

Electrical

Columbus Fleet Industrial Supply



Wire, Nylon Ties

Deka American Made Wire 100' rolls

**Stranded
Annealed
Bunched
Copper Core**



**Color-Coded
Cross Linked
Polyethylene
Insulation**



- Special purpose high temperature (**up to 125°C or 257°F**) automotive wire is ideal for under-hood automotive wiring applications with hard-to-fit areas.
- Thin-walled, abrasion-resistant design not only gives it a small diameter for a better fit, but is also highly resistant to moisture, oil, grease, gasoline, and other damaging solvents. Works well with most standard automotive connections and is specified for use in engine compartments where high heat resistance is required by SAE J1128 specifications.
- Cross-linking structure reinforces the polyethylene insulation for enhanced durability and resistance to heat and abrasion. Voltage: Rated at 60VDC/25VAC or less Temperature:
- Rated at -40°C (-40°F) to 125°C 257°F) Specifications: SAE J1128, Ford ESB-M1L 85A, and Chrysler MS-8900 Print Legend: EAST PENN HITECH® SAE J1128 GXL TYPE2 60V (size) GA 125°C (257°F) DRY MADE IN USA

Deka American Made Wire 100' rolls

20 GA	18 GA	16 GA	ITEM	QT	14 GA	12 GA	10 GA
430-851	431-001	431-021	RED	RL	431-041	431-061	431-081
430-852	431-002	431-022	WHITE	RL	431-042	431-062	431-082
430-853	431-003	431-023	YELLOW	RL	431-043	431-063	431-083
430-854	431-004	431-024	GREEN	RL	431-044	431-064	431-184
430-855	431-005	431-025	BLUE	RL	431-045	431-065	431-085
430-856	431-006	431-026	BLACK	RL	431-046	431-066	431-086
430-857	431-007	431-027	BROWN	RL	431-047	431-067	431-087
-----	431-008	431-028	ORANGE	RL	431-048	431-068	431-088

Wire 500' rolls

ITEM	QT	14 GA
RED	RL	431-161
Black	RL	431-166

Nylon Ties

A.C.T. American Made Nylon Wire Ties

- Working temperatures from -40° F to 185° F
- Indoor and outdoor use
- High tensile strength with low insertion force
- Great for industrial and commercial applications
- Used for larger cable management, hoses, packaging



Black Ties

Buy Quality. Buy Advanced Cable Ties.
Tie it all together with the strongest ties in the industry

Part #	Item	Lb	Qty
439-004	4" X 3/32"	18	100
439-006	6" X 1/8"	18	100
439-007	8" X 3/16"	50	100
439-011	12" X 3/16"	50	100
439-014	14" X 3/16"	50	100
439-015	15" X 5/16"	120	50
439-016	24" X 5/16"	120	50
439-024	24" X 11/32"	175	50
439-026	36" X 11/32"	175	50

Black Nylon Ties With Mounting Hole

Part #	Item	Lb	Qty
439-239	7-1/2 with #10 hole	50	50
439-250	14-3/4" with 1/4" hole	120	25



Dual Clamp Ties

DUAL BUNDLE DESIGN – Provides parallel spacing between hoses, wire, and cables and tubing.
PREVENTS DAMAGE & WEAR – Secure holding and bundle separation provides protection against abrasion from vibration or flexing.
BUILT-IN 1/4" STUD MOUNTING HOLE – Allows securing bundles along the chassis of truck, tractor or trailer.
U.V. BLACK – Extra durability against weather and sun light.
ONE PIECE DESIGN – forms 2 separating straps to bundle wire, loom, or hydraulic hose reducing wear.
150 LB TENSILE STRENGTH



19" Double Wrap Block Ties

Part #	Qty
439-045	EA



Nylon Ties

Nylon Ties

- No more sorting – all your color ties in one place
- Easy to close – just fold and go
- Hang from nearby equipment
- Ideal applications include, color coding and identifying communication panels



**Specialty Pack Color Cable Ties,
4" 18 lb RD,OR,YW,GR,BL,PR**

Part #	Item	Qty
439-162	Color Ties	Pack/600
439-165	Flourescent Ties	Pack/600



11" Fluorescent Nylon Color Ties

Part #	Qt	Qty
439-179	Yellow	100

7" Nylon Fluorescent Color Ties

Part #	Qt	Qty
439-180	Green	100
439-181	Pink	100
439-182	Yellow	100
439-183	Orange	100
439-184	Blue	100



Black Tie Mounts With Adhesive




Part #	Qty
439-090	25

7" Nylon Color Ties





Part #	Qt	Qty
439-185	Brown	100
439-187	Orange	100
439-189	Green	100
439-190	Blue	100
439-191	Purple	100
439-193	Gray	100
439-195	Red	100
439-197	Yellow	100







Wire nuts, Connectors

Part #	Item	Qty	Wire Nuts
440-001	Gray 18-16 AWG MIN – 2-#18 MAX – 2 #16	25	
440-002	Blue 18-14 AWG MIN – 2-#18 MAX – 3 #16	25	
440-003	Orange 18-14 AWG MIN – 2-#18 MAX – 3 #16 & 1 #18	25	
440-004	Yellow 18-12 AWG MIN – 1 #14 & 1 #18 MAX – 2 #14 & 3 #16	25	
440-005	Red 18-10 AWG MIN – 1 #12 & 2 #18 MAX – 2 #10 & 1 #12	25	

Part #	Item	Qty	Crimp Nut
440-032	Small Nut 16-14 Fast & Easy “pigtail” Crimp Once Rated for 600 volt	25	
440-034	Large Nut 12-10 Fast & Easy “pigtail” Crimp Once Rated for 600 volt	25	
440-036	Large Nut 8 Ga Fast & Easy “pigtail” Crimp Once Rated for 600 volt	25	

Wire nuts, Connectors

Part #	Item	Qty	Scotchlock
440-041	Red 22-18 Gauge Quick Splice & Tap Connectors	50	
440-042	Blue 18-14 Gauge Quick Splice & Tap Connectors	50	
440-044	Yellow 12-10 Gauge Quick Splice & Tap Connectors	10	
440-045	Tan 18-10 to 16-12 Gauge Quick Splice & Tap Connectors	10	

Part #	Item	Qty	Wire Nut
440-010	Yellow 18-10 AWG MIN – 2-#18 MAX – 4 #14	25	
440-011	Red 18-10 AWG MIN – 2-#14 MAX – 4 #12	25	
440-012	Gray 14-6 AWG MIN – 3-#14 MAX – 1 #6 & 1 #8	25	
440-014	Blue 12-6 AWG MIN – 1 #10 & 1 #12 MAX – 1 #6 & 2 #8	25	
440-022	Orange/ Blue Wire Size 22-12 MIN – 2 #22 MAX – 2 #12	25	
440-024	Red / Yellow Wire Size 18-8 MIN – 2 #18 MAX – 2 #8	25	

Wire nuts, Connectors

Scotchlock Self-Sealing Pigtail Connector

- Blue cap and white body nylon-insulated connector is suitable to connect 2 or 3 wires
- Brass element construction for good conductivity and tin plating for corrosion resistance
- Accommodates 22 to 14 AWG solid/stranded
- UL Listed, CSA Certified and RoHS 2011/65/EU Compliant

3M™ Scotchlok™ Insulation Displacement Connector 314 provides a dual element connection and moisture resistant seal with a mineral oil based grease.

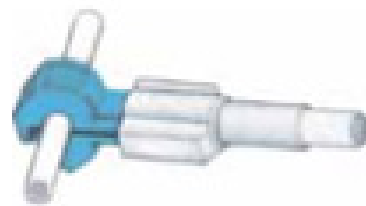
The connector is nylon insulated and used to connect 2 or 3 wires.

It is self stripping, flame retardant and moisture resistant.

3M™ Scotchlok™ Insulation Displacement Connector 314 is 600V rated for building wire and 1000V rated for signs, fixtures and luminaires. It withstands temperatures of 221 degrees F (105 degrees C). UL Listed, CSA Certified and RoHS 2011/65/EU Compliant.

Just insert the wire and press the cap down with pliers.
Dielectric grease filled and waterproof

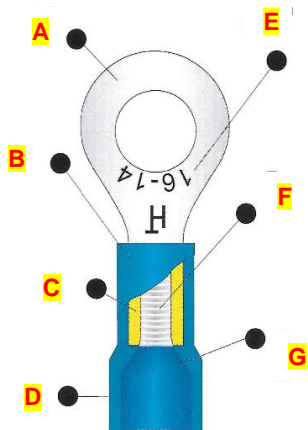
440-075	3-Wire Moisture Resistance Wire Connector	25
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T-Taps

440-084	T-Tap 22-18 Red	25	
440-085	T-Tap 16-14 Blue	25	
440-086	T-Tap 12-10 Yellow	10	

22-18 P.V.C. Terminals / Nylon Terminals



A: Electro Tin Plating for Exceptional Corrosion Resistance.

B: Insulator sleeve is color coded for wire size.














C: Our rings, spades and butt terminals are constructed from pure copper.

D: Insulators made from P.V.C. nylon or heat shrink

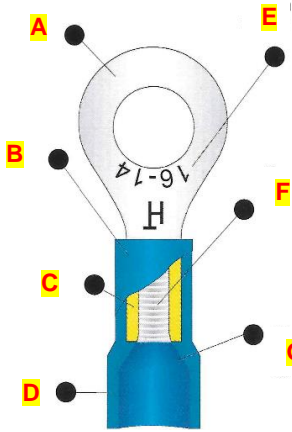
E: Terminals and connectors are clearly marked with size

F: Terminals have "V" grooved serrations to provide maximum contact and tensile strength after crimping

G: PVC and Nylon injection molded with funnel entry for fast, easy wire insertion

PVC Part #	NYLON Part #	Item	Qty	
441-000	451-000	Butt Conn	50	
441-001	451-001	4-6 Ring	50	
441-003	451-003	8-10 Ring	50	
441-005	-----	1/4 Ring	50	
441-006	-----	5/16 Ring	25	
441-010	451-010	4-6 Snap Fork	25	
441-011	451-011	8-10 Snap Fork	25	
441-013	-----	6-8 Hook	25	
441-015	-----	8-10 Hook	25	
441-028	-----	.110 Male	25	
441-029	-----	.110 Female	25	
441-026	-----	.187 Male	25	
441-027	-----	.187 Female	25	
441-024	-----	.250 Male	25	
441-025	-----	.250 Female	25	
-----	451-034	.250 Male	25	
-----	451-035	.250 Female (fully insulated)	25	
-----	451-051	.157 Female Bullet	25	
441-052	-----	157 Male Bullet	25	
-----	451-042	.187 90* Flag	25	
-----	451-043	.250 90* Flag	25	
441-045	-----	3-Way Connector	10	
441-046	-----	4-Way Connector	10	
441-055	-----	Male Pin	25	

16-14 P.V.C. Terminals / Nylon Terminals



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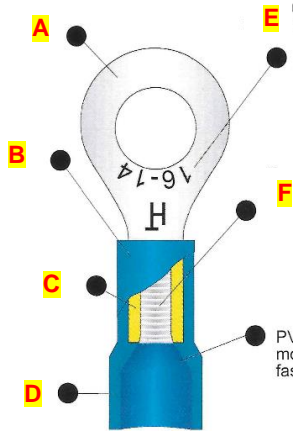
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G: PVC and Nylon injection molded with funnel entry for fast, easy wire insertion

PVC Part #	NYLON Part #	Item	Qty	
442-000	452-000	Butt Conn	50	
442-001	452-001	4-6 Ring	50	
442-003	452-003	8-10 Ring	50	
442-005	452-005	1/4 Ring	50	
442-006	452-006	5/16 Ring	25	
442-007	452-007	3/8 Ring	25	
442-010	452-010	4-6 Snap Fork	50	
442-011	452-011	8-10 Snap Fork	50	
442-013	452-014	4-6 Hook	25	
442-015	452-015	8-10 Hook	25	
442-028	-----	.110 Male	25	
442-029	-----	.110 Female	25	
442-026	-----	.187 Male	25	
442-027	-----	.187 Female	25	
442-024	452-024	.250 Male	25	
442-025	452-025	.250 Female	25	
442-020	-----	.387 Female	25	
442-030		.250 Piggy Back	25	
-----	452-034	.250 Male	25	
-----	452-035	.250 Female (fully insulated)	25	
442-047	452-051	.157 Female Bullet	25	
442-048	452-052	.157 Male Bullet	25	
442-049	-----	.180 Female Bullet	25	
442-050	-----	.180 Male Bullet	25	
442-051	-----	.195 Female Bullet	25	
442-052	-----	.195 Male Bullet (ford)	25	
-----	452-042	.187 90* Flag	25	
-	452-043	.250 90* Flag	25	

16-14 P.V.C. Terminals / Nylon Terminals



PVC Part #	NYLON Part #	Item	Qty	
442-045	452-045	3-Way Connector	10	
442-046	452-046	4-Way Connector	5	
442-055	-----	Male Pin	25	

A: Electro Tin Plating for Exceptional Corrosion Resistance.

B: Insulator sleeve is color coded for wire size.

C: Our rings, spades and butt terminals are constructed from pure copper.

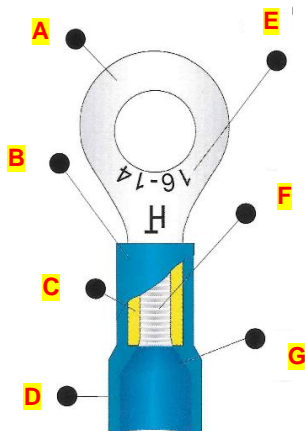
D: Insulators made from P.V.C. nylon or heat shrink

E: Terminals and connectors are clearly marked with size

F: Terminals have "V" grooved serrations to provide maximum contact and tensile strength after crimping

G: PVC and Nylon injection molded with funnel entry for fast, easy wire insertion

12-10 P.V.C. Terminals / Nylon Terminals



A: Electro Tin Plating for Exceptional Corrosion Resistance.

B: Insulator sleeve is color coded for wire size.















C: Our rings, spades and butt terminals are constructed from pure copper.

D: Insulators made from P.V.C. nylon or heat shrink

E: Terminals and connectors are clearly marked with size



F: Terminals have "V" grooved serrations to provide maximum contact and tensile strength after crimping

G: PVC and Nylon injection molded with funnel entry for fast, easy wire insertion



PVC Part #	NYLON Part #	Item	Qty	
443-000	----- 453-000	Butt Conn P.V.C. Butt Conn Nylon	25 50	 
443-001	453-001	4-6 Ring	50	
443-003	453-003	8-10 Ring	50	
443-005	453-005	1/4 Ring	25	
443-006	453-006	5/16 Ring	25	
443-007	453-007	3/8 Ring	25	
443-008	453-008	1/2 Ring	25	
443-010	453-010	4-6 Snap Fork	25	
443-011	453-011	8-10 Snap Fork	25	
----- 443-015	----- 453-015	4-6 Hook 8-10 Hook	25 25	
443-024	453-024	.250 Male	25	 
443-025	453-025	.250 Female	25	
443-020	-----	.387 Female	25	
----- -----	453-034 453-035	.250 Male .250 Female (fully insulated)	25 25	 
443-043	453-043	.250 90* Flag	25	
443-045	-----	3-Way Connector	10	
443-046	-----	4-Way Connector	5	
443-055	-----	Male Pin	25	

P.V.C. Terminals / Non-Insul Terminals

8 GA PVC Wire Ends

Part #	Item	Qty	
445-000	Butt Conn	25	
445-003	8-10 Ring	25	
445-005	1/4 Ring	25	
445-006	5/16 Ring	25	
445-007	3/8 Ring	20	
445-008	1/2 Ring	15	

6 GA PVC Wire Ends

Part #	Item	Qty	
446-000	Butt Conn	15	
446-003	8-10 Ring	25	
446-005	1/4 Ring	25	
446-006	5/16 Ring	25	
446-007	3/8 Ring	20	
446-008	1/2 Ring	15	

Pass Thru Butt Connector

- Features a brazed barrel seam bonded with special silver brazing alloy
- Will not open under stress or wire pull
- Versakrimp barrel is tough and versatile, guaranteed not to split and may be crimped from any direction
- Ideal for difficult to crimp solid and stranded wires





**Stripped Wires Overlap Inside Connector
Requires Only One Crimp In Center**









Part #	Item	Qty
461-001	22-18	100
462-001	16-14	100
463-001	12-10	50
465-001	8 ga	25

Non-Insul Terminals

22-18 Non-Insulated Wire Ends

Part #	Item	Qty	
461-000	Butt Conn	100	
-----	6-8 Ring	50	
461-003	8-10 Ring	50	
461-005	1/4 Ring	50	
-----	5/16 Ring	50	
-----	6-8 Fork	50	
-----	8-10 Fork	50	
-----	6-8 Hook	50	
-----	8-10 Hook	50	
-----	8-10 Flag	50	

16-14 Non-Insulated Wire Ends



Part #	Item	Qty	
462-000	Butt Coon	100	
-----	6-8 Ring	50	
462-003	8-10 Ring	50	
-----	1/4 Ring	50	
-----	5/16 Ring	50	
-----	3/8 Ring	50	
-----	6-8 Snap Fork	50	
462-011	8-10 Snap Fork	50	
-----	6-8 Hook	50	
-----	8-10 Hook	50	
462-027	.187 Female	50	
462-025	.250 Female	50	
462-043	8-10 Flag	50	

Non-Ins'l Terminals



12-10 Non-Insulated Wire Ends

Part #	Item	Qty	
463-000	Butt Conn	100	
-----	6-8 Ring	50	
463-003	8-10 Ring	50	
463-005	1/4 Ring	50	
463-006	5/16 Ring	50	
463-007	3/8 Ring	50	
463-008	1/2 Ring	25	
-----	6-8 Fork	25	
463-011	8-10 Fork	25	
-----	6-8 Hook	50	
-----	8-10 Hook	50	
-----	8-10 Flag	50	

8 GA Non-Insulated Wire Ends



Part #v	Item	Qty	
465-000	Butt Conn	20	
465-003	8-10 Ring	20	
465-005	1/4 Ring	20	
465-006	5/16 Ring	20	
465-007	3/8 Ring	20	
465-008	1/2 Ring	20	

6 GA Non-Insulated Wire Ends



Part #v	Item	Qty	
466-000	Butt Conn	20	
466-003	8-10 Ring	20	
466-005	1/4 Ring	20	
466-006	5/16 Ring	20	
466-007	3/8 Ring	20	
466-008	1/2 Ring	20	

Non-Insul Terminals

4 GA Non-Insulated Wire Ends

Part #	Item	Qty	
467-000	Butt Conn	20	
-----	8-10 Ring	20	
467-005	1/4 Ring	20	
467-006	5/16 Ring	20	
467-007	3/8 Ring	20	
467-008	1/2 Ring	20	

2 GA Non-Insulated Wire Ends

Part #	Item	Qty	
468-000	Butt Conn	20	
-----	8-10 Ring	20	
468-005	1/4 Ring	20	
-----	5/16 Ring	20	
468-007	3/8 Ring	20	
468-008	1/2 Ring	20	

Heat Shrink Terminals

Premium Grade NYAX Heat Shrink Terminals

Adhesive Lined sealant
locks out corrosion

All Weather Sealed Connections

16-14 Krimp / Seal Wire Ends

Clear see thru shrink tubing
for easy inspection

Pre-applied NYAX

heat shrink tubing encapsulates connection

All Weather Sealed Connections – Moisture
Proof connection to eliminate corrosion
related equipment failure and costly
equipment downtime.

- Increased Visual Clarity
- Cross-Linked Ionic Polymer
- Adhesive Lined – Moisture Proof
- Shrink ratio increased (3: 1 vs 2.5: 1)
- Shrinks Lower Temperature – 100*
- Tough & Durable, resist abrasions and cuts
- Increased operating temperature range (-55* to 125*)



Illustration	Stud Size	CFIS Part #
--------------	-----------	-------------



16-14
Butt
472-000
(25)



8-10
Ring
1/4
Ring
5/16
Ring
3/8
Ring
472-003
(25)
472-005
(25)
472-006
(25)
472-007
(25)



6-8
Fork
8-10
Fork
472-012
(25)
472-013
(25)



8-10
Hook
472-015
(25)



.250
Male
472-024
(25)



.250
Female
472-025
(25)



.250
Male Full-InsI
472-034
(25)



.250
Female Full-
InsI
472-035
(25)



.180
Female
472-051
(25)



.195
Female
472-053
(25)



.180
Male
472-052
(25)



3-Way
Union
472-055
(25)



4-Way
Union
472-056
(25)

Illustration	Stud Size	CFIS Part #
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22-24
Butt
470-098
(25)

22-18 Krimp / Seal Wire Ends

Illustration	Stud Size	CFIS Part #
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22-18
Butt
471-000
(25)



8-10
Ring
1/4
Ring
471-003
(25)
471-005
(25)



8-10
Fork
471-013
(25)



.250
Male Full-InsI
471-034
(25)



.250
Female Full-
InsI
471-035
(25)

Heat Shrink Terminals

ASSORTMENT: KRIMP & SEAL

Premium Grade NYAX Heat Shrink Terminals

All Weather Sealed Connections

Adhesive Lined sealant
locks out corrosion



Pre-applied NYAX
heat shrink tubing
encapsulates connection

Clear see thru shrink tubing
for easy inspection

All Weather Sealed Connections – Moisture Proof connection to eliminate corrosion related equipment failure and costly equipment downtime.

- Increased Visual Clarity
- Cross-Linked Ionic Polymer
- Adhesive Lined – Moisture Proof
- Shrink ratio increased (3: 1 vs 2.5: 1)
- Shrinks Lower Temperature – 100*
- Tough & Durable, resist abrasions and cuts
- Increased operating temperature range (-55* to 125*)

12-10 Krimp / Seal Wire Ends

Illustration	Stud Size	CFIS Part #
--------------	-----------	-------------



16-14
Butt **473-000**
(25)



8-10 **473-003**
Ring (25)
1/4 **473-005**
Ring (25)
5/16 **473-006**
Ring (25)
3/8 **473-007**
Ring (25)
1/2 **473-008**
Ring (25)



6-8 **473-012**
Fork (25)
8-10 **473-013**
Fork (25)

8 gauge Krimp / Seal Wire Ends

Illustration	Stud Size	CFIS Part #
--------------	-----------	-------------



16-14
Butt **474-000**
(25)



8-10 **474-003**
Ring (25)
1/4 **474-005**
Ring (25)
5/16 **474-006**
Ring (25)
3/8 **474-007**
Ring (25)
1/2 **474-008**
Ring (25)



.250
Male **473-025**
(25)



.250
Female **473-026**
(25)



.250
Male Full-Insl **473-034**
(25)



.250
Female Full-Insl **473-035**
(25)



3-Way
Union **473-055**
(25)

Heat Shrink Terminals

Premium Grade MULTI-WIRE CONNECTOR

All Weather Sealed Connections – Moisture Proof connection to eliminate corrosion related equipment failure and costly equipment downtime.

One wire to 2 wire

- Increased Visual Clarity
- Cross-Linked Ionic Polymer
- Adhesive Lined – Moisture Proof
- Shrink ratio increased (3: 1 vs 2.5: 1)
- Shrinks Lower Temperature – 100*
- Tough & Durable, resist abrasions and cuts
- Increased operating temperature range (-55* to 125*)

IN-LINE BUTT CONNECTORS

JOIN TWO WIRES TO ONE WIRE ...

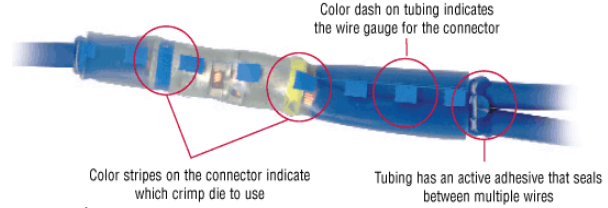







Illustration	Wire Range	Wire Size Joined	Color Code	CFIS Part #
	20-18 to 24-22	Two 24-22 to One 24-22 Or One 20-18 to One 24-22	White Dashes Red & White Stripes	470-018 (25)
	16-14 to 20-18	Two 20-18 to One 20-18 Or One 16-14 to One 20-18	Red Dashes Red & Blue Stripes	470-020 (10)
	12-10 to 16-14	Two 16-14 to One 16-14 Or One 12-10 to One 16-14	Blue Dashes Blue & Yellow Stripes	470-022 (10)
	8 to 12-10	Two 12-10 to One 12-10 Or One 8 to One 12-10	Yellow Dashes Yellow & Red Stripes	470-024 (10)

Premium Grade MULTI-WIRE CONNECTOR

Connect up to 4 wires
4-.1 Heat Shrink Tubing

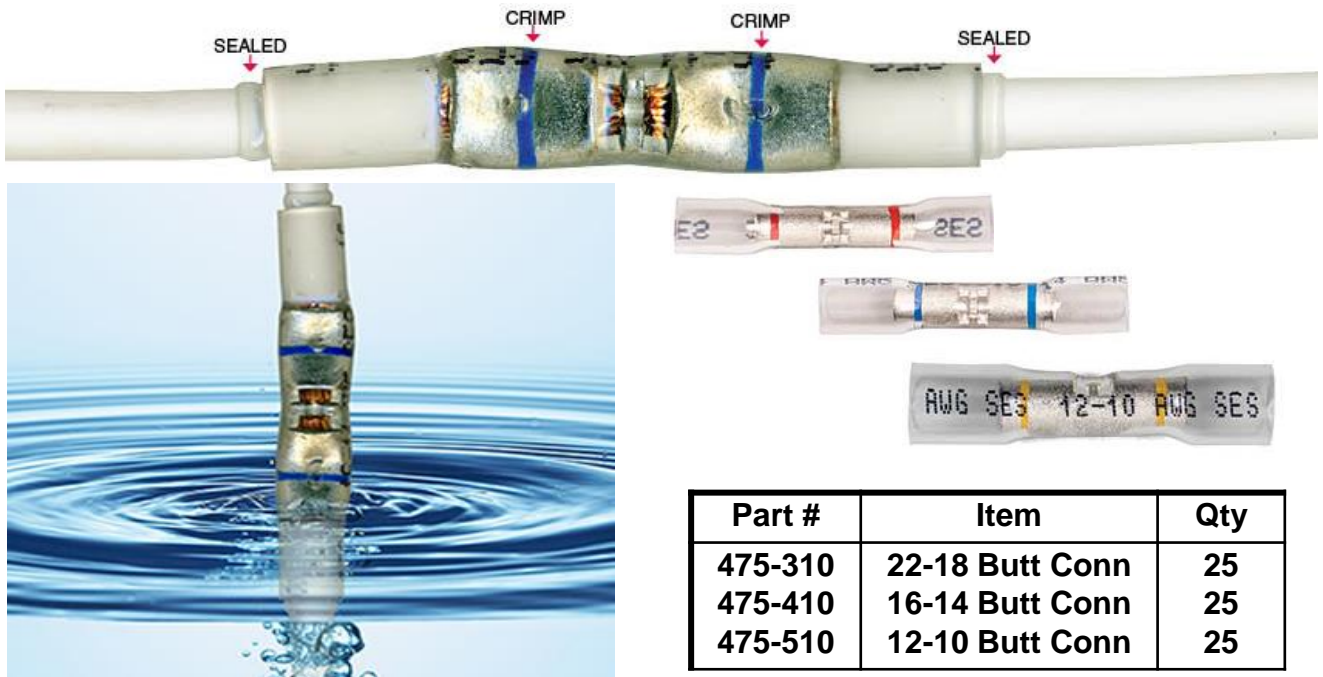


COMPLETELY SEALED CONNECTION

Illustration	Wire Range	Wire Size Joined	Color Code	CFIS Part #
	22-18 to 24-24	Two 24-22 to One 24-22	Blue Dashes	470-030 (10)
		Two 18-22 to One 12-10	Yellow Dashes	470-032 (10)
	18-10 to 8-10			

Heat Shrink Terminals

Take the Guesswork Out of Crimping! Sealed Crystal Clear Connectors



Part #	Item	Qty
475-310	22-18 Butt Conn	25
475-410	16-14 Butt Conn	25
475-510	12-10 Butt Conn	25

- Crystal Clear™ tubing provides optimal clarity for visual inspection
- Adhesive-Lined tubing ensures a waterproof seal
- Wire gauge imprint simplifies wire size identification
- Window in center of connector assures that wire is fully seated and that the wire is being crimped to the connector



Part #	Item	Qty
475-222	24-12 to 22-18 Butt Conn	25
475-224	22-18 to 16-14 Butt Conn	25
475-226	16-14 to 12-10 Butt Conn	25
475-230	12-10 to 8 Ga Butt Conn	25

Crystal Clear Heat Shrink Terminals

Take the Guesswork Out of Crimping!

Sealed Crystal Clear Connectors













Illustration	Stud Size	CFIS Part #	Illustration	Stud Size	CFIS Part #
	8-10 Ring	475-316 (25)		8-10 Fork	475-434 (25)
	8-10 Fork	475-334 (25)		.250 Female Full-Insl	475-442 (25)
	.250 Female Full-Insl	475-342 (25)		.250 Male Full-Insl	475-444 (25)
	.250 Male Full-Insl	475-344 (25)			

Illustration	Stud Size	CFIS Part #
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Illustration	Stud Size	CFIS Part #
	8-10 Ring	475-416 (25)
	1/4 Ring	475-418 (25)
	5/16 Ring	475-420 (25)
	3/8 Ring	475-422 (25)

	8-10 Ring	475-516 (25)
	1/4 Ring	475-518 (25)
	5/16 Ring	475-520 (25)
	3/8 Ring	475-522 (25)
	8-10 Fork	475-532 (25)
	.250 Female Full-Insl	475-542 (25)
	.250 Male Full-Insl	475-544 (25)

Heat Shrink Terminals




Premium Grade MULTI-WIRE CONNECTOR One wire to 2 wire

- Joins 2 wires on one side to 1 wire on the other.
- Joins wires of different diameter - such as 22 gauge to 14 gauge.
- Replaces bulky, awkward 3 way connectors.
- Provides compact, reliable connections.
- Color coded stripe on the "Step-Down" end gives quick and easy identification.

Illustration	Wire Size Joined	Color Code	CFIS Part #
	18-20 to 22-18	Clear	470-089 (25)
	22-16 to 16-14	Blue	470-090 (25)
	16-14 to 12-10	Yellow	470-091 (25)
	12-10 to 8 ga	Pink	470-092 (10)




- Pre-fluxed, low temperature solder, superior current flow and the highest tensile strength.
- Clear shrink tubing allows visually inspecting the connection.
- Shrink sealant melts during installation, sealing openings and locking out corrosion.
- Crimped, soldered & sealed connections meet or exceed the toughest OEM requirements.

Krimp & Solder Butt Connector

Illustration	Wire Size Joined	Color Code	CFIS Part #
	22-18	Red	474-290 (25)
	16-14	Blue	474-320 (25)
	12-10	Yellow	474-350 (25)

- Self-Soldering terminals
- One step the connection is soldered, completely insulated and sealed against corrosion.
- The proven reliability of real soldered connections.
- The durability of Solder & Sealant melts on installation, lock out corrosion.
- 2200 P.S.I. soldered tensile strength, Pullout strength exceeds 150 lbs. per terminal.

Solder Link Butt Connector

Illustration	Wire Size Joined	Color Code	CFIS Part #
	22-18	Red	474-520 (25)
	16-14	Blue	474-540 (25)
	12-10	Yellow	474-560 (25)

Weather Pack Environmental Connectors

Weather Pack Environmental Connector Housings

Weather Pack environmental connectors are designed to the engine compartment of a vehicle. They also are ideal for use in marine, agriculture and other harsh environmental applications. Snap-action lock housings and secondary terminal lock helps reduce terminal stress.



Shroud (female)



Tower (male)



Tower	Qty	O.E.M. #	Fig	Desc.	Fig	O.E.M. #	Shroud	Qty
476-050	6	12015791	A	1-way housing	F	12010996	476-070	6
476-052	6	12015792	B	2-way housing	G	12010973	476-072	6
476-054	4	12015793	C	3-way housing	H	12010717	476-074	4
476-056	3	12015797	D	4-way housing	I	12010974	476-076	3
476-058	2	12015799	E	6-way housing	J	12010975	476-078	2

Weather Pack Environmental Seals and Plugs

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

SAME AS : Metri-Pack 280 Seals and Plugs



Cavity Seals

Cavity Plug

Part #	O.E.M. #	Qty	Color	Description
476-122	12010300	25	Green Plug	Cavity plug
476-124	15324983	25	Red Seal	24-18 ga
476-126	15324982	25	Green Seal	20-18 ga
476-128	15324980	25	Gray Seal	16-14 ga
476-130	15324981	25	Blue Seal	12 ga

ASSEMBLY INSTRUCTIONS



1. Put seal onto cable before stripping insulation.



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



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



4. Male and female housings connect together until locked once steps 1, 2, and 3 are completed.

Weather Pack Environmental Connectors

Weather Pack Environmental Connector Housings

Weather Pack environmental connectors are designed to the engine compartment of a vehicle. They also are ideal for use in marine, agriculture and other harsh environmental applications. Snap-action lock housings and secondary terminal lock helps reduce terminal stress.



Shroud (female)



Tower (male)



10" Leads of 14 gauge black GXL wire

Tower	Qty	Fig	Desc.	Fig	Shroud	Qty
476-010	Ea	A	1-way housing	F	476-030	Ea
476-012	Ea	B	2-way housing	G	476-032	Ea
476-014	Ea	C	3-way housing	H	476-034	Ea
476-016	Ea	D	4-way housing	I	476-036	Ea
476-018	Ea	E	6-way housing	J	476-038	Ea

Weather Pack Environmental Connectors

Weather Pack Environmental Connector Housings

Weather Pack environmental connectors are designed to the engine compartment of a vehicle. They also are ideal for use in marine, agriculture and other harsh environmental applications. Snap-action lock housings and secondary terminal lock helps reduce terminal stress.



Weather Pack Environmental Terminals

The flex-pin and lap-lock design gives these terminals a positive connection. Dual "tangs" lock the terminal into the connector cavity. Cable seal crimp wings reduce strain on the cable core and assure proper positioning of the cable seal.



Male Pin	O.E.M. #	Qty	Desc.	O.E.M. #	Fem Socket
476-154	12089040	25	20-18 ga term	12089188	476-155
476-160	12124582	25	16-14 ga term	12124580	476-161
476-168	12124587	25	12 ga term	12124581	476-169



Weather Pack and Metri-Pack 150 & 280 Crimp Tools

Weather Pack and Metri-Pack 150 & 280 Tools are designed for positive crimp and removal of terminals.



Part #	O.E.M. #	Fig	Qty	Desc.
476-460	WPT-18	A	ea	Weather Pack Crimping Tool
476-465	12014012	B	ea	Weather Pack Extraction Tool
476-470	12012000	C	ea	Weather Pack Pick Narrow
476-472	8913369	C	ea	Weather Pack Pick Wide

ASSEMBLY INSTRUCTIONS



1. Put seal onto cable before stripping insulation.



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

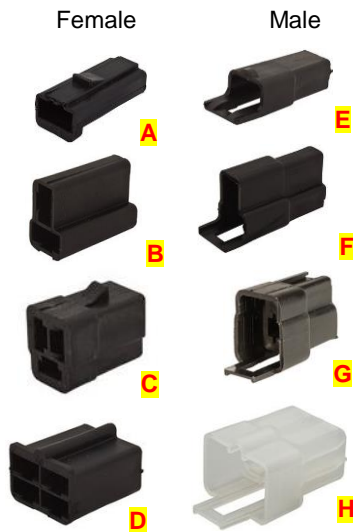


3. Once all terminals are inserted, lock wire and seals as shown above.



4. Male and female housings connect together until locked once steps 1, 2, and 3 are completed.

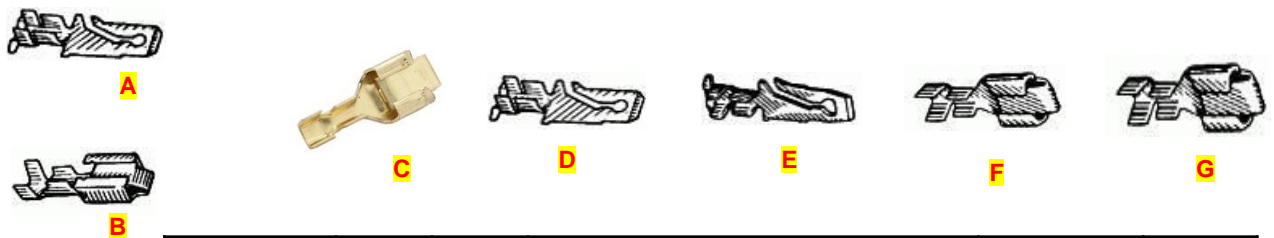
Packard Type 56 Series Connectors



Packard Type 56 Series Housings

These quick connectors were OEM connectors on American cars from 50's, 60's, 70's and early 80's. They are available in 1-2-3 or 4 contact housings and housings have locking tabs for both male and female terminals

Female	Fig	Qty	Desc.	Male	Fig
476-620	A	2	1-way housing	476-622	E
476-624	B	2	2-way housing	476-626	F
476-628	C	2	3-way housing	476-630	G
476-632	D	2	4-way housing	476-634	H



Male	Fig	Qty	Desc.	Female	Fig
476-650	A	25	16-14 Tin Plated	476-652	B
-----	--	25	16-14 Brass Unplated	476-655	C
476-657	D	25	16-14 Tin Plated	-----	--
476-662	E	25	12-10 Tin Plated	-----	--
-----	--	25	16-14 Tin Plated 5/16" Tab	476-680	F
-----	--	25	16-14 Tin Plated 3/8" Tab	476-685	G

OEM Type Crimping Crimp Tools

This tool crimps 20-12 gauge OEM type (open barrel) automotive terminals. There are five crimping stages. Five dies make rollover crimps on both stranding (electrical crimp) and insulation (strain relief crimp). For use on AT and Packard connectors.

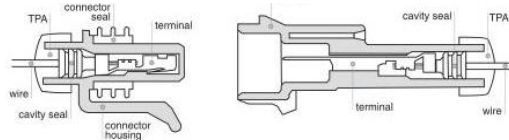


Part #	Fig	Qty	Desc.
476690	A	ea	OEM / 56 Series Crimper

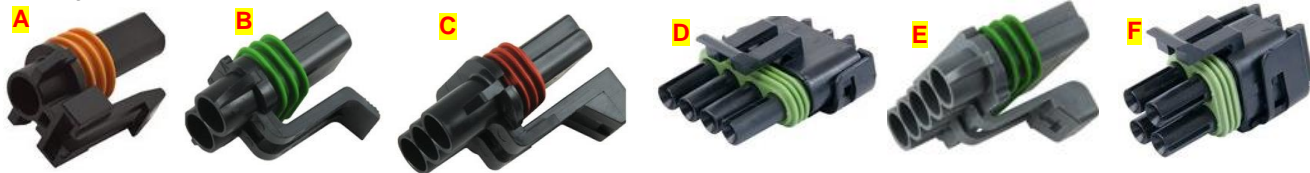
Metri-Pack 280 Sealed Connectors

Metri-Pack Sealed 280 Series Connector Housings

Positive locking action ensures proper connections between housings. Made from heat stabilized, impact modified Polyamide 66 material. Tri-ribbed seal on female housing aids in resistance to harsh environments. Temp rating -40°C to 125°C



Housing (female)



Housing (male)



Female	O.E.M. #	Fig	Qty	Desc.	Fig	O.E.M. #	Male
476-870	12065172	A	4	1-way housing	G	12065171	476-850
476-872	15300027	B	4	2-way housing	H	15300002	476-852
476-874	12040977	C	3	3-way housing	I	15300003	476-854
476-876	12129565	D	2	4-way housing	J	12129600	476-856
476-878	12084891	E	2	5-way housing	K	12186400	476-858
476-880		F	2	4-way housing Square	L		476-860

Metri-Pack Terminal Position Assurance - TPA

Firmly holds terminals in connector housings. Helps reduce tension between terminal and wire connection. Made from heat stabilized, impact modified Polyamide 66 material.

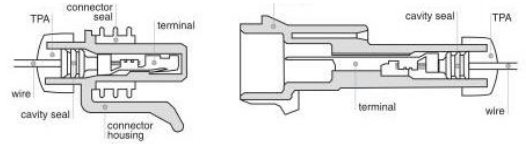


Female	O.E.M. #	Fig	Qty	Description	Fig	O.E.M. #	Male
476-952	12065249	A	4	1-way TPA	A	12065249	476-952
476-954	15300014	B	4	2-way TPA	B	15300014	476-954
476-980	12034145	C	3	3-way TPA	D	15300015	476-956
476-962	15300016	E	2	4-way TPA	F	15324063	476-960
476-966	15324857	G	2	5-way TPA	H	12084673	476-964

Metri-Pack 280 Sealed Connectors

Metri-Pack Sealed 280 Series Connector Housings

Positive locking action ensures proper connections between housings. Made from heat stabilized, impact modified Polyamide 66 material. Tri-ribbed seal on female housing aids in resistance to harsh environments. Temp rating -40°C to 125°C



Metri-Pack Terminals

Terminals are push-to-seat. Singular “tang” lock terminals into housing, ensuring proper insertion. Tin-plated for added protection from corrosion.



Male Pin	O.E.M. #	Qty	Desc.	O.E.M. #	Fem Socket
476-912	12124977	25	22-20 ga term	12084201	476-914
476-916	12084201	25	18-16 ga term	12077411	476-918
476-920	12129497	25	14-12 ga term	12129493	476-922
476-924	12048254	25	10-12 ga term	12077413	476-926

Metri-Pack Terminal Seals and Plugs

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

SAME AS : Weather Pack Environmental Seals and Plugs



Cavity Seals

Part #	O.E.M. #	Qty	Color	Description
476-124	15324983	25	Red Seal	24-18 ga
476-126	15324982	25	Green Seal	20-18 ga
476-128	15324980	25	Gray Seal	16-14 ga
476-130	15324981	25	Blue Seal	12 ga



Cavity Plug

Part #	O.E.M. #	Qty	Color	Description
476-122	12010300	25	Green Plug	Cavity plug

Metri-Pack 150 Terminal Connectors

Metri-Pack Sealed 150 Series Connector Housings

Current capability: 0-14 amps

One terminal & one cable seal are required for each cavity & one secondary lock is required for each connector.

Cavity plugs are required for each unused cavity.



Female



Male



Female	Qty	O.E.M. #	No. of Cavities	O.E.M. #	Male	Qty
477-002	Ea	12052641	2	12162000	477-012	Ea
477-003	Ea	12110293	3	12129615	477-013	Ea
477-004	Ea	12162144	4	12162102	477-014	Ea
477-006	Ea	12052848	6	12125107	477-016	Ea
477-008	Ea	120479937	8	12047931	477-018	Ea



477-030

Secondary Lock	O.E.M. #	No. of Cavities	Qty
477-022	12052634	2	Ea
477-023	12052845	3	Ea
477-024	12047948	4	Ea
477-026	12052850	6	Ea
477-028	12066304	8	Ea
477-030	12047936	8	Ea

Metri-Pack 150 Terminal Connectors

Metri-Pack Sealed 150 Series Connector Housings

Current capability: 0-14 amps

One terminal & one cable seal are required for each cavity & one secondary lock is required for each connector.

Cavity plugs are required for each unused cavity.



Part #	Qty	O.E.M. #	Color	Wire Gauge
477-040	Ea	15324974	Blue	20
477-042	Ea	15324973	Dark Red	16
477-044	Ea	15324976	White	18



Part #	Qty	O.E.M. #	Color
477-050	Ea	12059168	Dark Red



Male

Part #	Qty	O.E.M. #	Wire gauge
477-062	25	12077628	22-20
477-064	25	12045773	18-16



Female

Part #	Qty	O.E.M. #	Wire gauge
477-066	25	12084200	22-20
477-068	25	12048074	18-16



PACKARD CONNECTOR POSITION ASSURANCE
FOR USE ON ALL METRI PACK SEALED CONNECTIONS

Part #	Qty	O.E.M. #	Color
477-080	Ea	12020833	White

Deutsch: AT / DT Terminal Connectors

DEUTSCH DT SERIES CONNECTORS “GENERAL PURPOSE”

DT series connectors provide superior electrical properties and weather resistance in an attractive, economical and user friendly product. The Deutsch DT connector system is the preferred choice for many top NASCAR, IRL, CCWS, Formula 1, ALMS, Grand American Road Racing Association Racing Teams, and by leading manufactures due to its reliability, serviceability, and common terminal / crimper system.



Receptacle	Qty	O.E.M. #	No. of Cavities	O.E.M. #	Wedge	Qty
477-172	3	DT04-2P	2	W2P	477-202	3
477-174	3	DT04-3P	3	W3P	477-204	3
477-176	2	DT04-4P	4	W4P	477-206	2
477-178	2	DT04-6P	6	W6P	477-208	2
477-180	2	DT04-08PA	8	W8P	477-210	2
477-181	2	DT04-12PA	12	W12P	477-212	2

NOTE: Receptables accept pin terminals



Plug	Qty	O.E.M. #	No. of Cavities	O.E.M. #	Wedge	Qty
477-160	3	DT04-2S	2	W2S	477-182	3
477-162	3	DT04-3S	3	W3S	477-184	3
477-164	2	DT04-4S	4	W4S	477-186	2
477-166	2	DT04-6S	6	W6S	477-188	2
477-168	2	DT04-08SA	8	W8S	477-190	2
477-170	2	DT04-12SA	12	W12S	477-192	2

NOTE: DT Series connectors will only accept contact size 16 terminals and plugs

Deutsch: AT / DT Terminal Connectors

DEUTSCH DT SERIES CONNECTORS

DT series connectors provide superior electrical properties and weather resistance in an attractive, economical and user friendly product. The Deutsch DT connector system is the preferred choice for many top NASCAR, IRL, CCWS, Formula 1, ALMS, Grand American Road Racing Association Racing Teams, and by leading manufactures due to its reliability, serviceability, and common terminal / crimper system.



Gold Plated



Gold Solid Male Pin	Qty	O.E.M. #	Wire Size	O.E.M. #	Gold Solid Fem Socket	Qty
477-216	Ea	0460-202-1631	16-20	0462-201-1631	477-218	Ea
477-217	Ea	0460-215-1631	16-14	0462-209-1631	477-219	Ea



Nickle Plated



Nickle Solid Male Pin	Qty	O.E.M. #	Wire Size	O.E.M. #	Nickle Solid Fem Socket	Qty
477-224	10	0460-202-16141	16-20	0462-201-16141	477-220	Ea
477-225	10	0460-215-16141	14-16	0462-209-16141	477-221	Ea

Please Note: Crimping Solid Pins Requires Deutsch Tool



Stamped



Stamped Male Pin	Qty	O.E.M. #	Wire Size	O.E.M. #	Stamped Fem Socket	Qty
477-322	Ea	1060-14-0122	16-14	1062-14-0122	477-324	Ea
477-328	Ea	1060-16-0122	18-16	1062-16-0122	477-330	Ea



Sealing Plug Male Pin	O.E.M. #	Contact Size	Qty
477-230	114017	16	Ea

Deutsch: DTM Terminal Connectors

DEUTSCH DTM SERIES CONNECTORS

are the answer to all of your smaller wire gauge applications. Building on the DT design strengths, the DTM connector line was developed to fill the need for lower amperage, multi-pin, inexpensive connectors. The DTM Series offers the designer the ability to use multiple size 20 contacts, each with 7.5 amp continuous capacity, within a single shell.



Receptacle	Qty	O.E.M. #	No. of Cavities	O.E.M. #	Wedge	Qty
477-522	Ea	DTM04-2P	2	WM-2P	477-562	Ea
477-523	Ea	DTM04-3P	3	WM-3P	477-563	Ea
477-524	Ea	DTM04-4P	4	WM-4P	477-564	Ea
477-526	Ea	DTM04-6P	6	WM-6P	477-566	Ea
477-528	Ea	DTM04-08PA	8	WM-8P	477-568	Ea
477-530	Ea	DTM04-12PA	12	WM-12P	477-570	Ea



Plug	Qty	O.E.M. #	No. of Cavities	O.E.M. #	Wedge	Qty
477-542	Ea	DTM06-2S	2	WM-2S	477-582	Ea
477-543	Ea	DTM06-3S	3	WM-3S	477-583	Ea
477-544	Ea	DTM06-4S	4	WM-4S	477-584	Ea
477-546	Ea	DTM06-6S	6	WM-6S	477-586	Ea
477-548	Ea	DTM06-08SA	8	WM-8S	477-588	Ea
477-550	Ea	DTM06-12SA	12	WM-12S	477-590	Ea

NOTE: DTM Series connectors will only accept contact size 20 terminals and plugs

Deutsch: DTM Terminal Connectors

DEUTSCH DTM SERIES CONNECTORS

are the answer to all of your smaller wire gauge applications. Building on the DT design strengths, the DTM connector line was developed to fill the need for lower amperage, multi-pin, inexpensive connectors. The DTM Series offers the designer the ability to use multiple size 20 contacts, each with 7.5 amp continuous capacity, within a single shell.



Solid

Solid Male Pin	Qty	O.E.M. #	Wire Size	O.E.M. #	Solid Fem Socket	Qty
477-622	10	0460-202-20141	20	0462-201-20141	477-624	10

Please Note: Crimping Solid Pins Requires Deutsch Tool



Stamped

Stamped Male Pin	Qty	O.E.M. #	Wire Size	O.E.M. #	Stamped Fem Socket	Qty
477-626	10	1060-20-0122	20	1062-20-0122	477-628	10



Sealing Plug	O.E.M. #	Qty
477-635	0413-204-2005	Ea

INSTALLATION



Deutsch: Terminal Tools

DT SERIES



477-820

DTM SERIES



477-822

DTP SERIES



477-824

DTHD SERIES



477-826

Part #	Qty	O.E.M. #	Color	Contact Size	Wire Gauge
477-820	Ea	0411-310-1605	BLUE	16	18-16
477-822	Ea	0411-240-2005	RED	20	22-20
477-824	Ea	114010	YELLOW	12	14-12
477-826	Ea	114009	WHITE	4	6

OPEN BARREL CRIMP is designed to crimp non-insulated, open barrel terminals, also known as OEM terminals. It has five crimp stations that roll the open barrel terminal tabs over the wire and insulation, crimping them to the terminal.

- Crimps 24-12 gauge OEM type (open barrel) automotive terminals
- Five crimping stages
- "F" crimping nests make rollover crimps on both stranding (electrical crimp) and insulation (strain relief)
- Ideal crimp tool for Deutsch Compatible A Series Connectors



Part Number	O.E.M. #	Qty
477-100	12085271	Ea

Deutsch Contact Extraction Tool is a must have for any installation or removal of new or old harnesses and wiring.

Part Number	O.E.M. #	Qty
477-830	DT-RT-1	Ea



A SERIES REMOVAL TOOL Is a stainless steel tool designed with specific features that allow you to remove components from both the A Series receptacle and plug sealed connector assemblies.



Part Number	Description	Qty
477110	AT, ATM, ATP Series removal tool	Ea

Deutsch: Terminal Kits



224 piece no crimper tool

This Deutsch Compatible AT Series Connector Kit contains an assortment of essential components needed for AT series connector assembly. With 224 pieces total, the kit holds all of the connector housings, terminals and wedges needed to make multiple wire connections. The kit is designed to provide the inventory needed for fleet maintenance or when working on multiple projects. Kit components are compatible with all Deutsch DT series and Amphenol AT series Connectors

Part #	Qty	Desc.
477-150	Ea	AT Series kit



129 piece with crimper tool

This Deutsch Compatible AT Series Connector Kit contains an assortment of essential components needed for AT series connector assembly. With 129 pieces total, the kit holds all of the connector housings, terminals and wedges needed to make multiple wire connections. The kit is designed to provide the inventory needed for fleet maintenance or when working on multiple projects. Kit components are compatible with all Deutsch DT series and Amphenol AT series Connectors

Part #	Qty	Desc.
477-155	Ea	AT Series kit with crimper

Terminal Tools

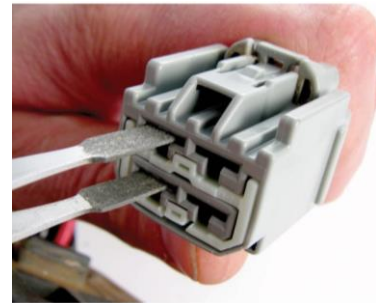
Provides the Necessary Tools for Cleaning, Restoring and Maintaining the Most Common Electrical Terminals From the Front of the Tractor to the Back of the Trailer.

The HD Fleet Technician's Electrical Terminal Maintenance Set cleans and repairs most every type of electrical connectors found on cars, trucks, and industrial equipment in North America. The set is used as both a service and preventative maintenance tool for applications such as: Deutsch, Cannon, 7 round pin trailer harnesses, Weather Pack, Bullet Connectors, common ABS sensor and power connectors, trailer light plugs and more. Packaged in a leather-type custom holster, the set includes two sizes of flat male and female terminal cleaners, two gold 7 round pin socket harness cleaners, one black ABS sensor/power connector cleaner, ten diamond micro round files, one trailer light bullet connector cleaner and a tube of contact cleaner.



Technician's Kit

Part Number	Item
478-250	Full Kit



Features and Benefits:

- Male and female electrical terminals
- Removes corrosion and extends harness life
- Ensures proper diagnostic connectivity
- Connector types: Deutsch, Cannon, 7-way round pin, Bullet, Weather Pack, common ABS sensor and power connectors, trailer light connectors, common plow connectors, etc
- Includes premium-quality holster with magnetic clasp



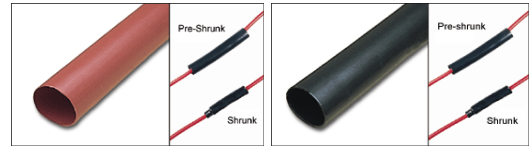
Part Number	Item
478-260	4 Piece Kit

Technician's 4-piece Kit








Heat Shrink Tubing

- Flexible tubing absorbs bending stress and vibration
- Meltable inner wall bonds tube to wire and cable for a waterproof seal.
- Provides excellent strain relief and protection.
- 3 to 1 shrink ratio – one size covers multiple wire ranges.

Dual Wall Heat Shrink Tubing Medium Grade Heat Shrink Tubing



6" Length

Illustration	Pre-Shrunk	Qty	Black CFIS Part #	Clear CFIS Part #	Red CFIS Part #
	1/8	4	479-102	479-150	479-176
	3/16	4	479-104	479-152	479-178
	1/4	4	479-106	479-154	479-180
	3/8	4	479-108	479-156	479-182
	1/2	4	479-110	479-158	479-184
	3/4	4	479-112	479-160	479-186
	1"	2	479-114	479-165	479-188




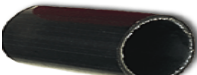
Part #	Qty	Desc.
479-546	Ea	3/16" x 48"
479-550	Ea	1/4" X 48"
479-554	Ea	3/8" X 48"

- Extra thick wall design provides maximum abrasion, vibration & stress resistance in heavy duty applications.
- Meltable inner wall sealant bonds tubing to wire and cable for a weatherproof, completely sealed connection.
- Ideal for over-the-road trucks, battery cable ends.
- 3 to 1 shrink ratio – one size covers multiple wire ranges.

Dual Wall Heat Shrink Tubing Medium Grade Heat Shrink Tubing



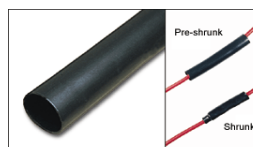
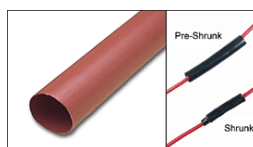
1-1/2" Length

Illustration	Pre-Shrunk	Qty	Black CFIS Part #	Red CFIS Part #
	.50	10	479-510	479-515
	.75	10	479-520	479-525
	1.10	5	479-530	479-535


Heat Shrink Tubing

- Extra thick wall design provides maximum abrasion, vibration & stress resistance in heavy duty applications.
- Melttable inner wall sealant bonds tubing to wire and cable for a weatherproof, completely sealed connection.
- Ideal for over-the-road trucks, battery cable ends.
- 3 to 1 shrink ratio – one size covers multiple wire ranges.

Heavy-Dual Wall Heat Shrink Tubing Premium Grade Heat Shrink Tubing




6" Length

Illustration	Pre-Shrunk	Qty	Black CFIS Part #	Red CFIS Part #
	.30	4	479-300	479-301
	.40	4	479-302	479-304
	.80	4	479-310	479-312
	1.10	2	479-314	479-316

Translucent Heat Shrink Tubing Dual Wall Tubing

- Translucent tubing allows full visibility and inspection of electrical connection.
- Heavy duty tubing wall provides superior protection and durability.
- Melttable inner wall sealant bonds tubing to wire for a weatherproof seal and prevents vibration and flexing from pulling tubing away from wire and opening the seal.
- Provides excellent strain relief and protection.
- 3 to 1 shrink ratio – one size covers multiple wire ranges.
- Flame resistant, waterproof and resists hydraulic fluids, oil and chemicals.

6" Length

Illustration	Pre-Shrunk	Qty	Color	Red CFIS Part #
	1/8	4	Clear	479-202
	3/16	4	Red	479-204
	1/4	4	Blue	479-206
	5/16	4	Yellow	479-208

Battery Terminals

SOLDER SLUG PELLETS WITH FLUX CORE

- For Battery Terminals, Lugs, and other Copper Cable Ends
- These solder pellets provide maximum conductivity and a corrosion-proof seal
- The result is a high quality termination without the need for expensive crimping tools
The pre-measured amount of solder is color coded to match industry standard wire size identification colors.
- The flux core prevents dirt and contaminants from interfering with the soldering process



Solder Pellets

Part #	Color	Item	Qty
490-120	Gray	4 Ga	10
490-130	Green	1 Ga	10
490-160	Black	1/0	10
490-170	Orange	2/0	10
490-180	Purple	3/0	10



INSTALLATION INSTRUCTIONS

1. Using the proper sized cable, measure the amount of insulation to be stripped by placing the cable next to the length of the barrel. Mark the cable with your thumb at the point where it meets the end of the open barrel.
2. Strip the cable using a cable stripping device. After removing the insulation, check by inserting the cable into the barrel to make sure the insulation is snug against the top of the barrel.
3. Next, secure the battery terminal in a vise. Make sure that the offset portion of the barrel is facing you.
4. Place the proper solder pellet into the barrel of the terminal.
5. Slide the heat shrinkable tubing over the cable.
6. Apply several drops of the liquid flux to the exposed wire strands.
7. Pre-heat the solder and terminal with a propane torch.
Make sure that you are heating the offset portion of the terminal barrel.
8. After pre-heating, carefully insert the exposed cable into the barrel of the terminal and continue to heat.
9. As the solder melts, allow the exposed wire strands to sink into the terminal until the insulation is snug against the top of the barrel.
10. Slide the heat shrinkable tubing over the connection and apply indirect heat to the tubing.
11. When the tubing has fully recovered, remove the heat source and allow the connection to cool.

Battery Terminals

CABLE SPLICES

- 100% tin-plated copper alloy
- Resists corrosion
- Thick wall for strong crimp
- Crimp or solder to cable

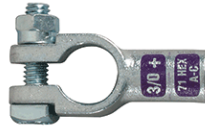


Cable Splicers

Part #	Item	Qty
491-110	4 Ga	5
491-112	1-2 Ga	5
491-114	1/0	5
491-116	2/0	5
491-118	3/0	5
491-119	4/0	2

STRAIGHT TERMINALS

- 100% tin-plated copper alloy
- Bolt & shoulder nut included
- Resists corrosion
- Gauge and polarity stamped on terminal
- Thick wall for strong crimp



Crimpable Terminals

Part #	Item	Type	Qty
491-120	4 Ga	Pos	2
491-121	4 Ga	Neg	2
491-125	2 Ga	Pos	2
491-126	2 Ga	Neg	2
491-127	1 Ga	Pos	2
491-128	1 Ga	Neg	2
491-135	1/0	Pos	2
491-136	1/0	Neg	2
491-141	2/0	Pos	2
491-142	2/0	Neg	2
491-145	3/0	Pos	2
491-146	3/0	Neg	2

ELBOW TERMINALS

- 100% tin-plated copper alloy
- Bolt & shoulder nut included
- Resists corrosion
- Gauge and polarity stamped on terminal
- Thick wall for strong crimp



Crimpable Elbow Terminals

Part #	Item	Type	Qty
491-160	2/0	Pos	2
491-162	2/0	Neg	2

FLAG TERMINALS

- 100% tin-plated copper alloy
- Bolt & shoulder nut included
- Resists corrosion
- Gauge and polarity stamped on terminal
- Thick wall for strong crimp



Battery Ends Flag

Part #	Item	Type	Qty
491-166	2/0	Pos	2
491-168	2/0	Neg	2

Battery Terminals

LOCKING ANTI-ROTATING STACKABLE LUGS

- 100% tin-plated copper alloy
- Resists corrosion
- Thick wall for strong crimp
- Gauges identified on lugs
- Crimp or solder to cable
- 3/8" hole size



Battery Ends Stackable

Part #	Item	Qty
491-178	2/0	2
491-180	3/0	2

GROUP 31 NUTS

- Closed top has 3/8"-16 UNC thread and 9/16" hex head
- Open top has 3/8"-16 UNC thread and 9/16" hex head.



S/S Battery Nut

Part #	Item	Qty
491-184	Nut	5

GROUP 31 OR STUD STYLE CONVERSION POSTS

- Use to convert 3/8" stud type terminals to post type terminals



Battery Nut

Part #	Item	Qty
491-187	universal	5

OEM REPLACEMENT SIDE TERMINAL BOLTS

- 3/8"-16 UNC thread
- Use long bolt and/or spacer for dual cable hook-up
- Bolt head 5/16"



Part #	Item	Fig	Qty
491-194	short	A	5
491-196	long	B	5

BRASS BOLT EXTENDERS

- For adding direct to battery auxiliary connections

1-3/4"

Short
Side Bolt



A 3/8-16
Thread

1-13/16"

Short
Side Bolt



B 3/8-16
Thread

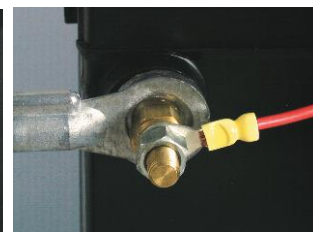
1-7/16"

Short
Side Bolt



C 5/16-18
Thread

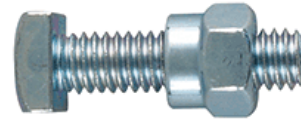
Part #	Item	Fig	Qty
491-186	1-3/4	A	2
491-185	1-13/16	B	2
491-183	1-7/16	C	2



Battery Terminals

BATTERY BOLT WITH SHOULDER NUT

- Zinc-plated
- 5/16"-18 x 1-1/4" bolt
- 5/16"-18 hex nut



Part #	Item	Qty
491-188	5/16-18 X 1-1/4 Bolt & Nut	25
491-189	5/16-18 X 1-1/2 Bolt & Nut	25
491-190	5/16-18 Nut Only	25

EXTRA HEAVY-DUTY COPPER LUGS

- Thicker walls for greater strength and conductivity
- Used for severe-duty applications
- Gauge stamped on lug for easy identification
- Lugs can be crimped or soldered and are stackable Tin-plated copper



Part #	Item	Size	Qty
491-204	4 Ga	3/8	5
491-218	6 Ga	5/16	5
491-220	6 Ga	3/8	5
491-228	1-2 Ga	3/8	5
491-230	1/0	3/8	5
491-232	1/0	1/2	5
491-233	2/0	5/16	5
491-234	2/0	3/8	5
491-236	2/0	1/2	5
491-238	3/0	3/8	5
491-240	3/0	1/2	5
491-244	4/0	3/8	2
491-246	4/0	1/2	2

Battery Terminals

Side Terminal

- Fits 6 through 1 gauge cabling
- Industry approvals: RoHs compliant
- Constructed of Magnesium-Aluminum alloy with plated steel cable clamp and hardware
- Intended for use with side Terminal Batteries and side Terminal Battery Cables
- Heavy-duty lead-free battery terminal replaces worn or corroded terminals



Part #	Type	Fig	Qty
491-277	Univ (card) 7ea	A	7
491-280	Univ End	B	5
491-285	Replacement Bolt	C	5

Heavy-Duty Truck Terminal

3-WAY TOP POST
COMMERCIAL TERMINAL
Fits 2 to 4/0 gauge cables



Part #	Type	Qty
491-320	Positive	2
491-322	Negative	2

Light-Duty Battery Terminal



Part #	Item	Qty
491-305	Univ End	5
491-303	Card of 10	Ea

Medium-Duty Battery Terminal



Part #	Item	Qty
491-310	Univ End	5
491-308	Card of 10	Ea

Heavy-Duty Battery Terminal



Part #	Item	Qty
491-312	Univ	5

Battery Terminals

Marine Battery Terminal



Part #	Item	Type	Qty
491-343	2/0	Universal Card	Ea
491-345	2/0	Universal	5
491-350	2/0	Positive	2
491-352	2/0	Negative	2

OEM Battery Terminal

- Terminal made of tin-plated brass
- Stud size is 5/16"
- Comes with 2 lugs to fit 5/16" studs
- Allows straight or angled hook-up to cable



Set 1 Positive and 1 Negative

Part #	Item	Type	Qty
491-380	2/0	Pos & Neg Set	Set

Military Ordinance Terminal



5/16" Battery Bolt & Nut
3/8" Lug Bolt & Nut

Part #	Item	Type	Qty
491-362	2/0	Positive	2
491-364	2/0	Negative	2

Battery Terminals

COPPER LUGS

- Lugs can be crimped or soldered and are stackable • Gauge stamped on lug for easy identification • Flared ends for easy entry
- UL Listed



Copper Lugs

Part #	Item	Size	Qty
492-530	8 Ga	#10	10
492-532	8 Ga	1/4	10
492-534	8 Ga	5/16	10
492-536	8 Ga	3/8	10
492-538	8 Ga	1/2	10
492-540	6 Ga	#10	10
492-542	6 Ga	1/4	10
492-544	6 Ga	5/16	10
492-546	6 Ga	3/8	10
492-548	6 Ga	1/2	10
492-552	4 Ga	1/4	10
492-554	4 Ga	5/16	10
492-556	4 Ga	3/8	10
492-558	4 Ga	1/2	10
492-562	2 Ga	1/4	10
492-564	2 Ga	5/16	10
492-566	2 Ga	3/8	10
492-568	2 Ga	1/2	10

Copper Lugs

Part #	Item	Size	Qty
492-572	1 Ga	1/4	10
492-574	1 Ga	5/16	10
492-576	1 Ga	3/8	10
492-578	1 Ga	1/2	10
492-583	1/0	1/4	5
492-584	1/0	5/16	5
492-586	1/0	3/8	5
492-588	1/0	1/2	5
492-592	2/0	1/4	5
492-594	2/0	5/16	5
492-596	2/0	3/8	5
492-598	2/0	1/2	5
492-605	3/0	5/16	5
492-606	3/0	3/8	5
492-608	3/0	1/2	5
492-612	4/0	3/8	5
492-614	4/0	1/2	5

Battery Terminals Tools

BATTERY SIDE TERMINAL CLEANING TOOL

- Coil spring cutters polish the battery contacts while stainless steel brushes clean the cable terminals.

Part #	Qty
493-010	EA



BATTERY POST & CLAMP CLEANING TOOL

- This tool cleans both post and terminals. Tapered reamer assures correct angles on terminal clamps.

Part #	Qty
493-015	EA



BATTERY BRUSH

- Cleans dirt and corrosion from post type battery terminals and cable clamps.
- Heavy-duty stainless steel wire.
- Case is made of high impact plastic that will not weaken in cleaning solutions

Part #	Qty
493-020	EA



HAMMER CRIMPER

- Crimping tool driven by hammer impact with locking lever for easy loading
- Crimps up to 2/0 battery terminals and 8 guage to 4/0 standard Lugs plus non-insulated terminals.
- Takes the place of 3 different tools.
- One nest and one indenter eliminates changing tooling to crimp different terminals.
- Extremely compact – just 4" high, fits anywhere.
- Strike ram with a hammer for perfect connections.
- Crimping scale on side of tool makes crimping easy and prevents under-crimping.
- Nested design eliminates over-crimping.
- Ideal for truck garages, fleet, automotive service, off-road equipment, Farms.



Part #	Qty
413-070	EA

Battery Terminals Tools

CABLE CUTTER

- For cutting copper or aluminum
- Precise blades give clean cut, minimum distortion.
- Contoured grips provide safe and easy operation.
- Heavy-duty construction for lasting durability.



Part #	Qty
413-065	EA

HEAVY DUTY CRIMPING TOOL (8 guage to 1/0)

- Unique triangular crimp exerts equal pressure around the terminal, centers the cable and forms a solid mass of copper.
- Works on any battery terminal or lug.
- Crimps AWG or metric sizes.
- Crimps battery terminals, lugs and conventional stamped terminals of any thickness quickly and accurately.
- Toggle action head distributes equal force on all sides of the terminal to eliminate pinching and fracturing.
- Simple two finger die setting adjustments – no rotating dies, pins or springs to miss-align or set incorrectly.
- Compact design fits easily into tight fitting areas.
- Crimps from 8 gauge to 1/0



Part #	Qty
413-075	EA

HEAVY DUTY CRIMPING TOOL (8 guage to 4/0)

- Unique triangular crimp exerts equal pressure around the terminal, centers the cable and forms a solid mass of copper.
- Works on any battery terminal or lug.
- Crimps AWG or metric sizes.
- Crimps battery terminals, lugs and conventional stamped terminals of any thickness quickly and accurately.
- Toggle action head distributes equal force on all sides of the terminal to eliminate pinching and fracturing.
- Simple two finger die setting adjustments – no rotating dies, pins or springs to miss-align or set incorrectly.
- Compact design fits easily into tight fitting areas.
- Crimps from 8 gauge to 1/0



Part #	Qty
413-080	EA

Wiring Tools

HEAVY DUTY CRIMPER TOOL

- Crimps vertically all wire end connections, including flags, closed end and crimp sleeves.
- Crimps insulated & non-insulated terminals from 26 to 6 gauge.
- True circular knife-edge strippers give clean stripping without rotating the tool.
- Crimping stations provide exceptional crimp force with minimum user efforts.
- Built-in wire cutter at tip gives easy cutting.
- High strength, heat treated carbon steel construction gives greater strength, reliability and longer life.

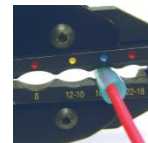


Part #	Item	Qty
413-125	Crimper Tool	Ea



HEAT SHRINK TERMINAL RATCHETING CRIMPER

- DESIGNED FOR HEAT SHRINK TERMINALS – Each crimp station is rounded to create a professional crimp without cutting or damaging the terminal's heat shrink insulation.
- PERFORMS PERFECT CRIMPS – EVERY TIME – Ratcheting mechanism locks in place and assures a complete crimp cycle is achieved before the tool opens.
- USE ON HEAT SHRINK & PLAIN TERMINALS – Parallel oval jaws properly crimp heat-shrink, nylon and vinyl insulated terminals.
- CRIMPS UP TO 8 GAUGE TERMINALS – Eliminates the need for a second crimping tool with the addition of a fourth 8 gauge crimping nest. Crimps terminals from 22 gauge to 8 gauge using one tool.
- 4 COLOR CODED CRIMP STATIONS – Each crimp station is labeled and color coded.
- ERGONOMIC DESIGN – Comfortable, cushioned rubber grips reduce hand fatigue caused by repetitive use.
- MAKE PROFESSIONAL CRIMPS WITH EASE
- SELF ALIGNING JAWS
- SAFETY RELEASE SWITCH



Release at any time



Part #	Item	Qty
413-130	RATCHETING Crimping Tool	Ea

Test Clips and Insulators

Illustration	Description		Qty	Red CFIS Part #	
	10 amp Length 2" – Jaws open to 5/16"Nickle Plated		5	493-100	

Illustration	Length	Max Opening	Qty	Red CFIS Part #	Black CFIS Part #
	1-1/4"	1/4"	5	493-101	493-102
	1-3/8"	5/16"	5	493-103	493-104
	1-5/8"	7/16"	5	493-105	493-106
	2"	7/16"	5	493-107	493-108

Illustration	Length	Max Opening	Qty	Red CFIS Part #	Black CFIS Part #
	10 AMP 2-1/16"	19/32"	5	493-109	493-110
	20 AMP 2-1/2"	3/4"	5	493-111	493-112
	30 AMP 2-3/4"	7/8"	5	493-113	493-114
	50 AMP 4-1/8"	1-1/2"	5	493-115	493-116

Illustration	AMP	LENGTH	Qty	Red CFIS Part #	Black CFIS Part #
	10 AMP	2-1/4	2	493-118	493-119
	30 AMP	3"	2	493-120	493-121
	50 AMP	3"	2	493-122	493-123








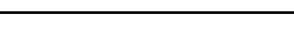
Illustration	DESC	Qty	Red CFIS Part #	Black CFIS Part #
	<ul style="list-style-type: none"> • 600 AMP 50 Pound clamping force. • Extra heavy duty. Securely clamps to post. • Specially designed to grip to side terminals and post terminals 	EA	493-125	493-127

Wire and Cable

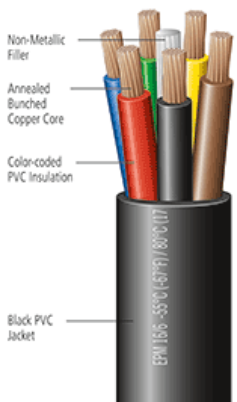
BATTERY CABLE: Full-gauge copper conductor wire ideal for connecting a battery to switch, starter, and ground. Tough, high temperature resistant PVC insulation is durable enough to handle heavy-duty automotive demands. Copper stranding is highly conductive maximizing current transfer while remaining flexible for easy installation.

Voltage: Rated at 60 Volts or less Temperature: Rated -50°C (-58°F) to 105°C (221°F)

Specifications: SAE J1127, SAE J378

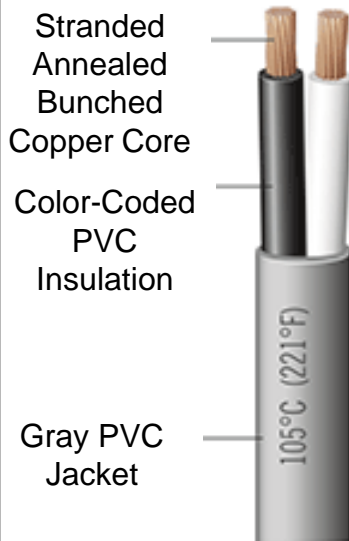
Stranded Annealed Bunched Copper Core		Illustration 25' ROLLS	Outside Diam.	Wire Gauge	Red CFIS Part #	Black CFIS Part #
			.380	4	495-006	495-008
Color-Coded PVC Insulation			.450	2	495-012	495-014
			.490	1	495-016	495-017
			.550	1/0	495-020	495-022
			.605	2/0	495-026	495-028
			.695	3/0	495-031	495-032

TRAILER CABLE: General-purpose primary wires encased in a high quality, PVC jacket. Specially designed for reliability as an integral part of the brake and safety system. Heavy-duty compact cable protects insulated conductors against weathering, chemicals, and abrasion. Color-coded conductors enable easy identification. Voltage: Rated at 60 Volts or less Temperature: Rated -65°C (-85°F) to 80°C (176°F) Specifications: Inner wires meet SAE J1128, SAE J378

	Wire Colors 100' ROLLS	# wire	Wire Gauge	Black CFIS Part #
	YELLOW/RED/GREEN/BROWN	4	16	496-005
	YELLOW/RED/GREEN/BROWN	4	14	496-020
	RED/GRN/BRN/WHT/BLK/YEL	6	14	496-025
	RED/GRN/BRN/WHT/BLK/YEL/BL	7	14	496-026
	BLU/WHT/BRN/GRN/RED/YEL/BL	7	6-14/1-12	496-027
	WHT/BLK/YEL/RED/GRN/BRN/BL	7	6-12/1-10	496-029

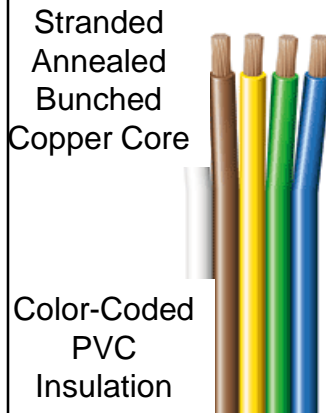
Wire and Cable

JACKETED DUPLEX WIRE: Two-conductor, general-purpose primary wires covered in a high quality PVC jacket. Ideal for use in truck, bus, tractor, light-duty boats, and general service applications. Heavy-duty compact cable protects insulated conductors against weathering, chemicals, and abrasion. Color-coded conductors enable easy identification. Voltage: Rated at 60 Volts or less Temperature: Rated -40°C (-40°F) to 80°C (176°F) Specifications: Inner wires meet SAE J1128, SAE J378



Wire Colors 100' ROLLS	# wire	Wire Gauge	Black CFIS Part #
BLACK/WHITE	2	18	496-036
BLACK/WHITE	2	16	496-030
BLACK/WHITE	2	14	496-031
BLACK/WHITE	2	12	496-032
BLACK/WHITE	2	10	496-033
BLACK/GREEN/WHITE	3	14	496-034
WHT/GRN/RED/BLK	4	14	496-035

BONDED PARALLEL WIRE: Multiple primary wires parallel bonded with color-coding for identification purposes. Ideal for use in RVs, marine, and utility trailer applications. Built to stay together under the toughest operating conditions yet easy to separate at the end of a run for final terminal connection. All-copper stranded core is highly conductive maximizing current transfer while remaining flexible for easy installation. Voltage: Rated at 60 Volts or less Temperature: Rated -40°C (-40°F) to 80°C (176°F) Specifications: SAE J1128, SAE J378

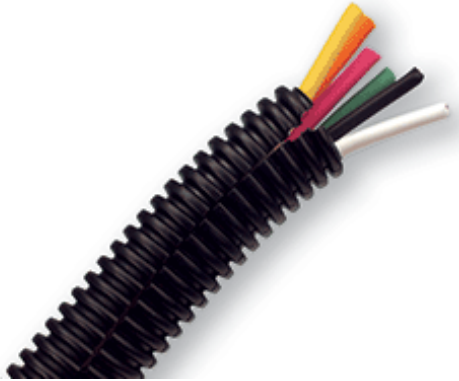


Wire Colors 100' ROLLS	# wire	Wire Gauge	Black CFIS Part #
RED/BLACK	2	18	496-037
BROWN/YELLOW/GREEN	3	16	496-040
WHITE/BROWN/YELLOW/GREEN	4	14	496-044
BROWN/YELLOW/GREEN	3	14	496-043
RED/BLACK	2	14	496-042

Wire Protecting Loom

Convuluted Split Loom

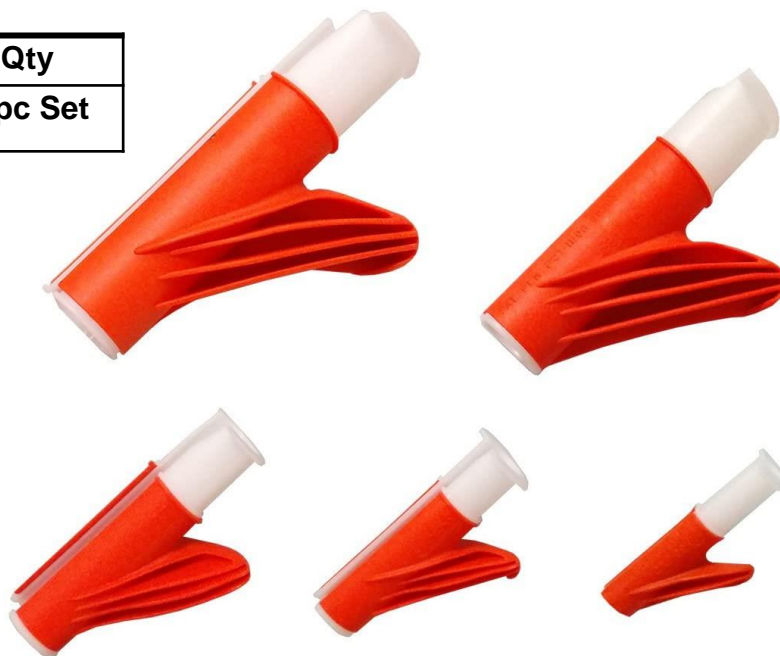
- Black polyethylene corrugated loom is durable; split for easy installation.
- For protection of wires on cars, buses, trucks, and boats.
- Coiled and boxed. • Temp rating of 93°C (200°F) • RoHS Compliant



Part #	Item	Qty
498-114	1/4	200'
498-116	3/8	150'
498-118	1/2	100'
498-119	5/8	50'
498-120	3/4	50'
498-122	1"	50'
498-124	1-1/4	25'
498-126	1-1/2	25'
498-128	2"	25'

5 Piece Wire Loom Cable Insertion Tool Set for 3/8" to 2"

Part #	Item	Qty
498-100	1-1/2"	5-pc Set



Wire Protecting Loom

SPIRAL CUT LOOM



- Black polyethylene spiral wrap loom
- For protection of wires on cars, buses, trucks, and boats.
- Resists abrasion, chemicals, fuel, oil, moisture and vibration.

Allows flexibility routing and lead-out of wiring and cable.

Temp rating of 93°C (200°F) • RoHS

Part #	Item	Qty
498-135	1/8	100'
498-145	3/8	100'
498-155	1/2	100'
498-180	3/4	100'
498-186	1"	100'

Tube Clamps

Wiring, Loom & Tube Clamps

NYLON CLAMPS Help reduce vibration while holding the loom or cable in place preventing movement and chafing. Typical application include loom, wire, wire harness and or hydraulic hose

Nylon Tubing Clamp



Part #	Item	Width	Hole Diam.	Qty
499-002	3/16	3/8	3/16	25
499-004	1/4	3/8	3/16	25
499-005	5/16	3/8	3/16	25
499-006	3/8	3/8	3/16	25
499-008	1/2	3/8	3/16	25
499-010	5/8	1/2	3/16	25
499-011	3/4	1/2	3/16	25

Wiring, Loom & Tube Clamps

STEEL WITH RUBBER DIPPED CLAMPS Help reduce vibration while holding the loom or cable in place preventing movement and chafing. Typical application include loom, wire, wire harness and or hydraulic hose

Metal Tubing Clamp 1/4" Mounting Hole



Part #	Item	Width	Hole Diam.	Qty
499-132	3/16	1/2	9/32	25
499-134	1/4	1/2	9/32	25
499-135	5/16	1/2	9/32	25
499-136	3/8	1/2	9/32	25
499-138	1/2	1/2	9/32	25
499-140	5/8	1/2	9/32	15
499-142	3/4	1/2	9/32	10
499-143	7/8	1/2	9/32	10
499-144	1	1/2	9/32	10

Metal Tubing Clamp 3/8" Mounting Hole

Part #	Item	Width	Hole Diam.	Qty
499-254	1/4	3/4	3/8	15
499-255	5/16	3/4	3/8	15
499-256	3/8	3/4	3/8	10
499-258	1/2	3/4	3/8	10
499-260	5/8	3/4	3/8	10
499-262	3/4	3/4	3/8	10
499-264	7/8	3/4	3/8	10
499-266	1	3/4	3/8	10
499-270	1-1/4	3/4	3/8	10
499-274	1-1/2	3/4	3/8	5
499-275	1-3/4	3/4	3/8	5
499-282	2	3/4	3/8	5

Wiring, Loom & Tube Clamps

STEEL WITH NEOPRENE JACKET CLAMPS Help reduce vibration while holding the loom or cable in place preventing movement and chafing. Typical application include loom, wire, wire harness and or hydraulic hose

Padded H/D Tubing Clamp 1/4" Mounting Hole



Part #	Item	Width	Hole Diam.	Qty
499-304	1/4	1/2	17/64	10
499-306	3/8	1/2	17/64	10
499-308	1/2	1/2	17/64	10
499-310	5/8	1/2	17/64	10
499-312	3/4	1/2	17/64	10
499-314	7/8	1/2	17/64	10
499-316	1	1/2	17/64	5
499-318	1-1/4	1/2	17/64	5
499-319	1-3/8	1/2	17/64	5
499-320	1-1/2	1/2	17/64	5
499-322	1-3/4	1/2	17/64	5
499-324	2	1/2	17/64	5
499-326	2-1/2	1/2	17/64	5
499-328	3	1/2	17/64	5
499-330	3-1/2	1/2	17/64	5
499-332	4	1/2	17/64	5



Padded H/D Tubing Clamp 3/8" Mounting Hole

Part #	Item	Width	Hole Diam.	Qty
499-404	1/4	1/2	3/8	10
499-406	3/8	1/2	3/8	10
499-408	1/2	1/2	3/8	10
499-410	5/8	1/2	3/8	10
499-412	3/4	1/2	3/8	5
499-413	7/8	1/2	3/8	5
499-414	1	1/2	3/8	5
499-416	1-1/8	1/2	3/8	5
499-418	1-1/4	1/2	3/8	5
499-420	1-3/8	1/2	3/8	5
499-421	1-1/2	1/2	3/8	5
499-422	1-5/8	1/2	3/8	5
499-424	1-3/4	1/2	3/8	5
499-426	1-7/8	1/2	3/8	5
499-430	2	1/2	3/8	5
499-432	2-3/8	1/2	3/8	5
499-434	2-1/2	1/2	3/8	5
499-438	3	1/2	3/8	5
499-440	3-1/2	1/2	3/8	5

Tube Clamps

Wiring, Loom & Tube Clamps

STAINLESS STEEL WITH NEOPRENE JACKET CLAMPS: Help reduce vibration while holding the loom or cable in place preventing movement and chafing. Typical application include loom, wire, wire harness and or hydraulic hose

Stainless Tubing Clamp 1/4" Hole

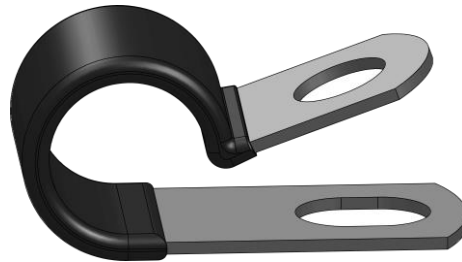


Part #	Item	Width	Hole Diam.	Qty
499-504	1/4	1/2	17/64	10
499-506	3/8	1/2	17/64	10
499-508	1/2	1/2	17/64	10
499-510	5/8	1/2	17/64	10
499-512	3/4	1/2	17/64	10
499-516	1	1/2	17/64	10
499-520	1-1/4	1/2	17/64	10
499-524	1-1/2	1/2	17/64	10
499-532	2	1/2	17/64	5

Heavy Duty Hose Tube Clamps

Description:







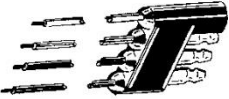

Used for support for long hose lengths. Also aids proper hose routing where abrasion or heat exists.
Material: ASTM A1008 CS type B Steel with 1/32" thick black vinyl cushion.



Part #	Item	Width	Hole Diam.	Qty
499-476	1-1/4	1"	1/2"	Ea
499-478	1-1/2	1"	1/2"	Ea
499-482	2	1"	1/2"	Ea
499-486	2-1/8	1"	1/2"	Ea
499-488	2-5/8	1"	1/2"	Ea

Pig Tails and Sockets

Electrical Plugs

Part #	Wire	Item	Qty	
496-650	16-14	Male	5	
496-651	16-14	Female	5	
496-652	16-14	Female 90*	5	
496-654	16-14	2-Way	2	
496-658	16-14	Male 3-Way	2	
496-659	16-14	Female 3-Way	2	
496-662	16-14	Male 4-Way	2	
496-663	16-14	Female 4-Way	2	

Pig Tails and Sockets

PART # 500-230 (AV23230)

Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output)
Bulbs Use with Bulbs 9005, H10, H12
Connector rated at 300°C/572°F
Gauge: 2-14 Leads Length: 6" UNIT
PACKAGE 1



PART # 500-225 (AV23231)

Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output) Bulbs
For Bulb 9006 Connector rated at
300°C/572°F Gauge: 14 Leads Length:
6" UNIT PACKAGE 1



PART # 500-215 (AV23229)

Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output) Bulbs
For Bulb 9004 or 9007 Connector rated
at 300°C/572°F Cavities: 3 Gauge: 14
Lead Length: 6" UNIT PACKAGE 1



PART # 500-260 (AV23232)

Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output) Bulbs
For Bulbs H1 or H3 Connector rated at
300°C/572°F Cavity: 1 Gauge: 14 Lead
Length: 6" UNIT PACKAGE 1



PART # 500-270 (AV23233)

Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output) Bulbs For
H4 Bulb Connector rated at 300°C/572°F
Cavities: 3 Gauge: 14 Lead Length: 6"
UNIT PACKAGE 1



PART # 500-265 (AV23234)

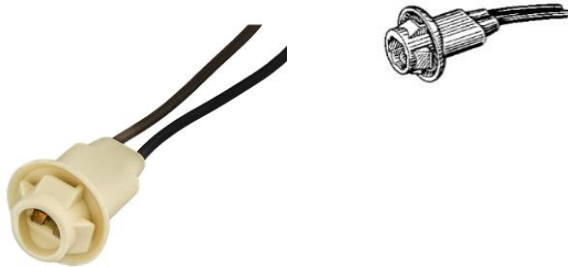
Hi-Temp Headlamp Repair Harness
For Hi-Intensity (Hi-Heat output) Bulbs For
H7 Bulb Connector rated at 300°C/572°F
Cavities: 2 Gauge: 14 Lead Length: 6"
UNIT PACKAGE 1



Pig Tails and Sockets

PART # 500-125 (AV11441)

- Used with : Bulbs-Wedge
- Industry Standard No : 158, 194, 194A
- Wires : 2
- UNIT PACKAGE 5



PART # 500-130 (AV13549)

- Used with : Bulbs-Wedge
- Industry Standard No : 158, 194, 194A
- Wires : 2
- Degree: 90
- UNIT PACKAGE 5



PART # 500-275 (AV23209)

Halogen Bulbs Repair Harness H1, H3
Cavity: 1 Gauge: 12 GXL Lead Length:
12" Right Angle for 1/4" Male Spade
Terminals UNIT PACKAGE 1



PART # 500-290 (AV16966)

Three Terminal Flasher Connector
Pigtail designed specifically for heavy
duty thermal and electrical flashers with
variable and fixed loads – single and
alternating flash patterns. Features three
10" long 14 guage wire leads UNIT
PACKAGE 1



PART # 500-195 (AV11439)

Headlight and Flasher Connector
Used with : Sealed Beam & Flasher
Industry Standard No : 4000, 4040, 4440,
4579, 4652, 4800, 4811, 6006, 6014,
6015, 6052
Wires : 3
UNIT PACKAGE 1



Headlamps and Bulbs



Item	Picture
510-001 886	
510-002 896	
510-006 899	
510-020 9003LL	
510-023 HIB9003	
510-025 9004LL	
510-028 HIB9004	
510-035 9005	
510-040 9005SXLL	
510-043 HIB9005	

Headlamps and Bulbs



Item	Picture
510-045 9006	
510-050 9006XSSL	
510-053 HIB 9006	
510-055 9007LL	
510-058 Diamond White HIB 9007L	
510-065 9008 H13	
510-125 H3 55W 12V	
510-125 H3 24 VOLT	

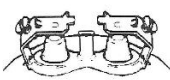
Item	Picture
510-130 H4 100/55W	
510-135 H3 100W	
510-140 H4 60/55W	
510-150 H-7	
510-160 H-11 60/55W	

Headlamps and Bulbs

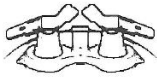
SEALED BEAM LAMPS



- Automotive.
- Truck.
- Agricultural.
- Construction.



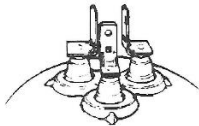
2 Screw
Terminals



2 Slip-On
Terminals

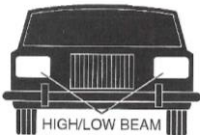


2 Contact
Lugs



3 Contact
Lugs

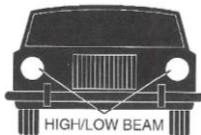
2 Headlight System (Square)



Standard
6052
(28-172)

Halogen
H6054
(28-189)

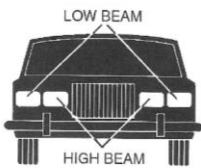
2 Headlight System (Round)



Standard
6014
(28-166)

Halogen
H6024
(28-187)

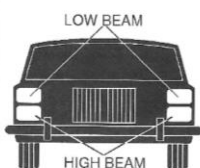
Horizontal 4 Headlight System (Square)



Standard
Low Beam 4652
(28-157)
High Beam 4651
(28-154)

Halogen
Low Beam H4656
(28-178)
High Beam H4651
(28-175)

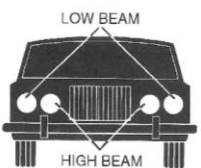
Vertical 4 Headlight System (Square)



Standard
Low Beam 4652
(28-157)
High Beam 4651
(28-154)

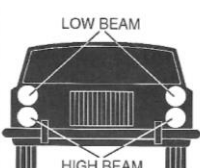
Halogen
Low Beam H4656
(28-178)
High Beam H4651
(28-175)

Horizontal 4 Headlight System (Round)



Halogen
Low Beam H5006
(28-184)
High Beam H4001
(28-181)




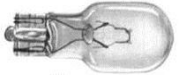





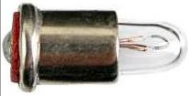
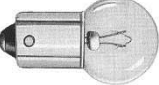


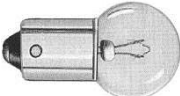
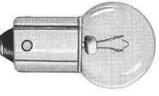
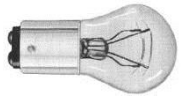


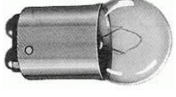
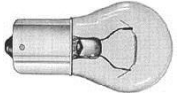

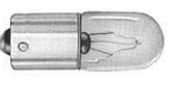
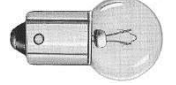
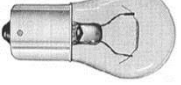
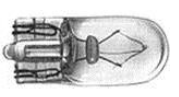


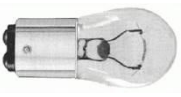
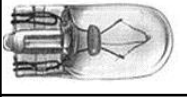

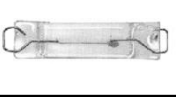
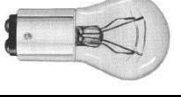
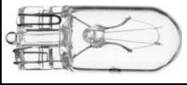
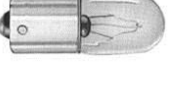

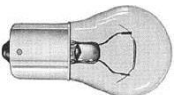

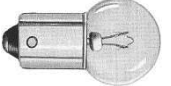
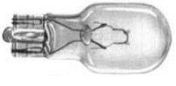
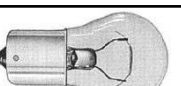


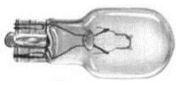

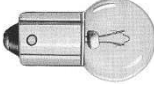

Vertical 4 Headlight System (Round)



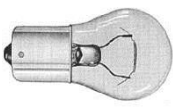

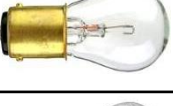
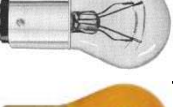
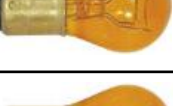

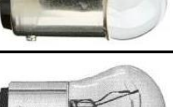

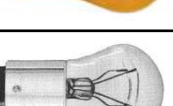

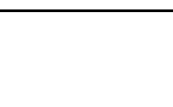
Halogen
Low Beam H5006
(28-184)
High Beam H4001
(28-181)

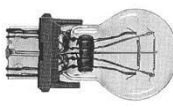
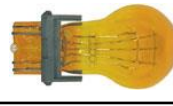
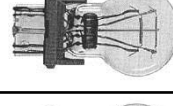
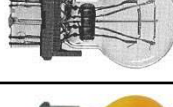
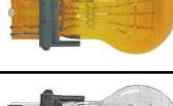
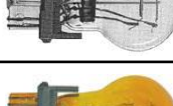

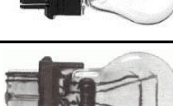
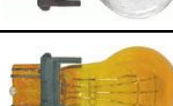
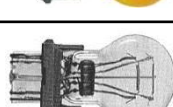

Item	Picture
510-310 GE 4411	
510-350 GE 4651	
510-352 GE 4656	
510-354 GE 4666	
510-364 GE 5024	
510-370 GE 5054	
510-378 GE 6024	
510-382 GE 6054	


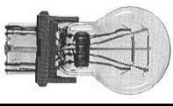
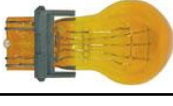
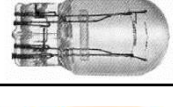

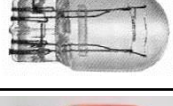


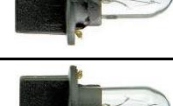
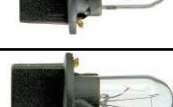

Headlamps and Bulbs

Item	Picture	Item	Picture	Item	Picture	Item	Picture
511-014 PR2 / K2		511-042 63		511-060 211-2		511-110 912/921	
511-018 PR3		511-043 327		511-065 211		511-112 916	
511-020 24		511-044 330		511-070 67		511-113 916A	
511-023 E37		511-045 57		511-075 89		511-115 198	
511-025 37		511-046 256		511-077 90		511-117 199	
511-026 70		511-047 1816		511-080 97		511-120 1003	
511-027 73		511-049 1873		511-083 623		511-125 1004	
511-028 74		511-050 1892		511-085 562		511-130 1034	
511-030 168		511-052 1893		511-087 1662		511-135 1073 1076	
511-035 194		511-055 1895		511-090 571		511-139 1141	
511-037 194A		511-057 456		511-095 904 906		511-140 1142	
511-040 53				511-098 906A			

Headlamps and Bulbs

Item	Picture
511-145 1156	
511-146 1156NA	
511-147 1156DC	
511-150 1157	
511-153 1157A	
511-155 1157NA	
511-158 1226	
511-160 2057	
511-165 2057NA	
511-167 2357	
511-168 2357NA	

Item	Picture
511-170 3057	
511-180 3057NA	
511-184 3155	
511-185 3156	
511-186 3156 N/A	
511-190 3157	
511-200 3157 N/A	
511-205 3456LL	
511-210 3457	
511-211 3457NA	
511-212 3757	

Item	Picture
511-213 3757NA LL	
511-214 4157LL	
511-215 4157NA LL	
511-218 7440	
511-220 7440NA	
511-221 7443	
511-223 7443A	
511-225 PC74	
511-228 PC161	
511-230 PC186	
511-235 PC194	

Reference Material

MINIATURE LAMPS - ILLUSTRATIONS

Miniature Bayonet (G3-1/2)

No. 53 (28-003)
No. 1445 (28-082)
No. 51 (28-1600)



Miniature Bayonet (G4-1/2)

No. 55 (28-005)
No. 57 (28-007)
No. 293 (28-035)
No. 1895 (28-092)



Miniature Bayonet (T3-1/4)

No. 1816 (28-083)
No. 1850 (28-084)
No. 1889 (28-085)
No. 1891 (28-087)
No. 1892 (28-089)
No. 1893 (28-091)
No. 755 (28-1610)
No. 1815 (28-1615)
No. 1847 (28-1616)
No. 1829 (28-1636)
No. 313 (28-1664)



BA7S (T2-1/4)

3898 (28-1641)



BA 15s (B6)

5007 (28-1642)
5008 (28-1643)



PC Base (T3-1/4)

No. PC161 (28-024)
No. PC168 (28-026)
No. PC194 (28-029)



S.C. Bayonet (B6)

No. 105 (28-019)
No. 1003 (28-047)



S.C. Bayonet (S8)

No. 93 (28-015)
No. 199 (28-031)
No. 1073 (28-053)
No. 1129 (28-061)
No. 1141 (28-063)
No. 1156 (28-071)
No. 1156NA (28-072)
No. 1203 (28-553)
No. 1683 (28-557)
No. 7506 (28-1648)
No. 7511 (28-1668)



S.C. Bayonet (RP-11)

No. 1143 (28-065)
No. 1195 (28-081)
No. 1133 (28-1612)



S.C. Bayonet (G6)

No. 63 (28-008)
No. 67 (28-009)
No. 89 (28-011)
No. 97 (28-017)
No. 631 (28-041)
No. 1155 (28-069)
No. 1251 (28-554)



S.C. Bayonet (T6)

No. 349 (28-102)
No. 795 (28-1611)



S.C. Grooved (Single End)

SE1274 (28-575)



D.C. Bayonet (S8)

No. 1076 (28-055)
No. 1156DC (28-552)
No. 1176 (28-079)
No. 94 (28-1606)
No. 1142 (28-1613)
No. 1295NA (28-1614)
No. 7225 (28-1647)



D.C. Bayonet (G6)

No. 90 (28-013)
No. 1252 (28-555)
No. 68 (28-1601)



D.C. Bayonet (B6)

No. 1004 (28-049)



D.C. Indexed (S8)

No. 198 (28-030)
No. 1034 (28-051)
No. 1154 (28-067)
No. 1157 (28-073)
No. 1157NA (28-077)
No. 2057 (28-095)
No. 2057NA (28-097)
No. 3496 (28-101)
No. 2357 (28-106)
No. 2357NA (28-107)
No. 7528 (28-1650)
No. 7537 (28-1669)
No. 2057NALL (28-1670)



2 Pin Base (Halogen)

No. 891 (28-548)



Reference Material

MINIATURE LAMPS - ILLUSTRATIONS

Wedge (T5)

No. 904 (28-042)
No. 906 (28-043)
No. 912 (28-045)
No. 921 (28-046)
No. 916 (28-549)
No. 916NA (28-550)
No. 922 (28-551)



Wedge (S8)

No. 3357LL/3457LL
(28-1625)(28-1626)
No. 4114K (28-1693)



Socket & Lamp Assembly (T1-3/4)

No. PC74 (28-1605)
No. 2721MF (28-1639)



Wedge (T3-1/4)

No. 158 (28-021)
No. 161 (28-023)
No. 168 (28-025)
No. 194 (28-027)
No. 194NA (28-028)
No. 3652 (28-103)
No. 194B (28-540)
No. 193 (28-1607)
No. 2825 (28-1640)
No. 656 (28-1665)
No. 657 (28-1666)



Wedge (Halogen)

No. 2040 (28-1617)



Rigid Loops (T3)

No. 561 (28-037)
No. 562 (28-039)



Wedge (GT8)

No. 3155 (28-104)
No. 3156 (28-105)
No. 3057 (28-108)
No. 3057LL (28-1622)
No. 3057NA (28-109)
No. 3157 (28-110)
No. 3157NA (28-111)
No. 3156NA (28-113)
No. 3157LL (28-1623)
No. 3157NALL (28-1624)
No. 3457 (28-558)
No. 3457NA (28-559)
No. 3157NA-SA (28-561)
No. 3757AK (28-1667)
No. 3057NALL (28-1671)
No. 3156LL (28-1672)
No. 3456LL (28-1673)
No. 4156LL (28-1674)
No. 4157LL (28-1627)
No. 4157NALL (28-1628)



Sub Miniature Wedge (T1-3/4)

No. 37 (28-001)
No. 70 (28-1602)
No. 73 (28-1603)
No. 74 (28-1604)
No. 2723 (28-1618)
No. 2721 (28-1638)



End Caps (T3)

No. 211-2 (28-032)
No. 212-2 (28-033)
No. 214-2 (28-034)



Cone Shaped Caps (Double End)

DE3021 (28-570)
DE3022 (28-571)



End Caps (T4-3/4)

No. 577 (28-040)



Cone Shaped Caps (Double End)

DE3175 (28-572)



Wedge (T2-3/4)

No. 24 (28-098)
No. 24NA (28-099)



Cone Shaped Caps (Double End)

DE3423 (28-573)
DE3425 (28-574)



Wedge (T6- 1/2)

No. 7440NA (28-1619)
No. 7443NA (28-1620)



Festoon (T3-1/4)

6411 (28-1644)
6418 (28-1645)
6423 (28-1646)
6429 (28-1675)



Fuse Accessories

Conveniently and easily tests ATO® and MINI® blade fuses either in or out of the fuse block. Indicator light on tester glows bright green when fuse is good. Fuse puller end allows for easy fuse removal and replacement. 24V maximum.



Part #	Qty
512-140	EA

Conveniently removes and installs ATC / ATO® and MINI® blade fuses either in or out of the fuse block.



Part #	Qty
512-150	EA

Conveniently removes and installs Glass, ceramic, ATC / ATO® and MINI® blade fuses either in or out of the fuse block.



Part #	Qty
512-154	EA

Conveniently removes and installs Maxi blade fuses either in or out of the fuse block.



Part #	Qty
512-158	EA

FUSE TAPS fit over an existing blade fuse leg for an additional non-fused circuit. Includes crimp-on connector that attaches easily to the power lead for electronic gear.



Glass Fuse tap

Part #	Qty
512-200	25



ATO Fuse tap

Part #	Qty
512-204	25



ATC Fuse tap

Part #	Qty
512-206	25



3-WAY TAP Adapter

Part #	Qty
512-207	25

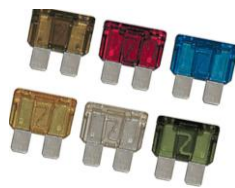
Fuses

ATC & ATO BLADE FUSES Are standard sized fuses and are the most common type of fuse for automotive and marine applications.

Can be used in various other electrical applications that require circuit protection. These fuses are commonly mounted in a fuse holder, block or panel within an electrical application.

ATC® & ATO® blade fuses are available in 3-40 amps and each amperage fuse carries standard color coordination.

Used in most domestic and imported cars.
Meets or exceeds OEM and SAE standards.



ATO Fuse



Reg	Amp	Qty	Blow-Glo
512-301	1	10	-----
512-302	2	10	-----
512-303	3	10	512-450
512-304	4	10	
512-305	5	10	512-454
512-307	7-1/2	10	512-456
512-310	10	10	512-458
512-315	15	10	512-460
512-320	20	10	512-462
512-325	25	10	512-464
512-330	30	10	512-466
512-340	40	10	512-468

Part #	Size	Item	Qty
513-005	3 – 30 amp 12 ga wire	ATO	2

MINI ATM FUSES

Are available in a variety of different amperages and styles that meet the circuit protection needs of various electrical components within a vehicle and other electrical equipment.

Until recently, Mini fuses were the smallest type of blade fuse found in newer automotive vehicles.

Today, these fuses are still very common in applications that have a large number of electrical components that need circuit protection, and where space is limited.

Mini fuses are available in 2-30 amps and each amperage fuse carries standard color coordination.

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



ATC Mini Fuse



Reg	Amp	Qty	Blow-Glo
512-402	2	10	-----
512-403	3	10	512-474
512-404	4	10	512-476
512-405	5	10	512-478
512-407	7-1/2	10	512-480
512-410	10	10	512-482
512-415	15	10	512-484
512-420	20	10	512-486
512-425	25	10	512-488
512-430	30	10	512-490

Part #	Size	Item	Qty
513-003	2-15 amp 16 ga wire	ATM Mini fuse	2
513-004	20,25,30 amp 12 ga wire	ATM Mini fuse	2



Fuses



Glass Fuse

GLASS FUSES Are the classic style of fuse for circuit protection. Commonly found in older model cars, AGC fuses are great for restoration and older automotive applications. AGC glass fuses are available in a wide variety of amp ratings to meet the circuit protect demands of an electrical application.

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

Part #	Type	Amp	Size	Qty
512-208	AGW	20	1/4 x 7/8	5
512-210	AGC	1	1/4 x 1-1/4	5
512-215		2	1/4 x 1-1/4	5
512-220		3	1/4 x 1-1/4	5
512-225		5	1/4 x 1-1/4	5
512-230		10	1/4 x 1-1/4	5
512-235		15	1/4 x 1-1/4	5
512-240		20	1/4 x 1-1/4	5
512-245		25	1/4 x 1-1/4	5
512-250		30	1/4 x 1-1/4	5
512-253	SFE	9	1/4 x 7/8	5
512-255		14	1/4 x 1-1/16	5
512-260		20	1/4 x 1-1/4	5
512-265		30	1/4 x 1-7/16	5
512-280	GBC	16		5

AGC FUSE HOLDER- 12 GAUGE

This AGC nylon inline fuse holder features a molded nylon body that is furnished with one AGC glass tube fuse. The inline design provides easy installation while the nylon construction provides strength and durability



Part #	Size	Qty
513-000	12 ga	5

Fuses

MICRO 2 Fuses are the new standard for vehicle circuit protection. Their sub-miniature design meets the need for more circuits to be protected while utilizing less space. Micro2 fuses are designed to be the ideal choice for high temperatures in adverse environments. Protect the circuits in your vehicle with a powerful Micro2 fuse, available in 5 amp to 30 amp options.

Voltage Rating: 32 Volts DC.

Interrupting Ratings: 1,000 Amps @ 32 Volts DC.

Operating Temperature: -40°F - 257°F (-40°C - 125°C).

Terminals: Ag Plated Zinc Alloy.



Micro2 Fuse

Part	Amp	Qty
512-360	5	10
512-362	7-1/2	10
512-364	10	10
512-366	15	10
512-368	20	10
512-370	25	10
512-372	30	10

Part	Amp	Qty
513-080	Micro 2 Add A Fuse	Ea



MICRO3 Fuse is the new standard for vehicle circuit protection. The MICRO3™ Fuse has 3 terminals and 2 fuse elements with a common center terminal. Its sub-miniature design meets the need for more circuits to be protected while utilizing less space and its ability to cope with high temperatures in adverse environments makes the MICRO3™ Fuse the recommended choice for protection.



Micro3 Fuse

Part	Amp	Qty
512-380	5	5
512-381	7-1/2	5
512-382	10	5
512-383	15	5

Fuses

LOW-PROFILE MINI ATM FUSE Is an even smaller, more compact version of the mini ATM fuse. In general, these fuses are ideal for applications that contain a large number of electrical components that need circuit protection, with extremely limited space. The lower overall height of the low-profile fuse allows for even more space and weight savings than standard mini fuses. The low-profile mini fuse design allows you to provide your application with the circuit protection required without sacrificing a large area of space to do so. Low-profile mini fuses are available in 5-30 amps with each fuse colored to standard industry specs.

Similar performance characteristics as the standard Mini Fuses.

Most commonly found in newer model vehicles.

Rated up to 58V DC and for operating temperatures of -40°F to 125°C.



Low Profile Mini Fuse

Part	Amp	Qty
512-434	2	10
	3	10
	4	10
512-437	5	10
512-438	7-1/2	10
512-439	10	10
512-440	15	10
512-442	20	10
512-443	25	10
512-444	30	10

Part	Amp	Qty
513-065	Low Profile Add A Fuse	Ea



A MAXI FUSE Is the largest sized blade fuse used in electrical applications. Maxi™ fuses are particularly popular for older automotive applications where a high amperage circuit is required. Maxi fuse available in 20-100 amps and each amperage fuse carries standard color coordination.

Voltage Rating: 32V DC

Interrupting Ratings: 1000A @ 32V DC

Operating Temperature Range: -40°C to +125°C

Terminals: Ag plated (Silver Plated)

Meet or exceed OEM and S.A.E. standards

Used in most domestic and imported cars



Maxi Fuse

Part	Amp	Qty	Blow-Glo
512-520	20	2	512-502
512-530	30	2	512-504
512-540	40	2	512-506
512-542	50	2	512-508
512-544	60	2	512-510
512-546	70	2	_____
512-548	80	2	_____

Fuses / Breakers

MAXI FUSE BREAKER - AUTO RESET

These blade-style Maxi type circuit breakers are single pole thermal overload type circuit protection devices. This circuit breaker combines a Maxi sized housing, but utilizes ATC / ATO type circuit breaker terminals, and is often used in applications such as automotive, marine, trucks, buses, and portable generators. Interchangeable with MAXI-Fuse blades



Part #	Size	Qty	Item	
512-559	10	2	TYPE 1	Used in many applications including automotive, marine, trucks, buses, and portable generators.
512-560	15	2	Maxi™ Auto	
512-561	20	2	Reset Circuit	
512-563	30	2	Breaker	
512-565	40	2		
512-567	50	2		

MAXI FUSE BREAKERS - ATC / ATO - AUTO RESET

These blade-style Maxi type circuit breakers are single pole thermal overload type circuit protection devices. This circuit breaker combines a Maxi sized housing, but utilizes ATC®/ATO® type circuit breaker terminals.



Part #	Size	Qty	Item	
512-570	10	2	ATO Blade	Used in many applications including automotive, marine, trucks, buses, and portable generators.
512-572	15	2	Configuration	
512-575	20	2	Circuit	
512-576	30	2	Breaker, 10A Auto Reset	

ATO / ATC BREAKERS - LOW PROFILE

UNIQUE LOW PROFILE DESIGN -Low profile ATO / ATC circuit breakers are single pole thermal overload type circuit protection devices. They can be used in many automotive, marine, and industrial applications. Low profile breakers are ideal when space is limited and for replacing fuses on your critical accessories. Commonly considered a type-3 thermal breaker, these can fit into most ATO / ATC fuse panels.



Each breaker is color-coded by amperage according to automotive industry standards.

Part #	Size	Qty	Item	
512-577	5	Ea	TYPE 3	Single pole thermal overload type circuit protection devices. They can be used in many automotive, marine, and industrial applications.
512-578	10	Ea	ATO Blade	
512-579	15	Ea	Low Profile	
512-580	20	Ea	Manual Reset	
512-581	25	Ea	Type Circuit	
512-582	30	Ea	Breaker	

Fuses / Breakers

ATO / ATC BLADE-STYLE BREAKERS - AUTO RESET

Blade-style ATO / ATC type circuit breakers are single pole thermal overload type circuit protection devices. They can be used in many automotive and marine applications and other diverse applications including portable generators.



Part #	Amp	Qty	Type	
512-584	5	2	ATC®-Type	Single pole thermal overload type circuit protection devices. Can be used in many automotive and marine applications and others, including portable generators.
512-585	10	2	Auto Reset	
512-586	15	2	Circuit	
512-587	20	2	Breaker	
512-588	25	2	(no-reset	
512-589	30	2	button)	



ATO / ATC BLADE-STYLE BREAKERS – MANUAL RESET

Blade-style ATO / ATC type circuit breakers are single pole thermal overload type circuit protection devices. They can be used in many automotive and marine applications and other diverse applications including portable generators.



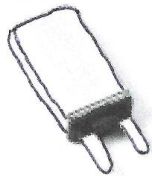

Part #	Amp	Qty	Type	
512-596	5	2	ATC TYPE	Single pole thermal overload type circuit protection devices. Used in many automotive and marine applications and others, including portable generators.
512-597	10	2	Manual	
512-598	15	2	Reset	
512-599	20	2	Circuit	
512-605	25	2	Breaker	
512-600	30	2	(Reset Button)	

CIRCUIT BREAKERS

Part #	Amp	Qty	Type		
512-601	15	2	Type I automatic reset, cycles or continuously resets until the fault is corrected.	MMB Breaker Blade configuration is of the MINI design and fits in a standard ATO fuse slot	
512-602	20	2			
512-610	10	Ea	ATC/ATO modified reset, non-cycling, remains in open position while there is power to the circuit	MNB Breaker Blade configuration is of the MINI design and fits in a standard ATO fuse slot.	
512-615	15				
512-620	20				
512-625	25				
512-630	30				

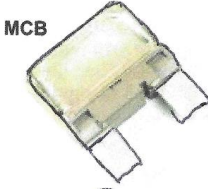
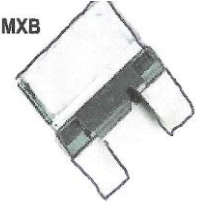
Fuses / Breakers

CIRCUIT BREAKERS

Part #	Amp	Qty	Type		
512-640	5	2	ATC Mini-Blade	MIB Breaker Designed to fit in mini blade fuse box.	
512-642	10	2			
512-644	15	2			
512-646	20	2			
512-648	25	2			
512-650	30	2			
512-660	10	2	Designed to mount in ATO or ACT style fuse blocks and panels.	MRB Breaker Used primarily as wiring harness protector in heavy duty 12 volt DC truck systems.	
512-662	15	2			
512-664	20	2			
512-666	25	2			
512-668	30	2			

MAXI™ CIRCUIT BREAKERS

Direct factory replacement for many domestic OEM applications. Designed to fit a MAXI™ Blade fuse block or panel. Available in either SAE Type I cycling or SAE Type II non-cycling used primarily as a wiring harness protector in 12 volt DC automotive systems. Meets OEM requirements. Conforms to SAE J553C standard.

Part #	Amp	Qty	Type	
512-670	20	2	MCB Breaker Automotive Headlamp Seats & Wipers	
512-672	30	2		
512-675	20	2	MXB Breaker Automotive Power Devices Heavy Truck & Auto Cooling Fan Automotive Power Window Heavy Truck & Auto Cooling Fan & Power Window Heavy Truck	
512-680	30	2		

Fuses / Breakers

ATO / ATC BLADE-STYLE BREAKER - AUTO RESET

Blade-style ATO / ATC type circuit breakers are single pole thermal overload type circuit protection devices. They can be used in many automotive and marine applications and other diverse applications including portable generators.

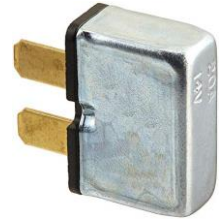
Bussman



Part #	Amp	Qty	Type
512-970	7-1/2a	2	21175
512-972	10a	2	21110
512-974	15a	2	21115
512-976	20a	2	21120
512-978	25a	2	21125
512-980	30a	2	21130

ACB20 / FCB OEM CIRCUIT BREAKERS

Direct factory replacement for many domestic OEM vehicles. SAE Type I and Type II modified reset used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard. Designed to mount in ATO style fuse blocks and panels.



Part #	Amp	Qty	Type	
512-928	20	2	ACB 20	Automotive Headlamp Power Windows, & Locks Power Windows Headlamps, Power Windows, Seats & Locks
512-930	30	2	ACB 20	
512-940	20	Ea	FCB 20	Power Windows

CCB OEM CIRCUIT BREAKERS

Direct factory replacement for many domestic OEM vehicles. SAE Type I and Type II modified reset used primarily as a wiring harness protector in 12 volt DC automotive systems. Conforms to SAE J553C standard. Designed to mount in ATO style fuse blocks and panels.

Part #	Amp	Qty	Type
512-950	25	Ea	CCB- 25 (Chrysler)



Fuses / Breakers

JCASE FUSES

JCase fuses are designed to be used as replacements for fusible links. The JCase series of FMX fuses are the female standard cartridge design and reduce typical replacement wear on automotive or marine applications. FMX fuses provide both increased time delay and low voltage drop protection. Each JCase fuse is easily identified with the amperage clearly stamped on the fuses window.

Cartridge replacement for fusible links.

Provides time delay and low voltage drop protection.

Amperage printed on each fuse window.

Available in 20-60 amps.

Voltage rating: 32V AC/DC.



Part #	Amp	Qty	Type	
512-720	20	2	20a-Blue	JCASE Fuse Cartridge style fuse with female terminal design
512-725	25	2	25a-White	
512-730	30	2	30a-Pink	
512-740	40	2	40a-Green	
512-750	50	2	50a-Red	
512-760	60	2	60a-Yellow	

JCASE FUSES - LOW PROFILE

Low profile JCase fuses are designed to provide more space and weight savings in automotive and marine applications, while still maintaining the same performance as a standard JCase fuse.

Designed to offer less wear on fuses

boxes with its female to male

Connection terminals.

Rated up to 32V DC and for operating temperatures of -40°F to 125°C.



Part #	Amp	Qty	Type	
512-770	20	2	20a-Blue	JCASE Low-Profile Fuse Cartridge style fuse with female terminal design
512-772	25	2	25a-White	
512-774	30	2	30a-Pink	
512-776	40	2	40a-Green	
512-778	50	2	50a-Red	
512-780	60	2	60a-Yellow	

MCASE FUSES

The MCase is a cartridge style fuse with female terminals for 2.8 mm male terminals. It has a miniaturized footprint for optimal usage of space. It is a time delayed fuse and can handle inrush currents.

Voltage Rating: 32 VDC.

Interrupting Ratings: 1000A @ 32 VDC.

Operating Temperature

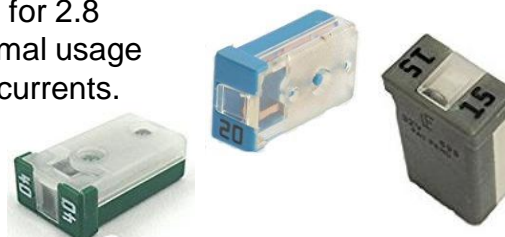
Range: -40°C to +125°C.

Insertion Force: 44.1N Max. (9.9 lbs).

Extraction Force: 4N Min.

(0.9 lbs)/24.5N Max. (5.5 lbs).

RoHS.



Part #	Amp	Qty	Type	
512-790	15	2	15a-Gray	MCASE Commonly found in many new vehicles.
512-792	20	2	20a-Blue	
512-794	25	2	25a-White	
512-796	30	2	30a-Pink	
512-798	40	2	40a-Green	

Fuses / Breakers

PAL BOLT-ON FUSE

FLB series cartridge fuses are perfect for newer car models that require high amperage protection on accessory circuits. FLB series cartridge fuses help reduce typical replacement wear on automotive or marine fuse boxes.

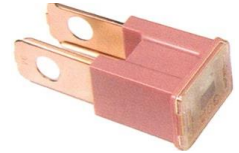


13/16" bent male terminal.
Commonly found in many Japanese and domestic built vehicles.
Bolts directly into fuse blocks.
Available in 30-120 amps.
Voltage rating: 32V AC/DC.

Part #	Amp	Qty	Type	
512-810	230	2	30a-Pink	PAL 230-280 Fuse 13/16 Bent Fuse Commonly found in many Japanese and domestic built vehicles.
512-812	240	2	40a-Green	
512-814	250	2	50a-Red	
512-816	260	2	60a-Yellow	
512-818	270	2	70a-Brown	
512-820	280	2	80a-Black	

PAL 2000 SERIES AUTO LINK PAL™ FUSES

Commonly found on many Japanese and Domestic built vehicles in current ratings up to 120 amperes. Available with male connector, bent connector and locking female connector.



Color coded to indicate amp rating.

Part #	Amp	Qty	Type	
512-822	2100	2	100a-Blue	PAL 2000 Series Fuse 9/16 Bent Fuse Commonly found on many Japanese and Domestic built vehicles
512-824	2120	2	120a-Gray	
512-826	2140	2	140a-Purple	

PAL 430 - 4100 SERIES AUTO LINK PAL™ FUSES

Commonly found on many Japanese and Domestic built vehicles in current ratings up to 120 amperes. Available with male connector, bent connector and locking female connector.



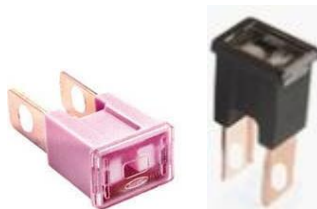
Color coded to indicate amp rating.

Part #	Amp	Qty	Type	
512-840	430	2	30a-Pink	PAL 430-4100 Fuse 9/16 Bent Fuse Auto Link PAL Bent Male Terminal. Color coding to indicate amp rating.
512-842	440	2	40a-Green	
512-844	450	2	50a-Red	
512-848	480	2	80a-Black	
512-852	4100	2	100a-Blue	
512-854	4120	2	120a	
512-856	4140	2	140a	

Fuses / Breakers

PAL 130 - 1120 SERIES AUTO LINK PAL™ FUSES

Commonly found on many Japanese and Domestic built vehicles in current ratings up to 120 amperes. Available male connector, bent Connector and locking female connector. Color coded to indicate amp rating.



Part #	Amp	Qty	Type	
512-872	130	2	30a-Pink	PAL 130-1120 Fuse Auto Link PAL Straight Male Terminal. Color coding to indicate amp rating.
512-874	160	2	60a-Yellow	
512-876	180	2	80a-Black	
512-878	1100	2	100a-Blue	
512-880	1120	2	120a-Gray	

CARTRIDGE FUSES - FLF SERIES

The FLF series cartridge fuse is a mini female cartridge fuse and is perfect for space savings on newer automotive applications. FLF series cartridge fuses help reduce typical replacement wear on automotive or marine fuse boxes.



Female terminated fusible link.
Available in 20-60 amps.
Replaces commonly used fusible wire.
Voltage rating: 32V AC/DC.

Part #	Amp	Qty	Type	
512-890	020	2	20a-Blue	PAL 020-060 Fuse Commonly found in many Japanese and domestic built vehicles.
512-892	030	2	30a-Pink	
512-894	040	2	40a-Green	
512-896	050	2	50a-Red	
512-898	060	2	60a-Yellow	

PAL 330, 340 SERIES AUTO LINK PAL™ FUSES

A FLS series cartridge fuse is a standard locking female terminal fuse and is typically found in newer car models that require high amperage circuit protection. The female design helps reduce typical replacement wear on automotive or marine fuse boxes.



Equipped with visual window to inspect for blown fuse.
Available in 30 and 40 amps.
Color-coded for easy amp identification.
Voltage rating: 32V AC/DC.

Part #	Amp	Qty	Type	
512-904	330	2	30a-Pink	PAL 330-340 Fuse Commonly found in many Japanese and domestic built vehicles
512-906	340	2	40a-Green	

Fuses / Breakers

PAL 525, 530 SERIES AUTO LINK PAL™ FUSES

A FLS series cartridge fuse is a standard female terminal fuse and is typically found in newer car models that require high amperage circuit protection. The female design helps reduce typical replacement wear on automotive or marine fuse boxes.



Equipped with visual window to inspect for blown fuse.

Available in 25 and 30 amps.

Color-coded for easy amp identification.

Voltage rating: 32V AC/DC.

Part #	Amp	Qty	Type	
512-912	525	2	30a-Pink	PAL 525-530 Fuse Commonly found in many Japanese and domestic built vehicles. Bolts directly into fuse blocks.
512-914	530	2	40a Green	

Littelfuse 0695060.PXPS Slotted MCASE+ Cartridge Fuse, 60A, 32V, Time Delay

Part #	Amp	Qty	Type	
512-801	15	2	Tan	
512-802	20	2	Blue	
512-803	25		Gray	
512-804	30		Purple	
512-806	40		Green	
512-807	50		Red	
512-808	60		Yellow	



Fuse Holders / Breakers

AGC FUSE HOLDER - 12 GAUGE

This AGC nylon inline fuse holder features a molded nylon body that is furnished with one AGC glass tube fuse. The inline design provides easy installation while the nylon construction provides strength and durability.



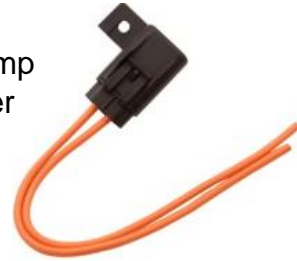
Rated to 32V DC, the AGC 12 gauge inline fuse holder includes one AGC glass tube fuse. The holder also features a molded nylon body. Fuse holders with molded nylon bodies are furnished with one fuse (fuse not assembled inside).

Made with standard 8" GPT wire. Red wire leads.

Part #	Item	Qty
513-000	12 ga	5

ATM MINI FUSE & ATO WEATHERPROOF FUSE HOLDER

The ATC and ATO weatherproof in-line fuse holder works with any 2-30 amp ATC and ATO blade fuse. The weatherproof construction of the fuse holder provides extra protection against water and dust.



Premium quality, insulated and weatherproof ATO fuse retainer. 12 gauge leads, 30 amp max.

Part #	Size	Item	Qty
513-003	2-15 amp 16 ga wire	ATM Mini fuse	2
513-004	20,25,30 amp 12 ga wire	ATM Mini fuse	2
513-005	3 – 30 amp 12 ga wire	ATO	2

ATC & ATO FUSE HOLDER - INLINE - 12 GAUGE

This 12 gauge ATC and ATO fuse holder is a standard inline fuse holder that allows for one ATC and ATO fuse to be fitted. The 12 gauge ATC and ATO fuse holder has a "write-in" space that allows for easy circuit identification.



A "write-in" space is available to easily identify the circuits.

Part #	Size	Item	Qty
513-010	30 amp 12 ga wire	ATO	2

Fuse Holders

ATC AND ATO WEATHERPROOF FUSE HOLDER– INLINE

This ATC and ATO inline waterproof fuse holder is compatible with any ATC and ATO blade fuse. The deluxe waterproof body and water resistant cap is ideal for marine applications or any application that is continually in wet environments.



12" wire loop.

ATC & ATO fuses sold separately.

Red wire leads.

Part #	Item	Qty
513-020	16 ga. ATO	5
513-023	12 ga. ATO	5
513-025	14 ga ATC Mini	5
513-027	12 ga ATC Mini	5

ATO WEATHERPROOF FUSE HOLDER

The ATO weatherproof in-line fuse holder works with any 2-30 amp ATO blade fuse. The weatherproof construction of the fuse holder provides extra protection against water and dust.



Premium quality, insulated and weatherproof ATO fuse retainer.

12 gauge leads, 30 amp max.

Part #	Item	Qty
512-024	10 ga 35 amp	5

ATC AND ATO UNIVERSAL FUSE HOLDER

The ATC and ATO universal fuse holder features a self-tapping design for quick circuit protection installation. The ATC and ATO universal fuse holder requires no wire stripping, and easily installs by using common pliers.



For use with 18-16-14 gauge wire.

20 amp max.

Part #	Item	Qty
513-015	ATO	5

Fuse Holders

ADD-A-FUSE FUSE HOLDERS

- Adds additional circuits without cutting or splicing.
- Provides both an extra circuit and fuse protection in one simple step.
- Turns one fuse slot into two.
- Adds an additional circuit to an existing circuit while providing protection to both.
- Maintains new car warranties - does not void factory warranties since there is no altering of existing circuits by cutting wires.
- Will not interfere with today's sophisticated on-board computer Systems.



Part #	Item	Qty
513-050	ATO Add A Fuse	Ea



Part #	Item	Qty
513-055	ATC Mini Add A Fuse	Ea



Part #	Item	Qty
513-065	Low Profile Add A Fuse	Ea



Part #	Item	Qty
513-080	Micro 2 Add A Fuse	Ea

Fuses / Breakers

BUSSMAN SURFACE MOUNT BREAKERS

Flush mount with push-to-trip button, 48 Vdc Weatherproof, marine rated M6 threaded studs Stainless steel hardware installed

These high amp circuit breakers are typically used in auxiliary and accessory circuits for trucks, buses, RVs and marine applications.

All high amp circuit breakers comply with the SAE J1117 standard for ignition protection and have applications in battery charger systems and DC audio systems.

Offered in flush-mount or panel-mount (see chart for amps available).



Part #	Item	Qty
513-750	Fuse Holder	Ea

MEGA FUSE HOLDER - 250 Amp - 500 Amp

The MEGA bolt-down fuse block is ideal for battery and alternator connections and other heavy gauge cables requiring ultra high current protection. Includes protective cover. Features interconnecting pins on side of fuse block for securing multiple block configurations. Includes M8 threaded studs and hex nuts with lock washers.



Part #	Item	Qty
513-755	Fuse Holder	Ea



MEGA Fuse Holder - 60 Amp - 500 Amp

Max Voltage Rating: 32V DC.

Max Current Rating: 500A.

Mounting Torque: 5 Nm.

Studs: M8 Threaded.

Included Hardware: Hex nuts with lock washers.

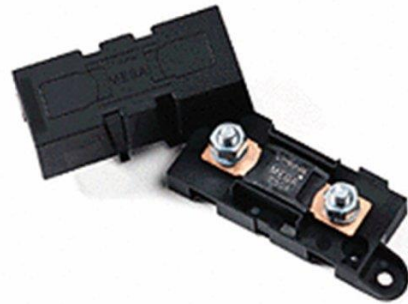
MEGA fuses sold separately.

Part #	Item	Qty
513-758	60 amp	Ea
513-761	100amp	Ea
513-763	125amp	Ea
513-765	150amp	Ea
513-770	175amp	Ea
513-775	200amp	Ea
513-780	250amp	Ea
513-782	300amp	Ea
513-786	500amp	Ea

Fuses / Fuse Holders

MIDI FUSE HOLDER - 50 Amp - 250 Amp

The MIDI bolt-down fuse block is ideal for battery and alternator connections and other heavy gauge cables requiring ultra high current protection. Includes protective cover. Features interconnecting pins on side of fuse block for securing multiple block configurations. Includes M8 threaded studs and hex nuts with lock washers.



Use with MIDI fuses up to 250 amps
Ideal for battery and alternator connections
Includes protective cover
Multiple block configurations
Fuse not included

Part #	Item	Qty
513-820	Fuse Holder	Ea

MIDI FUSES Are a cost-effect, space saving protection solution for high current wiring. MIDI Fuses are common standard circuit protection devices for automobiles and trucks. The fuse features a bolt-on design that saves space and fits right in to your application or project. Tin plated contacts on the MIDI Fuses provide excellent corrosion resistance to keep the fuse protected and performing. MIDI Fuses are available in 30 Amp to 200 Amp options. Protect your vehicles currents with a comfortable and secure fit with one of our MIDI Fuses.



Interrupting Rating: 1000A @ 32VDC.
Voltage Rating: 32 VDC.
Operating Temperature Range: -40°C to +125°C.
Housing Material: Heat Resistant 94-V0 Thermoplastic.
Terminals: Tin plated Copper.
RoHS Compliant.

Part #	Item	Qty
513-788	50amp	Ea
513-789	60amp	Ea
513-790	70amp	Ea
513-791	80amp	Ea
513-793	100amp	Ea
513-795	125amp	Ea
513-797	150 amp	Ea
513-798	175amp	Ea

Circuit Breakers

CB100 CIRCUIT BREAKER

Circuit Breaker and Relay
Plug in for ATC and ATO
fuses

Part #	Size	Qty	Type
514-050	20	2	CB100-20
514-054	30	2	CB100-30



CB120 CIRCUIT BREAKER

Fuse Clip Type 2 Circuit
Breaker
1/4 INCH ROUND BASE

Part #	Size	Qty	Type
514-110	10	2	CB120-10
514-112	15	2	CB120-15
514-114	20	2	CB120-20
514-116	25	2	CB120-25
514-118	30	2	CB120-30
514-120	35	2	CB120-35
514-122	40	2	CB120-40



CB125 CIRCUIT BREAKER

Fuse Clip Type 2 Circuit
Breaker
1.0 inches on center. For use
with Mac Trucks.

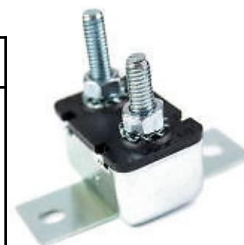
Part #	Size	Qty	Type
514-140	10	2	CB125-10
514-142	15	2	CB125-15
514-144	20	2	CB125-20
514-146	25	2	CB125-25
514-148	30	2	CB125-30
514-150	40	2	CB125-40
514-152	50	2	CB125-50



CB130 CIRCUIT BREAKER

Metal Stud Type 1 Circuit
Breaker
Two 10-32 stud terminals at
0.67 inches

Part #	Size	Qty	Type
514-172	10	2	CB130-10
514-174	15	2	CB130-15
514-176	20	2	CB130-20
514-178	25	2	CB130-25
514-180	30	2	CB130-30
514-182	40	2	CB130-40
514-184	50	2	CB130-50



CB135 CIRCUIT BREAKER

Metal Stud Type 1 Circuit
Breaker
Two 10-32 Stud Terminals at
different heights: 0.58" and
0.71"

Part #	Size	Qty	Type
514-188	10	2	CB135-10
514-190	15	2	CB135-15
514-192	20	2	CB135-20
514-194	25	2	CB135-25
514-196	30	2	CB135-30
514-198	40	2	CB135-40
514-200	50	2	CB135-50



Circuit Breakers / Flashers

CB140 CIRCUIT BREAKER

Fuse Clip Type 2 Circuit Breaker SFE 20 Fuses.
SFE style fuse 1/4 inch by 1 1/4 inch

Part #	Size	Qty	Type
514-210	10	2	CB140-10
514-212	15	2	CB140-15
514-214	20	2	CB140-20
514-216	30	2	CB140-30
514-218	40	2	CB140-40



CB155 / UCB CIRCUIT BREAKER

Type I automatic reset,
Universal blade allows for minimum inventory

Part #	Size	Qty	Type
514-238	5	2	CB155-5
514-240	10	2	CB155-10
514-242	15	2	CB155-15
514-244	20	2	CB155-20
514-246	25	2	CB155-25
514-248	30	2	CB155-30
514-250	40	2	CB155-40



HEAVY-DUTY ELECTRONIC FLASHERS

- These flashers rely on electronic circuitry - not heat - to operate. Excellent performance in extreme climates.
- Original equipment on many late-model cars and light trucks - both domestic and imported.
- Direct plug-in replacement. No adapter required.
- Flashes at twice the normal speed to indicate lamp outage, and features an audible click when engaged.
- Electronic design provides superior service life.

FLASHERS Thermal Flasher
12V 12A 3PIN



Part #	Item	Qty
515-262	550	Ea

FLASHERS Thermal Flasher
12V 12A 2PIN














Part #	Item	Qty
515-275	536	Ea

Circuit Breakers / Flashers

ELECTRONIC FLASHERS

- Dependable & Reliable – Not affected by extreme temperatures. Operation is electromechanical, not heat governed like conventional thermal operated flashers.
- True variable load capacity allows operation 1-8 standard or heavy duty bulbs.
- Non-polarity sensitive design easy hook up without fear of shorting electrical systems.
- Starts faster – first flash in less than 750 milliseconds.
- Built tough to hold up under the most demanding conditions.

Part #	Mfg #	Qty	Type		
515-315	EF32	Ea	Round Plastic 2-PRONG	Variable Load 12V 25A 2PIN ELECTRONIC FLASHER	 
515-320	EF33	Ea	Round Plastic 3-PRONG	Variable Load 12V 25A 3PIN ELECTRONIC FLASHER	 
515-325	EF32H	Ea	Square Plastic 2-PRONG	Heavy Duty Variable Load Electronic Flasher 12V 25A 2 PIN	 
515-327	EF32L	Ea	EF32L 2-PRONG FLASHER FOR LED	Self adjusts to LED current. Used for lamps with low amp draw. Used when converting a truck from incandescent to LED lighting	

Part #	Amp	Qty	Type		
515-330	EF33 H	Ea	EF33H 3-PRONG FLASHER	12V 25A 3PIN HEAVY DUTY FLASHER	 
515-335	EF32 RL	Ea	EF32RL 2-PRONG FLASHER FOR LED	Self adjusts to LED current. Used for lamps with low amp draw. Round	 

Electronic Flashers

ELECTRONIC FLASHERS

- Dependable & Reliable – Not affected by extreme temperatures. Operation is electromechanical, not heat governed like conventional thermal operated flashers.
- True variable load capacity allows operation 1-8 standard or heavy duty bulbs.
- Non-polarity sensitive design easy hook up without fear of shorting electrical systems.
- Starts faster – first flash in less than 750 milliseconds.
- Built tough to hold up under the most demanding conditions.

Part #	Mfg #	Qty	Type		
515-336	EF33RL	Ea	EF33RL 3-PRONG FLASHER	Variable Load LED/Incandescent Compatible Flasher	
515-340	EF33L	Ea	EF33L 3-PRONG FLASHER	Heavy Duty Electronic Flasher With Lead Wire	
515-375	EF27	Ea	12V 12A 5PIN	Combination TS & Hazard Electronic Flasher	
515-385	EF26	Ea	12V 12A 4PIN	Combination TS & Hazard Electronic Flasher	
515-390	EF28	Ea	12V 12A 3PIN	Combination TS & Hazard Electronic Flasher	



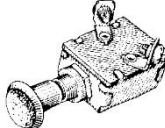





Electronic Flashers

ELECTRONIC FLASHERS

- Dependable & Reliable – Not affected by extreme temperatures. Operation is electromechanical, not heat governed like conventional thermal operated flashers.
- True variable load capacity allows operation 1-8 standard or heavy duty bulbs.
- Non-polarity sensitive design easy hook up without fear of shorting electrical systems.
- Starts faster – first flash in less than 750 milliseconds.
- Built tough to hold up under the most demanding conditions.

Part #	Mfg #	Qty	Type		
515-395	EF28	Ea	12V 12A 4PIN	Combination TS & Hazard Electronic Flasher	
515-425	EF22	Ea	24V 12A 2PIN	Combination TS & Hazard Electronic Flasher 24v	
515-430	EF23	Ea	24V 12A 3PIN	Combination TS & Hazard Electronic Flasher 24v	
515-725	RY-46	Ea	E-TRON RY-46 ECHLIN AR240 NIEHOFF FF165	Fuel Pump Relay	
515-750	RY-30	Ea	E-TRON RY-30 ECHLIN AR201 NIEHOFF DR165C	Fuel Pump Relay	



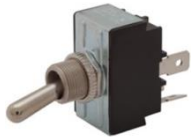





Toggle Switches

Part #	Type	Item	Qty	
518-420	Boot	Toggle Boot	Ea	
518-460 518-464	Red Black	toggle switch guard is a spring-loaded cover that adds protection against accidental actuation	Ea	
518-540	Push-Pull On-Off-On	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-542	Push-Pull On-Off		Ea	
518-580	SPST On-Off Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-584	SPST (On)-Off Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-588	SPDT On-On Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-592	SPDT On-Off-On Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-596	SPDT On-Off-(On) Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	

() indicates momentary action

Single Pole Rated: 10A/277V AC; 20A/125V AC; 21A/14V DC; 3/4 HP 125-250V AC.
Double Pole Rated: 10A/277V AC; 20A/125V AC; 21A/14V DC; 1-1/2 HP 125-250V AC.

Toggle Switches

Part #	Type	Item	Qty	
518-600	SPDT (On)-Off- (On) Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-740	DPST On-Off Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-744	DPST (On)-Off Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-746	DPDT On-On Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-748	DPDT On-(On) Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-752	DPDT On-Off-On Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-756	DPDT On-Off- (On) Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	
518-760	DPDT (On)-Off- (On) Toggle Switch	industrial controls, marine panels, trucks, buses and automotive	Ea	

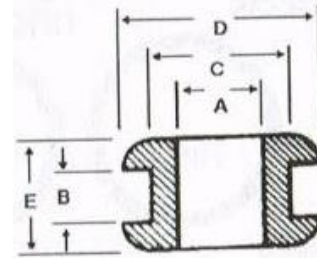
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Single Pole Rated: 10A/277V AC; 20A/125V AC; 21A/14V DC; 3/4 HP 125-250V AC.
Double Pole Rated: 10A/277V AC; 20A/125V AC; 21A/14V DC; 1-1/2 HP 125-250V AC.

Grommets

RUBBER GROMMETS:

- Ideal for use in manufacturing, machinery, and automotive applications
- Protects cables from sharp edges or corners
- Abrasion and tear resistant
- Withstands temperatures up to 180° F (82° C)



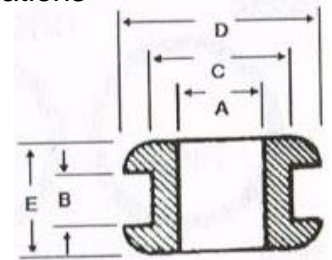
When running your cables through small openings or around sharp curves, you will encounter rough metal or wooden edges that may damage or break your cables. These rubber grommets provide an abrasion resistant cushion around these small openings and sharp edges to protect your wiring. Made out of SBR rubber, 60 durometer commercial rubber.

Part#	Ref #	A - BORE	B - GROVE	C - GROVE	D - O.D.	Qty
549-435	D-5102DL	1/8	1/16	1/4	11/32	10
549-440	4408	1/8	3/32	3/8	1/2	10
549-445	4410	5/32	1/16	1/4	3/8	10
549-450	4411	5/32	3/32	1/4	7/16	10
549-455	4413	3/16	1/16	5/16	1/2	10
549-460	4414	3/16	3/32	9/32	3/8	10
549-462	D-5142	3/16	3/32	9/32	7/16	10
549-463	D-5114	3/16	1/16	5/8	7/8	10
549-465	4415	3/16	1/4	5/16	7/16	10
549-470	16454	1/4	1/16	3/8	1/2	10
549-475	4417	1/4	1/16	7/16	5/8	10
549-480	4418	1/4	1/16	1	1-1/4	10
549-485	4419	5/16	1/16	7/16	9/16	10
549-490	4420	5/16	1/16	9/16	13/16	10
549-495	16455	5/16	1/16	3/4	1	10
549-500	4421	5/16	1/8	9/16	13/16	10
549-505	4422	5/16	1/4	9/16	13/16	10
549-510	4423	3/8	1/16	1/2	5/8	10
549-515	16456	3/8	1/16	5/8	7/8	10
549-520	4425	3/8	1/16	1	1-1/4	10
549-522	D-5156	3/8	1/8	5/8	7/8	10
549-525	4426	3/8	1/4	5/8	7/8	10
549-527	D-5112	3/8	1/2	5/8	1/4	10
549-530	16457	7/16	1/16	9/16	3/4	10
549-535	4428	1/2	3/32	3/4	31/32	10
549-540	4429	1/2	3/32	25/32	1	10
549-545	16458	1/2	1/8	3/4	1	10
549-550	4430	1/2	1/4	13/16	1-1/16	10

Grommets

RUBBER GROMMETS:

- Ideal for use in manufacturing, machinery, and automotive applications
- Protects cables from sharp edges or corners
- Abrasion and tear resistant
- Withstands temperatures up to 180° F (82° C)



When running your cables through small openings or around sharp curves, you will encounter rough metal or wooden edges that may damage or break your cables. These rubber grommets provide an abrasion resistant cushion around these small openings and sharp edges to protect your wiring. Made out of SBR rubber, 60 durometer commercial rubber.

Part#	Ref #	A - BORE	B - GROVE	C - GROVE	D - O.D.	Qty
549-552	D-5183	5/8	3/16	7/8	1-1/8	10
549-555	4431	5/8	1/8	7/8	1-1/8	10
549-560	4432	5/8	1/16	7/8	1-1/8	10
549-562	D-5142	3/16	7/32	9/32	7/16	10
549-565	4433	3/4	1/16	15/16	1-1/8	10
549-570	4434	3/4	1/16	1-1/16	1-3/8	10
549-575	4435	3/4	1/16	1-1/4	1-5/8	10
549-580	4436	3/4	1/4	1-1/4	1-5/8	10
549-585	D-5132	1"	1/16	1-3/8	1-3/4	10
549-590	D-5197	1-1/2	1/4	1-3/4	2-1/8	10

Grommets

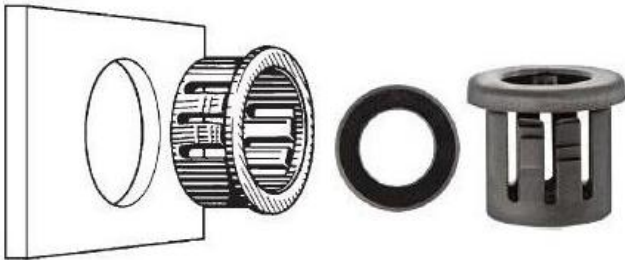
PLASTIC GROMMETS:

- Works as well as natural rubber
- Ideal for use in manufacturing, machinery, and automotive applications
- Protects cables from sharp edges or corners
- Abrasion and tear resistant
- Withstands temperatures up to 180° F (82° C)

Installs easily into any existing hole from 1/16" to 1/8" inch thick.

The top wings keep any diameter and shape wires centered.

Designed to protect wires and cables, as well as absorb shock, vibration.



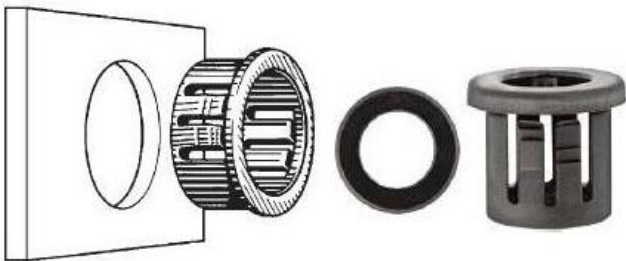
Plastic Grommets

Part#	ID	OD	Ref	Qty
549-620	1/8	1/4	D-5000	50
549-624	3/16	3/8	D-5002	50
549-628	1/4	15/32	D-5004	50
549-632	5/16	17/32	D-5006	50
549-636	3/8	37/64	D-5008	50



Plastic Grommets

Part#	ID	OD	Qty
549-650	5/8	23/32	25
549-654	3/4	55/64	25
549-658	7/8	15/16	25
549-662	1"	1-1/16	25
549-666	1-3/32	1-5/32	25
549-680	1"	3/4	25



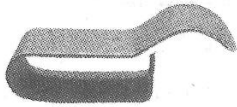
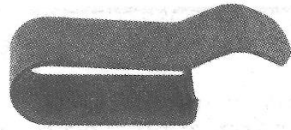
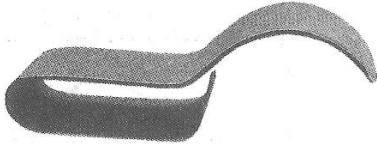
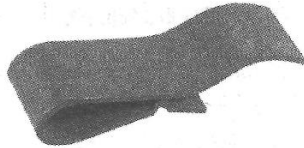
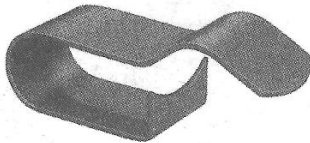
Plastic Grommets

Part#	ID	OD	Ref	Qty
549-710	1/4	3/8	16087	25
549-712	3/8	1/2	16088	25
549-714	.437	.562	16089	25
549-716	.500	.625	16090	25
549-718	.625	.750	16091	25
549-720	11/16	7/8	16092	25
549-722	3/4	1"	16093	25
549-724	15/16	1-3/32	16094	25
549-726	.937	1.250	16095	25
549-728	1.312	1.50	16096	25

Wiring and Frame Routing Clips

- Works to hold wire or wire loom in place.
- Ideal for use in manufacturing, machinery, and automotive applications
- Protects cables from sharp edges or corners
- Abrasion and tear resistant

WIRE LOOM CLIPS (ILLUSTRATION ACTUAL SIZE)

<table border="1"> <tr> <th>Part#</th><th>Qty</th></tr> <tr> <td>549-750</td><td>25</td></tr> </table>  <p>Wire Loom Clip 3/16" Clamping Diam. (av1341)</p>	Part#	Qty	549-750	25	<table border="1"> <tr> <th>Part#</th><th>Qty</th></tr> <tr> <td>549-775</td><td>25</td></tr> </table>  <p>Wire Loom Clip General Duty (av9464)</p>	Part#	Qty	549-775	25
Part#	Qty								
549-750	25								
Part#	Qty								
549-775	25								
<table border="1"> <tr> <th>Part#</th><th>Qty</th></tr> <tr> <td>549-760</td><td>25</td></tr> </table>  <p>Wire Loom Clip 1/4" Clamping Diam. (av1340)</p>	Part#	Qty	549-760	25	<table border="1"> <tr> <th>Part#</th><th>Qty</th></tr> <tr> <td>549-780</td><td>25</td></tr> </table>  <p>Wire Loom Clip Heavy Duty Frame Fits panels from .03" - .230" 3/16" Clamping Diam. (av14388)</p>	Part#	Qty	549-780	25
Part#	Qty								
549-760	25								
Part#	Qty								
549-780	25								
<table border="1"> <tr> <th>Part#</th><th>Qty</th></tr> <tr> <td>549-770</td><td>25</td></tr> </table>  <p>Wire Loom Clip 3/8" Clamping Diam. (av3758)</p>	Part#	Qty	549-770	25					
Part#	Qty								
549-770	25								

Weather Pack Environmental Connectors

RUBBER CAPS:

Can be used for capping lines and hoses while testing carburetors, emission control systems, vacuum lines, etc.

Special Heat Resistant EPDM Rubber

Part #	Size	Item	Qty
535-222	1/8	Vacuum Cap	10
535-224	3/16		10
535-226	1/4		10
535-227	5/16		10
535-228	3/8		10
535-230	1/2		10



VACUUM CONNECTORS:

Nylon material, used for vacuum hose, fuel lines, water lines etc.

Part #	Size	Item	Qty
535-252	1/8	Straight Connectors	10
535-254	3/16		10
535-256	1/4		10
535-258	5/16		10
535-260	3/8		10
535-262	1/2		10
535-293	1/8 – 3/16	Straight Connectors	10
535-295	1/8 – 1/4		10
535-297	3/16 – 1/4		10
535-299	3/8 – 1/4		10
535-280	1/8	Tee Connectors	10
535-282	3/16		10
535-284	1/4		10
535-286	5/16		10
535-288	3/8		10
535-292	1/2		10



WINDSHIELD WIPER/VACUUM TUBING

Low pressure EPDM tubing for windshield washers, vacuum and emissions systems for power accessories. Similar to SAE J1037 specification. Will not deteriorate from heat, weathering, or ozone. Maintains its flexibility even at low temperatures.



Part#	Size	Qty
535-314	7/64	50'
535-316	5/32	50'
535-317	7/32	50'
535-318	9/32	50'

Fuel Lines

PREMIUM FUEL LINE

Designed for conveying gasoline, E-85, diesel, and bio-diesel fuels in cars, trucks, buses, etc. Handles temperature ranges of -40 to +257 degrees F. Withstands oil, grease, abrasion, and ozone. Exceeds the burst requirements of the SAE30R7 specification.

Application: Fuel Line

Specification: Similar to SAE30R7

Branding: Made In USA

Cover Color: Black Reinforcement: Two Spiral Polyester

Cover: NBR/PVC

Temperature Resistance: -40°F to +257°F (+302°F

Intermittent

— Not for Steam Use)



Part#	Size	Qty
535-352	3/16	25'
535-354	1/4	25'
535-356	5/16	25'
535-358	3/8	25'
535-360	7/16	25'

FUEL INJECTOR HOSE:

Designed specifically for auto and truck fuel injection systems.

Specific Fuel: gasoline, ethanol extended gasoline, oxidized sour gas, diesel fuel, biodiesel, lubrication oil

Application: Fuel Line

Style: Fuel Injection (SAE30R9) Specification: SAE30R9

Branding: Fuel Injection Hose Date Made In USA

Cover Color: Black

Tube: Fluoroelastomer Reinforcement: Two Spiral Aramid Fiber

Cover: Synthetic Oil Resistant

Temperature Resistance: -29°F to +275°F (+302°F Intermittent)



Part#	Size	Qty
535-375	1/4	10'
535-377	5/16	10'
535-379	3/8	10'

TRANSMISSION OIL COOLER

A special hose for circulating transmission fluid at high temperatures. The tube and cover are designed to meet OEM and SAE J1532 performance requirements. Features a polyester reinforcement for high burst protection. Will withstand fluid temperatures up to 257 degrees F and is resistant to fuel, ozone, oil, grease, and heat aging. Application:

Transmission Oil Cooler

Specification: Similar to SAE J1532 Branding:

Thermoid Transmission Oil Cooler (Size)

Made In USA (Date)

Cover Color: Black Tube:

Nitrile Reinforcement: Polyester Cover:

Nitrile/PVC Temperature Resistance:

-30°F to +257°F



Part#	Size	Qty
535-385	5/16	25'
535-387	3/8	25'

Brake Lines

ZINC PLATED BRAKE LINE

Double wall (.028) Zinc plated brake lines. 16,000psi burst pressure, with double annealed seams.

Part#	Size	Qty
535-410	3/16	25'
535-412	1/4	25'
535-414	5/16	25'
535-416	3/8	25'



COPPER/ NICKLE BRAKE LINE

CUPRO/NICKEL made of 88% copper, 10% nickel and 2% iron Liquid Sodium chloride and rock salt used to de-ice winter roads break down and destroy steel tubing lines. Steel brake lines have had zinc, galfan, PVF (poly vinyl fluoride) and Nylon plating to protect them from the winter de-icing onslaught and still life expectancy for these steel tubing lines has fallen dramatically. When sand and road debris is added to the mix steel tubing lines don't stand a chance against the elements.

The answer is a totally different type of brake, fuel and transmission line made from materials that liquid calcium or rock salt solutions have no damaging affects on and can be offered with a Lifetime guarantee.

Part#	Size	Qty
535-417	3/16	50'
535-418	1/4	50'
535-420	3/16	25'
535-421	1/4	25'
535-422	5/16	25'



PVF (POLY VINYL FLUORIDE) COATED BRAKE LINE

PVF coated lines which will extend the life of brake and all fluid carrying lines. Although Sodium Chloride has shown to be more effective in making roads safer it has major consequences for the undercarriage of vehicles. Fluid carrying lines including critical application hydraulic brake fluid lines are corroding and failing in shorter time with the brake line lasting five to eight years as opposed to the nine to twelve years which was the average only ten years ago. PVF does provide significant protection against all road elements mentioned above and is what technicians are seeing on the vehicles that are coming into their shops today. With the exception of General Motors virtually all car manufacturers have gone to coated lines like PVF. Garage owners and technicians alike are demanding PVF lines for their customer vehicles as Zinc plated lines the standard for many years will not stand up to the harsh environment the cars of today are subjected to.

Part#	Size	Qty
535-425	3/16	25'
535-427	1/4	25'
535-429	5/16	25'
535-431	3/8	25'



Heater Hose

BLUE SILICONE PREMIUM HEATER HOSE

Blue Silicone Heater Hose: Constructed with silicone and reinforced with temperature-resistant, Aramid textile cords, making them extremely durable and suited for high-temperature applications such as radiators, heaters, and other coolant transfer hose uses.

- Exceptional temperature resistance: **-57°C to +204°C (-70°F to +400°F)**
- Polyester textile cord reinforcement for high durability
- High flexibility for versatile applications
- High environmental resistance to weathering, coolant deterioration, and ozone
- Exceeds SAE 20R3 Class A Tube and Cover**
- Suitable for emission hose applications.
- Approved for marine applications
- CAUTION: Do not use for *fuel* or *oil transfer* applications.**



Part#	Size	Qty
536-226	3/8	50'
536-228	1/2	50'
536-230	5/8	50'
536-232	3/4	50'
536-234	7/8	50'
536-236	1"	50'

Heater Hose

RED PREMIUM HEATER HOSE:

A replacement for OE hose on most cars and light trucks. The high quality hose is similar to SAE20R3 Class D2, SAE J2387 for higher underhood temperatures.

Withstands the abuse of corrosive solutions and additives.

Resists weathering to provide a long, trouble-free service life.

Application: Heater Style:

Red Grade: Red Premium

Specification: Similar to SAE20R3 Class D2, SAE J2387

Branding: Thermoid Premium Heater Made In USA

Color: Red Tube: EPDM

Reinforcement: Two Spiral Polyester Cover: EPDM

Temperature Resistance: -40°F to +257°F (Not for Steam Use)



Part#	Size	Qty
536-354	1/2	50'
536-356	5/8	50'
536-358	3/4	50'
536-360	1"	50'

RED PREMIUM THERMAL HEATER HOSE:

A replacement for OE hose on most cars and light trucks. The high quality hose is similar to SAE20R3 Class D2, SAE J2387 for higher underhood temperatures. Withstands the abuse of corrosive solutions and additives.

Resists weathering to provide a long, trouble-free service life. A blue insulating layer helps to minimize heat loss. Four spiral reinforcement for extra strength.

Application: Heater Style: Thermal

Grade: Red Premium

Specification: Similar to SAE20R3 Class D2, SAE J2387

Branding: Thermoid Premium Made In USA

Color: Red Tube: EPDM Reinforcement: Four Spiral

Polyester Cover: EPDM

Temperature Resistance: -40°F to +257°F (Not for Steam Use)



Part#	Size	Qty
536-370	5/8	50'
536-372	3/4	50'
536-374	1"	50'

FRAM FUEL FILTER:

Clean fuel is important because there are small jets and passages in the openings of your fuel system, especially in carburetors and fuel injectors. The fuel filter is responsible for keeping the smaller contaminants in the system out of the engine and other fuel delivery components.

To ensure this cleanliness, fuel filters are installed in the fuel line. Filters can be located at any point between the fuel tank and the engine fuel rail. The most common placement is mounted on the underside frame rail between the fuel tank and engine.



Part#	Size	Qty
537-510	1/4	Ea
537-515	5/16	Ea
537-520	3/8	Ea

Tire Repair



Part#	Size	Item	Qty
541-125	8 oz	Tire Cement	Ea



Part#	Size	Item	Qty
541-210	Quart	Bead Sealer	Ea



Part#	Size	Item	Qty
541-215	Gallon	Tire Mount Lube	Ea



Part#	Size	Item	Qty
541-215	Gallon	Tire Mount Lube	Ea




Part#	Size	Item	Qty
541-220	8 lb	Murphy Tire Mounting Paste	Ea

Tire Repair

Part#	Type	Item	Qty	
541-225 541-230	Euro Style Clip-On Air Chuck	Open Closed	Ea Ea	
541-235 541-240 541-245	Ball Foot Air Chuck With Clip	Open Closed Clip	Ea Ea Ea	
541-248 541-250	Lock-On Air Chuck	Open Closed	Ea Ea	
541-252	Pocket pressure Gauge 10 lb – 50 lb	Air	Ea	
541-254 541-256	Pocket pressure Gauge 5 lb – 50 lb Pocket pressure Gauge 20 lb – 120 lb	Air	Ea Ea	
541-258	Pocket pressure Gauge 20 lb – 120 lb	Air	Ea	
541-270 541-275	Heavy Duty Pressure Gauge 10 lb – 150 lb Heavy Duty Pressure Gauge 10 lb – 160 lb	Air	Ea Ea	
541-285	Air Chucks	Air	Ea	
541-287	Air Chucks	Air	Ea	




Tire Repair

Part#	Type	Item	Qty	
541-312	Pistol-Grip Spiral Cement Probe	Reamer	Ea	
541-317	Long Handle Spiral Cement Probe	Reamer	Ea	
541-328	Insert Needle Tool	Insert Tool	Ea	
541-330	Open Eye Needle Tool	Insert Tool Open Eye	Ea	
541-332	T-Handle Eye Needle Insert Tool	Insert Tool Closed Eye	Ea	
541-401	Thread Depth Gauge	32 nd & Metric	Ea	
541-402	Standard Bore Core Remover Tool	Tool	Ea	







Part#	Item	Type	Qty	
541-406 541-407	Four-Way Valve Tool	Regular Large	Ea Ea	

Tire Repair

Part#	Item	Type	Qty	
541-410	Short Standard Bore Valve Core Black	Core	100	
541-418	Short Skirted Metal Dome Cap		100	
541-420	Metal Screwdriver Cap		100	
541-422	Heavy Duty Metal Dome Cap		100	
541-428	Chrome Hex-Head Valve Cap		100	
541-432	Dome Chrome Hex Valve Cap		100	
541-506	15" Cotton Tire Swab		Ea	

Part#	Item	Type	Qty	
541-530	Extra Fat Brown String Repair 1/4" (xtra seal # 12360)	4" Long	30	
541-535	Extra Fat Brown String Repair 1/4" (xtra seal # 1236230)	8" Long	30	
541-580	1-3/4" x 3" Radial Patch	Radial	10	
541-585	2-1/4" x 4" Radial Patch	Radial	10	

Wheel Lugs / Nuts

Part#	A	B	Lgt	Ref	Type	Qty	A - B
544-725	5/16-24	5/16-18	1-3/4	9676	Grade 5	10	
544-730	5/16-18	5/16-18	2"	9679			
544-732	5/16-18	5/16-18	3"	9681			
544-735	3/8-24	3/8-16	1-1/2	9683	Grade 5	10	
544-737	3/8-24	3/8-16	1-3/4	9684			
544-740	3/8-24	3/8-16	2"	9686			
544-742	3/8-16	3/8-16	2"	9687			
544-745	3/8-16	3/8-16	2-1/2	19597			
544-747	3/8-16	3/8-16	3"	12129			
544-750	3/8-16	3/8-16	4"	9695			
544-765	7/16-14	7/16-14	2"	9702	Grade 5	10	
544-770	7/16-20	7/16-14	1-1/2	9697			
544-772	7/16-20	7/16-14	1-3/4	9699			
544-773	7/16-20	7/16-14	2"	9701			
544-774	7/16-20	7/16-14	2-1/2	9709			
544-775	7/16-14	7/16-14	1-3/4	9798			
544-777	7/16-14	7/16-14	2"	9702			
544-779	7/16-14	7/16-14	2-1/2	9711			
544-784	1/2-20	1/2-13	1-7/8	9727	Grade 5	10	
544-786	1/2-20	1/2-13	2"	9728			
544-788	1/2-20	1/2-13	2-1/2	9731			
544-790	1/2-20	1/2-13	3"	9732			
544-825	5/8-11	5/8-11	2-3/4	15016	Grade 8	10	
544-860	5/8-18	5/8-11	2-1/2	9743			
544-865	5/8-18	5/8-11	3"	9745			
544-875	3/4-10	3/4-10	3"	15017	Grade 8	10	

Alum Inner Wheel Nuts

Part#	Item	Type	Qty
545-250	Budd	Right - Hand	10
545-275	Budd	Left - Hand	10



Alum Outer Wheel Nuts

Part#	Item	Type	Qty
545-295	Budd	Right - Hand	10
545-300	Budd	Left - Hand	10



Wheel Nuts

Part #	Item	Qty
544-955	3/4-10	10

Pull Springs

Part#	Wire	OD	Length	Qty
546-210	1/16	1/2	4-3/8	5



Part#	Wire	OD	Length	Qty
546-240	3/64	25/32	5-3/4	5



Part#	Wire	OD	Length	Qty
546-250	.062	1/2	5-1/4	5



Part#	Wire	OD	Length	Qty
546-270	1/16	7/16	8-1/4	5



Part#	Wire	OD	Length	Qty
546-300	1/32	3/8	1-13/16	5



Part#	Wire	OD	Length	Qty
546-330	3/32	3/4	8-1/2	5



Part#	Wire	OD	Length	Qty
546-360	1/32	13/32	11-1/2	5



Part#	Wire	OD	Length	Qty
546-390	1/16	13/16	17-1/2	5



Part#	Wire	OD	Length	Qty
546-420	3/32	13/16	2"	5



Windshield Replacement Blades

Rain-X® Latitude® Water Repellency 2-n-1 Wiper Blades

Rain-X[R] Latitude[R] Water Repellency wiper blades provide an innovative 2-in-1 solution to both clear and repel the elements for ultimate driving visibility. The blades work by transferring a Rain-X[R] water repelling coating from the wiper squeegee to the windshield during initial use.

For optimal water repellency activation, run your wiper blades on a clean, dry windshield for two minutes. Once activated, the water repelling action will last for months! The Rain-X[R] water repelling coating will also help clear your windshield of harsh winter weather driving elements, such as ice, snow and sleet.

This can help reduce wear and tear on the squeegee and lead to longer blade life.

The synthetic blend rubber squeegee can withstand extreme weather conditions for enhanced durability

- New and improved pre-installed universal adaptor installs within minutes and fits 96% of all vehicles
- Advanced, beam style blade technology contours to the curvature of the windshield
- smooth, virtually streak-free wipe.
- Aerodynamic spoiler prevents wind lift and delivers a quiet wipe



Rain-X Wiper Blades Sold ea not pair

Part#	OD	Rain-X #	Qty
547-054	14"	50792722	Ea
547-056	15"	50792722	Ea
547-058	16"	50792722	Ea
547-060	17"	50792722	Ea
547-062	18"	50792722	Ea
547-064	19"	50792722	Ea
547-066	20"	50792722	Ea
547-068	21"	50792722	Ea
547-070	22"	50792722	Ea
547-072	24"	50792722	Ea
547-074	26"	50792722	Ea
547-076	28"	50792722	Ea

No other wipers deliver the innovation and technology that is offered by Rain-X® Latitude® Water Repellency Wiper Blades.

These unique blades apply a patented Rain-X® water repellent directly to your windshield for you.

The repellent is transferred from the squeegee to the glass – and the magic of Rain-X® is activated! !

Windshield Replacement Blades

ANCO WIPER BLADES:

ANCO's AeroVantage wiper blades are created with an aerodynamic design that maintains a clean wipe at high speeds.

They feature a vented bridge and are engineered for today's vehicles with sloped windshields. The ANCO AeroVantage wiper blades use the advanced DuraKlear-Plus wiper element to provide a streak-free wipe every time.

The blades are available in 12 in. to 28 in. lengths, and the KwikConnect system that allows for easy installation and removal of the blades.

For maximum visibility at higher speeds, try these ANCO AeroVantage wiper blades to keep your view clear.



Aero-vantage Wiper Blades

Part#	OD	Anco #	Qty
547-013	13"	31-13	Ea
547-014	14"	31-14	Ea
547-015	15"	31-15	Ea
547-016	16"	31-16	Ea
547-017	17"	31-17	Ea
547-018	18"	31-18	Ea
547-019	19"	31-19	Ea
547-020	20"	31-20	Ea
547-021	21"	31-21	Ea
547-022	22"	31-22	Ea
547-024	24"	31-24	Ea
547-026	26"	31-26	Ea

Body Shop Parts

J-Nuts Short



Part #	Ref #	Item	Qty
555-324	10048	8-32	25
555-330	15677	10-32	25
555-335	10050	1/4-20	25
555-345	8372	5/16-18	25
555-355	10054	3/8-16	25
555-364	12669	6 X 1.00	25
555-366	11628	6.3 X 1.00	25
555-368	11630	8 X 1.25	25
555-370	11631	10 X 1.50	25

J-Nuts Long



Part #	Ref #	Item	Qty
555-340	10051	1/4-20	25
555-350	8814	5/16-18	25
555-360	10055	3/8-16	25
555-365	12575	6 X 1.00	25
555-375	19901	12 X 1.75	10

Universal U-Nuts Short



Part #	Ref #	Item	Qty
555-520	10064	# 6	50
555-525	10065	# 8	25
555-530	10066	# 10	25
555-540	9881	1/4	25

Universal U-Nuts Long



Part #	Ref #	Item	Qty
555-570	9879	# 8	50
555-575	15752	# 10	25

Push In Retainers



Part #	Ref #	Item	Qty
555-750	14757	1/4 x 1	25
555-760	15414	5/16 x 1	25
555-770	17664	5/16 x 1-1/4	25

License Plate Nut



Part #	Ref #	Item	Qty
555-850	8954	# 14	50