total length, 3/8-16 stud & 3/8-16 accessory post

Battery Nuts & Bolts



Part Number	Length	Stud Size	Post Type	Fig.
BB	1-1/4"	5/16	N/A	A
BB-BLACK	1-1/4"	5/16	Negative	B
BB-RED	1-1/4"	5/16	Positive	C
SMBB	7/16"	5/16	N/A	D

Solder & Flux

Flux

A



B



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 405 & 406

Solder

A



B



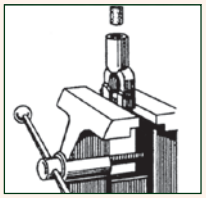
Part Number	Tin % / Lead %	Core Type	Dia.	Net Weight	Fig.
TS60/40RC-032	60 / 40	Rosin	.032	.5 oz.	A
TS60/40RC-032-1	60 / 40	Rosin	.032	1 lb.	B
TS60/40RC-062-1	60 / 40	Rosin	.062	1 lb.	B
TS60/40RC-093-1	60 / 40	Rosin	.093	1 lb.	B
TS60/40RC-125-1	60 / 40	Rosin	.125	1 lb.	B
TS40/60AC-125-1	40 / 60	Acid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

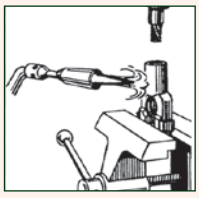


Part Number	Color	Wire Gauge
ESP-6	Gray	6
ESP-4	Gray	4
ESP-2	Green	2
ESP-1	Pink	1
ESP-1/0	Black	1/0
ESP-2/0	Orange	2/0
ESP-3/0	Purple	3/0
ESP-4/0	Yellow	4/0

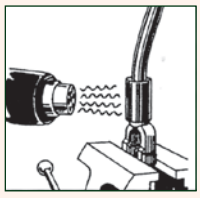
How To Use a Solder Slug



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



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	

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

Battery Power Products, cont'd

SB 175 Series Connector - 175 Amp



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



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

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



We not only offer a wide variety of battery power products, we can also provide custom assemblies to fit your specifications. Whether it be 1 or 100 pieces, our experienced manufacturing department staff can offer fast lead times on a variety of cable assemblies using the highest grade materials in today's market.

We recommend the TS-1090 or TS-1080 tools for all the lugs in this section. For more information, see page 402.

Terminal Protectors

- Protects alternator & electrical system from power surges & shorts
- Reduce risk of battery explosion caused by sparks
- Made from PVC rated to 190ºF
- 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

These protectors work with our BCL terminals found on page 84.

Heavy Duty Starter





Part Number	Color	A	B	Wire Gauge
TSHDS-4R	Red	1.00″	.300″	4
TSHDS-4B	Black	1.00″	.300″	4
TSHDS-1R	Red	1.00″	.500″	1 - 2
TSHDS-1B	Black	1.00″	.500″	1 - 2
TSHDS-100R	Red	1.00″	.650″	1/0 - 2/0
TSHDS-100B	Black	1.00″	.650″	1/0 - 2/0

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

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

These protectors work with our HDL & SBT terminals found on page 85 & 86.

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

Snap-On Straight Clamp



Part Number	Color	Wire Gauge
TSSCS-6R	Red	6
TSSCS-6B	Black	6
TSSCS-1R	Red	1 -2
TSSCS-1B	Black	1 - 2

Battery Cables

Side to Side Paralleling Cables



Part Number	Length (inches)	Wire Gauge
BTF-8X	8	2/0
BTF-12X	12	2/0

Delco Stackable Battery Cables



Part Number	Length (inches)	Wire Gauge	Fig.
50506	17	4/0	A
50508	15	2/0	B
50507	9	2/0	C

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-BLK	8	1/0	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.

Ground Straps

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

Bulk Ground Strapping



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

Spool Sizes Available	
50′	50
100′	100
500′	50

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

M810 - 100

Ground Straps, cont'd

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

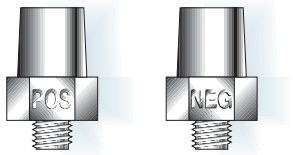


Part Number	Length (inches)	Width (inches)	Wire Gauge	Stud Size
GS-1009	9	1-1/2	1/0	3/8
GS-1012	12	1-1/2	1/0	3/8
GS-1015	15	1-1/2	1/0	3/8
GS-1018	18	1-1/2	1/0	3/8

Heavy Duty Battery Accessories

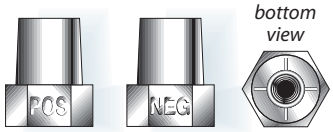
Battery Charging Posts

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 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

See page 95 for the corresponding Jumper Cable Ends to use with these HD Battery Jumper Terminals.



Part Number	Color	Post Type	Amps	Volts
CH-46210-02	Red	Positive	150	6 - 48
CH-46210-03	Black	Negative	150	6 - 48
CH-97846-A	Red	Replacement cap		
CH-97846-B	Black	Replacement cap		

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	Color
CH-46211-01	6 - 36	Black
CH-46211-R	6 - 36	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
C-5898	Red	3/8-16	250
C-1938	Black	3/8-16	250
C-2791	Black	1/4-20	100

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 information.

Or, if you're interested in making your own, check out our jumper cable clamps on the following page & the bonded booster cable you'll need to assemble them on page 104.

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



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

500 Amp Clamps

- Jaws made of solid copper
- Supplied 4 per set: 2 red & 2 blue



Part Number	Overall Length	Jaw Opening
JCHD	6-3/4"	1-1/8"
JCHD-JAW-SET	Replacement jaws, 1 large, 1 small, 2 screws & 2 fasteners per set	

400 Amp Clamps



- Clamps made of solid copper
- Supplied 4 per set: 2 red & 2 black

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 page 121.

Battery Chargers

.5 Amp Battery Maintainer



- Reverse polarity protected
- Perfect for cars, tractor's boats motorcycles ATVs, snowmobiles & personal watercraft
- Two stage electronics regulate replacement current to equal battery (storage) discharge rate
- Can be left on indefinitely without over charging or boiling of electrolytes
- LED indicates proper operation
- Keeps 5 to 125 amp batteries factory fresh

Part Number	Charging Task	Battery Types	Battery Voltage	Output Amps	AC	DC
MA-2602	Maintain charge	Flooded & Gel	12	.5	Straight plug	6' cord w/ alligator clips

We also carry a wide selection of battery inverters. See pages 119 & 120 for all of the details.

Battery Chargers, cont'd

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	Full & maintain charge	Flooded, gel or AGM	12	6	6' cord w/ straight plug	4' cord w/ battery clips	5.5 x 5 x 2.4

Battery Service Aids & Accessories

Battery Chemicals

Noco Corrosion Preventatives



Part Number	Description	Net Weight
NC-CB-104	Brush-on, red	4oz.
NC-CB-304	Brush-on, red	32oz.
NC-A-202	Aerosol, red	12.25oz

Noco Battery Cleaners



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

Quick Cote Corrosion Preventative

- 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
NC-ST-13	Side terminal	50

Battery Brushes

- Inner bristles clean post terminals, outers clean cable connectors



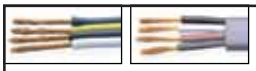
Part Number	Description
TS-112	Metal housing

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REFERENCE

Conversion Chart for Wire & Cable Carrying Capacities 98
Specialty Wire Services 100

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
Wire Gauge	*# of Conductors*	*Type of Wire*	*Spool Size*	*Color*
18	- 4	B	- 100	

Stranding

7 x 30

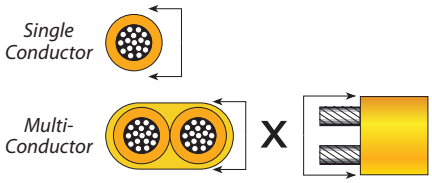
This specifies the number of strands (metal conductors) that are contained inside the jacket of the wire. The first number states that the wire has seven strands. The second number states that each of those strands are 30ga. wire.



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			



We have over 500 sizes & varieties of wire in stock. More sizes, custom colors, striping & printing are also available. We also have access to quality cable manufacturers, including: General Cable, Dearborn & Coleman Cable. So, if you don't see exactly what you're looking for in our catalog, please let us know, we'll find it for you!

Automotive Wire

GPT Primary Wire

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40ºF to 176ºF; 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)
22 GPT	7 x 30	.079	5000
20 GPT	7 x 28	.084	5000
18 GPT	16 x 30	.092	11000
16 GPT	19 x 29	.103	9000
14 GPT	19 x 27	.117	6000
12 GPT	19 x 25	.141	4500
10 GPT	19 x 23	.173	3500
8 GPT	19 x 21	.215	2500

Colors			
Black	BLK	Orange	ORG
Blue	BLU	Pink	PNK
Brown	BRN	Purple	PUR
Gray	GRY	Red	RED
Green	GRN	Tan	TAN
Lt. Blue	LBL	White	WHT
Lt. Green	LGR	Yellow	YEL

Spool Sizes	
100ft.	100
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

18 GPT - 100 - BLK

GXL Wire

- Jacket: Cross-linked polyethylene
- Conductor: Stranded, bare copper
- Rated: -58ºF to 257ºF; 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. w/ temperature, type, gauge & SAE
- Uses: exterior wiring harnesses for cars, trucks, tractors & off-road vehicles



Part Number	Stranding	Nom. O.D. (inches)	Bulk Qty. (feet)
20 GXL	7 x 28	.085	5000
18 GXL	16 x 30	.092	5000
16 GXL	19 x 29	.102	5000
14 GXL	19 x 27	.117	5000
12 GXL	19 x 25	.141	2500
10 GXL	19 x 23	.173	1000
8 GXL	19 x 21	.215	1000
6 GXL	37 x 21	.281	1000

Colors			
Black	BLK	Orange	ORG
Blue	BLU	Pink	PNK
Brown	BRN	Purple	PUR
Gray	GRY	Red	RED
Green	GRN	Tan	TAN
Lt. Blue	LBL	White	WHT
Lt. Green	LGR	Yellow	YEL

Spool Sizes	
100ft.	100
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

20 GXL - 100 - RED

Need an assortment of GXL wire along with the terminal, connectors, cable ties and tool that go with it? Then check out our Wire Caddy Kit (TS-WC-KIT). See page 391 for more information.

TXL Extra Thin Wall Wire

- Jacket: Cross-linked polyethylene
- Conductor: Stranded, bare copper
- Rated: -40ºF to 257ºF; 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)
22 TXL	7 x 30	.062	5000
20 TXL	7 x 28	.070	5000
18 TXL	19 x 30	.078	5000
16 TXL	19 x 29	.089	5000
14 TXL	19 x 27	.103	5000
12 TXL	19 x 25	.124	2500
10 TXL	19 x 23	.155	1000

Colors

Black	BLK	Orange	ORG
Blue	BLU	Pink	PNK
Brown	BRN	Purple	PUR
Gray	GRY	Red	RED
Green	GRN	Tan	TAN
Lt. Blue	LBL	White	WHT
Lt. Green	LGR	Yellow	YEL

Spool Sizes

100ft.	100
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

16 TXL - 1000 - YEL

Tefzel High Temp Wire

- Jacket: Extruded teflon
- Conductor: Stranded, silver-plated copper
- Rated: -67ºF to 392ºF; 600 volts
- Specifications: SAE AS22759
- Features: Resistant to high temperatures where smoke emission, overload stability & flammability may be a problem
- Uses: for racing teams or in any other application where high heat resistance is a must



Part Number	Stranding	Nom. O.D. (inches)	Colors Available
20 TEF	19 x 32	.068	RED, BLK
18 TEF	19 x 30	.078	BLK, RED, WHT, YEL
16 TEF	19 x 29	.085	
14 TEF	19 x 27	.100	BLK, ORG, RED
12 TEF	19 x 25	.120	BLK, RED, WHT

Colors*

Black	BLK	White	WHT
Orange	ORG	Yellow	YEL
Red	RED		

Spool Sizes

100ft.	100
500ft.	500
1000ft.	1000

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

20 TEF - 500 - RED

Minimums may apply on some colors & sizes

Specialty Wire Services

Are you interested in having your wire pre-cut, stripped or even terminated? Our in-house wire capabilities can help you finish your next project quickly & to your exact specifications. We also offer striped wire in almost any combination of our standard colors. Talk to your sales rep or customer service for more information on these services & more!



Multi-Conductor Wire

Bonded Wire

- Jacket: Polyvinyl Chloride (PVC)
- Conductor: Stranded, bare copper
- Rated: -40ºF to 176ºF; 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 vehicles



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	6000
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
12-3 B	19 x 25	.147 x .421	4500
18-4 B	16 x 30	.094 x .376	10000
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, brown & white

Spool Sizes

100ft.	100
250ft.	250
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

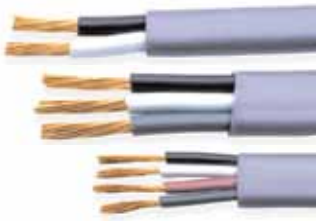
18 - 2 B - 250

Our bonded wire is available in custom colors; minimums may apply. Call customer service for info.

With the additional brown (tail light) in the 16-5 wire, a crossover wire for your trailer is no longer necessary.

Duplex Primary Wire

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40ºF to 221ºF; 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

2 conductor	white & black
3 conductor	green, white & black
4 conductor	green, red, white & black

Spool Sizes

100ft.	100
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

18 - 2 D - 500

Multi-Conductor Trailer Cable

Trailer Cable

- Jacket: PVC or Neoprene
- Conductor: Stranded, bare copper
- Rated: -40ºF to 176ºF (PVC) -58ºF to 221ºF (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
14-7 N	6/12ga. 1/10ga.	65 x 30 105 x 30	.690	Blue Neoprene
14-7 T	7/14ga.	142 x 19	.375	Black Thin Wall PVC
14-7 RV	4/14ga. 1/12ga. 2/10ga.	19 x 27 19 x 23 19 x 23	.560	Black PVC
14-7 P	7/14ga.	142 x 19	.560	Black PVC
14-6 P	6/14ga.	19 x 27	.490	Black PVC
14-6 N	6/14ga.	19 x 27	.580	Blue Neoprene
14-4 N	4/14ga.	19 x 27	.460	Blue Neoprene

	Standard Colors
14-4 N	white, black, red & brown
14-6 N	white, black, yellow, red, green & brown
14-6 P	black, yellow, red, green, brown & blue
14-7 N	black, yellow, red, green, brown, blue & white (10ga.)
14-7 P	white, black, yellow, red, green, brown & blue
14-7 RV	white, black, yellow, red, green brown & blue
14-7 T	white, black, yellow, red, green, brown & blue

Spool Sizes	
50ft.	50
100ft.	100
500ft.	BULK

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

14 - 7 T - 100

ABS Trailer Cable

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -58ºF to 176ºF
- 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
14-7 ABS	4/12ga. 2/10ga. 1/8ga.	65 x 30 105 x 30 168 x 30	.690	Green PVC

	Standard Colors
14-7 ABS	12ga.: black, brown, green & yellow; 10ga.: red & blue; 8ga.: white

Spool Sizes	
100ft.	100
500ft.	BULK

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

14 - 7 ABS - 100

Marine Grade Wire

Single Conductor Boat Cable

- Jacket: Flame retardant PVC
- Conductor: Electro-tinned stranded copper
- Rated: -40ºF to 221ºF (dry), -40ºF to 167ºF (wet); 600 volts
- Specifications: UL 1426; RoHS compliant; meets DOT & 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

Black	BLK	Orange	ORG
Blue	BLU	Pink	PNK
Brown	BRN	Purple	PUR
Gray	GRY	Red	RED
Green	GRN	Tan	TAN
Lt. Blue	LBL	White	WHT
Lt. Green	LGR	Yellow	YEL

Spool Sizes

100ft.	100
500ft.	500
1000ft.	1000
Bulk Reel	BULK

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

18 MGR - 100 - BLK

Multi-Conductor Boat Cable

- Jacket: PVC
- Conductor: Stranded, tinned copper
- Rated: -40ºF to 221ºF (dry), -40ºF to 167ºF (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

2 conductors	black & white
3 conductors	green, black & white

Spool Sizes

100ft.	100
500ft.	500
Bulk Reel	BULK

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

10 - 2 BC - 100

Battery Cable

Bonded Booster Cable

- Jacket: TPR Super Flex
- Conductor: Fully annealed stranded copper
- Rated: -94ºF to 221ºF; 600 volts
- Features: Operating flexibility of -70ºF, 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
Blue jacket w/ red stripe

Spool Sizes			
12ft.	12	100ft.	100
25ft.	25	500ft.	500
50ft.	50	Bulk Reel	BULK

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

SF 44 - 500

Light Duty Booster Cable

- Jacket: Heavy Duty PVC
- Conductor: Fully annealed stranded copper
- Rated: 176ºF; 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	
8-2 B	black & yellow
6-2 B	black & orange

Spool Sizes			
100ft.	100	Bulk	BULK
500ft.	500	Qty.	

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

8 - 2 B - 500

Starter or Ground Battery Cable

- Jacket: PVC
- Conductor: Stranded, bare copper
- Rated: -40ºF to 221ºF; 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	
Red	RED
Black	BLK

Spool Sizes			
25ft.	25	100ft.	100
50ft.	50	Bulk Reel	BULK

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

4 PVC - 100 - RED

Combination Battery & Welding Cable

- Conductor: ASTM Class B flexible soft drawn electrolytic copper
- Rated: -40ºF to 221ºF; 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

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

SF 2 - 50 - BLK

Service Cord

Type SOOW Vutron

- Jacket: Rubber
- Conductor: Fully annealed, stranded bare copper
- Rated: -58ºF to 221ºF; **600 volts**
- Specifications: OSHA approved
- Features: Oil resistant inner & outer insulation
- Uses: portable appliances, tools, small motors, lighting, battery chargers, garage door openers, washing machines, refrigerators & sound equipment



Part Number	Stranding	Current Amps	Nom. O.D. (inches)
18-3 SOOW-V	16 x 30	10	.365
16-2 SOOW-V	26 x 30	13	.370
16-3 SOOW-V	26 x 30	13	.390
16-4 SOOW-V	26 x 30	10	.420
14-3 SOOW-V	41 x 30	18	.535
14-4 SOOW-V	41 x 30	15	.575
12-3 SOOW-V	65 x 30	25	.595
12-4 SOOW-V	65 x 30	20	.650
10-4 SOOW-V	105 x 30	25	.715

Standard Colors	
2 conductors	black & white
3 conductors	black, white & green
4 conductors	black, white, green & red

Spool Sizes	
50ft.	50
100ft.	100
250ft.	250

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

16 - 3 SOOW - V - 250

Looking for more conductors or larger sizes? Contact your sales rep or customer service for product availability.

Type SOOW, SJ & SJOOW

SOOW

- Jacket: Neoprene
- Conductor: Fully annealed, stranded bare copper
- Rated: -40ºF to 194ºF; **600 volts**
- Features: Oil resistant inner & outer insulation

SJ

- Jacket: Rubber
- Conductor: Fully annealed, stranded bare copper
- Rated: -40ºF to 140ºF; **300 volts**

SJOOW

- Jacket: Neoprene
- Conductor: Fully annealed, stranded bare copper
- Rated: -40ºF to 194ºF; **300 volts**
- Features: Oil resistant inner & outer insulation
- Uses: (all types) portable appliances, tools, small motors, lighting, battery chargers, garage door openers, washing machines, refrigerators & sound equipment



Types Available					
SOOW	SOOW	SJ	SJ	SJOOW	SJOOW

Standard Colors	
2 conductors	black & white
3 conductors	black, white & green
4 conductors	black, white, green & red

Spool Sizes	
50ft.	50
100ft.	100
250ft.	250

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

18 - 2 SJ - 250

Part Number	Stranding	Current Amps	SOOW Nom. O.D. (inches)	SJ Nom. O.D. (inches)	SJOOW Nom. O.D. (inches)
18-2	16 x 30	10	.345	.285	.285
18-3	16 x 30	10	.365	.305	.305
18-4	16 x 30	7	.390	.330	.330
16-2	26 x 30	13	.370	.315	.310
16-3	26 x 30	13	.390	.330	.330
16-4	26 x 30	10	.420	.365	.365
14-2	41 x 30	18	.510	.340	.340
14-3	41 x 30	18	.535	.365	.365
14-4	41 x 30	15	.575	.415	.415
12-2	65 x 30	25	.570	.410	.410
12-3	65 x 30	25	.595	.430	.430
12-4	65 x 30	20	.650	.470	.475
10-2	104 x 30	30	.620	N/A	N/A
10-3	104 x 30	30	.660	.610	.580
10-4	104 x 30	25	.715	.655	.655
8-3	65 x .0159	40	.855	N/A	N/A
8-4	65 x .0159	35	.950	N/A	N/A
6-3	133 x .0142	55	.995	N/A	N/A
6-3	133 x .0142	45	1.080	N/A	N/A
4-3	133 x .0179	70	1.160	N/A	N/A
4-4	133 x .0179	60	1.280	N/A	N/A
2-3	168 x .0201	95	1.335	N/A	N/A
2-4	168 x .0201	80	1.485	N/A	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.

Multi-Conductor Communication Cable

- Jacket: PVC jacket, shield is 100% Flexfoil, aluminum / polyester 25% overlap
- Conductor: Fully annealed, stranded tinned copper
- Rated: -4ºF to 176ºF; 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 140ºF)

Shielded Communication Cable

- Uses: industrial equipment controls, computers, broadcast & sound systems & 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-162	2/16ga. - 18ga.	19 x .0117	.314
CCS-163	3/16ga. - 18ga.	19 x .0117	.332



Standard Colors	
2 conductors	black & clear
3 conductors	black, clear & red
4 conductors	black, clear, red & green

Spool Sizes	
100ft.	100
500ft.	500
1000ft.	1000

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

CCS - 183 - 250

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 & clear
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

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

CC - 164 - 100

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

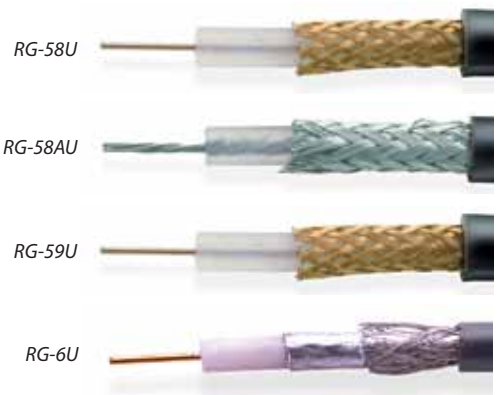
Single Conductor Coaxial Cable

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

For the correct part number, use the abbreviations above (in red), along with this 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 w/ polyamide nylon armor
- Conductor: Fully annealed bare, stranded copper
- Rated: 176ºF 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	1000

Colors*

Black	BLK	Pink	PNK
Blue	BLU	Purple	PUR
Brown	BRN	Red	RED
Gray	GRY	White	WHT
Green	GRN	Yellow	YEL
Orange	ORG		

Spool Sizes*

500ft.	500
Bulk Reel	BULK

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

14 THHN - 500 - BLU

Minimums may apply on some colors & sizes

Single Conductor Machine Tool Wire (MTW)

- Jacket: PVC
- Conductor: Fully annealed bare, stranded copper
- Rated: -40ºF to 194ºF; 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	3000
10 MTW	105 x 30	.179	2000
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*

Black	BLK	Orange	ORG
Blue	BLU	Pink	PNK
Brown	BRN	Purple	PUR
Gray	GRY	Red	RED
Green	GRN	White	WHT
Lt. Blue	LBL	Yellow	YEL

Spool Sizes*

500ft.	500
Bulk Reel	BULK

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

18 MTW - BULK - 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	2500
10-2 SW	413x36	.240 x .485	500

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	

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

22 - 2 SW - 500

Lamp / Appliance Cord

- Jacket: PVC
- Conductor: Fully annealed, stranded, bare copper
- Rated: -4ºF to 140ºF ; 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



Part Number	Stranding	Nom. O.D. (inches)
18-2 LC	41x34	.107 x .210

Colors

Black	BLK	White	WHT
Brown	BRN		

Spool Sizes
250ft. 250

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

18 - 2 LC - 250 - WHT

Check out our new line of wire handling equipment located on page 398, for easy transportation & storage of our wire spools.



Fusible Link Wire

- A fusible ink 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: -13ºF to 140ºF ; 5000 volts (working voltage, intermittent use only), 20000 volts (breakdown voltage)
- Features: Durable insulation w/ 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 in lengths of 25ft. red & 25ft. black, for a total of 50ft.

Wire Markers

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

HELASIGN® Self Laminating Label Booklet

- Booklet conveniently fits in a pocket, while protecting labels from dust
- Label's clear "tail" wraps around text to protect it from abrasion, moisture, dust & dirt
- Accommodates cable dia. from .16" - .67"



Part Number	Color	Label Size W x L	Print Area Height	Wire Range	Labels/ Booklet
598-94920	White	.5" x 1.5"	.5"	14-8ga.	240
598-94220	Red				
598-94320	Orange				
598-94420	Yellow				
598-95920	White	.75" x 2"	.5"	10-2ga.	120
598-95220	Red				
598-95320	Orange				
598-95420	Yellow				
598-96920	White	1" x 3"	.75"	6ga. & up	60
598-96220	Red				
598-96320	Orange				
598-96420	Yellow				

Rite-On Wire Markers



- Comes w/ reloadable dispenser made from high impact plastic that is oil & grease resistant
- Label window holds label in place so you can write w/ 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		

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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	
37003	3	1-1/2	1-25/32	
37004	4	1-7/8	2-5/32	
37005	5	2-1/4	2-17/32	
37006	6	2-5/8	2-29/32	
37007	7	3	3-9/32	
37008	8	3-3/8	3-21/32	
37009	9	3-3/4	4-1/32	
37010	10	4-1/8	4-13/32	
37011	11	4-1/2	4-25/32	
37012	12	4-7/8	5-5/32	
38002	2	1-5/16	1-5/8	
38003	3	1-3/4	2-1/16	
38004	4	2-3/16	2-1/2	
38005	5	2-5/8	2-15/16	
38006	6	3-1/16	3-3/8	
38007	7	3-1/2	3-13/16	
38008	8	3-15/16	4-1/4	
38009	9	4-3/8	4-11/16	
38010	10	4-13/16	5-1/8	
38011	11	5-1/4	5-9/16	
38012	12	5-11/16	6	
39002	2	1-11/16	2-3/32	
39003	3	2-1/4	2-21/32	
39004	4	2-13/16	3-7/32	
39005	5	3-3/8	3-25/32	
39006	6	3-15/16	4-11/32	
39007	7	4-1/2	4-29/32	
39008	8	5-1/16	5-15/32	
39009	9	5-5/8	6-1/32	
39010	10	6-3/16	6-19/32	
39011	11	6-3/4	7-5/32	
39012	12	7-5/16	7-23/32	

37002–37012
UL Listed: XCFR2.E47811
CSA Certified: LR19766
Volts: 300
Amps: 15
Wire Gauge: 22-16
Overall Width: 7/8″
Overall Height: 29/64″
Terminal Spacing: 3/8″
Screw Stud Size: 6-32
Base: Thermoplastic, rated to 266°F

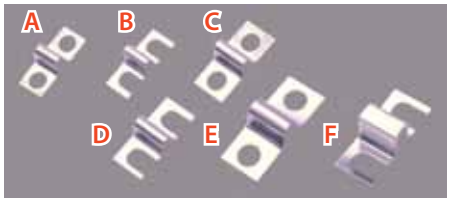
38002–38012
UL Listed: XCFR2.E2806
CSA Certified: LR19766
Volts: 300
Amps: 20
Wire Gauge: 16-14
Overall Width: 1-1/8″
Overall Height: 17/32″
Terminal Spacing: 7/16″
Screw Stud Size: 6-32
Base: General purpose phenolic, rated to 302°F

39002–39012
UL Listed: XCFR2.E62806
CSA Certified: LR19766
Volts: 600
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

39 Series terminal blocks are available in up to 24 sections.

Terminal Block Tabs

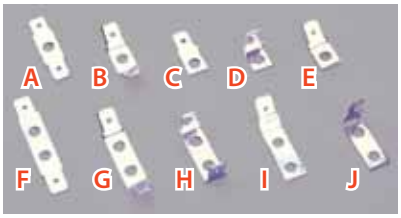
Over the Barrier Jumpers



Part Number	Style	Volts	Amps	For Series	Fig.
3710	Ring	150	15	37000	A
3712	Spade	150	15	37000	B
3810	Ring	250	20	38000	C
3812	Spade	250	20	38000	D
3910	Ring	600	30	39000	E
3912	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
3832	1 end tab	90° angle	J

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	Volts: 250 Stud Size: 3/8" x 7/8"
TB-1-RED	1	1-3/8	2-1/4	
TB-2	2	2-1/4	3	
TB-3	3	3-1/4	4	
TB-4	4	3-3/4	4-1/2	Volts: 30 Stud Size: #10 x 1/2"
TB-5	5	4-1/2	5-1/4	
TB-6	6	5-1/4	6	
TB-8	8	6-1/2	8	

For replacement nuts for these terminal blocks, see page 341 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
- Replacement lamp is 53L-12V
- Chrome plated brass bezel, 7/8" dia.
- Lens dia. 17/32"
- CH-PL-20 pilot lights have an extra wire for grounding

A



B



Part Number	Color	Wire Leads	Fig.
CH-PL-19-AC	Amber	1/16ga. - 8"	A
CH-PL-19-GC	Green	1/16ga. - 8"	A
CH-PL-19-RC	Red	1/16ga. - 8"	A
CH-PL-20-AC	Amber	2/16ga. - 8"	B
CH-PL-20-GC	Green	2/16ga. - 8"	B
CH-PL-20-RC	Red	2/16ga. - 8"	B

Incandescent Pilot Lights, cont'd

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	Wire Leads
CH-PL-86-AC	Amber	2 - 16ga., 8" wires
CH-PL-86-BC	Blue	2 - 16ga., 8" wires
CH-PL-86-GC	Green	2 - 16ga., 8" wires
CH-PL-86-RC	Red	2 - 16ga., 8" wires

1/2" Mounting Stem

- 1/2" dia. mounting stem
- 12 volt
- PVC wire leads



Part Number	Color	Wire Leads
LI-AMBER	Amber	1 - 16ga., 5" wire; 1 - 16ga. 3" wire
LI-BLUE	Blue	1 - 16ga., 5" wire; 1 - 16ga. 3" wire
LI-GREEN	Green	1 - 16ga., 5" wire; 1 - 16ga. 3" wire
LI-RED	Red	1 - 16ga., 5" wire; 1 - 16ga. 3" wire

LED Pilot Lights

1/2" Mounting Stem

- 1/2" dia. mounting stem



Part Number	Color	Wire Leads
LI-AMBER-LED	Amber	2 - 16ga., 7" wires
LI-CLEAR-LED	Clear	2 - 16ga., 7" wires
LI-RED-LED	Red	2 - 16ga., 7" wires

LED pilot lights are a terrific choice, as they are shock & vibration proof, making them very long lasting.

Panel Lights

11/16" Mounting Stem

- 11/16" dia. x 3/8" long mounting stem
- Self grounding in metal panels
- Accommodates single contact bayonet bulb (not included), suggested lamps: 63L (6 volt), 67L (12 volt), 623L (24 volt)



Part Number	Amps	Volts	Circuit	Function	Wire Leads
CH-DL-13	.63	6-24	Single Contact	ON - OFF	1 - 16ga., 8.5" wire

Solenoids

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 remotely operated 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 (carry only)	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-24143	Insulated	SPST	12	200	-	Steel	A
CH-24144	Insulated	SPST	24	200	-	Steel	A
CH-24401	Insulated	SPDT	12	85 / 35	85 / 35	Steel	A
CH-24401-04	Insulated	SPDT	12	85 / 35	85 / 35	Plasticized	A
CH-24402	Insulated	SPDT	24	85 / 35	85 / 35	Steel	A
CH-24401-01	Grounded	SPDT	12	85 / 35	85 / 35	Steel	B
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

Housing Type



Steel

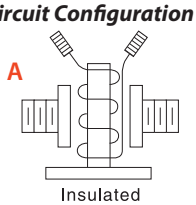


Plasticized



Phenolic

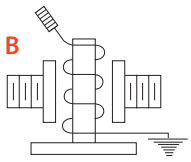
Circuit Configuration

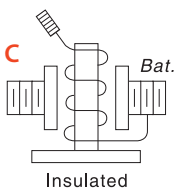


Intermittent Solenoids

- 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

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





Solid State 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 185ºF	5″ x 3″ x 2.9″	Steel

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

A



B



C



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



For the correct momentary switch to complete your setup, use our Weather Resistant Push Button Switch (CH-M-626) on page 163.

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		

Power Inverters

Pure Sine Inverters

- Suitable for laptops, diagnostic & office equipment & all other consumer electronics
- See the following page for installation kits & accessories






Part Number	Output Wattage	Surge Wattage	Dimensions L x W x H	Weight	Outlets	DC Connect (12V)	Remotes
GP-SW150-12	150	260	7.9″x5.2″x2.8″	5.9lbs.	2	Lighter plug	Option for 2-wire switch
GP-SW300-12	300	450	9.3″x6.1″x2.8″	7.7lbs.	2 GFCI	Anderson lug terminals	
GP-SW600-12	600	860	11.6″x7.1″x2.8″	5.9lbs.	2 GFCI	GP-DC-KIT 2	N/A
GP-SW1000-12	1000	2000	15.1″x7.2″x3.5″	8.8lbs.	2 GFCI	GP-DC-KIT 2	GP-SWR-B-12
GP-SW1500-12	1500	2000	16.3″x10.9″x4.1″	17lbs.	2 GFCI	GP-DC-KIT 3	GP-SW-REMOTE
GP-SW2000-12	2000	4000	16.6″x8.2″x6.5″	21lbs.	2 GFCI+HW	GP-DC-KIT 4	GP-SWR-B-12
GP-SW3000-12	3000	6000	17.8″x8.2″x6.5″	22lbs.	2 GFCI+HW	GP-DC-KIT 5	GP-SWR-B-12

Modified Sine Inverters

- Suitable for power tools & less precise equipment
- See below for installation kits & accessories






Part Number	Output Wattage	Surge Wattage	Dimensions L x W x H	Weight	Outlets	DC Connect (12V)	Remotes
GP-175	175	210	5.3″x2.1″x1.8″	1.1lbs.	1	Lighter plug	N/A
GP-300	300	400	6.5″x3.5″x2″	1.8lbs.	2	Lighter plug & clips	N/A
GP-600	600	860	9″x3.4″x2″	4.6lbs.	2	Cables included	N/A
GP-1000	1000	1300	11.2″x5.8″x2.8″	4.2lbs.	2	GP-DC-KIT 2	N/A
GP-1750HD	1750	2100	19″x9.4″x3.25″	12.1lbs.	2	GP-DC-KIT 3	GP-REMOTE
GP-3000HD	3000	6000	14.4″x9.1″x6.2″	14.9lbs.	4 + HW	GP-DC-KIT 5	GP-REMOTE

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

Solar Trickle Chargers

- Lightweight & portable solar charging solution for vehicles that remain parked for long periods of time
- Maintains your battery's charge & stores energy for later use
- For all weather applications
- Includes 10' cable & 12V auto adapter



Part Number	Output (watts)	Amps	Weight (lbs.)	Dimension (inches)
GPDL-5	5	0.3	1.65	12 x 11
GPDL-10	10	0.6	2.85	19 x 12
GPDL-20	20	1.2	4.00	22 x 19

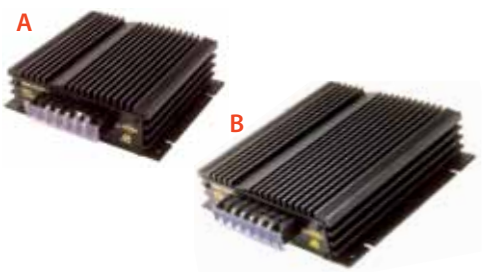
Pure Sine vs. Modified Sine Power

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	Fig.
TS-N2412-12	22-32VDC / 13.8VDC	10 amps	12 amps	A
TS-N2412-24	22-32VDC / 13.8VDC	20 amps	24 amps	B



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		

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		

We offer a variety of the clips you see in this section in one box. Check out our Clip Kit (CLIP-KIT).

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
49 COVER-RED	Red replacement cover		
49 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		

2-1/16" 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		

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		

Clips, cont'd

4-7/16" 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



Part Number	Description	Amps	Material
46C-RED	Red Clip	75	Copper
46C-BLK	Black Clip	75	Copper

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		

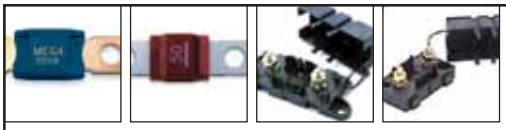
From banana jacks to specialty clips, we have full access to a wide variety of products not shown here. For personal service & help finding the exact part you need, give us a call.

We also offer high amp jumper cable ends. To see what we stock, check out page 95 for all of the info.

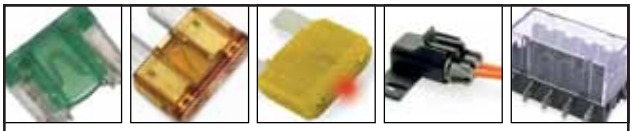
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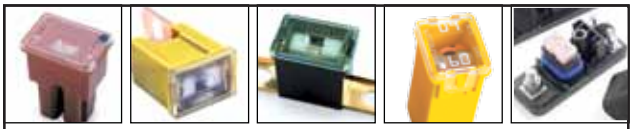
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Glass Fuses & Accessories

Glass Fuses

AGW Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V /1-30A	1/4" x 7/8"	AGW	303

AGX Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- 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

GMA Glass Fuses



- Fast acting for max protection
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
250V / 1/10-3A 125V / 4-6A	5mm x 20mm	GMA	235

SFE Glass Fuses



4 - 9 amp



14 amp



20 - 30 amp

- Fast acting
- Length changes as amps increase
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V / 4-30A	13/32" x 5/8" (4amp) thru 1-7/8" (30amp)	SFE	307

For a variety of our most popular fuses in one box, take a look at our Glass Fuse Kit (GLASS-FUSE-KIT) on page 392.

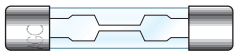
AGC Glass Fuses



1/4 - 6 amp



15 - 35 amp

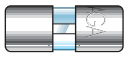


7-1/2 amp

- Fast acting for max protection
- Wide amp/volt rating for protection versatility
- 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

AGA Glass Fuses



- Fast acting for max protection
- Size rejects insertion of other fuse types
- Available in 5pk

Volts / Amps	Dia. x Length	Bussmann Series	Littelfuse Series
32V / 1-30A	1/4" x 5/8"	AGA	301

AGU Glass Fuses



- Fast acting
- Available in 10pk

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

MDL Glass Fuses



- Time delay allows close sizing on inductive circuits
- Broad amp range allows improved compatibility
- 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

For the correct glass fuse part number, use the fuse prefix, available amperages & available packages, along with this example:

AGC - 1/2 - 5PK

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
FB-6CF	4.5 x 2.5	6
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: -40º to 302ºF	1/4" dia. 1-1/4" length 30amp, 32 volt	B



Part Number	Wire Ga.	Description	Works With	Fig.
TS-95-14	14	Orange wire leads	AGC-15	A
FH	14	Red wire loop	SFE-20	B
FH-12	12	Black wire loop	AGC-30	C
FH-10	10	Black wire leads	SFE-20	D



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: -40º to 185ºF
- 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" 90º Q.C.
342104-040	Replacement knob		

Knurled Knob



BUSSMANN			
Part Number	Length (inches)	Max Panel Thickness	Type of Terminal
HTB-44I	1.6	.125	3/16" 90º Q.C
HTB-46I	1.6	.125	1/4" Q.C.
HTB-48I	1.6	.125	1/4" 90º Q.C.



LITTELFUSE			
Part Number	Length (inches)	Max Panel Thickness	Type of Terminal
342048	1.78	.187	3/16" 90º Q.C
342858	1.78	.187	1/4" Q.C.
342848	1.78	.187	1/4" 90º 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
3453LF2	2.0	.310	3/16" Q.C
3453LF8	2.0	.310	1/4" Q.C.

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



Part Number	Amps	Color
MEG-100	100	Yellow
MEG-125	125	Green
MEG-150	150	Orange
MEG-175	175	White
MEG-200	200	Blue
MEG-225	225	Tan
MEG-250	250	Pink
MEG-300	300	Gray

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



Part Number	Amps	Color
MID-40	40	Green
MID-50	50	Red
MID-80	80	White

Mega & Midi Fuse Holders



Fuses not included

- All made of a glass filled thermoplastic

Part Number	Amps	Type	Studs	Description	Fig.
298900	250	Mega	2 - 5/16"	w/ cover	A
498900	100	Midi	2 - #10	w/ cover	B

Blade Fuses & Accessories

Mini Fuses

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

Mini fuses are common in newer vehicles that require more circuits. They come with industry standard color coded plastic housings for the easy identification of fuse ratings.

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

Save space & save money when you order our Low Profile Mini Fuse Kit (ATM-LP-KIT) full of Mini LED Fuses in a variety of amperages.

Mini Fuses, cont'd

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 392 for all of the details!

Mini Fuse Holders

Fuse Holders w/ Cap



Part Number	Max Amps	Wire Ga.
FHM-1	20	14 - Black
FHM-2	30	12 - Red

Environmentally Sealed Fuse Holders

A



B



- 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	

Unless otherwise noted, fuses are sold separately. For the correct fuses, see the Mini fuse section above.

Add-On Circuit Fuse Holders



- Uses two fuses in place of one, providing protection to both

Part Number	Max Amps	Wire Ga.
FHM-200	10	16 - Red

LED Fuse Holders



- LED glows red when fuse is blown

Part Number	Max Amps	Wire Ga.
FH-MIN-LED	15	16 - Red

In Line Fuse Holder



Part Number	Max Amps	Wire Ga.
153002	20	22-16
153003	30	14-10

Mini Fuse Blocks

Fuse Panel For Fuses & Circuit Breakers





- Molded of high performance thermoplastic
- Weather tight enclosure
- Temp rating: -40º to 260ºF
- Mounting: four #10-32 fasteners (not included)

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

Works with the following:

Part Number	Description
12110843	20-22ga. terminal
12110844	18-16ga. terminal
12110842	12ga. terminal
15324985	22-20ga. cable seal
15324982	16-14ga. cable seal
15324981	12ga. cable seal
12010300	Unused cavity plug

ATO Fuses

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 392 for all of the details on our LED ATO Fuse Kit (ATO-LED-KIT-SM).

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-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 be sure you'll always have the fuses you need. To see what each has to offer, see page 392.

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

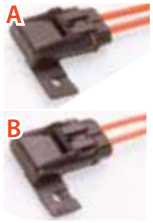
Add-On Circuit Fuse Holders



- Uses two fuses in place of one, providing protection to both

Part Number	Max Amps	Wire Ga.
FHA-200	10	16 - Red

Sealed Fuse Holders

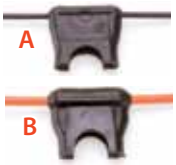


- Nylon body & latching cap

Part Number	Max Amps	Wire Ga.	Fig.
FH-ATO-10BR	30	10 - Red	A
FH-ATO-12BR	30	12 - Red	B
Components			
12033769		Connector	

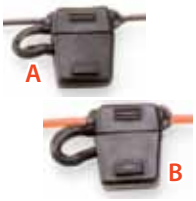
ATO Fuse Holders, cont'd

ATO Fuse Holders



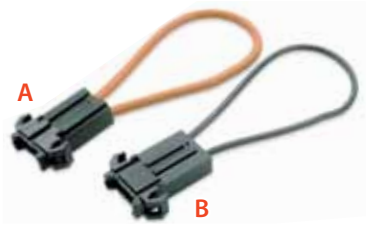
Part Number	Max Amps	Wire Ga.	Fig.
FH-ATO	20	16 - Black	A
FH-ATO-12	30	12 - Orange	B

Weather Resistant Fuse Holders



Part Number	Max Amps	Wire Ga.	Fig.
FH-ATO-WR	20	16 - Black	A
FH-ATO-12-WR	30	12 - Orange	B

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

Unless otherwise noted, fuses are sold separately from our fuse holders & fuse blocks. For the correct fuses, see the ATO fuse section above.

ATO Fuse Blocks

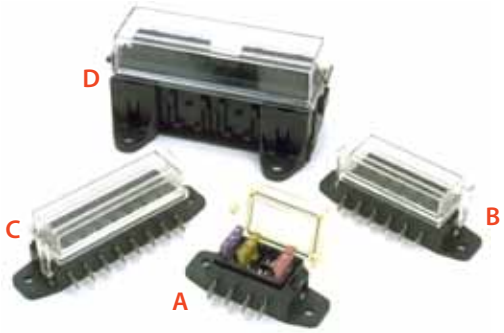
Fuse / Circuit Breaker Fuse Blocks w/ Common Feed

- .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

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

ATO Fuse Blocks, cont'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

Maxi Fuses

LED Maxi Fuses

- Integrated LED glows when fuse is blown
- 32 volt slo-blo
- .375" tab width



Part Number	Amps	Color
MAX-20-LED	20	Yellow
MAX-30-LED	30	Green
MAX-40-LED	40	Orange
MAX-50-LED	50	Red
MAX-60-LED	60	Blue
MAX-70-LED	70	Tan
MAX-80-LED	80	Purple

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
MAX-60	60	Blue
MAX-70	70	Tan
MAX-80	80	Purple

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. jn our Maxi Fuse Kit (MAXI-FUSE-KIT).

Order our Master Fuse Kit & make sure you're always protected. You'll get a wide variety of our blade fuse types. For all of the details, see page 392.

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 & fuse blocks. For the correct fuses, see the Maxi fuse section above.

Maxi Fuse Blocks

Standard Fuse Blocks

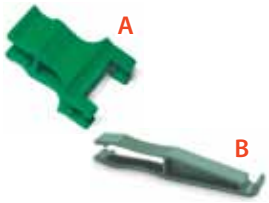
- Has screw terminals
- Works with Littelfuse fuses



Part Number	Number of Positions	Max Amps
MAB-1	1	50
152900	Cover for MAB-1	

Fuse Pullers & Testers

Fuse Pullers & Testers



Part Number	Works With	Fig.
097026	Maxi fuses	A
097023	Glass, mini & ATO fuses	B

Fuse Puller/Testers

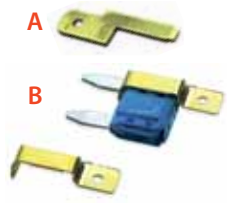


- Illuminated green light indicates a functioning fuse
- Designed for one handed use

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

JCASE & PAL Fuses

PAL Fuses

Male PAL Fuses

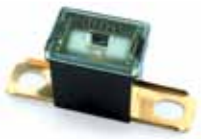
- Bussmann series: FLM
- Littelfuse series: PAL



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

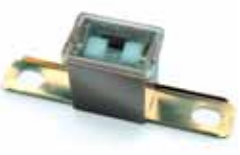
- Bussmann series: FLD
- Littelfuse series: PAL



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

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-KIT) has all of our available PAL fuses in one box.

JCASE Fuses

32 Volt AC/DC Slo-Blo JCASE Fuses

- Bussmann series: FMX
- Littelfuse series: 495
- Total height: 27mm



Part Number	Amps	Color
JCAS-20	20	Blue
JCAS-30	30	Pink
JCAS-40	40	Green
JCAS-50	50	Red
JCAS-60	60	Yellow

58 Volt DC Low Profile JCASE Fuses

- Bussmann series: FMX-LP
- Littelfuse series: 895
- Total height: 16mm



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

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

Amps	Volts	Bussmann Series	Littelfuse Series
35 - 675	32VDC	ANL	CNL

ANN Very Fast Acting Fuses



- Fast acting circuit protection

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, along with this example: ANN - 175

ANL & ANN Fuse Holder

Fuse Holder



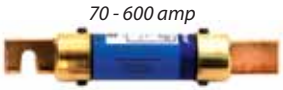
- 2-7/16" stud center to center
- Made of thermo-set-plastic

Part Number	Length x Width x Height (inches)	Stud Size
4164-FR	3-13/32 x 15/16 x 1-7/16	5/16

Industrial Fuses

FLNR Slo-Blo Class RK5 Fuses



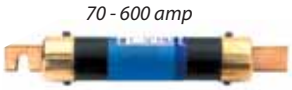


- Use: Distribution panel boards & general purpose
- Features: Reduces damage to equipment caused by heating & magnetic forces of short circuits
- 1/10 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 600	250VAC / 125VDC	FRN(R)	FLNR

FLSR Slo-Blo Class RK5 Fuses

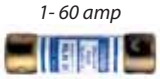




- Use: Service entrance switches, panel boards & general purpose
- Features: Low resistance design reduces power & utility bills
- 1/10 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1/10 - 600	600VAC / 300VDC	FRS(R)	FLSR

NLN One Time Class K5 Fuses





- Use: General purpose residential & commercial circuits
- Features: For use in low cost applications
- 1 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1 - 600	250VAC / 125VDC	NON	NLN

NLS One Time Class K5 Fuses





- Use: General purpose residential & commercial circuits w/ little or no motor lead
- Features: For use in low cost applications
- 1 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk & 110 - 600 amp individually

Amps	Volts	Bussmann Series	Littelfuse Series
1 - 600	600VAC / 250VDC	NOS	NLS

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 along with this example: NLN - 70 - 5

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 along with this example:

FLM - 4/10 - 10

Indicator Fuses

FLNR-ID Slo-Blo Time Delay Fuses



- Use: Battery operated forklift & other low voltage battery operated equipment
- 35 - 60 amp supplied in 10pk; 70 - 100 amp in 5pk; 110 - 600 amp individually

Amps	Volts	Littelfuse Series
35 - 600	250VAC / 125VDC	FLNR-ID

For the correct indicator fuse part number, use the fuse prefix, available amperages & supplied packages, along with this example:

FLNR - ID - 200 - 1

FLSR-ID Time Delay Fuses

1/10 - 60 amp



70 - 600 amp



- 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

Contents



Type I Circuit Breakers 138



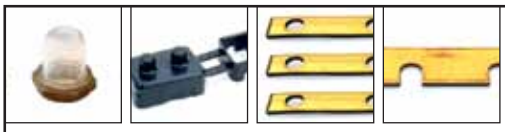
Type II Circuit Breakers 140



Type III Circuit Breakers 141



High Amp Circuit Breakers 142
- Type I 142
- Type III 143



Circuit Breaker Accessories 143
- Circuit Breaker Boots 143
- Circuit Breaker Mounting Brackets 144
- Bussbars 144

REFERENCE

Circuit Breakers: Metal or Plastic? 139

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
CH-30056-6	6	12VDC
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 Bussman or Cole Hersee, depending on availability



Part Number Unsealed	Part Number Sealed	Amps	Volts
CH-30055-6		6	12VDC
CH-30055-8		8	12VDC
CH-30055-10	CH-30138-10	10	12VDC
CH-30055-15	CH-30138-15	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

Auto Reset w/ Mounting Bracket

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Temperature resistant plastic case



Part Number	Amps	Volts
CH-30414-30	30	12VDC
CH-30414-50	50	12VDC

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-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 143.

Type I Circuit Breakers, cont'd

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-30062-20	20	12VDC	14 - Black
CH-30062-30	30	12VDC	12 - Red

PVC Coated w/ Wire Leads

- 10" wire loop
- Steel case



Part Number	Amps	Volts	Wire Gauge
CH-30063-10	10	12VDC	16 - Green
CH-30063-20	20	12VDC	14 - Black
CH-30063-30	30	12VDC	12 - Red

Maxi

- Operating temp: -20 to 150ºF
- 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

ATO

- Operating temp: -40 to 185ºF
- 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

ATO Plug In

- Grooved for easy size adjustment
- Plated steel case
- .250" blade width



Part Number	Amps	Volts	Color
CH-30409-10	10	12VDC	Red
CH-30409-15	15	12VDC	Blue
CH-30409-20	20	12VDC	Gold
CH-30409-25	25	12VDC	Silver
CH-30409-30	30	12VDC	Green

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.

Mini

- Operating temp: -40 to 185ºF
- 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

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 II Circuit Breakers

- Remains open as long as the overload exists, power must be disconnected for the unit to be reset

3/4" Snap In

- Fits any standard fuse block
- Replaces 3/4" glass fuses



Part Number	Amps	Volts
CBF-15X	15	12VDC
CBF-20X	20	12VDC
CBF-30X	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

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

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

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

ATO Plug In

- Grooved for easy size adjustment
- .250" blade width



Part Number	Amps	Volts	Color
211-8	8	12VDC	Bronze
211-10	10	12VDC	Red
211-15	15	12VDC	Blue
211-20	20	12VDC	Gold
211-25	25	12VDC	Silver
211-30	30	12VDC	Green

Type II Circuit Breakers, cont'd

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

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: -10ºF to 150ºF
- 7/16" bushing





Part Number		Amps
.250" Blade Terminal	90º Screw 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
MG-25-BL	MG-25-90	25
MG-30-BL	MG-30-90	30
	MG-40-90	40

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-30407-15	15	12VDC
CH-30407-20	20	12VDC
CH-30407-30	30	12VDC
CH-30407-40	40	12VDC
CH-30407-50	50	12VDC

MP Series Push Button

- Resets actuator mechanism then remains disengaged until manually reset
- 3/8" bushing



Part Number	Amps	Volts
MP-5-BL	8	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

We offer thread-on boots that create a waterproof seal to protect the push buttons. See them on page 143.

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-3-10	10	12VDC
CBP-3-15	15	12VDC
CBP-3-20	20	12VDC
CBP-3-30	30	12VDC
CBP-3-40	40	12VDC
CBP-3-50	50	12VDC

Type III Circuit Breakers, cont'd

ATO w/ Manual Reset

- Operating temp: -40º to 185ºF
- 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

ATO w/ Manual Reset

- Lower profile
- .206" blade width



Part Number	Amps	Volts	Color
211-10-MR	10	12VDC	Red
211-15-MR	15	12VDC	Blue
211-20-MR	20	12VDC	Gold
211-25-MR	25	12VDC	Silver
211-30-MR	30	12VDC	Green

Low Profile ATO w/ Manual Reset

- Operating temp: -40º to 185ºF
- 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

High Amp Circuit Breakers

Type I

Double Breaker Assemblies

- Two 15/64" mounting holes, 1-9/16" on center
- Two #10-32 studs
- Steel case



Part Number	Amps	Volts	Sealed
CH-3088-50	50	12VDC	No
CH-3088-60	60	12VDC	No
CH-30507-60	60	12VDC	Yes
CH-3088-80	80	12VDC	No
CH-30507-80	80	12VDC	Yes

Surface & Panel Mount

- Used in trucks, buses, RVs, lift gates & marine applications
- Two 1-/4" - 28 studs



Surface Mount



Panel Mount

Part Number		Amps	Volts
Surface Mount	Panel Mount		
CB1-SM-60	CB1-PM-60	60	12VDC
CB1-SM-80	CB1-PM-80	80	12VDC
CB1-SM-100	CB1-PM-100	100	12VDC
CB1-SM-120	CB1-PM-120	120	12VDC
CB1-SM-150	CB1-PM-150	150	12VDC

Type III

Surface & Panel Mount

- Used in trucks, buses, RVs, lift gates & marine applications
- Two 1/4" - 28 studs



Surface Mount



Panel Mount

Part Number		Amps	Volts
Surface Mount	Panel Mount		
-	CB3-PM-25	25	12 - 30VDC
-	CB3-PM-40	40	12 - 30VDC
CB3-SM-50	CB3-PM-50	50	12 - 30VDC
CB3-SM-60	CB3-PM-60	60	12 - 30VDC
CB3-SM-70	CB3-PM-70	70	12 - 30VDC
CB3-SM-80	CB3-PM-80	80	12 - 30VDC
CB3-SM-90	CB3-PM-90	90	12 - 30VDC
CB3-SM-100	CB3-PM-100	100	12 - 30VDC
CB3-SM-110	CB3-PM-110	110	12 - 30VDC
CB3-SM-120	CB3-PM-120	120	12 - 30VDC
CB3-SM-135	CB3-PM-135	135	12 - 30VDC
CB3-SM-150	CB3-PM-150	150	12 - 30VDC

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

Circuit Breaker Mounting Brackets

Molded Nylon Mounting Bracket

- For use with all stud type breakers w/o brackets
- Circuit breakers mount securely w/ hex nuts & lock washer
- Mounts with two .250" (or smaller) bolts or screws
- Mounting holes are .280" dia. x .440" long



Part Number	Gang	Length x Width (inches)	Mounting Centers (inches)
CH-87128-4	4	5.69 x .940	4.89
CH-87128-6	6	7.51 x .940	6.71
CH-87128-8	8	9.33 x .940	8.53
CH-87128-10	10	11.15 x .940	10.35
CH-87128-13	13	13.88 x .940	13.08

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-30090-6	6	8.43 x 1.29	7.62
CH-30090-8	8	10.25 x 1.29	9.43

Bussbars

Copper Bussbar

- 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-86126-2	2	1.41	.910
CH-86126-4	4	3.23	2.73
CH-86126-6	6	5.05	4.55
CH-86126-8	8	6.87	6.37
CH-86126-9	9	7.78	7.28
CH-86126-12	12	10.51	10.01

Brass Bussbar

- 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

Relays & Flashers



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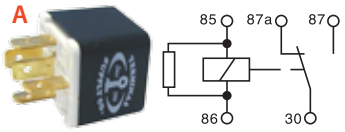
REFERENCE

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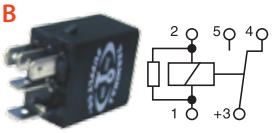
Relays

TSC Relays

A



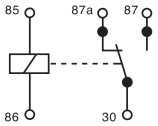
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Part Number	Amps	Volts	Contact Action	Description	Fig.
TSR-122030	20/30	12	SPDT	Mini relay, with resistor	A
TSRM-1220	20	12	SPDT	Micro relay, with resistor	B

Cole Hersee Relays





Part Number	Amps	Volts	Contact Action	Description
CH-RC-400112-NN	40	12	SPDT	With snap-in bracket

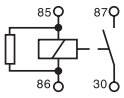
Cole Hersee's imported relays offer snap-in brackets for versatility.

Tyco / Bosch Relays

- These high capacity 12 volt relays are now rated to switch up to a 50 amp resistive load over 100,000 times

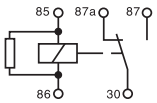
A





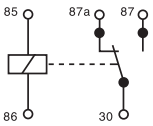
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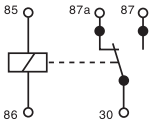
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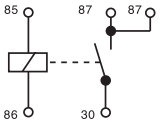
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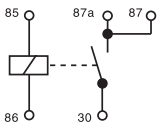
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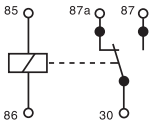
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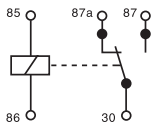
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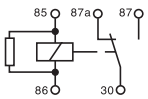
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I



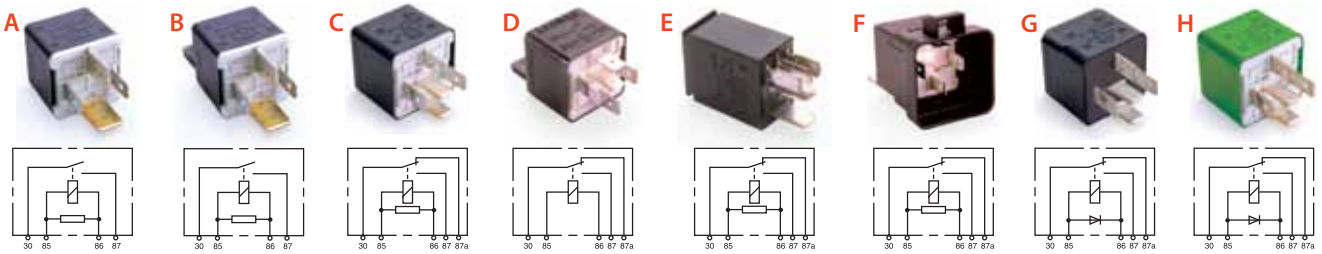


Part Number	Bosch Ref Number	Tyco Ref Number	Hella Ref Number	Amps	Volts	Contact Action	Description	Fig.
TYR-004-1250	332 019 110	V23234B1001X004	87430	50	12	SPST	With resistor & bracket	A
TYR-032-1250	332 209 137	V23234A0001X032	87530	50	12	SPDT	With resistor	B
TYR-050-2420	332 209 203	V23234A1004X050	N/A	20	24	SPDT	With bracket	C
TYR-055-2420	332 209 211	V23234A0004X005	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 pigtails to connect to the relays on these two pages, see what we offer on page 149.

Hella Relays



Part Number	Amps	Volts	Contact Action	Terminals / Width (inches)	Description	Fig.
HE-87432B	70	12	SPST	2/.375, 2/.250	With resistor	A
HE-87430	70	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/.375	With resistor	E
HE-87414	20/40	12	SPDT	5/.250	Skirted w/ resistor & bracket	F
HE-87427	10/20	24	SPDT	5/.250	With diode	G
HE-87424B	20/40	12	SPDT	5/.250	With diode	H

Micro Relays



Part Number	Bosch Ref Number	Tyco Ref Number	Hella Ref Number	Amps	Volts	Contact Action	Description	Fig.
TYR-003-1220	332 011 007	V23374A1601X003	N/A	20	12	SPST	With resistor	A
TYR-011-1220	332 207 307	V23274A1601X011	87416B	20	12	SPDT	With resistor	B

Mini - Giant Power Relays

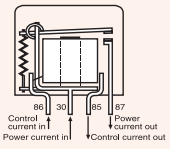


Part Number	Bosch Ref Number	Tyco Ref Number	Hella Ref Number	Amps	Volts	Contact Action	Description
TYR-001-1275	332 002 150	V23232D0001X001	N/A	75	12	SPST	Dual contact, with resistor
TYR-007-2450	332 002 250	V23232E0002X007	N/A	50	24	SPST	Dual contact, with resistor

What is a relay?

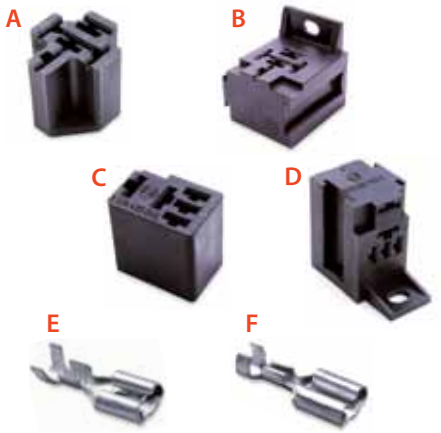
Relays are used to control electrical loads & are elementary components of modern vehicle control units. A relay is a remote-controlled switch operated by electrical current for switching circuits on, off or over.

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.



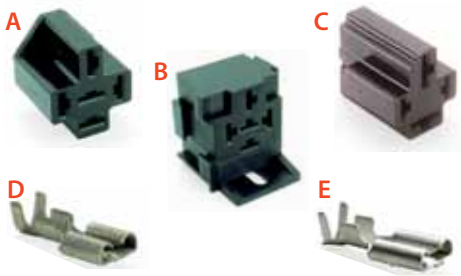
Relay Sockets & Terminals

Bosch



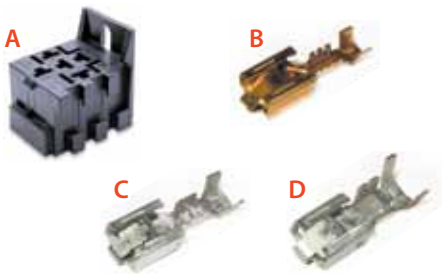
Part Number	Terminals / Width (inches)	Description	Fig.
334 485 007	5/.250	5 terminal connector, impact resistant	A
334 485 008	5/.250	5 terminal connector w/ bracket, impact resistant, stackable	B
334 485 046	2/.250, 3/.187	5 terminal connector for micro relays	C
334 485 045	2/.250, 3/.187	5 terminal connector for micro relays, stackable	D
42238-2	.250	18-14ga. terminal	E
42282-2	.187	18-14ga. terminal	F

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-87269	.375	12-10ga. terminal (50/pack)	E

Packard

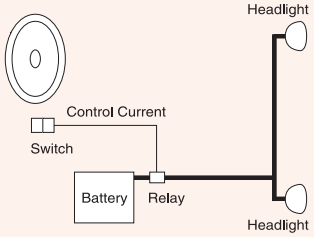


Part Number	Terminals / Width (inches)	Description	Fig.
12033871	5/.250	5 terminal connector	A
12015869	.250	18-16ga. terminal	B
12015870	.250	16-14ga. terminal	C
12084590	.250	12-10ga. terminal	D
12033872	N/A	TPA secondary lock	-

Why use a relay?

Leads are resistances. Resistances cause voltage drop, which means that consumer performance is reduced.

The best solution, 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 dashboard switch & relay. Result, practically the whole power current reaches the consumer.



Relay Pigtails

Bosch

A



B



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		

Mini - Giant Power Relay



Part Number	Terminals	Wire Leads
TP-49129-A	2	2/14ga.
Components		
2973781	Connector	
12124512	16-14ga. 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	14ga. terminals (100/pk)	
HE-87269	10ga. terminals (50/pk)	

Packard (Weatherproof)



Part Number	Terminals / Width (inches)	Wire Leads
TS-BOS-WP	5/.250	2/14ga. 3/16ga.
TS-BOS-WP-14-12	5/.250	5/12ga.
Components		
12065685	Connector	
12033997	12-10ga. terminals	
12066614	16-14ga. terminals	

Electronic Dual Relay



- Can be used in hazardous & harsh conditions where normal relays would fail
- Allows systems to directly drive a high current switch without an extra relay
- Protected against: misconnect, overcurrent, short circuiting & overheating
- 5/16-18 stud terminals

Part Number	Amps: Continuous	Amps: Inrush	Volts	Dimensions (L x W x H)
CH-48521	200	500 for 5 sec	12	6.00 x 4.85 x 3.00

Forward & Reverse Relay Module



- Fully sealed to be corrosion & moisture resistant
- Carries a heavy load current
- Temp rating: -40º to 185ºF

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

Flashers

Electro-Mechanical Flashers

Heavy Duty

A 

B 

C 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EL-12	12	1 - 10	2	Compact size for cars & light trucks	A
EL-12C	12	1 - 12	2	For heavy duty trucks & trailers	B
EL-13	12	1 - 10	3	For heavy duty trucks & trailers	C

Extra Heavy Duty

A 

B 

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

A 

B 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EL-13A	12	2 - 10	3	For emergency, medical & buses	A
537A	12	1 - 4	3	For cars & light trucks	B

24 Volt

A 

B 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
EG-22	24	1 - 10	2	For 24 volt electrical systems	A
EG-23	24	1 - 10	3	For 24 volt electrical systems	B

Solid State Flashers

A 

B 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
TSF-420	12	1 - 20	3	Heavy duty, 40 amp max load	A
HS-43034	12	1 - 10	4	Alternating, 20 amp max load per side	B

Our solid state flashers are the perfect choice for high use applications, such as road maintenance, refuse & postal vehicles.

Thermal Flashers

A 

B 

C 

D 

E 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
552	12	1 - 6	2	For passenger cars	A
536	12	1 - 6	2	For passenger cars	B
575	12	1 - 8	2	Fleet duty, variable load. Boat, auto, truck, off-road & tractor	C
535	6	1 - 6	3	For old model tractors & trailers	D
550	12	1 - 6	3	For light & heavy duty trucks	E

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

A 

B 

Part Number	Volts	Lamp Load	Terminals	Description	Fig.
852-5X	12	1 - 10	2	For trucks & foreign cars	A
852-5X-24V	24	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

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

Passenger & Heavy Duty Vehicle

- The SSR-LED-5T126 features low current input



Part Number	Volts	Lamp Load	Terminals
SSR-LED-3T126	12	6 amp max	3
SSR-LED-5T126	12	6 amp max	5

Electronic LED Flashers

Variable Load

- 60-120 flashes per minute
- Heavy duty contacts w/ external ground wire
- Fits in round flasher socket



Part Number	Volts	Lamp Load	Terminals
ER-LED-3T	12	20 amp max	3
ER-LED-2T	12	20 amp max	2
LED-FB		Mounting bracket	

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

Mounting Pigtail

- For 3 terminal flashers



Part Number	Description
CH-3032	5/.250
Components	
CH-3028-1	Receptacle
CH-3028-2	Two contacts

Mounting Bracket



Part Number	Description
FLB-1	For mounting round flashers

Contents



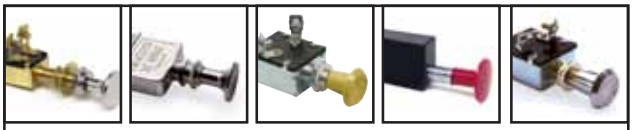
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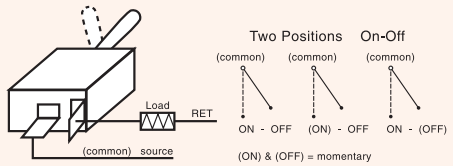
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Toggle Switches & Accessories

Toggle Switches: How They Work

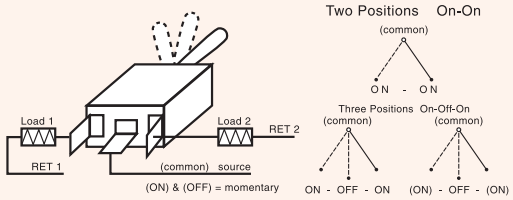
Single Pole / Single Throw (SPST)

A two terminal switch that opens or closes one circuit.



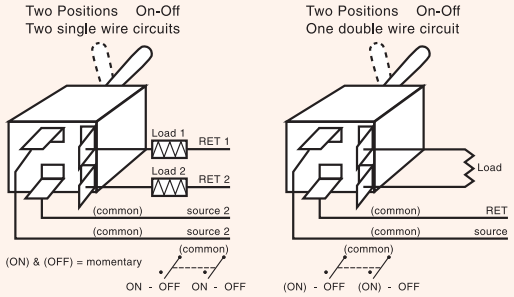
Single Pole / Double Throw (SPDT)

A three terminal switch that controls two single wire circuits. Only permits one circuit to be energized at a time.



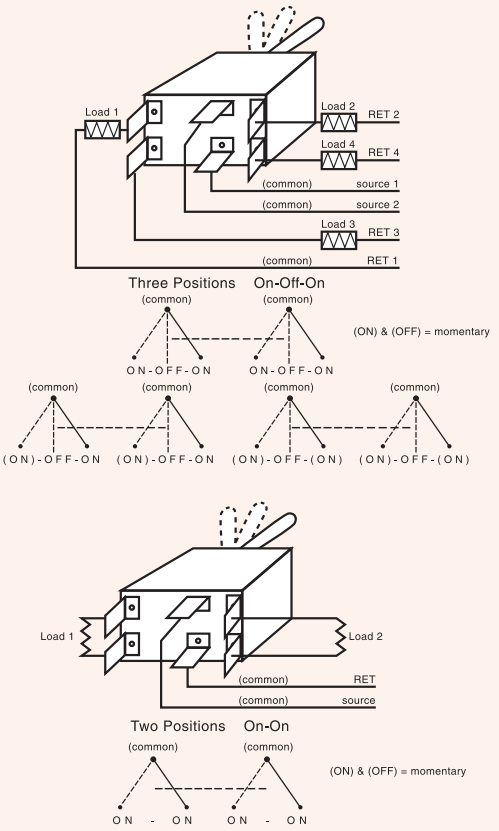
Double Pole / Single Throw (DPST)

A four terminal switch that controls one double wire circuit or two single wire circuits.



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.



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-5507	SPST	ON-OFF	2 - Screw	Nickel plated ball handle	10A @ 12VDC
CH-M-493	SPST	ON-OFF	2 - Screw	Chrome plated ball handle	
CH-5558	SPST	ON-OFF	2 - Screw	Nickel plated standard handle	
CH-M-484	SPST	ON-OFF	2 - Screw	Chrome plated standard handle	
CH-55012	SPST	ON-OFF	2 - Blade	Nickel plated ball handle	
CH-55013	SPST	ON-OFF	2 - Blade	Nickel plated standard handle	
CH-M-586	SPST	ON-OFF	2 - Blade	Chrome plated standard handle	
CH-5568	SPST	ON-OFF	2 - 6" Leads	Nickel plated ball handle	
CH-5570	SPST	ON-OFF	2 - 6" Leads	Nickel plated standard 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	25A @ 12VDC
CH-55017	DPST	ON-OFF	4 - Blade	Standard handle	
CH-55017-02	DPST	ON-OFF	4 - Blade	Std handle, o-ring in stem	
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	
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

Diecast Housing



- Mounting stem: 15/32" - 32 thread, .240" long, w/ keyway in down position
- Chrome plated brass handles, 1-1/16" long
- 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-551800	SPST	ON-OFF	2 - Screw	Standard handle	20A @ 6-12VDC
CH-551801	SPST	(ON)-OFF	2 - Screw	Standard handle	
CH-551802	SPDT	ON-OFF-ON	3 - Screw	Standard handle	
CH-551806	DPDT	ON-OFF-ON	6 - Screw	Standard handle	

Zinc Diecast Housing



Part Number	Circuit	Function	Terminal Style	Description	Rated
2102	SPST	OFF-ON	2 - Screw	Standard bat handle	20A @ 12VDC
2150	SPST	OFF-ON	2 - Screw	Standard flat handle	50A @ 6-24VDC
2153	SPST	OFF-ON	2 - Blade	Standard flat handle	
2154	SPST	OFF-ON	2 - Screw	Long handle	
2155	SPDT	ON-ON	3 - Screw	Standard flat handle	
2159	SPDT	ON-OFF-ON	3 - Screw	Standard flat handle	

(ON) or (OFF) in the function indicates momentary

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-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	
CH-5584	SPDT	ON-ON	3 - Screw	Standard handle	25A @ 12VDC 15A @ 24VDC
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-55016-06	SPDT	ON-OFF-ON	3 - Blade	Standard handle, o-ring in stem	
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-55033-02	SPDT	(ON)-OFF-(ON)	3 - Blade	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	
CH-551843	SPDT	ON-OFF-(ON)	3 - Screw	Standard handle	30A @ 6-12VDC 15A @ 24-36VDC
CH-551844	SPDT	(ON)-OFF-(ON)	3 - Screw	Standard handle	
CH-551846	DPDT	ON-OFF-ON	6 - Screw	Standard handle	

(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)





Switches w/ lighted handles can be wired for dependent (illuminated when switch is actuated) or independent (not controlled by operation of the switch) operation.

Part Number	Circuit	Function	Terminal Style	Description	Volts
CH-54100	SPST	ON-OFF	2 - Screw	Standard	24A @ 12VDC
CH-54101	SPST	(ON)-OFF	2 - Screw	Standard	
CH-54103	SPDT	ON-OFF-ON	3 - Screw	Standard	
CH-54104	SPDT	(ON)-OFF-(ON)	3 - Screw	Standard	
CH-54105	DPST	ON-OFF	4 - Screw	Standard	
CH-54107	DPDT	ON-OFF-ON	6 - Screw	Standard	
CH-54109	SPST	ON(red) - OFF(white)	4 - Screw	Lighted	
CH-54110	SPDT	ON(red) - OFF(white) - ON(white)	5 - Screw	Lighted	
CH-54100-01	SPST	ON-OFF	2 - Blade	Standard	
CH-54101-01	SPST	(ON)-OFF	2 - Blade	Standard	
CH-54103-01	SPDT	ON-OFF-ON	3 - Blade	Standard	
CH-54104-01	SPDT	(ON)-OFF-(ON)	3 - Blade	Standard	
CH-54105-01	DPST	ON-OFF	4 - Blade	Standard	
CH-54107-01	DPDT	ON-OFF-ON	6 - Blade	Standard	
CH-54109-01	SPST	ON(red) - OFF(white)	4 - Blade	Lighted	
CH-54110-01	SPDT	ON(red) - OFF(white) - ON(white)	5 - Blade	Lighted	

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	1-1/2 HP 21A @ 14VAC 20A @ 125VAC
1194/20	DPDT	ON-ON	6 - Screw	
1194-Q/20	DPDT	ON-ON	6 - Blade	
1189/20	DPDT	ON-OFF-ON	6 - Screw	
1189-Q/20	DPDT	ON-OFF-ON	6 - Blade	
1244/20	DPDT	(ON)-OFF-ON	6 - Screw	
1193/20	DPDT	(ON)-OFF-(ON)	6 - Screw	
1185/20*	SPST	ON-OFF	2 - Screw	3/4 HP 21A @ 14VAC 20A @ 125VAC
1185-Q/20*	SPST	ON-OFF	2 - Blade	
1196-Q/20	SPST	(ON)-OFF	2 - Blade	
1186/20	SPDT	ON-ON	3 - Screw	
1187/20	SPDT	ON-OFF-ON	3 - Screw	
1187-Q/20	SPDT	ON-OFF-ON	3 - Blade	
1195/20	SPDT	(ON)-OFF-(ON)	3 - Screw	
1154-B/10*	SPST	ON-OFF	2 - 6" leads	1/3 HP 10A @ 125VAC

(ON) or (OFF) in the function indicates momentary

Environmentally Sealed Micro Switches

Standard

- Meets IP67 & IP68; Nema 3, 3R, 4, 13
- UL File #: E12252; CSA File#: LR4442
- Fits panels: up 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	SPDT	OFF-ON	3 - 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
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 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-OFF	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

(ON) or (OFF) in the function indicates momentary.

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 15A @ 24VDC
CH-55046-04	DPDT	(ON)-OFF-(ON)	4 - Blade	Long handle	
CH-55018-01	DPDT	ON-ON	4 - Blade	Std handle	

Accessories

Toggle 1/2 Boot Seal

- 15/32" - 32 thread
- Accommodates all handle lengths

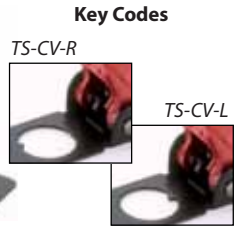


Part Number	Description
CH-81255	Rubber w/ nickel plated nut

Toggle Protector

- 15/32" - 32 thread





Part Number
TS-CV-R
TS-CV-L

Handle Extensions

- Snaps over standard or ball handled toggle switches
- Extends handle to 1-7/8" long



Part Number	Color
CH-81271	Red
CH-81272	Yellow
CH-81273	Black
CH-81262	Fluorescent Blue
CH-81263	Fluorescent White

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

Toggle Switch Panel

- For use w/ 1/2" toggle switches



Part Number	Number of Holes
147721	1

Blade Terminal Adapter

- .250" blade attaches to #6 screw



Part Number
CH-55023-10

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

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

(ON) or (OFF) in the function indicates momentary

Rocker Switches & Accessories

Moisture Resistant





- Mounts in opening: .83" x .1.45"
- Fits panels: .060" to .250" thick
- Snap-in mounting

Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-56000-08	SPST	ON-OFF	2 - Screw	White actuator	
CH-57000-23	SPST	ON-OFF	2 - Blade	White actuator	
CH-56001-04	SPST	(ON)-OFF	2 - Screw	White actuator	
CH-57001-15	SPST	(ON)-OFF	2 - Blade	White actuator	
CH-56300-14	SPST	ON-OFF	3 - Screw	1 dep. red pilot light	
CH-57300-22	SPST	ON-OFF	3 - Blade	1 dep. red pilot light	
CH-56003-03	SPDT	ON-OFF-ON	3 - Screw	White actuator	25A @ 12VDC
CH-57003-16	SPDT	ON-OFF-ON	3 - Blade	White actuator	
CH-56012-04	SPDT	(ON)-OFF-(ON)	3 - Screw	White actuator	
CH-57004-10	SPDT	(ON)-OFF-(ON)	3 - Blade	White actuator	
CH-56009-03	DPST	ON-OFF	4 - Screw	White actuator	
CH-56006-04	DPDT	ON-OFF-ON	6 - Screw	White actuator	
CH-57006-07	DPDT	ON-OFF-ON	6 - Blade	White actuator	

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	
CH-M-58031-07	SPST	OFF-(ON)	2 - Blade	
CH-M-58031-02	SPDT	ON-OFF-ON	3 - Blade	20A @ 12VDC
CH-M-58031-04	DPST	OFF-ON	4 - Blade	

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	
CH-58328-101BP	SPST	OFF-ON	4 - Blade	1 set of 4 lenses	1 Independent	
CH-58328-102BP	SPDT	ON-ON	4 - Blade	2 sets of 4 lenses	2 Dependent	25A @ 12VDC
CH-58328-103BP	SPDT	ON-OFF-ON	4 - Blade	2 sets of 4 lenses	2 Dependent	
CH-58328-104BP	SPST	OFF-ON	4 - Blade	2 sets of 4 lenses	1 Ind / 1 Dep	

(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







- Mounts in opening: .83" x .1.45"
- Fits panels: .093" to .187" thick
- Snap-in mounting

Part Number	Circuit	Function	Terminal Style	Lenses	Pilot Lights	Rated
CH-58328-13	SPST	OFF-ON	3 - Blade	Amber	1 Dependent	25A @ 12VDC
CH-58328-12	SPST	OFF-ON	3 - Blade	Clear		
CH-58328-11	SPST	OFF-ON	3 - Blade	Green		
CH-58328-04	SPST	OFF-ON	3 - Blade	Red		
CH-58328-10	SPST	OFF-ON	4 - Blade	Amber	1 Independent	
CH-58328-02	SPST	OFF-ON	4 - Blade	Green		
CH-58328-01	SPST	OFF-ON	4 - Blade	Red		
CH-58328-08	SPDT	ON-ON	4 - Blade	Green / green	2 Dependent	
CH-58328-16	SPDT	ON-ON	4 - Blade	Red / red		
CH-58328-22	SPDT	ON-ON	4 - Blade	Green / red		
CH-58328-25	SPDT	ON-OFF-ON	4 - Blade	Green / green	2 Dependent	
CH-58328-26	SPDT	ON-OFF-ON	4 - Blade	Red / red		
CH-58328-33	SPDT	ON-OFF-ON	4 - Blade	Green / amber		
CH-58328-35	SPDT	ON-OFF-ON	4 - Blade	Red / amber		
CH-58328-06	SPDT	ON-OFF-ON	4 - Blade	Red / clear		
CH-58328-36	SPDT	ON-OFF-ON	4 - Blade	Red / green		
CH-58328-40	SPST	ON-OFF	4 - Blade	Red / red	1 Dependent & 1 Independent	
CH-58328-47	SPST	ON-OFF	4 - Blade	Green / amber		
CH-58328-49	SPST	ON-OFF	4 - Blade	Green / red		

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	

(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

Standard - Narrow & Wide 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
Narrow Bezel (.16")	CH-56000-01	SPST	ON-OFF	2 - Screw	White/Nickel		25A @ 12VDC
	CH-56000-04	SPST	ON-OFF	2 - Screw	Black/Nickel		
	CH-56001-01	SPST	(ON)-OFF	2 - Screw	White/Nickel		
	CH-56002-01	SPDT	ON-ON	3 - Screw	White/Nickel		
	CH-56003-01	SPDT	ON-OFF-ON	3 - Screw	White/Nickel		
	CH-56006-01	DPDT	ON-OFF-ON	6 - Screw	White/Nickel		
	CH-56006-08	DPDT	ON-OFF-ON	6 - Screw	White/Black	Imprinted LIGHTS-PARK	
	CH-56300-01	SPST	ON-OFF	3 - Screw	White/Nickel	Dependent red pilot light	
	CH-57000-01	SPST	ON-OFF	2 - Blade	White/Nickel		
	CH-57000-04	SPST	ON-OFF	2 - Blade	Black/Black		
	CH-57000-10	SPST	ON-OFF	2 - Blade	Black/Black	Imprinted ON-OFF	
	CH-57001-01	SPST	(ON)-OFF	2 - Blade	White/Nickel		
	CH-57001-04	SPST	(ON)-OFF	2 - Blade	Black/Black		
	CH-57001-09	SPST	(ON)-OFF	2 - Blade	White/Black	Imprinted ON-OFF	
	CH-57300-01	SPST	ON-OFF	3 - Blade	White/Nickel	Dependent red pilot light	
	CH-57300-03	SPST	ON-OFF	3 - Blade	Black/Nickel	Dependent red pilot light	
	CH-57300-11	SPST	ON-OFF	4 - Blade	White/Black	Dep. red pilot lt, imprinted ON-OFF	
	CH-57003-01	SPDT	ON-OFF-ON	3 - Blade	White/Nickel		
	CH-57003-08	SPDT	ON-OFF-ON	3 - Blade	Black/Black	Imprinted HI-OFF-LO	
	CH-57006-01	DPDT	ON-OFF-ON	6 - Blade	White/Nickel		
	CH-57007-01	SPDT	ON-ON-OFF	3 - Blade	White/Nickel		
	CH-57007-07	SPDT	ON-ON-OFF	4 - Blade	Black/Nickel	Dependent red pilot light	
	CH-57007-08	SPDT	ON-ON-OFF	3 - Blade	Black/Black		
	CH-57007-11	SPDT	ON-ON-OFF	3 - Blade	Black/Black	Imprinted OFF-LO-HIGH	
	CH-58007-04	DPDT	ON-ON-ON	4 - Blade	Black/Black		
	CH-58007-07	DPDT	ON-ON-OFF	4 - Blade	White/Black	Imprinted HI-LO-OFF	
Wide Bezel (.26")	CH-56000-02	SPST	ON-OFF	2 - Screw	White/Nickel		25A @ 12VDC
	CH-56006-02	DPDT	ON-OFF-ON	6 - Screw	White/Nickel		
	CH-56300-02	SPST	ON-OFF	3 - Screw	White/Nickel	Independent red pilot light	
	CH-56300-08	SPST	ON-OFF	3 - Screw	White/Nickel	Dependent green pilot light	
	CH-56300-09	SPST	ON-OFF	3 - Screw	White/Nickel	Dependent amber pilot light	
	CH-57000-02	SPST	ON-OFF	2 - Blade	White/Nickel		
	CH-57006-02	DPDT	ON-OFF-ON	6 - Blade	White/Nickel		
	CH-57300-02	SPST	ON-OFF	3 - Blade	White/Nickel	Dependent red pilot light	
	CH-57300-10	SPST	ON-OFF	3 - Blade	Black/Nickel	Dependent red pilot light	

(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

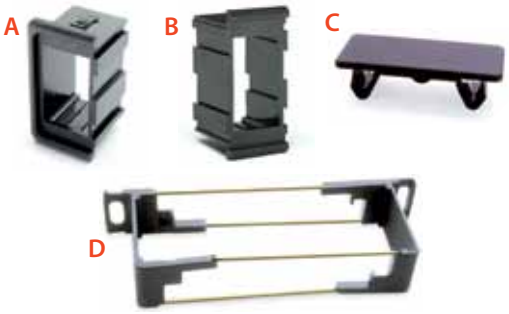
Narrow Body



- Mounts in opening: .550" x .1.125"
- Fits panels: .025" to .200" thick
- Snap-in mounting

Part Number	Circuit	Function	Terminal Style	Description	Rated
CH-54012	SPST	OFF-ON	3 - Blade	Red actuator, lit when ON	10A @ 12VDC

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-98628	Bracket hole plug: to block any unused sections	C
CH-87167-01-BP	Mounting bracket: mounts under/on top of panel, holds 2-6 switches	D

Momentary Push Button Switches

Marine Grade

Extra Heavy Duty

A *Snap on cap*



B *Screw on cap*



- Mounting stem: 5/8" - 32 thread, 1-3/8" long
- Fits panels: up to 1" thick
- Switch is ON w/ 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-407-03	Replacement snap-on rubber cap for CH-M-626				
CH-83280-03	Replacement 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 w/ 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
CH-407-03	Replacement rubber cap			

(ON) or (OFF) in the function indicates momentary

Heavy Duty

A


B


C


- Mounting stem: 5/8" - 32 thread, 21/32" long
- Fits panels: up to 1/2" thick
- Switch is ON w/ 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-90030-12	OFF-(ON)	2 - 18ga., 8" wire leads	35A @ 12VDC 20A @ 24VDC	C
CH-83280-03	Replacement rubber cap for CH-90030-12			

Medium Duty

Chrome Plated



- Mounting stem: 5/8" - 32 thread, 7/8" long
- Fits panels: up to 1/2" thick
- Switch is OFF w/ button depressed, spring return to ON

Part Number	Function	Terminal Style	Rated
CH-9115	ON-(OFF)	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 w/ button depressed, spring return to ON

Part Number	Function	Terminal Style	Rated
CH-90043-07	ON-(OFF)	2 - 7" 18ga. wire leads	10A @ 12VDC
CH-427	Replacement cap		

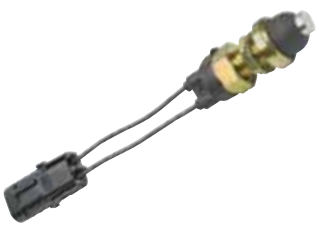
Nylon Housing



- Mounting stem: 5/8" dia., 3/4" long
- Switch is ON w/ 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 (mates w/ 12015792)	20A @ 12VDC

(ON) or (OFF) in the function indicates momentary

Two Circuit



- Mounting stem: 5/8" - 32 thread, 21/32" long
- Fits panels: up to 1/2" thick
- Switch is ON w/ button depressed, spring return to OFF

Part Number	Function	Terminal Style	Rated
CH-9276-09	OFF-(ON)	3 - Screw	35A @ 12VDC - 20A @ 24VDC - 10A @ 36VDC
CH-83280-03			Replacement rubber cap

Push - Pull Switches

Marine Grade

Chromed Knob



- Mounting stem: 3/8" - 32 thread, 1-1/4" long
- Fits panels: up to 3/4" thick
- Normally off
- Rated: 10A @ 12VDC, will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style
CH-M-628	SPST	OFF-ON	2 - Screw

Brass, PVC Coated Housing



- Mounting stem: 3/8" - 32 thread, 1-1/4" long
- Fits panels: up to 3/4" thick
- Normally off
- Rated: 10A @ 12VDC, will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style
CH-M-606	SPST	OFF-ON	2 - 12" 18ga. wire leads

Heavy Duty

Die Cast



- Mounting stem: 15/32" 32 thread, 5/8" long
- Fits panels: up to 3/8" thick
- Two position switch; normally off
- Rated: 75A @ 6VDC, will handle 6-28VDC

Part Number	Circuit	Function	Terminal Style
1820	SPST	OFF-ON	2 - Screw

Plastic Knob



- Mounting stem: 7/16", 5/8" long
- Two position switch; normally off
- 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
- Normally open
- 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

(ON) or (OFF) in the function indicates momentary

Heavy Duty, cont'd

Two Speed Axle Switch



- Mounting: On gear shift lever w/ clamp (not included)
- Zinc case w/ protective rubber boot
- Rated: 20A @ 12VDC

Part Number	Circuit	Function	Terminal Style
CH-50036	SPDT	ON-ON	3 - Bullet
CH-9283	Terminal block limit switch		
CH-40102	Connector & cable assembly		

Chrome Knob



- Mounting stem: 1/2" - 20 thread, 5/8" long
- Fits panels: up to 1/4" thick
- Normally off
- Includes 20amp SFE fuse & hex & pal nuts for mounting
- Rated: 10A @ 12VDC, will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style
CH-5053	SPST	OFF-ON	2 - Screw

Light Duty

- Mounting stem: 3/8" - 20 thread, 1-1/4" long
- Fits panels: up to 3/4" thick
- Two position switch; normally off



Part Number	Circuit	Function	Terminal Style	Rated
1811	SPST	OFF-ON	2 - Screw	25A @ 6VDC 15A @ 12VDC

Illuminated Switches & Accessories

Rocker

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			

Toggle

A



B



- 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

Foot Operated Switches

Headlight Dimmer

Through Floorboard Mounted

- Mounting: three 1/4″ holes, 1-3/4″ on center; 27/32″ mounting stem
- Depress-release for low beam, depress-release for high beam
- PVC coating protects against moisture & dust
- Rated: 20 amps, 12VDC



Part Number	Circuit	Function	Terminal Style
CH-7700	SPDT	ON-ON	3 - 5.75″ 16ga. wire leads

On Floorboard Mounted

- Mounting: two 9/32″ holes, 1-3/4″ on center (CH-7762); two 7/32″ holes, 1-5/8 on center (CH-7702)
- Depress-release for low beam, depress-release for high beam
- Rated: 15 amps, 12VDC

A



B



Part Number	Circuit	Function	Terminal Style	Fig.
CH-7762	SPDT	ON-ON	3 - Blade	A
CH-7702	SPDT	ON-ON	3 - Blade	B

Starter

A



B



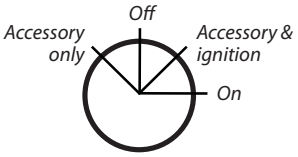
- Mounting: two 9/32″ holes, 1-3/4″ on center
- 5/16″ - 24 studs
- On w/ plunger depressed, spring return to off
- Included: hex nuts & lock washers for stud terminals

Part Number	Circuit	Function	Terminal Style	Plunger Extension	Amps	Volts	Fig.
CH-9060	SPST	OFF-(ON)	2 - Stud	1.83″	15	12VDC	A
CH-9183	SPST	OFF-(ON)	2 - Stud	1″	10	12VDC	B

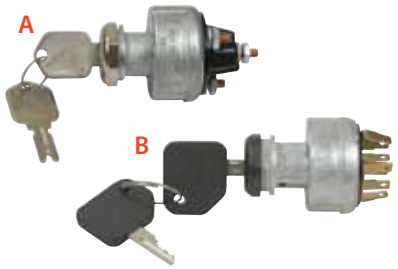
(ON) or (OFF) in the function indicates momentary

Ignition Switches

4-Postion

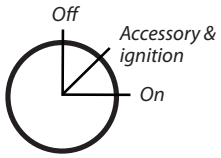


- Key removed in Off position only



Part Number	Terminal Style	Rated	Fig.
31-103	4 - Stud	8A @ 14VDC	A
31-104	4 - Stud		A
31-231	11 - .250" Blade		B
31-242	5 - Screw		A

3-Postion





Part Number	Terminal Style	Rated
3906	3 - Screw	15A @ 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

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	OFF-ON	2 -10mm dia. x 22mm studs	100A continuous / 5000A intermittent @ 12VDC
HE-87185			Replacement key	

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 plated	N/A	175A continuous / 1000A intermittent @ 12VDC
CH-83353			Replacement key			
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-2484-09	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 plated	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 plated	UL 707B	175A continuous / 800A intermittent @ 12VDC
CH-82065			Face plate			

High Amp Plated Steel Case - Die Cast Lever



- 3/4"-16 x 17/32" long brass mounting stem; fits panels up to 1/4" thick
- Intermittent = 30 seconds on, 3 minutes off
- will handle 6-36VDC

Part Number	Circuit	Function	Terminal Style	Contacts	UL Listing	Amps
CH-75907	DPST	OFF-ON	4 -1/2"-20 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			

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

A



B



- 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 - #10-32 studs	Silver plated	N/A	180A continuous / 1000A intermittent @ 12VDC	A
51-904	DPST	OFF-ON	4 -#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						-

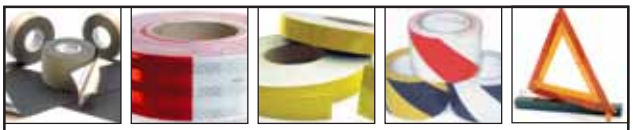
Dual Battery Selector



- 6" dia. flange, 2-5/8" overall height
- Permits current to be carried by either of two batteries simultaneously, or cuts of 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

Contents



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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
- Minimums may apply for colors



Black Part Number	Clear Part Number	Yellow Part Number	Width	Length	Package Type
TTB-624	N/A	N/A	6″	24″	Sheet
TTB-160	TTC-160	TTY-160	1″	60′	Roll
TTB-260	TTC-260	TTY-260	2″	60′	Roll
TTB-460	TTC-460	TTY-460	4″	60′	Roll

Conformable Tread w/ Aluminum Backing

- High friction, slip resistant material
- Aluminum backing conforms around corners & adheres to irregular surfaces
- Minimums may apply for colors



Black Part Number	Safety Yellow Part Number	Width	Length	Package Type
TT-CON-624	N/A	6″	24″	Sheet
TT-CON-260	TT-CON-260-Y	2″	60′	Roll
TT-CON-460	TT-CON-460-Y	4″	60′	Roll
TT-CON-660	TT-CON-660-Y	6″	60′	Roll
TT-CON-1260	N/A	12″	60′	Roll

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

Safety Stripe Hazard Tape



- 6 mil PVC tape w/ synthetic rubber adhesive
- Marks fire equipment & hazardous areas to comply with OSHA regulation 1910.22 & 1920.144

Part Number	Width	Length	Color	Used To Mark
HT-336BY	3″	36yd.	Black/Yellow	Obstructions & hazards
HT-336RW	3″	36yd.	Red/White	Fire equipment
HT-336BW	3″	36yd.	Black/White	Danger zones

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 273 for more info.

Work Lights

Fluorescent Work Light w/ Spot Work Light

- Features a NEMA 5-15R grounded receptacle, ON/OFF rocker switch, ballast in handle spot work light in top & double hanging hook
- Cool running, 13 watt light
- UL listed



Part Number	Color	Description
SL-935	Black	25ft., 16/3 SJT cord
SL-936	Black	50ft., 16/3 SJT cord
SL-103		Replacement lamp
SL-202		Replacement outer tube

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-550	Black	50ft., 18/2 SVT cord
SL-103		Replacement lamp
SL-176		Replacement outer tube

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-103		Replacement lamp

All Weather Trouble Light

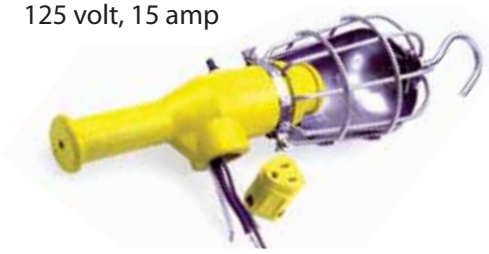
- Meets OSHA specifications for general use; UL Listed
- Features exclusive one piece injection molded handle, grounded vinyl coated metal guard w/ switch, side outlet & a cord flexible down to -4ºF
- 12 volt, 13 amp



Part Number	Color	Description
163-25TL	Yellow	25ft., 16/3 SJT cord
163-50TL	Yellow	50ft., 16/3 SJT cord

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 175 for more info.

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-103		Replacement lamp

Work Lights, cont'd

SJT Cord: Junior hard service thermoplastic or rubber insulated conductors with over all thermoplastic jacket. 300 volt. -4°F to 140°F.

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	6ft., 18/3 SVT cord
SL-100	Replacement outer cage	

SVT Cord: All plastic construction with or without conductor for grounding purposes only. 300 volt. -4°F to 140°F.

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

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	Pack Qty.	Case Qty.
RSB-60	Industrial grade	60	120	4	24
RSB-75	Industrial grade	75	120	4	24
RSB-100	Industrial grade	100	120	4	24
RSB-60T	Teflon coated	60	120	4	24
RSB-75T	Teflon coated	75	120	4	24
RSB-100T	Teflon coated	100	120	4	24
RSB-25-12V	Rough service	25	12	4	24
RSB-50-12V	Rough service	50	12	4	24

Extension Cords

Frog Hide® Ultra Flex®

- Resists oil, ozone, chemical, abrasion & harsh weather conditions
- Meets UL & OSHA requirements for indoor & outdoor use



Part Number	Cord	Length (feet)	Rating
143-25FH	14/3 SJOW	25	15 amp / 125 volt
143-50FH	14/3 SJOW	50	15 amp / 125 volt
143-100FH	14/3 SJOW	100	13 amp / 125 volt
123-25FH	12/3 SJOW	25	15 amp / 125 volt
123-50FH	12/3 SJOW	50	15 amp / 125 volt
123-100FH	12/3 SJOW	100	15 amp / 125 volt

Super Flex with Power Indicator Light

- Features PVC jacket & LED indicator light
- Temperature rating: -58ºF to 140ºF
- OSHA acceptable; UL Listed



Part Number	Cord	Length (feet)	Rating
143-25-LED	14/3 SJTW	25	15 amp / 125 volt
143-50-LED	14/3 SJTW	50	15 amp / 125 volt
143-100-LED	14/3 SJTW	100	13 amp / 125 volt
123-25-LED	12/3 SJTW	25	15 amp / 125 volt
123-50-LED	12/3 SJTW	50	15 amp / 125 volt
123-100-LED	12/3 SJTW	100	15 amp / 125 volt

3-Way Power Block with Power Indicator Light

- Features three outlets w/ LED indicator light
- Temperature rating: -58ºF to 221ºF
- OSHA acceptable; UL Listed



Part Number	Cord	Length (feet)	Rating
123-25-TRI	12/3 SJEOW	25	15 amp 125 volt
123-50-TRI	12/3 SJEOW	50	
123-100-TRI	12/3 SJEOW	100	
103-50-TRI	10/3 SJEOW	50	
103-100-TRI	10/3 SJEOW	100	

Premium All Weather

- Temperature rating: -58ºF to 221ºF
- Meets OSHA requirements for outdoor use
- UL Listed



Part Number	Cord	Length (feet)	Rating
163-25	16/3 SJTW	25	13 amp / 125 volt
163-50	16/3 SJTW	50	13 amp / 125 volt
163-100	16/3 SJTW	100	10 amp / 125 volt
143-25	14/3 SJTW	25	15 amp / 125 volt
143-50	14/3 SJTW	50	15 amp / 125 volt
143-100	14/3 SJTW	100	13 amp / 125 volt
123-50	12/3 SJTW	50	15 amp / 125 volt
123-100	12/3 SJTW	100	15 amp / 125 volt

Wiring Devices

Industrial Grade

- UL Fed Spec # 13393
- CSA File #LR-406
- Operating temp: -40ºF to 140ºF

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

A 

B 

C 

Plug Part Number	Receptacle Part Number	NEMA Configuration		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 *Features a power indicating LED*	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

Locking Blade

A 

B 

C 

D 

Plug Part Number	Receptacle Part Number	NEMA Configuration		Volts	Amps	Poles / Wires	Wire Gauge	Fig.
LE-2721	LE-2723	L15-30P	L15-30R	3ø 250	30	3P / 4W	14-8	A
LE-2731	LE-2733	L16-30P	L16-30R	3ø 480	30	3P / 4W	14-8	A
LE-4770-C	LE-4779-C	L7-15P	L7-15R	277	15	2P / 3W	18-10	B
LE-2431	LE-2433	L16-20P	L16-20R	3ø 480	20	3P / 4W	14-10	C
LE-4720-C	LE-4729-C	L5-15P	L5-15R	125	15	2P / 3W	18-10	D
LE-2311	LE-2313	L5-20P	L5-20R	125	20	2P / 3W	16-10	D
LE-2611	LE-2613	L5-30P	L5-30R	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
LE-5278-C	LE-5279-C	5-15P	5-15R	125	15	2P / 3W	18-10

Commercial Grade

Straight Blade

- UL Listed, file #E-13393
- CSA Certified, file #LR-406
- Operating temp: -40º to 140ºF

A 

B 

C 

D 

Part Number	NEMA Configuration	Volts	Amps	Poles / Wires	Wire Gauge	Cord Dia. min - max	Fig.
LE-275-T	14-30P / 14-50P	125 / 250	30 / 50	3P / 4W	14-6	.75″ - 1.25″	A
LE-287-T	10-30P / 10-50P	125 / 250	30 / 50	3P / 3W	14-6	.687″ - 1.05″	B
LE-930	5-30P / 5-50P	125	30 / 50	2P / 3W	14-6	.630″ - 1.05″	C
LE-931	6-30P / 6-50P	250	30 / 50	2P / 3W	14-6	.630″ - 1.05″	D

Interested in making your own cords? See our full line of service cord on page 105 & 106.

Cam-Type

- UL Listed, file #E-13399
- CSA Certified, file #152105
- NEMA 3R rated for use in outdoor applications
- Plugs include contact & insulator
- Single (Fig. A & B) & double (Fig. C & D) set screw termination

A 

C 

B 

D 

Description	Black Part Number	Blue Part Number	Red Part Number	White Part Number	Volts	Amps	Wire Gauge	Fig.
Male plug	LE-15D21-E	LE-15D21-B	LE-15D21-R	LE-15D21-W	600	140	6-4	A
Female plug	LE-15D22-E	LE-15D21-B	LE-15D21-R	LE-15D21-W	600	140	6-4	B
Male plug	LE-16D22-E	LE-16D22-B	LE-16D22-R	LE-16D22-W	600	300	2-2/0	C
Female plug	LE-16D31-E	LE-16D31-B	LE-16D31-R	LE-16D31-W	600	300	2-2/0	D
Male plug	LE-16D24-E	LE-16D24-B	LE-16D24-R	LE-16D24-W	600	400	1/0-4/0	C
Female plug	LE-16D33-E	LE-16D33-B	LE-16D33-R	LE-16D33-W	600	400	1/0-4/0	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	Connector Part Number	NEMA Config.	Volts	Amps	Poles / Wires	Wire Gauge
ER-1510-P	ER-1610-C	5-15	125	15	2P / 3W	18-12

Flashlights

Heavy Duty

- Features: resists corrosion, water & oils, tough lens, hi-impact w/ magnet
- Batteries sold separately



Part Number	Description	Replacement Bulb
FL-2DM	2 D cell size	KPR-102L

Replacement bulbs for all of our flashlights can be found with our mini bulbs on page 196.

Heavy Duty LED

- Features: comfort grip, convenient slide switch, hang ring for easy storage, water resistant



Part Number	Lumens	Description
FL-2DLED	100	2 D cell size

LED Inspection Lamp

- Features: 15 Class I approved LED's, charging indicator, wide angle light output, polycarbonate lens, clips onto a belt



Part Number	Description
HS-81300	Rechargeable

LED Utility Light

- Features: rotating & pivoting head, adjustable beam, attaches anywhere with sturdy clamp, non-slip rubber grip or powerful magnetic back



Part Number	Lumens	Description
FLEX-360	30 / 130	3 AA cell size

Stand-up / Pivoting Head

- Features: 90º pivoting head, stand-up base, non-roll design, built-in hanging ring, krypton beam w/ prismatic reflector



Part Number	Description	Replacement Bulb
ISL-2DB	2 D cell size	KPR-102L

Ultra Bright Outdoor LED

- Features: anodized aluminum w/ rubber comfort grip, hi/low power levels, water resistant



Part Number	Lumens	Description
FL-3CLEDHD	180 / 75	3 C cell size

Pocket LED

- Features: 6 ultra-bright white LED's, 100 hours of operation
- Batteries sold separately



Part Number	Description
MX-MF-30A	4 AAA cell size

2-n-1 LED Headlight

- Features: spot-to-flood, magnetic back, 2 straps for standard & hard hat use, water resistant



Part Number	Lumens	Description
FL-HLLED	80	3 AAA cell size

Check out page 180 to see our full line of batteries to go with our flashlights & everything else you may need.

Batteries

Maximum Industrial Alkaline

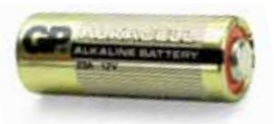
- Used in: high drain devices



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

Specialty Alkaline

- Used in: garage door remotes, car alarms, etc.



Part Number	Type	Pack Qty.	Case Qty.
GP-23-A	12 volt	1	500

Miniature Alkaline

- Used in: modern electronic devices



Part Number	Type	Pack Qty.	Case Qty.
MX-2500	AAAA	2	N/A

To order batteries in case quantities, add -CASE to the end of the original part number, example:

GP-23-A - CASE

Heavy Duty

- Used in: maximum power devices



Part Number	Type	Pack Qty.	Case Qty.
6V-HD	6 volt	1	12

Quartz

- Used in: common accessories that indicate 1.55 volt or #357 battery



Part Number	Type	Pack Qty.	Case Qty.
357-BAT	1.55 volt	1	100

Protective Gear

Ear Plugs



- Made of soft, highly visible, orange foam that conforms to ear canal fast & 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 & 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.I standards



Part Number	Lens Color	Pack Qty.	Case Qty.
EYE-VC	Clear	1	12

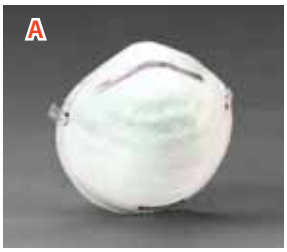
Frameless

- Light weight & frameless for optimum comfort & coverage w/ wide angle, poly-carbonate lenses
- Universal fit temples, scratch resistant, 99.9% UV protection
- Meets/exceeds ANSI Z87.I 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-8511	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

A



B



C



D



E



F



G



H



I



J



K



L



M



N



O



P



Q



R



S



T



U



V



W



X



Y



Work Gloves, cont'd

Fig.	Series Number	Description	Sizes Available S	M	L	XL	XXL
A	KN-94WA	Women's grain pigskin drivers	X	X	X		
B	KN-101	Unlined deerskin drivers	X	X	X	X	
C	KN-102	Unlined goatskin drivers		X	X	X	
D	KN-2011	Unlined spandex driver, synthetic leather palm	X	X	X	X	X
E	KN-2041	Unlined, reinforced spandex, general	X	X	X	X	X
F	KN-102HK	Thermal lined goatskin drivers		X	X	X	
G	KN-2051	Thermal & waterproof lined, reinforced	X	X	X	X	X
H	KN-1498	Economy unlined cowhide palm		X	X	X	
I	KN-1500	Unlined cowhide palm		X	X	X	
J	KN-1927	Thermal lined grain pigskin palm	X	X	X	X	X
K	KN-909	High visibility unlined grain pigskin, mesh back	X	X	X	X	
L	KN-1938KW	High visibility thermal lined grain pigskin, knit wrist	X	X	X	X	X
M	KN-2041HV	Unlined, reinforced spandex, reflective		X	X	X	
N	KN-1791	Blue latex palm gripping	X	X	X	X	
O	KN-1850	Thermal lined Kylon™ gripping		X	X	X	
P	KN-1790	Thermal lined gripping	X	X	X	X	
Q	KN-1890	Nitrile gripping	X	X	X	X	
R	KN-2021	Unlined spandex, synthetic leather palm w/ silicone grip	X	X	X	X	X
S	KN-814	14oz. yellow chore			X	X	
T	KN-820	Brown jersey	X		X	X	
U	KN-1775	Polyester / cotton string knit	X	X	X	X	
V	KN-6370	Neoprene coated, knit wrist			X		
W	KN-7184G	PVC coated, with sandy finish			X		
X	KN-0297	Economy cowhide welding			X		
Y	KN-BLUESABRE	Premium cowhide welding			X		

To determine your specific glove size, measure across the widest part of the palm 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, therefore, if late in 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

Latex

- Lightly powdered, smooth textured & natural color
- All sizes are 9-1/2" long & 5 mil thick
- Also available in cases of 10 boxes



Part Number	Size	Width At Palm	Gloves Per Box
AC1002	Medium	3.7"	100
AC1003	Large	4.1"	100
AC1004	X-Large	4.5"	100

Nitrile

- Lightly powdered, finger tip textured & blue color
- More durable, non-latex & chemical resistant
- All sizes are 9-1/2" long & 5 mil thick
- Also available in cases of 10 boxes



Part Number	Size	Width At Palm	Gloves Per Box
AC3002	Medium	3.7"	100
AC3003	Large	4.1"	100
AC3004	X-Large	4.5"	100

First Aid Kits

Basic

- Compact kit comes in weather resistant case designed to be kept in car or at home
- Includes: adhesive bandages & tape, gauze pads, iodine & alcohol prep pads, sting relief pads, first aid/burn cream, scissors & a cold pack



Part Number	Description
FA-56	56 pieces

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 & wound pads, iodine & alcohol prep pads, sting relief pads, eye pads, eye flush first aid/burn cream, latex gloves, forceps, scissors, a cold pack, triangular bandage & first aid instructions



Part Number	Description
FA-131	131 pieces

Contents



Lamp Sockets **186**
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- Replacement Single Contacts 186
- Stop / Tail / Turn - Double Contact 186
- Stop / Tail / Back Up - Double Contact 187
- Park / Stop / Tail / Turn - Double Contact 187
- Instrument Panel - Double Contact 187
- Miscellaneous - Double Contact 188
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- GM 189
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- Miscellaneous 193



Custom Harnesses **194**

Lamp Sockets

Instrument Panel / License Plate - Single Contact


A


B


C

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


A


B


C


D


E

Part Number	Description	Wire Leads	Works With	Fig.
CWPT-1	Ceramic disc, moisture resistant	18ga.; 12"	PL-32	A
CWPT-2	Ceramic disc, moisture resistant	18ga.; 12"	PL-23, PL-11	B
CWPT-2R	Phenolic rubber boot	18ga.; 12"	PL-23, PL-11	C
BE-920124	Grommet contact button	12"	Betts lighting sockets	D
BE-920120	Replacement contact; for 16-14ga. wire (12/pack)	N/A	BE-920120	-
PTC-1	Contact button	18ga.; 12"	CWPT-1, CWPT-2, CWPT-2R	E
CT-1P	Replacement contact	N/A	PTC-1	-

Stop / Tail / Turn - Double Contact

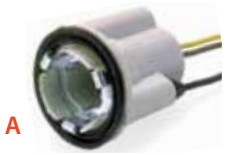

A


B

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 page 196.

Stop / Tail / Back Up - Double Contact


A


B


C

Part Number	Description		Works With Lamps	Fig.
PL-45	PVC housing; twist type lock	18ga.; 11″	1157L, 2057L	A
TS-3439	PVC housing	18ga.; 10-12/″	1157L, 2057L	B
TS-3441	PVC housing; 18ga. 6-1/2″ wire leads w/ butt connectors	18ga.; 6-1/2″ w/ butt connectors	1157L, 2057L	C

Park / Stop / Tail / Turn - Double Contact


A


B


C


D

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


A


B


C


D


E

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

Miscellaneous - Double Contact


A


B


C

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


A

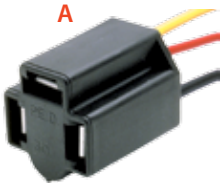

B

Part Number	Description	Wire Leads	Fig.
CWPT-3	Ceramic disc; moisture resistant	18ga.; 11″	A
CWPT-3R	Phenolic disc; rubber boot	18ga.; 11″	B

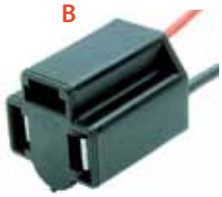
Pigtails

Headlamp Sealed Beams & Flashers

A



B



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 flashers & sealed beams	B
Components			
2965810	Connector		
2973216	16ga. terminals		
12033826	12ga. terminals		

OEM Headlamp Replacements

High / Low Beam



- 16ga. GXL, 9" wire leads

Part Number	Works With Lamps
TS-28904	9004L, 9007L, 9004BL, 9004LL, 9007BL

Low Beam



- 16ga. GXL, 8" wire leads

Part Number	Works With Lamps
PT-9006	9006L

Halogen



- 18ga. TXL, 8" wire leads

Part Number	Works With Lamps
PT-99-8625	H965L

Halogen



- 18ga. GPT, 8" wire leads

Part Number	Works With Lamps
PT-89-6653	H1155L

Fog, Automotive, Halogen



- 16ga. GXL, 8" wire leads

Part Number	Works With Lamps
PT-880	880L, 885L, 890L, 893L, 899L
PT-881	881L, 886L, 889L, 894L, 896L

High Beam



- 16ga. GXL, 8" wire leads

Part Number	Works With Lamps
PT-9005	9005L, 9004BL, 9007BL

Halogen



- 16ga. TXL, 8" wire leads

Part Number	Works With Lamps
PT-99-8509	H9008L

For more info on the corresponding lamps for all of our pigtails, see our Mini Bulb section on page 196.

GM

Alternator

- Alternators w/ internal voltage regulator



Part Number	Wire Leads
137	16 & 12ga. GXL; 6"
Components	
6294493	Connector
2962447	16ga. terminals
2962544	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, cont'd

Headlight Switch



Part Number	Wire Leads
PT-57176	12ga. GXL; 7-1/2"
Components	
2977645	Connector
2962544	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

Throttle Body Injector

- Replaces GM part # 12102568



Part Number	Wire Leads
PT-7100	18ga. GXL; 9"
Components	
12020549	Connector
12124588	Terminals

Manifold Absolute Pressure

- Replaces GM part # 12085502



Part Number	Wire Leads
PT-4805	16ga. GXL; 10-1/2"
Components	
12020403	Connector
12124582	Terminals

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

Trans Converter Clutch

- Replaces GM part # 12085533



Part Number	Wire Leads
PT-4809	16ga. GXL; 9"
Components	
12052935	Connector
12124582	Terminals

Idle Air Control

- Replaces GM part # 12085506



Part Number	Wire Leads
PT-4804	16ga. GXL; 11"
Components	
12015798	Connector
12124582	Terminals

GM, cont'd

Multi-Port Fuel Injector

- Replaces GM part # 12085491



Part Number	Wire Leads
PT-7101	16ga. GXL; 9-1/2"
Components	
12020549	Connector
12124588	Terminals

Manifold Air Pressure Sensor



Part Number	Wire Leads
PT-1503	16ga. GXL; 16"
Components	
12162199	Connector
12124075	Terminals

Heater Blower

- ATO fuel holder



Part Number	Wire Leads
PT-6300	12ga. GXL; 5"
Components	
12085030	Connector
12300997	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

For an assortment of the most popular GM pigtails all in one box, pick up our GM Pigtail Kit (GM-PT-KIT).

Ford

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.

Need some of everything? Check out our Ford Pigtail Kit (FORD-PT-KIT). It has all of our most popular Ford pigtails in one place!

Ford, cont'd

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/'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
AU-20277	2/12ga., 1/14ga., 1/16ga.; 7-1/2"

Coolant Temperature Sensor



- 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"

Master Cylinder, Door Jamb Switch & Power Mirror



- Fits Ford '87 & up
- Not supplied by O.E.M.

Part Number	Wire Leads
AU-19076	3/14ga.; 7"

Alternator, Regulator & A/C Clutch



- Fits Ford '94 & up
- Not supplied by O.E.M.

Part Number	Wire Leads
AU-19156	1/18ga.; 7"

Miscellaneous

I.H. Headlight Switch Repair



Part Number	Wire Leads
MC-16428-A	8/12ga.; 12"
Components	
2977645	Connector
2962544	Terminals

Ignition Key Start

- Used w/ Pollak switches



Part Number	Wire Leads
MC-16428-D	6/12ga.; 12"
Components	
2984017	Connector
2965143	Terminals

I.H. Resistor Assembly



Part Number	Wire Leads
MC-16428-E	4/14ga.; 12"
Components	
2965019	Connector
2965142	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., 2/12ga., 6/14ga.

Fifth Wheel Harness

- Fits full size Ford & GM trucks '97 & up
- Total length: 8ft.

Part Number	Wire Leads
TG-T	4/16ga., 1/10ga., 2/12ga.



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.

Custom Harnesses

TSC Manufacturing

A division of Terminal Supply Co. providing wire harness & cable solutions.






TSC Manufacturing can provide you with the highest quality alternative for all of your harness needs. Our versatility enables us to be competitive on everything from single piece prototypes builds to high volume production runs. Along with custom harnesses, we can offer you:

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






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Miniature Bulbs

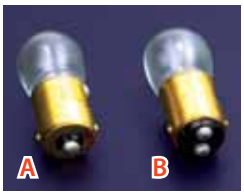
TSC Brand Bulbs

Terminal Supply is proud to stock premium miniature bulbs from leading manufacturers including G.E., Philips, Wagner & Osram Sylvania. We also stock a high quality TSC labeled brand on our most popular bulbs. The TS indicates that this bulb is available in our cost competitive line up. To order this option, just use a TS- prefix before the listed part number.

Mean Spherical Candlepower (MSCP)

MSCP is the generally acccepted method of rating the total light but of miniature lamps. While candle power is a measure of the total amount of light given off from a light source n ONE direction, mean spherical candlepower is a measure of the total amount of light give off from a light source in ALL directions.

B-6 Bulbs: 3/4" (19mm) Diameter



	Part Number	Application	Volts	Amps	MSCP	Base	Fig.
TS	105L	Auto interior, heavy duty	12.8	1	12	S.C. bayonet	A
TS	1003L	Auto interior	12.8	.94	15	S.C. bayonet	A
TS	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
TS	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

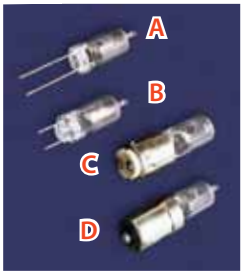
G-3 1/2 Bulbs: 7/16" (11mm) Diameter



	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
TS	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
TS	356L	Aircraft	28.0	.17	3.5	Mini bayonet	B

Miniature Bulbs, cont'd

T-4 Bulbs: 1/2" (13mm) Diameter



	Part Number	Application	Volts	Amps	MSCP	Base	Fig.
TS	795L	Halogen	12.8	3.91	108	S.C. bayonet	D
	797L	Halogen	12.8	3.91	108	G7.1	B
	1/A-27W	Light bars, halogen	12.8	2.11	50	Bi-pin	A
	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	A
2752MFX	Instrument panel	12	.125	.48	BX8.5d	B

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
TS	37L	Auto	14	.09	.5	Sub mini wedge	B
TS	70L	Auto	14	.15	1.5	Sub mini wedge	B
TS	73L	Indicator	14	.08	.3	Sub mini wedge	B
TS	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.
	157L	Medical	5.8	1.1	8.1	Mini screw	C
	63L	Coin machine	7	.63	3	S.C. bayonet	A
TS	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
TS	67L	Auto	13.5	.59	4	S.C. bayonet	A
TS	68L	Auto & marine	13.5	.59	4	D.C. bayonet	B
TS	97L	Auto heavy duty	13.5	.69	4	S.C. bayonet	A
TS	1155L	Auto/truck marker	13.5	.59	4	S.C. bayonet	A
	1178L	Auto	13.5	.69	4	D.C. bayonet	B
TS	631L	Auto, 2 filament	14	.63	6	S.C. bayonet	A
TS	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

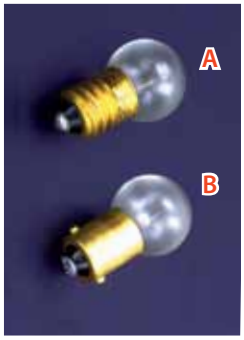
Miniature Bulbs, cont'd

T-3 1/4 Bulbs: 13/32" (10mm) Diameter



	Part Number	Application	Volts	Amps	MSCP	Base	Fig.
	285L	Signal	5	.09	.25	Wedge	A
TS	1850L	Signal	5	.09	.25	Mini bayonet	B
TS	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
TS	1816L	Aircraft & auto	13	.33	3	Mini bayonet	B
TS	168L	Auto instrument	14	.35	3	Wedge	A
TS	193L	Heavy duty truck	14	.33	2	Wedge	A
TS	194L	Auto	14	.27	2	Wedge	A
TS	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
TS	1889L	Auto heavy duty	14	.27	2	Mini bayonet	B
TS	1893L	Auto heavy duty	14	.33	2	Mini bayonet	B
TS	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
TS	1819L	Aircraft & indicator	28	.04	3.4	Mini bayonet	B
TS	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.
	455L	Indicator flasher lamp	6.5	.6	1.9	Mini bayonet	B
	55L	Instrument	7	.41	2	Mini bayonet	B
TS	57L	Auto & instrument	14	.24	2	Mini bayonet	B
	257L	Auto & flasher lamp	14	.27	1.6	Mini bayonet	B
	258L	Flasher lamp	14	.27	1.6	Mini screw	A
	293L	Auto & radio	14	.33	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

Miniature Bulbs, cont'd

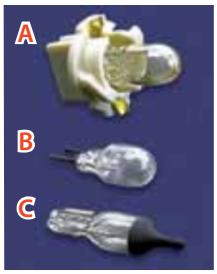
S-8 Bulbs: 1" (25mm) Diameter



	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
TS	93L	Auto	12.8	1.04	15	S.C. bayonet	A
	94L	Auto/marine	12.8	1.04	15	D.C. bayonet	B
TS	199L	HD truck signal	12.8	2.25	32	S.C. bayonet	A
	1073L	Auto	12.8	1.8	32	S.C. bayonet	A
TS	1076L	Auto	12.8	1.8	32	D.C. bayonet	B
TS	1141L	Auto	12.8	1.44	21	S.C. bayonet	A
	1142L	Auto	12.8	1.44	21	D.C. bayonet	B
TS	1156DCL	School bus stop arm	12.8	2.1	32	D.C. bayonet	B
TS	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
TS	3156L	Auto	12.8	2.1	32	S.C. wedge	D
TS	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
TS	1157L	Auto truck stop/signal	12.8/14	2.1/.59	32/3	D.C. index	C
TS	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
TS	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
TS	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
TS	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
	4057KL	Auto park/signal, long life, Krypton filled	12.8/14	2.1/.48	32/2	D.C. Wedge	E
	4157KL	Auto park/signal, long life, Krypton filled	12.8/14	2.23/.59	32/3	D.C. Wedge	E
	4157NAKL	Auto park/signal-amber, long life, Krypton filled	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
TS	1203L	Special service	28	.71	21	S.C. bayonet	A
	1638L	Marine, 2 filament	28	1.02	32	D.C. bayonet	B
TS	1662L	Aircraft, inverted filament	28	.93/.34	32/6	D.C. index	C
	1665L	Aircraft	28	.8	21	S.C. bayonet	A
TS	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

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
	788L	Maglite halogen	6	3.33	32	G-4 two pin	B
	882L	Instrument halogen	12.8	.35	3.8	P.C. socket	A
TS	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
TS	561L	Auto	12.8	.97	12	Rigid loop	C
TS	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	Fig.
TS	570L	Truck bed light	12.8	2.1	32	Rigid loop	A
	577L	Auto	12.8	1.4	21	Double end cap	B

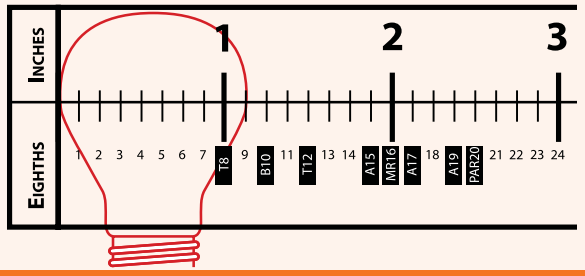
T-5 Bulbs: 5/8" (16mm) Diameter



	Part Number	Application	Volts	Amps	MSCP	Base	Fig.
	915L	Emergency lighting	12	.75	11	Wedge	A
	917L	Auto	12	1.2	10	Wedge	A
TS	912L	Auto heavy duty	12.8	1	12	Wedge	A
TS	921L	Auto heavy duty	12.8	1.4	21	Wedge	A
TS	906L	Auto heavy duty	13	.69	6	Wedge	A
TS	904L	Auto	13.5	.69	4	Wedge	A
TS	916L	Auto	13.5	.54	2	Wedge	A

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 & 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:

Amps x Volts = Watts

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
TS	881L	Auto fog	12.8	27	300	Right angle prefocus	B
	885L	Auto fog	12.8	50	200	Axial prefocus	A
TS	886L	Auto fog	12.8	50	200	Right angle prefocus	B
	889L	Auto signal halogen	12.8	27	300	Right angle plastic	B
TS	890L	Auto signal halogen	12.8	27	300	Axial plastic	A
TS	893L	Auto fog	12.8	37.5	200	Axial plastic prefocus	A
TS	894L	Tractor	12.8	37.5	200	Right angle prefocus	B

Halogen Headlamp Bulbs





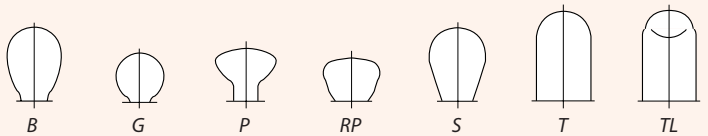


	Part Number	Application	Volts	Watts	Life Hours	Base	Fig.
	9003L	Auto halogen, hi/lo (HB2)	12/12	60/55	150/320	Axial prefocus	A
	9003LL	Auto halogen, hi/lo, long life (HB2)	12/12	60/55	150/800	Axial prefocus	A
	9003BL	Auto halogen, hi/lo w/ xenon (HB2)	12/12	60/55	150/300	Axial prefocus	A
	9003BKL	Auto halogen, hi/lo w/ xenon, blue (HB2)	12/12	60/55	150/300	Axial prefocus	A
TS	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
	9005BL	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 special	B
TS	9006L	Auto halogen, low beam (HB4)	12.8	55	500	Right angle prefocus	B
	9006LL	Auto halogen, low beam, long life (HB4)	12.8	55	1100	Right angle prefocus	B
	9006BL	Auto halogen, low beam w/ xenon (HB4)	12.8	55	890	Right angle prefocus	B
	9006BKL	Auto halogen, low beam w/ xenon, blue (HB4)	12.8	55	890	Right angle prefocus	B
	9006XSLL	Auto halogen, low beam, long life (HB4A)	12.8	55	2000	Straight special	B
TS	9004L	Auto halogen, hi/lo (HB1)	12.8/12.8	65/45	150/320	Axial prefocus	C
	9004LL	Auto halogen, hi/lo, long life (HB1)	12.8/12.8	65/45	250/850	Axial prefocus	C
	9004BL	Auto halogen, hi/lo w/ xenon (HB1)	12.8/12.8	65/45	200/800	Axial prefocus	C
	9004BKL	Auto halogen, high beam w/ xenon, blue (HB1)	12.8/12.8	65/45	150/320	Axial prefocus	C
TS	9007L	Auto halogen, hi/lo (HB5)	12.8/12.8	65/55	200/500	Axial prefocus	B
	9007LL	Auto halogen, hi/lo, long life (HB5)	12.8/12.8	65/55	200/1500	Axial prefocus	B
	9007BL	Auto halogen, hi/lo w/ xenon (HB5)	12.8/12.8	65/55	200/800	Axial prefocus	B
	9007BKL	Auto halogen, hi/lo w/ xenon, blue (HB5)	12.8/12.8	65/55	200/500	Axial prefocus	B

The blue OEM replacement bulbs are 100% street legal & meet/exceed all light output, color & glare requirements for everyday use. They're tested to meet National Highway Safety Administration Federal Motor Vehicle Safety Standards.

Miniature Bulb Shapes

"Bulb" refers to the glass portion of the lamp. Refer to the diagram below for common bulb shape.



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
TS 12258L	Auto halogen	12	55	1550	150	P14.5S
TS 12454L	Auto halogen	12	100	2800	150	P14.5S
64150L	Auto halogen	12	55	129	225	P14.5S
64152L	Auto halogen	12	100	217	50	PX14.5S
HE-78110	Auto halogen	12	100	217	50	P14.5S
64155L	Auto halogen	24	70	158	225	P14.5S
78115L	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
TS 12336L	Auto halogen	12	55	1450	150	PK22S
TS 12455L	Auto halogen	12	100	2350	150	PK22S
TS 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	100 / 90	175 / 135	100 / 200	P43T-38
12593L	Auto halogen	12	100 / 55	191 / 80	100 / 200	P43T-38
HE-78155	Auto halogen	12	60 / 55	1600 / 1000	75 / 150	P43T-38
HE-78158	Auto halogen	12	100 / 55	191 / 80	100 / 200	P43T-38
HE-78159	Auto halogen	12	100 / 80	175 / 135	100 / 200	P43T-38
HE-78160	Auto halogen	24	75 / 70	1900 / 1200	75 / 150	P43T-38
13342L	Auto halogen	24	75 / 70	1900 / 1200	75 / 150	P43T-38

H7 Bulbs



Part Number	Application	Volts	Watts	MSCP	Life Hours	Base
HE-78175	Auto halogen	12	55	120	320	PX26D
HE-78100	Auto halogen	24	70	80	120	PX26D

Miniature Bulbs, cont'd

H8-H13 Bulbs



Part Number	Application	Volts	Watts	Life Hours	Base	Fig.
H965L	Auto halogen (H9)	13.2	65	120	Right angle prefocus	A
H1042L	Auto halogen (H10)	13.2	42	775	Right angle prefocus	B
H1155L	Auto halogen (H11)	13.2	55	550	Right angle prefocus	C
H1253L	Auto halogen (H12)	13.2	53	950	Right angle prefocus	D
H9008L	Auto halogen (H13)	13.2	65/55	300/900	Axial prefocus	E

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
Q250T3/CL		120	250	4.69/119.1	3500		
Q300T3/CL		120	300	4.69/119.1	4800		
Q500T3/CL		120	500	4.69/119.1	10000		
Q750T3/CL		120	750	7.5/190.5	15000		
Q1500T3/CL		240	1500	10.06/255.6	32000		

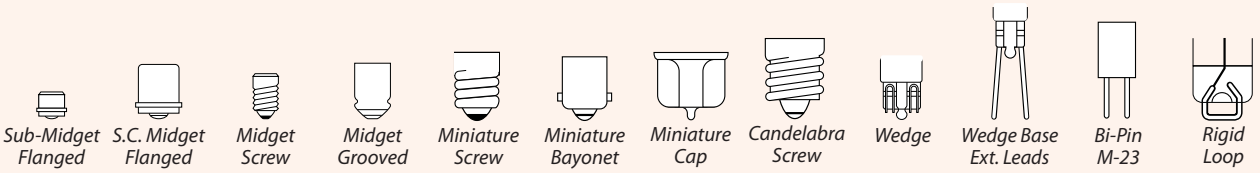
Linear Fluorescent Bulbs

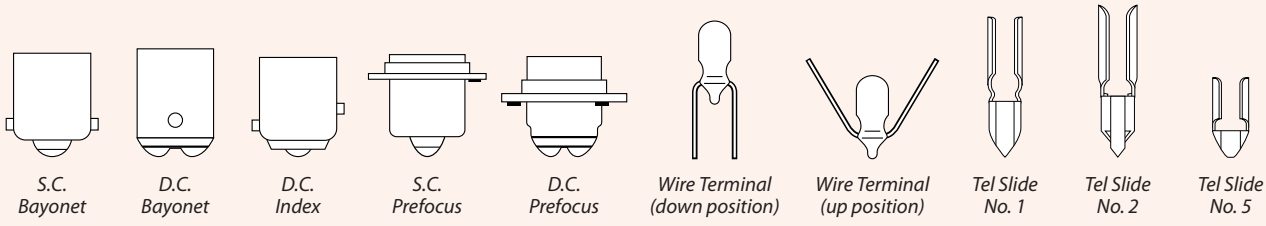


Part Number	Application	Watts	MOL inches/mm	Lumens	Life Hours	Base
F8T5/CW	Cool white, preheat	8	12/305	400	7500	Mini bi-pin
F13T5/CW		13	21/533	850		Mini bi-pin
F15T8/CW		15	18/457	825		Medium bi-pin

Miniature Lamp Bases

Bases provide electrical contact to the lamp & support the lamp in the fixture, in most cases. For miniature & 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.





Miniature Bulbs, cont'd

Off-Road LED Miniature Bulbs: 1" 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 mil amps



Red Part Number	Amber Part Number	White Part Number	Replacement For	Base	Fig.
1156-LED-RED	1156-LED-AMB	1156-LED-WHT	1156L	S.C. bayonet	A
1157-LED-RED	1157-LED-AMB	1157-LED-WHT	1157L	D.C. index	B
3156-LED-RED	3156-LED-AMB	3156-LED-WHT	3156L	S.C. wedge	C
3157-LED-RED	3157-LED-AMB	3157-LED-WHT	3157L	D.C. wedge	D
N/A	HS-84180-AMB	HS-84180-WHT	1156L	S.C. bayonet	E
N/A	HS-84181-AMB	HS-84181-WHT	1157L	D.C. index	F
N/A	HS-84182-AMB	HS-84182-WHT	3156L	S.C. wedge	G
N/A	HS-84183-AMB	HS-84183-WHT	3157L	D.C. wedge	H

Pigtails for these bulbs are located in our pigtail section starting on page 185.

Sealed Beams



Par - 36: 4 1/2" (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	2,500	300	Screw 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 1/2" (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 3/4" (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
4420	Cycle headlamp hi/lo	12.8/12.8	30/30	25,000/15,000	300/300	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
6014	Headlamp hi/lo	12.8/12.8	60/50	32,000/25,000	320/150	3 contact lugs
6015	Heavy duty headlamp hi/lo	12.8/12.8	50/50	32,000/25,000	300/500	3 contact lugs
H-6024	Halogen headlamp hi/lo	12.8/12.8	65/35	35,000/27,000	150/320	3 contact lugs
H-6024LL	Halogen headlamp hi/lo	12.8/12.8	60/50	32,000/28,000	500/ 1500	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 plugs

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
4651	Headlamp high beam	12.8	50	32,000	200	2 contact lugs
H-4651	Halogen headlamp high beam	12.8	50	55,000	200	2 contact lugs
4652	Headlamp hi/lo	12.8/12.8	60/40	12,500/22,500	320	3 contact lugs
H-4656	Halogen headlamp hi/lo	12.8/12.8	35/35	25,000/15,00	320/200	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	Design Watts	Volts	Candle Power	Life Hours	Base
6052	Headlamp type 2B1 hi/lo	65/55	12.8/12.8	35,000/30,000	150/320	3 contact lugs
H-6054	Halogen headlamp hi/lo	65/35	12.8/12.8	40,000/35,000	150/320	3 contact lugs
H-6054BL	Headlamp hi/lo w/ Xenon	65/55	12.8/12.8	28,000/27,000	150/450	3 contact lugs

LED Headlamps

7" Round



- DOT approved, high beam & low beam performance
- Resists damage from shock, vibration & corrosion
- Offers 50X longer life than comparable Par 56, H6014 & H6024 lamps

Part Number	Volts	Amps	Life Hours	Base
TL-27250C	12	4.5 / 2.5	10,000	3 contact lugs
TL-07370	24	1.5 / 0.6	10.000	3 military terminals

4.2" x 6.5" Rectangular



- SAE & DOT approved
- Resists damage from shock, vibration & corrosion
- Offers 50X longer life than comparable Rec 58, 165mm lamps

Part Number	Description	Volts	Amps	Life Hours	Base	Fig.
HS-71076	Low beam	12/24	.9 / .45	20,000	3 contact lugs	A
HS-71078	High beam	12/24	1.2 / .6	20.000	2 contact lugs	B

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Work Lighting

LED Work Lighting

Grote Trilliant® 36 LED WhiteLight™ Work Lamp

TractorPlus™ Lamp



Wide Flood Lamp



- Converts any PAR 36 incandescent lamp into a LED WhiteLight™ work lamp
- Features: polycarbonate, aluminum mounting bracket, color temp gives natural contrast, reducing eye strain
- Mounting bracket has 3/8"-16 x 1" mounting stud
- Rated 10-30V; 1.4A @ 12 volts

TractorPlus™ Part Number	Wide Flood Part Number	Description	Diodes	Lumen
GR-63821-5	GR-63831-5	4.39" dia. lamp	6	900
GR-63861-5	GR-63871-5	4.39" dia. lamp w/ mounting bracket	6	900

Grote Trilliant® Mini LED WhiteLight™ Work Lamp



- Features: polycarbonate hard-coated lens, black die cast housing, color temp gives natural contrast, reducing eye strain
- 3/8"-16 x 1" mounting stud

Flood Part Number	Trapezoid Part Number	Description	Rated	Diodes
GR-63611	GR-63621	5.84" x 3.63" lamp	12V; 0.8A	6
GR-63741	GR-63751	5.84" x 3.63" lamp	24V; 0.4A	6

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	Diodes	Lumen
MX-MWL-01	4.5" dia. round lamp	6	280
MX-MWL-04	6" x 4" rectangular lamp	6	400
MX-MWL-05	6" x 4" rectangular high output lamp	6	600

SoundOff Signal Work Lamps

- Features: Stainless steel mounting bracket
- Rated: 10-50V
- Available in flood, spot & trapezoid beam patterns







Flood Part Number	Spot Part Number	Trapezoid Part Number	Description	Diodes	Lumen
SF-EWLA0500DBDF	SF-EWLA0500DBDS	SF-EWLA0500DBDT	4.5" round (PAR 36) lamp	3	500
SF-EWLC1000SBDF	SF-EWLC1000SBDS	SF-EWLC1000SBDT	4" square lamp	6	1000
SF-EWLC1400TBDF	SF-EWLC1400TBDS	SF-EWLC1400TBDT	5" x 4" rectangle lamp	8	1400

LED Work Lighting, cont'd

North American Signal Company High Power LED Work Lamps



- Features: Sealed, water tight lens assembly, polymer housing, PC vacuum-coated reflector, thermal shock resistant
- Single bolt mounting
- Includes 6ft. harness
- Rated: 12/48V; .6-1A @ 12.8V

Part Number	Description	Diodes	Lumen
NA-WLED-10	Round lamp	1	500
NA-WLED-4R	Round lamp	4	450
NA-WLED-4S	Square lamp	4	450
NA-WLED-6	Rectangular lamp	6	750

Rigid Industries Dually LED Lamp Kit



- Features: 2 lamps w/ aluminum powder coated housing, lexan lens, plug & play wiring harness w/ switch & sealed connector
- Size: 3-3/16" x 2-15/16"
- Rated: 10 - 50 volt

Part Number	Description	Diodes	Lumen
RG-DUALLYFLDW	Flood lamp	4	1300
RG-DUALLYDFLDW	Diffuse flood lamp	4	1300
RG-DUALLYSPTW	Spot lamp	4	1300

Rigid Industries LED Light Bars



- Features: 100% optically clear - AR1 coated polycarbonate lens
- Rated: 9-32V; 1.16-14.44A

Part Number	Description	Diodes	Lumen
RG-RGDL04E	4" flood light bar	8	1440
RG-RGDL04ED	4" flood light bar w/ 60° diffusion film	8	1440
RG-RGDL04P	4" spot light bar	8	1440
RG-RGDL06E	6" flood light bar	12	2160
RG-RGDL06ED	6" flood light bar w/ 60° diffusion film	12	2160
RG-RGDL06P	6" spot light bar	12	2160
RG-RGDL10E	10" flood light bar	20	3600
RG-RGDL10ED	10" flood light bar w/ 60° diffusion film	20	3600
RG-RGDL10P	10" spot light bar	20	3600
RG-RGDL20ED	20" flood light bar w/ 60° diffusion film	40	7200
RG-RGDL20PE	20" spot/flood combo light bar	40	7200
RG-RGDL30PE	30" spot/flood combo light bar	60	10800
RG-RGDL40PE	40" spot/flood combo light bar	80	14400
RG-RGDL50PE	50" spot/flood combo light bar	100	18000

LED Work Lighting, cont'd

Rigid Industries Mounting Clamps

- 3 piece adjustable clamps in black anodized aircraft aluminum w/ stainless hardware





Part Number	Tubing Size
RG-1-3ADJCLMP	1"
RG-125-3ADJCLMP	1.25"
RG-150-3ADJCLMP	1.50"
RG-170-3ADJCLMP	1.70"
RG-175-3ADJCLMP	1.75"
RG-2-3ADJCLMP	2"

Rigid Industries "U" Cradle For Light Bars

- Black powder coated cradle will mount your lamp to any flat surface
- Hardware included



Part Number	Light Size
RG-CRADLE04	4"
RG-CRADLE06	6"
RG-CRADLE10	10"
RG-CRADLE20	20"
RG-CRADLE30	30"
RG-CRADLE40	40"

Incandescent Work Lighting

Rubber Auxiliary

- Weather sealed rubber housing protects against shock, vibration, rust & corrosion
- Size: 4-3/4" dia. x 3" depth
- Mounts w/ 5/16" stud & adjustable bracket



Part Number	Type	Rated
TS-620W	Sealed beam	12 volt / 35 watt
TS-620-HD	Halogen, H3	12 volt / 55 watt
4411	Replacement sealed beam	
12336L	Replacement halogen bulb	

4" x 6" Halogen Wide Flood

- Heavy duty off road work lamp is shock, vibration, rust & corrosion resistant
- Size: 5.89"L x 3.53"H x 3.54"W
- Zinc plated steel mounting bracket



Part Number	Type	Rated
SW-71898-11	Halogen sealed beam	12 volt / 50 watt
SW-72540-11	Halogen sealed beam	24 volt / 60 watt
SW-71017-11	Replacement 12V sealed beam	
SW-72541-11	Replacement 24V sealed beam	

3" x 5" Halogen Wide Flood

- Heavy duty off road lamp is shock, vibration, rust & corrosion resistant
- Size: 6.90"L x 4.49"H x 3.78"W
- Zinc plated steel mounting bracket



Part Number	Type	Rated
SW-73761-11	Halogen sealed beam	12 volt / 50 watt
SW-72408-11	Replacement sealed beam	

Twin Beam Halogen

- Features a bright flood pattern & a weather-proof ON/OFF switch
- Size: 6.5"H x 6.4"W
- 360º mounting



Part Number	Type	Rated
HS-81021	Halogen, H3	12 volt / 55 watt
12336L	Replacement halogen bulb (2)	

Incandescent Work Lighting, cont'd

Halogen Trapezoid

- Heavy duty polymer housing
- Size: 5.89"L x 3.53"H x 3.54"W
- 360º tilt mount w/ wires through mount stud



Part Number	Type	Rated
HS-81138	Halogen, H3	12 volt / 55 watt
HS-82138	Halogen, H3	24 volt / 70 watt
12336L	Replacement 12V halogen bulb	
13336L	Replacement 24V halogen bulb	

Medium Profile Halogen

- Advanced free form reflectors & lens out-perform the competition
- Size: 6.5"H x 6.4"W
- 360º tilt mount



Part Number	Type	Rated
HS-81015	Halogen, H3	12 volt / 55 watt
HS-82015	Halogen, H3	24 volt / 70 watt
12336L	Replacement 12V halogen bulb	
13336L	Replacement 24V halogen bulb	

Forward Lighting

LED Snow Plow Lighting

Truck-Lite LED Snow Plow Kit



Headlamp

- Polycarbonate lens, anodized aluminum housing, metalized reflector
- Rated: 12.8 volts; 4.5 / 2.5 amps
- 10 LED's

Pedestal Lamp

- Polycarbonate lens, black powder coated housing
- Rated: 12.8 volts; .625 / .046 amps
- 21 LED's

Part Number	Description
TL-80863	Kit: 2- headlamp/pedestal lamp assemblies & wiring harness

Incandescent Snow Plow Lighting

Arrow Safety Device Snow Plow Kit



- Acrylic lens, aluminum die cast housing, stainless steel mounting pedestal & hardware
- SAE ball type mounting, 7/16" stud

Part Number	Description
779-09-132	Kit: 2 - head lamp assemblies & install kit

Incandescent Snow Plow Lighting, cont'd

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

Unity Spotlights



- All spotlights listed require an installation kit (sold separately)
- Many more models of spotlights, installation kits & repair kits available, contact customer service or your local sales rep for more info

Model	Mounting Location	245,000 CP 6" Chrome Part Number	160,000 CP 6" Chrome Part Number	Inst. Kit LH Driver Part Number	Inst. Kit RH Passenger Part Number
2000-11 Crown Victoria (LH)	Inside post	UN-94014	UN-94012	UN-5556	-
2005-11 Ford F250-F550 Super Duty	Door	UN-330V	UN-325V	UN-189	UN-189RH
2005-11 Impala (LH)	Post	UN-205050	UN-205040	UN-256	-
2005-11 Impala (RH)	Post	UN-205051	UN-205041	-	UN-256RH
Replacement handle (all spotlights)			UN-U-6701-0101		

Searchlights



- UV ray & salt water resistant
- 360° rotation & 135° tilt
- 400,000 candlepower
- 5.5 amps

Part Number	Color	Description	Includes	Unit Size
GL-7901	White	Portable	Programmable remote, suction cup/magnet mount shoe, 15' cord w/ 12VDC plug	7"x7"x8"
GL-7951	Black			
GL-2067	White	Permanent	2 programmable remotes & 20' wiring harness	7"x7"x6.5"
GL-2049	Black			

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Tractor / Trailer Connectors, Coiled Cables & Accessories

Single Pole Die Cast

Heavy Duty

- Rated: 300 amps
- Zinc die cast body is corrosion resistant
- Accepts 2-4ga. cable



Description	Part Number
Receptacle	TS-SPS
Plug	TS-SPP

Single Pole Liftgate Coils

- For liftgate & remote battery applications
- Cable ends include terminal lugs for a return ground cable
- 200 amp max capacity
- Temp rating: -40ºF to 140ºF

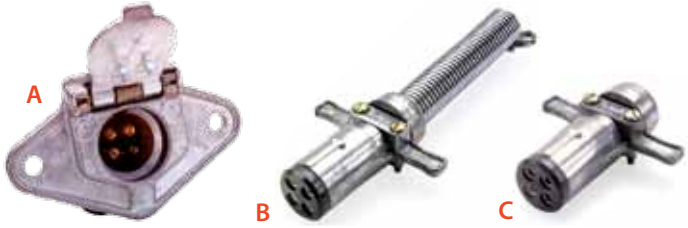


Part Number	Work Length	Cables
LGC-15	15ft.	One 4ga.
LGC-15-DP	15ft.	Two 4ga.

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 Cole Hersee	Phillips	Pollack	Tramec	Fig.
Receptacle	CH-1232	15-400	11-404	38494	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 Pollack	Fig.
Receptacle	11-410	A
Plug	11-409	B
Complete set	11-408	A & 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.

4-Way Mini Coils

- For adding circuits to tractor/trailer
- 4/14ga. (black, yellow, red, white)
- Temp rating: -40ºF to 140ºF



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	Pollack	Tramec	
Receptacle	CH-1235	15-600	11-609	38496	A
Repl. rec. interior	CH-1159	N/A	11-610	N/A	-
Plug	CH-1236	15-610	11-604	38196	B
Plug w/ spring	CH-1254	15-630	11-605	38195	C
Repl. plug interior	CH-1296	N/A	11-606	N/A	-

6-Way Mini Coils

- Great for adding circuits to tractor/trailer
- 6/14ga. (black, brown, green, red, white, yellow)
- Temp rating: -40ºF to 140ºF



Part Number	Work Length
MINI-68	8ft.
MINI-610	10ft.
MINI-615	15ft.

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.

Always be sure that your trailer connectors are working correctly with a circuit tester. See page 220 for our wide selection.

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	Pollack	Tramec	
Receptacle	CH-12063-01	15-720	11-721	38497	A
Repl. rec. interior	N/A	15-724	11-766	N/A	-
Plug	CH-1222	15-710	11-700	38198	B
Plug w/ spring	CH-1255	15-730	11-702	38197	C
Repl. plug interior	CH-1286	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.

7-Way Die Cast, cont'd

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: -40ºF to 140ºF



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 -40ºF



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 -85ºF
- 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 Cole Hersee	Part Number Pollack	Fig.
Receptacle	CH-12080	11-723	A
Repl. rec. interior	N/A	11-766	-
Plug	CH-12081	11-704	B
Plug w/ spring	CH-12082	11-710	C
Repl. plug Interior	CH-1286	11-764	-
Repl. spring	CH-81192	11-763	-
Complete set (w/o spring)	N/A	11-752	A & B

Receptacles w/ Replaceable Circuit Breakers

- Heavy duty zinc die cast face plate
- Glass filled nylon base plate & 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	Pollack	20	B
11-739	Pollack	30	B

7-Way RV

RV OEM Replacement Receptacle



- Nylon body eliminates corrosion
- Tin-plated copper alloy contacts

Description	Part Number Pollack
Receptacle	11-893

RV OEM Replacement Twist & Lock Receptacle



- Tin-plated copper alloy contacts
- Interlocking connector forms a weather-tight, non-corrosive assembly

Description	Part Number Pollack
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.

Standard RV Plug & Receptacle

A



B



- Plastic housing eliminated rust, poor appearance & difficult plug removal

Description	Part Number Pollack	Fig.
Receptacle	12-707	A
Plug	12-706	B
Complete set	12-705	A&B

Truck Connector & Coiled Cable Accessories

Receptacle Boots

- Rubber boot seals against dust & moisture

A



B



Part Number	Description	Fig.
11-616	Fits all 6-way receptacles	A
11-761	Fits all 7-way receptacles	B

Surface Mounted Adapter Boxes

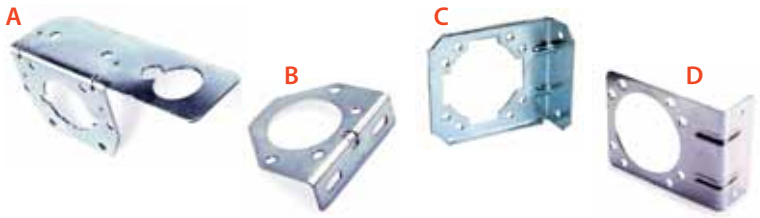
- Part pictured: #38265
- Works with Receptacles w/ Replaceable Circuit Breakers on page 214



Description	Part Number Bottom Entry	Back Entry
3″ adapter box	3826035	3826035B
2″ adapter box	38265	38265B

Accessories, cont'd

Heavy Gauge Steel Receptacle Brackets



Description	Part Number Uncoated	Part Number Black Coated	Fig.
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

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

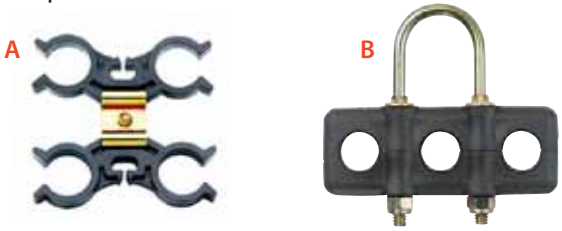
- Excellent support for air, vacuum & electrical lines
- Durable, zinc-plated steel body
- Heavy duty polyester springs
- 5/8″-11 stud & nut for extra support
- Heavy fabric hose holder strap



Part Number	Description
VC-581011	40″ pogo stick
VC-581010	Replacement strap

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	A
VC-580039	1/2″	2	B
VC-580040	1/2″	3	B
VC-580041	1/2″	4	B

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

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
PH-48FL-SET	PH-48FF & PH-48FM	A&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

4-Way Flat (Extra 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
PH-6 SET	Complete set	A&B

Molded Trailer Connectors, cont'd

8-Way Flat



Part Number	Description	Fig.
PH-8F	Female; 16ga., 8/48" wire leads	A
PH-8M	Male; 16ga., 8/48" wire leads	B
PH-8 SET	Complete set	A&B

Flat Connector Covers



- Protects connector from salt, dirt & road debris

Part Number	Size
DT-20112	4-way
DT-20118	5-way

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
- For heat element on engine block
- Mates w/ any .156" dia. snap plug



Part Number	Description
PH-79F	Female; 16ga., 11-1/2" wire leads

Universal

- Snap receptacle
- Mates w/ any .156" dia. snap plug



Part Number	Description
MP-1	Female; 16ga., 11" wire leads

Weather Pack Harnesses require one butt connector per wire to complete assembly. To find the perfect one for your application, check out our 16-14ga. terminal section on pages 16-26.

Weather Pack Harnesses



Part Number Male	Part Number Female	Size	Wire Leads
WP-1M	WP-1F	1-way connector	14ga., 10"
WP-2M	WP-2F	2-way connector	
WP-3M	WP-3F	3-way connector	
WP-4M	WP-4F	4-way connector	
WP-6M	WP-6F	6-way connector	

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

7-Way RV Tester

- Fits all standard blade type
- LED's glow when circuit is functioning correctly
- For all circuits



Part Number
63-0170

Circuit Testers, cont'd

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 are functioning correctly in connector cord 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 6-way Round

Part Number
TS-726



7-way Blade to 6-way Round & 4-way Flat

- Impact & corrosion resistant
- Includes dust cover

Part Number	Description
HP-47565	Center pin auxiliary
HP-47575	Center pin electric brake



7-way Blade to 4-way Flat

Part Number
TS-724



7-way Round to 4-way Flat

Part Number
TS-724-PN



7-way Round to 5 & 4-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

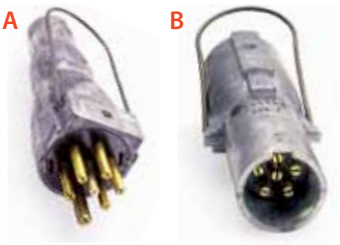
Part Number
HP-47675



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
- Can be customized to meet your needs



Part Number	Length
TG-6323-B	99″

12 Volt Adapters

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

12V Plug & Multi-Receptacle



- Features: a width adjusting collar, mounting arms & a coiled cord w/ cigarette lighter adapter
- Rated: 12 Volt; 8 amp

Part Number	Description	Fig.
HS-98231	Double receptacle	A
HS-98232	Triple receptacle	B

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

Tractor / Trailer Cleaning Brushes, cont'd

Electrical Connection Brush Kit



- Bronze wire brushes for tin coated terminals
- Stainless steel brushes for battery terminals & heavily corroded areas

Part Number	Description
TL-97025	5 wire brush kit

Continue to protect your electrical connections, by using dielectric grease along with our scrubbers. To order, see page 422.

Junction Boxes

7-Way Junction Box (Grote)

- 4 open & 4 closed grommets
- Corrosion resistant w/ strain relief collar
- Mounting bolts, 7.375" center to center



Part Number	Description
GR-82-1000	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	Description
52-249	Holds seven circuit breakers

10-Way Junction Box

- Made of precision molded, engineering grade plastic
- 7.5"L x 3.75"W x 2.5"H



Part Number	Description
52-248	One row of ten #10 studs

Prevent corrosion with our NYK-77 Compound.

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	Description
TS-1240	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	Description
BE-351044	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 Red	Blue	Set	Work Length
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 (nonpolarized)	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

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

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

Electronic Brake Controls

1-2 Axle Trailer Brake System



- Mount 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



- Mount 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
- Not designed for electric/ hydraulic trailer brake systems

Part Number	Description	L x W x H (inches)
AP-90185	Handles up to 8 brakes	5.125 x 3.125 x 1.1875

Break-Away System



Part Number	Application
20099	Kit: includes box, switch, battery & charger
20107	Weldable mounting plate w/ hardware
20106	Replacement lid w/ LED meter
20005	Replacement switch & cable
20008	Replacement rechargeable, 12 volt 5 amp battery
20120	Replacement box

DC Hourmeters

- Operating voltage: 10-80 VDC
- Temp rating: -40ºF to 185ºF
- UL Listed (#AU 1774), CSA Certified (#LR42455-12), conforms to MIL-M-3971
- 10,000 hours standard, automatically recycles to zero
- Transient voltage protection, 1/4: blade terminals standard
- Sealed cases impervious to acids & solvents
- Shock proof, vibration resistant
- Mounted in flanged housing, allows mounting in panel without rear access
- Accommodates 3 wires, 18-10ga., 2 pole 3rd wire for grounding



Part Number	Size	Fig.
SW-85342-03	2.27″ diameter	A
SW-85098-03	2.50″ diameter	B
SW-85097-02	2.86″ diameter	C
SW-85094-12	2.43″L x 1.29″W x 2.19″D	D

Cameras

Standard Camera System

- 5.6″ monitor w/ internal controller
- Standard camera w/ audio, infrared & an aluminum alloy housing
- 65′ transmission cable
- Expandable up to 2 cameras



Part Number	Description
EC-K5600	Color camera & monitor
EC-K5602	Black & white camera & monitor

Widescreen Camera System

- 7″ widescreen monitor w/ internal controller
- Standard camera w/ audio, infrared & an aluminum alloy housing
- 65′ transmission cable
- Expandable up to 2 cameras



Part Number	Description
EC-K7000	Color camera & monitor

Snow Plow Markers



- Fiberglass marker has 9″ strip of fluorescent orange tape at the top for hi-visibility
- Spring mounted, 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 212 of our Forward Lighting section for our selection of snow plow lighting.

Dash Fans



- 12 volts
- Features a chrome finish & a three-way OFF/HI/LOW switch

Part Number	Size
TS-12VFAN	7.5″ diameter

Truck Mirrors

Truck Mirrors

A 

B 

C 

D 

E 

F 

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	Two arm mirror bracket, attaches to any west coast mirror	F

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

Document Holders

Plastic Document Holders



- Made from high impact, chemical resistant plastic w/ smoked lens
- Features inside retaining spring

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

Vinyl Document Holders



- 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

License Plate Brackets



- Molded of high impact, non-corrosive polypropylene
- 1/4″ mounting holes on 2″ centers

Part Number	Description
WE-3201	Bracket

Contents



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- Oval Lamps & Accessories 231
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- Back-up Lamp Plugs 233
- Clearance / Marker Lamps & Accessories 233
- Clearance / Marker Lamp Plugs 236
- Identification Light Bars 236
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LED Lamps **238**
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- 4" Round Park / Turn Lamps 240
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- 3/4" Single Diode Clearance/Marker Lamps 252
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- Interior Lightings 254
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REFERENCE

Which pigtail should I choose? 247
Benefits of LED Lighting 253

Incandescent Lamps

Round Lamps & Accessories

4" Standard Lamps

- Hermetic lens-to-housing seal
- Fits all competitive pigtails, brackets & grommets
- Connection: 3-wire pigtail





Description	Color	Part Number TSC	Truck-Lite	Grote	Optronics
Stop/Tail/Turn, dbl contact	Red	TS-4064	TL-40202R	GR-52772	OT-ST-45RB
Tail/Turn, dbl contact	Amber	N/A	TL-40202Y	GR-52773	OT-ST-45AB

The pigtails needed to properly hook up all of our stop/tail/turn lamps are located on page 232.

Need replacement bulbs? See 1156L (sgl contact) & 1157L (dbl contact) on page 199.

4" Round Steel Mounting Modules

- 4-1/2" hole for mounting 4" round lamps
- Made from black enamel coated steel



Description	Size (L" x W" x D")	Part Number TSC
1 lamp module	6.5 x 6.2 x 3.6	TS-T503

4" Round Mounting Brackets

- 4-1/2" hole for mounting 4" round lamps
- Made from coated steel





Description	Part Number TSC	Truck-Lite	Grote
1 lamp bracket	TS-9238	TL-40720	GR-43572
2 lamp bracket	N/A	TL-40715	GR-43642

4" Round Mounting Grommets

- Black shock-proof rubberized grommet



Description	Part Number TSC	Truck-Lite	Grote
Open back grommet	TS-9127	TL-40700	GR-91740
Closed back grommet	N/A	N/A	GR-91950

4-1/8" Red / Amber Double Faced Turn Signals

- Replacement lamps for Ford & other tractors w/ front park/ turn signals
- Size: 4-1/8" dia. x 2-1/2" depth; mounting: 1/2"-20 x 7/8" stud
- Connection: hard wired w/ butt connectors





Description	Wire Leads	Part Number TSC
Black housing w/ shock safe	1	TS-2801
Gray housing	1	TS-3801
Chrome housing	1	TS-3802
Black housing w/ park	2 +ground	TS-3810
Chrome housing w/ park	2 +ground	TS-3812
Amber replacement lens		TS-9016A
Red replacement lens		TS-9016
Amber kit: lens, gasket & screws		TS-9021A
Red kit: lens, gasket & screws		TS-9021R

Oval Lamps & Accessories

6" Standard Lamps

- Sealed housing & lens
- Vibration resistant bulb
- Fits all competitive pigtails, brackets & grommets





Description	Color	Connection	Part Number Truck-Lite	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		TL-60002Y	GR-52573	OT-ST-74AB
Stop/Tail/Turn, sgl contact	Red	2-wire pigtail	TL-60201R	GR-55772	N/A
Tail/Turn, sgl contact	Amber		TL-60201Y	GR-55773	N/A

Is Optronics your fleet's light of choice? Then order by the case (qty. 50) so you can be sure you'll always have some on hand! Just add -CS to the end of the Optronics part numbers to order.

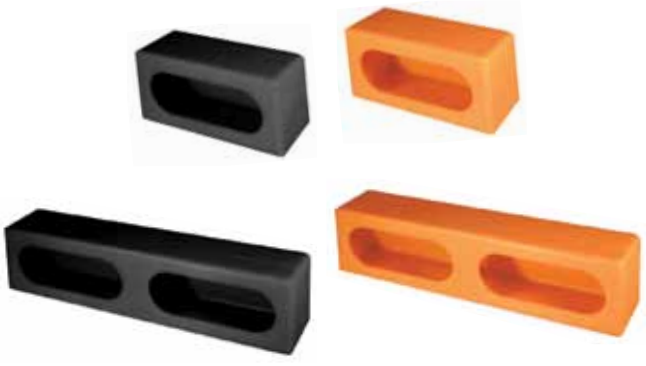
6" Mid Turn Lamp

- Sealed Lexan housing & lens
- Heavy duty shock safe bulb
- Features side indicator, marker/clearance & reflector functions
- Size: 6.50"L x 2.96" D
- 180º visibility
- Fits all competitive pigtails, brackets & grommets
- Connection: 3-wire pigtail



Description	Color	Part Number TSC
Lamp	Amber	TS-6164A

6" Oval PVC Mounting Modules



- Fits any 6" oval lamp w/ grommet
- Made from polyethylene PVC
- Drill wire feed holes where you'd like
- Impervious to rust & chemicals

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
- 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

Oval Lamps & Accessories, cont'd

6" Oval Mounting Brackets

- 6-1/4" hole for mounting 6" oval lamps
- Made from coated steel



Description	Part Number TSC	Truck-Lite	Grote
1 lamp bracket	TS-9525	TL-60720	GR-43362

6" Oval Mounting Grommets

- Black shock-proof rubberized grommet



Description	Part Number TSC	Truck-Lite	Grote
Open back grommet	TS-9526	TL-60700	GR-92420
Closed back grommet	N/A	N/A	GR-92720

Stop, Tail & Turn Lamp Plugs

Pigtails





Description	Part Number TSC	Truck-Lite	Grote	Optronics	Fig.
Right angle, 3 wire	TS-9128	TL-94993	GR-67090	OT-A-47PB	A
Right angle, 2 wire	N/A	TL-94992	GR-67010	OT-A-49RB	-
Straight, 3 wire	TS-9124	TL-94926	GR-67000	OT-A-45PB	B

Wiring Harness

- Cut in lengths of up to 100 continuous connectors
- To order the entire roll, use part # MX-M50900-100, otherwise we will cut to the quantity you request
- 12" wire leads



Description	Part Number
Right angle, 3 wire	MX-M50900

Combination Tail Lamps

- Combination stop/tail/turn/back-up assembly w/ license illuminator







Description	Mounting	Part Number TSC	Grote	Fig.
Light w/ weatherproof pigtail	3 stud	TS-132	GR-50972	A
Light w/ weatherproof pigtail	2 stud	TS-196	GR-50992	A
Light w/ left side junction box	3 stud	TS-168	GR-50912	B
Light w/ right side junction box	3 stud	TS-169	GR-50902	C
Replacement lens for lights w/ weatherproof pigtail	-	TS-2402	GR-91302	-
Replacement lens for lights w/ junction boxes	-	TS-2401	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
12V Lamp	Clear	TL-40204
Kit: 12V lamp, grommet & plug	Clear	TL-40004
24V Lamp	Clear	TL-40121
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
Lamp	Clear	TL-60204C
Kit: lamp, grommet & plug	Clear	TL-60004C

Back-up Lamp Plugs

Back-up Lamp Pigtails



Description	Part Number Truck-Lite
Right angle, 2 wire	TL-94992

Clearance / Marker Lamps & Accessories

Die Cast Base Screw Mount Lamps

- Shock safe for maximum bulb life
- Durable, die cast base
- Rubber o-ring secures snap-on lens
- Size: 4"L x 2"W x 1-1/8"D
- Mounting: Two #10 screws on 3" centers
- Uses two bulbs





Description	Color	Connection	TSC	Part Number Truck-Lite	Grote
Lamp	Red	Hard wired	TS-1203	TL-1203	GR-46782
Lamp	Amber	Hard wired	TS-1203A	TL-1203A	GR-46783
Replacement lens	Red	-	TS-9007	TL-9007	GR-91962
Replacement lens	Amber	-	TS-9007A	TL-9007A	GR-91963
Replacement o-ring	-	-	TS-9180	TL-9180	GR-94110
Replacement bulb	-	-	1895L	193L	1893L

Clearance / Marker Lamps & Accessories, cont'd

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	TSC	Part Number Truck-Lite	Grote
Lamp	Red	Hard wired	TS-1211	TL-1211	GR-46792
Lamp	Amber	Hard wired	TS-1211A	TL-1211A	GR-46793
Replacement lens	Red	-	TS-9007	TL-9007	GR-91962
Replacement lens	Amber	-	TS-9007A	TL-9007A	GR-91963
Replacement bulb	-	-	1895L	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	TSC	Part Number Truck-Lite	Grote
Lamp	Red	Hard wired	TS-1259	TL-1259	GR-45262
Lamp	Amber	Hard wired	TS-1259A	TL-1259A	GR-45263
Replacement lens	Red	-	TS-9093	TL-9093	GR-91572
Replacement lens	Amber	-	TS-9093A	TL-9093A	GR-91573
Replacement bulb	-	-	1895L	193L	1893L

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	-	20079-1
Replacement lens	Amber	-	20079-2

ABS Housing Screw Mount Lamps

- High impact housing w/ snap-on lens
- Size: 4"L x 1-1/8"W x 1-1/32"D
- Mounting: Two 1/4" holes on 3" centers
- Uses two bulbs





Description	Color	Connection	Part Number Truck-Lite
Lamp	Red	Hard wired	TL-26312R
Lamp	Amber	Hard wired	TL-26312Y
Replacement lens	Red	-	TL-99050R
Replacement lens	Amber	-	TL-99050Y
Replacement bulb	-	-	194L

Clearance / Marker Lamps & Accessories, cont'd

Sealed Lamps

- ABS plastic housing, acrylic lens & pigtail w/ built-in grommet
- Size: 4-1/2"L x 1-1/16"W x 1-1/2"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

2" Round Twist-On Lamps

- Polycarbonate housing & lens sonically sealed
- Size: 2" dia. x 3/4" deep
- Rated: 14 volt; .33 amp bulb @ 2.0 candlepower
- Connection: 2-wire pigtail



Description	Color	Part Number TSC	Part Number Truck-Lite	Part Number Grote
Lamp	Red	TS-1030	TL-30200R	GR-45822
Lamp	Amber	TS-1030A	TL-30200Y	GR-45823
Lamp w/ vertical ABS logo	Amber	N/A	TL-30257Y	N/A
Lamp w/ horizontal ABS logo	Amber	N/A	TL-30230Y	N/A

2-1/2" Round Twist-On Lamps

- Polycarbonate housing & lens sonically sealed
- 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 TSC	Part Number Truck-Lite	Part Number Grote
Lamp	Red	TS-1010	TL-10202R	GR-45812
Lamp	Amber	TS-1010A	TL-10202Y	GR-45813
Reflectorized lamp	Red	TS-1011	TL-10205R	GR-45832
Reflectorized lamp	Amber	TS-1011A	TL-10205Y	GR-45833

2-1/2" Rectangle Snap-On Lamps

- Polycarbonate housing & lens sonically sealed
- 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
Lamp	Red	TL-15200R
Lamp	Amber	TL-15200Y
Lamp w/ ABS logo	Amber	TL-15203Y

3-3/4" Rectangle Snap-On Lamps

- Polycarbonate housing & lens sonically sealed
- 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
Lamp	Red	TL-19200R
Lamp	Amber	TL-19200Y
Lamp w/ ABS logo	Amber	TL-19205Y

Clearance / Marker Lamps & Accessories, cont'd

Clearance / Marker Mounting Grommets

- Black shock-proof rubberized grommet



Description	Part Number TSC	Truck-Lite	Grote
2" grommet	TS-9139	TL-30700	GR-92120
2-1/2" grommet	TS-9119	TL-10700	GR-91400

Clearance / Marker Lamp Plugs

Pigtails





Description	Part Number TSC	Truck-Lite	Grote	Fig.
Right angle, 2 wire	TS-9122	TL-94902	GR-67050	A
2" kit: grommet & pigtail	TS-9239	TL-30401	GR-94100	B
2-1/2" kit: grommet & pigtail	TS-9219	TL-10401	GR-94010	B

Wiring Harness

- Cut in lengths of up to 200 continuous connectors
- To order the entire roll, use part # MX-M50950-100, otherwise we will cut to the quantity you request
- 6" wire leads



Description	Part Number
Right angle, 2 wire	MX-M50950

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 (included)

Description	Color	Part Number Optronics	Truck-Lite
Light bar	Red	OT-MC-93RB	TL-15745R
Light bar	Amber	OT-MC-93AB	TL-15745Y
Replacement light	Red	OT-A-91RB	TL-15200R
Replacement light	Amber	OT-A-91AB	TL-15200Y
Replacement harness	-	OT-A-93PB	TL-93945

Identification Light Bars, cont'd

Black Enamel Steel ID Light Bars



- Size: 17-3/4"L x 2-1/4"W x 1-3/8"H
- Mounting: Two #10 holes on 17-1/8" centers
- Three lamps (#TS-1211) on black enamel steel bar for easy mounting
- Connection: 2-wire harness w/ butt connectors (included)

Description	Color	Part Number TSC
Light bar	Red	TS-1215
Replacement lens	Red	TS-9007
Replacement bulb	-	1895L

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 (included)

Description	Color	Part Number Optronics	Part Number 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

Interior Lighting

- Connection: hard wired, 2 wire leads

A



B



C



Part Number Truck-Lite	Size	Housing	Switch	Mounting	Repl. Bulb	Repl. Lens	Fig.
TL-80354	8-1/4"	Chrome plated steel	Yes	4 holes on flat surface	1156L	TL-99088C	A
TL-80355	8-1/4"	Chrome plated steel	No	4 holes on flat surface	1156L	TL-99088C	A
TL-80350	6"	Chrome plated steel	Yes	4 holes on flat surface	1156L	TL-99082C	B
TL-80351	6"	Chrome plated steel	No	4 holes on flat surface	1156L	TL-99080C	B
TL-9380SWD	6"	Aluminum	Yes	3 holes on 5-1/2" dia. circle	1156L	TL-8935W	C
TL-9380W	6"	Aluminum	No	3 holes on 5-1/2" dia. circle	1156L	TL-8935W	C

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 connectors

Description	TSC	Part Number Truck-Lite	Grote
Lamp	TS-431	TL-26330	GR-60151
Replacement bulb	67L	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	TSC	Part Number Truck-Lite	Grote
Lamp	TS-430	TL-26331	GR-60101
Replacement bulb	67L	67L	67L

LED Lamps

4" Round Stop / Tail / Turn Lamps

LED

Truck Lite



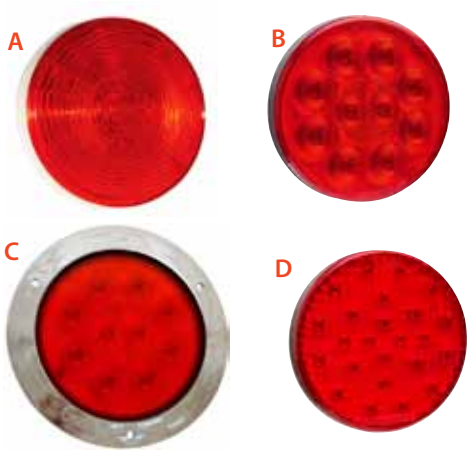
- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate, sonically welded lens & housing, lens
- Connection: FNF pigtail, unless otherwise noted

Part Number	Description	Diodes	Fig.
TL-44302R	Lamp	6	A
TL-44982R	Lamp, diamond shell	6	A
TL-44322R	Kit: lamp & gray flange	6	B
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-44222R	Kit: lamp & gray flange	42	F
TL-44002R	Kit: lamp, grommet & adapter	42	G

4" Round Stop / Tail / Turn Lamps, cont'd

LED

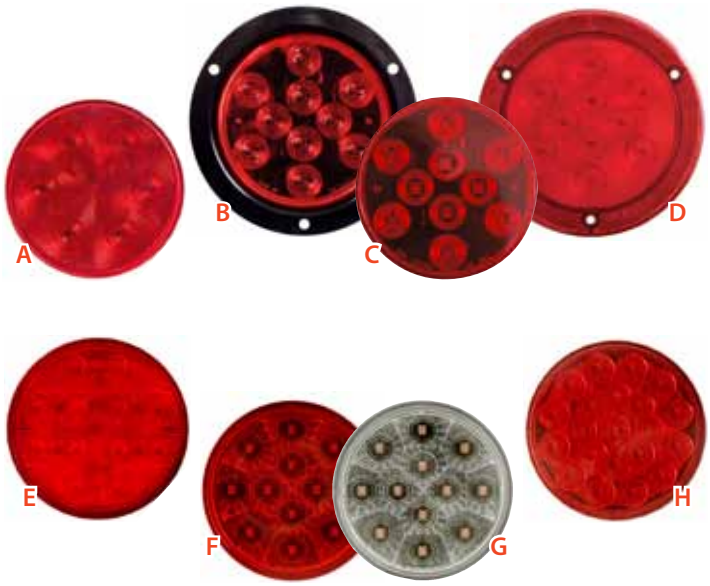
Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54332	Lamp, male pin	3	A
GR-54342	Lamp	3	A
GR-53252	Lamp, male pin	10	B
GR-53302	Kit: lamp & stainless flange, male pin	10	C
GR-53312	Lamp, male pin	24	D
GR-G4002	Lamp	24	D

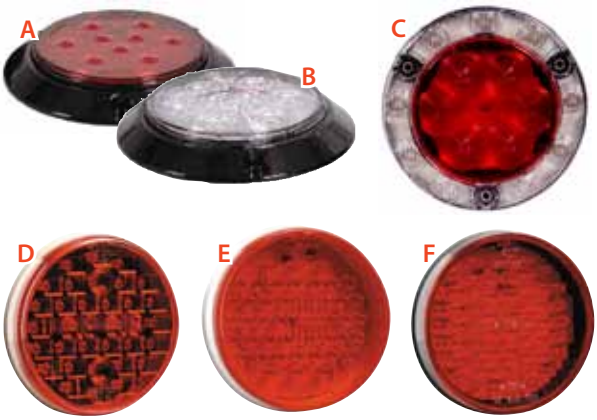
Optronics



- 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-13RB	Lamp	7	A
OT-STL-42RB	Lamp, 2 wire	10	B
OT-STL-43RB	Lamp	10	C
OT-STL-43RMB	Lamp, weather tight	10	C
OT-STL-43RBX	Lamp, w/ reflex flange	10	D
OT-STL-543RB	Lamp	12	E
OT-STL-23RB	Lamp	12	F
OT-STL-23RCB	Lamp, cl. lens, red LEDs	12	G
OT-STL-55RB	Lamp	21	H

Maxxima



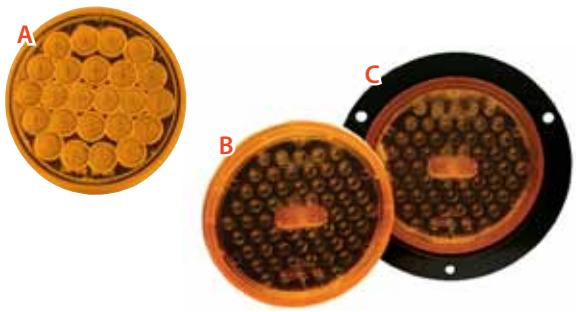
- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
MX-M42321R	Lamp	9	A
MX-M42321RCL	Lamp, clear lens, red LED's	9	B
MX-M85415R	Lamp, w/ back-up lamp	6R / 10W	C
MX-M42320R	Lamp	32	D
MX-M42100R	Lamp	44	E
MX-M56100R	Lamp	56	F

4" Round Park / Turn Lamps

LED

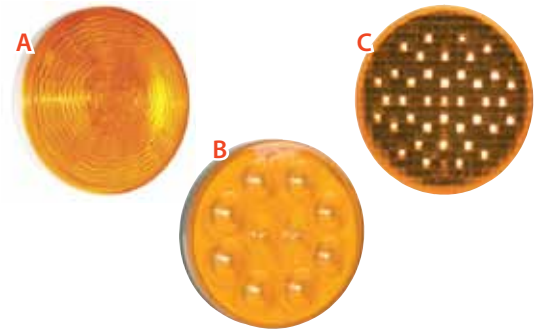
Truck Lite



- 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
TL-44224Y	Kit: lamp & black flange	60	C

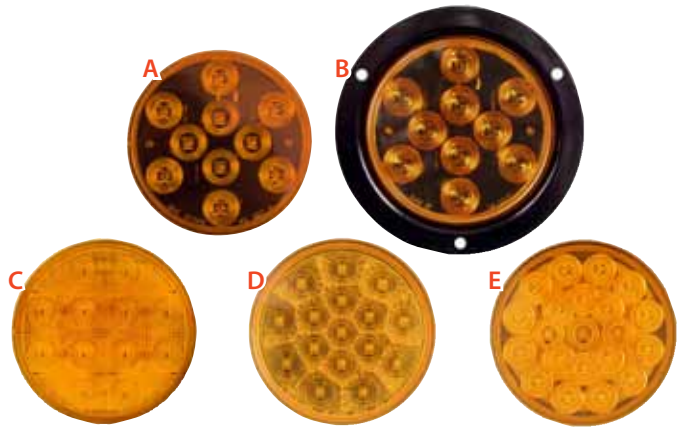
Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54333	Lamp, male pin	3	A
GR-53253	Lamp, male pin	10	B
GR-G4003	Lamp	39	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-43AB	Lamp	10	A
OT-STL-42AB	Lamp, 2 wire	10	B
OT-STL-543AB	Lamp	12	C
OT-STL-23AB	Lamp	16	D
OT-STL-55AB	Lamp	21	E

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes
MX-M85429Y	Lamp, w/ integrated back-up lamp	15A / 18W

4" Round Mounting Accessories

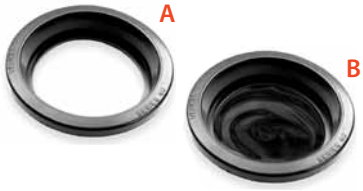
4" Round Mounting Brackets



- 4-1/2" hole for mounting 4" round lamps
- Made from coated steel

Description	Part Number TSC	Truck-Lite	Grote	Fig.
1 lamp bracket	TS-9238	TL-40720	GR-43572	A
2 lamp bracket	N/A	TL-40715	GR-43642	B

4" Round Mounting Grommets



- Black shock-proof rubberized grommet

Description	Part Number TSC	Truck-Lite	Grote	Optronics	Fig.
Open back grommet	TS-9127	TL-40700	GR-91740	OT-A-45GB	A
Closed back grommet	N/A	N/A	GR-91950	N/A	B

6" Oval Stop / Tail / Turn Lamps

LED

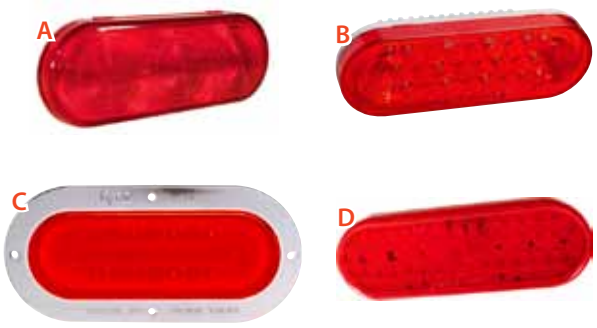
Truck Lite



- 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-66250R	Lamp	1	B
TL-66252R	Kit: lamp & gray flange	1	A
TL-6050	Lamp, 3-wire pigtail connection	24	C
TL-60250R	Lamp	26	E
TL-60252R	Kit: lamp & gray flange	26	D
TL-60050R	Kit: lamp, grommet & adapter	26	F

Grote



- Rated: 12 volt, unless otherwise noted
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54162	Lamp, male pin	3	A
GR-54172	Lamp	3	A
GR-53962	Lamp, male pin	16	B
GR-52072	Lamp, 24 volt, male pin	16	B
GR-53972	Lamp, w/ stainless flange, male pin	16	C
GR-G6002	Lamp, male pin	56	D

6" Oval Stop / Tail / Turn Lamps, cont'd

LED

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-12RB	Lamp	6	A
OT-STL-73RB	Lamp, flange mount, hard wired	6	B
OT-STL-572RB	Lamp	12	C
OT-STL-72RB	Lamp	10	D
OT-STL-78RB	Lamp, flange mount, hard wired	10	E
OT-STL-22RB	Lamp	12	F
OT-STL-70RB	Lamp	48	G

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
MX-M63322R	Lamp	9	A
MX-M63322RCL	Lamp, clear lens	9	B
MX-M85615R	Lamp, w/ back-up lamp	6R/10W	C
MX-M63420R	Lamp	42	D
MX-M63100R	Lamp	60	E

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

6" Oval Park / Turn Lamps, cont'd

LED

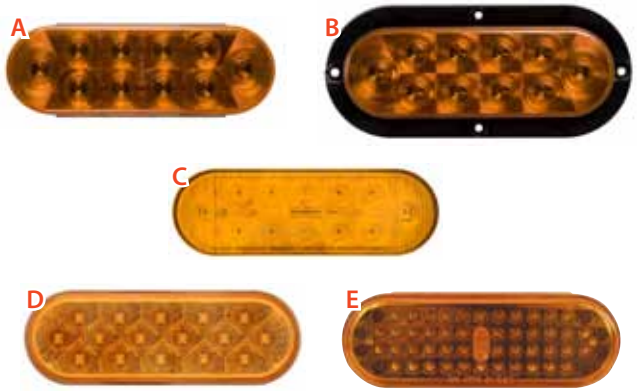
Grote



- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 3-wire pigtail

Part Number	Description	Diodes	Fig.
GR-54163	Lamp, male pin	3	A
GR-53963	Lamp, male pin	16	B
GR-G6003	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-72AB	Lamp	10	A
OT-STL-78AB	Lamp, flange mounted, hard wired	10	B
OT-STL-572AB	Lamp	12	C
OT-STL-22AB	Lamp	12	D
OT-STL-70AB	Lamp	56	E

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-M63420Y	Lamp	42	B
MX-M63100Y	Lamp	60	C

6" Oval Mounting Accessories

6" Oval Mounting Grommets



- Black shock-proof rubberized grommet

Description	Part Number TSC	Truck-Lite	Grote	Optronics	Fig.
Open back grommet	TS-9526	TL-60700	GR-92420	OT-A-70GB	A
Closed back grommet	N/A	TL-60704	GR-92720	N/A	B

Rectangular Stop / Tail / Turn Lamps

LED

Truck Lite





- 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

Optronics





- Features: plastic, sonically welded, waterproof lens & housing in a single unit

Part Number	Description	Diodes	Volts	Connection	Fig.
OT-STL-35RB	Lamp, 5-5/16" x 3-7/16"	16	12	3-wire pigtail	A
OT-STL-33RB	Lamp, 6-1/4" x 4-3/8"	12	12	3-wire pigtail	B

Maxxima



- Features: polycarbonate, sonically welded lens & housing

Part Number	Description	Diodes	Volts	Connection
MX-M42201R	Lamp, 5.3"	44	12	3-wire pigtail

6" Oval Mid-Turn Lamps

LED

Truck Lite



- Rated: 12 volt
- Features: polycarbonate lens & housing
- Connection: FNF pigtail

Part Number	Description	Diodes
TL-60315Y	Lamp	11
TL-60115Y	Kit: lamp, grommet & adapter	11

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

6" Oval Mid-Turn Lamps, cont'd

Maxxima



- Rated: 12 volt
- Features: polycarbonate, sonically welded lens & housing
- Smart chip surge protection
- Connection: 3-wire pigtail

Part Number	Description	Diodes
MX-M63120Y	Lamp	18

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

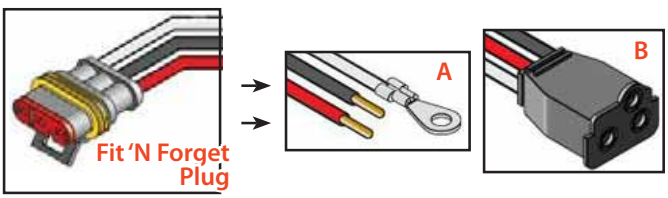
Pigtails

- Three wire leads, ground wire has #10 ring terminal



Description	Part Number TSC	Truck-Lite	Grote	Optronics	Maxxima	Fig.
3-wire right angle	TS-9128	TL-94993	GR-67090	OT-A-47PB	MX-M50900	A
3-wire straight	TS-9124	TL-94926	GR-67000	OT-A-45PB	N/A	B
3-wire straight, for male pin lamps	N/A	N/A	GR-67002	N/A	N/A	C
2-wire, right angle	N/A	TL-94992	N/A	OT-A-49PB	N/A	D
2-wire, straight	N/A	TL-94925	N/A	OT-A-45CB	N/A	E

Truck-Lite Fit 'N Forget (FNF) Weatherproof Pigtails



Description	Part Number	Fig.
Converts 3 - 8" wire leads (ground w/ #10 ring terminal) into Fit 'N Forget plug	TL-94707	A
Converts S/T/T plug into Fit 'N Forget plug	TL-94706	B

Combination Tail Lamps

LED

Truck Lite



- Features: epoxy encapsulated electronics protect against vibration & corrosion
- Connection: hard wired

Part Number	Description	Diodes	Volts	Mounting
TL-5060	Roadside w/ license	S/T/T: 16 License: 5 B/U:36	12	3 stud
TL-5061	Curbside			
TL-9091	Replacement lens			

Back-Up Lamps

LED

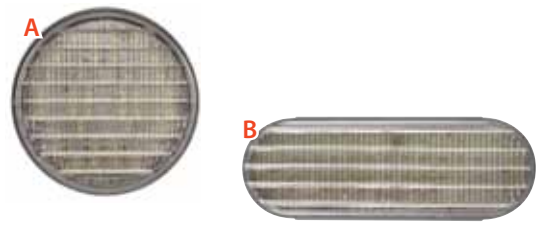
Truck Lite



- Rated: 12 volt
- Features: polycarbonate lens & housing

Part Number	Description	Diodes	Connection	Fig.
TL-44350C	4" lamp	6	FNF pigtail	A
TL-44346C	4" lamp w/ black flange	6	FNF pigtail	B
TL-4060C	4" lamp	24	2-wire pigtail	C
TL-6060C	6" lamp	24	2-wire pigtail	D

Optronics



- Rated: 12 volt
- Features: plastic, sonically welded, waterproof lens & housing in a single unit

Part Number	Description	Diodes	Connection	Fig.
OT-BUL-53CB	4" round lamp	36	2-wire pigtail	A
OT-BUL-52CB	6" oval lamp	36	2-wire pigtail	B

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

For the pigtails & adapters to connect your back-up lamps, see page 245 for our wide selection or types & brands.

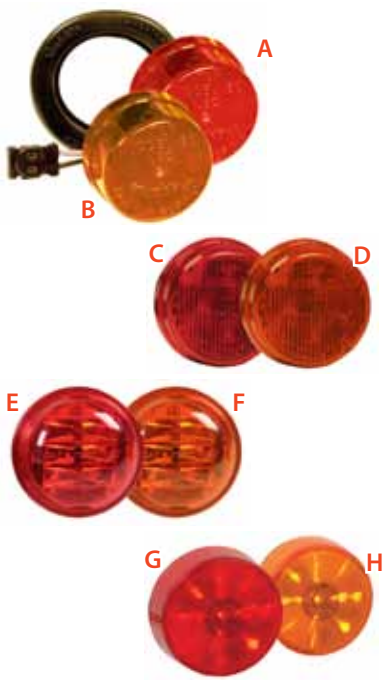
Which pigtail should I choose?

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.

2" Round Clearance / Marker Lamps

LED

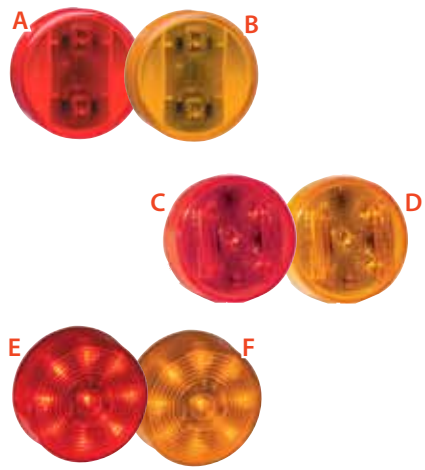
Truck Lite



- Rated: 12 volt
- Features: epoxy sealed from corrosion, polycarbonate lens & housing

Part Number	Description	Color	Connection	Diodes	Fig.
TL-30250R	Lamp	Red	FNF pigtail	2	A
TL-30250Y	Lamp	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	2-wire pigtail	8	E
TL-30375Y	Lamp, high profile	Amber	2-wire pigtail	8	F
TL-30275R	Lamp, high profile	Red	2-wire pigtail	8	E
TL-30275Y	Lamp, high profile	Amber	2-wire pigtail	8	F
TL-3050	Lamp	Red	2-wire pigtail	10	G
TL-3050A	Lamp	Amber	2-wire pigtail	10	H

Grote



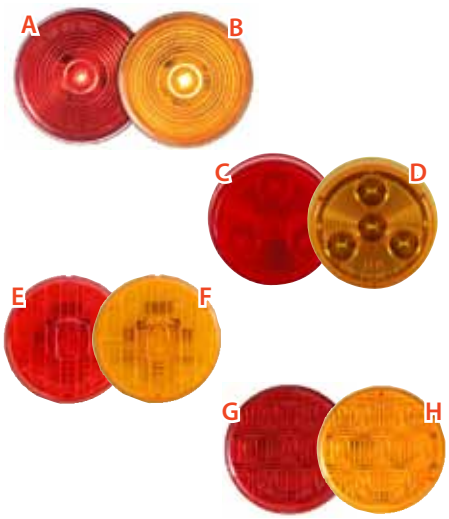
- Rated: 12 volt
- Features: fully encapsulated circuitry prevents corrosion, polycarbonate, hermetically sealed lens & housing
- Connection: 2-wire pigtail

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

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-56RB	Lamp	Red	1	A
OT-MCL-56AB	Lamp	Amber	1	B
OT-MCL-55RB	Lamp	Red	4	C
OT-MCL-55AB	Lamp	Amber	4	D
OT-MCL-54RB	Lamp	Red	5	E
OT-MCL-54AB	Lamp	Amber	5	F
OT-MCL-553RB	Lamp	Red	7	G
OT-MCL-553AB	Lamp	Amber	7	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

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	Red	2	A
TL-10250Y	Lamp	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

2-1/2" Round Clearance / Marker Lamps, cont'd

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-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
GR-47232	Lamp, PC rated	Red	3	C
GR-47233	Lamp, PC rated	Amber	3	D
GR-46142	Lamp, PC rated	Red	4	E
GR-46143	Lamp, PC rated	Amber	5	F

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.

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	4	E
OT-MCL-57AB	Lamp	Amber	4	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

2-1/2" Round Clearance / Marker Lamps, cont'd

LED

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

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

Rectangular Clearance / Marker Lamps, cont'd

LED

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, 4" x 1-1/4"	Red	1-wire plug	4	C
OT-MCL-75AB	Lamp, 4" x 1-1/4"	Amber	1-wire plug	4	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	-	-

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 6" centers	Red	7/lamp
MX-M20340R	Replacement lamp	Red	7

Identification Bars, cont'd

LED

Multi-Function LED Light Bars

- Rated: 12 volt
- Features: impact resistant polycarbonate housing
- Connection: hard wired

A 

B 

C 

D 

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	Sidemarker/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

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
TL-33250R	Lamp only	Red	1
TL-33250Y	Lamp only	Amber	1
TL-33050R	Grommet mount kit: PVC grommet & lamp	Red	1
TL-33050Y	Grommet mount kit: PVC grommet & lamp	Amber	1
TL-33051R	Flange mount kit: black nylon flange & lamp	Red	1
TL-33051Y	Flange mount kit: black nylon flange & lamp	Amber	1

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
OT-MCL-11RB	Lamp only	Red	2
OT-MCL-11AB	Lamp only	Amber	2
OT-MCL-11RKB	Grommet mount kit: PVC grommet & lamp	Red	2
OT-MCL-11AKB	Grommet mount kit: PVC grommet & lamp	Amber	2

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 & 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.

Clearance / Marker Lamp Plugs

LED

Pigtails

A



B



Description	Part Number TSC	Truck-Lite	Grote	Optronics	Maxxima	Fig.
2-wire right angle	TS-9122	TL-94902	GR-67001	OT-A-46PB	MX-M50950	A
1-wire plug	N/A	N/A	N/A	OT-A-65P	N/A	B

Truck-Lite Fit 'N Forget (FNF) Weatherproof Pigtails



Description	Part Number
Converts S/T/T plug into Fit 'N Forget plug	TL-93745

License Plate Lamps

LED

Truck Lite

A



B



- 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

Optronics

A



C



B



- 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
- Blunt cut wire leads
- Features: electronics completely sealed in epoxy to resist corrosion, impact resistant polycarbonate lens, heavy duty black powder-coated steel housing
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes
TL-80162C	Lamp	Clear	6

Grote



- Rated: 12 volt
- Versatile mounting options
- Features: impact resistant polycarbonate lens
- Connection: hard wired, 2 wire leads

Part Number	Description	Color	Diodes	Fig.
GR-61121	Dome lamp 7.68"L x 4.27"W x .55"H	Clear	8	A
GR-60581	Slimlite courtesy lamp 13-3/4"L x 1-11/64"W x 15/16"H	Clear	24	B

Trailer Lighting

LED

Waterproof Trailer Light Kit

- Kit includes: 2 LED stud mount tail lamps w/red side markers/reflectors, license bracket, 25ft. wiring harness & hardware



Part Number	Description
OT-TLL-16RK	Salt water & corrosion resistant w/ stainless steel components

Universal Trailer Light Kit

- Kit includes: 2 single diode tail lamps, license plate bracket & lamp, 25ft. wiring harness, 4ft. truck harness & all hardware



Part Number	Description
TS-289-4400	Tail lamp kit
TS-280-4400	Single diode tail lamp

Contents



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Standard Directional Arrows 257
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Emergency Light Bars

Standard Light Bars

ECCO 60 Series Evolution®

- Features: low noise rotators, free-form reflectors for larger beam pattern & low profile, aerodynamic housing, stainless steel mirrors
- Permanent mounting brackets included
- Size: 4.3"H x 8.3"W
- Other configurations available



In-line belt-driven rotators

Stainless steel V & diamond mirrors (dependent on configuration)

Front facing, 50W, amber, alternating directional halogen lights

STT Rear facing S/T/T auxiliary signal lights

W Rear facing adjustable halogen work lights

Part Number	Length	Amps	FPM					STT	W
EC-6483002	48"	20.4A	1280	4	-	2	-	-	-
EC-6543018	54"	33.8A	1280	4	4	-	-	2	2
EC-6605005	60"	32.9A	1120	3	4	-	2	2	2

SoundOff Signal MTL 2000

- End cap configurations can be ordered w/ single or dual halogen rotators, V or diamond mirrors or dual strobe corner modules
- Great variety of center section configuration depending on length of bar
- Standard lengths: 48", 54" & 59"
- Overall height: 4"



Part Number	Description
SF-MTL-2000	All bars are custom configured

LED Light Bars

LED

SoundOff Signal Pinnacle™

- Clear, amber, red, blue & green lenses & LED's available
- Bars can be configured w/ alley light modules & up to 2 work light modules
- 2 mounting options: low profile fixed height brackets or adjustable mount brackets
- Standard lengths: 36", 42", 48", 54" & 60"



Part Number	Description
SF-EPL-9000	All bars are custom configured

SoundOff Signal ETL 5000™

- Clear, amber, red, blue & green lenses & LED's available
- Bars can be configured w/ alley light modules & up to 2 work light modules
- 2 mounting options: low profile fixed height brackets or adjustable mount brackets
- Standard lengths: 38.5", 43.25", 48", 52.75" & 57.5"



Part Number	Description
SF-ETL-5000	All bars are custom configured

LED Light Bars, cont'd

LED

Star Warning Systems Razor®

- Components: 64 LED's, 2 rear facing halogen work lights, two LED S/T/T lights
- Features: extruded anodized aluminum base, fully encapsulated circuitry, low profile fully gasketed polycarbonate domes
- Dome colors available: clear, red & amber
- Permanent roof mount kit included
- Rated: 12-24 volts; 6.5 amps
- Other configurations available



Part Number	Description	Fig.
ST-2464LED-TOW	46" L x 2-3/4"T light bar	A
ST-2546LED-TOW	56"L x 2-3/4"T light bar	B

The light bars we offer come with as many options as there are applications to use them in. For help with designing & ordering a light bar that meets your exact specifications, please contact your local sales rep or customer service.

Directional Arrows

Standard Directional Arrows

ECCO Safety Director™

- Features: hi/lo intensity switch, 8 user selectable flash patterns, aluminum housing
- Approvals: SAE J846 Class II
- Size: 47.4"L x 2.9"H x 4.9"D
- Rated: 12 volts; 18 amps



Part Number	Description
EC-3015H	Halogen light w/ 15ft. cable
EC-3035H	Halogen light w/ 35ft. cable
EC-3055H	Halogen light w/ 55ft. cable

SoundOff Signal Traffic Arrow™

- Features: 3 user selectable flash patterns, aluminum housing & sun shield, sealed & weatherproof light modules
- Includes: heavy duty & standard brackets & switch panel
- Size: 42"L x 2-5/8"H x 3-5/16"D
- Rated: 10-16 volts; 12.6 amps



Part Number	Description
SF-ETTMHEC08	Halogen light w/ 15ft. cable

North American Signal Co. Directional Arrow



- Features: 4 flashing modes (1 piece arrow) or 3 flashing modes (2 piece arrow)
- Includes 25ft. cord & switch control box
- Size: 54"L x 13.13"H x 4.15"D (1 piece arrow) or 21"L x 13.13"H x 3.75"D (2 piece arrow, each piece)

Part Number	Description
NA-4WAB	1 piece incandescent arrow
NA-4WABS	2 piece incandescent arrow

LED Directional Arrows

LED

ECCO LED Safety Director™

- Features: extruded aluminum housing, polycarbonate LED modules, epoxy sealed electronics
- Includes: controller w/ 15 amp auxiliary switch
- Approvals: SAE J845 Class I, CA Title 13 (wig-wag & alternating patterns only)
- Size: 47.5"L x 2.3"H x 2.5"D
- Rated: 12 volts; 7 amps
- Illuminates amber



Part Number	Description
EC-3315	LED light w/ 15ft. cable
EC-3335	LED light w/ 35ft. cable
EC-3355	LED light w/ 55ft. cable

Star Warning Systems Traffic Directors

- Features: extruded aluminum housing, 4 flash modes
- Includes: control unit, 15' cable, flush mounting brackets & hardware
- Size: 47-1/2"L x 2-7/32"H x 1-1/2"D
- Rated: 12 volts; 2.1 amps (TD93), 2.7 amps (TD93LXT)



Part Number	Description	Fig.
ST-TD93-47-15	Light w/ 3 flash options	A
ST-TD93DLXT	Light w/ 5 flash options	B

SoundOff Signal Traffic Arrow™

- Features: 3 user selectable flash patterns, aluminum housing & sun shield, sealed & weatherproof light modules
- Self-contained, no external flasher needed
- Includes: heavy duty & standard brackets & switch panel
- Size: 42"L x 2-5/8"H x 3-5/16"D
- Rated: 10-16 volts; 3 amps



Part Number	Description
SF-ETTMLEC08	LED light w/ 15ft. cable

North American Signal Co. Directional Arrow

- Features: 4 flashing modes (1 piece arrow) or 3 flashing modes (2 piece arrow)
- Includes 25ft. cord & switch control box
- Size: 54"L x 13.13"H x 4.15"D (1 piece arrow) or 21"L x 13.13"H x 3.75"D (2 piece arrow, ea. piece)



Part Number	Description
NA-4WABLED	1 piece incandescent arrow
NA-4WABSLED	2 piece incandescent arrow

Mini Bars

Standard Mini Bars

ECCO Rotating

- Features: low profile, belt-driven, high intensity light output, two 55W quartz halogen rotators
- Vacuum magnet mount version comes with 2 vacuum magnets & 17ft. cigarette cord w/ plug
- Approvals: SAE J845 Class I
- Size: 15.75"L x 4.5"H x 8.27"W
- Rated: 12 volts; 10.5 amps
- Other colors available: red, blue & clear



Part Number	Color	Mount
EC-5135A	Amber	Permanent
EC-5135A-VM	Amber	Vacuum magnet
EC-R5812BH	Replacement bulb	

Star Warning Systems Rotating

- Features: fully gasketed polycarbonate dome, dual rotating 50W halogen bulbs enhanced w/ two internal V mirrors
- Magnet mount versions come with cigarette cord w/ plug & vinyl pads to avoid scratching
- Size: 16-1/8"L x 4-1/2"H x 7-1/4"W
- Rated: 12 volts; 8 amps
- Other colors available: red, blue, clear & green



Part Number	Color	Mount
ST-9200H-AMB	Amber	Permanent
ST-9200HM-AMB	Amber	Magnet
ST-9200HV-AMB	Amber	Vacuum magnet
ST-2073-795	Replacement bulb	

ECCO Strobe

- Features: low profile, belt-driven, high intensity light output, diamond mirror
- Approvals: SAE J1318 Class II (AAA versions only)
- Size: 15.75"L x 4.5"H x 8.27"W
- Rated: 12-24 volts; 3.8 amps
- FPM: 70 double or 65 quad
- Other color combinations available
- For vacuum magnet mount version, add -VM to the end of the part number, EX: EC-5150CAA-VM



Part Number	Color	Mount
EC-5150AAA	Amber dome, amber lenses	Permanent
EC-5150ACC	Amber dome, clear lenses	Permanent
EC-5150CAA	Clear dome, amber lenses	Permanent
EC-R6501FT	Replacement flash tube	

Star Warning Systems Strobe

- Features: fully gasketed polycarbonate dome, dual high intensity strobes enhanced w/ twin V mirrors
- Magnet mount versions come with cigarette cord w/ plug & vinyl pads to avoid scratching
- Size: 16-1/8"L x 4-1/2"H x 7-1/4"W
- Rated: 12-24 volts; 2 amps
- FPM: 128 double
- Other colors available: red, blue, clear & green



Part Number	Color	Mount
ST-9200S-AMB	Amber	Permanent
ST-9200SM-AMB	Amber	Magnet
ST-9200SV-AMB	Amber	Vacuum magnet
ST-ST3901-7	Replacement strobe tube	

Standard Mini Bars, cont'd

Federal Signal Turbo Beam

- Features: two 55W rotating halogen bulbs w/ full box mirror assembly
- Size: 15"L
- Rated: 12 volts



Part Number	Color	Mount
TT-415011-02SC	Amber	Permanent
TT-210879B	Magnetic mounting kit	
TT-210386	Wire installation kit	
12258L	Replacement bulb	

North American Signal Co. Action Lite™ Strobe

- Features: polycarbonate dome, painted steel base
- Magnet mount version comes with 3-90lb. pull magnets & 15ft. cord w/ cigarette lighter plug & on/off switch
- Size: 17.25"L x 5.5"H x 9.4"W
- Rated: 12-24 volts; 3 amps
- FPM: 150 quad



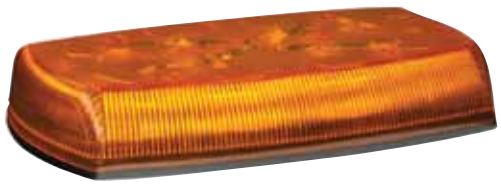
Part Number	Color	Mount
NA-MMB625-A	Amber	Permanent
NA-MMB625M-A	Amber	Magnet

LED Mini Bars

LED

ECCO Reflex™

- Features: eight LED reflector modules, poly-carbonate base, low profile lens, 18 (permanent mount, magnet mount offers quad flash only)
- Vacuum magnet version comes with 2 vacuum magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class II, CE, e
- Size: 15"L x 2.5"H x 5.2"W
- Rated: 12-24 volts



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

North American Signal Co. Action Lite™ LED

- Features: polycarbonate dome, painted steel base
- Cycles through 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 2.75"H x 9.4"W
- Rated: 12-24 volts; 1.4 amps



Part Number	Color	Mount
NA-MMBSLEDFL-A	Amber dome, amber LED's	Permanent
NA-MMBSLEDFLM-A	Amber dome, amber LED's	Magnet
NA-MMBSLEDFL-CA	Clear dome, amber LED's	Permanent
NA-MMBSLEDFLM-CA	Clear dome, amber LED's	Magnet

LED Mini Bars

LED

SoundOff Signal Pinnacle™

- Features: New "Fusion Technology" delivers even light distribution w/ a super wide angle output, 28 flash patterns
- Magnet mount version comes with 4-85lb. pull magnets & cigarette cord w/ switched plug
- Approvals: SAE J845 Class II
- Size: 14.25"L x 1.9"H x 8.27"W
- Rated: 10-16 volts; .5 amps



Part Number	Color	Mount
SF-EPL7MBPDAC	Clear dome, amber LED's	Permanent
SF-EPL7M+AC	Clear dome, amber LED's	Magnet

SoundOff Signal LED3

- Features: ten LED modules, 24 flash patterns
- Magnet mount version comes with 4-85lb. pull magnets & cigarette cord w/ switched plug
- Approvals: SAE J845, SAE Class I, CA Title 13
- Size: 14.25"L x 1.9"H x 8.27"W
- Rated: 10-16 volts; <6 amps



Part Number	Color	Mount
SF-EL3MBPDAC	Clear dome, amber LED's	Permanent
SF-EL3MBM+AC	Clear dome, amber LED's	Magnet

Star Warning Systems STAR Halo™

- Features: Fully gasketed polycarbonate dome & base, 2 internal V mirrors enhance flash, 12 user selectable flash patterns
- Magnet mount versions come with cigarette cord w/ switched plug & vinyl pads to avoid scratching
- Approvals: SAE Class I
- Size: 16-1/8"L x 4-1/2"H x 7-1/4"W
- Rated: 12-24 volts (magnet mount 12V only); 1.2 amps @ 12V, .6 amps @ 24V



Part Number	Color	Mount
ST-9200HL-AMB	Amber dome	Permanent
ST-9200HLM-AMB	Amber dome	Magnet
ST-9200HLV-AMB	Amber dome	Vacuum magnet

Star Warning Systems StarBeam™ M-Tech Plus™

- Features: Fully gasketed polycarbonate dome. extruded anodized base, conformal coated circuitry, 20 user selectable flash patterns via internal jumper (permanent mount also has external pattern select wire)
- Magnet mount versions come with cigarette cord w/ switched plug & vinyl pads to avoid scratching
- Approvals: SAE Class II
- Size: 16L x 3-3/4"H x 8-3/8"W
- Rated: 12-24 volts; 2 amps



Part Number	Color	Mount
ST-9016LED-AMB	Amber dome	Permanent
ST-9016LEDM-AMB	Amber dome	Magnet
ST-9016LEDV-AMB	Amber dome	Vacuum magnet

Revolving Beacons

Standard Revolving Beacons

ECCO 5700 Series

- Features: twist on lens, self-lubricating motor & gear assembly
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J845 Class I
- Size: 6.9"H x 7.6" dia.
- Rated: 12 volts; 4.4 amps
- Other colors available



Part Number	Color	FPM	Mount
EC-5715A	Amber	135	3-bolt flange/1" pipe
EC-5715A-VM	Amber	135	Vacuum Magnet
EC-R5012BH		Replacement bulb	

ECCO 5800 Series

- Features: polycarbonate base & twist on lens, high intensity light output
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J845 Class I
- Size: 5.7"H x 6" dia.
- Rated: 12 volts; 5.2 amps
- Other colors available



Part Number	Color	FPM	Mount
EC-5813A	Amber	160	3-bolt flange
EC-5813A-VM	Amber	160	Vacuum magnet
EC-R5812BH		Replacement bulb	

Grote Sealed Beam Roto-Beacon

- Features: steel housing, sealed & permanently lubricated clutched gear box
- Size: 8-1/4"H x 8-7/16" dia.
- Rated: 12 volts; 5.9 amps



Part Number	Color	FPM	Mount
GR-76223	Amber	60-120	Permanent
7400		Replacement bulb	

Federal Signal Model 100

- Features: 80,000 candelas halogen rotator "floats" on neoprene washer to absorb vibration
- Approvals: SAE Class I
- Rated: 12 volts; 4.3 amps
- Other colors available: red (RED), clear (CLR), blue (BLU), green (GRN), to order, add abbrev-iaton to part number, EX: TT-442112-RED



Part Number	Color	FPM	Mount
TT-442112-AMB	Amber	175	Permanent
TT-443112-AMB	Amber	95	Permanent
TT-439238-95		Replacement bulb	

LED Revolving Beacons

LED

ECCO 7660 Series

- Features: polycarbonate lens, no brushes or gears to wear out, 8 3-watt LED's & a TIR optic for exceptionally bright beam
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J845 Class I
- Size: 6.2"H x 6.3" dia.
- Rated: 12-24 volts; 1.7 amps



Part Number	Color	FPM	Mount
EC-7660A	Amber dome & LED's	125	3 bolt flange
EC-7660A-VM	Amber dome & LED's	125	Vacuum magnet
EC-7660CA	Clear dome & amber LED's	125	3 bolt flange
EC-7660CA-VM	Clear dome & amber LED's	125	Vacuum magnet

LED Revolving Beacons, cont'd

LED

ECCO 5280 Series Hybrid Beacon / Mini Bar



- 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
- Other color combinations available

Part Number	Color	FPM	Mount
EC-5280A	Amber dome & LED's	360	Permanent
EC-5280CAA	Clear dome & amber LED's	360	Permanent

Strobe Beacons

Standard Strobe Beacons

ECCO 6700 Series



- Features: thread on polycarbonate lens, epoxy encapsulated circuit board, powder coated aluminum base
- Approvals: SAE J1318 Class II
- Size: 4.8"H (low profile) or 6.7"H (medium profile) x 6.5" dia.
- Rated: 12-48 volts; 1.5 amps
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6710B

Part Number	Color	Profile	FPM	Mount
EC-6710A	Amber	Low	80 double / 65 quad	3 bolt flange / 1" pipe
EC-6720A	Amber	Medium	80 double / 65 quad	
EC-R6501FT	Replacement flash tube			

ECCO 6700 Series With i.beam® Diagnostic Indicator



- Features: thread on polycarbonate lens, epoxy encapsulated circuit board, reinforced nylon base
- Approvals: SAE J1318 Class II
- Size: 4.8"H (low profile) or 6.7"H (medium profile) x 6.5" dia.
- Rated: 12-24 volts; 2.3 amps
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6770B

Part Number	Color	Profile	FPM	Mount
EC-6750A	Amber	Low	80 dbl / 65 quad	3 bolt flange / 1" pipe
EC-6770A	Amber	Medium		
EC-R6501FT	Replacement flash tube			

Standard Strobe Beacons, cont'd

ECCO 6600 Series

- Features: thread on lens, die-cast aluminum base, conformal coated circuit board
- Magnet version comes w/cigarette cord & plug
- Approvals: SAE J1318 Class II
- Size: 4.8"H x 6.5" dia.
- Rated: 12-24 volts; 2 amps
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6650B



Part Number	Color	FPM	Mount
EC-6650A	Amber	65 dbl /quad	3 bolt flange/1" pipe
EC-6650A-MG	Amber	65 dbl /quad	Magnet
EC-R6501FT	Replacement flash tube		

ECCO 6500 Series

- Features: thread on lens, glass filled nylon base, conformal coated circuit board
- Vacuum magnet comes w/cigarette cord & plug
- Approvals: SAE J1318 Class II
- Size: 4.8"H x 6.5" dia.
- Rated: 12-48 volts; 1.5 amps
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6550B



Part Number	Color	FPM	Mount
EC-6550A	Amber	80dbl/65quad	3 bolt flange/1" pipe
EC-6550A-VM	Amber	80 dbl	Vacuum magnet
EC-R6501FT	Replacement flash tube		

ECCO 6400 Series

- Features: polycarbonate lens, glass filled nylon base, low intensity
- Magnet version comes w/cigarette cord & plug
- Size: 3.8"H x 5.1" dia.
- Rated: 12-80 volts; .3 amps
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6410B



Part Number	Color	FPM	Mount
EC-6410A	Amber	70 single	3 bolt flange
EC-6410A-MG	Amber	70 single	Magnet
EC-R6410FT	Replacement flash tube		

ECCO 6200 Series

- Features: polycarbonate lens, glass filled nylon base, epoxy encapsulated circuit board, low intensity
- Size: 5.5"H x 3.9"L x 2.8"W
- Rated: 12-80 volts; .3 amps (EC-6220) or .5 amps (EC-6225)
- Other colors available: red (R), clear (C), blue (B), green (G), to order, add abbreviaton to part number, EX: EC-6220B



Part Number	Color	FPM	Joules	Mount
EC-6220A	Amber	85 single	1.5	2 bolt
EC-6225A	Amber	85 single	2	2 bolt
EC-R6200FT	Replacement flash tube			

Star Warning Systems 255TS/TC Series

- Features: thread on lens, encapsulated circuit board, user selectable single/double/quad flash
- Approvals: SAE J1318 Class II
- Size: 4-3/4"H (low profile) or 6-11/16"H (medium profile) x 6-13/32" dia.
- Rated: 12-48 volts; 1.2 amps @ 12V





Part Number	Color	Profile	Mount
ST-255TS-AMB	Amber	Low	Flange
ST-255TSM-AMB	Amber	Low	Magnet
ST-255TSV-AMB	Amber	Low	Vacuum magnet
ST-255TC-AMB	Amber	Medium	Flange
ST-255TCM-AMB	Amber	Medium	Magnet
ST-255TCV-AMB	Amber	Medium	Vacuum magnet

LED Strobe Beacons

LED

ECCO 7460 Series - Profile™

- 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
- Other colors available



Part Number	Color	FPM	Mount
EC-7460A	Amber dome, amber LED's	80	3 bolt flange/1" pipe
EC-7460A-VM		80	Vacuum magnet
EC-7460CA	Clear dome, amber LED's	80	3 bolt flange/1" pipe
EC-7460CA-VM		80	Vacuum magnet

ECCO 7960 Series - Pulse®

- Features: eight 3-watt LED's, hi/lo intensity control, thread on poly-carbonate lens, diecast aluminum base
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J485 Class I
- Size: 5.6"H x 6.5" dia.
- Rated: 12-24 volts; 3.7 amps
- Other colors available



Part Number	Color	FPM	Mount
EC-7960A	Amber dome, amber LED's	80 dbl/ 65 quad	3 bolt flange/1" pipe
EC-7960A-VM			Vacuum magnet
EC-7960CA	Clear dome , amber LED's	80 dbl/ 65 quad	3 bolt flange/1" pipe
EC-7960CA-VM			Vacuum magnet

ECCO 7940 Series - Pulse®

- Features: eight 1-watt LED's, thread on poly-carbonate lens, diecast aluminum base
- Vacuum magnet version comes w/ cigarette cord & plug
- Approvals: SAE J485 Class II
- Size: 5.6"H x 6.5" dia.
- Rated: 12-24 volts; 1.5 amps
- Other colors available



Part Number	Color	FPM	Mount
EC-7940A	Amber dome, amber LED's	80 dbl/ 65 quad	3 bolt flange/1" pipe
EC-7940A-VM			Vacuum magnet
EC-7940CA	Clear dome, amber LED's	80 dbl/ 65 quad	3 bolt flange/1" pipe
EC-7940CA-VM			Vacuum magnet

ECCO 6260 Series

- Features: three 3-watt LED's, poly-carbonate lens, reinforced nylon base, highly visible 'Pulse8' flash pattern
- Size: 3.9"L x 2.8"W x 4.9"H
- Rated: 12-80 volts; .3 amps
- Also available in red



Part Number	Color	FPM	Mount
EC-6260A	Amber	70	2 bolt flange
EC-6266A	Amber	70	1/2" pipe

LED Strobe Beacons, cont'd

LED

Star Warning Systems Halo™

- Features: thread on polycarbonate lens, polycarbonate or die-cast metal base options, 24 user selectable flash patterns, hi/lo intensity control
- Approvals: SAE Class I or Class II
- Size: 4-3/4"H (low profile) or 6-11/16"H (medium profile) x 6-13/32" dia.
- Rated: 12-24 volts; .6 amps @ 12V



Part Number	Color	Profile	Mount	Base	SAE
ST-255H8TCL-AMB	Amber	Medium	Flange	Polycarbonate	Class I
ST-255H8TCLV-AMB	Amber	Medium	Vacuum magnet	Polycarbonate	
ST-255H8TSL-AMB	Amber	Low	Flange	Polycarbonate	
ST-255H8TSLV-AMB	Amber	Low	Vacuum magnet	Polycarbonate	
ST-257H8TCL-AMB	Amber	Medium	Flange	Die-cast metal	
ST-257H8TCLV-AMB	Amber	Medium	Vacuum magnet	Die-cast metal	
ST-257H8TSL-AMB	Amber	Low	Flange	Die-cast metal	
ST-257H8TSLV-AMB	Amber	Low	Vacuum magnet	Die-cast metal	
ST-255HTSL-AMB	Amber	Low	Flange	Polycarbonate	Class II
ST-255HTSLV-AMB	Amber	Low	Vacuum magnet	Polycarbonate	
ST-257HTSL-AMB	Amber	Low	Flange	Die-cast metal	
ST-257HTSLV-AMB	Amber	Low	Vacuum magnet	Die-cast metal	

Flush & Grommet Mount Strobes

LED Flush & Grommet Mount Strobes

LED

ECCO 3510 Series LED Light Heads

- Features: polycarbonate lens, twenty four 1-watt LED's, 16 flash patterns, synchronizable w/ additional EC-3510 lights
- Approvals: SAE J595 Class I
- Size: 3.668"L x 1.452"W x .462"H
- Rated: 12 volts; .75 amps
- Other colors available



Part Number	Color	Mount
EC-3510A	Clear lens, amber LED's	Surface

ECCO 3730 Series LED Light Heads

- Features: die-cast aluminum housing w/ urethane encapsulated electronics, three 1-watt LED's, 14 flash patterns
- Approvals: SAE J845 Class II
- Size: 3.7"L x 1.3"W x .1.5"H
- Rated: 12-24 volts; .2 amps
- Other colors available



Part Number	Color	Mount
EC-3730A	Clear lens, amber LED's	Surface

LED Flush & Grommet Mount Strobes, cont'd

LED

ECCO 3710/3760 Series LED Light Heads

- Features: four 1-watt LED's, 9 flash patterns
- Surface mount: die-cast aluminum housing w/ epoxy encapsulated electronics
- Grommet mount: polycarbonate lens w/ reinforced nylon housing & urethane encapsulated electronics
- Approvals: SAE J845 Class I
- Surface mount size: 5.1"L x 1.5"W x 1.48"H
- Grommet mount size: 6.5"L x 2.1"W x 1.2"H
- Rated: 12 volts; .3 amps
- Other colors available



Part Number	Color	Mount
EC-3710A	Clear lens, amber LED's	Surface
EC-3760A	Clear lens, amber LED's	Grommet

ECCO 3810/3860 Series LED Light Heads

- Features:polycarbonate housing w/ urethane encapsulated electronics, forty two 1/4-watt LED's, 75 FPM quad flash
- Approvals: SAE J845 Class I
- Surface mount size: 5.9"L x 2.1"W x 1.2"H
- Grommet mount size: 6.5"L x 2.1"W x 1.2"H
- Rated: 12 volts; .9 amps
- Other color available



Part Number	Color	Mount
EC-3810A	Clear lens, amber LED's	Surface
EC-3860A	Clear lens, amber LED's	Grommet

LED Warning Lamps



- Features: self contained, 8 flash patterns
- Kit includes: snap ring, rubber grommet, AMP sealed connector & pigtail

Part Number	Color	Description
TS-LEDW4-A	Clear lens, amber LED's	4" round
TS-LEDWO-A		6" oval
TS-LEDW4-R	Clear lens, red LED's	4" round
TS-LEDWO-R		6" oval

Star Warning Systems LED Warning Lamps

- Features: self contained, user selectable flash patterns
- Kit includes: rubber grommet & pigtail



Part Number	Color	Description	Mount
ST-LDHEF-4-A	Amber lens & LED's	4" round	Grommet
ST-LDHEF-6-A		6" oval	Grommet

Star Warning Systems VersaStar™ Lights

- Features: fully encapsulated circuitry, four LED's
- Size: 3-5/8"L x 1"W x 3/4"H
- Rated: 10-30 volts; .7 amps @ 12V



Part Number	Color	Description	Mount
ST-DLX4-AA	Amber lens & LED's	Black bezel	Surface
ST-DLX4C-AA		Chrome bezel	Surface

LED Flush & Grommet Mount Strobes, cont'd

LED

Star Warning Systems Thinline Perimeter Lights



- Features: fully encapsulated circuitry, up to 21 user selectable flash patterns
- ST-DLHT lights are sychronized & flash with turn signal input
- Size: 5-3/4"L x 2-1/4"W x 1/2"H
- Rated: 10-16 volts; .3 amps @ 12V

Part Number	Color	Description	Mount
ST-DLXT-121-AA	Amber lens & LED's	Rectangle bezel	Surface
ST-DLHT-121-AA			
ST-DLXT-124-AA	Amber lens & LED's	Oval Bezel	Surface
ST-DLHT-124-AA			

SoundOff Signal LED3 Mini

- Features: powder coated aluminum housing w/ polycarbonate lens, 3 LED's, 33 flash patterns
- Approvals: SAE J595
- Size: 2.5"L x 1.375"W x 1.25"H
- Rated: 10-16 volts (SF-EL3SN) or 10-30 volts (SF-EL3SN30); .5 amps



Part Number	Color	Mount
SF-EL3SNA	Clear lens, amber LED's	Surface
SF-EL3SN30A	Clear lens, amber LED's	Surface

SoundOff Signal Ghost™

- Features: die-cast aluminum housing, 6 LED's
- Approvals: SAE J595
- Size: 5.7"L x 1.8"W x 1.1"H
- Rated: 10-30 volts; <1 amp



Part Number	Color	Description	Mount
SF-EGHST2A	Clear lens, amber LED's	Black housing	Surface
SF-EGHST2AW		White housing	Surface
SF-EGHST2AC		Chrome housing	Surface

SoundOff Signal Intersector™

- Features: 9 LED's, 30 flash patterns
- Approvals: SAE J845
- Size: 2.88"L x 1.88"W x 2.93"H
- Rated: 10-16 volts; <1.5 amps



Part Number	Color	Mount
SF-ENT2B3A	Clear lens, amber LED's	Surface

North American Signal Co. High Five™

- Features: powder coated aluminum housing, fully encapsulated circuitry,3 LED's, 4 flash patterns
- Size: 4.5"L x 2"W x 2.25"H
- Rated: 12-24 volts



Part Number	Color	Mount
NA-LED5000-A	Clear lens, amber LED's	Surface

Compact LED Warning Strobe

- Battery operated, takes 4 AA batteries (sold separately)
- Dual function: flashing & steady beam
- Magnetic backing & slide out self-supporting road stand

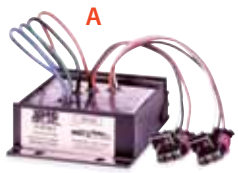


Part Number	Color	Dimensions
TS-SL-182A	Amber	6-1/2" x 4"H x 1-1/2"D
TS-SL-182R	Red	

Remote Strobe Systems

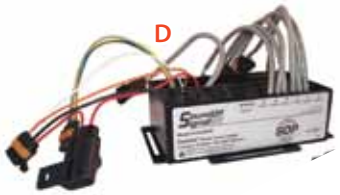
Standard Remote Strobe Systems

SoundOff Signal Power Supplies









- Completely sealed, weatherproof units do not need to be mounted inside the cab
- Four flash patterns: double, quad, quint & warp
- Rated: 12 volts

Part Number	Outlets	Watts	Dimensions (L x W x H)	Fig.
TS-RSPS-2	2	25	4-1/2" x 3-1/2" x 1-1/2"	A
TS-RSPS-3	3	40	5-3/4" x 3-7/8" x 1-5/8"	B
TS-RSPS-4	4	75	8" x 5" x 2-1/8"	C
TS-RSPS-6	6	90	8" x 5" x 2-1/2"	D

SoundOff Signal Extension Cables



- 3-conductor foil shielded, fully annealed stranded tinned copper w/ gray PVC jacket
- Equipped w/ sealed 3-way 150 Series Sealed Metri-pack connectors
- Rated: 300 volts

Part Number	Wire Gauge	Length (feet)
TS-EXT-5	18	5
TS-EXT-10	18	10
TS-EXT-15	18	15
TS-EXT-20	16	20
TS-EXT-25	16	25
TS-EXT-30	16	30
12129615	Repl. male connector	
12110293	Repl. female connector	
12045773	Repl. male terminal	
12048074	Repl. female terminal	
15324973	Repl. cable seal	

SoundOff Signal Under Cover Strobes

- 1" diameter



Part Number	Color
TS-RSST-C	Clear
TS-RSST-B	Blue
TS-RSST-R	Red
TS-RSST-A	Amber

ECCO Hide-Away Systems





Part Number	Volts	Power Supply	Heads	Cables	Fig.
EC-9460-1	12-24	4 heads	4 clear	4 - 15ft.	A
EC-9660-1	12-24	6 heads	4 clear	4 - 15ft.	B
EC-9460	Power supply only for EC-9460-1				A
EC-9660	Power supply only for EC-9660-1				B

ECCO Switch Panel

- Plugs directly into EC-9660 power supply only
- On/off, hi/lo, selective heads & pattern select switches
- Diagnostic LED displays real time flash pattern



Part Number	Description
EC-A9660SW	Panel w/ 14ft. cable

Standard Remote Strobe Systems, cont'd

ECCO Extension Cables

- 16ga. shielded cables
- EC-9660 cables are equipped w/ AMP connectors



Part Number for EC-9460	Part Number for EC-9660	Length (feet)
EC-9915S	EC-9915AMP	15
EC-9930S	EC-9935AMP	35

ECCO Hide-Away Strobes

EC-9001C EC-9007C



Part Number for EC-9460	Part Number for EC-9660	Color
EC-9001C	EC-9007C	Clear
EC-9001B	EC-9007B	Blue
EC-9001R	EC-9007R	Red
EC-9001A	EC-9007A	Amber

LED Inline Remote Strobe Systems

LED

ECCO Hide-A-LED™ System

- Features: polycarbonate lens, nickel plated housing, 9ft. cable, four 1-watt 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
- Other colors available: blue (B), red (R), amber (A), to order, add the abbreviation to the end of the part number, EX: EC-9010R
- EC-9021CA has two light heads connected to a single power supply



Part Number	Heads	Mount	Rated
EC-9010C	1 - clear	Screw-on	12V; .2-.5A
EC-9011C	1 - clear	Screw-on	12V; .2-.5A
EC-9021CA	2 - clear / amber	Screw-on	12V; .4-1A
EC-9031C	1 - clear	Plug-in	12V; .2-.5A

Star Warning Systems Hide-A-Star™ System

- Features: nickel plated housing, 10ft. cable
- 25 flash patterns, multiple heads are synchronizable
- Mounts in 1" dia. hole
- Self-contained LED flashing circuitry eliminates the need for a remote power supply
- Kit includes red, blue, amber & green interchangeable lenses



Part Number	Heads	Rated
ST-LDHF301-A-10	1	12-24V; .5A
ST-LDHF311-A-10	1	12-24V; .5A

LED Inline Remote Strobe Systems, cont'd

LED

SoundOff Universal UnderCover™ Systems

- Features: waterproof o-ring seal, 10ft. cable
- 3 intercgangeable lenses: extreme angle, vertical/forward impact & horizontal/side impact
- 30 flash patterns
- Mounts in 1" dia. hole
- Self-contained in-line flasher eliminates the need for a remote power supply
- Other colors available: blue (B), green (G), red (R), white (W), to order, substitute the 'A' with the color abbreviation to, EX: SF-ELUC2S010G



Part Number	Heads	Rated
SF-ELUC2S010A	1 - amber	12-24V; .5A

Replacement Bulbs

Whelen Replacement Bulbs

3-Pin 'U' Strobe Tube

- Plug in



Part Number
WH-FT10A

Helix 1-1/2 Turn Super Strobe® Tube

- With polished reflector



Part Number
WH-SSTUBE

Universal Flash Tube



Part Number
WH-UNI

Linear Strobe Tube

- With reflector assembly



Part Number
WH-TURBO94

Linear Snap-In Flash Tube



Part Number	Description
WH-TURBO64	6" tube
WH-TURBOTUB	6-3/4" tube

Terminal Supply Co. keeps a vast inventory of lenses, bulbs & accessories for complete support of your emergency lighting demands. If you have any questions regarding accessories for your lights or are looking for a special product, please contact customer service or your local sales rep.

Snap-In Bulbs





Part Number	Description	Watts	Fig.
WH-H20SN12	Halogen, green dot	20	A
WH-H27SN12	Halogen, red dot	27	A
WH-H35SN12	Halogen, horizontal filament, white dot	35	A
WH-H35HSN12	Halogen, horizontal filament, gold dot	35	A
WH-H50SN12	Halogen, horizontal filament, blue dot	50	A
WH-STOPSN12	Incandescent, brake/tail/turn, DOT3 systems	27	B

Whelen Replacement Bulbs, cont'd

Twist-Lock - 3 Position Connection - Halogen & Strobe Bulbs



Part Number	Description	Watts	Fig.
WH-H35TL12	Halogen	35	A
WH-H50TL12	Halogen	50	B
WH-BRAKTL12	Incandescent, brake/tail/turn	-	C
WH-S30TL	Strobe tube, helix 1-1/2 turn	-	D
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)		-

Bi-Pin Bulbs



Part Number	Description	Watts
WH-H20W12V	Halogen	20
WH-H27W12V	Halogen	27
WH-H35W12V	Halogen	35

ECCO Replacement Bulbs

Strobe Tube
- 6600 & 6800 Series



Part Number
EC-R6600FT

Strobe Tube
- 6500 Series, models 2350, 5350, 5450



Part Number
EC-R6501FT

Strobe Tube
- 6200 Series



Part Number
EC-R6200FT

Strobe Tube
- Model 6410



Part Number
EC-R6410FT

Star Warning Systems Replacement Bulbs

Strobe Tube



Part Number
ST-129DH

Strobe Tube



Part Number
ST-129Z

Strobe Tube



Part Number
ST-129

Strobe Tube



Part Number
ST-ST3901

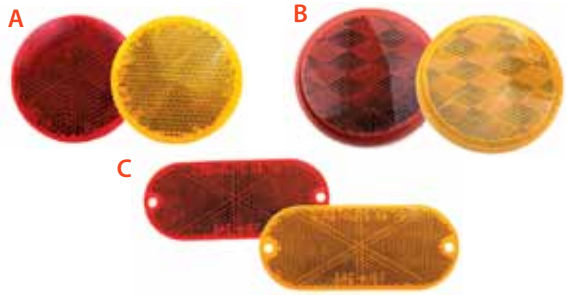
Strobe Tube



Part Number
ST-ST3901-7

Reflectors

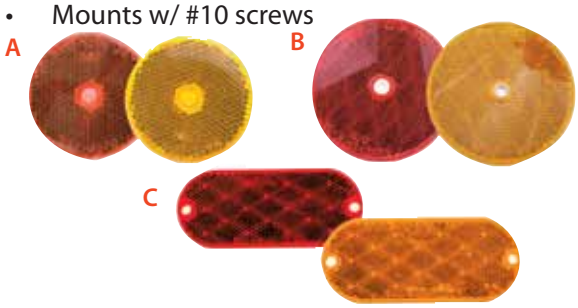
Adhesive Mount Reflectors



TSC Part Number	Truck-Lite Part Number	Color	Size	Fig.
TS-20-2R	TL-45	Red	2-3/16" dia.	A
TS-20-2A	TL-45A	Amber	2-3/16" dia.	A
TS-30S-R	TL-47	Red	3-3/16" dia.	B
TS-30S-A	TL-47A	Amber	3-3/16" dia.	B
TS-24-2R	TL-54	Red	4-3/8" x 1-7/8"	C
TS-24-2A	TL-54A	Amber	4-3/8" x 1-7/8"	C

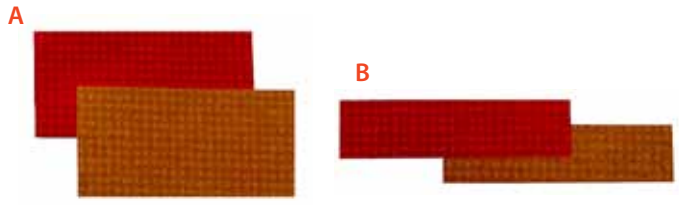
Hole Mount Reflectors

- 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
TS-35H-R	TL-98006R	Red	3-1/4" dia.	B
TS-35H-A	TL-98006A	Amber	3-1/4" dia.	B
TS-24-4R	TL-98013R	Red	4-3/8" x 1-7/8"	C
TS-24-4A	TL-98013A	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

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



Part Number	Description
TS-SL-711-7	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
TS-4064	Repl. S/T/T lamp

Back-Up Alarms & Switches

Back-Up Alarms

Federal Signal Reactor

- Solid state electronics
- Automatically adjusts to a minimum of 5dB above background noise
- The TT-210502 is manually adjustable



Part Number	Decibles	Volts	Amps
TT-210350	77 - 102	12 - 48VDC	.3
TT-210504	87 - 112	12 - 24VDC	.5
TT-210505	87 - 107	12 - 48VDC	.3
TT-210502	107 or 112	12 - 24VDC	.2

Federal Signal Evacuator Plus

- 80 beeps per minute
- Reverse polarity & voltage spike protection
- Can be installed on positive & negative ground vehicles



Part Number	Decibles	Volts	Amps
TT-210330	87	12 - 48VDC	.02
TT-210331	97	12 - 48VDC	.03
TT-210332	97	115 VAC	.02
TT-210333	107	12 - 48VDC	.17
TT-210334	107	115 VAC	.03
TT-210335	112	12 - 48VDC	.17

ECCO 500 Series

- Reverse polarity & voltage spike protection
- Can be installed on positive & negative ground vehicles
- EC-SA950 & EC-SA951 automatically adjust to a minimum of 5dB above background noise



Part Number	Decibles	Volts	Amps
BU-92	87	12VDC	.3
EC-505	87	12 - 24VDC	.1
EC-510	97	12VDC	.2
EC-520	97	12 - 24VDC	.2
EC-530	102	12 - 24VDC	.2
EC-575	107	12 - 24VDC	.3
EC-SA950	82 - 102	12 - 24VDC	.4
EC-SA951	77 - 97	12 - 48VDC	.2

ECCO 600 Series

- Reverse mounted speaker enhances sound & protects speaker from moisture & dust
- Can be installed on positive & negative ground vehicles
- Sealed in epoxy to protect against dust, moisture & vibration
- EC-SA901 & EC-SA931 automatically adjust to a minimum of 5dB above background noise



Part Number	Decibles	Volts	Amps
EC-610	97	12 - 36VDC	.1
EC-630	107	12 - 36VDC	.4
EC-SA901	82 - 107	12 - 24VDC	.3
EC-SA931	82 - 102	12 - 48VDC	.2

Back-Up Alarms, cont'd

ECCO 800 Series

- Steel housing & construction for rugged applications
- Sealed in epoxy to protect against dust, moisture & vibration
- EC-SA17 automatically adjusts to a minimum of 5dB above background noise



Part Number	Decibles	Volts	Amps
EC-850	112	12 - 36VDC	.4
EC-SA917	87 - 112	12 - 24VDC	.4

ECCO Back-Up Buzzer / Lights

- For non-commercial vehicles only
- Not intended for use as a back-up alarm

A



B



Part Number	Base	Volts	Amps	Fig.
EC-111-000	Wedge	12VDC	1.9	A
EC-110-000	Single contact bayonet	12VDC	1.9	B

Preco Bac-A-Larm

- Solid state electronic sealed in urethane
- Features universal mounting brackets
- Meets SAE J944 & OSHA requirements



Part Number	Decibles	Volts	Amps
PR-220	87	12VDC	.2
PR-230	97	12VDC	.2
PR-240	97	12 - 24VDC	.2
PR-250	102	12 - 24VDC	.2

Preco Tail-Gator

- Low profile for easy installation
- Meets SAE J944 & OSHA requirements



Part Number	Decibels	Volts	Amps
PR-LDA-50	97	12VDC	.2

Back-Up Alarm Switches

TSC Switch

- For light duty vehicles not equipped w/ back-up lights
- Normally open, moves in one direction



Part Number
TS-136

ECCO Switch

- For heavy duty vehicles not equipped w/ back-up lights
- Normally open or closed, 360º movement
- Includes screw holes for mounting & waterproof compression fitting



Part Number
EC-SW30

Federal Signal 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
TT-210298	Switch
TT-200053	Mounting bracket

Horns

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
CH-97246R	Replacement red lens		

Compressed Air Horns



- Stainless steel, non-corrosive finish
- Size: 16" x 7-1/2W" x 4-1/8H"; 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 tone	One	485	125	12	5
FM-72010	Low tone	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 tone	One/two	430	130	12	4
FM-73600	Multi-voltage	One/two	430	114 @ 1m	24-48	.9

Contents



Brass Connectors **278**
- Quick Connect Air Brake 278
- Air Brake - Nylon Tubing 281
- Pipe 284
- Compression 288
- SAE 45º Flare 290
- Rubber Hose Air Brake Fittings 292
- Full Port 600WOG Forged Brass Ball Valve 293



Air Couplers & Plugs **294**



Industrial Tubing **296**
- Impact Tool Air 296
- Heater 296
- Nylon Air Brake 296
- Air Brake 297
- Air Brake Hose End Kit 297
- Fuel Line 297
- Vacuum 297



Plastic Pipe Fittings **298**



Steel Pipe Fittings **299**

REFERENCE

How To Identify an Unknown Plug Style 295

Brass Connectors

Quick Connect Air Brake

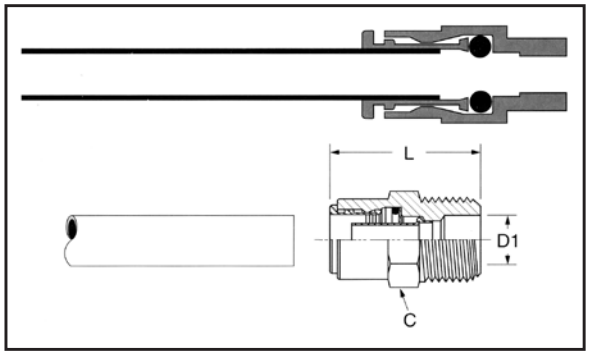
- ***Typical Applications:*** Air brake systems except where temperatures exceed 200ºF or where battery acid can drip on tubing
- ***Pressure:*** Vacuum to 150psi
- ***Vibration:*** Moderate resistance
- ***Temperature range:*** -40ºF to 200ºF
- ***Material:*** CA360 brass (body & collet); Ethylene Propylene (o-ring)
- ***Used with:*** NT100 nylon tubing - SAE J844 Type A & B
- ***Advantages:*** Easy, 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 15º 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:

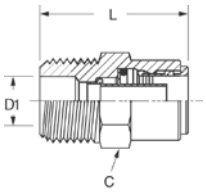
- Check to be sure there isn't any air pressure.
- Depress collet head using fingers or tube release tool (part #W-1800TRK) to release grip on tubing.
- With the collet depressed, pull the tubing from the fitting.



Male Connector

- Reference SAE No. AA0102



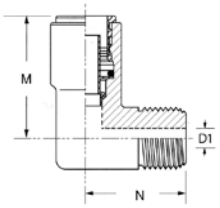


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	L
W-1868X2.5X1	5/32	1/16	3/8	.09	.92
W-1868X2.5	5/32	1/8	7/16	.25	.92
W-1868X3	3/16	1/8	1/2	.25	.92
W-1868X4	1/4	1/8	9/16	.19	.95
W-1868X4X4	1/4	1/4	9/16	.34	1.18
W-1868X4X6	1/4	3/8	11/16	.41	1.17
W-1868X6X2	3/8	1/8	11/16	.19	1.33
W-1868X6	3/8	1/4	11/16	.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

90º Male Elbow

- Reference SAE No. AA0302





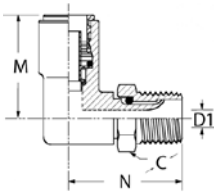
Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1869X2.5X1	5/32	1/16	.13	.75	.59
W-1869X2.5	5/32	1/8	.19	.75	.59
W-1869X3	3/16	1/8	.19	.84	.69
W-1869X4	1/4	1/8	.19	.92	.68
W-1869X4X4	1/4	1/4	.31	.92	.81
W-1869X4X6	1/4	3/8	.41	1.03	.82
W-1869X6X2	3/8	1/8	.19	1.08	.80
W-1869X6	3/8	1/4	.31	1.13	.96
W-1869X6X6	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

Quick Connect Air Brake, cont'd

90° Male Elbow w/ Swivel

- Reference SAE No. AA02DD



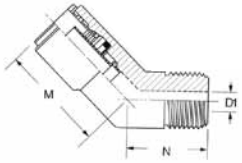


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	N
W-1869X4S	1/4	1/8	7/16	.13	.89	.88
W-1869X4X4S	1/4	1/4	9/16	.22	.99	1.06
W-1869X4X6S	1/4	3/8	11/16	.30	.98	1.06
W-1869XX6X2S	3/8	1/8	7/16	.13	1.03	.97
W-1869X6S	3/8	1/4	9/16	.22	1.10	1.14
W-1869X6X6S	3/8	3/8	11/16	.30	1.12	1.15
W-1869X6X8S	3/8	1/2	7/8	.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
W-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



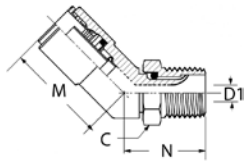


Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1880X4	1/4	1/8	.19	.95	.59
W-1880X4X4	1/4	1/4	.31	.95	.59
W-1880X6X2	3/8	1/8	.25	1.05	.48
W-1880X6	3/8	1/4	.31	1.05	.69
W-1880X6X6	3/8	3/8	.41	1.10	.63
W-1880X6X8	3/8	1/2	.53	1.20	.70
W-1880X8X4	1/2	1/4	.31	1.20	.87
W-1880X8	1/2	3/8	.41	1.10	.73
W-1880X8X8	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



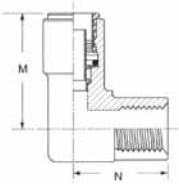


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	N
W-1880X4S	1/4	1/8	7/16	.13	.82	.60
W-1880X4X4S	1/4	1/4	9/16	.22	.98	.60
W-1880X6X2S	3/8	1/8	7/16	.13	1.20	.68
W-1880X6S	3/8	1/4	9/16	.22	1.20	.89
W-1880X6X6S	3/8	3/8	11/16	.30	1.20	.97
W-1880X8X4S	1/2	1/4	9/16	.22	1.20	1.20
W-1880X8S	1/2	3/8	11/16	.30	1.04	1.07
W-1880X8X8S	1/2	1/2	7/8	.42	1.08	1.22

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
W-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-1870X8X4	1/2	1/4	1.25	1.11
W-1870X8	1/2	3/8	1.22	1.11
W-1870X8X8	1/2	1/2	1.33	1.07

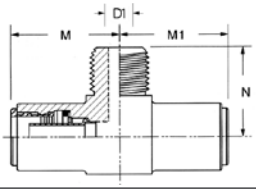
With the support of Eaton Weatherhead, we are excited to now offer custom hose assemblies. They are available up to 10,000psi & in sizes up to 2". For more info on this new service, contact your sales rep or customer service.

Quick Connect Air Brake, cont'd

Male Branch Tee

- Reference SAE AA0425



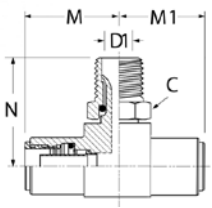


Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1872X3	3/16	1/8	.19	.75	.74	.64
W-1872X4	1/4	1/8	.19	.93	.93	.64
W-1872X4X4	1/4	1/4	.19	.93	.93	.82
W-1872X6	3/8	1/4	.31	1.15	1.15	.91
W-1872X6X6	3/8	3/8	.31	1.15	1.15	.92
W-1872X8X4	1/2	1/4	.31	1.22	1.22	.98
W-1872X8	1/2	3/8	.41	1.24	1.24	.99
W-1872X8X8	1/2	1/2	.53	1.22	1.22	1.12

Male Branch Tee w/ Swivel

- Reference SAE No. AA04FF

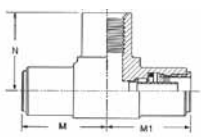




Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	M	M1	N
W-1872X4S	1/4	1/8	7/16	.13	.93	.93	.80
W-1872X4X4S	1/4	1/4	9/16	.22	.93	.93	1.04
W-1872X6X2S	3/8	1/8	7/16	.13	1.15	1.15	.94
W-1872X6S	3/8	1/4	9/16	.22	1.15	1.15	1.14
W-1872X6X6S	3/8	3/8	11/16	.30	1.15	1.15	1.17
W-1872X8X4S	1/2	1/4	9/16	.22	1.23	1.23	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



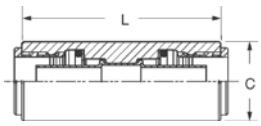


Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1877X6	3/8	1/4	1.16	.78

Union

- Reference SAE No. AA0101



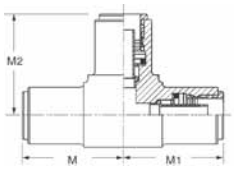


Part Number	Tube O.D.	Dia. C	L
W-1862X2.5	5/32	.44	1.41
W-1862X4	1/4	.53	1.62
W-1862X6	3/8	.69	1.94
W-1862X8	1/2	.83	1.96
W-1862X10	5/8	.96	2.51

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

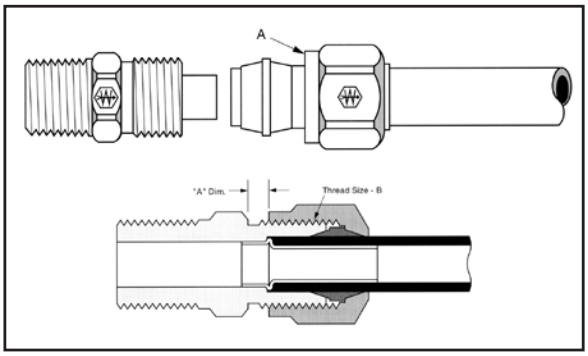




Part Number	Description	Fig.
W-1800TRK	Assists in removing tubing from connectors	A
W-1800T	Assists in servicing connectors w/ o-rings	B

Air Brake - Nylon Tubing

- ***Typical Applications:*** Air brake systems except where temperatures exceed 200ºF or where battery acid can drip on tubing
- ***Pressure:*** Maximum operating pressure of 150psi
- ***Vibration:*** Fair resistance
- ***Temperature range:*** -40ºF to 200ºF
- ***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	85 - 115in. 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:

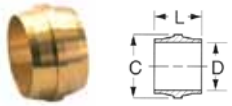
- Remove nut & pull tubing out of fitting. Insert will remain in tubing.

Reassembly Instructions:

- Push tubing over insert into fitting body until it bottoms. Thread nut onto fitting body & torque as above.

Sleeve

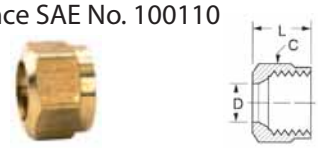
- Reference SAE No. 100115



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

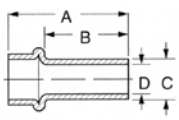
- Reference SAE No. 100110



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)





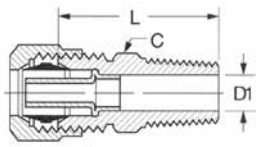
Part Number	Tube O.D.	A	B	C	D
W-1484X4	1/4	.64	.46	.163	.133
W-1484X6	3/8	.76	.58	.245	.215
W-1484X8	1/2	.94	.76	.370	.340
W-1484X10	5/8	1.06	.84	.434	.398
W-1484X12	3/4	1.21	1.00	.559	.523

Air Brake - Nylon Tubing, cont'd

Male Connector

- Reference SAE No. 100102BA



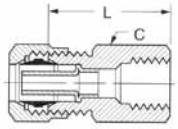


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D1	L
W-1468X4X1	1/4	1/16	7/16	.125	.90
W-1468X4	1/4	1/8	7/16	.188	.88
W-1468X4X4	1/4	1/4	9/16	.188	1.09
W-1468X4X6	1/4	3/8	11/16	.188	1.12
W-1468X6X2	3/8	1/8	9/16	.188	1.02
W-1468X6	3/8	1/4	9/16	.312	1.20
W-1468X6X6	3/8	3/8	11/16	.312	1.23
W-1468X6X8	3/8	1/2	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

Female Connector

- Reference SAE No. 100103BA





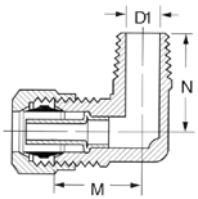
Part Number	Tube O.D.	Female Pipe Thread	Hex C	L
W-1466X4	1/4	1/8	9/16	.85
W-1466X6	3/8	1/4	11/16	1.19
W-1466X6X6	3/8	3/8	7/8	1.19
W-1466X8	1/2	3/8	7/8	1.28

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



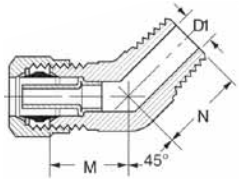


Part Number	Tube O.D.	Male Pipe Thread	D1	M	N
W-1469X4	1/4	1/8	.188	.63	.67
W-1469X4X4	1/4	1/4	.312	.69	.88
W-1469X4X6	1/4	3/8	.406	.74	.87
W-1469X6X2	3/8	1/8	.188	.73	.75
W-1469X6	3/8	1/4	.312	.80	.93
W-1469X6X6	3/8	3/8	.406	.85	.92
W-1469X6X8	3/8	1/2	.531	.95	1.11
W-1469X8X4	1/2	1/4	.312	.87	1.00
W-1469X8	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

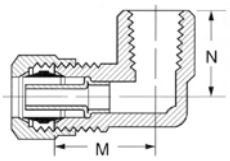
Always have the brass fitting you need when you order our Air Brake - Nylon Tubing Brass Kit (ABFK-KIT) on page 393. It has 192 pieces of sleeves, nuts, unions, male connectors & elbows, union tees & inserts in one spot.

Air Brake - Nylon Tubing, cont'd

90° Female Elbow

- Reference SAE No. 100203BA



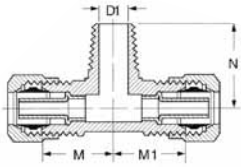


Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1470X4	1/4	1/8	.70	.54

Male Branch Tee

- Reference SAE No. 100425BA



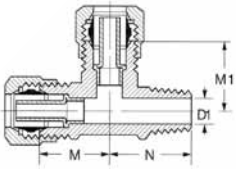


Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1472X4	1/4	1/8	.188	.63	.63	.67
W-1472X6X4X4	3/8x1/4	1/4	.312	.80	.69	.93
W-1472X6	3/8	1/4	.312	.80	.80	.93
W-1472X6X6X6	3/8	3/8	.406	.85	.85	.92
W-1472X8X6X6	1/2x3/8	3/8	.406	.94	.85	1.0
W-1472X8X8X4	1/2	1/4	.312	.87	.87	1.0
W-1472X8	1/2	3/8	.406	.94	.94	1.0

Male Run Tee

- Reference SAE No. 100424BA

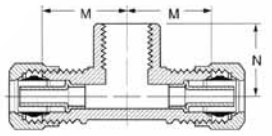




Part Number	Tube O.D.	Male Pipe Thread	D1	M	M1	N
W-1471X4	1/4	1/8	.188	.64	.64	.67
W-1471X6X4X4	3/8x1/4	1/4	.312	.72	.69	.88
W-1471X6	3/8	1/4	.312	.80	.80	.93
W-1471X6X6X6	3/8	3/8	.406	.85	.85	.92
W-1471X8	1/2	3/8	.406	.94	.94	1.10

Female Branch Tee



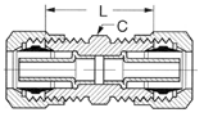


Part Number	Tube O.D.	Female Pipe Thread	M	N
W-1477X6	3/8	1/4	.90	.78
W-1477X10X10X4	5/8	1/4	1.04	.89

Union

- Reference SAE No. 100101BA



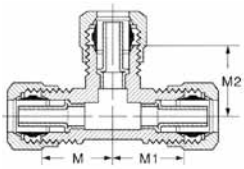


Part Number	Tube O.D.	Hex C	L
W-1462X4	1/4	7/16	.85
W-1462X6	3/8	9/16	1.10
W-1462X8	1/2	11/16	1.31
W-1462X10	5/8	13/16	1.43
W-1462X12	3/4	1	1.60

Union Tee

- Reference SAE No. 100401BA

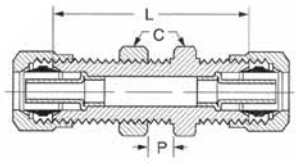




Part Number	Tube O.D.	M	M1	M2
W-1464X4	1/4	.63	.63	.63
W-1464X6X6X4	3/8x3/8x1/4	.72	.72	.69
W-1464X6	3/8	.80	.80	.80
W-1464X8X8X6	1/2x1/2x3/8	.86	.86	.85
W-1464X8	1/2	.94	.94	.94

Bulkhead Union





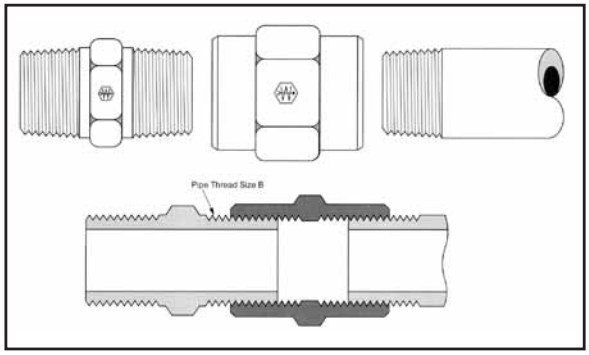
Part Number	Tube O.D.	Hex C	L	Max P
W-1474X4	1/4	9/16	1.38	.25
W-1474X6	3/8	11/16	1.62	.25

Pipe

- ***Typical Applications:*** Grease, fuels, LP & natural gas (available on special order), refrigeration, instrumentation & hydraulic systems
- ***Pressure:*** Maximum operating pressure of 1200psi
- ***Vibration:*** Fair resistance
- ***Temperature range:*** -65ºF to 250ºF
- ***Material:*** CA360 brass
- ***Used with:*** Brass, bronze & iron pipe
- ***Advantages:*** Dryseal pip threads, large ranges of sizes & configurations
- ***Conformances:*** UL Listed (available on special order) for fuel equipment, refrigeration & gas, meets ASA, ASME & SAE specifications

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

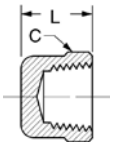


Pipe Size	Thread Size - B
1/16	1/16-27
1/8	1/8-27
1/4	1/4-18

Pipe Size	Thread Size - B
3/8	3/8-18
1/2	1/2-14
3/4	3/4-14

Cap



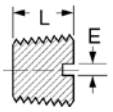


**PTF Short Thread*

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





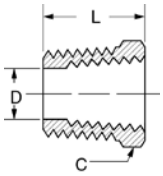
**PTF Short Thread*

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





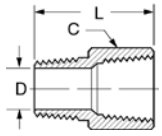
**PTF Short Thread* ***Optional Counterbore*

Part Number	Female Pipe Thread	Male 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



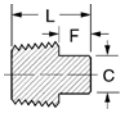


Part Number	Female Pipe Thread	Male Pipe Thread	Hex C	D	L
W-3200X2	1/8	1/8	9/16	.219	.88
W-3200X4X2	1/4	1/8	3/4	.219	1.06
W-3200X4	1/4	1/4	3/4	.312	1.25
W-3200X6X4	3/8	1/4	7/8	.312	1.25
W-3200X6	3/8	3/8	7/8	.438	1.25
W-3200X8X6	1/2	3/8	1-1/16	.438	1.47
W-3200X12X6	3/4	3/8	1-1/4	.438	1.59
W-3200X12X8	3/4	1/2	1-1/4	.562	1.69

Pipe, cont'd

Square Head Plug



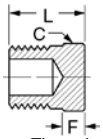


**PTF Short Thread*

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





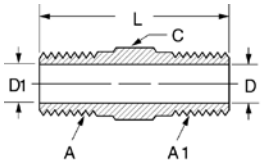
**PTF Short Thread* ***PTF Special Short Thread*

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



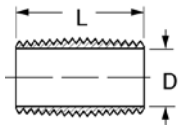


**Optional Counterbore .312*

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

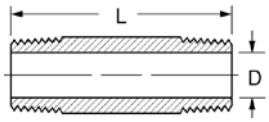




Part Number	Male Pipe Thread	D	L
W-3326X2	1/8	.281	.75
W-3326X4	1/4	.375	.88
W-3326X6	3/8	.500	1.00
W-3326X8	1/2	.625	1.12
W-3326X12	3/4	.750	1.38

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
W-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
W-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
W-3328X12	3/4	.750	2.00
W-3329X12	3/4	.750	2.50

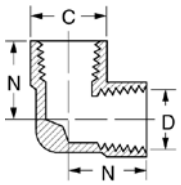
Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales rep to find you exactly what you need.

Pipe, cont'd

90° Female Elbow

- Reference SAE No. 130238



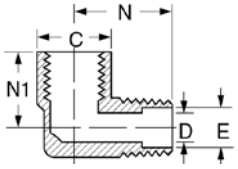


Part Number	Female Pipe Thread	C	D	N
W-3500X2	1/8	9/16	.339	.55
W-3500X4	1/4	11/16	.438	.78
W-3500X6	3/8	13/16	.562	.84
W-3500X8	1/2	1	.703	1.09
W-3500X12	3/4	1-1/4	.906	1.16

90° Street Elbow

- Reference SAE No. 130239





**PTF Short Thread* ***PTF Special Short Thread*

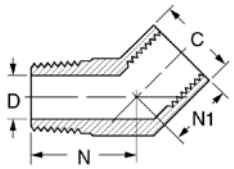
Part Number	Male Pipe Thread	Female Pipe Thread	C	D	E	N	N1
W-3400X2	1/8	1/8	9/16	.219	.25	.66	.47
W-3400X2W	1/8**	1/8*	1/2	.188	.25	.57	.34
W-3400X4X2	1/8	1/4	11/16	.219	--	.72	.53
W-3400X4W	1/4**	1/4*	11/16	.266	.36	.78	.45
W-3400X4	1/4	1/4	11/16	.312	--	.91	.72
W-3400X6	3/8	3/8	13/16	.438	--	.97	.78
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 393 for details on all of our assortments.

45° Street Elbow

- Reference SAE No. 130339



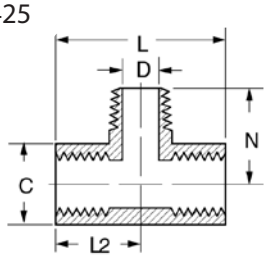


Part Number	Male Pipe Thread	Female Pipe Thread	C	D	N	N1
W-3350X2	1/8	1/8	9/16	.219	.50	.38
W-3350X4	1/4	1/4	11/16	.312	.74	.56
W-3350X6	3/8	3/8	13/16	.438	.78	.56
W-3350X8	1/2	1/2	1	.562	1.00	.76
W-3350X12	3/4	3/4	1-1/4	.750	1.06	.75

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

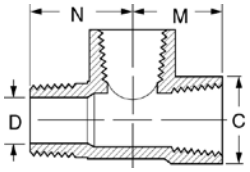
Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales rep to find you exactly what you need.

Pipe, cont'd

Male Run Tee

- Reference SAE No. 130424

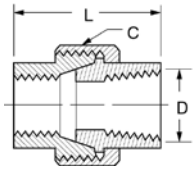




Part Number	Male Pipe Thread	Female Pipe Thread	C	D	M	N
W-3750X2	1/8	1/8	9/16	.219	.55	.66
W-3750X4	1/4	1/4	11/16	.312	.78	.90
W-3750X6	3/8	3/8	13/16	.438	.84	.97
W-3750X8	1/2	1/2	1	.562	1.09	1.25
W-3750X12	3/4	3/4	1-1/4	.750	1.16	1.38

Union



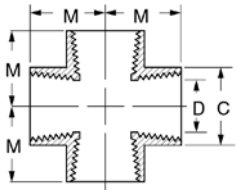


**PTF Short Thread*

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

Cross



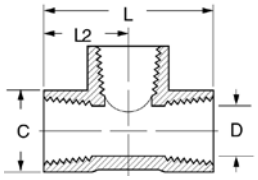


Part Number	Female Pipe Thread	C	D	M
W-3950X2	1/8	1/2	.339	.50
W-3950X4	1/4	11/16	.438	.75
W-3950X6	3/8	7/8	.562	.81
W-3950X8	1/2	1	.703	1.09

Tee

- Reference SAE No. 130438



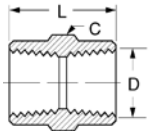


Part Number	Female Pipe Thread	C	D	L	L2
W-3700X2	1/8	9/16	.339	1.10	.55
W-3700X4	1/4	11/16	.438	1.56	.78
W-3700X6	3/8	13/16	.562	1.68	.84
W-3700X8	1/2	1	.703	2.18	1.09
W-3700X12	3/4	1-1/4	.906	2.32	1.16

Coupling

- Reference SAE No. 130138



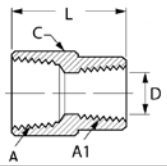


Part Number	Female Pipe Thread	Hex C	D	L
W-3300X1	1/16	7/16	.339	.75
W-3300X2	1/8	9/16	.339	.75
W-3300X4	1/4	3/4	.438	1.12
W-3300X6	3/8	7/8	.578	1.12
W-3300X8	1/2	1-1/16	.703	1.50
W-3300X12	3/4	1-1/4	.906	1.94

Reducer Coupling

- Reference SAE No. 130138

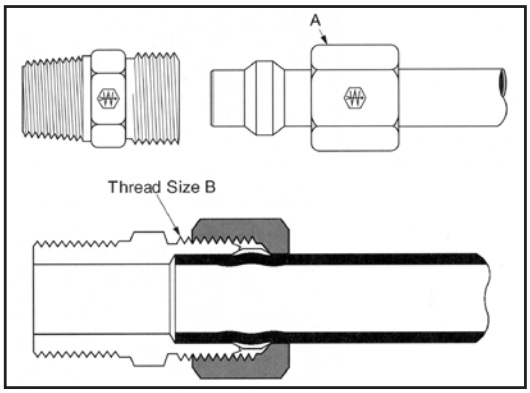




Part Number	Female Pipe Thread A	Female Pipe Thread A1	Hex C	D	L
W-3300X4X2	1/4	1/8	3/4	.339	.96
W-3300X6X2	3/8	1/8	7/8	.339	.94
W-3300X6X4	3/8	1/4	7/8	.438	1.19
W-3300X8X6	1/2	3/8	1-1/16	.562	1.38

Compression

- ***Typical Applications:*** Instrumentation, hydraulic & pneumatic systems
- ***Pressure:*** Maximum operating pressure of 2000psi 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:*** -65ºF to 250ºF
- ***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 on special order) for flammable liquids, meets ASA, ASME & SAE specifications



Tube O.D.	Thread Size - B	Wrench Turn From Hand Tight
1/8	5/16 - 24	1-1/4
3/16	3/8 - 24	
1/4	7/16 - 24	
5/16	1/2 - 24	1-3/4
3/8	9/16 - 24	2-1/4
7/16	5/8 - 24	
1/2	11/16 - 20	
5/8	13/16 - 18	
3/4	1-18	
1	1-1/4 - 18	

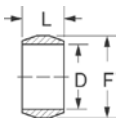
Assembly Instructions:

- 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.

Compression Sleeve

- Reference SAE No. 060115



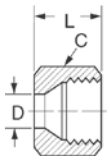


Part Number	Tube O.D.	D	F	L
W-60X2	1/8	.13	.19	.19
W-60X3	3/16	.19	.27	.22
W-60X4	1/4	.26	.34	.25
W-60X5	5/16	.32	.41	.25
W-60X6	3/8	.38	.47	.25
W-60X7	7/16	.44	.53	.31
W-60X8	1/2	.51	.59	.38
W-60X10	5/8	.63	.72	.38

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

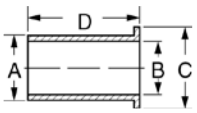
Terminal Supply Co. is a full line Weatherhead distributor. If you don't see the size or variety of connector here that you need, contact customer service or your local sales rep to find you exactly what you need.

Compression, cont'd

Tube Support For Plastic Tubing

- Use only w/ PT200 & PT240 tubing





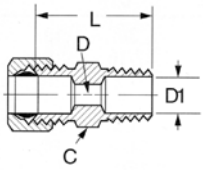
**For tubing w/ .126 I.D. / .062 wall thickness*
***For tubing w/ .170 I.D. / .040 wall thickness*

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



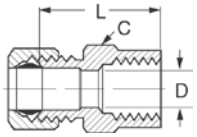


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D	L
W-68X2X1	1/8	1/16	3/8	.094	.78
W-68X2	1/8	1/8	7/16	.094	.78
W-68X3	3/16	1/8	7/16	.125	.84
W-68X4	1/4	1/8	7/16	.188	.88
W-68X4X4	1/4	1/4	9/16	.188	1.06
W-68X5	5/16	1/8	1/2	.250	.91
W-68X5X4	5/16	1/4	9/16	.250	1.09
W-68X6X2	3/8	1/8	9/16	.312	.97
W-68X6	3/8	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



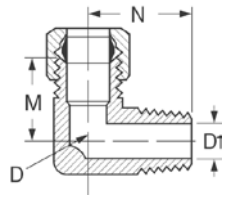


Part Number	Tube O.D.	Female Pipe Thread	Hex C	D	L
W-66X2	1/8	1/8	9/16	.094	.75
W-66X3	3/16	1/8	9/16	.125	.78
W-66X4	1/4	1/8	9/16	.188	.78
W-66X4X4	1/4	1/4	11/16	.188	1.03
W-66X5	5/16	1/8	9/16	.250	.81
W-66X6X2	3/8	1/8	9/16	.312	.84
W-66X6	3/8	1/4	11/16	.312	1.06
W-66X8	1/2	3/8	13/16	.406	1.12

90° Male Elbow

- Reference SAE No. 060202BA
- For assembly w/ long nut, use W-169X





**Available only as assembly w/ long nut*

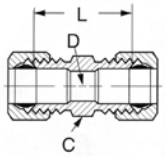
Part Number	Tube O.D.	Male Pipe Thread	D	D1	M	N
W-69X2X1	1/8	1/16	.104	.125	.54	.66
W-69X2	1/8	1/8	.094	.219	.60	.67
W-69X3	3/16	1/8	.125	.219	.62	.69
W-69X4	1/4	1/8	.188	.219	.62	.75
W-69X4X4	1/4	1/4	.188	.188	62	.75
W-69X5	5/16	1/8	.250	.234	.62	.75
W-69X5X4	5/16	1/4	.250	.312	.69	.84
W-69X6X2	3/8	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
W-169X16*	1	1	.875	.938	1.31	1.62

Compression, cont'd

Union

- Reference SAE No. 060101BA
- For assembly w/ long nut, use W-162X



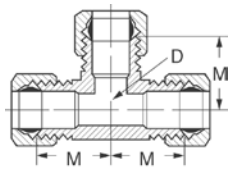


Part Number	Tube O.D.	Hex C	D	L
W-62X2	1/8	5/16	.094	.66
W-62X3	3/16	3/8	.125	.76
W-62X4	1/4	7/16	.188	.79
W-62X5	5/16	1/2	.250	.88
W-62X6	3/8	9/16	.312	.97
W-62X8	1/2	11/16	.406	1.10
W-62X10	5/8	13/16	.500	1.25

Union Tee

- Reference SAE No. 060401BA
- For assembly w/ long nut, use W-164X

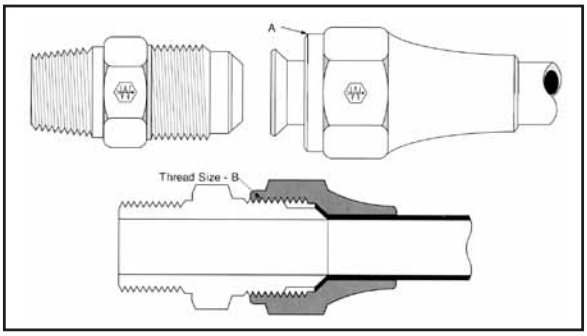




Part Number	Tube O.D.	D	M
W-64X3	3/16	.125	.60
W-64X4	1/4	.188	.62
W-64X5	5/16	.250	.60
W-64X6	3/8	.312	.73
W-64X8	1/2	.406	.94

SAE 45° Flare

- ***Typical Applications:*** LP & natural gas, flammable liquids, instrumentation, refrigeration, power steering, hydraulic & pneumatic systems
- ***Pressure:*** Working pressure up to 2000psi depending on tube size. Will withstand burst pressure of standard tubing, up to 5000psi w/ budy-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 on special order) for flammable liquids, refrigeration & gas, meets ASA, ASME, SAE & MS specifications

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

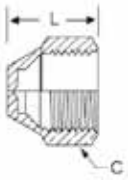
Assembly Instructions:

- 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.***

SAE 45° Flare, cont'd

Cap



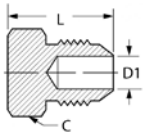


Part Number	Tube O.D.	Hex C	L
W-40X2	1/8	7/16	.40
W-40X3	3/16	1/2	.47
W-40X4	1/4	7/16	.53
W-40X5	5/16	5/8	.62
W-40X6	3/8	3/4	.69
W-40X8	1/2	7/8	.84
W-40X10	5/8	1-1/16	.97
W-40X12	3/4	1-5/16	1.09

Plug

- Reference SAE No. 010109
- Other counter bore (D1) options are available by special order only



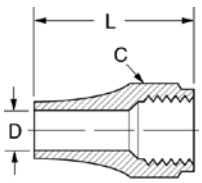


Part Number	Tube O.D.	Hex C	L
W-39X2	1/8	5/16	.47
W-39X3	3/16	3/8	.58
W-39X4	1/4	7/16	.69
W-39X5	5/16	1/2	.79
W-39X6	3/8	5/8	.88
W-39X8	1/2	3/4	1.06
W-39X10	5/8	7/8	1.19
W-39X12	3/4	1-1/16	1.31

Long Nut

- Reference SAE No. 010111



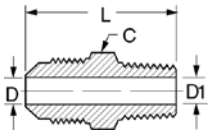


Part Number	Tube O.D.	Hex C	D	L
W-41X3	3/16	7/16	.195	.81
W-41X4	1/4	9/16	.258	.94
W-41X5	5/16	5/8	.320	1.12
W-41X6	3/8	3/4	.383	1.31
W-41X8	1/2	7/8	.508	1.62

Male Connector

- Reference SAE No. 010102



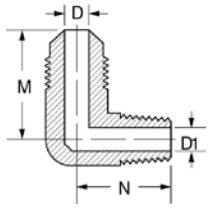


Part Number	Tube O.D.	Male Pipe Thread	Hex C	D	D1	L
W-48X2	1/8	1/8	7/16	.078	.219	.90
W-48X3	3/16	1/8	7/16	.125	.219	1.00
W-48X4	1/4	1/8	7/16	.188	.188	1.06
W-48X4x4	1/4	1/4	9/16	.188	.188	1.26
W-48X5	5/16	1/8	1/2	.219	.219	1.16
W-48X5x4	5/16	1/4	9/16	.219	.219	1.34
W-48X6x2	3/8	1/8	5/8	.281	.219	1.25
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





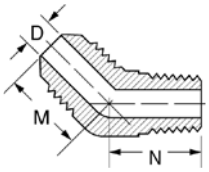
Part Number	Tube O.D.	Male Pipe Thread	D	D1	M	N
W-49X4	1/4	1/8	.188	.219	.81	.76
W-49X4X4	1/4	1/4	.188	.312	.88	.94
W-49X4X6	1/4	3/8	.188	.375	.94	1.03
W-49X5	5/16	1/8	.219	.219	.91	.78
W-49X6	3/8	1/4	.281	.312	.97	1.06
W-49X6X6	3/8	3/8	.281	.406	1.06	1.09
W-49X6X8	3/8	1/2	.281	.438	1.16	1.28
W-49X8	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



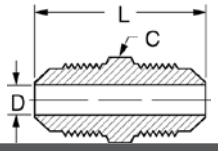


Part Number	Tube O.D.	Male Pipe Thread	D	M	N
W-54X4	1/4	1/8	.188	.67	.64
W-54X4X4	1/4	1/4	.188	.73	.87
W-54X5	5/16	1/8	.219	.78	.64
W-54X6	3/8	1/4	.281	.89	.86
W-54X8	1/2	3/8	.406	1.06	.95
W-54X8X8	1/2	1/2	.406	1.12	1.17
W-54X10	5/8	1/2	.500	1.23	1.17
W-54X10X6	5/8	3/8	.500	1.23	.98

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, 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

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

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

Union

Complete



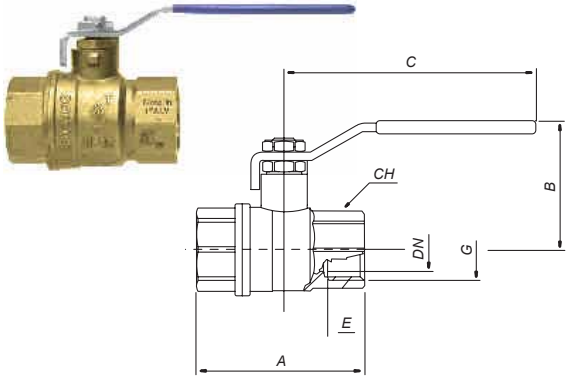
Body Only



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

Full Port 600WOG Forged Brass Ball Valve

- Made in Italy
- Approvals: NSF 61; CSA AGA 3.88 5 PSIG; UL-842, UL258, UL125,FM
- 600psi non-shock cold water, gas, oil 150psi saturated stream
- Virgin TFE stem packing seal, thrust washer & seats
- Solid chrome plated brass ball
- Adjustable stem packing gland
- Threaded ends to ANSI B1.20.1
- Bottom entry, blow-out proof system



Part Number	Size G	DN	A	B	C	E	CH
MM-943-220	1/4	.31	1.96	1.57	3.43	.43	.74
MM-943-221	3/8	.39	1.96	1.57	3.43	.43	.86
MM-943-222	1/2	.59	2.40	1.77	3.43	.59	1.06
MM-943-223	3/4	.78	2.72	1.77	3.43	.64	1.26
MM-943-224	1	.98	3.28	2.20	4.72	.75	1.59
MM-943-225	1-1/4	1.25	3.86	2.36	4.72	.84	1.96
MM-943-226	1-1/2	1.57	4.25	3.12	6.33	.84	2.16
MM-943-227	2	1.96	5.03	3.12	6.33	1.01	2.76

Besides what we show here, Terminal Supply also stocks many other different types of valves, see below for just a few. 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

Air Couplers & Plugs

M-Style Industrial Interchange Series - 1/4" Basic Size

MI-715 / MI-718



MI-716 / MI-719



MI-717 / MI-717-6



MI-1717-4 / MI-1717-6



MI-727 / MI-733



MI-728 / MI-732



MI-736 / MI-736-6



MI-1734 / MI-1736-6



	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
	MI-1717-6	3/8" push-on & lock hose barb
Plugs	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
	MI-1736-4	1/4" push-on & lock hose barb
	MI-1736-6	3/8" push-on & lock hose barb

- Couplers & plugs interchange w/ manufacturers who comply w/ dimensional requirements of MIL-C-4109
- Coupler bodies are brass w/ 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: 250ºF
- Air flow: 40 SCFM
- WARNING: for use w/ shop air only

H-Style Industrial Interchange Series - 3/8" Basic Size

MI-1833 / MI-1835



MI-1834 / MI-1836



MI-1836-6



MI-1839 / MI-1837



MI-1840 / MI-1838



MI-1837-6



	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	1/4" NPT female
	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: 250ºF
- Air flow: 67 SCFM
- WARNING: for use w/ 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

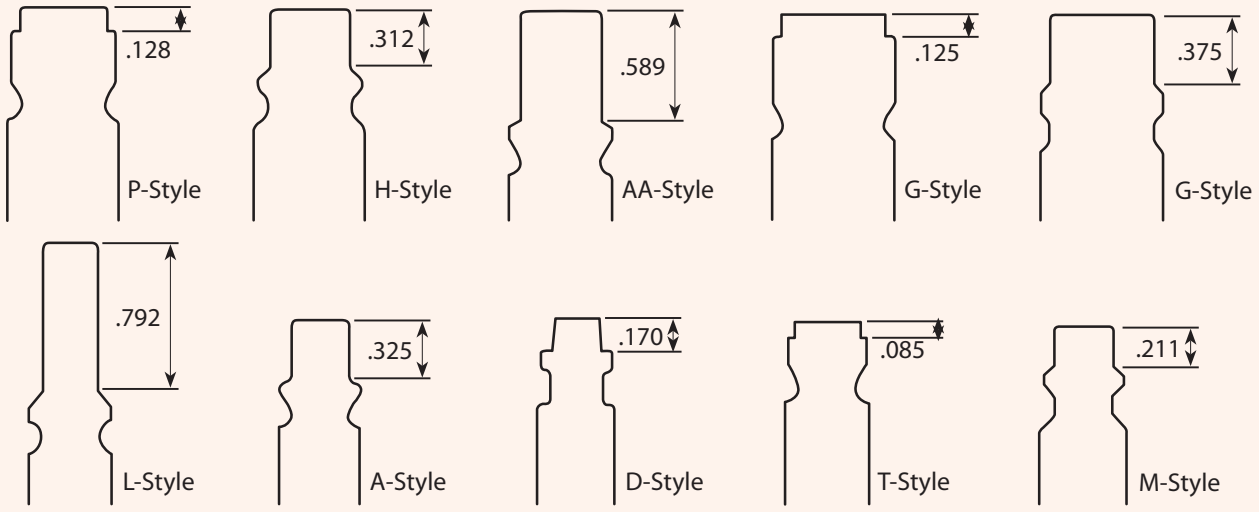


	Part Number	Connection
Couplers	MI-1803	1/4" NPT female
	MI-1804	1/4" NPT male
	MI-1805	3/8" NPT female
	MI-1806	3/8" NPT male
Plugs	MI-1810	1/4" NPT female
	MI-1809	1/4" NPT male
	MI-1808	3/8" NPT female
	MI-1807	3/8" NPT male

- 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: 250ºF
- Air flow: 68 SCFM
- WARNING: for use w/ 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-1858	1/2" NPT female
	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: 250ºF
- Air flow: 99 SCFM
- WARNING: for use w/ shop air only

Industrial Tubing

Impact Tool Air

- For tough service station & shop applications
- EPDM tube & cover reinforced w/ 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-12-25	1/2″	25′	1/2″ NPT
ITA-12-50	1/2″	50′	1/2″ NPT

Heater

- For normal duty service on most cars & trucks
- Withstands temperatures -40° to 212°F
- EPDM hose is reinforced w/ 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′

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
- 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; D.O.T. FMVSS 571.106: 3/16, 1/4, 5/16, 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-4245-0250BK-100



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)
W-4245-0220	1/8	.023	150	1000	.33	0.4	100, 1000
W-4245-0250	5/32	.032	150	1000	.41	0.4	100, 1000
W-4245-0330	3/16	.035	150	1000	.71	0.6	100
W-4245-0410	1/4	.040	150	1200	1.19	1.2	100, 500, 1000
W-4245-0520	5/16	.040	150	1000	1.25	1.8	100, 500, 1000
W-3270-0610	3/8	.050	150	1000	1.5	2.9	100, 500, 1000
W-3270-0810	1/2	.040	150	1000	2.0	3.8	100, 500, 1000
W-3270-1010	5/8	.092	150	900	2.5	6.8	100, 250
W-3270-1210	3/4	.092	150	800	3.0	8.4	100, 250

Air Brake

- For conveying air in truck brake systems
- Withstands temperatures -40º to 212ºF
- Meets SAE J1402 & D.O.T. FMVSS 106 specifications
- SORC (Synthetic Oil Resistant Compound) tube & cover reinforced w/ 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′
ABT-12-500	1/2″	500′

Air Brake Hose End 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

Fuel Line

- For conveying most modern fuels in cars, trucks, buses, etc.
- Withstands temperatures -40º to 212ºF
- Exceeds SAE 30R6 specifications
- PVC cover & nitrile tube reinforced w/ 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′

Plastic Pipe Fittings

White Nylon

- Made of virgin grade nylon formulated to resist physical stress & abrasion
- Meets FDA requirements of Code of Federal Regulation Part 177.1500 & is suitable for food contact surfaces
- Temperature range: -40° to 200°F
- Working pressure: 125 PSI maximum
- DO NOT use with compressed air or gas

Black Polyethylene

- Made of high molecular weight linear polyethylene formulated for chemical compatibility & high impact resistance at lower temperatures
- NSF approved for potable water
- Temperature range: -65° to 190°F
- Working pressure: 125 PSI maximum
- DO NOT use with compressed air or gas

Male Adapter



White Part Number	Black Part Number	Hose ID	MIP
MM-33-005W	MM-33-005B	1/4	1/4
MM-33-006W	MM-33-006B	1/4	3/8
MM-33-007W	MM-33-007B	1/4	1/2
MM-33-380W	N/A	1/4	3/4
MM-33-008W	MM-33-008B	5/16	1/8
MM-33-009W	MM-33-009B	5/16	1/4
MM-33-010W	N/A	5/16	3/8
MM-33-011W	N/A	3/8	1/8
MM-33-012W	MM-33-012B	3/8	1/4
MM-33-013W	MM-33-013B	3/8	3/8
MM-33-014W	MM-33-014B	3/8	1/2
MM-33-026W	MM-33-026B	3/8	3/4
MM-33-015W	MM-33-015B	1/2	1/4
MM-33-016W	MM-33-016B	1/2	3/8
MM-33-017W	MM-33-017B	1/2	1/2
MM-33-018W	MM-33-018B	1/2	3/4
MM-33-019W	MM-33-019B	5/8	3/8
MM-33-020W	MM-33-020B	5/8	1/2
MM-33-021W	MM-33-021B	5/8	3/4
MM-33-022W	MM-33-022B	3/4	1/2
MM-33-023W	MM-33-023B	3/4	3/4
MM-33-000W	N/A	3/4	1
MM-33-024W	MM-33-024B	1	3/4
MM-33-025W	MM-33-025B	1	1

Elbow



White Part Number	Black Part Number	Hose ID	Male Pipe
MM-33-381W	MM-33-381B	3/16	1/4
MM-33-038W	MM-33-038B	1/4	1/8
MM-33-039W	MM-33-039B	1/4	1/4
MM-33-309W	N/A	1/4	3/8
MM-33-040W	MM-33-040B	5/16	1/4
MM-33-310W	MM-33-310B	5/16	3/8
MM-33-046W	MM-33-046B	3/8	1/8
MM-33-041W	MM-33-041B	3/8	1/4
MM-33-042W	MM-33-042B	3/8	3/8
MM-33-047W	MM-33-047B	3/8	1/2
MM-33-384W	MM-33-384B	3/8	3/4
MM-33-048W	N/A	1/2	1/4
MM-33-043W	MM-33-043B	1/2	3/8
MM-33-311W	MM-33-311B	1/2	1/2
MM-33-385W	MM-33-385B	1/2	3/4
MM-33-044W	N/A	5/8	3/8
MM-33-045W	MM-33-045B	5/8	1/2
MM-33-312W	MM-33-312B	5/8	3/4
MM-33-313W	MM-33-313B	3/4	1/2
MM-33-314W	MM-33-314B	3/4	3/4
MM-33-315W	N/A	3/4	1
MM-33-386W	N/A	1	3/4
MM-33-316W	MM-33-316B	1	1

Hose Barb X Female Adapters



White Part Number	Black Part Number	Hose ID	FIP
MM-33-053W	MM-33-053B	1/4	1/4
MM-33-058W	MM-33-058B	3/8	1/4
MM-33-059W	N/A	3/8	3/8
MM-33-060W	N/A	3/8	1/2

White Part Number	Hose ID	FIP
MM-33-061W	1/2	1/2
MM-33-063W	5/8	3/4
MM-33-064W	3/4	1/2

Plastic Pipe Fittings, cont'd

Union Elbows



White Part Number	Black Part Number	Size
MM-33-390W	MM-33-390B	1/4
MM-33-391W	MM-33-391B	3/8
MM-33-394W	MM-33-394B	1/2
MM-33-395W	MM-33-395B	5/8
MM-33-396W	MM-33-396B	3/4
MM-33-397W	MM-33-397B	1
MM-33-398W	N/A	1-1/4
MM-33-399W	N/A	1-1/2
MM-33-389W	N/A	2

Splicers



White Part Number	Black Part Number	Size
MM-33-091W	MM-33-091B	1/8
MM-33-092W	MM-33-092B	3/16
MM-33-093W	MM-33-093B	1/4
MM-33-094W	MM-33-094B	5/16
MM-33-095W	MM-33-095B	3/8
MM-33-096W	MM-33-096B	1/2
MM-33-097W	MM-33-097B	5/8
MM-33-098W	MM-33-098B	3/4
MM-33-099W	N/A	1
MM-33-480W	N/A	1-1/4
MM-33-481W	N/A	1-1/2
MM-33-482W	N/A	2

Steel Pipe Fittings

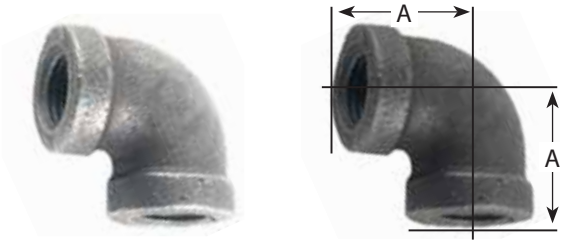
- Made of welded steel in galvanized (zinc coating applied by hot dipping, complies w/ ASTM-A-123) & black
- Product complies w/ ASTM A-53, A-733 & ANSI B1.20.1 for threading, dimensions & pipe
- Pipe complies w/ ASTM A-53 milltested schedule 40 & 80, meets ANSI B36.1, all pipe is hydrostatic tested
- Many more sizes available, please contact customer service or your local sales rep for more details

Merchant Couplings



Galvanized Part Number	Black Part Number	Size (inches)
MM-64-770	MM-65-770	1/8
MM-64-771	MM-65-771	1/4
MM-64-772	MM-65-772	3/8
MM-64-773	MM-65-773	1/2
MM-64-774	MM-65-774	3/4
MM-64-775	MM-65-775	1

90° Elbows

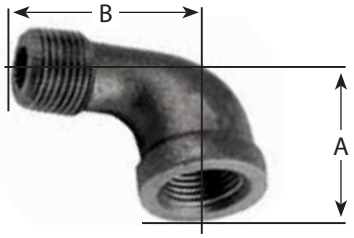


Galvanized Part Number	Black Part Number	Size (inches)	A (inches)
MM-64-100	MM-65-100	1/8	.69
MM-64-101	MM-65-101	1/4	.81
MM-64-102	MM-65-102	3/8	.95
MM-64-103	MM-65-103	1/2	1.12
MM-64-104	MM-65-104	3/4	1.31
MM-64-105	MM-65-105	1	1.50

Steel Pipe Fittings, cont'd

90° Street Elbows





Galvanized Part Number	Black Part Number	Size (inches)	A (inches)	B (inches)
MM-64-160	MM-65-160	1/8	.69	1.00
MM-64-161	MM-65-161	1/4	.80	1.17
MM-64-162	MM-65-162	3/8	.95	1.48
MM-64-163	MM-65-163	1/2	1.10	1.59
MM-64-164	MM-65-164	3/4	1.28	1.85
MM-64-165	MM-65-165	1	1.47	2.10

Caps





Galvanized Part Number	Black Part Number	Size (inches)	A (inches)
MM-64-472	MM-65-472	3/8	.62
MM-64-473	MM-65-473	1/2	.74
MM-64-474	MM-65-474	3/4	.87
MM-64-475	MM-65-475	1	.97

Steel Nipples





Galvanized Part Number	Black Part Number	Length (inches)	Diameter (inches)
MM-56-020	MM-57-020	7/8	
MM-56-021	MM-57-021	1-1/2	
MM-56-022	MM-57-022	2	1/4
MM-56-023	MM-57-023	2-1/2	
MM-56-024	MM-57-024	3	
MM-56-040	MM-57-040	1	
MM-56-041	MM-57-041	1-1/2	
MM-56-042	MM-57-042	2	
MM-56-043	MM-57-043	2-1/2	
MM-56-044	MM-57-044	3	
MM-56-045	MM-57-045	3-1/2	3/8
MM-56-046	MM-57-046	4	
MM-56-047	MM-57-047	4-1/2	
MM-56-048	MM-57-048	5	
MM-56-049	MM-57-049	5-1/2	
MM-56-050	MM-57-050	6	
MM-56-060	MM-57-060	1-1/8	
MM-56-061	MM-57-061	1-1/2	
MM-56-062	MM-57-062	2	
MM-56-063	MM-57-063	2-1/2	1/2
MM-56-064	MM-57-064	3	
MM-56-065	MM-57-065	3-1/2	
MM-56-066	MM-57-066	4	

Galvanized Part Number	Black Part Number	Length (inches)	Diameter (inches)
MM-56-067	MM-57-067	4-1/2	
MM-56-068	MM-57-068	5	1/2
MM-56-069	MM-57-069	5-1/2	
MM-56-070	MM-57-070	6	
MM-56-080	MM-57-080	1-3/8	
MM-56-081	MM-57-081	1-1/2	
MM-56-082	MM-57-082	2	
MM-56-083	MM-57-083	2-1/2	
MM-56-084	MM-57-084	3	
MM-56-085	MM-57-085	3-1/2	3/4
MM-56-086	MM-57-086	4	
MM-56-087	MM-57-087	4-1/2	
MM-56-088	MM-57-088	5	
MM-56-089	MM-57-089	5-1/2	
MM-56-090	MM-57-090	6	
MM-56-101	MM-57-101	2	
MM-56-103	MM-57-103	3	
MM-56-105	MM-57-105	4	
MM-56-109	MM-57-109	6	1
MM-56-111	MM-57-111	8	
MM-56-113	MM-57-113	10	
MM-56-115	MM-57-115	12	

Contents



Coll-O-Crimp Couplings **302**
U Series 302
Z Series 308



Quick Disconnect Couplings **313**
FD45 Series 313
Accessories 313
S10 Series 314



Hydraulic Hose **314**
Low Pressure Hose 314
Medium Pressure Hose 315
High Pressure Hose 315
Premium WeatherSHIELD™ Hose 317
Fire Sleeve 318



Hydraulic Tooling **319**

REFERENCE

Hose Cut-Off Factor 302

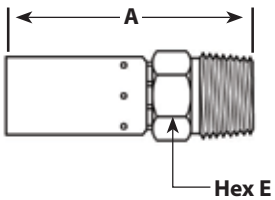
Coll-O-Crimp Couplings

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:*** W-T-480, for more options please contact customer service or your local sales rep

Male Pipe Rigid

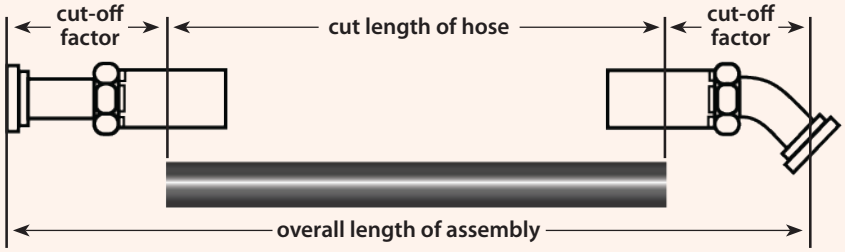




Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-102	1/4	1/8	1/8-27	.75	.16	2.31	9/16
W-04U-104		1/4	1/4-18	.94	.16	2.49	9/16
W-04U-106		3/8	3/8-18	1.00	.16	2.52	11/16
W-04U-108		1/2	1/2-14	1.06	.16	2.77	7/8
W-06U-104	3/8	1/4	1/4-18	1.00	.25	2.52	11/16
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-108		1/2	1/2-14	1.38	.48	3.31	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 1/2	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 1/2	1.69	.81	3.90	1-3/8
W-20U-120	1-1/4	1-1/4	1 1/4-11 1/2	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.

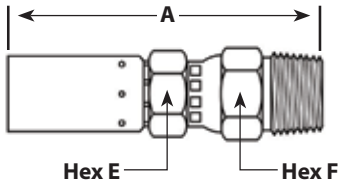


U Series, cont'd

Male Pipe Swivel

- Note: Swivel for installation purposes only
- Not for temperatures above 212°F

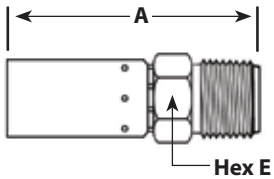




Part Number	Hose I.D.	Pipe Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-JO4	1/4	1/4	1/4-18	1.88	.16	3.38	5/8	13/16
W-06U-JO4	3/8	1/4	1/4-18	1.94	.28	3.40	11/16	13/16
W-06U-JO6		3/8	3/8-18	1.94	.25	3.38	11/16	7/8
W-06U-J08		1/2	1/2-14	2.13	.25	3.60	3/4	7/8
W-08U-J06	1/2	3/8	3/8-18	2.00	.36	3.45	13/16	7/8
W-08U-J08		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 1/2	2.63	.80	4.83	1-1/4	1-3/8

SAE 37° Male Rigid





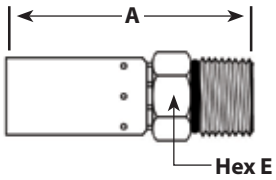
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-504	1/4	1/4	7/16-20	1.00	.16	2.48	1/2
W-04U-505		5/16	1/2-20	1.00	.16	2.51	9/16
W-04U-506		3/8	9/16-18	1.00	.16	2.55	5/8
W-06U-506	3/8	3/8	9/16-18	1.00	.25	2.54	11/16
W-06U-508		1/2	3/4-16	1.25	.25	2.67	13/16
W-06U-510		5/8	7/8-14	1.31	.25	2.83	15/16
W-08U-508	1/2	1/2	3/4-16	1.19	.38	2.70	13/16
W-08U-510		5/8	7/8-14	1.31	.36	2.83	15/16
W-08U-512		3/4	1 1/16-12	1.44	.36	2.87	1-1/8
W-10U-508	5/8	1/2	3/4-16	1.31	.39	3.22	15/16
W-10U-510		5/8	7/8-14	1.38	.48	3.32	15/16
W-10U-512		3/4	1 1/16-12	1.44	.48	3.42	1-1/8
W-12U-510	3/4	5/8	7/8-14	1.44	.43	3.64	1
W-12U-512		3/4	1 1/16-12	1.56	.61	3.74	1-1/16
W-12U-514		7/8	1 3/16-12	1.63	.61	3.81	1-1/4
W-12U-516		1	1 5/16-12	1.63	.61	3.81	1-3/8
W-16U-514	1	7/8	1 3/16-12	1.94	.72	4.18	1-1/4
W-16U-516		1	1 5/16-12	2.00	.81	4.20	1-3/8
W-16U-520		1-1/4	1 5/8-12	1.81	.81	4.02	1-11/16
W-20U-520	1-1/4	1-1/4	1 5/8-12	2.31	1.02	4.60	1-11/16

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



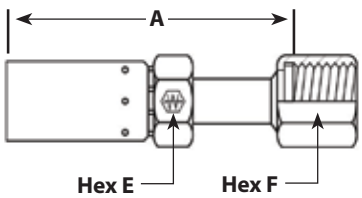


Part Number	Hose I.D.	Port Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E
W-04U-P04	1/4	1/4	7/16-20	.81	.16	2.29	9/16
W-04U-P05		5/16	1/2-20	.88	.16	2.32	5/8
W-04U-P06		3/8	9/16-18	.88	.16	2.35	11/16
W-06U-P06	3/8	3/8	9/16-18	.94	.25	2.35	11/16
W-06U-P08		1/2	3/4-16	1.06	.25	2.46	7/8
W-06U-P10		5/8	7/8-14	1.13	.25	2.57	1
W-08U-P08	1/2	1/2	3/4-16	1.06	.36	2.46	7/8
W-08U-P10		5/8	7/8-14	1.13	.36	2.55	1
W-08U-P12		3/4	11/16-12	1.25	.36	2.66	1-1/4
W-10U-P08	5/8	1/2	3/4-16	1.13	.48	3.00	15/16
W-10U-P10		5/8	7/8-14	1.13	.48	3.06	1
W-10U-P12		3/4	11/16-12	1.25	.48	3.15	1-1/4
W-12U-P10	3/4	5/8	7/8-14	1.19	.50	3.36	1
W-12U-P12		3/4	11/16-12	1.31	.61	3.49	1-1/4
W-12U-P16		1	15/16-12	1.31	.61	3.50	1-1/2
W-16U-P16	1	1	15/16-12	1.44	.81	3.63	1-1/2
W-20U-P20	1-1/4	1-1/4	15/8-12	1.94	1.02	4.23	1-7/8

Female FOR-SEAL Swivel Straight

** Crimp nut design*





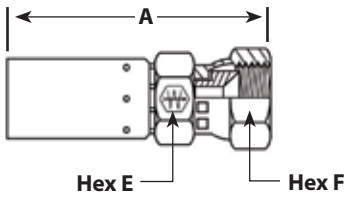
Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-S64	1/4	1/4	9/16-18	1.08	.16	2.56	9/16	11/16
W-04U-S66		3/8	11/16-16	1.37	.26	2.85	9/16	13/16
W-04U-S68		1/2	13/16-16	1.75	.36	3.19	11/16	15/16
W-06U-S64	3/8	1/4	9/16-18	1.38	.16	2.81	11/16	5/8
W-06U-S66		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-06U-S70*		1/2	3/8-16	1.60	.25	3.03	15/16	1-1/8
W-08U-S66	1/2	3/8	11/16-16	1.32	.26	2.75	13/16	13/16
W-08U-S68		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	13/16-12	1.94	.36	3.38	1	1-3/8
W-10U-S68	5/8	5/8	1-14	1.60	.48	3.53	15/16	1-1/8
W-10U-S70		5/8	1-14	1.60	.48	3.53	15/16	1-1/8
W-10U-S72		3/4	13/16-12	1.94	.55	3.84	1	1-3/8
W-12U-S70	3/4	5/8	1-14	1.70	.46	3.85	1	1-1/8
W-12U-S72		3/4	13/16-12	1.80	.61	3.95	1-1/8	1-3/8
W-12U-S76		1	17/16-12	2.81	.61	4.78	1-1/4	1-5/8
W-16U-S72	1	3/4	13/16-12	2.16	.55	4.36	1-1/4	1-3/8
W-16U-S76		1	17/16-12	2.04	.78	4.24	1-1/4	1-5/8
W-16U-S80		1-1/4	111/16-12	2.00	.81	4.20	1-1/2	1-7/8
W-20U-S80	1-1/4	1-1/4	111/16-12	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*



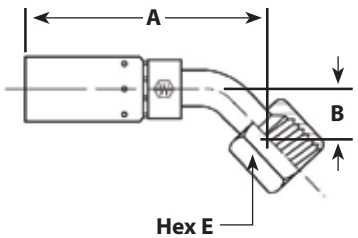


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	Hex E	Hex F
W-04U-604*	1/4	1/4	7/16-20	1.13	.16	2.61	9/16	9/16
W-04U-605*		5/16	1/2-20	1.18	.16	2.67	9/16	5/8
W-04U-606		3/8	9/16-18	1.25	.16	2.72	9/16	11/16
W-06U-604*	3/8	1/4	7/16-20	1.25	.16	2.66	11/16	9/16
W-06U-606		3/8	9/16-18	1.31	.25	2.77	11/16	11/16
W-06U-608*		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	1 1/16-12	1.69	.25	3.15	1	1-1/4
W-08U-606	1/2	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*		5/8	7/8-14	1.56	.36	3.00	13/16	1
W-08U-612		3/4	1 1/16-12	1.44	.36	3.12	1	1-1/4
W-08U-616		1	1 5/16-12	1.75	.36	3.17	1-1/4	1-1/2
W-10U-608*	5/8	1/2	3/4-16	1.56	.39	3.48	15/16	7/8
W-10U-610*		5/8	7/8-14	1.63	.48	3.53	15/16	1
W-10U-612		3/4	1 1/16-12	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	1
W-12U-612		3/4	1 1/16-12	1.69	.61	3.86	1	1-1/4
W-12U-614		7/8	1 3/16-12	1.69	.61	3.88	1-1/8	1-3/8
W-12U-616		1	1 5/16-12	1.88	.61	4.07	1-1/4	1-1/2
W-16U-612	1	3/4	1 1/16-12	2.13	.61	4.37	1-1/4	1-1/4
W-16U-614		7/8	1 3/16-12	2.13	.72	4.35	1-1/4	1-3/8
W-16U-616		1	1 5/16-12	2.25	.81	4.46	1-1/4	1-1/2
W-16U-620		1-1/4	1 5/8-12	2.19	.81	4.30	1-5/8	2
W-20U-620	1-1/4	1-1/4	1 5/8-12	2.63	1.02	4.90	1-11/16	2

SAE 37° Female Swivel 45° Tube Elbow

** Swivel nuts on these parts are universal, both SAE 37° & 45° connections*



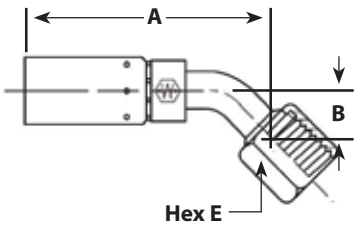


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-684*	1/4	1/4	7/16-20	1.50	.15	2.98	.33	9/16
W-04U-685*		5/16	1/2-20	1.69	.21	3.14	.36	5/8
W-06U-684*	3/8	1/4	7/16-20	1.69	.15	3.08	.33	9/16
W-06U-686		3/8	9/16-18	1.75	.25	3.17	.39	11/16
W-06U-688*		1/2	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	7/8
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	1
W-10U-692		3/4	1 1/16-12	2.44	.48	4.37	.78	1-1/4
W-12U-692	3/4	3/4	1 1/16-12	2.64	.59	4.79	.78	1-1/4
W-12U-696		1	1 5/16-12	3.00	.61	5.18	1.10	1-1/2
W-16U-696	1	1	1 5/16-12	3.06	.76	5.28	1.10	1-1/2

U Series, cont'd

Female FOR-SEAL Swivel 45° Tube Elbow



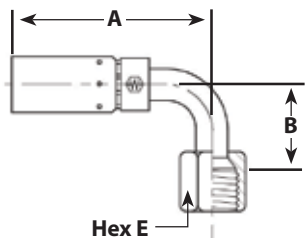


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-L64	1/4	1/4	9/16-18	1.68	.16	3.14	.41	11/16
W-04U-L66		3/8	11/16-16	1.75	.16	3.24	.43	13/16
W-06U-L66	3/8	3/8	11/16-16	1.81	.26	3.26	.43	13/16
W-06U-L68		1/2	13/16-16	2.15	.26	3.58	.60	15/16
W-08U-L66	1/2	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	1-14	2.25	.36	3.67	.65	1-1/8
W-10U-L70	5/8	5/8	1-14	2.19	.46	4.13	.65	1-1/8
W-10U-L72		3/4	13/16-12	2.63	.48	4.53	.84	1-3/8
W-12U-L70	3/4	5/8	1-14	2.31	.46	4.49	.65	1-1/8
W-12U-L72		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-L72	1	3/4	13/16-12	2.79	.56	4.99	.83	1-3/8
W-16U-L76		1	17/16-12	3.06	.76	5.29	.95	1-5/8
W-16U-L80		1-1/4	111/16-12	2.79	.81	5.00	1.07	1-7/8
W-20U-L80	1-1/4	1-1/4	111/16-12	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*



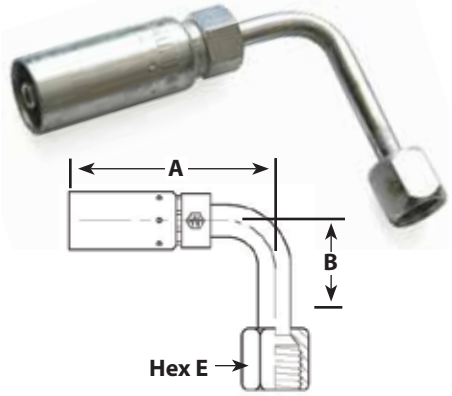


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-664*	1/4	1/4	7/16-20	1.44	.15	2.90	.68	9/16
W-04U-665*		5/16	1/2-20	1.63	.21	3.09	.77	5/8
W-04U-666		3/8	9/16-18	1.63	.25	3.16	.85	11/16
W-06U-664*	3/8	1/4	7/16-20	1.44	.15	2.85	.68	9/16
W-06U-666		3/8	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-16U-677		1-1/4	15/8-12	2.86	.76	5.06	3.31	2
W-20U-677**	1-1/4	1-1/4	15/8-12	2.99	1.01	5.29	3.34	2

U Series, cont'd

SAE 37° Female Swivel Long Drop 90° Tube Elbow

** Swivel nuts on these parts are universal, both SAE 37° & 45° connections*

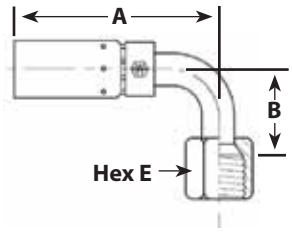


Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-644*	1/4	1/4	7/16-20	1.50	.15	2.95	1.80	9/16
W-06U-644*	3/8	1/4	7/16-20	1.44	.15	2.89	1.80	9/16
W-06U-646		3/8	9/16-18	1.75	.24	3.18	2.18	11/16
W-06U-648*		1/2	3/4-16	1.92	.24	3.35	2.43	7/8
W-08U-648*	1/2	1/2	3/4-16	1.88	.35	3.33	2.43	7/8
W-08U-650*		5/8	7/8-14	2.00	.36	3.45	2.57	1
W-12U-652	3/4	3/4	11/16-12	2.63	.58	4.81	3.73	1-1/4
W-16U-656L33	1	1	15/16-12	3.00	.76	5.18	3.37	1-1/2

Female FOR-SEAL Swivel Short Drop 90° Tube Elbow

- Also available are long & medium drop 90° tube elbows, please contact customer service or your local sales rep for more information





Part Number	Hose I.D.	Tube Size	Thread Size	Hose Cut-Off Factor	Internal Hole Dia.	A	B	Hex E
W-04U-A24	1/4	1/4	9/16-18	1.50	.16	3.00	.81	11/16
W-04U-A26		3/8	11/16-16	1.75	.16	3.13	.90	13/16
W-06U-A24	3/8	1/4	9/16-18	1.56	.16	3.00	.81	11/16
W-06U-A26		3/8	11/16-16	1.81	.26	3.13	.90	13/16
W-06U-A28		1/2	13/16-16	1.88	.26	3.33	1.15	15/16
W-08U-A26	1/2	3/8	11/16-16	1.75	.26	3.13	.90	13/16
W-08U-A28		1/2	13/16-16	1.91	.36	3.34	1.15	15/16
W-08U-A30		5/8	1-14	2.03	.36	3.46	1.27	1-1/8
W-08U-A32		3/4	13/16-12	2.56	.36	3.98	1.88	1-3/8
W-10U-A30	5/8	5/8	1-14	2.00	.46	3.92	1.27	1-1/8
W-10U-A32		3/4	13/16-12	2.44	.46	4.37	1.88	1-3/8
W-12U-A30	3/4	5/8	1-14	2.13	.46	4.26	1.27	1-1/8
W-12U-A32		3/4	13/16-12	2.69	.59	4.86	1.88	1-3/8
W-12U-A36		1	17/16-12	2.98	.61	5.14	2.21	1-5/8
W-16U-A36	1	1	17/16-12	3.00	.76	5.23	2.21	1-5/8
W-16U-A40		1-1/4	111/16-12	2.86	.81	5.06	2.59	1-7/8
W-20U-A40	1-1/4	1-1/4	111/16-12	2.99	1.02	5.29	2.50	1-7/8
W-20U-A44		1-1/2	2-12	2.99	1.02	5.29	2.67	2-1/4

Terminal Supply Co. offers Weatherhead's full line of U Series Coll-O-Crimp couplings. For more information, contact customer service or your local sales rep.

See pages 314-320 for all of the hose & tooling you need to create your own hose assemblies. Or, if you'd like, our in-house custom hose assembly team can create them for you, to your exact specifications. Just contact customer service for details.

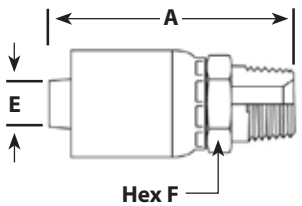
Z Series

- ***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:*** W-T-460, W-T-466, W-T-401, W-T-420, for more options please contact customer service or your local sales rep

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.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-102	1/4	1/8-27	.92	.17	1.84	9/16
W-04Z-104		1/4-18	1.14	.17	2.06	9/16
W-04Z-106		3/8-18	.98	.17	1.90	11/16
W-06Z-104	3/8	1/4-18	1.18	.26	2.18	11/16
W-06Z-106		3/8-18	1.28	.26	2.27	11/16
W-06Z-108		1/2-14	1.28	.16	2.27	7/8
W-08Z-104	1/2	1/4-18	1.23	.30	2.40	13/16
W-08Z-106		3/8-18	1.32	.38	2.49	13/16
W-08Z-108		1/2-14	1.56	.38	2.74	7/8
W-08Z-112		3/4-14	1.39	.38	2.56	1-1/16
W-10Z-108	5/8	1/2-14	1.58	.50	2.74	15/16
W-10Z-112		3/4-14	1.40	.50	2.56	1-1/16
W-12Z-108	3/4	1/2-14	1.60	.56	2.78	1-1/8
W-12Z-112		3/4-12	1.65	.61	2.84	1-1/8
W-12Z-116		1-11 1/2	1.61	.61	2.80	1-3/8
W-16Z-112	1	3/4-14	1.67	.76	3.02	1-3/8
W-16Z-116		1-11 1/2	1.86	.82	3.22	1-3/8
W-16Z-120		1 1/4-11 1/2	1.72	.82	3.08	1-11/16
W-20Z-116	1-1/4	1-11 1/2	1.93	.95	3.66	1-3/4
W-20ZA-116		1-11 1/2	1.93	.95	3.66	1-3/4
W-20Z-120**		1 1/4-11 1/2	1.79	1.05	3.52	1-13/16
W-20ZA-120*		1 1/4-11 1/2	1.79	1.05	3.52	1-13/16
W-24Z-124	1-1/2	1 1/2-11 1/2	2.36	1.26	4.18	2
W-32Z-132	2	2-11 1/2	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!

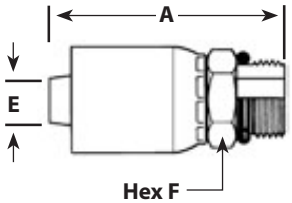
Z Series, cont'd

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



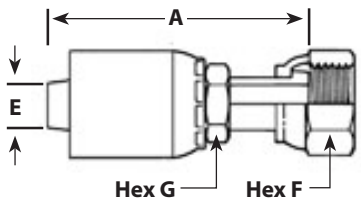


Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F
W-04Z-P04	1/4	7/16-20	.92	.17	1.84	9/16
W-04Z-P05		1/2-20	.92	.17	1.84	5/8
W-04Z-P06		9/16-18	.86	.17	1.78	11/16
W-06Z-P06	3/8	9/16-18	1.00	.26	2.00	11/16
W-06Z-P08		3/4-16	.98	.26	1.97	7/8
W-08Z-P08	1/2	3/4-16	1.19	.38	2.36	7/8
W-08Z-P10		7/8-14	1.09	.38	2.26	1
W-08Z-P12		11/16-12	1.22	.38	2.39	1-1/4
W-10Z-P10	5/8	7/8-14	1.31	.50	2.47	1
W-10Z-P12		11/16-12	1.23	.50	2.39	1-1/4
W-12Z-P12	3/4	11/16-12	1.25	.61	2.44	1-1/4
W-12Z-P16		15/16-12	1.37	.61	2.56	1-1/2
W-16Z-P16	1	15/16-12	1.39	.82	2.74	1-1/2
W-20Z-P20**	1-1/4	15/8-12	1.90	1.05	3.63	1-7/8
W-20ZA-P20*		15/8-12	1.90	1.05	3.63	1-7/8
W-24Z-P24	1-1/2	17/8-12	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*





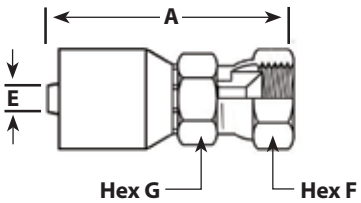
Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F	Hex G
W-04Z-S64	1/4	9/16-18	1.03	.17	1.95	11/16	9/16
W-04Z-S66		11/16-16	1.12	.17	2.04	13/16	5/8
W-06Z-S64	3/8	9/16-18	1.15	.17	2.14	11/16	11/16
W-06Z-S66		11/16-16	1.24	.26	2.23	13/16	11/16
W-06Z-S68		13/16-16	1.32	.26	2.32	15/16	13/16
W-08Z-S66	1/2	11/16-16	1.34	.26	2.51	13/16	7/8
W-08Z-S68		13/16-16	1.50	.38	2.67	15/16	7/8
W-08Z-S70		1-14	1.47	.38	2.64	1-1/8	15/16
W-08Z-S72		13/16-12	1.63	.38	2.80	1-3/8	1-1/8
W-10Z-S68	5/8	13/16-16	1.51	.38	2.67	15/16	15/16
W-10Z-S70		1-14	1.61	.48	2.76	1-1/8	15/16
W-10Z-S72		13/16-12	1.63	.50	2.79	1-3/8	1-1/8
W-12Z-S70	3/4	1-14	1.62	.48	2.81	1-1/8	1-1/8
W-12Z-S72		13/16-12	1.72	.61	2.91	1-3/8	1-1/8
W-12Z-S76		17/16-12	1.79	.61	2.98	1-5/8	1-3/8
W-16Z-S72	1	13/16-12	1.86	.61	3.22	1-3/8	1-3/8
W-16Z-S76		17/16-12	1.94	.81	3.29	1-5/8	1-3/8
W-16Z-S80		111/16-12	1.90	.81	3.25	1-7/8	1-5/8
W-20Z-S80**	1-1/4	111/16-12	2.33	1.02	4.07	1-7/8	1-3/4
W-20ZA-S80*		111/16-12	2.33	1.02	4.07	1-7/8	1-3/4
W-24ZA-S84	1-1/2	2-12	2.19	1.26	4.02	2-1/4	2

Z Series, cont'd

SAE 37° Female Swivel

** Fittings should only be used with one wire braided hose*
*** Fittinas should onlv be used with two wire braided hose*





Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	Hex F	Hex G
W-04Z-603	1/4	3/8-24	1.02	.13	1.94	1/2	9/16
W-04Z-604		7/16-20	1.07	.17	2.00	9/16	9/16
W-04Z-605		1/2-20	1.06	.17	1.98	5/8	9/16
W-04Z-606		9/16-18	1.11	.17	2.03	11/16	9/16
W-06Z-604	3/8	7/16-20	1.19	.17	2.19	9/16	11/16
W-06Z-605		1/2-20	1.24	.23	2.24	5/8	11/16
W-06Z-606		9/16-18	1.28	.26	2.28	11/16	11/16
W-06Z-608		3/4-16	1.31	.26	2.31	7/8	11/16
W-08Z-608	1/2	3/4-16	1.46	.38	2.63	7/8	13/16
W-08Z-610		7/8-14	1.47	.38	2.64	1	13/16
W-08Z-612		11/16-12	1.56	.38	2.73	1-1/4	1
W-08Z-616		15/16-12	1.89	.38	3.06	1-1/2	1-1/4
W-10Z-608	5/8	3/4-16	1.50	.39	2.65	7/8	15/16
W-10Z-610		7/8-14	1.61	.50	2.77	1	15/16
W-10Z-612		11/16-12	1.57	.50	2.72	1-1/4	1
W-12Z-610	3/4	7/8-14	1.63	.48	2.81	1	1-1/8
W-12Z-612		11/16-12	1.65	.61	2.84	1-1/4	1-1/8
W-12Z-614		13/16-12	1.65	.61	2.84	1-3/8	1-1/8
W-12Z-616		15/16-12	1.72	.61	2.91	1-1/2	1-1/4
W-16Z-612	1	11/16-12	1.80	.61	3.15	1-1/4	1-3/8
W-16Z-616		15/16-12	1.93	.81	3.29	1-1/2	1-3/8
W-16Z-620		15/8-12	1.81	.81	3.17	2	-
W-20Z-616**	1-1/4	15/16-12	1.73	.85	3.46	1-1/2	-
W-20ZA-616*		15/16-12	1.73	.85	3.46	1-1/2	-
W-20Z-620**		15/8-12	1.88	1.05	3.61	2	-
W-20ZA-620*		15/8-12	1.88	1.05	3.61	2	-
W-24Z-624	1-1/2	17/8-12	20.7	1.26	3.90	2-1/4	-
W-32Z-632	2	21/2-12	2.39	1.75	4.34	2-7/8	-

Terminal Supply Co. offers Weatherhead's full line of Z Series Coll-O-Crimp couplings. For more information, contact customer service or your local sales rep.

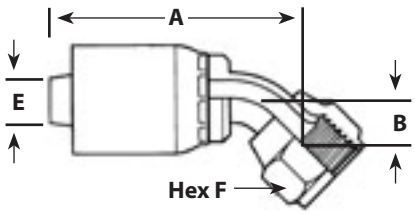
See pages 314-320 for all of the hose & tooling you need to create your own hose assemblies. Or, if you'd like, our in-house custom hose assembly team can create them for you, to your exact specifications. Just contact customer service for details.

Z Series, cont'd

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*

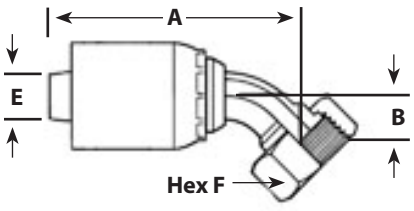




Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-684*	1/4	7/16-20	1.04	.15	1.96	.33	9/16
W-04Z-685*		1/2-20	1.12	.17	2.04	.37	5/8
W-04Z-686	3/8	9/16-18	1.17	.17	2.09	.39	11/16
W-06Z-686		9/16-18	1.31	.24	2.31	.39	11/16
W-06Z-688*		3/4-16	1.66	.26	2.65	.55	7/8
W-08Z-688*	1/2	3/4-16	1.65	.37	2.82	.55	7/8
W-08Z-690*		7/8-14	1.86	.38	3.03	.59	1
W-10Z-690*	5/8	7/8-14	1.79	.46	2.94	.59	1
W-10Z-692		11/16-12	2.22	.50	3.38	.78	1-1/4
W-12Z-692	3/4	11/16-12	2.24	.58	3.43	.78	1-1/4
W-16Z-696	1	15/16-12	2.39	.76	3.74	1.07	1-1/2
W-20Z-697***	1-1/4	15/8-12	2.71	1.01	4.44	1.22	2
W-20ZA-697**		15/8-12	2.71	1.01	4.44	1.22	2

Female FOR-SEAL Swivel 45° Tube Elbow





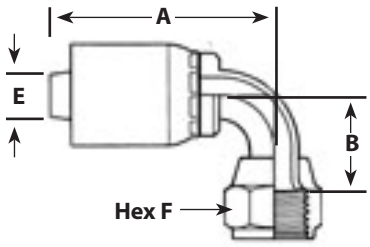
Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-L64	1/4	9/16-18	1.20	.17	2.12	.40	11/16
W-04Z-L66		11/16-16	1.38	.17	2.30	.43	13/16
W-06Z-L64	3/8	9/16-18	1.30	.17	2.30	.41	11/16
W-06Z-L66		11/16-16	1.43	.26	2.43	.43	13/16
W-06Z-L68		13/16-16	1.74	.26	2.74	.59	15/16
W-08Z-L66	1/2	11/16-16	1.48	.26	2.65	.43	13/16
W-08Z-L68		13/16-16	1.79	.36	2.96	.59	15/16
W-08Z-L70		1-14	2.01	.38	3.18	.65	1-1/8
W-08Z-L72		13/16-12	2.34	.38	3.51	.83	1-3/8
W-10Z-L70	5/8	1-14	2.01	.45	3.05	.65	1-1/8
W-10Z-L72		13/16-12	2.36	.50	3.52	.83	1-3/8
W-12Z-L72	3/4	13/16-12	2.38	.55	3.57	.83	1-3/8
W-12Z-L76		17/16-12	2.85	.61	4.04	.94	1-5/8
W-16Z-L76	1	17/16-12	2.88	.78	4.23	.94	1-5/8
W-20Z-L80	1-1/4	111/16-12	3.37	1.02	5.10	1.00	1-7/8
W-20Z-L84		2-12	3.76	1.01	5.49	1.07	2-1/4
W-24Z-L84	1-1/2	2-12	2.71	1.26	4.54	1.07	2-1/4

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 one wire braided hose*
**** Fittings should only be used with two wire braided hose*





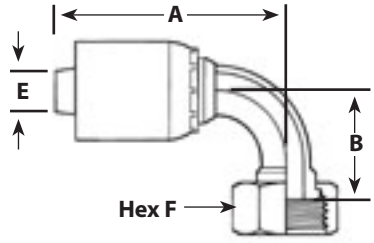
Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-664*	1/4	7/16-20	.92	.15	1.84	.68	9/16
W-04Z-665*		1/2-20	1.00	.17	1.92	.76	5/8
W-04Z-666		9/16-18	1.08	.17	2.00	.84	11/16
W-06Z-666	3/8	9/16-18	1.22	.24	2.21	.84	11/16
W-06Z-668*		3/4-16	1.42	.26	2.42	1.09	7/8
W-08Z-666		9/16-18	1.26	.24	2.43	.84	11/16
W-08Z-668*	1/2	3/4-16	1.42	.37	2.59	1.09	7/8
W-08Z-670*		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		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		1 5/16-12	2.18	.61	3.37	2.39	1-1/2
W-16Z-676	1	1 5/16-12	2.20	.76	3.56	2.39	1-1/2
W-20Z-677***	1-1/4	1 5/8-12	2.52	1.01	4.25	2.75	2
W-20ZA-677**		1 5/8-12	2.52	1.01	4.25	2.75	2
W-24Z-678	1-1/2	1 7/8-12	2.81	1.26	4.63	3.17	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*

- Swivel long drop also available, please contact customer service or your local sales rep for more info



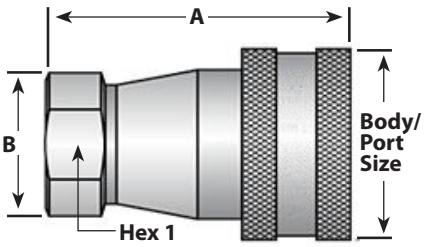


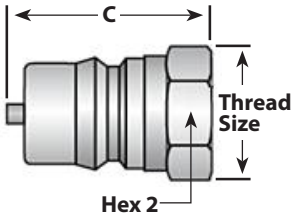
Part Number	Hose I.D.	Thread Size	Hose Cut-Off Factor	Hole Dia. (E)	A	B	Hex F
W-04Z-A24	1/4	9/16-18	1.17	.17	2.09	.82	11/16
W-04Z-A26		11/16-16	1.30	.17	2.22	.90	13/16
W-06Z-A24	3/8	9/16-18	1.21	.17	2.21	.82	11/16
W-06Z-A26		11/16-16	1.34	.26	2.34	.90	13/16
W-06Z-A28		13/16-16	1.62	.26	2.62	1.15	15/16
W-08Z-A26	1/2	11/16-16	1.39	.26	2.56	.90	13/16
W-08Z-A28		13/16-16	1.67	.36	2.84	1.15	15/16
W-08Z-A30		1-14	1.91	.38	3.07	1.27	1-1/8
W-08Z-A32		1 3/16-12	2.28	.38	3.45	1.88	1-3/8
W-10Z-A30	5/8	1-14	1.91	.45	3.07	1.27	1-1/8
W-10Z-A32		1 3/16-12	2.29	.50	3.44	1.88	1-3/8
W-12Z-A30	3/4	1-14	1.93	.45	3.11	1.27	1-1/8
W-12Z-A32		1 3/16-12	2.30	.55	3.49	1.88	1-3/8
W-12Z-A36		1 7/16-12	2.85	.61	4.04	2.21	1-5/8
W-16Z-A36	1	1 7/16-12	2.87	.81	4.22	2.21	1-5/8
W-16Z-A40		1 11/16-12	3.50	.81	4.85	2.51	1-7/8
W-20Z-A40**	1-1/4	1 11/16-12	3.57	1.02	5.30	2.51	1-7/8
W-20ZA-A40*		1 11/16-12	3.57	1.02	5.30	2.51	1-7/8
W-24Z-A40	1-1/2	2-12	2.81	1.26	4.63	2.70	2-1/4

Quick Disconnect Couplings

FD45 Series

- ***Typical Applications:*** Hydraulic & fluid transfer
- ***Temperature range:*** -40ºF to 250ºF
- ***Material:*** High resistance carbon steel w/ zinc trivalent chromate plating (body); Brass (poppet guide in 1/8" couplings only); Buna-N (o-ring)
- ***Valve Type:*** Poppet (o-ring seal)
- ***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 Part Number	A (in)	B (in)	Hex 1 (in)	Male Part Number	C (in)	Hex 2 (in)	Body / Port Size (in)	Thread Size (in)	Max Oper. Pressure (psi)	Min Burst Pressure psi
W-FD45-10030202	1.81	.96	.75	W-FD45-10020202	1.28	.56	1/8"	1/8-27	4500	13500
W-FD45-10030404	2.22	1.13	.81	W-FD45-10020404	1.53	.75	1/4"	1/4-18	5000	15000
W-FD45-10030606	2.45	1.38	1.06	W-FD45-10020606	1.69	.88	3/8"	3/8-16	4000	12000
W-FD45-10030810	2.86	1.69	1.31	W-FD45-10020810	1.96	1.06	1/2"	1/2-14	4000	12000
W-FD45-10031212	3.40	2.06	1.62	W-FD45-10021212	2.41	1.31	3/4"	3/4-14	4000	12000
W-FD45-10031616	4.02	2.44	2.00	W-FD45-10021616	2.77	1.62	1"	1-11 1/2	4000	12000

Accessories

- Works with all Quick Disconnect Couplings in this section

Dust Caps



White Part Number	Size
W-FD45-1040-02	1/8"
W-FD45-1040-04	1/4"
W-FD45-1040-06	3/8"
W-FD45-1040-10	1/2"
W-FD45-1040-12	3/4"
W-FD45-1040-16	1"

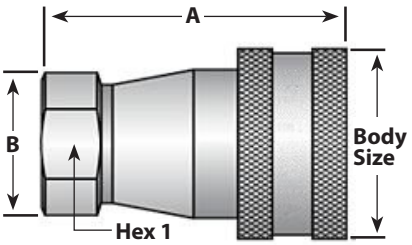
Dust Plugs

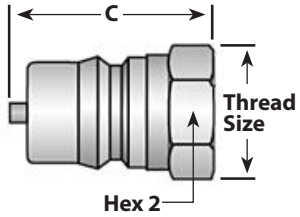


White Part Number	Size
W-FD45-1041-02	1/8"
W-FD45-1041-04	1/4"
W-FD45-1041-06	3/8"
W-FD45-1041-10	1/2"
W-FD45-1041-12	3/4"
W-FD45-1041-16	1"

S10 Series

- ***Typical Applications:*** Primarily used for the transfer of hydraulic fluid, but can also be used with water, steam, chemicals & some gases
- ***Temperature range:*** -40ºF to 250ºF
- ***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

Hydraulic Hose

Low Pressure Hose

Suction Hose



- ***Typical Applications:*** Hydraulic suction hose
- ***Hose Ends:*** U Series (page 302), Z Series (page 308) 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:*** -40ºF to 275ºF
- ***Meets: MSHA & ABS; SAE 100R4; 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

Medium Pressure Hose

Hydraulic Hose



- ***Typical Applications:*** Popular for farm implement hydraulic lines
- ***Hose Ends:*** U Series (page 302), Z Series (page 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Nitrile
- ***Reinforcement:*** 1 steel braid
- ***Cover:*** Neoprene
- ***Temperature Range:*** -40ºF to 212ºF
- ***Meets: MSHA & ABS; SAE 100 R1 AT; 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-H10404-250R

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-H10404	1/4	17/32	2750	11000	4.0	15	250, 500
W-H10406	3/8	23/32	2250	9000	5.0	23	250, 500
W-H10408	1/2	27/32	2000	8000	7.0	29	250, 500
W-H10410	5/8	31/32	1500	6000	8.0	35	250
W-H10412	3/4	1-1/8	1250	5000	9.5	41	250
W-H10416	1	1-7/16	1000	4000	12.0	55	250
W-H10420	1-1/4	1-3/4	625	2500	16.5	85	100

High Pressure Hose

RhinoHide II™ Abrasion Resistant, Constant Pressure Hydraulic Hose



- ***Typical Applications:*** Ideal for logging, construction, mining & other off-highway applications
- ***Hose Ends:*** Z Series (page 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Nitrile
- ***Reinforcement:*** 1 steel band (sizes -4 to -8), 2 steel bands (sizes -10 to -16)
- ***Cover:*** Abrasion resistant UHMW
- ***Temperature Range:*** -40ºF to 250ºF
- ***Meets: SAE 100R17***
- ***Length:*** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H14504R-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-H145R04	1/4	1/2	3000	12000	2.0	15	250, 500
W-H145R06	3/8	21/32	3000	12000	2.5	23	250, 500
W-H145R08	1/2	51/64	3000	12000	3.5	32	250, 500
W-H145R10	5/8	63/64	3000	12000	4.0	51	250
W-H145R12	3/4	1-1/8	3000	12000	4.75	63	250
W-H145R16	1	1-15/32	3000	12000	6.0	83	250

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, cont'd

Hi-R FLEX™ High Pressure Hydraulic Hose



- ***Typical Applications:*** Used in high pressure 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 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Nitrile blend
- ***Reinforcement:*** 2 steel braids
- ***Cover:*** Neoprene
- ***Temperature Range:*** -40ºF to 212ºF
- ***Meets: MSHA; ABS; SAE 100R16; 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, 500
W-H24506	3/8	11/16	4000	16000	2.5	29	250, 500
W-H24508	1/2	13/16	3500	14000	3.5	36	250, 500
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
W-H24520	1-1/4	1-13/32	1625	6500	8.25	114	150

Pressure Washer Hose



- ***Typical Applications:*** Ideal for use in high pressure 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 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Nitrile
- ***Reinforcement:*** 1 steel braid
- ***Cover:*** Blue vinyl nitrile
- ***Temperature Range:*** -40ºF to 250ºF (hydraulic), up to 200ºF (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

Protect your hydraulic hose investment with our new Hose Protectors. These will guard your hoses & cables from abrasion & scuffing, extending their life and reducing the need for hose changes & repairs.



Part Number	Length
HP4-BLK	4″
HP6-BLK	6″
HP8-BLK	8″
HP10-BLK	10″
HP12-BLK	12″

High Pressure Hose, cont'd

High Pressure Hydraulic Hose



- ***Typical Applications:*** Ideal for use in high pressure lines on off-road construction equipment, farm equipment & other high pressure applications
- ***Hose Ends:*** U Series (page 302)), Z Series (page 308), 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:*** -40ºF to 212ºF
- ***Meets: MSHA,; ABS; SAE 100R2-AT; marine application J1942/1, fuel & hydraulic service***
- ***Length:*** 50ft. roll is standard, for other lengths, add other lengths available (see below) to end of part number, EX: W-H42504-250R

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-H42504	1/4	19/32	5000	20000	4.0	28	250, 500
W-H42506	3/8	3/4	4000	16000	5.0	38	250, 500
W-H42508	1/2	7/8	3500	14000	7.0	45	250, 500
W-H42510	5/8	1	2750	11000	8.0	51	250
W-H42512	3/4	1-5/32	2250	9000	9.5	66	250
W-H42516	1	1-1/2	2000	8000	12.0	95	250
W-H42520	1-1/4	1-7/8	1625	6500	16.5	142	150

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 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Synthetic rubber
- ***Reinforcement:*** 2 steel braids
- ***Cover:*** WeatherSHIELD™ synthetic
- ***Temperature Range:*** -40ºF to 260ºF (petroleum based fluids); -40º to 158ºF (water based fluids)
- ***Meets & Exceeds: MSHA; SAE 100R16 Type S, EN857 2SC, ISO 11237-1 Type 2SC Performance; 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-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	-

Premium WeatherSHIELD™ Hose, cont'd

High Pressure Hydraulic Hose



- ***Typical Applications:*** General industrial and hydraulic system service with petroleum and water-base fluids
- ***Hose Ends:*** Z Series (page 308), others series are compatible, contact customer service for more info
- ***Inner Tube:*** Synthetic rubber
- ***Reinforcement:*** 2 steel braids
- ***Cover:*** WeatherSHIELD™ synthetic
- ***Temperature Range:*** -40ºF to 260ºF (petroleum based fluids); -40º to 158ºF (water based fluids)
- ***Meets & Exceeds: MSHA; SAE 100R2-AT Type S, EN853 2SN, ISO 1436-1 Type 2SN Performance; 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-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	-
W-H29032	2	2-1/2	1600	6400	25.0	222	-

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: 500ºF for continuous exposure, 2000ºF for 15-20min durations & 3000ºF for 15-30 second durations



Part Number	Sleeve I.D.	Roll Length	Used With Hoses
W-A6908	1/2"	100ft.	W-H104, W-H245, W-H425
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 Package

- ***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 or C-40X cabinet (not included)
- ***Size:*** 22″H x 10″W x 20-1/2″D; 210lbs.



Part Number	Description
W-T-420N-110	This package includes one each of the following parts
W-T-420-1	Coll-O-Crimp Super 1 press & T-420-M instructions
W-T-421U-110	110v electric pump
W-T-400-2C	U Series collet - 1/4″
W-T-400-3C	U Series collet - 3/8″
W-T-400-4C	U Series collet - 1/2″
W-T-400-5C	U Series collet - 3/4″
W-T-400-6C	U Series collet - 1″
W-T-400-62	Spacer ring - yellow
W-T-400-10	Spacer ring - black
W-T-400-11	Spacer ring - silver

Part Number	Description
W-T-410-22	36″ pump to press hose assembly
W-T-420-25	Adapter ring for T-400 Series collets
W-T-420-4CN	430 U Series collet - 1/2″
W-T-420-5CN	430 U Series collet - 3/4″
W-T-420-6CN	430 U Series collet - 1″
W-T-420-7CN	430 U Series collet - 1-1/4″

Portable Coll-O-Crimp Press & Pump Packages

Press

- ***Capacity:*** 3/16″ I.D. 1 fiber braid through 1-1/4″ I.D. 6 spiral hose
- ***Mounting:*** Free standing base
- ***Size:*** 22-1/2″H x 10-1/2″W x 14″D; 112lbs.

Air / Hydraulic Pump

- ***Size:*** 5″H x 5-5/8″W x 14-5/8″D; 12lbs.
- ***Pressure:*** 0 - 10,000psi
- ***Outlet Port Size:*** 3/8″ NPT
- ***Inlet Port Size:*** 1/4″ NPT
- ***Pump Inlet Air Pressure:*** 60 - 100psi
- ***Hydraulic Oil:*** Enerpac
- ***Reservoir Capacity:*** 36 cu. in.

Part Number	Description
W-T-480-AH	This package includes one each of the following parts
W-T-482-2	Air / hydraulic pump
W-T-480-68	Blue pusher extension ring

Hand Pump

- ***Size:*** 7-3/16″H x 4-3/4″W x 21-1/64″D; 9lbs.
- ***Pressure:*** 0 - 10,000psi
- ***Outlet Port Size:*** 3/8″ NPT
- ***Hydraulic Oil:*** Enerpac
- ***Reservoir Capacity:*** 55 cu. in.



W-T-480-HP pictured

Part Number	Description
W-T-480-HP	This package includes one each of the following parts
W-T-480-2	Hand pump
W-T-480-68	Blue pusher extension ring

Weatherhead recommends that a filter, regulator, lubricator & air pressure gauge be installed upstream from the pump. Filter, regulator & lubricator units are not included.

Portable Coll-O-Crimp Press & Pump Packages

Press

- ***Capacity:*** 3/16″ I.D. 1 fiber braid through 1-3/8″ I.D. 1 wire hose & 1-1/4″ 2 wire hose
- ***Mounting:*** Free standing base
- ***Size:*** 15″H x 14″W x 11-1/4″D; 62lbs.



W-T-462 pictured

Part Number	Description
W-T-464	This package includes one each of the following parts
W-T-460	Press, hand pump, hose assembly kit & W-EQCR-TM008-E instructions
W-T-400-2C	U Series collet - 1/4″
W-T-400-3C	U Series collet - 3/8″
W-T-400-4C	U Series collet - 1/2″
W-T-400-10	Black spacer ring
W-T-400-62	Yellow spacer ring

Part Number	Description
W-T-466	This package includes one each of the following parts
W-T-462	Press, air/hydraulic pump, hose assembly kit & W-EQCR-TM008-E instructions
W-T-400-2C	U Series collet - 1/4″
W-T-400-3C	U Series collet - 3/8″
W-T-400-4C	U Series collet - 1/2″
W-T-400-10	Black spacer ring
W-T-400-62	Yellow spacer ring

Coll-O-Crimp I Package

- ***Capacity:*** 3/16″ I.D. 1 fiber braid through 1-3/8″ I.D. 1 wire & 1-1/4″ 2 wire hose
- ***Mounting:*** Bench, FH-135X or C-40X cabinet (not included)
- ***Size:*** 16-1/4″H x 8″W x 21-3/4″D; 113lbs.



Part Number	Description
W-T-401-110	This package includes one each of the following parts
W-T-400-1	Press, T-400-BB switch & T-400-M instructions
W-T-421U-110	110v electric pump
W-T-400-2C	U Series collet - 1/4″
W-T-400-3C	U Series collet - 3/8″
W-T-400-4C	U Series collet - 1/2″
W-T-400-5C	U Series collet - 3/4″
W-T-400-6C	U Series collet - 1″
W-T-400-62	Spacer ring - yellow

Part Number	Description
W-T-400-10	Spacer ring - black
W-T-400-11	Spacer ring - silver
W-T-400-16	36″ T-421U pump to press hose assembly
W-T-400-8	Die ring

What you see her 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!

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Standard Fasteners

Machine Screws - Plated



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-6516	MSCPS-6516	MSCRS-6516	5/16	100	
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*	MSCRS-6134	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	
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	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

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-10212*	MSCPS-10212*	MSCRS-10212	2-1/2	50	10 - 24 Coarse Thread
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	MSFPS-1038	MSFRS-1038	3/8	100	
MSFFS-1012	MSFPS-1012	MSFRS-1012	1/2	100	
MSFFS-1058	MSFPS-1058	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	MSFPS-10114	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*	MSFRS-103	3	100	
N/A	MSCPS-1214*	MSCRS-1214	1/4	100	12 - 24 Coarse Thread
MSCFS-1238	MSCPS-1238	MSCRS-1238	3/8	100	
MSCFS-1212	MSCPS-1212	MSCRS-1212	1/2	100	
MSCFS-1234	MSCPS-1234	MSCRS-1234	3/4	100	
MSCFS-121	MSCPS-121*	MSCRS-121	1	100	
MSCFS-12114	MSCPS-12114	MSCRS-12114	1-1/4	100	
MSCFS-12112	MSCPS-12112	MSCRS-12112	1-1/2	100	
MSCFS-12134	MSCPS-12134	MSCRS-12134	1-3/4	100	
MSCFS-122	MSCPS-122	MSCRS-122	2	50	
N/A	MSCPS-1414*	MSCRS-1414	1/4	100	1/4 - 20 Coarse Thread
MSCFS-14516*	MSCPS-14516*	MSCRS-14516	5/16	100	
MSCFS-1438	MSCPS-1438	MSCRS-1438	3/8	100	
MSCFS-1412	MSCPS-1412	MSCRS-1412	1/2	100	
MSCFS-1458	MSCPS-1458	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	



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)

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

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-51634	MSCPS-51634	MSCRS-51634	3/4	50	5/16 - 18 Coarse Thread
MSCFS-5161	MSCPS-5161	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	MSCRS-516134	1-3/4	50	
MSCFS-5162	MSCPS-5162	MSCRS-5162	2	50	

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	MSCOP-638	3/8	100	
MSCFP-612	MSCPP-612	MSCOP-612	1/2	100	
MSCFP-658	MSCPP-658	MSCOP-658	5/8	100	
MSCFP-634	MSCPP-634	MSCOP-634	3/4	100	
MSCFP-61	MSCPP-61	MSCOP-61	1	100	
MSCFP-6114	MSCPP-6114	MSCOP-6114	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	MSCOP-812	1/2	100	
MSCFP-858	MSCPP-858	MSCOP-858	5/8	100	
MSCFP-834	MSCPP-834	MSCOP-834	3/4	100	
MSCFP-878	MSCPP-878	MSCOP-878*	7/8	100	
MSCFP-81	MSCPP-81	MSCOP-81	1	100	
MSCFP-8114*	MSCPP-8114	MSCOP-8114	1-1/4	100	
MSCFP-8112*	MSCPP-8112	MSCOP-8112	1-1/2	100	
N/A	N/A	MSCOP-8134	1-3/4	100	
MSCFP-82*	MSCPP-82	MSCOP-82*	2	100	
MSCFP-10516*	MSCPP-10516	N/A	5/16	100	10 - 24 Coarse Thread
MSCFP-1038	MSCPP-1038	MSCOP-1038	3/8	100	
MSCFP-1012	MSCPP-1012	MSCOP-1012	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	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

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-10114*	MSCPP-10114	MSCOP-10114	1-1/4	100	10 - 24 Coarse Thread
MSCFP-10112*	MSCPP-10112	MSCOP-10112	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	MSFOP-1034	3/4	100	
MSFFP-1078	MSFPP-1078	N/A	7/8	100	
MSFFP-101	MSFPP-101	MSFOP-101	1	100	
MSFFP-10114*	MSFPP-10114	MSFOP-10114	1-1/4	100	
MSFFP-10112*	MSFPP-10112	MSFOP-10112	1-1/2	100	
MSCFP-1438*	MSCPP-1438	N/A	3/8	100	1/4 - 20 Coarse Thread
MSCFP-1412	MSCPP-1412	MSCOP-1412	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	



Sheet Metal Screws - Plated

Slotted

Pan Head Part Number	Hex Washer Part Number	Length	Standard Package	Dia.
SMSPS-438	SMSHWS-438*	3/8	100	4
SMSPS-412	SMSHWS-412*	1/2	100	
SMSPS-434	SMSHWS-434*	3/4	100	
SMSPS-41	SMSHWS-41*	1	100	
SMSPS-614	SMSHWS-614	1/4	100	6
SMSPS-638	SMSHWS-638	3/8	100	
SMSPS-612	SMSHWS-612	1/2	100	
SMSPS-658	SMSHWS-658	5/8	100	
SMSPS-634	SMSHWS-634	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.
SMSPS-814	SMSHWS-814*	1/4	100	
SMSPS-838	SMSHWS-838	3/8	100	
SMSPS-812	SMSHWS-812	1/2	100	
SMSPS-858	SMSHWS-858	5/8	100	
SMSPS-834	SMSHWS-834	3/4	100	
SMSPS-878	SMSHWS-878*	7/8	100	8
SMSPS-81	SMSHWS-81	1	100	
SMSPS-8114	SMSHWS-8114	1-1/4	100	
SMSPS-8112	SMSHWS-8112	1-1/2	100	
SMSPS-8134	SMSHWS-8134	1-3/4	100	
SMSPS-82	SMSHWS-82	2	100	
SMSPS-1038	SMSHWS-1038	3/8	100	
SMSPS-1012	SMSHWS-1012	1/2	100	
SMSPS-1058	SMSHWS-1058	5/8	100	
SMSPS-1034	SMSHWS-1034	3/4	100	
SMSPS-1078	SMSHWS-1078	7/8	100	
SMSPS-101	SMSHWS-101	1	100	10
SMSPS-10114	SMSHWS-10114	1-1/4	100	
SMSPS-10112	SMSHWS-10112	1-1/2	100	
SMSPS-10134	SMSHWS-10134	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	
SMSPS-1258	SMSHWS-1258	5/8	100	
SMSPS-1234	SMSHWS-1234	3/4	100	
SMSPS-1278	SMSHWS-1278*	7/8	100	
SMSPS-121	SMSHWS-121	1	100	
SMSPS-12114	SMSHWS-12114	1-1/4	100	12
SMSPS-12112	SMSHWS-12112	1-1/2	100	
SMSPS-12134	SMSHWS-12134	1-3/4	100	
SMSPS-122	SMSHWS-122	2	100	
SMSPS-12212	SMSHWS-12212	2-1/2	100	
SMSPS-123	SMSHWS-123	3	100	
SMSPS-1412	SMSHWS-1412	1/2	50	
SMSPS-1458	SMSHWS-1458	5/8	50	
SMSPS-1434	SMSHWS-1434	3/4	50	
SMSPS-1478	SMSHWS-1478*	7/8	50	
SMSPS-141	SMSHWS-141	1	50	
SMSPS-14114	SMSHWS-14114	1-1/4	50	1/4
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.

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.
SMSFP-414*	SMSPP-414	N/A	N/A	1/4	100	4
SMSFP-438	SMSPP-438	SMSOP-438	N/A	3/8	100	
SMSFP-412	SMSPP-412	SMSOP-412	N/A	1/2	100	
SMSFP-458	SMSPP-458	SMSOP-458	N/A	5/8	100	
SMSFP-434	SMSPP-434	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	SMSOWP-812	1/2	100	
SMSFP-858	SMSPP-858	SMSOP-858	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
SMSFP-1012	SMSPP-1012	SMSOP-1012	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	
SMSFP-1212	SMSPP-1212	SMSOP-1212	N/A	1/2	100	12
SMSFP-1258	SMSPP-1258	SMSOP-1258	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	



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

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.
SMSFP-1412	SMSPP-1412	SMSOP-1412	N/A	1/2	100	1/4
SMSFP-1458	SMSPP-1458	SMSOP-1458	N/A	5/8	100	
SMSFP-1434	SMSPP-1434	SMSOP-1434	N/A	3/4	100	
SMSFP-141	SMSPP-141	SMSOP-141	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	SMSOP-14134	N/A	1-3/4	100	
SMSFP-142	SMSPP-142	SMSOP-142	N/A	2	100	
SMSFP-14212	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 all the 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-51612	1/2	100	5/16
SMSH-51658	5/8	50	
SMSH-51634	3/4	50	
SMSH-5161	1	25	
SMSH-516114	1-1/4	25	
SMSH-516112	1-1/2	25	
SMSH-5162	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	

Self Drilling Plated Tek Screws - Plated



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	

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

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Self Drilling Plated Tek Screws - Plated, cont'd

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	8
TSHW-858	5/8	100	
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	

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	



Fastener Head Examples

Flat Head | Round Head | Oval Washer Head | Hex Washer Head

Pan Head | Oval Head | Hex Head

Cap Screws - Zinc Plated

Made in the USA

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	1/4
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	



Cap Screws - Zinc Plated, cont'd

Made in the USA



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.
CSC5-142	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	
CSC5-14234	CSF5-14234	CSC8-14234	CSF8-14234	2-3/4	50	
CSC5-143	CSF5-143	CSC8-143	CSF8-143	3	50	
CSC5-14314	CSF5-14314	CSC8-14314*	CSF8-14314	3-1/4	25	
CSC5-14312	CSF5-14312	CSC8-14312	CSF8-14312	3-1/2	25	1/4
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	
CSC5-3812	CSF5-3812	CSC8-3812	CSF8-3812	1/2	100	
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	3/8
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	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Cap Screws - Zinc Plated, cont'd

Made in the USA

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.
CSC5-38212	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	3/8
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	7/16
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	
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	
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	1/2
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	



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Cap Screws - Zinc Plated, cont'd

Made in the USA



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.
CSC5-124	CSF5-124	CSC8-124	CSF8-124	4	10	1/2
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	9/16
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	
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	5/8
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	
CSC5-58234	CSF5-58234*	CSC8-58234	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	
CSC5-584	CSF5-584	CSC8-584	CSF8-584	4	10	
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	
CSC5-5866	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	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Cap Screws - Zinc Plated, cont'd

Made in the USA

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.
CSC5-34114	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	



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.

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.



Quadrex® - Flat Head

2/3 Twinfast Stat Bronze Part Number	Type A Zinc Part Number	Type 2 Zinc Part Number	2/3 Twinfast Zinc Part Number	Length	Standard Package	Dia.
N/A	FQAB-612	N/A	N/A	1/2	100	6
N/A	FQAB-634	N/A	N/A	3/4	100	
N/A	FQAZ-61	N/A	N/A	1	100	
N/A	FQAZ-834	N/A	N/A	3/4	100	8
N/A	FQAZ-81	FQT2Z-81	N/A	1	100	
FQ23FSB-8114	FQAZ-8114	N/A	N/A	1-1/4	100	
N/A	FQAZ-8112	N/A	N/A	1-1/2	100	
N/A	FQAZ-82	N/A	FQ23FZ-82	2	100	
FQ23FSB-8212	N/A	N/A	FQ23FZ-8212	2-1/2	100	
N/A	N/A	N/A	FQ23FZ-83	3	100	
N/A	N/A	N/A	FQ23FZ-84	4	100	

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-1012	N/A	N/A	1/2	100	10
N/A	PQAZ-1034	PQT2Z-1034	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	RWQFSB-81	RWQFZ-81	1	100	
RWQ23FSB-8114	N/A	RWQ23FZ-8114	1-1/4	100	
RWQ23FSB-8112	N/A	RWQ23FZ-8112	1-1/2	100	
RWQ23FSB-82	N/A	RWQ23FZ-82	2	100	
RWQ23FSB-8212	N/A	RWQ23FZ-8212	2-1/2	100	
RWQ23FSB-83	N/A	N/A	3	100	

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

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	
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	5/16
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	
SHCSC-381	SHCSF-381	5/16	1	100	



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-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	3/8
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	7/16
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	
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	1/2
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	

Hex Tap Bolts (Full Threaded) - Zinc Plated Steel

Hex

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
TB-141	1	100	1/4 - 20 Coarse Thread
TB-14114	1-1/4	100	
TB-14112	1-1/2	100	
TB-14134	1-3/4	100	
TB-142	2	100	
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

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
TB-516214	2-1/4	100	5/16 - 18 Coarse Thread
TB-516212	2-1/2	100	
TB-516234	2-3/4	100	
TB-5163	3	100	
TB-516312	3-1/2	50	
TB-5164	4	50	
TB-38114	1-1/4	100	3/8 - 16 Coarse Thread
TB-38112	1-1/2	100	
TB-38134	1-3/4	100	
TB-382	2	100	
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	



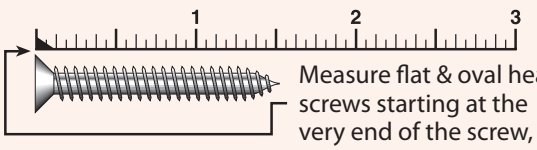
Hex Flange Bolts - Unplated

Hex Washer

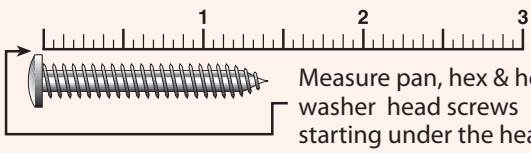
USS / Coarse Part Number	SAE / Fine Part Number	Length	Standard Package	Dia.
HFLBC-122	HFLBF-122	2	25	1/2
HFLBC-12214	HFLBF-12214	2-1/4	25	
HFLBC-12212	HFLBF-12212	2-1/2	25	
HFLBC-123	HFLBF-123	3	25	
HFLBC-582	HFLBF-582	2	25	5/8
HFLBC-58214	HFLBF-58214	2-1/4	25	
HFLBC-58212	HFLBF-58212	2-1/2	25	
HFLBC-583	HFLBF-583	3	25	
HFLBC-342	HFLBF-342	2	10	3/4
HFLBC-34212	HFLBF-34212	2-1/2	10	
HFLBC-343	HFLBF-343	3	10	



How To Determine Screw Length



Measure flat & oval head screws starting at the very end of the screw, including the head.



Measure pan, hex & hex washer head screws starting under the head.

Carriage Bolts, USS - Plated



● Round ●

Grade 5 Part Number	Grade 2 Part Number	Length	Standard Package	Dia.
CB5-1012	CB-1012	1/2	100	10 - 24 Coarse Thread
CB5-1058	CB-1058	5/8	100	
CB5-1034	CB-1034	3/4	100	
CB5-101	CB-101	1	100	
CB5-10114	CB-10114	1-1/4	100	
CB5-10112	CB-10112	1-1/2	100	
CB5-10134	CB-10134	1-3/4	100	
CB5-102	CB-102	2	50	
CB5-10212	CB-10212	2-1/2	50	
CB5-103	CB-103	3	50	
CB5-10312	CB-10312	3-1/2	50	
CB5-104	CB-104	4	50	
CB5-1412	CB-1412	1/2	100	1/4 - 20 Coarse Thread
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 - 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	



Cup Point Set Screws

O Hex Drive O

USS / Coarse

Part Number	Length	Std. Pkg.	Dia.
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	

O Hex Drive O

SAE / Fine

Part Number	Length	Std. Pkg.	Dia.
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	
SSSF-1/4-28X1/4	1/4	50	1/4-28
SSSF-1/4-28X5/16	5/16	50	
SSSF-1/4-28X3/8	3/8	50	
SSSF-1/4-28X1/2	1/2	50	
SSSF-516-24X516	5/16	25	5/16-24
SSSF-516-24X3/8	3/8	25	
SSSF-516-24X1/2	1/2	25	
SSSF-516-24X5/8	5/8	25	
SSSF-3/8-24X1/4	1/4	25	3/8-24
SSSF-3/8-24X3/8	3/8	25	
SSSF-3/8-24X1/2	1/2	25	
SSSF-3/8-24X3/4	3/4	25	
SSSF-1/2-20X1/2	1/2	10	1/2-20
SSSF-1/2-20X3/4	3/4	10	



Floor Board Screws - Unplated



Torx

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
FBS-14112	1-1/2	25	1/4 - 20 Coarse Thread
FBS-14134	1-3/4	25	
FBS-142	2	25	
FBS-14214	2-1/4	25	
FBS-14212	2-1/2	25	
FBS-143	3	25	

Torx

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
FBS-516112	1-1/2	25	5/16 - 18 Coarse Thread
FBS-516134	1-3/4	25	
FBS-5162	2	25	
FBS-516214	2-1/4	25	
FBS-516212	2-1/2	25	
FBS-5163	3	25	

Fully Threaded Rods - Zinc Plated Steel

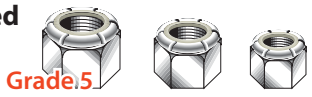


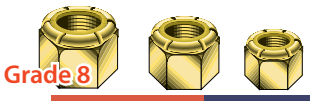
Part Number	Length	Standard Package	Dia. & Thread Type
TRC-14X36	36"	1	1/4 - 20
TRC-516X36	36"	1	5/16 - 18
TRC-38X36	36"	1	3/8 - 16
TRC-716X36	36"	1	7/16 - 14
TRC-12X36	36"	1	1/2 - 13

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

Standard Nuts

Nylon Lock Nuts - Plated





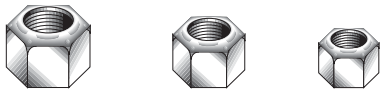
	Grade 5 Part Number	Grade 8 Part Number	Dia.	Standard Package
USS / Coarse	NNC-4	N/A	4-40	100
	NNC-6	N/A	6-32	100
	NNC-8	N/A	8-32	100
	NNC-10	N/A	10-24	100
	NNC-1/4	NNC8-1/4	1/4-20	100
	NNC-5/16	NNC8-5/16	5/16-18	100
	NNC-3/8	NNC8-3/8	3/8-16	100
	NNC-7/16	NNC8-7/16	7/16-14	50
	NNC-1/2	NNC8-1/2	1/2-13	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	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

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Standard Nuts, cont'd

Grade C Lock Nuts - Plated



	Coarse Grade C Part Number	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

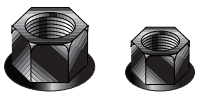
	Fine Grade C Part Number	Dia.	Standard Package
SAE / Fine	CLNF-1/4	1/4-28	100
	CLNF-5/16	5/16-24	100
	CLNF-3/8	3/8-24	100
	CLNF-7/16	7/16-20	50
	CLNF-1/2	1/2-20	50
	CLNF-9/16	9/16-18	50
	CLNF-5/8	5/8-18	25
	CLNF-3/4	3/4-16	20
	CLNF-7/8	7/8-14	15
	CLNF-1	1-14	10

Nuts - Plated



	Machine Nuts Part Number	Keps Nuts Part Number	Wing Nuts Part Number	Dia.	Standard Package
USS / Coarse	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	WNF-1/4	1/4 - 28	100

Hex Flange Nuts - Unplated



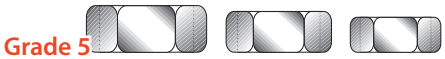
	Coarse Part Number	Dia.	Standard Package
USS / Coarse	HFLNC-1/2	1/2-13	25
	HFLNC-5/8	5/8-11	25
	HFLNC-3/4	3/4-10	10

	Fine Part Number	Dia.	Standard Package
SAE / Fine	HFLNF-1/2	1/2-20	25
	HFLNF-5/8	5/8-18	25
	HFLNF-3/4	3/4-16	10

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Standard Nuts, cont'd

Hex Nuts - Plated

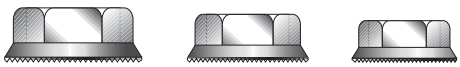




	Grade 5 Part Number	Grade 8 Part Number	Dia.	Standard Package
USS / Coarse	HNC5-1/4	HNC8-1/4	1/4-20	100
	HNC5-5/16	HNC8-5/16	5/16-18	100
	HNC5-3/8	HNC8-3/8	3/8-16	100
	HNC5-7/16	HNC8-7/16	7/16-14	50
	HNC5-1/2	HNC8-1/2	1/2-13	50
	HNC5-9/16	HNC8-9/16	9/16-12	25
	HNC5-5/8	HNC8-5/8	5/8-11	25
	HNC5-3/4	HNC8-3/4	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	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

Serrated Flange Hex Nuts



Part Number	Dia.	Standard Package
SFHN-632	6-32	100
SFHN-832	8-32	100
SFHN-1024	10-24	100
SFHN-1032	10-32	100
SFHN-1420	1/4-20	100
SFHN-1428	1/4-28	100

Part Number	Dia.	Standard Package
SFHN-51618	5/16-18	100
SFHN-51624	5/16-24	100
SFHN-3816	3/8-16	100
SFHN-3824	3/8-24	100
SFHN-71614	7/16-14	50

Part Number	Dia.	Standard Package
SFHN-71620	7/16-20	50
SFHN-1213	1/2-13	50
SFHN-1220	1/2-20	50
SFHN-5811	5/8-11	25
SFHN-5818	5/8-18	25

Standard Washers

Flat Washers - Plated





	Grade 5 Part Number	Grade 8 Part Number	Grade 8 Extra Thick Part Number	Thickness Range (inches)	Dia.	I.D.	O.D.	Standard Package
USS	FW-USS-1/4	FW8-USS-1/4	ETW8-USS-1/4	.090 - .110	1/4	5/16	3/4	100
	FW-USS-5/16	FW8-USS-5/16	ETW8-USS-5/16	.112 - .130	5/16	3/8	7/8	100
	FW-USS-3/8	FW8-USS-3/8	ETW8-USS-3/8	.112 - .130	3/8	7/16	1	100
	FW-USS-7/16	FW8-USS-7/16	ETW8-USS-7/16	.140 - .158	7/16	1/2	1-1/4	50
	FW-USS-1/2	FW8-USS-1/2	ETW8-USS-1/2	.170 - .195	1/2	9/16	1-3/8	50
	FW-USS-9/16	FW8-USS-9/16	ETW8-USS-9/16	.170 - .195	9/16	5/8	1-1/2	50
	FW-USS-5/8	FW8-USS-5/8	ETW8-USS-5/8	.195 - .215	5/8	11/16	1-3/4	25
	FW-USS-3/4	FW8-USS-3/4	ETW8-USS-3/4	.235 - .265	3/4	13/16	2	20
	FW-USS-7/8	FW8-USS-7/8	ETW8-USS-7/8	.235 - .265	7/8	1-3/16	2-1/4	15
	FW-USS-1	FW8-USS-1	ETW8-USS-1	.235 - .265	1	1-1/16	2-1/2	10

Standard Washers, cont'd

Flat Washers - Plated



	Grade 5 Part Number	Grade 8 Part Number	Grade 8 Extra Thick Part Number	Thickness Range (inches)	Dia.	I.D.	O.D.	Standard Package
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	.090 - .110	1/4	9/32	5/8	100
	FW-SAE-5/16	FW8-SAE-5/16	ETW8-SAE-5/16	.090 - .110	5/16	11/32	11/16	100
	FW-SAE-3/8	FW8-SAE-3/8	ETW8-SAE-3/8	.110 - .126	3/8	13/32	13/16	100
	FW-SAE-7/16	FW8-SAE-7/16	ETW8-SAE-7/16	.110 - .126	7/16	15/32	59/64	50
	FW-SAE-1/2	FW8-SAE-1/2	ETW8-SAE-1/2	.156 - .188	1/2	17/32	1-1/16	50
	FW-SAE-9/16	FW8-SAE-9/16	ETW8-SAE-9/16	.156 - .188	9/16	19/32	1-3/16	50
	FW-SAE-5/8	FW8-SAE-5/8	ETW8-SAE-5/8	.170 - .195	5/8	21/32	1-5/16	50
	FW-SAE-3/4	FW8-SAE-3/4	ETW8-SAE-3/4	.170 - .195	3/4	13/16	1-1/2	25
	FW-SAE-7/8	FW8-SAE-7/8	ETW8-SAE-7/8	.235 - .265	7/8	15/16	1-3/4	15
	FW-SAE-1	FW8-SAE-1	ETW8-SAE-1	.235 - .265	1	1-1/16	2	10

Lock Washers

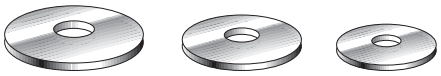


Grade 5 Split Lock Washer Part Number	Grade 8 Split Lock Washer Part Number	External Tooth Washer Part Number	Internal Tooth Washer Part Number	Dia.	Standard Package
LW-4	N/A	LWE-4	LWI-4	4	100
LW-6	N/A	LWE-6	LWI-6	6	100
LW-8	N/A	LWE-8	LWI-8	8	100
LW-10	N/A	LWE-10	LWI-10	10	100
LW-12	N/A	LWE-12	LWI-12	12	100
LW-1/4	LW8-1/4	LWE-1/4	LWI-1/4	1/4	100
LW-5/16	LW8-5/16	LWE-5/16	LWI-5/16	5/16	100
LW-3/8	LW8-3/8	LWE-3/8	LWI-3/8	3/8	100
LW-7/16	LW8-7/16	LWE-7/16	LWI-7/16	7/16	50
LW-1/2	LW8-1/2	LWE-1/2	LWI-1/2	1/2	50
LW-9/16	LW8-9/16	LWE-9/16	LWI-9/16	9/16	50
LW-5/8	LW8-5/8	LWE-5/8	LWI-5/8	5/8	50
LW-3/4	LW8-3/4	LWE-3/4	LWI-3/4	3/4	25
LW-7/8	LW8-7/8	LWE-7/8	LWI-7/8	7/8	15
LW-1	LW8-1	LWE-1	LWI-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.

Standard Washers, cont'd

Fender Washers - Plated



	Grade 5 Part Number	I.D.	O.D.	Standard Packge
SAE	FENW-3/16X1	3/16	1	100
	FENW-3/16-1/14	3/16	1-1/4	100
	FENW-1/4X1	1/4	1	100
	FENW-1/4X1-1/4	1/4	1-1/4	100
	FENW-1/4X1-1/2	1/4	1-1/2	100
	FENW-1/4X2	1/4	2	100
	FENW-5/16X1-1/4	5/16	1-1/4	100

	Grade 5 Part Number	I.D.	O.D.	Standard Package
SAE	FENW-5/16X1-1/2	5/16	1-1/2	100
	FENW-3/8X1-1/4	3/8	1-1/4	100
	FENW-3/8X1-1/2	3/8	1-1/2	100
	FENW-3/8X1-5/8	3/8	1-5/8	100
	FENW-3/8X2	3/8	2	100
	FENW-1/2X1-1/2	1/2	1-1/2	100
	FENW-1/2X2	1/2	2	100

Counter Sunk Washers - Plated



Grade 5 Part Number	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	Dia.	I.D.	O.D.	Standard Package
FINW-12	12	.275	21/32	100
FINW-14	1/4	.324	25/32	100

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
SMSFPB-412	SMSPPB-412	SMSOPB-412	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	
SMSFPB-612	SMSPPB-612	SMSOPB-612	N/A	1/2	100	
SMSFPB-658	SMSPPB-658	SMSOPB-658	SMSOWPB-658	5/8	100	
SMSFPB-634	SMSPPB-634	SMSOPB-634	SMSOWPB-634	3/4	100	
SMSFPB-61	SMSPPB-61	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	8
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	SMSOPB-834	SMSOWPB-834	3/4	100	
SMSFPB-81	SMSPPB-81	SMSOPB-81	SMSOWPB-81	1	100	
SMSFPB-8114	SMSPPB-8114	SMSOPB-8114	SMSOWPB-8114	1-1/4	100	

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

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.
N/A	SMSPPB-8112	SMSOPB-8112	N/A	1-1/2	100	8
N/A	SMSPPB-8134	N/A	N/A	1-3/4	100	
N/A	SMSPPB-82	N/A	N/A	2	100	
SMSFPB-1038*	SMSPPB-1038	N/A	N/A	3/8	100	10
SMSFPB-1012	SMSPPB-1012	SMSOPB-1012	N/A	1/2	100	
SMSFPB-1058	SMSPPB-1058	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	
N/A	SMSPPB-10114	SMSOPB-10114	N/A	1-1/4	100	
N/A	SMSPPB-10112	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	12
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	
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	1/4
N/A	SMSPPB-1434	N/A	N/A	3/4	100	
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	8
TSHWB-834	3/4	100	
TSHWB-81	1	100	
TSHWB-8114	1-1/4	100	
TSHWB-8112	1-1/2	100	
TSHWB-8134	1-3/4	100	
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	

Hex Washer

Hex Washer Head Part Number	Length	Standard Package	Dia.
TSHWB-1234	3/4	100	12
TSHWB-121	1	100	
TSHWB-12114	1-1/4	100	
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	



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Self Drilling Tek Screws - Black Oxide, cont'd



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	
MSCPPSS-834	MSCOPSS-834	3/4	100	
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	
MSCPPSS-102	MSCOPSS-102	2	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
MSFPPSS-1038	MSFOPSS-1038*	3/8	100	10 - 32 Fine Thread
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	
MSCPPSS-1412	MSCOPSS-1412*	1/2	100	1/4 - 20 Coarse Thread
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	
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	

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	6
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	
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	8
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	



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-8114*	SMSPPSS-8114	SMSOPSS-8114	1-1/4	100	8
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	10
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	
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	12
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	
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	1/4
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	
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	

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

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	
TSHWSS-1012	1/2	100	10
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	
TSHWSS-144	4	50	



Phillips

Pan Head Part Number	Length	Standard Package	Dia.
TSPPSS-812	1/2	100	8
TSPPSS-834	3/4	100	
TSPPSS-1012	1/2	100	10
TSPPSS-1034	3/4	100	
TSPPSS-101	1	100	

Phillips

Pan Head Part Number	Length	Standard Package	Dia.
TSPPSS-10114	1-1/4	100	10
TSPPSS-10112	1-1/2	100	
TSPPSS-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	

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).



Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Cap Screws - Stainless Steel, cont'd



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	
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	

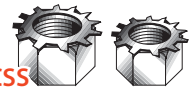
Hex

Hex Head Part Number	Length	Standard Package	Dia. & Thread Type
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	
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	

Stainless Steel Nuts

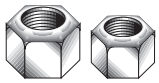
Nuts - Stainless Steel

MHNSS 

KNCSS 

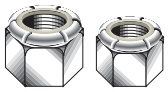
	Machine Nuts Part Number	Keps Nuts Part Number	Dia.	Standard Package
USS/ Coarse	MHNSS-632	KNCSS-6*	6 - 32	100
	MHNSS-832	KNCSS-8*	8 - 32	100
	MHNSS-1024	KNCSS-10	10 - 24	100
	MHNSS-1224	N/A	12 - 24	100
SAE/ Fine	MHNSS-1032	KNFSS-10*	10 - 32	100

Grade C Lock Nuts - Stainless Steel



	Grade C Part Number	Dia.	Standard Package
USS / Coarse	CLNCSS-1/4	1/4-20	100

Nylon Lock Nuts - Stainless Steel



	Part Number	Size	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
	NNCSS-1/2	1/2-13	50
SAE / Fine	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.

Stainless Steel Washers

SAE Flat Washers - Stainless Steel



Flat Washer Part Number	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
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



Part Number	I.D.	O.D.	Standard Package
FENWSS-3/16X1	3/16	1	100
FENWSS-1/4X1	1/4	1	100
FENWSS-1/4X1-1/4	1/4	1-1/4	100
FENWSS-1/4X1-1/2	1/4	1-1/2	100
FENWSS-5/16X1-1/2	5/16	1-1/2	100
FENWSS-3/8X1-1/2	3/8	1-1/2	100
FENWSS-1/2X2	1/2	2	100

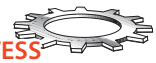
Counter Sunk Washers - Stainless Steel



Part Number	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

Lock Washers - Stainless Steel


LWSS


LWESS

Split Lock Part Number	External Tooth Lock Part Number	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	Dia.	Srandard 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

Parts marked with a * are available, but minimums greater than standard package quantities & lead times may apply.

Metric Fasteners

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	10mm	6mm - 1.00
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		
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	13mm	8mm - 1.25
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		
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	17mm	10mm - 1.50
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		
CSM-1015055	CSM-1015055109	55mm	25		
CSM-1015060	CSM-1015060109	60mm	25		

Zinc Plated Steel Alloy Cap Screws, DIN 931 - Metric, cont'd

Hex

Grade 8.8 Part Number	Grade 10.9 Part Number	Length	Standard Package	Hex	Diameter - Pitch
CSM-1015065	CSM-1015065109	65mm	25	17mm	10mm - 1.50
CSM-1015070	CSM-1015070109	70mm	25		
CSM-1015075	CSM-1015075109	75mm	25		
CSM-1015080	CSM-1015080109*	80mm	25		
CSM-1015085	CSM-1015085109*	85mm	25		
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		



Need a little bit of everything? Check out our Metric Cap Screw Kit (CAPM-40B9) on page 393 It contains a variety of our most popular sizes of Metric Cap Screws, Lock Washers, Flat Washers & Hex Nuts.

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	
SHCSM-610065	65mm	100	
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	
SHCSM-812545	45mm	100	
SHCSM-812550	50mm	100	
SHCSM-812555	55mm	100	
SHCSM-812560	60mm	100	
SHCSM-812565	65mm	100	
SHCSM-812570	70mm	100	
SHCSM-812575	75mm	100	
SHCSM-812580	80mm	100	
SHCSM-1015010	10mm	100	10mm - 1.50
SHCSM-1015012	12mm	100	
SHCSM-1015014	14mm	100	
SHCSM-1015015	15mm	100	
SHCSM-1015016	16mm	100	

Socket

Grade 12.9 Part Number	Length	Std Pkg	Diameter - Pitch
SHCSM-1015018	18mm	100	10mm - 1.50
SHCSM-1015020	20mm	100	
SHCSM-1015022	22mm	100	
SHCSM-1015025	25mm	100	
SHCSM-1015030	30mm	100	
SHCSM-1015035	35mm	100	
SHCSM-1015040	40mm	100	
SHCSM-1015045	45mm	50	
SHCSM-1015050	50mm	50	
SHCSM-1015055	55mm	50	
SHCSM-1015060	60mm	50	
SHCSM-1015065	65mm	50	
SHCSM-1015070	70mm	50	
SHCSM-1015075	75mm	50	
SHCSM-1015080	80mm	50	
SHCSM-1015090	90mm	50	
SHCSM-10150100	100mm	50	
SHCSM-10150110	110mm	50	
SHCSM-10150120	120mm	50	
SHCSM-10150130	130mm	50	
SHCSM-10150140	140mm	50	
SHCSM-10150150	150mm	50	
SHCSM-1217520	20mm	50	12mm - 1.75
SHCSM-1217522	22mm	50	
SHCSM-1217525	25mm	50	
SHCSM-1217530	30mm	50	
SHCSM-1217535	35mm	50	
SHCSM-1217540	40mm	50	
SHCSM-1217545	45mm	50	
SHCSM-1217550	50mm	50	
SHCSM-1217555	55mm	50	
SHCSM-1217560	60mm	50	
SHCSM-1217565	65mm	50	
SHCSM-1217570	70mm	25	
SHCSM-1217575	75mm	25	
SHCSM-1217580	80mm	25	
SHCSM-1217590	90mm	25	
SHCSM-12175100	100mm	25	
SHCSM-12175110	110mm	25	
SHCSM-12175120	120mm	25	
SHCSM-12175130	130mm	25	
SHCSM-12175140	140mm	25	
SHCSM-12175150	150mm	25	
SHCSM-12175160	160mm	25	

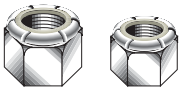
Metric Nuts

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	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	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

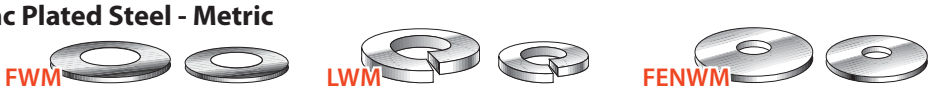
Metric Mechanical Specifications

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	Core Hardness Rockwell Max	Min Yield Strength (MPa)
8.8	Medium carbon steel: quenched & tempered	M5 - M16 M18 - M36	580 600	800 830	C22 C23	C32 C34	640 660
10.9	Low carbon alloyed steel: quenched & tempered	M5 - M36	830	1040	C32	C39	940

Metric Washers

Washers - Zinc Plated Steel - Metric



	Grade 8.8 Part Number	Grade 10.9 Part Number	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
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

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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	

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 394 for all of the details.

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	100	
CP-316X212	CPSS-316X212	2-1/2	100	
CP-316X3	CPSS-316X3	3	100	
CP-316X312	CPSS-316X312	3-1/2	100	
CP-316X4	CPSS-316X4	4	100	
CP-14X1	CPSS-14X1	1	100	
CP-14X114	CPSS-14X114	1-1/4	100	
CP-14X112	CPSS-14X112	1-1/2	100	
CP-14X134	CPSS-14X134	1-3/4	100	
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	50	
CP-14X4	CPSS-14X4	4	50	
CP-516X1	CPSS-516X1	1	50	
CP-516X114	CPSS-516X114	1-1/4	50	
CP-516X112	CPSS-516X112	1-1/2	50	
CP-516X134	CPSS-516X134	1-3/4	50	
CP-516X2	CPSS-516X2	2	50	
CP-516X214	CPSS-516X214	2-1/4	50	5/16
CP-516X212	CPSS-516X212	2-1/2	50	
CP-516X3	CPSS-516X3	3	25	
CP-516X312	CPSS-516X312	3-1/2	25	
CP-516X4	CPSS-516X4	4	25	
CP-516X5	CPSS-516X5	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	
CP-38X312	CPSS-38X312	3-1/2	25	3/8
CP-38X4	CPSS-38X4	4	25	
CP-38X5	CPSS-38X5	5	25	
CP-38X6	CPSS-38X6	6	25	

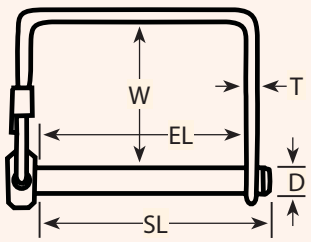
We offer more sizes in many of our hardware lines, if you don't see the size you need, contact customer service or your local sales rep & we'll be glad to locate the product that will best meet your needs.

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	.091	1.625	1/4
SNAP-250-2250S	Square	2-1/4	2-1/2			
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	.091	1.75	5/16
SNAP-312-2250S	Square	2-1/4	2-1/2			
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	.091	1.5	3/8
SNAP-375-1750R	Round	1-3/4	2			
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

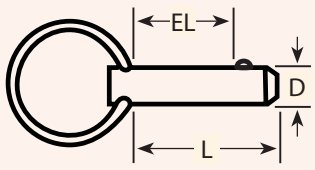


Detent Pins



Part Number	Effective Length (EL)	Overall Length (L)	Nominal Dia. (D)
DTP-0250-1000	1	1-1/4	1/4
DTP-0250-1500	1-1/2	1-3/4	
DTP-0250-2000	2	2-1/4	
DTP-0312-1000	1	1-3/8	5/16
DTP-0312-1500	1-1/2	1-7/8	
DTP-0312-2000	2	2-3/8	
DTP-0375-2000	2	2-3/8	3/8
DTP-0375-3000	3	3-3/8	
DTP-0375-4000	4	4-3/4	
DTP-0500-2000	2	2-1/2	1/2
DTP-0500-3000	3	3-1/2	
DTP-0500-4000	4	4-1/2	

Dimensions Explanation For Detent Pins



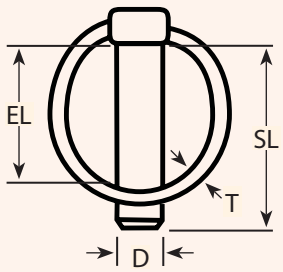
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Lynch Pins



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		

Dimensions Explanation For Lynch Pins



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 394.

All of our grease fittings are packaged in quantities of 50.

Pipe Thread

Part Number	Description	Height	Shank	Hex	Size
GF-18	Standard	11/16	19/64	7/16	1/8
GF-18L	Std. / long	1-1/4	25/32	7/16	
GF-18XL	Std. / 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	Standard	7/8	27/64	9/16	1/4

Taper Thread

Part Number	Description	Height	Shank	Hex	Size
GF-14T	Standard	35/64	3/16	5/16	1/4 -28
GF-14TL	Std. / 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	

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Grease Fittings, cont'd

Thread Forming

Part Number	Description	Height	Shank	Hex	Size
GF-18TF	Standard	35/64	3/16	5/16	1/8 NPT
GF-14TF	Std. / long	11/16	23/64	5/16	1/4-28 NPT
GF-14TF-90	90º 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	3/16 Large Flange
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

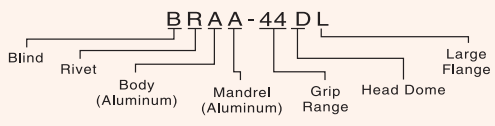
BRAS: Aluminum Rivet / Steel Mandrel

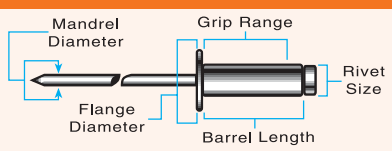
BRSS: Steel Rivet / Steel Mandrel

We offer an assortment for every type of rivet you see here: Aluminum/Aluminum (BRAA-KIT), Aluminum/Steel (BRAS-KIT) & Steel/Steel (BRSS-KIT). Get all of our most popular sizes in one box, for all of the info, see page 394.

For the perfect tool to pull all of these rivets, order our Cast Aluminum Blind Rivet Tool (RT-18) shown on page 403.

Part Number & Dimensions Explanation For Blind Rivets





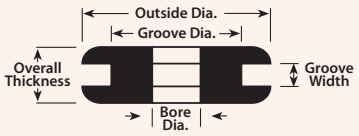
Rubber Grommets



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 394 for info.

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.

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
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



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.

O-Rings



Standard O-Rings

- Material: Nitrile (Buna N) B46-70
- Hardness: 70 Shore A Durometer
- Temp Range: -40º to 275ºF
- 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	1/16
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	
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	1/16
OR-024	1-1/8	1-1/4	
OR-025	1-3/16	1-5/16	
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	3/32
OR-111	7/16	5/8	
OR-112	1/2	11/16	
OR-113	9/16	3/4	
OR-114	5/8	13/16	
OR-115	11/16	7/8	
OR-116	3/4	15/16	
OR-210	3/4	1	1/8
OR-211	13/16	1-1/16	
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	1/8
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	
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	3/16
OR-326	1-5/8	2	
OR-327	1-3/4	2-1/8	

Hydraulic O-Rings

- Material: Nitrile (Buna N)
- Hardness: 90 Durometer
- Temp Range: -40º to 250ºF
- Performs satisfactorily in all hydraulic applications
- SAE J515 Type CH

Part Number	I.D.	Cross Section
W-252X8	.734	.139
W-252X12	.984	
W-252X16	1.296	
W-252X20	1.489	
W-252X24	1.859	
W-252X32	2.656	
W-4629X4	.301	.070
W-4629X6	.364	
W-4629X8	.489	
W-4629X10	.614	

Part Number	I.D.	Cross Section
W-4629X12	.739	.070
W-4629X16	.926	
W-4629X20	1.176	
W-4629X24	1.489	
W-7629X4	.351	.072
W-7629X5	.414	
W-7629X6	.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	.118
W-7629X24	1.720	
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.

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Cable Ties & Mounts

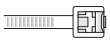
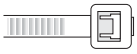
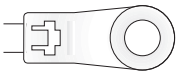
Hellerman Tyton Cable Ties

- Standard color: 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			
Black	BLK	Purple	PUR
Blue	BLU	Red	RED
Brown	BRN	Telco Gray	TGY
Green	GRN	White	WHT
Slate Gray	GRY	Yellow	YEL
Orange	ORG		

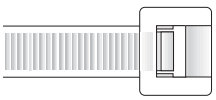
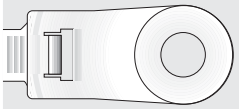
Best Selling Standard Cable Ties

- Suggested tools: TWT-1, MARK-7, MARK-9

	Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	BLK	BLU	BRN	GRN	GRY	ORG	PUR	RED	TGY	WHT	YEL
	TRS	18lbs.	3/4″	4″	.10″	X	X	X	X	X	X	X	X		X	X
 *Mounts w/ a #4 screw*	TRS-35	18lbs.	3/4″	4-1/4″	.10″	X										
	TRM-24	30lbs.	1-1/4″	6″	.14″	X	X	X	X	X	X	X	X		X	X
	TRM	50lbs.	1-3/4″	8″	.18″	X	X	X	X	X	X	X	X	X	X	X
 *Mounts w/ a #10 screw*	TRM-35	50lbs.	1-3/4″	8-1/2″	.18″	X										
	TRL-11	50lbs.	3″	11-3/4″	.18″	X	X	X	X	X	X		X		X	X
	TRL	50lbs.	4″	15-1/2″	.18″	X	X	X	X	X	X	X	X	X	X	X

Heavy Duty Cable Ties

- Suggested tools: TWT-2, MARK-9

	Part Number	Tensile Strength	Max Bundle Dia.	Length	Width	BLK	BLU	BRN	GRN	GRY	ORG	PUR	RED	TGY	WHT	YEL
	TRL-HD	120lbs.	4″	15-1/4″	.18″	X	X	X	X	X	X	X	X	X	X	X
 *Mounts w/ a 1/4″ screw*	TRL-HD-35	120lbs.	4″	16-1/4″	.30″	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 1000's. For more info contact your sales rep or customer service.

An assortment of TSC cable ties is 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 395 for details.

Hellerman Tyton Cable Ties, cont'd

Standard Cable Ties

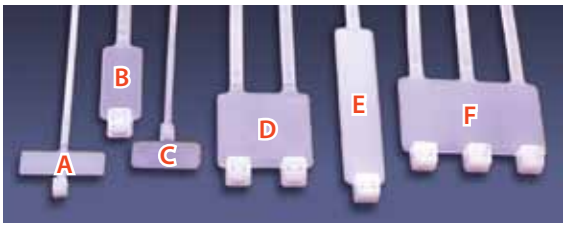
- Suggested tools: TWT-1, MARK-7, MARK-9
- Standard color: natural, to order black add -BLK to end of the part number, EX: T-18S-BLK
- Black cable ties are UV resistant



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″
T-50I	50lbs.	3″	11.75″	.18″

Identification Cable Ties

- Suggested tools: TWT-1, MARK-9
- Standard color: 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: TWT-2, MARK-9, T250-TOOL
- Standard color: 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	150lbs.	4″	15″	.35″	A
T-150M	150lbs.	6″	21″	.35″	A
T-150L	150lbs.	9″	32″	.35″	A
T-150LL	150lbs.	11″	36″	.35″	A
T-150XL	150lbs.	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: 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″

Hellerman Tyton Cable Ties, cont'd

Button Head Cable Ties

- Suggested tools: TWT-2, T-150HD
- Standard color: black
- Black cable ties are UV resistant
- Two piece tie that provides parallel entry & exits through the head
- Operating temp: -44º to 221ºF



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 tools: TWT-2, T-250-TOOL
- Standard color: 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: -40º to 230ºF



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: MARK-7, MARK-9, TWT-1
- Standard color: black
- Black cable ties are UV resistant & heat stabilized
- Grips to the inside of a .394″ hole in sheet metal, wood or cast iron
- Operating temp: -44º to 221ºF

Aerial Support Spacer Cable Ties

- Suggested tools: MARK-9, T-250-TOOL
- Standard color: black
- Ties are UV, saltwater & chemical resistant
- One piece tie designed for standard spacing applications
- Operating temp: -40º to 230ºF



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
TAS-100R	100lbs.	1.75″	7.5″	.5″
TAS-100M	100lbs.	2.75″	10″	.5″
TAS-100L	100lbs.	4.5″	16″	.5″

Clamp Cable Ties

- Suggested tools: MARK-7, MARK-9
- Standard color: 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: -40º to 185ºF (221ºF for black)



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
CTT-20R	20lbs.	.5″	4″	.10″
CTT-60R	60lbs.	1.75″	8″	.18″



Part Number	Tensile Strength	Max Bundle Dia.	Length	Width
T-50RTM	50lbs.	2″	8.39″	.18″

Hellerman Tyton Cable Tie Mounts

Fir Tree Saddle Mounts

- Secures 3 separate bundles, providing parallel spacing between frame rail & adjacent bundles
- Elevates bundles above bolt protrusions in frame rails & panels
- Tab on mount allows cable ties to be pre-assembled prior to bundles being mounted
- 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: -40º to 221ºF



Part Number	Mounting Hole	Panel Thickness	Standoff Height	Max Bundle Dia. Center	Max Bundle Dia. Sides
S3STM-50	.50"	.075" - .515"	1.3"	5"	.50" - 1.5"

Button Head Tie Saddle Mounts

- Secures 3 separate bundles, providing parallel spacing between frame rail & adjacent bundles
- Elevates bundles above bolt protrusions in frame rails & panels, protecting bundles from abrasion
- Cable tie snaps into mount allowing the strap & tie assembly to be pre-installed
- Made from high impact modified, heat stabilized, UV resistant black nylon 6/6 material
- Operating temp: -40º to 221ºF



Part Number	Mounting Hole	Panel Thickness	Standoff Height	Max Bundle Dia. Center	Max Bundle Dia. Sides
MSBT-120	.44" - .82"	.16" - .75"	.875"	6"	1"

Fir Tree Mount

- 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: -40º to 230ºF



Part Number	Mounting Hole	Panel Thickness	Length	Width
FT-6	.256"-.276"	.028"-.193"	.53"	.63"
FT-10	.394"	.031"-.236"	.75"	.71"

Heavy Duty Stud Mounts

- Tab inside mounting hole temporarily engages threads in order to pre-install the mount on a stud before securing w/ a washer & nut
- Works w/ cable ties up to .5" wide
- Made of UV resistant, 6/6 black nylon
- Operating temp: -40º to 176ºF



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"

Low Profile Mounts

- Secures bundles where space is limited
- Standard color: natural
- Operating temp: -44º to 185ºF



Part Number	Cable Tie Series	Mounting	Length	Width
MB-2	T18 thru T50	#8 screw	.810"	.495"

Anchor Mounts

- Ties can be inserted from any side, so mount can be placed parallel or perpendicular to wires
- Standard color: white, to order black add -BLK to end of the part number, EX: CTAM-1-BLK
- Operating temp: -44º to 185ºF



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"

Hellerman Tyton Cable Tie Mounts, cont'd

Single Screw Mounts



- Secured w/ single screw
- Standard color: white, to order black add -BLK to end of the part number, EX: CTM-0-BLK
- Operating temp: -40º to 185ºF

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: white, to order black add -BLK to end of the part number, EX: MB-4-SH-BLK
- Operating temp: -40º to 185ºF

Part Number	Cable Tie Series	Mounting	Length	Width
MB-4/SH	T18 thru T50	#6 screw	1.125″	1.125″
MB-4A/SH	T18 thru T50	Adhesive	1.125″	1.125″

Push Mounts



- Once installed in pre-drilled hole, the mount locks into place
- Max panel thickness: .134″
- Standard color: white, to order black add -BLK to end of the part number, EX: TM1/SF-BLK
- Operating temp: -40º to 185ºF

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: white, to order black add -BLK to end of the part number, EX: MB-3-BLK
- Operating temp: -40º to 185ºF

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″

Thomas & Betts Cable Ties

Standard Cable Ties

- Standard color: 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: -40º to 185ºF



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″

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″

Clamps

Cable Clamps

Nylon Cable Clamps

- Suitable for outdoor applications
- Standard color: white, to order black add -BLK to end of the part number, EX: 6B-1/8-BLK
- Operating temp: -40º to 221ºF

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 w/ hose in place
- Material is a glass filled nylon
- Temperature range: -40º to 221ºF
- Standard color: 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: gray
- Operating temp: -40º to 150ºF



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 w/ 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 w/ zinc plated finish & has elongated bottom hole
- Insulation is black vinyl, 1/32" thick
- Temp rating: -30° to 180°F

For the correct part number, use the quantities in the chart below (for bulk quantities, use -BULK), following this example:

RBC-7/8-15

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	3/4	13/32	25/50	1000
RBC-3/8	3/8	3/4	13/32	25/50	500
RBC-1/2	1/2	3/4	13/32	10/25	500
RBC-5/8	5/8	3/4	13/32	10/25	500
RBC-3/4	3/4	3/4	13/32	10/25	500
RBC-7/8	7/8	3/4	13/32	15/25	500
RBC-1	1	3/4	13/32	10/15	500
RBC-1-1/4	1-1/4	3/4	13/32	10/15	500
RBC-1-1/2	1-1/2	3/4	13/32	10/15	350
RBC-2	2	3/4	13/32	15	250
RBC-2-1/2	2-1/2	3/4	13/32	10	250
RBC-3	3	3/4	13/32	10	200



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

Check out our Vinyl Insulated Clamp Kit (RBC-KIT) full of all of the RBC's you'll ever need. See all of the details on page 394.

Rubber Cushion Clamps

- Clamp is covered with a black rubber jacket for cushion & added protection

For the correct part number, use the quantities in the chart below (for bulk quantities, use -BULK for steel & -BK for stainless steel), following this example:

RCC-1414-100



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	-
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	Diameter 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	Diameter 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	MS36	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	Diameter 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	Diameter 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

Part Number	Diameter Min	Diameter 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	Diameter 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	Diameter 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″

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 Min	Diameter Max
8HL	5/8″	1″
10HL	3/4″	1-1/16″
12HL	7/8″	1-1/4″
16HL	1″	1-1/2″
20HL	1-1/8″	1-3/4″
24HL	1-1/4″	2″

Part Number	Diameter Min	Diameter Max
28HL	1-5/16″	2-1/4″
32HL	1-9/16″	2-1/2″
36HL	1-13/16″	2-3/4″
40HL	2-1/16″	3″
44HL	2-5/16″	3-1/4″
48HL	2-9/16″	3-1/2″

Part Number	Diameter Min	Diameter Max
52HL	2-13/16″	3-3/4″
56HL	3-1/16″	4″
60HL	3-5/16″	4-1/4″
64HL	3-9/16″	4-1/2″
72HL	4-1/16″	5″

Hose Clamp Racks

Large Hose Clamp Assortment

- Durable, heavy duty epoxy steel
- Free-standing or wall-mountable
- Customizable w/ movable clamp hooks
- Accommodates overstocked boxed clamps
- Fits most popular sizes



Part Number	Supplied I.D.
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
- Free-standing or wall-mountable
- Fits most popular sizes



Part Number	Supplied I.D.
HCR-6200	Empty rack (22-3/4"H x 21-1/2"W x 8"D)
HCR-6210	200 piece rack assortment

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: -40º to 300ºF
- Standard color: black
- 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'

Convoluted Split Loom & Accessories, cont'd

Loom Tees

- Black nylon loom tee 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-372525	3/8″	1/4″	1/4″
NT-372537	3/8″	1/4″	3/8″
NT-502550	1/2″	1/4″	1/2″
NT-752575	3/4″	1/4″	3/4″
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-502525	1/2″	1/4″	1/4″
NT-753775	3/4″	3/8″	3/4″
NT-373737	3/8″	3/8″	3/8″
NT-503750	1/2″	3/8″	1/2″

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 this PLS loom with our loom installation tool (PLST-1 thru -4). See page 404 for more info.

Loom Mounting Clips

- Secures loom ends & provides a quick mount
- Snaps into a 1/2″ dia. hole in up to .15″ 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
12040683	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 though the openings of the wrap
- Temperature rating: -104º to 213ºF
- Standard color: natural, to order black add -BLK to end of the part number, along w/ desired footage, EX: SW-1/8-100-BLK



Part Number	Nominal I.D.	Expansion Size Min	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′ / 500′
SW-1/2	1/2″	1/2″	4″	100′ / 500′
SW-3/4	3/4″	3/4″	5″	100′
SW-1	1″	1″	7″	100′

Fabric Loom

- Bituminous coated woven loom protects wire, air brake tubing, fuel lines & control rods from abrasion, noise & short circuits
- Temperature rating: to 350ºF
- Standard color: black
- To order correct footage add the desired length or -2500 for coiled bulk qty. to the end of the part number, EX: FL-3/8-100



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′

Expandable Self-Fitting Loom

- Made of flexible & lightweight polyester filaments resistant to gasoline, engine chemical, cleaning solvents, cuts & abrasion
- Temperature rating: -94ºto 257ºF, 446ºF short term
- FMZSS 302 Approved
- Standard color: black
- May be cut to length



Part Number	Nominal I.D.	Expansion Size Min	Max	Standard Qty.
XS-100-1/8	1/8″	3/32″	1/4″	25′ / 50′ / 100′
XS-100-1/4	1/4″	1/8″	7/16″	25′ / 50′ / 100′
XS-100-3/8	3/8″	3/16″	1/2″	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″	1-3/4″	25′ / 50′ / 100′
XS-100-1-1/2	1-1/2″	3/8″	1″	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″	3-1/2″	25′ / 50′ / 100′
XS-100-2-1/2	2-1/2″	1-3/4″	3-5/8″	25′ / 50′ / 100′

Split Semi-Rigid Sleeving

- Wrapable, split tube made of 10mil PET braid
- Temperature rating: -103º to 257ºF; will retain shape & rigidity while remaining flexible; melt temp is 482ºF
- Standard color: black
- May be cut to length, to order boxed bulk qty., add -BOXED to the end of the part number, EX: F6-1/8-BOXED
- 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′

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 194 for details on our capabilities and contact customer service to get started.

Shrink Tubing

Non-Adhesive Lined Shrink Tubing

Polyolefin - Multi Purpose

- Shrink ratio: 2:1 @ 249ºF
- Temperature rating: -67º to 275ºF
- MIL-I-23053/5; E-39100; LR 38227
- 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). To order correct color, add abbreviation to the end of the part number, EX: TSC-221-3/64-BU (TSC-221-2 comes only in black & red)
- Minimums may apply on all colors

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	SM-221-3/64	100'	LG-221-3/64	1000'	3/64"	1/64"	.0102"
TSC-221-1/16	SM-221-1/16	100'	LG-221-1/16	1000'	1/16"	1/32"	.017"
TSC-221-3/32	SM-221-3/32	100'	LG-221-3/32	500'	3/32"	3/64"	.02"
TSC-221-1/8	SM-221-1/8	100'	LG-221-1/8	500'	1/8"	1/16"	.02"
TSC-221-3/16	SM-221-3/16	100'	LG-221-3/16	250'	3/16"	3/32"	.02"
TSC-221-1/4	SM-221-1/4	100'	LG-221-1/4	200'	1/4"	1/8"	.025"
TSC-221-3/8	SM-221-3/8	100'	LG-221-3/8	200'	3/8"	3/16"	.025"
TSC-221-1/2	SM-221-1/2	100'	LG-221-1/2	200'	1/2"	1/4"	.025"
TSC-221-3/4	SM-221-3/4	50'	LG-221-3/4	200'	3/4"	3/8"	.03"
TSC-221-1	SM-221-1	50'	LG-221-1	100'	1"	1/2"	.035"
TSC-221-1-1/2	N/A	-	LG-221-1-1/2	100'	1-1/2"	3/4"	.04"
TSC-221-2	N/A	-	LG-221-2	100'	2"	1"	.045"
TSC-221-3	N/A	-	LG-221-3	50'	3"	1-1/2"	.05"
TSC-221-4	N/A	-	LG-221-4	50'	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 ratio: 2:1 @ 230ºF
- Temperature rating: -31º to 221ºF
- MIL-I-23053/2, Class 2; UL-224, VW-1; AMS 3579
- 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 ratio: 3:1 @ 248ºF
- Temperature rating: -40º to 275ºF
- MIL-M23053/15, Class 1; UL-224, C22.2 no.198.1
- 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, i.e., TSC-700-18B-4'
- Standard color: black (B) or red (R), to order add the color abbreviation to the end of the part number, EX: TSC-700-18R (minimums may apply for red, please inquire)



- We also offer 3/4" & 1-7/64", in red & black, in handy 1.5" pieces. To order, use the part numbers: TSC-715-21R & TSC-715B for 3/4" size & TSC-715-22R & TSC-715-22B for 1-7/64" size.

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 ratio: 3:1 @ 248ºF
- Temperature rating: -67º to 230ºF
- MIL-M23053/4; UL-224; C22.2 no.198.1
- 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, i.e., 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 ratio: 3:1 @ 275ºF
- Temperature rating: -67º to 230ºF
- MIL-I-23053/4C, Class 1; UL-224
- Features: semi-rigid heavy wall protection, highly flexible, flame retardant, low shrink temp, abrasion resistant



- Length: 6″ is standard, to order in 48″ pieces, add a -4′ to the end of the part number, EX: ST-300-1-4′
- Colors: black

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″

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.

Shrink Tube Supplied I.D.	Terminal Sizes				
	Non-Insulated Terminals	Nylon / PVC Terminals	Copper Lugs (BCL)	Heavy Duty Lugs (HDL)	Battery Terminals (SBT - ST - SBTF)
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 ratio: 3:1 @ 248ºF
- Temperature rating: -67º to 230ºF
- MIL-DTL-23053/4, Class 3; E-159226
- Features: bonds to plastics, rubber, neoprene, steel & polyethylene, superior sealing against moisture & contaminants, great coverage of irregularly shaped objects



- Colors: black is standard, to order in red, add an -RED to the end of the part number, EX: MWS-01-06S-RED (MWS-07-12S & MWS-09-12S are not available in red)

Part Number	Supplied I.D.	Shrink I.D.	Length
MWS-01-06S	1/8"	1/32"	6"
MWS-1.5-062	3/16"	1/16"	6"
MWS-02-06S	1/4"	3/32"	6"
MWS-03-062	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 ratio: 3:1 @ 248ºF
- Temperature rating: -67º to 230ºF
- MIL-DTL-23053/4, Class 3; E-159226
- Features: superior sealing against water, moisture & contaminants



- Length: 6" is standard, to order in 48", add a -4' to the end of the part number, EX: TWC-1/8-4'
- Colors: clear

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.

	Non-Adhesive Lined Shrink Tube					Adhesive Lined Shrink Tube							
Available Colors	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							X		
Clear	X	X	X	X									X
Green	X	X	X										
Red	X	X	X	X		X	X	X		X			
White	X	X	X	X									
Yellow	X	X	X	X								X	

Adhesive Lined Shrink Tubing, cont'd

Polyolefin - Color Coded

- Shrink ratio: 3:1 @ 248ºF
- Temperature rating: -67º to 230ºF
- MIL-1-23053/4, Class 1; E-157227; AMS 3534



- 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

Terminal Supply also offers wide selection of torches & heat guns perfect for creating moisture proof seals with your shrink tube. See pages 405 & 406 of our catalog for all of the details

Tape & Sealant

Duct Tape

Duct Tape

- Features: excellent adhesion, strong, pliable, waterproof & can be easily torn from the side



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-GREEN	2″	180′	
DT-345-BROWN	2″	180′	
DT-345-RED	2″	180′	
DT-345-WHITE	2″	180′	

Clear Duct Tape

- Transparent duct tape that is excellent in a variety of general applications
- Cannot be seen when applied



Part Number	Width	Length	Packaged As
DT-18860-CLR	1.88″	60′	Single or 12/case

Gorilla Tape

- Twice the tensile strength & adhesive thickness as other duct tapes
- Adheres to tough surfaces including brick, wood & plaster
- Black in color



Part Number	Width	Length	Packaged As
GDT-260	2″	35yd.	Single or 18/case

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

Part Number	Description	Size	Packaged As
LET-2	Bottle w/ brush	2oz.	Single or 12/case
LET-4	Can w/ brush	4oz.	
LET-16	Standard bottle	16oz.	Single

Economy Electrical Tape

- 7 mil thick general purpose PVC w/ maximum adhesive quality perfect for indoor applications
- Strong, flexible, flame retardant
- Temp rating: 176ºF



Part Number	Width	Length	Packaged As
1700-TAPE	3/4"	60'	10/pack or 100/case

All Purpose Electrical Tape

- 7 mil thick all-weather PVC
- Features: resistant to flame, abrasion, moisture, alkalines, solvents & oils
- Temp rating: 220ºF



Part Number	Width	Length	Packaged As
ST-33	3/4"	66'	Single, 10/box or 100/case
ST-33-20	3/4"	20'	

Colored All Purpose Electrical Tape

- 7 mil thick all-weather PVC
- Features: resistant to flame, abrasion, moisture, alkalines, solvents & oils
- Temp rating: 220ºF



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'	

Premium Electrical Tape

- 8.5 mil premium vinyl
- Features: rated to 600V, resists UV rays, flame, abrasion, corrosion, alkaline & acids
- Temp rating: 220ºF



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!

Splicing Tape

Linerless Rubber Splicing Tape

- 30 mil bonding, linerless rubber splicing tape
- Features: flame retardant, self extinguishing
- Temp rating: 194ºF, 266ºF short term



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
- Temp rating: 194ºF, 266ºF short term



Part Number	Width	Length	Packaged As
23-TAPE-3/4	3/4″	30′	Single
23-TAPE-1	1″	30′	
23-TAPE-1-1/2	1-1/2″	30′	
23-TAPE-2	2″	30′	

Miscellaneous Tape

Aluminum Foil Tape

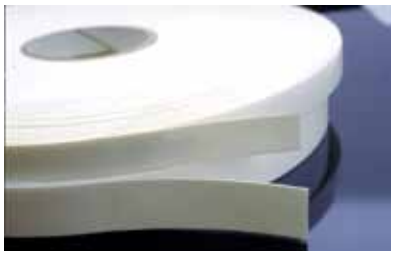
- Rated E84 for flame spread & smoke development
- Strong adhesive blocks odors & moisture



Part Number	Width	Length	Packaged As
AFT-250	2″	150′	Single or 24/case

Double Coated Foam Tape

- 1/16″ thick
- Polyethylene foam w/ 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

Teflon Tape

- Pipe thread seal tape
- Features: chemically inert, resists corrosion, insures leak-proof joints
- MIL-T-27730A
- Temp rating: -150º to 500ºF



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
- Temp rating: 266ºF



Part Number	Width	Length	Packaged As
27-TAPE-1/2	1/2″	66′	Single, 10/ pack
27-TAPE-3/4	3/4″	66′	

Miscellaneous Tape, cont'd

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



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 page172.

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
- Temp rating: 32º to 100ºF



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

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



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

Masking Tape

- Utility grade masking tape
- Features: excellent adhesion, good 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

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: 151ºF short term



Part Number	Width	Length	Packaged As
CST-2110	1-4/5″	109yd.	Single or 36/case

Adhesive Sealant

- Features: tough, abrasion resistant, flexible, non-corrosive
- Full cure time: 24hrs. for thin film, 48-72hrs. for thick film
- Adheres to glass, metal, plastic, wood & more
- Paintable w/ water or oil based paints
- Temp range: -40º to 150ºF

Self-Leveling Formula

- Can be used as potting material in electrical & computer applications



Part Number	Color	Size	Packaged As
E-6000-TUBE-BK	Black	3.7 oz. tube	Single or 12/case
E-6000-TUBE-CL	Clear	3.7 oz. tube	
E-6000-CART-BK	Black	10.2 oz. cartridge	
E-6000-CART-CL	Clear	10.2 oz. cartridge	

Non-Sag Formula

- Won't slump or run, ideal for overhead or vertical applications



Part Number	Color	Size	Packaged As
E-6100-TUBE-BK	Black	3.7 oz. tube	Single or 12/case
E-6100-TUBE-CL	Clear	3.7 oz. tube	
E-6100-CART-BK	Black	10.2 oz. cartridge	
E-6100-CART-CL	Clear	10.2 oz. cartridge	

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 419.

Mechanics Wire



- Thousands of uses; will secure just about everything
- Black in color
- Solid stranded, single conductor w/ 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'

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′	Black	-70º to 200ºF
TS-1000-LOOP	1″ x 75′		
TS-HOOK&LOOP	1″ x 75′		
TS-2-HOOK	2″ x 75′		
TS-2-LOOP	2″ x 75′		
TS-2-HOOK&LOOP	2″ x 75′		

3M™ Brand Hook & Loop

- Rubber adhesive backed, nylon hook & loop fastening system
- For various applications on clean, smooth & dry surfaces



Part Number	Size	Color	Temp Range
MP-3541/42	1″ x 15′	Black	-20º to 158ºF
MP-3526/27B	1″ x 15′	Black	-20º to 120ºF
MP-3526/27W	1″ x 15′	White	-20º to 120ºF

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, minimums may apply, please inquire



Part Number	Size	Color	Temp Range
1-WRAP-12″	1″ x 12″	Black	0º to 222ºF
1-WRAP-25′	1″ x 25′		
1-WRAP-50′	1″ x 50′		
1-WRAP-75′	1″ x 75′		

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″	Black	0º to 220ºF
1-WRAP-346	3/4″ x 6″		
1-WRAP-18	1″ x 8″		

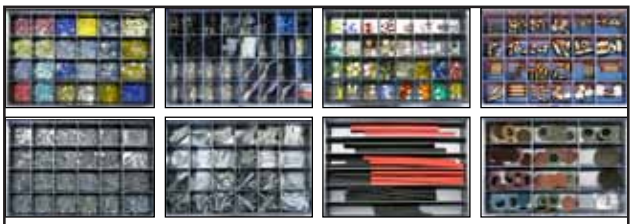
Arrowhead Design Hook



- 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″	Black	0 to 225ºF
TS-HOOK-C25	1″ x 25yd.		

Contents



Kits **390**

- Terminal Kits 390
- Connector Kits 390
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- Wire Kits 391
- Fuse Kits 392
- Miniature Bulb Kits 392
- Brass Kits 393
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- Hardware Kits 394
- Securing Product Kits 394
- Tool Kits 395



Storage Units **396**

REFERENCE

Custom Kits 395

Kits

Terminal Kits

Large Auto Kit - Nylon

- 22-10ga. nylon terminals, splices & quick disconnects



Part Number	Total Pieces	Box
AUTO-KIT-LG-N	1002	LMB-24

Large Maintenance Kit - Nylon

- 16-6ga. nylon terminals, splices & spades



Part Number	Total Pieces	Box
MAINT-KIT-LG-N	760	LMB-24

Shrink Terminal Kit

- 22-10ga. adhesive lined terminals, splices & quick disconnects



Part Number	Total Pieces	Box
PERMA-SEAL-KIT	532	LMB-24

Master Shrink Terminal Kit - Lg

- 22-8ga. nylon terminals, splices & quick disconnects



Part Number	Total Pieces	Box
MSK-32	475	LMB-32

Master Shrink Terminal Kit

- 22-8ga. nylon terminals, splices & quick disconnects



Part Number	Total Pieces	Box
MSK-24	205	LMB-24

Shrink Butt Connector Kit

- 22-10ga. shrink butt & step down butt connectors



Part Number	Total Pieces	Box
STC-KIT-SM	65	SPB-5

Other Available Terminal Kits

PVC Terminal Kits (AUTO-KIT-LG-P), High Temperature Terminal Kits (HTT-KIT-SM), Solder Terminal Kit (SOLDER-T-KIT)

Connector Kits

Weather Pack Connector Kit

- Housings, terminals, crimper, removal tool & cable ties



Part Number	Total Pieces	Box
WP-2003	405	LMB-21

Metri-Pack 150 Series Kit

- Sealed connectors, terminals & seals



Part Number	Total Pieces	Box
MP-150-KIT	365	LMB-32

Metri-Pack 280 Series Kit

- Sealed connectors, terminals & seals



Part Number	Total Pieces	Box
MP-280-KIT	420	LMB-32

Connector Kits, cont'd

Deutsch Kit

- Connectors, terminals, locks & seals



Part Number	Total Pieces	Box
DE-DTO-KIT	164	LMB-32
DE-DT-KIT	165 (includes crimper)	LMB-32

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)

Battery Product Kits

Copper Lug Kit

- 6ga. - 250MCM copper lugs



Part Number	Total Pieces	Box
COPPER LUG-KIT	226	LMB-24

Heavy Duty Terminal Lug Kit

- 6-4/0ga. terminal lugs



Part Number	Total Pieces	Box
HDL-KIT	170	LMB-12

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 Caddy Kit

- Nylon terminals & quick disconnects, wire stripper/cutter, cable ties & 18-8ga. GXL wire





Part Number	Total Pieces		Box
TS-WC-KIT	Top: 401	Bottom: 800ft. of wire	TS-WCH

Terminal Supply Co. stocks the kits you see in this section, and many more. To see a complete listing of our standard kits, log on to www.Go2TSC.com & click on Kits in our product catalog.

Fuse Kits

LED ATO Fuse Kit

- 3 - 30 amp ATO-LED fuses w/ LED to indicate bad fuses



Part Number	Total Pieces	Box
ATO-LED-KIT-SM	80	SPB-9

Large ATO Fuse Kit

- 1 - 30 amp ATO fuses & fuse tester/puller



Part Number	Total Pieces	Box
ATO-KIT-LARGE	167	PB-12

Miniature Fuse Kit

- 3 - 30 amp MINI fuses



Part Number	Total Pieces	Box
MINI-FUSE-KIT	58	SPB-9

Master Fuse Kit

- 3 - 30 amp MINI, ATO, MAXI fuses & fuse tester/puller



Part Number	Total Pieces	Box
TS-MFK	258	LMB-32

JCASE Fuse Kit

- 20 - 60 amp JCASE fuses



Part Number	Total Pieces	Box
JCAS-FUSE-KIT	25	K203

Glass Fuse Kit

- 2 - 30amp AGC fuses, 9 - 20 amp SFE fuses & fuse taps



Part Number	Total Pieces	Box
GLASS FUSE-KIT	300	PB-12

Other Available Fuse Kits

Maxi Fuse Kit (MAX-FUSE-KIT), ATO & MINI Fuse Kit (ATO/MIN-FUSE-KIT), PAL Fuse Kit (094424), Low Profile Mini Fuse Kit (ATM-LP-KIT)

Miniature Bulb Kits

Miniature Bulb Kit

- Due to their delicate nature, 11 boxes of bulbs are packed separate from the LMB-12.
- This is only a representation, bulbs are not to size



Part Number	Total Pieces	Box
MIN-BULB-KIT	140	LMB-12

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	Box
ABFK-36	192	MB-36

Brass Pipe Fitting Kit

- Bushings, hex head plugs, long & close nipples, couplings, & 90º street elbows



Part Number	Total Pieces	Box
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	Box
BPN-KIT-16	78	LMB-16

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	Box
TK-KIT-LG	570	LMB-24
TK-KIT-BLK	570 (black)	LMB-24

Metric Cap Screw Kit

- Screws, hex nuts, flat & lock washers in 8.8 or 10.9 grade



Part Number	Total Pieces	Box
CAPM-40B9	1210	40B9
CAPM109-40B9	1125	40B9

Sheet Metal Screw Kit

- Pan phillips head sheet metal screws, 1/4" - 1-1/2" in length



Part Number	Total Pieces	Box
SMSPP-KIT-LG	1200	LMB-24

Standard Cap Screw Kits



- Coarse screws, hex nuts, flat & lock washers

	Grade 5 Part Number	Grade 8 Part Number	Total Pieces	Box
USS	40B12-AST-5	40B12-AST-8	2125	40B12
	72B12-AST-5	72B12-AST-8	2625	72B12
SAE	40B12-AST-5F	40B12-AST-8F	2125	40B12
	72B12-AST-5F	72B12-AST-8F	2625	72B12

Other Available Fastener Kits

Quadrex Screw Kits
(QDS-KIT-LONG & QDS-KIT-SHORT)
Stainless Steel Cap Screw Kits
(CSCSS-KIT-LG & CSCSS-KIT-40B9)
Machine Screw Kits
(MSPP-KIT-LG & MSRS-KIT-LG)
Coarse Scoket Head Screw Kit
(SHCSC-MB36)
Fender Washer Kit
FEN-WASH-KIT
Misc. Nuts Kit
(NUT-KIT)

Hardware Kits

Grease Fitting Kit

- Metric & standard sizes in straight, 45º & 90º angle



Part Number	Total Pieces	Box
GREASEFIT-KIT	360	LMB-24

Cotter Pin Kit

- Cotter pins ranging from 1/16" x 1" to 3/8" x 2-1/2"



Part Number	Total Pieces	Box
CP-KIT-LG	1135	LMB-24

O-Ring Kit

- Standard: 1-/8" - 1-3/4" I.D.
- Metric: 3mm - 44mm I.D.



Part Number	Total Pieces	Box
OR-KIT	402 (std)	Custom
MOR-KIT	402 (metric)	Custom

Rubber Grommet Kit

- 1/8" to 1" bore diameter



Part Number	Total Pieces	Box
GROMMET-KIT	579	LMB-32

Rivet Kits

- Various sizes, 1/8" - 3/16"



Part Number	Total Pieces	Box
BRAA-KIT	1400 aluminum	LMB-16
BRAS-KIT	1200 alum/steel	LMB-16

Hitch Pin Kit

- Sizes 3/4" to 3-1/4"



Part Number	Total Pieces	Box
HIPC-KIT	210	LMB-12

Other Available Hardware Kits

Lynch, Snapper & Detent Pin Kit (SP-PIN-KIT), Hydraulic O-Ring Kit (W-TSOR-24), Snap Bushing Kits (SB-KIT-LG & SB-KIT-SM)

Securing Product Kits

Hose Clamp Kit

- Sizes ranging from 3/8" to 1-9/16" inside dia.



Part Number	Total Pieces	Box
HC-KIT-H	175	LMB-12

Adhesive Lined Shrink Tube Kit

- 7 different sizes to handle 18ga. to 2/0ga. wires



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

Rubber Coated Clamp Kit

- RBC clamps in sizes ranging from 3/16" to 2"



Part Number	Total Pieces	Box
RBC-KIT	220	LMB-12

Securing Product Kits, cont'd

Black & Natural Cable Tie Kits

- 4-1/16" to 15-1/2" in length w/ adhesive 4-way mounts



Part Number	Total Pieces	Box
TIE-RAP-KIT-BLK	650 (black)	LMB-6
TIE-RAP-KIT	650 (natural)	LMB-6

Colored Cable Tie Kit

- 4", 6" & 8" lengths



Part Number	Total Pieces	Box
TIE-COLOR-KIT	750	T-806

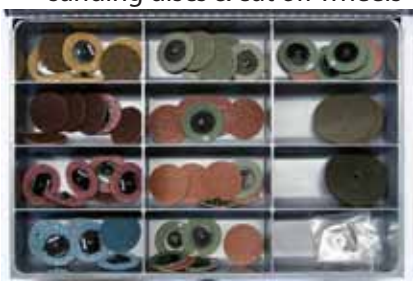
Other Available Securing Product Kits

Shrink Tube Kit - 3" pcs.
(RST-KIT)
Medium Cable Shrink Tube Kit
(MWS-KIT)
Cable Tie Mount Kit
(RAIL-KIT-1 & RAIL-KIT-2)
Loom Tee Kit
(PLST-KIT)
Hose Protector Kit
(HP-KIT-LG)
Stainless Steel Hose Clamp Kit
(HCSS-KIT-H)

Tool Kits

Abrasive Kit

- Surface conditioning discs, sanding discs & cut off wheels



Part Number	Total Pieces	Box
TS-ABRASIVE-KIT	63	LMB-12

Insertion & Removal Tool Kit

- Packard, Deutsch, Molex & AMP insertion & removal tools



Part Number	Total Pieces	Box
INS-REM-KIT	13	PB-6

Other Available Tool Kits

Drill Bit Kits, see pages 414 & 415 for all of the drill bit kits we offer.

Custom Kits



Terminal Supply Co. is proud to customize kits for many of our customers. We can let you arrange a kit with exactly the parts you need and we'll include a custom designed lidsheet 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.

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

SMB Series: Metal Boxes

- 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 Boxes

- 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, up to 32

LPB Series: Plastic Boxes

- 18-1/2″ x 3″ x 13″



Part Number	Slots
LPB-16	16
LPB-21	21
LPB-24	24
LPB-32	32

Metal Housing Storage Racks*

- LMB-H-HD has heavy duty bearing slides & each drawer can hold up to 75lbs.





**Metal boxes sold separately*

Part Number	Drawers	Dimensions (W x H x D)
SMB-H	6	15-1/4″ x 16-3/8″ x 11-3/4″
LMB-H	4	20″ x 15″ x 15-3/4″
LMB-H-HD	4	20″ x 15″ x 15-3/4″

Rack & Bin Bases



Part Number	Type	Dimensions (W x H x D)
315-BASE	SMB	15-1/2″ x 15-1/8″ x 12-1/8″
304-BASE	LMB	20-3/8″ x 15-1/8″ x 16″
382-BASE	8-1/2″ bin	33-3/4 x 5-3/4″ x 9″
364-BASE	12″ bin	33-3/4″ x 5-3/4″ x 12-1/4″

Storage Units, cont'd

Metal Utility Cabinets



Part Number	Description	Dimensions (W x H x D)
UC-056	Lock sold separately	19-7/8" x 32-3/4" x 14-1/4"
UC-343	Includes lock & 2 keys	33-3/4" x 22-1/4" x 8-1/2"

Metal Drawer Cabinets

- Other configurations available



Part Number	Racks	Dimensions (W x H x D)
DRC-12	12	33-3/4" x 7-3/8" x 11-5/8"
DRC-18	18	33-3/4" x 10-7/8" x 11-5/8"
DRC-24	24	33-3/4" x 14-3/4" x 11-5/8"
DRC-30	30	33-3/4" x 17-3/4" x 11-5/8"

Multi-Purpose Bins

- Internal bins are: 3-7/8"W x 3-3/4"H x 4-5/8"D



Part Number	Slots	Dimensions (W x H x D)
MB-18	18	23-3/4" x 12-1/2" x 4-3/4"
MB-36	36	23-3/4" x 23-3/4" x 4-3/4"

Heavy Duty Bins



Part Number	Slots	Dimensions (W x H x D)
18B12	18	33-3/4" x 19-1/4" x 12"
24B12	24	33-3/4" x 23-7/8" x 12"
32B12	32	33-3/4" x 19-1/4" x 12"
40B12	40	33-3/4" x 23-7/8" x 12"
56B12	56	33-3/4" x 42" x 12"
72B12	72	33-3/4" x 42" x 12"
32B9	32	33-3/4" x 19-1/4" x 8-1/2"
40B9	40	33-3/4" x 22-1/4" x 8-1/2"
56B9	56	33-3/4" x 42" x 8-1/2"
72B9	72	33-3/4" x 42" x 8-1/2"

Aerosol Can Caddy



Part Number	Holds	Dimensions
CAN CADDY	6 cans	21-1/2" x 5-1/4" x 3-1/8"

Storage Units, cont'd

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 Caddy

- 5 rods for storing 8 spools of wire
- Box on top has 9 small compartments, a lockable top & handle



Part Number	Dimensions (W x H x D)
TS-WCH	11" x 16-3/4" x 7-1/2"

Wire Holders

- All steel welded frames
- Pinless design eliminates loose parts









Part Number	Size	Capacity	Fig.
GRN-909	39"L x 30"W x 31"H	Six 2500ft. spools up to 18" dia. & 13" wide	A
GRN-9516	51-1/2"H x 34-1/2"W	Ten 2500ft. spools of 10ga. wire up to 15" dia., 14.63" wide & 750lbs.	B
GRN-9515	45-1/2"H x 34-1/2"W	Sixty 500ft. spools of 12ga. wire up to 7.5" dia., 14.75" wide & 600lbs.	C
GRN-9505	46-5/8"L x 28-1/4"H	4000ft. 10ga. wire up to 7.5" dia., 18" wide & 250lbs.	D

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 don't see what you're looking for in our catalog, contact customer service or your local sales rep and we'll find you something to meet your exact needs.



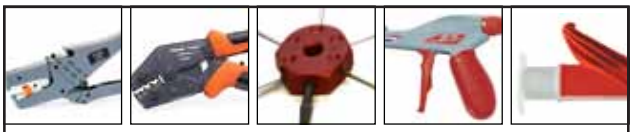








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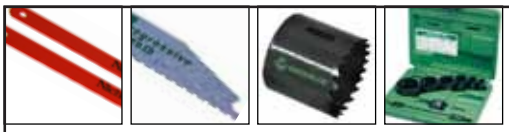
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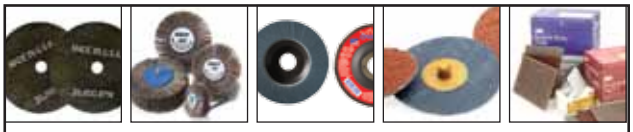
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- Terminal Supply Co. Abrasives 416
- 3M Abrasives 416
- SAIT United Abrasives Abrasives 418

REFERENCE

ORM-D & HAZ-MAT Shipping Fees 406

Tools

Wire Strippers



Part Number	Description	Fig.
PA-904893	Wire range: 20-12ga. Fully insulated to 600V. Blades stay aligned & sharp for 200,000 strips for clean, square cuts.	A
PA-901022	Replacement blades for PA-904893	-
1003	Wire range: 26-12ga. Without spring. Compact tool w/ convenient hole for looping or bending wire.	B
1004	Wire range: 26-12ga. With spring. Compact tool w/ convenient hole for looping or bending wire.	C
3000	Wire range: 22-10ga. Versatile wire stripper.	D
L-4421	Replacement blades for 3000	-
45-671	Wire range: 22-16ga. Wire gripper holds wire centered in hole.	E
LB-1001	Replacement blades for 45-671	-
KL-11045	Wire range: 18-10ga. Spring loaded action for easy operation. Features narrow nose & holes for looping wire.	F

Wire Stripper / Crimper



Part Number	Description
RAR-100	Wire range: 26 - 10ga. Crimps: insulated & non-insulated terminal 22-10ga. & ignition terminals 7-8mm. Brass adjustment knob.

Cable Strippers



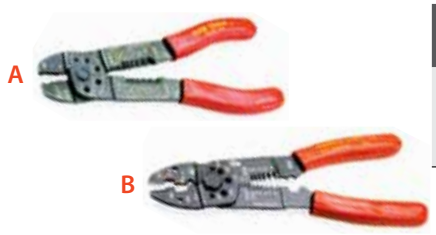
Part Number	Description
45-128	Wire range: 1/4" - 3/4" O.D., insulation to 5/32" thick: PVC rubber, neoprene, teflon, polyethylene, nylon, kapton, fiberglass, fabric, etc.
4216-001	Replacement blades

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 Crimper/Cutters



Part Number	Description	Fig.
1000	Crimps: 26-10ga., 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 non-insulated & ignition terminals.	A
1002	Crimps: 22-10ga. Cuts: bolts 4-40 thru 10-24. Crimps: insulated & non-insulated terminals, lugs & 7mm ignition terminals	B

Tools, cont'd

Insulated Crimpers



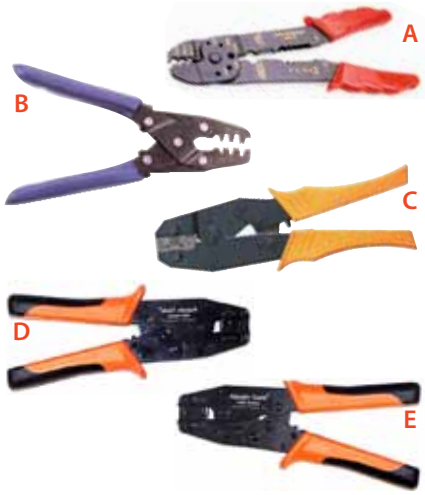
Part Number	Description	Fig.
WT-111K	Crimps: 22-10ga. insulated & non-insulated terminals even in close quarters.	A
PA-1308	Crimps: 22-12ga. Makes precise, "ovalized" barrel primary & secondary crimps to NEC specifications. Color coded dies.	B
PA-2040	Replacement dies for PA-1308	-
PA-8021	Crimps: 22-10ga. Used for large, professional terminals, Panduit, T&B, etc.	C
PA-2035	Replacement die for PA-2035	-

Non-Insulated Crimpers



Part Number	Description	Fig.
WT-111M	Crimps: 22-10ga. non-insulated, solderless terminals. Specially hardened wire cutter w/tapered nose cuts in confined spaces.	A
PA-8024	Crimps: 22-8ga. Used for standard commercial terminals.	B
PA-2031	Replacement die for PA-8024	-
PA-8000	Replacement die screw for PA-8024	-

Open Barrel Crimpers



Part Number	Description	Fig.
OB-2210	22-14ga. (2 different dies). General purpose plier type crimping tool for occasional or light duty use.	A
OBT-1028CT	Crimps: 24-14ga. Amp, Molex, Packard open barrel terminals. 5 precision crimp nests wire.	B
PA-1306	Crimps: 22-12ga. Amp, Molex, TRW, Cinch open barrel terminals. Ratchet style crimper.	C
PA-2033	Replacement die for PA-1306	-
PA-1631	Crimps: 24-14ga. open barrel terminals, spring contacts, pins & sockets. Makes electrical & mechanical crimps simultaneously.	D
PA-1645	Crimps: 30-18ga. open barrel terminals, spring contacts, pins & sockets. Makes electrical & mechanical crimps simultaneously.	E

Indent Crimper



Part Number	Description	Fig.
HDT-48-00	Crimps: 20-12ga. Eight indent, solid contacts. Deutsch crimper.	A
0426-209-0000	Replacement screw for HDT-48-00	-
PA-1461	Crimps: 20-12ga. Four indent, solid contacts. Built-in locator for fast, precise connector alignment.	B

We also carry a wide range of tools specifically for all of the connectors we carry: Delphi, Molex, Amp & Deutsch. Check out the connector section of the catalog, the tools are conveniently located next to their respective connectors.

Tools, cont'd

Wire Ferrule Crimpers



Part Number	Description	Fig.
PA-1648	Crimps: 20-12ga. Features full ratchet cycle, manual ratchet release & adjustable crimp tension.	A
PA-1649	Crimps: 10-6ga. Features full ratchet cycle, manual ratchet release & adjustable crimp tension.	B

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 die screws for PA-1317

Communication Connector Crimper



Part Number	Description
E-9Y	Crimps: UR, UY, UG & UB connectors (see terminal section). Stepped jaw crimping tool.

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: 8-4/0ga. terminals & splices. Indent type crimp. Use w/ standard hammer or vice.	A
TS-1080	Crimps: 6-1/0ga. Compression type crimp. 16" long.	B
TS-1090	Crimps: 6-4/0ga. Compression type crimp. 25" long.	C

Side Cutting Pliers

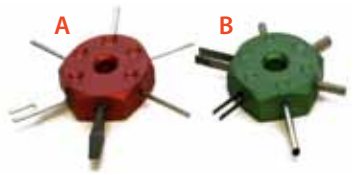


Part Number	Description
KL-D213-9NECR	Crimps: non-insulated connectors, lugs & terminals. High leverage design. Sure-gripping, cross-hatched knurled jaws.

Tools, cont'd

Terminal Tools

- Removes terminals from AMP/ Tyco, Molex & Delphi connectors without damage to either
- Also retrieves trouble codes from late model GM engine computers



Part Number	Description	Fig.
LI-14900	For GM C3 systems	A
LI-56500	Prongs depress barbs on conventional terminals	B

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"

Cable Tie Tools



Part Number	Description	Fig.
PA-1828	Works with: TRS to TRL cable ties, 18-50lbs. Metal construction, tension adjustment, fastens & cuts in seconds.	A
MARK-7	Works with: TRS to TRL cable ties, 18-50lbs. Durable, light weight, adjustable & user friendly. Mark-7 shown.	B
MARK-9	Works with: TRS to TRL-HD cable ties, 18-175lbs. Durable, light weight, adjustable & user friendly.	B

Snapper Clamp Tool



Part Number	Description
SNP-T-170	Works with: nylon snapper clamps (see securing section). Designed to increase reliability & reduce installation time.

Tools, cont'd

Loom & Plastic Tubing Cutter



Part Number	Description
GRN-862	Cuts: flexible plastic pipe & nylon loom, up to 1-3/8" O.D. Durable & dependable w/ a clean cut every time.

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"

Retractable Scraper



Part Number	Description
13626-TOOL	Holder tilts blade to get into tight corners, folds 180° into handle & locks when not in use.
13625-BLADE	Replacement single edge razor blades, 100/pack

Testers & Gauges

Circuit Testers



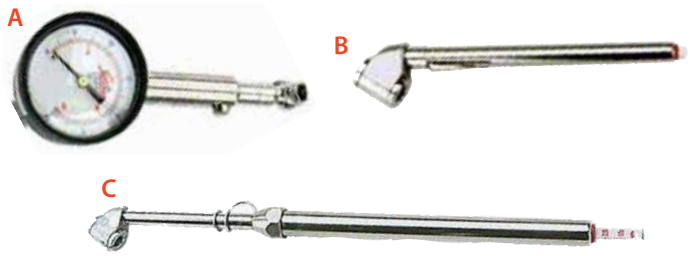
Part Number	Description	Fig.
TS-121	Tests up to 24V. Plastic construction w/ 44", 16ga, wire & 50 amp ground clamp.	A
TS-27000	Tests up to 12V. 60" heavy duty rubber insulated wire, ground clip & insulator.	B
LI-30610	Tests up to 12V. Includes cigarette lighter plug & large clamp for multiple grounding options. Not recommended for computers.	C

Multimeters



Part Number	Description	Fig.
MM-100	Measures: AC/DC voltage (u to 600V), DC current & resistance (10A). Includes test leads & battery. Tests batteries, diodes & continuity. Manual ranging.	A
MM-200	Measures: AC/DC voltage (up to 600V), AC/DC current, resistance (10A), capacitance, temperature & frequency. Tests diodes & continuity. Auto-ranging. Backlit display.	B
B/9V-ALK	Replacement battery	-

Pressure Gauges



Part Number	Description	Fig.
MI-S-902	Dial type gauge w/ angled single head chuck. 0-60psi in 1lb. increments.	A
MI-S-927	Pencil type gauge w/ dual chuck. 4 sided indicator bar: 2 sides 20-120psi in 2lb. increments & 2 sides 120-820 kPa in 20 kPa units.	B
MI-976	Service gauge w/ dual head chuck. 4 sided indicator bar: calibrated 2 sides 10-160psi in 2lb. increments & 2 sides 80-1100kPa in 20 kPa units.	C

Tire Inflator / Pressure Gauge



Part Number	Description
MI-98-A1-501	Heavy duty inflator w/ dual foot, large bore locking chuck & 15ft. hose. 10 - 160psi. Conforms to Military Spec GG-G-91D, Type III, Style 2

Blo-Guns

Full-Flow Safety Lever Blo-Gun



Part Number	Description
MI-150	150psi max working pressure. SCFM 10.0 @ 100psi. 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-501A	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

Torches

Butane Torches



Part Number	Description	Fig.
PB-207	Max temp: 2500ºF. Burn time: 20 minutes. Features: refillable, locking switch, safety cap & detachable stand.	A
TS-4000-HG	Burn time: 30 minutes. Features: refillable, super slim design & convenient pull down stand.	B
GT-8000	Max temp: 2500ºF. Burn time: up to 1 hour. Features: refillable, self-igniting.	C
GB-2001	Max temp: 2500ºF. Burn time: up to 1 hour. Features: refillable, detachable stand & flame control adjustment.	D

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: 2400ºF as torch, 500ºF for hot knife or soldering iron.	B

Torch Refill Butane Gas



Part Number	Description
CAN-B	9oz. of triple refined butane to prevent clogging. Comes w/ 6 adaptors to refill all of the torches seen here & most others.

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 contrain traces of fuel, deeming them hazardous. These will incur an extra delivery charge of $25/20lbs. or less. 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 wearing



Part Number	Teeth / Inch	Dimensions (L x W x T)
FV51-1224	24	12" x .5" x .025"
FV51-1232	32	12" x .5" x .025"
FV51-1024	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-353-318	18	4" x 5/16" x .035"	Scroll	5
GRN-353-418	18	4" x 3/4" x .035"	Straight	5
GRN-353-614	14	6" x 3/4" x .035"	Straight	5
GRN-353-618	18	6" x 3/4" x .035"	Straight	5
GRN-353-624	24	6" x 3/4" x .035"	Straight	5
GRN-353-804	10/14	8" x 3/4" x .050"	Straight	2
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 w/ Pilot Drills

Part Number	Shank Size	Works With Saws
GRN-38522	5/16"	9/16" - 1-3/16"
GRN-37157	1/4"	
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

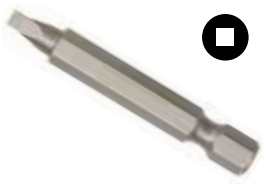
Screw Driver Bits

Hex Power Drive (Quadrex) Bits



Part Number	Size
QBITPD-2	2
QBITPD-3	3

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
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
SLPB-KW40-93193	#6-8
SLPB-KW40-93195	#10-12

Pozidriv Power Bits



Part Number	Size
POZPB-KN54-74203	1x2
POZPB-KN54-74207	1x3-1/2
POZPB-KN54-74212	2x2
POZPB-KN54-74216	2x3-1/2
POZPB-KN54-74221	3x2
POZPB-KN54-74225	3x3-1/2

TORX Insert Bits



Part Number	Size
TORXB-71505	T5
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
TORXB-71550	T50
TORXB-71555	T55

Phillips Insert Bits



Part Number	Size
PIB-KW40-92001	0
PIB-KW40-92005	1
PIB-KW40-92011	2
PIB-KW40-92019	3

Ratchet Screw Driver Set

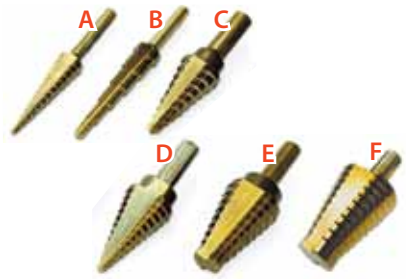


- Ratchet driver w/ non-slip handle grip & forward, fixed & reverse drive functions
- Includes: 1" screw driver bits (flat, star, hex, phillips, pozi), SAE nut drivers, metric nut drivers, 8" flexible extension, ratchet driver handle & bit organizers

Part Number	Description
KP85-2837	58 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 130AG: 1/2" Shank Drills



Part # - Dia.	Length
130AG-33/64	6"
130AG-17/32	6"
130AG-35/64	6"
130AG-9/16	6"
130AG-37/64	6"
130AG-19/32	6"
130AG-39/64	6"
130AG-5/8	6"
130AG-41/64	6"
130AG-21/32	6"
130AG-43/64	6"
130AG-11/16	6"
130AG-45/64	6"
130AG-23/32	6"
130AG-47/64	6"
130AG-3/4	6"
130AG-49/64	6"
130AG-25/32	6"
130AG-51/64	6"
130AG-13/16	6"
130AG-53/64	6"
130AG-27/32	6"

Part # - Dia.	Length
130AG-55/64	6"
130AG-7/8	6"
130AG-57/64	6"
130AG-29/32	6"
130AG-59/64	6"
130AG-15/16	6"
130AG-61/64	6"
130AG-31/32	6"
130AG-63/64	6"
130AG-1	6"
130AG-1-1/32	6"
130AG-1-1/16	6"
130AG-1-3/32	6"
130AG-1-1/8	6"
130AG-1-5/32	6"
130AG-1-3/16	6"
130AG-1-7/32	6"
130AG-1-1/4	6"
130AG-1-5/16	6"
130AG-1-3/8	6"
130AG-1-7/16	6"
130AG-1-1/2	6"

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 175AG: Mechanics Length Drill

- 3 flats on shank, 1/4" & larger



Part # - Dia.	Length
175AG-1/16	1-7/8"
175AG-5/64	2"
175AG-3/32	2-1/4"
175AG-7/64	2-3/8"
175AG-1/8	2-1/2"
175AG-9/64	2-5/8"
175AG-5/32	2-3/4"
175AG-11/64	2-7/8"
175AG-3/16	3"
175AG-13/64	3-1/8"
175AG-7/32	3-1/4"
175AG-15/64	3-3/8"
175AG-1/4	3-1/2"
175AG-17/64	3-5/8"
175AG-9/32	3-3/4"

Part # - Dia.	Length
175AG-19/64	3-7/8"
175AG-5/16	4"
175AG-21/64	4-1/16"
175AG-11/32	4-1/8"
175AG-23/64	4-3/16"
175AG-3/8	4-1/4"
175AG-25/64	4-5/16"
175AG-13/32	4-3/8"
175AG-27/64	4-7/16"
175AG-7/16	4-1/2"
175AG-29/64	4-5/8"
175AG-15/32	4-3/4"
175AG-31/64	4-7/8"
175AG-1/2	5"

Type 128AG: 3/8" Shank Drills



Part # - Dia.	Length
128AG-25/64	5-1/8"
128AG-13/32	5-1/4"
128AG-27/64	5-3/8"
128AG-7/16	5-1/2"
128AG-29/64	5-5/8"
128AG-15/32	5-3/4"

Part # - Dia.	Length
128AG-31/64	5-7/8"
128AG-1/2	6"
128AG-17/32	6"
128AG-9/16	6"
128AG-19/32	6"
128AG-5/8	6"

Standard Drills & Taps, cont'd

Type 190AG: Jobbers Length Drills



Part # - Dia.	Length
190AG-1/16	1-7/8″
190AG-5/64	2″
190AG-3/32	2-1/4″
190AG-7/64	2-5/8″
190AG-1/8	2-3/4″
190AG-9/64	2-7/8″
190AG-5/32	3-1/8″
190AG-11/64	3-1/4″
190AG-3/16	3-1/2″
190AG-13/64	3-5/8″
190AG-7/32	3-3/4″
190AG-15/64	3-7/8″
190AG-1/4	4″
190AG-17/64	4-1/8″
190AG-9/32	4-1/4″

Part # - Dia.	Length
190AG-19/64	4-3/8″
190AG-5/16	4-1/2″
190AG-21/64	4-5/8″
190AG-11/32	4-3/4″
190AG-23/64	4-7/8″
190AG-3/8	5″
190AG-25/64	5-1/8″
190AG-13/32	5-1/4″
190AG-27/64	5-3/8″
190AG-7/16	5-1/2″
190AG-29/64	5-5/8″
190AG-15/32	5-3/4″
190AG-31/64	5-7/8″
190AG-1/2	6″

Type 190AG: Jobbers Length Drills - Letter



Part # - Letter Size	Length
190AG-A	3-7/8″
190AG-B	4″
190AG-C	4″
190AG-D	4″
190AG-E	4″
190AG-F	4-1/8″
190AG-G	4-1/8″
190AG-H	4-1/8″
190AG-I	4-1/8″
190AG-J	4-1/8″
190AG-K	4-1/4″
190AG-L	4-1/4″
190AG-M	4-3/8″

Part # - Letter Size	Length
190AG-N	4-3/8″
190AG-O	4-1/2″
190AG-P	4-5/8″
190AG-Q	4-3/4″
190AG-R	4-3/4″
190AG-S	4-7/8″
190AG-T	4-7/8″
190AG-U	5″
190AG-V	5″
190AG-W	5-1/8″
190AG-X	5-1/8″
190AG-Y	5-1/4″
190AG-Z	5-1/4″

Type 190AG: Jobbers Length Drills - Wire



Part # - Wire Ga.	Length
190AG-1	3-7/8″
190AG-2	3-7/8″
190AG-3	3-3/4″
190AG-4	3-3/4″
190AG-5	3-3/4″
190AG-6	3-3/4″
190AG-7	3-5/8″
190AG-8	3-5/8″
190AG-9	3-5/8″
190AG-10	3-5/8″
190AG-11	3-1/2″
190AG-12	3-1/2″
190AG-13	3-1/2″
190AG-14	3-3/8″
190AG-15	3-3/8″
190AG-16	3-3/8″
190AG-17	3-3/8″
190AG-18	3-1/4″
190AG-19	3-1/4″
190AG-20	3-1/4″
190AG-21	3-1/4″
190AG-22	3-1/8″
190AG-23	3-1/8″
190AG-24	3-1/8″
190AG-25	3″
190AG-26	3″
190AG-27	3″
190AG-28	2-7/8″
190AG-29	2-7/8″
190AG-30	2-3/4″

Part # - Wire Ga.	Length
190AG-31	2-3/4″
190AG-32	2-3/4″
190AG-33	2-5/8″
190AG-34	2-5/8″
190AG-35	2-5/8″
190AG-36	2-1/2″
190AG-37	2-1/2″
190AG-38	2-1/2″
190AG-39	2-3/8″
190AG-40	2-3/8″
190AG-41	2-3/8″
190AG-42	2-1/4″
190AG-43	2-1/4″
190AG-44	2-1/8″
190AG-45	2-1/8″
190AG-46	2-1/8″
190AG-47	2″
190AG-48	2″
190AG-49	2″
190AG-50	2″
190AG-51	2″
190AG-52	1-7/8″
190AG-53	1-7/8″
190AG-54	1-7/8″
190AG-55	1-7/8″
190AG-56	1-3/4″
190AG-57	1-3/4″
190AG-58	1-5/8″
190AG-59	1-5/8″
190AG-60	1-5/8″

Standard Drills & Taps, cont'd

Type 115: Economy Jobbers Length Drills



Part # - Dia.	Length
115-1/64	3/4″
115-1/32	1-3/8″
115-3/64	1-3/4″
115-1/16	1-7/8″
115-5/64	2″
115-3/32	2-1/4″
115-7/64	2-5/8″
115-1/8	2-3/4″
115-9/64	2-7/8″
115-5/32	3-1/8″
115-11/64	3-1/4″
115-3/16	3-1/2″
115-13/64	3-5/8″
115-7/32	3-3/4″
115-15/64	3-7/8″
115-1/4	4″

Part # - Dia.	Length
115-17/64	4-1/8″
115-9/32	4-1/4″
115-19/64	4-3/8″
115-5/16	4-1/2″
115-21/64	4-5/8″
115-11/32	4-3/4″
115-23/64	4-7/8″
115-3/8	5″
115-25/64	5-1/8″
115-13/32	5-1/4″
115-27/64	5-3/8″
115-7/16	5-1/2″
115-29/64	5-5/8″
115-15/32	5-3/4″
115-31/64	5-7/8″
115-1/2	6″

Type 115: Economy Jobbers Length Drills - Letter



Part # - Letter Size	Length
115-A	3-7/8″
115-B	4″
115-C	4″
115-D	4″
115-E	4″
115-F	4-1/8″
115-G	4-1/8″
115-H	4-1/8″
115-I	4-1/8″
115-J	4-1/8″
115-K	4-1/4″
115-L	4-1/4″
115-M	4-3/8″

Part # - Letter Size	Length
115-N	4-3/8″
115-O	4-1/2″
115-P	4-5/8″
115-Q	4-3/4″
115-R	4-3/4″
115-S	4-7/8″
115-T	4-7/8″
115-U	5″
115-V	5″
115-W	5-1/8″
115-X	5-1/8″
115-Y	5-1/4″
115-Z	5-1/4″

Type 115: Economy Jobbers Length Drills - Wire



Part # - Wire Ga.	Length
115-1	3-7/8″
115-2	3-7/8″
115-3	3-3/4″
115-4	3-3/4″
115-5	3-3/4″
115-6	3-3/4″
115-7	3-5/8″
115-8	3-5/8″
115-9	3-5/8″
115-10	3-5/8″
115-11	3-1/2″
115-12	3-1/2″
115-13	3-1/2″
115-14	3-3/8″
115-15	3-3/8″
115-16	3-3/8″
115-17	3-3/8″
115-18	3-1/4″
115-19	3-1/4″
115-20	3-1/4″
115-21	3-1/4″
115-22	3-1/8″
115-23	3-1/8″
115-24	3-1/8″
115-25	3″
115-26	3″
115-27	3″
115-28	2-7/8″
115-29	2-7/8″
115-30	2-3/4″

Part # - Wire Ga.	Length
115-31	2-3/4″
115-32	2-3/4″
115-33	2-5/8″
115-34	2-5/8″
115-35	2-5/8″
115-36	2-1/2″
115-37	2-1/2″
115-38	2-1/2″
115-39	2-3/8″
115-40	2-3/8″
115-41	2-3/8″
115-42	2-1/4″
115-43	2-1/4″
115-44	2-1/8″
115-45	2-1/8″
115-46	2-1/8″
115-47	2″
115-48	2″
115-49	2″
115-50	2″
115-51	2″
115-52	1-7/8″
115-53	1-7/8″
115-54	1-7/8″
115-55	1-7/8″
115-56	1-3/4″
115-57	1-3/4″
115-58	1-5/8″
115-59	1-5/8″
115-60	1-5/8″

Type 140G: Twin End Drills - Magnum Super Premium



Part # - Dia.	Length
140G-3/32	1-3/4″
140G-7/64	1-15/16″
140G-1/8	1-15/16″
140G-9/64	2″

Part # - Dia.	Length
140G-5/32	2-1/8″
140G-3/16	2-5/16″
140G-7/32	2-9/16″
140G-1/4	2-5/8″

Standard Drills & Taps, cont'd

Type 135AG: Stub Length Drills



Part # - Dia.	Length
135AG-1/16	1-5/8"
135AG-5/64	1-11/16"
135AG-3/32	1-3/4"
135AG-7/64	1-13/16"
135AG-1/8	1-7/8"
135AG-9/64	1-15/16"
135AG-5/32	2-1/16"
135AG-11/64	2-1/8"
135AG-3/16	2-3/16"
135AG-13/64	2-1/4"
135AG-7/32	2-3/8"
135AG-15/64	2-7/16"
135AG-1/4	2-1/2"
135AG-17/64	2-5/8"
135AG-9/32	2-11/16"

Part # - Dia.	Length
135AG-19/64	2-3/4"
135AG-5/16	2-13/16"
135AG-21/64	2-15/16"
135AG-11/32	3"
135AG-23/64	3-1/16"
135AG-3/8	3-1/8"
135AG-25/64	3-1/4"
135AG-13/32	3-5/16"
135AG-27/64	3-3/8"
135AG-7/16	3-7/16"
135AG-29/64	3-9/16"
135AG-15/32	3-5/8"
135AG-31/64	3-11/16"
135AG-1/2	3-3/4"

Type 190AL: Left Hand Spiral Drills



Part # - Dia.	Length
190AL-1/16	1-7/8"
190AL-5/64	2"
190AL-3/32	2-1/4"
190AL-7/64	2-5/8"
190AL-1/8	2-3/4"
190AL-9/64	2-7/8"
190AL-5/32	3-1/8"
190AL-11/64	3-1/4"
190AL-3/16	3-1/2"
190AL-13/64	3-5/8"
190AL-7/32	3-3/4"
190AL-15/64	3-7/8"
190AL-1/4	4"
190AL-17/64	4-1/8"
190AL-9/32	4-1/4"

Part # - Dia.	Length
190AL-19/64	4-3/8"
190AL-5/16	4-1/2"
190AL-21/64	4-5/8"
190AL-11/32	4-3/4"
190AL-23/64	4-7/8"
190AL-3/8	5"
190AL-25/64	5-1/8"
190AL-13/32	5-1/4"
190AL-27/64	5-3/8"
190AL-7/16	5-1/2"
190AL-29/64	5-5/8"
190AL-15/32	5-3/4"
190AL-31/64	5-7/8"
190AL-1/2	6"

Type 25AG: Straight Flute Bottoming Style Taps



Part #-Dia.-Thread	# of Flutes
25AG-2-56	3
25AG-3-48	3
25AG-4-40	3
25AG-5-40	3
25AG-6-32	3
25AG-6-40	3
25AG-8-32	4
25AG-8-36	4
25AG-10-24	4
25AG-10-32	4
25AG-12-24	4
25AG-12-28	4
25AG-1/4-20	4
25AG-1/4-28	4
25AG-5/16-18	4
25AG-5/16-24	4
25AG-3/8-16	4
25AG-3/8-24	4
25AG-7/16-14	4
25AG-7/16-20	4
25AG-1/2-13	4

Part #-Dia.-Thread	# of Flutes
25AG-1/2-20	4
25AG-9/16-12	4
25AG-9/16-18	4
25AG-5/8-11	4
25AG-5/8-18	4
25AG-3/4-10	4
25AG-3/4-16	4
25AG-7/8-9	4
25AG-7/8-14	4
25AG-1-8	4
25AG-1-12	4
25AG-1-14	4
25AG-1-1/8-7	4
25AG-1-1/8-12	4
25AG-1-1/4-7	4
25AG-1-1/4-12	6
25AG-1-3/8-6	4
25AG-1-3/8-12	6
25AG-1-1/2-6	4
25AG-1-1/2-12	6

Type 20AG: Spiral Pointed Plug Style Taps



Part #-Dia.-Thread	# of Flutes
20AG-6-32	2
20AG-6-40	2
20AG-8-32	2
20AG-8-36	2
20AG-10-24	2
20AG-10-32	2
20AG-12-24	2
20AG-12-28	2
20AG-1/4-20	2
20AG-1/4-28	2
20AG-5/16-18	2

Part #-Dia.-Thread	# of Flutes
20AG-5/16-24	2
20AG-3/8-16	3
20AG-3/8-24	3
20AG-7/16-14	3
20AG-7/16-20	3
20AG-1/2-13	3
20AG-1/2-20	3
20AG-5/8-11	3
20AG-5/8-18	3
20AG-3/4-10	3
20AG-3/4-16	3

Standard Drills & Taps, cont'd

Type 23AG: Straight Flute Taper Style Taps



Part #-Dia.-Thread	# of Flutes
23AG-2-56	3
23AG-3-48	3
23AG-4-40	3
23AG-5-40	3
23AG-6-32	3
23AG-6-40	3
23AG-8-32	4
23AG-8-36	4
23AG-10-24	4
23AG-10-32	4
23AG-12-24	4
23AG-12-28	4
23AG-1/4-20	4
23AG-1/4-28	4
23AG-5/16-18	4
23AG-5/16-24	4
23AG-3/8-16	4
23AG-3/8-24	4
23AG-7/16-14	4
23AG-7/16-20	4
23AG-1/2-13	4

Part #-Dia.-Thread	# of Flutes
23AG-1/2-20	4
23AG-9/16-12	4
23AG-9/16-18	4
23AG-5/8-11	4
23AG-5/8-18	4
23AG-3/4-10	4
23AG-3/4-16	4
23AG-7/8-9	4
23AG-7/8-14	4
23AG-1-8	4
23AG-1-12	4
23AG-1-14	4
23AG-1-1/8-7	4
23AG-1-1/8-12	4
23AG-1-1/4-7	4
23AG-1-1/4-12	6
23AG-1-3/8-6	4
23AG-1-3/8-12	6
23AG-1-1/2-6	4
23AG-1-1/2-12	6

Type 24AG: Straight Flute Plug Style Taps



Part #-Dia.-Thread	# of Flutes
24AG-2-56	3
24AG-3-48	3
24AG-4-40	3
24AG-5-40	3
24AG-6-32	3
24AG-6-40	3
24AG-8-32	4
24AG-8-36	4
24AG-10-24	4
24AG-10-32	4
24AG-12-24	4
24AG-12-28	4
24AG-1/4-20	4
24AG-1/4-28	4
24AG-5/16-18	4
24AG-5/16-24	4
24AG-3/8-16	4
24AG-3/8-24	4
24AG-7/16-14	4
24AG-7/16-20	4
24AG-1/2-13	4

Part #-Dia.-Thread	# of Flutes
24AG-1/2-20	4
24AG-9/16-12	4
24AG-9/16-18	4
24AG-5/8-11	4
24AG-5/8-18	4
24AG-3/4-10	4
24AG-3/4-16	4
24AG-7/8-9	4
24AG-7/8-14	4
24AG-1-8	4
24AG-1-12	4
24AG-1-14	4
24AG-1-1/8-7	4
24AG-1-1/8-12	4
24AG-1-1/4-7	4
24AG-1-1/4-12	6
24AG-1-3/8-6	4
24AG-1-3/8-12	6
24AG-1-1/2-6	4
24AG-1-1/2-12	6

Combination Drill / Tap Bits

- Complete hole drilling, tapping & deburring/countersinking in one operation
- Back tapered beyond tap to prevent thread damage from over-drilling
- Made from hardened high-speed steel for longer life
- High quality hex shank to ensure strong connection to drill chuck
- Designed to tap up to 10 gauge metal



Part Number	Description
GRN-DTAP6-32	6-32NC bit
GRN-DTAP8-32	8-32NC bit
GRN-DTAP10-24	10-24NC bit
GRN-DTAP10-32	10-32NF bit
GRN-DTAP12-24	12-24NC bit
GRN-DTAP1/4-20	1/4-20NC bit
GRN-DTAP5/16-18	5/16-18NC bit
GRN-DTAP3/8-16	3/8-16NC bit

Metric Drills & Taps

Type 170AG: Metric Jobber Length Drills



Part # - Dia.	Length
170AG-1.0	41mm
170AG-1.5	48mm
170AG-2.0	51mm
170AG-2.5	60mm
170AG-3.0	70mm
170AG-3.5	73mm
170AG-4.0	83mm
170AG-4.5	86mm
170AG-5.0	92mm
170AG-5.5	95mm
170AG-6.0	102mm
170AG-6.5	105mm
170AG-7.0	105mm

Part # - Dia.	Length
170AG-7.5	111mm
170AG-8.0	114mm
170AG-8.5	121mm
170AG-9.0	124mm
170AG-9.5	127mm
170AG-10.0	130mm
170AG-10.5	133mm
170AG-11.0	140mm
170AG-11.5	143mm
170AG-12.0	149mm
170AG-12.5	152mm
170AG-13.0	152mm

Type 780: Metric Hi-Carbon Steel Plug Style Taps



Part #-Size-Pitch	# of Flutes
780-3-.50	4
780-3-.60	4
780-4-.70	4
780-4-.75	4
780-5-.80	4
780-5-.90	4
780-6-1.00	4
780-7-1.00	4
780-8-1.00	4
780-8-1.25	4
780-9-1.00	4
780-9-1.25	4
780-10-1.00	4
780-10-1.25	4

Part #-Size-Pitch	# of Flutes
780-10-1.50	4
780-11-1.50	4
780-12-1.25	4
780-12-1.50	4
780-12-1.75	4
780-14-1.25	4
780-14-1.50	4
780-14-2.00	4
780-16-1.50	4
780-16-2.00	4
780-18-1.50	4
780-18-2.00	4
780-18-2.50	4

Type 21AG: Metric Spiral Pointed Plug Style Taps



Part #-Size-Pitch	# of Flutes
21AG-2.5-0.45	2
21AG-3.0-0.50	2
21AG-3.5-0.60	2
21AG-4.0-0.70	2

Part #-Size-Pitch	# of Flutes
21AG-5.0-0.80	2
21AG-6.0-1.00	2
21AG-8.0-1.25	2

Drill & Tap Sets

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.

1/2 Shank Silver & Deming Drill Set



Part Number	# of Drills	Sizes / Contents
SD-4SP	4	9/16", 5/8", 3/4", 1"

Drills & Taps Sets, cont'd

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

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

Mechanics Lengths Drill Bit Sets - Large



Part Number	# of Drills	Sizes / Contents
MDK-51	51	Type 175AG: 1/16 - 1/2 by 64ths
MDK-51-115	51	Type 115: 1/16 - 1/2 by 64ths

Left-Hand Spiral Drill Sets



Part Number	# of Drills	Sizes / Contents
LF-8	8	Type 190AL: 1/16 - 1/2 by 16ths
LF-12	12	Type 190AL: 1/16 - 5/16 by 32nds, 3/8, 7/16, 1/2

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
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
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
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

Combination Drill / Tap Bit Sets



Part Number	# of Drills	Sizes / Contents
GRN-DTAPKIT	6	6-32, 8-32, 10-24, 10-32, 12-24, 1/4-20

Abrasives

Terminal Supply Co. Abrasives

Made in the USA

Aluminum Oxide Resin Bonded Cut Off Wheels

- 54 Grade
- Sold individually, please inquire for sizes up to 14″



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

Star-Brite Surface Conditioning Discs

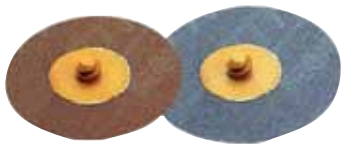
- For use in gasket removal, paint & rust removal, bead sanding & body scuffing & paint prep



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-SP2-100	100	2″

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-SP3-100	100	3″

3M Abrasives

Cut-Off Wheels

- Designed to provide high cut rates & long life on most materials
- Sold in packs of 5



Part Number	Dia.	Thickness	Arbor	Max RPM
3M-83487	2″	1/16″	1/4″	42,000
3M-01989	3″	1/32″	3/8″	35,000
3M-82238	3″	1/32″	1/4″	35,000
3M-01990	3″	1/16″	3/8″	28,000
3M-01994	4″	1/32″	3/8″	26,250
3M-83488	4″	1/16″	3/8″	21,000

3M Abrasives, cont'd

Utility Roll

- For contour sanding, deburring & rust removal
- 50 yard rolls
- Color may vary



Part Number	Grade	Width
3M-19792	80	1″
3M-19811	80	1-1/2″
3M-19823	80	2″
3M-19791	100	1″
3M-19810	100	1-1/2″
3M-19822	100	2″
3M-19790	120	1″
3M-19809	120	1-1/2″
3M-19821	120	2″
3M-19789	150	1″

Part Number	Grade	Width
3M-19808	150	1-1/2″
3M-19820	150	2″
3M-19788	180	1″
3M-19807	180	1-1/2″
3M-19787	220	1″
3M-19806	220	1-1/2″
3M-19805	240	1-1/2″
3M-19785	280	1″
3M-19816	280	2″

Scotch-Brite™ Hand Pads

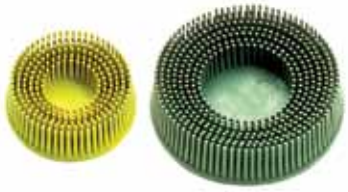
- For cleaning, deburring & finishing various metals & surfaces
- Will not rust



Part Number	Grade/Color	Qty.
3M-04051	Coarse / Gray	10
3M-04029	Medium / Maroon	20
3M-04028	Fine / Lt. Gray	20

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 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″

Roloc Discs - 777F

- Ideal w/ air tools to provide fast deburring, blending & finishing of all types of metal



Part Number	Grade / Color	Dia.
3M-76629	36 / Black	2″
3M-75531	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 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″

SAIT United Abrasives Abrasives

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″

Aluminum Oxide Depressed Center Wheels

- Fast Grinding wheels are used for grinding ferrous metals & low grade stainless steel
- Long Life 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
- 7/8″ arbor



Part Number	Grade	Dia.
UA-78005	36	4-1/2″
UA-78045	36	7″
UA-78008	60	4-1/2″
UA-78048	60	7″
UA-78009	80	4-1/2″
UA-78049	80	7″

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REFERENCE

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Cyclo Service Aides

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-991	OEM, hi-temp silicone	Black	9.8oz.	12
CY-C-992	OEM, hi-temp silicone	Red	9.8oz.	12
CY-C-993	Low odor silicone	Clear	9.8oz.	12
CY-C-996	OEM, hi-temp silicone	Blue	9.8oz.	12
CY-C-999	OEM, hi-temp silicone	Gray-OX	9.8oz.	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-37	Electrical Motor Cleaner: non-flammable	18oz.	6
CY-C-111C	Brakes & Parts Clean: non-chlorinated	14oz.	6
CY-C-32	Brake & Parts Clean: non-flammable	18oz.	6
CY-C-192	Max Clean: all purpose cleaner	22oz.	6
CY-C-331	Glass Cleaner	19oz.	12

Lubricants



Part Number	Description	Net Weight	Case Qty.
CY-C-10	Break Away: fast penetrating oil	13oz.	6
CY-C-33	Silicone Spray: extra heavy duty	10oz.	6
CY-C-34	White Grease: with teflon	11oz.	6
CY-C-405	Z Lube™: moisture displacement lube	12oz.	6
CY-C-661	Heavy Duty Chain & Cable Lube	11oz.	6

Fluids



Part Number	Description	Net Weight	Case Qty.
CY-C-28	Power Steering Fluid	32oz.	6
CY-C-55	Super Heavy Duty Brake Fluid	12oz.	6
CY-C-56	Super Heavy Duty Brake Fluid	32oz.	6

Fleet & Winter Products



Part Number	Description	Net Weight	Case Qty.
CY-C-97	Air Brake Anti-Freeze & Dryer	32oz.	6
CY-C-99	Starting Fluid	7.2oz.	12
CY-C-100	Starting Fluid	10.5oz.	6

Specialty Products



Part Number	Description	Net Weight	Case Qty.
CY-C-35	Under Coating: rubberized	17oz.	6
CY-C-85	Hi-Tech Electronic Contact Cleaner: non-chlorinated	11oz.	6
CY-C-87	Quick Dry Electronic Cleaner	12oz.	6
CY-C-904	Headliner & Carpet Spray Adhesive: non-chlorinated	14.25oz.	12
CY-C-121	Battery Protector	11oz.	6

Dynatex Service Aides

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	7.25oz.	12
DY-49203	Gasket maker, oxygen sensor safe, tube (boxed)	Blue	3oz.	12
DY-49276	Gasket maker, oxygen sensor safe, pressurized can	Blue	8.5oz.	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	7.25oz.	12
DY-49280	Industrial grade sealant, cartridge	Clear	11oz.	12
DY-49281	Industrial grade sealant, cartridge	Gray	11oz.	12
DY-49285	Industrial grade sealant, cartridge	White	11oz.	12
DY-49297	Industrial grade sealant, cartridge	Black	11oz.	12
DY-49289	Marine grade sealant, cartridge	Clear	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 show 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.

Cleaners



Part Number	Description	Net Weight	Case Qty.
DY-52105	Carb & Choke Cleaner	12oz.	12
DY-52165	Engine Degreaser	16oz.	12
DY-52145	Electrical Parts Cleaner	16oz.	12
DY-49665	Brake & Parts Cleaner: non-chlorinated	15oz.	12

Lubricants





Part Number	Description	Net Weight	Case Qty.
DY-52115	Silicone Lubricant: non-flammable	10.25oz.	12
DY-49596	White Lithium Grease	12oz.	12
DY-49634	Dielectric Grease, tube (carded)	.33oz.	12
DY-49635	Dielectric Grease, tube (boxed)	5oz.	12
DY-49550	Anti-Seize & Lubricating Compound, brush-top	4oz.	24
DY-49558	Anti-Seize & Lubricating Compound, brush-top	8oz.	12
DY-49560	Anti-Seize & Lubricating Compound, brush-top	16oz.	12
DY-49576	Anti-Seize & Lubricating Compound, aerosol	12oz.	12
DY-49582	Anti-Seize & Lube Compound, brush-top - copper	8oz.	12
DY-49584	Anti-Seize & Lubricating Compound, brush-top	8oz.	12
DY-49593	Silicone Compound, tube (boxed)	5.3oz.	12
DY-49598	Motor Assembly Grease, tube	6oz.	12
DY-49611	Red Grease, aerosol	11.5oz.	12

Threadlockers / Anaerobic





Part Number	Description	Net Weight	Case Qty.
DY-49441	Boltlocker, blue medium strength, bottle (carded)	6ml	6
DY-49442	Boltlocker, blue medium strength, bottle (carded)	24ml	6
DY-49446	Boltlocker, blue medium strength, pump	35ml	6
DY-49451	Boltlocker, red high strength, bottle (carded)	6ml	6
DY-49452	Boltlocker, red high strength, bottle (carded)	24ml	6
DY-49456	Boltlocker, red high strength, pump	35ml	6
DY-49486	Pipe Sealant w/ Teflon, tube	50ml	6
DY-49494	Thread Sealant w/ Teflon, brush-top	4oz.	12
DY-49495	Thread Sealant w/ Teflon, brush-top	16oz.	6

Sealants / Repair Adhesives



Part Number	Description	Net Weight	Case Qty.
DY-49358	Hi-Tack Gasket Spray, aerosol	10oz.	12
DY-49401	Rear View Mirror Adhesive, includes primer, bottle (carded)	6ml	12
DY-49403	Super Glue, bottle (carded)	3gr.	12
DY-49431	Super Glue, bottle w/applicator tip (carded)	20gr.	10
DY-49433	Super Glue, gel tube (carded)	2gr.	10
DY-49429	Super Weather Strip & Gasket Adhesive, yellow, tube (boxed)	5oz.	12
DY-49409	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 Aides

Cleaners



Part Number	Description	Net Weight	Case Qty.
CC-16	Contact Cleaner: non-flammable	12oz.	12
ABD-16	Aqueous Based Degreaser	16oz.	12
CBD-16	Citrus Based Degreaser	11oz.	12

Lubricants



Part Number	Description	Net Weight	Case Qty.
ATC-16	Air Tool Conditioner	12oz.	12
ETL-16	Tool Life Extender	12oz.	12
GDL-16	Garage Door Lube	12oz.	12
BLAST-16	PB Penetrating Catalyst	12oz.	12
CSP-16	Corrosion Stop	11oz.	6
PB-50	All-Purpose Lubricant	8oz.	12

Are you looking for Battery Service Aides? Go to our Battery Products section starting on page 96 to see the wide array of battery related chemicals we offer. Or contact customer service & we can find you exactly what you need.

Hand Cleaners

Liquid Hand Cleaners







Part Number	Description	Size	Case Qty.
GLK-9-4400	Pumicized Advantage® HD	4000ml	4
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		

Power Wipes

- Uses: hands, tools, equipment, etc.
- Environmentally friendly- VOC & solvent free
- Features: texturized, no residue, anti-septic, easy dispensing lid



Part Number	Size	Qty.
GLK-21-9060	10" x 12"	90 wipes/pkg.
GLK-0-9000	Wall bracket	

Industrial Maintenance Paints

Krylon® Premium 5 Ball Paint

- Superior indoor / outdoor performance
- VOC compliant, lead free acrylic lacquer
- Dries in just 12 minutes
- Can be used on metal or wood
- High solids formula
- 16oz. cans (12oz. net wt.)
- Sold single or in cases of 12



Part Number	Color
K1501	Gloss white
K1601	Gloss black
K1605	Stone gray
K1613	Semi-flat black
K1602	Ultra-flat black

Part Number	Color
K1315	White primer
K1316	Black primer
K1318	Gray primer
K1317	Ruddy brown primer

Work Day™ Enamel Paints

- Economical
- Dries to touch in 12 minutes
- 16oz. cans (10oz. net wt.)
- Sold single or in cases of 12



Part Number	Color
A04401	Gloss white
A04402	Gloss black
A04404	Gloss red
A04403	Blue
A04406	Yellow

Part Number	Color
A04408	Green
A04412	Flat black
A04422	Flat white
A04419	Red primer
A04418	Gray primer

Industrial Maintenance Paints, cont'd

Farm & Implement Paint

- Meets manufacturer's specifications for farm, vehicle, maintenance, lawn & garden equipment
- 16oz. cans (12oz. net wt.)
- Sold single or in cases of 6



Part Number	Color
K1805	New Caterpillar yellow
K1819	Old Caterpillar yellow
K1809	School bus yellow
K1820	Allis Chalmers orange
K1818	International Harvester red

Solvent Based Inverted Marking Paint

- High solids formula for bright markings
- Fast-drying, penetrates & adheres to hot surfaces
- Convenient Spray-Thru™ cap & non-clogging spray tip
- VOC compliant, lead free
- 20oz. cans (17oz. net wt.)
- Sold single or in cases of 12



Part Number	Color
S03701	Fluorescent red / orange
S03702	Fluorescent orange
S03731	Bright orange
S03821	High visibility yellow

Trigger Gun

- Quickly transforms any spray can into a spray gun
- Eliminates finger fatigue



Part Number	Color
K07099	Trigger gun (paint not included)

Inverted Marking Wand

- 34" wand constructed of rugged plastic & light weight steel
- Comfortable pistol grip for 1" to 1-1/2" spray
- Works with inverted marking paints above



Part Number	Color
K7096	Marking wand (paint not included)

Keep your shop in order by making sure that every can of paint, cleaner or lubricant has its place. Go to page 397 for all of the different storage options we have in stock today.

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