



# ELECTRICAL 67-103

**VELVAC Original** Indicates an original Velvac product.

**NEW** Indicates a new product added to catalog.

**Revised Part No.** Indicates a revised part number defining "-xx" package quantity.  
Refer to price list for price per package.

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**For quantity and packaging information, refer to our price list.**

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### Seven-Way ISO Coiled Cable Assemblies



- Used in tractor/trailer systems requiring ISO 3731 style connectors-ISO pin prevents connections with non-ISO sockets
- 1/8, 2/10, 4/12 gauge cable
- Durable yellow outer jacket resists abrasion, provides excellent coil retention and offers quick identification of auxiliary circuit lines
- Heavy-duty zinc die cast plugs with spring guards included

Part No.	Working Length	Description
590251	12'	12" Lead Both Ends
590252	15'	12" Lead Both Ends
590253	15'	48" Lead One End, 12" Lead One End
590254	15'	72" Lead One End, 12" Lead One End

### Seven-Way ABS Coiled Cable Assemblies



**NEW**

- Assemblies include heavy gauge wire commonly used to power trailer and dolly ABS
- 1/8, 2/10, 4/12 gauge cable
- Durable green outer jacket resists abrasion, provides excellent coil retention and offers quick identification of ABS lines
- Heavy-duty zinc die cast plugs with spring guards included
- Cable meets SAE J2394 June 1998 Type F requirements

Part No.	Working Length	Description
590160	12'	12" Lead Both Ends
590161	15'	12" Lead Both Ends
590163	15'	40" Lead One End, 12" Lead One End
590080	20'	2-12" Leads
590081	20'	1-12" Leads 1-40" Leads

*NOTE: See page 73 for ABS color code description*

### Seven-Way Coiled Cable Assemblies



- Durable black outer jacket resists abrasion and provides excellent coil retention
- Heavy-duty zinc die cast plugs with spring guards included
- Operating temperature range of -55° to +185° F

#### 12' Working Length

12" lead both ends

Part No.	Description
590154	6/12, 1/10 Gauge
590156	6/14, 1/12 Gauge

#### 15' Working Length

12" lead both ends

Part No.	Description
590155	6/12, 1/10 Gauge
590157	6/14, 1/12 Gauge

#### 15' Working Length

72" lead one end, 12" lead one end

Part No.	Description
590159	6/12, 1/10 Gauge

### Seven-Way Straight Cable Assemblies



- Heavy-duty zinc die cast plugs with spring guards included
- ABS assemblies include heavy gauge wire commonly used to power trailer and dolly ABS - ABS cable meets SAE J2394 June 1998 Type F requirements

- ISO assemblies used in tractor/trailer systems requiring ISO 3731 style connectors

Part No.	Working Length	Description
590036	8'	6/12, 1/10 Gauge
590046	12'	6/12, 1/10 Gauge
590177	10'	6/12, 1/10 Gauge
590178	15'	6/12, 1/10 Gauge

#### ABS Assemblies

1/8, 2/10, 4/12 Gauge

Part No.	Working Length
590165	12'
590166	15'
590179	20'

#### ISO Assemblies

1/8, 2/10, 4/12 Gauge

Part No.	Working Length
590255	12'
590256	15'

### Six-Way Coiled Cable Assembly



- 12" working length
- Durable black outer jacket resists abrasion and has excellent coil memory
- Heavy-duty zinc die cast plugs with spring guards included

Part No.	Description
590061	6/14 Gauge
050029	Replacement Cable

### Single Pole Coiled Cable Assemblies



#### Tailgate Lift Power Cable

For applications that require direct electrical power to trailer lift gates; **BLUE JACKETED**

- Rated at 265 amps intermittent service (30 seconds on/50 seconds off)
- Heavy-duty zinc die cast plugs with spring guards included
- 2 gauge cable

Part No.	Description
590135	12' Tailgate Lift Power Cable Assembly
590136	15' Tailgate Lift Power Cable Assembly



#### Tailgate Lift Battery Charging Cable

For applications where cables are used to charge trailer lift gate batteries; **GREEN JACKETED**, heavy-duty zinc die cast plugs with spring guards included

- 200 amp max for intermittent lift gate applications at 12 VDC
- 110 amp max for continuous applications at 12 VDC
- External ground option
- 4 gauge cable

Part No.	Description
590263	12' Tailgate Lift Battery Charging 4 Gauge Cable Assembly
590264	15' Tailgate Lift Battery Charging 4 Gauge Cable Assembly

### Two Pole Coiled Cable Assemblies



- Rated at 200 amps for lift gate applications at 12 VDC
- 4 gauge cable
- Internally grounded
- Withstand temperatures of -85° to +185° F
- Durable black polyethylene outer jacket resists abrasions and chemical damage while offering excellent coil retention
- Heavy-duty zinc die cast plugs with springs guards included

Part No.	Description
590171	12' Two Pole Coiled Cable Assembly
590172	15' Two Pole Coiled Cable Assembly

## Seven-Way Plugs



- Heavy-duty nickel-plated zinc die cast housings on all except plastic plug which has an unbreakable nylon housing
- Easy to remove interiors for quick replacements
- ATA color-coded wire terminals
- Internal clamp holds cable securely in place
- Standard seven-way plugs meet ATA and SAE J560 requirements; ISO plugs meet ISO 3731:1997 requirements

### T-Grip Seven-Way Plugs

Part No.	Description
593057	Plug with Spring Guard
593101	ISO Plug with Spring Guard
593111	Plastic Plug with Weather Guard
593059	Replacement Interior for Part Nos. 593057, 593111
593060	Replacement Spring Guard

### Single Grip Seven-Way Plugs

Part No.	Description
593022	Plug with Spring Guard
593024	Plug without Spring Guard
593017	Replacement Spring Guard
593019	Replacement Interior

## Single Pole Plugs



- Used to provide power to heavy draw auxiliary trailer equipment
- Heavy-duty zinc die cast housings
- Power and ground terminals hold up to 1/0 gauge wire

Part No.	Description
591161	T-Grip Plug with Spring Guard
591105	Single Grip Plug without Spring Guard
591162	Replacement Interior for Part No. 591161
591109	Replacement Interior for Part No. 591105

## Seven-Way Blade Type Plug



- Primarily used in RV applications
- Constructed of molded PVC for impact resistance

Part No.	Description
054001	Seven-Way Blade Type Plug

**NOTE:** See page 71 for seven-way blade type socket

## Two Pole Plug



- 200 amp, 4 gauge wire capacity
- Heavy-duty zinc die cast housing
- Internal ground
- Spring guard supports and protects cable

Part No.	Description
593116	T-Grip Plug with Spring Guard

## Four-Way and Six Way Plugs



- Heavy-duty zinc die cast housings
- Plug locking system works with socket door to ensure proper hookup and prevent unintentional disconnections
- Spring guard on Part No. 055049 supports and protects cable

Part No.	Description
055059	Four-Way Plug with Spring Guard
055054	Four-Way Plug without Spring Guard
055049	Six-Way Plug with Spring Guard
055050	Six-Way Plug without Spring Guard
055055	Replacement Interior for Four-Way Plug
055051	Replacement Interior for Six-Way Plug

### Truck Tractor to Trailer Adapters



- Heavy-duty zinc die cast housing on Part Nos. 591009 and 591010; also include solid brass pins and terminals and a spring clip to lock adapter and plug together
- Part Nos. 591115, 591116 and 591117 constructed of molded PVC for impact resistance

Part No.	Description
591009	Seven-Way Pin to Six-Way Adapter
591010	Six-Way Round to Seven-Way Adapter
591115	Seven-Way Blade to Four-Way Flat Adapter
591116	Seven-Way Round to Four-Way Flat Adapter
591117	Six-Way Round to Four-Way Flat Adapter

### Continuity Testers



- LED indicators quickly identify complete circuits by glowing red; no light means problem circuit
- Fit standard seven-way blade type, four-way flat connectors and seven-way round
- Constructed of molded PVC for impact resistance
- Internally grounded

Part No.	Description
057118	Seven-Way Plug Circuit Tester
057119	Seven-Way Socket Circuit Tester
057120	Seven-Way Blade Circuit Tester
057121	Four-Way Flat Circuit Tester

### Four-Way Flat Set



- 48" lead (female) side and 12" lead (male) side
- Constructed of molded PVC for impact resistance
- ATA color-coded:
  - White: Ground
  - Green: Right Turn and Brake Lights
  - Yellow: Left Turn and Brake Lights
  - Brown: Tail Lights

Part No.	Description
090226	Four-Way Flat - Female
090227	Four-Way Flat - Male

Together these replace Velvac Part No. 054003

### Seven-Way Plug Cleaner



- Stainless steel brushes quickly clean electrical contacts for improved conductivity
- Durable plastic body

Part No.	Description
055034	Seven-Way Plug Cleaner

## Seven-Way Circuit Breaker Sockets and Adapter Boxes



Deep Adapter Box with Bottom Entry



Deep Adapter Box with Back Entry

- Non-corrosive, reinforced nylon housing for added durability
- Designed for #8 ring terminals (see page 93)
- ATA color-coded contacts (see page 73 for ATA color code chart)
- Solid brass split pins are zinc-plated for corrosion resistance
- Each socket includes automatic reset circuit breakers with positive snap open/snap closed action to eliminate arcing (unless otherwise noted)
- Mounting holes are 4-1/2" on center and include steel bushings for added housing protection
- Adhesive-backed mounting gasket included
- Circuit breaker sockets meet SAE J560 requirements

Part No.	Description
055037	Socket with 20 Amp Circuit Breakers
055038	Socket with 30 Amp Circuit Breakers
055040	Socket without Circuit Breakers
055039	Replacement Cover Kit (includes Cover, Shaft Retainer, Steel Hinge Pin and Stainless Steel Spring)
055041*	Deep Adapter Box with Bottom Entry
055045*	Deep Adapter Box with Back Entry

\*5/16" - 18"UNC cover plate studs and 2" inside depth



- Durable zinc die cast housings
- Solid brass split pin socket offers replaceable circuit breakers for circuit protection of trailer wiring systems
- Slanted door front for plug support
- Replaceable thermoplastic base plate with ATA color codes for quick identification
- Each socket includes automatic reset circuit breakers with positive snap open/snap closed action to eliminate arcing

Part No.	Description
593052	Socket with 20 Amp Circuit Breakers
593054	Socket with 30 Amp Circuit Breakers

## Seven-Way Blade Type Socket



Optional Mounting Bracket

- Screw-type socket primarily used in RV applications
- 6-24 VDC
- Mounting holes are 2-1/4" on center
- Constructed of molded PVC for impact resistance
- Optional zinc-plated mounting bracket available and sold separately

Part No.	Description
054002	Seven-Way Blade Type Socket
090216	Mounting Bracket

NOTE: See page 69 seven-way blade type plug

## Single and Two Pole Sockets



- Durable zinc die cast housings
- Power and ground terminals on single pole socket hold up to 1/0 gauge wire
- 200 amp, 4 gauge wire capacity on two pole socket
- Two pole socket has internal ground
- Single pole socket may be soldered or crimped
- Mounting holes 3" on center
- Rear housing 1-3/4" O.D.

Part No.	Description
591113	Single Pole Socket
593121	Two Pole Socket
591090	Replacement Interior for Single Pole Socket
593122	Replacement Interior Two Pole Socket

### Seven-Way Sockets



*Two Hole Socket with Screw Terminals*



*Two Hole Socket with Push Terminals*



*Optional Terminal*

- Non-corrosive, reinforced nylon housing for added durability
- Screw type socket with split pins designed for #8 ring terminals (see page 93)
- Push type socket with solid pins designed for 180° snap receptacles (see Part No. 056079 on page 94)
- Mounting holes are 3" on center
- Screw type socket includes screws and washers
- Gasket included on each socket
- Sockets meet SAE J560 requirements
- Protective rubber boot seals out moisture and contaminants - sold separately

Part No.	Description
055043	Two Hole Socket with Screw Terminals
055062	Two Hole Socket with Push Terminals
055063	Rubber Terminal Protector Boot

*Part No. 593083*



*Optional Terminal Protector Boot*

- Durable zinc die cast housings
- ABS plastic interior with ATA color codes for quick identification
- Solid brass pins
- Wires attached by set screw retainers
- Slanted door front for plug support
- Tongue and groove door design protects socket interior from dirt and moisture
- Mounting holes are 2-15/16" on center
- 1-13/16" rear housing length
- Terminal protector boot keeps terminals free from moisture and contaminants - sold separately
- Sockets meet SAE J560 requirements

Part No.	Description
593083	Socket with Solid Pins
593084	Socket with Split Pins
054017	Terminal Protector Boot
591022	Replacement Solid Pin Interior
591019	Replacement Cover Kit (includes Door, Hinge Pin & Spring)

### ISO Seven-Way Socket



- Used in tractor/trailer systems requiring ISO 3731 style connectors - ISO socket prevents connections with non-ISO plugs
- ISO color-coded yellow, non-corrosive, reinforced nylon housing
- Wires secured by set screws
- Mounting holes are 2-15/16" on center

Part No.	Description
593106	ISO Socket
054017	Terminal Protector Boot

### Four-Way and Six-Way Sockets



*Optional Terminal Protector Boot*



*Optional Mounting Bracket*

- Durable zinc die cast housings
- Solid brass split pins
- Locking system on door works with plug to ensure proper hook-up and prevent unintentional disconnections
- Optional protector boot keeps terminals free of moisture and contaminants - sold separately

Part No.	Description
055052	Six-Way Socket
055056	Four-Way Socket
090217	Mounting Bracket
090218	Terminal Protector Boot
055053	Replacement Six-Way Interior

**Battery and Starter Cable**

**Red Jacketed**

Part No.	Coil Length	Wire Gauge
058033	25'	6
058033-7	100'	6
058035	25'	4
058035-7	100'	4
058037	25'	2
058037-7	100'	2
058039	25'	1
058039-7	100'	1
058241	25'	1/0
058241-7	100'	1/0
058243	25'	2/0
058243-7	100'	2/0
058245	25'	3/0
058247	25'	4/0

**Black Jacketed**

Part No.	Coil Length	Wire Gauge
058233	25'	6
058233-7	100'	6
058235	25'	4
058235-7	100'	4
058237	25'	2
058237-7	100'	2
058239	25'	1
058239-7	100'	1
058041	25'	1/0
058041-7	100'	1/0
058043	25'	2/0
058043-7	100'	2/0
058045	25'	3/0
058047	25'	4/0





- Durable thermoplastic outer jacket keeps cable flexible at low temperatures and resists abrasion, ozone, oil and road salts
- Soft annealed stranded copper
- Cable meets SAE J1127 Type SGT requirements

Battery terminals and lugs sold separately (see pages 75 and 76)

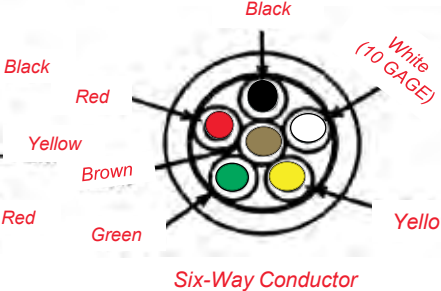
**ELECTRICAL**

**Multiple Conductor Cable**

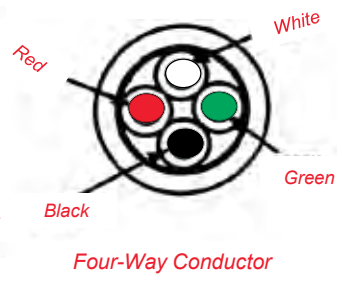




Seven-Way Conductor



Six-Way Conductor



Four-Way Conductor

- ABS cable meets SAE J2394 June 1998 Type F requirements

**ATA COLOR CODE CHART**

<b>White</b>	Ground return to towing vehicle
<b>Black</b>	ICC required marker and clearance light
<b>Yellow</b>	Left-hand directional signal
<b>Red</b>	Stoptlights
<b>Green</b>	Right-hand directional signal
<b>Brown</b>	Tall lamps, 3-bar marker lamps
<b>Blue</b>	Auxiliary

Part No.	Jacket Color	Coil Length	Conductor	Gauge
050019	Black	100'	Seven	6/12, 1/10
050019-7	Black	500'	Seven	6/12, 1/10
050042	Black	100'	Seven	14
050042-7	Black	500'	Seven	14
050037	Green(ABS)	100'	Seven	1/8, 2/10, 4/12
050037-7	Green(ABS)	500'	Seven	1/8, 2/10, 4/12
050051	Yellow(ISO)	50'	Seven	1/8, 2/10, 4/12
050052	Yellow(ISO)	100'	Seven	1/8, 2/10, 4/12
050007	Black	100'	Six	14
050007-7	Black	500'	Six	14
050001	Black	100'	Four	14
050001-7	Black	500'	Four	14

**Battery-to-Battery Crossover Cable**



- 2/0 gauge wire
- Molded lead terminals and black neoprene outer jacket

Part No.	Description
058208	8" Battery Crossover Cable
058212	12" Battery Crossover Cable

**Battery Cable**



- 2/0 gauge wire
- Molded copper lug and lead terminal
- Black PVC outer jacket

Part No.	Description
058117	12" Battery Cable

**Stud Top Battery Cable**



- 2/0 gauge wire
- Molded tin-plated copper lugs and black PVC outer jacket

Part No.	Color	Description
058118	Black	8" Stud Top Battery Cable
058128	Red	8" Stud Top Battery Cable
058119	Black	12" Stud Top Battery Cable
058129	Red	12" Stud Top Battery Cable

**Ground Strap**



- 4 gauge wire
- Molded zinc-plated steel lugs and tin-plated copper stranding
- 7/16" diameter bolt hole

Part No.	Description
058116	Ground Strap (12" - 14")

**800A Booster Cable**



**NEW**

These heavy duty battery cables are rated at 800 amps and are designed to handle jump starting heavy duty equipment

- Solid copper parrot clamps for increased conductivity
- Tangle proof design
- Braided copper wire remains flexible even in subzero temperatures
- Includes strong plastic storage container to protect cables from damage when not in use

Part No.	Description
058151	800A Booster Cable

**Switch-to-Starter Battery Cable**



- 4 gauge wire
- Molded zinc-plated steel lugs and red PVC outer jacket

Part No.	Description
058115	18" Switch-to-Starter Cable

**Battery Booster Cables**



- Copper stranded, 4 gauge wire
- Rated at 400 amps
- Black PVC outer jacket
- Red and black vinyl coated clamps feature solid copper contacts and heavy springs for positive clamping

Part No.	Description
058152	16' Battery Booster Cable
058156	Replacement Clamp Set

- Fully annealed electrolytic copper construction provides excellent conductivity
  - Wire gauge identification marked on lug barrels
- Heat-shrink tubing should be used over all battery terminal connections (see page 98)

**Standard Battery Lugs**


- Unique flared barrel design eliminates wire strand hang-ups
- Unplated
- Crimpable

Part No.	Wire Gauge	Stud Size	Part No.	Wire Gauge	Stud Size
056033	6	1/4"	058082	1	1/2"
058073	6	5/16"	058083	1/0	5/16"
058074	6	3/8"	056037	1/0	3/8"
056034	4	1/4"	056038	1/0	1/2"
058076	4	5/16"	058084	2/0	5/16"
058077	4	3/8"	056039	2/0	3/8"
058078	4	1/2"	056040	2/0	1/2"
058079	2	5/16"	058086	3/0	3/8"
056035	2	3/8"	056041	3/0	1/2"
058081	1	5/16"	058088	4/0	3/8"
056036	1	3/8"	056042	4/0	1/2"

**Heavy-Duty Battery Lugs**


- Tin-plated for corrosion resistance
- Crimpable

Part No.	Wire Gauge	Stud Size	Part No.	Wire Gauge	Stud Size
058325	1/0	3/8"	058329	3/0	3/8"
058326	1/0	1/2"	058330	3/0	1/2"
058327	2/0	3/8"	058331	4/0	3/8"
058328	2/0	1/2"	058332	4/0	1/2"

**Heavy-Duty Flared Lug Maintenance Kit**


- Kit includes 50 lugs in ten varieties ranging from 6 to 4/0 gauge with stud sized of 1/4", 3/8" and 1/2"
- Packaged in a durable plastic case with product information shown on inside label for easy identification

Part No.	Qty	Part No.	Qty
056033	6	056038	4
056034	6	056039	4
056035	6	056040	4
056036	6	056041	4
056037	6	056042	4

Part No.	Description
057002	Heavy-Duty Flared Lug Maintenance Kit

**Flared Butt Connectors**


- Seamless construction
- Tin-plated for corrosion resistance

Part No.	Wire Gauge
058020	1
058021	1/0
058022	2/0
058023	3/0
058024	4/0

## Crimpable or Solderable Battery Terminals

- One-piece, cast copper construction
- Lead-plated for corrosion resistance
- Cable size clearly designated on terminals to ensure correct size selection
- Polarity shown on terminals to avoid mixing positive and negative connections.
- Tool die and letter codes permanently marked on terminals to simplify installation with other manufacturers' tools
- Uniform wall thickness assures high reliability when connector is crimped on cable
- Long barrels for added strength and vibration resistance
- Heat-shrink tubing should be used over all battery terminal connections (See page 98)

### HELPFUL HINT:

Most Velvac terminals are color-coded according to wire gauge specifications:

4 - Green	1/0 - Black
2 - Pink	2/0 - Orange
1 - Pink	3/0 - Purple
	4/0 - Yellow

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### Straight Barrel Terminals



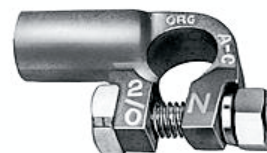
Part No.	Wire Gauge	Polarity
058050	4	Universal
057050	1	Positive
057051	1	Negative
058001	1/0	Positive
058002	1/0	Negative
057052	2/0	Positive
057053	2/0	Negative
057054	3/0	Positive
057055	3/0	Negative
058057	4/0	Positive
058058	4/0	Negative
058011	Replacement Nut and Bolt	

### Right Angle Barrel Terminals



Part No.	Wire Gauge	Polarity
057056	2/0	Positive
057057	2/0	Negative
058055	3/0	Positive
058056	3/0	Negative
058011	Replacement Nut and Bolt	

### Right Elbow Terminals



Part No.	Wire Gauge	Polarity
058052	1/0	Positive
058051	1/0	Negative
058005	2/0	Positive
058006	2/0	Negative
058009	3/0	Positive
058010	3/0	Negative
058011	Replacement Nut and Bolt	

### Protective Battery Washers



**NEW**

- Washers seal out acid fumes protecting terminals from corrosion
- Packaged in convenient plastic screw top jars.

Part No.	Description
058094	Protective Battery washers - <b>Red</b>
058095	Protective Battery washers - <b>Black</b>

### Left Elbow Terminals



Part No.	Wire Gauge	Polarity
058054	1/0	Positive
058053	1/0	Negative
058003	2/0	Positive
058004	2/0	Negative
058007	3/0	Positive
058008	3/0	Negative
058011	Replacement Nut and Bolt	

### Battery Post and Terminal Cleaner



Part No.	Description
058046	Battery Post and Terminal Cleaner

**Battery Stud Nut**



- Stainless steel construction

Part No.	Description
058068	3/8" Battery Stud Nut

**Medium-Duty Terminal**



- For 6 to 2 gauge wire

Part No.	Description
058012	Medium-Duty Terminal

**Side Post Terminal**



- For 6 to 2 gauge wire

Part No.	Description
058013	Side Post Terminal

**Heavy-Duty Terminal**



- For 1" 4/0 gauge wire

Part No.	Description
058016	Heavy Duty Terminal

**Three-Way Battery Terminals**



- For 1 to 2/0 gauge wire
- Lead construction with zinc-plated steel bolts and nuts
- Both positive and negative terminals included

Part No.	Description
058071	Three-Way Battery Terminals

**Marine Terminal**



- 5/16" post

Part No.	Description
058019	Marine Terminal

**Crimpable or Solderable Terminals for Stud Top Batteries**



Base Terminal



Flag Terminal

Part No.	Wire Gauge	Polarity
058090	1/0	Universal
058091	2/0	Universal
058092	3/0	Universal
058093	4/0	Universal

Part No.	Wire Gauge	Polarity
058251	1/0	Universal
058252	2/0	Universal
058253	3/0	Universal
058254	4/0	Universal

**OEM Battery Bolt**



- Recessed groove permits attachment of battery charger or jumper cables
- Zinc-plated steel construction
- 3/8" - 16" UNC
- 1-3/16" long

Part No.	Description
058296	OEM Battery Bolt

**Stud Mount To-Post Mount Conversion Terminals**



- All lead construction
- Both positive and negative posts included

Part No.	Description
058017	Stud Mount-to-Post Mount Conversion Terminals

Velvac offers a complete line of back-up alarms, warning devices and switches to meet the needs of almost every application and work environment. From our heavy duty OEM style alarms with patented double reflex horn, to our broad line of speaker alarms, we have the right alarm to meet your needs and price targets.

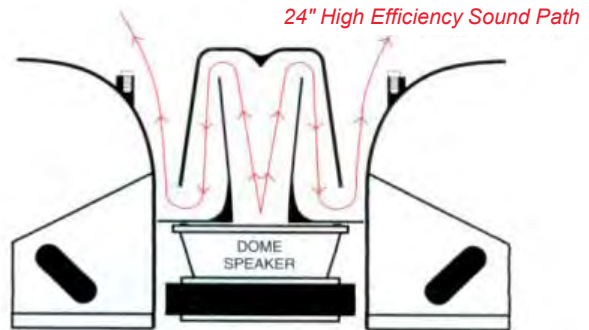
**Double Reflex Horn Style Back-up Alarms**



Part Nos. 697002 and 697007



Part Nos. 697017, 697032, 697104, 697105 and 697106



- Features patented double reflex horn speaker providing efficient, high output sound, with less power consumption and reduced heat for greater reliability and performance. 24" long folder horn allows alarm to run cooler by using about 1/2 the power consumption of conventional speaker alarms to achieve the same decibel output.
- High impact glass filled nylon housing meets high temperature demands of SAE J994 and UL requirements for flame testing. Provides durability needed for even tough work and vehicle environments.
- HD OEM style alarms incorporate a self-cleaning feature that "pumps" out contaminants from the sound chamber for increased reliability and an anti-tamper grill to help protect the alarm from damage
- 12-24 V dc - polarity and peak voltage protection, temperature range -40° to +85° C
- Slotted mounting centers with optional back or bottom mounting for easy installation
- Meets requirements of SAE J944, CE, e-Mark and UL, OSHA, MSHA, IP67
- 10 year warranty

**NEW**

Part No.	Decibels	Rated Current Amps	Connection Type	Mounting Bracket Type	Mounting Center	ECCO EQUIV	PRECO EQUIV
<b>HD OEM</b>							
697017	107	500	Wire	Metal	7"	787/872	360
697032	112	500	Wire	Metal	7"	876	110
697105	87-112*	300	Wire	Metal	7"	SA920	6010
697106	87-112*	300	Wire	Metal	6"	SA917	1040
697104	82-107*	300	Wire	Integrated Nylon	4"	SA901	1048
<b>HD STANDARD</b>							
697002	102	300	Wire	Integrated Nylon	3.25"	575	270
697007	107	300	Wire	Integrated Nylon	3.25"	575	270

\* Self-adjusting alarm features a true, high sensitivity microphone to sense ambient noise levels around the alarm and automatically adjust the sound output to be 10 decibels above ambient

**Heavy Duty External Switch**

**NEW**



For use on vehicles that do not have back-up lights readily available

- Equiv: Preco SW30

Part No.	Voltage	Amp
697012	12-80V	10

**External Switch**



- Switch will cause alarm to activate when linkage is shifted into reverse
- Operating temperatures of -40 to +140° F
- 12-24 VDC
- **Not** for underwater use

Part No.	Description
697011	External Switch

**ELECTRICAL**

**Speaker Style Back-up Alarms**

- High impact glass filled nylon housing meets high temperature demands of SAE J994 and UL requirements for flame testing. Provides durability needed for even tough work and vehicle environments
- Epoxy encapsulation protects electronics against moisture allowing steam cleaning or pressure washing. Thin coat epoxy process helps dissipate heat faster keeping the alarm cooler for longer product life.
- Manufactured with a polyethylimide (PEI) speaker cone for durability and performance
- 12-24 V dc- polarity and peak voltage protection
- Temperature range -40° to +85° C
- 3.25" slotted mounting centers with optional back or bottom mounting for easy installation
- Meets requirements of SAE J944, CE, e-Mark and UL, OSHA, MSHA, IP67
- 3 year warranty

**NEW**


Part Nos. 697287 &amp; 697297



Part Nos. 699287 &amp; 699297



Part No. 697103

Part No.	Decibels	Rated Current Amps	Connection Type	ECCO EQUIV	PRECO EQUIV
697287	87	100	Wire	—	—
697297	97	500	Wire	—	—
699287	87	500	Terminal	505	220/240
699297	97	500	Terminal	510/520	230/240
697103	82-102*	200	Wire	SA950	1020

\*Self adjusting alarm features a true high sensitivity microphone to sense ambient noise levels around the alarm and automatically adjusts the sound output to be 10 decibels above ambient

**Speaker Style Back-up Alarms**

- High impact glass filled nylon housing meets high temperature demands of SAE J994 and provides durability needed for even tough work and vehicle environments.
- Epoxy encapsulation protects electronics against moisture allowing steam cleaning or pressure washing.
- Ground strap included on 699 Series terminal alarms - Two 9" x 16 gauge wires included on 697 series alarms 12 - 24 V dc - polarity and peak voltage protection.
- Temperature range -40° to +85° C
- Slotted mounting centers with optional back or bottom mounting for easy installation - dimensions in table below
- Meets SAE J944 requirements
- 1 year warranty



Part Nos. 697087, 697097 and 697107



Part Nos. 699087, 699097 and 699107



Part No. 699112



Part Nos. 697066 and 697112

Part No.	Decibels	Rated Current Amps	Connection Type	Mounting Centers	ECCO EQUIV	PRECO EQUIV
699087	87	200 - 300	Terminal	3.25	505	220/ELT 278
699097	97	200 - 300	Terminal	3.25	510/520	230/230LV/240
699107	107	200 - 300	Terminal	3.25	—	250
699112	112	200 - 300	Terminal	—	—	—
697087	87	100 - 200	Wire	3.25	—	—
697097	97	100 - 200	Wire	3.25	—	240C5
697107	107	400 - 500	Wire	3.25	575	270
697112	112	400 - 500	Wire	4.12	—	—
697066	87-112	400 - 500	Wire	4.12	SA901	1020

**Flush Mount Back-Up Alarms**

Flush mount alarms allow for fast and convenient mounting into either 1.75" or 4" diameter holes in the vehicle body.

- High impact glass filled nylon housing meets high temperature demands of SAE J994 requirements and provides durability needed for even tough work vehicle environments
- 12 - 24 V dc operation, temperature range -40° to +85° C
- 697124 and 697125 alarms are designed to mount flush into standard 4" hole on vehicle body. These alarms include rubber mounting boot and wire harness with mating connectors
- 697187 and 697197 features a compact design for mounting into 1/75" hole in vehicle body - overall unit depth is 1.28"
- Meets SAE J944 requirements



Part Nos. 697187 and 697197



Part Nos. 697124 and 697125

Part No.	Decibels	Rated Current Amps	Connection Type	Hole Diameter	ECCO EQUIV	PRECO EQUIV
697187	87	250	Wire	1.75"	—	—
697197	97	250	Wire	1.75"	—	—
697124	97	200 - 400	Wire Harness with Connector	4"	410/415	4030
697125	107	200 - 400	Wire Harness with Connector	4"	435	4050

**Warning Devices**

These warning devices are perfect for non back-up alarm applications such as warning of auxiliary equipment movement - ladder, boom, door or outrigger activation.

- Yellow colored nylon housings clearly identify these as warning devices
- 698055 alarm features manual adjusted volume control allowing the alarm to be set between 78 - 102 decibels
- 12 - 24 V dc operation - ground strap included on 696 series devices - 698055 includes two recessed back side terminals.
- Slotted mounting centers with optional back or bottom mounting for easy installation on 696 series devices - 698055 features four mounting holes on 4.18" diameter



Part No. 698055



Part Nos. 696087, 696097 and 696107

Part No.	Decibels	Rated Current Amps	Connection Type	Mounting Centers	ECCO EQUIV	PRECO EQUIV
696087	87	90 - 400	Terminal	3.25"	—	—
696097	97	150 - 400	Terminal	3.25"	DT500	D5232
696107	107	150 - 500	Terminal	3.25"	—	—
<b>Manual Adjust</b>						
698055	78-102	300 - 400	Terminal	(4) Holes/ 4.18" Dia.	—	—

**NOTE:** Warning devices do not meet SAE requirements and should not be used in place of a back-up alarm.

## Heavy Duty Toggle Switches



- Frame and support constructed from steel with zinc chromate, brass terminals
- Neoprene-sealed toggles are moisture and dust resistant
- Fully assembled with locating ring/tongue nut (and On/Off faceplate on single pole switches only)
- 1/2" diameter recommended mounting hole- all toggles must be installed with provided hex nut behind panel to prevent damage during installation
- Packaging for all switches displays easily on pegboards or wire display racks (see page 141)

Part No.	Photo	Poles	Amp	VDC	Circuitry*	Terminals	Miscellaneous
<b>SINGLE POLE</b>							
090176	B	SPST	21A	14	On / Off	(2) 0.250" Flat Blade	
090177	A	SPST	21A	14	On / Off	(2) Screw	
090199	B	SPDT	21A	14	On / Off / On	(3) 0.250" Flat Blade	
090200	A	SPDT	21A	14	On / Off / On	(3) Screw	
090201	A	SPDT	21A	14	(On) / Off / (On)	(3) Screw	
090202	A	SPDT	21A	14	On / Off / (On)	(3) Screw	
090191	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Red LED handle****
090192	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Green LED handle****
090193	F	SPST	30A	12	On / Off	(3) 0.250" Flat Blade	Blue LED handle****
090186	D	SPST	50A	12	On / Off	(2) Screw	Black handle**
090187	D	SPST	50A	12	On / Off	(2) Screw	Red handle**
090188	D	SPST	50A	12	On / Off	(2) Screw	Chrome handle**
090189	E	SPST	50A	6/12/24	On / Off	(2) Screw	1-5/8" Chrome handle
090184	G	SPDT	50A	6/12/24	On / Off / On	(3) Screw	Chrome plated***
090040	—	SPDT	50A	6-24	On / On	(3) Screw	
090041	—	SPDT	50A	6-24	On / Off	(2) 0.250" Flat Blade	
090043	—	SPDT	50A	6-24	(On) / Off / (On)	(3) Screw	
<b>DOUBLE POLE</b>							
090203	A	DPST	21A	14	On / Off	(4) Screw	
090204	C	DPST	21A	14	On / Off	(4) 0.250" Flat Blade	
090048	H	DPDT	21A	14	On / On	(6) Screw	
090205	C	DPDT	21A	14	On / On	(6) 0.250" Flat Blade	
090206	C	DPDT	21A	14	On / Off / On	(6) 0.250" Flat Blade	
090208	A	DPDT	21A	14	(On) / Off / (On)	(6) Screw	
090209	C	DPDT	21A	14	(On) / Off / (On)	(6) 0.250" Flat Blade	
<b>"O" RING SEALED</b>							
090179	A	SPST	21A	14	On / Off	(2) Screw	
090194	A	SPST	21A	14	(On) / Off	(2) Screw	
090195	A	SPST	21A	14	On / (Off)	(2) Screw	
090196	A	SPDT	21A	14	On / On	(3) Screw	
090197	A	SPDT	21A	14	On / Off / On	(3) Screw	
090198	B	SPDT	21A	14	On / Off / On	(3) 0.250" Flat Blade	
090207	A	DPDT	21A	14	On / Off / On	(6) Screw	

\* ( ) indicates MOMENTARY ACTION

\*\* Die cast housing with silver-plated contacts, heavy copper terminals, stems measure 15/32" dia. X 15/32" long

\*\*\* Paddle type handle

\*\*\*\*Black toggle handles tipped with LED, min draw requirements for LED is 20 mA at 12 VDC

ELECTRICAL

### Indicator Lights



- Chrome housing and nylon base
- LED's rated for 15mA at 12 VDC
- 100,000 hours estimated bulb life expectancy
- Temperature rating up to +185° F (85° C)
- 20 AWG lead wires
- 7/16" diameter recommended mounting hole

Part No.	LED Color
090213	Red
090214	Amber
090215	Green

### Wiper Control Switch



**Operating Temperature:** -20° to +160° F

**Washer Motor:** 6 amps max. current draw

**Nominal Voltage:** 12 VDC (9 VDC min., 16VDC max.)

**Terminal Configuration:** 8 pin amp connector-mates with amp connector 770579-1 and 171639-1 socket terminals (not included and not available from Velvac)

- Integrates multi-speed wiper and washer functions into a single dashboard device
- Backlit for easy identification
- Fits standard 22 mm x 44 mm opening

Part No.	Description
090120	Wiper Control Switch

### Toggle Accessories



- Protect toggle switches from moisture, dust and dirt
- UV-resistant, black silicon construction
- Built-in hex nut base screws on to most Velvac toggle switches
- Rated for -40° to +350° F (+180° C)

Part No.	Description
090210	Full Boot
090211	Half Boot



- Rugged, spring-loaded design provides protection against accident actuation
- Mounting hole accepts all standard Velvac toggles with 15/32" mounting stems

Part No.	Description
090212	Safety Cover

### License/Utility Lights



- 12 VDC
- Weather-proof gasket
- 31" wire lead with .250" male disconnect
- 89 bulb
- Fits 1-1/4" mounting hole

Part No.	Description
090173	Twist-In License/Utility Light



- Fits GM/GMC trucks with step bumper
- 12 VDC
- 7-7'8" wire lead with protective boot where wire attaches to light and self-grounding single post adapter
- 67 bulb
- Mounting holes approx. 2-11/16" on center

Part No.	Description
090174	Bumper Mount License/Utility Light

### Battery Disconnect Switch



- Single pole, two position: on/off
- Continuous rating 175 amps (max)
- Momentary rating 1000 amps (max)
- *Momentary use only* --- 15 sec. on/5 min. off
- Heavy gauge, plated steel casing
- Die cast lever
- 3/4" diameter mounting stem
- UL approved for 6 to 36 VDC

Part No.	Description
090104	Battery Disconnect Switch

### Push Button Switch



- Rated for 50 amps at 12 VDC
- 5/8" - 32 UNS mounting bushing for panels up to 1/2" thick
- Push for momentary-on action
- Die cast with silver/copper contacts and two screw terminals
- Dust and moisture resistant; boot nut included

Part No.	Description
090190	Momentary Push Button Switch

Replaces Velvac Part No. 090075

### Full Size Rocker Switches



Standard



Lighted

- 21 amps at 14 VDC
- Universal, snap-in design allows for easy installation
- Moisture and dust resistant
- .830" x 1.450" recommended mounting hole
- Packaging for all new switches displays easily on pegboards or wire display racks (see page 141 for Velvac wire display rack Part No. 091256)



#### Standard

Part No.	Poles	Circuitry	Terminals
090109	SPST	On / Off	(2) .250" Flat Blade
090133	SPST	On / Off	(2) Screw
090150	SPST	(On) / Off	(2) .250" Flat Blade
090151	SPST	(On) / Off	(2) Screw
090146	SPST	On / (Off)	(2) .250" Flat Blade
090147	SPST	On / (Off)	(2) Screw
090152	SPDT	On / (On)	(3) .250" Flat Blade
090153	SPDT	On / (On)	(3) Screw
090127	SPDT	On / Off / On	(3) Screw
090156	SPDT	On / Off / (On)	(3) .250" Flat Blade
090157	SPDT	On / Off / (On)	(3) Screw
090111	DPST	On / Off	(4) .250" Flat Blade
090134	DPST	On / Off	(4) Screw
090148	DPST	On / (Off)	(4) .250" Flat Blade
090149	DPST	On / (Off)	(4) Screw
090136	DPDT	On / On	(6) .250" Flat Blade
090135	DPDT	On / On	(6) Screw
090154	DPDT	On / (On)	(6) .250" Flat Blade
090155	DPDT	On / (On)	(6) Screw
090110	DPDT	On / Off / On	(6) .250" Flat Blade
090137	DPDT	On / Off / On	(6) Screw
090158	DPDT	On / Off / (On)	(6) .250" Flat Blade
090159	DPDT	On / Off / (On)	(6) Screw

#### Lighted

Part No.	Poles	Circuitry	Terminals	Light Color
090123	SPST	On / Off	(3) Screw	Red
090124	SPST	On / Off	(3) Screw	Green
090125	SPST	On / Off	(3) Screw	Amber
090128	SPST	On / Off	(3) .250" Flat Blade	Red
090132	SPDT	On / Off / On	(4) .250" Flat Blade	Amber

#### Accessories

Part No.	Description
090219	End Bracket
090220	Middle Bracket
090221	Single Bracket
090222	Panel Plug

( ) indicates MOMENTARY ACTION

### On / Off Round Rocker Switch



- Single pole switches rated for 10 amps at 12 VDC
- 12 VDC illumination voltage
- Snap-in mounting design for easy installation in .79" diameter mounting hole



- Two positions (SPST) with two .187" silver-plated brass blade terminals
- On/Off designation permanently etched on rocker switch
- Snap-in mounting design for easy installation in .79" diameter mounting hole

Part No.	Poles	Terminals	Light Color
090167	SPST	(3) .187" Flat Blade	Red
090168	SPST	(3) .187" Flat Blade	Amber
090169	SPST	(3) .187" Flat Blade	Green

Part No.	Description
090166	Round Rocker Switch with On/Off Markings

### Two-Speed Axle Switch and Automatic Terminal Block Switch



Terminal Block Switch

- Terminal block switch used in conjunction with axle switch to control two-speed electric axle shift
- Axle switch has red knob and uses (3) .156" female snap plugs (see page 94)

Push/Pull  
Two Position  
Axle Switch



Part No.	Description
<b>090078</b>	Two-Speed Axle Switch
<b>090079</b>	Automatic Terminal Block Switch

### Three Wire Connector



Part No. 090225



**NEW**

Part No. 090085

- Use as a flasher socket or any other three wire application (see page 86 for flashers)
- 18 gauge 12" leads

Part No.	Description
<b>090225</b>	Three Wire Connector
<b>090085</b>	Three Wire Socket

### Dimmer Switches and Socket Assemblies



Applications	Year
Chrysler - Floor Mounted (1841895, 1881938, 2097628, 2291202, CH-2437)	1959-83
Dodge Trucks	1959-79
AMC (3156124, 3160926)	1959-83

Part No.	Description
<b>090073</b>	Dimmer Switch
<b>090083</b>	Dimmer Switch Socket Assembly



Applications	Year
All Ford - Floor Mounted (COTF-130A024A COTZ-13A024A, SW-263)	1959-83

Part No.	Description
<b>090081</b>	Dimmer Switch
<b>090083</b>	Dimmer Switch Socket Assembly



Applications	Year
Vehicles without Auto Dimmer All GM - Floor Mounted (1997028, 1997037, 3841892, D808)	1961-83
All Jeep Floor Mounted (5461816)	1974-82

Part No.	Description
<b>090080</b>	Dimmer Switch
<b>090082</b>	Dimmer Switch Socket Assembly

### Universal Solenoids



- Designed to operate a minimum of 50,000 cycles
- 125 amps at 12 VDC
- Continuous voltage
- SPST, normally off, one circuit off/on
- 5/16" side studs, #10 top stud/s
- Both include hardware

Part No.	Description
<b>090054</b>	Three Stud Universal Solenoid
<b>090056</b>	Four Stud Universal Solenoid

### Universal Ignition Switch



Keys Included

- Single throw ignition
- 6 to 24 VDC
- 3/4" diameter mounting stem with two terminals

Part No.	Description
090076	Universal Ignition Switch

### Push / Pull Switches



- Rated for 15 amps at 12 VDC, 25 amps at 6 VDC
- Heavy-duty, two position (SPST) push/pull switch with two brass screw terminals
- Brass and chrome construction
- 3-1/8" overall length x 7/8" wide
- Mounting stem measures 3/8" in diameter and 1-1/4" long
- Accommodates 1" panel with stainless steel springs

- Rated for 75 amps at 6 or 8 VDC
- Heavy-duty, two position (SPST) push/pull switch with two brass screw terminals
- Chrome-plated metal knob
- Mounting stem measures 15/32" in diameter and 5/8" long

Part No.	Description
090181	Push/Pull Switch

Replaces Velvac Part No. 090050

Part No.	Description
090180	Push/Pull Switch

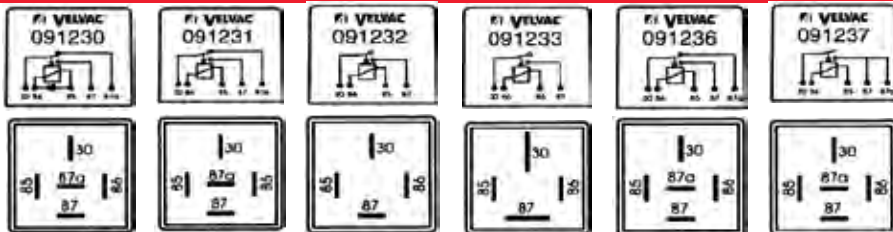
Replaces Velvac Part No. 090077

## RELAYS

### Heavy-Duty Relay Kit



- Ideal for powering accessories with high voltage draws such as fog lights, power windows and fans
- Help ensure maximum power available to accessories and lights
- Kit includes heavy-duty relay, switch, switch mounting plate, 20' of 14 gauge wire and terminals



Part No	Description	Voltage	Amp Rating	Terminals	Mounting Tab
091230	Relay with Diode Application: Diode eliminates voltage spikes which can occur when the relay is shut off, can run up to 30 amps continuously	12	40	5	No
091231	Relay	12	40	5	Yes
091232	Relay Application: Used to run up to 30 amps continuously	12	40	4	Yes
091236	Relay	24	20	5	Yes
091237	Dual Relay Application: Controls two separate 20 amp accessories; also used as a single 40 amp relay	12	40	5	Yes
091233	Heavy-Duty Relay Application: Ideal for controlling larger devices; can run up to 50 amps continuously	12	70	4	Yes
091235	Heavy-Duty Relay Kit	12	70	4	Yes

In addition to standard package of one, all relays may also be ordered in Bulk Shop Packs of 25 by adding a -7 to the part number shown

## Electro-Mechanical and Electronic Flashers



Style A  
Electro-Mechanical



Style B  
Electronic

- Designed and tested to perform in excess of one million cycles
- Audible signal indicates that flasher is activated
- Non-polarity sensitive
- 12 VDC operating range

Part No.	Style	Terminals	Color	Lamp Rating	Flash Rate FPM	Amp Rating
091215	A	2	Clear Smoke	1-10	60-120	25
091216	A	3	Clear Smoke	1-10	60-120	25
<i>Applications: Fits most American cars, older import cars and light trucks</i>						
091208	B	2	Red	2-12	70-120	25
091209	B	3	Clear Smoke	2-12	70-120	25
<i>Applications: Straight truck, single trailer, high flasher usage</i>						
091210	B	2	Clear Smoke	2-16	70-120	35
091211	B	3	Clear Smoke	2-16	70-120	35
<i>Applications: Straight truck, single or double trailer or any vehicle with high flasher usage</i>						
091212	B	2	Clear Smoke	2-20	70-120	45
091213	B	3	Black	2-20	70-120	45
<i>Applications: Severe duty, double or triple trailers or vehicles where flasher is frequently used</i>						
091214	B	3	Clear Smoke	10 Lamps/Side*	60-120	25
<i>Application: Alternating "Wig-Wag" headlight application for emergency vehicles and school buses</i>						

\* 10 lamps per side (1156, 1157) or 4 (H4651) sealed beams  
See page 84 for three wire flasher socket Part No. 090225

## Thermal Flashers



- Flash two to three lamps for turn signals, two to six lamps for hazard warning

Part No.	Description
----------	-------------

091203	Two Terminal
--------	--------------

091204	Three Terminal
--------	----------------

**NOTE:** A thermal flasher (fixed load) is NOT recommended for use when a trailer is connected to a car or truck. A heavy-duty flasher (variable load) is recommended for this type of application

## Solid State LED Flasher



- 6 amp flasher provides constant flash rate of 90 FPM for new LED lights
- Compact size fits standard two terminal flasher footprint - includes remote mount 36" long ground wire

Part No.	Description
091225	Solid State LED Flasher

## Heavy-Duty Flashers



- 12 lamp and 25 amp rating
- Last five times longer than thermal flashers
- Three-terminal flasher for vehicles equipped with flashing dash lights
- Operate at voltages as low as 7 VDC

Part No.	Description
----------	-------------

091201	Two Terminal
--------	--------------

091202	Three Terminal
--------	----------------

## Standard Circuit Breakers



- Copper colored battery stud provides easy identification
- "Waterproof" sealant and insert molded studs on waterproof breakers make them suitable for marine applications and trailer connections
- 12 VDC
- Meet applicable SAE J553 requirements
- Each circuit breaker includes two #10-32 nuts

Part No.		Description
Without Mounting Strap	With Mounting Strap	
091011	091051	10 Amp
091015	091052	15 Amp
091020	091053	20 Amp
091025	091054	25 Amp
091030	091055	30 Amp
091040	091056	40 Amp
091050	091057	50 Amp

## Mack/Navistar Plug-In Circuit Breakers



- Fit Mack and Navistar breaker blocks
- 12 VDC
- -10° F (-23° C) to 150° F (65° C) operating temperature range
- Type II Modified Reset type breakers meet applicable SAE J553 requirements

Part No.		Description
Mack	Navistar	
091520	091530	10 Amp
091521	091531	15 Amp
091522	091532	20 Amp
091523	091533	25 Amp
091524	091534	30 Amp

## Fuse Clip Circuit Breakers



- Replacement for 1/4" x 1-1/4" glass fuses
- 12 VDC
- -25° F (-32° C) to 180° F (82° C) operating temperature range
- Type II Modified Reset type breakers meet applicable SAE J553 requirements

Part No.	Description
091080	10 Amp
091081	15 Amp
091082	20 Amp
091083	30 Amp

## High Amp Breaker



- Type III switchable breaker typically used in auxiliary and accessory circuits for trucks, buses, RVs and marine applications
- Flush mount with sems nut installed
- 30 VDC
- -25° F (-32° C) to 180° F (82° C) operating temperature range
- Measures 2" x 3" overall
- Meets SAE J1625 requirements

Part No.	Description
091005	60 High Amp
091006	80 High Amp
091007	100 High Amp
091008	120 High Amp
091003	150 High Amp
091004	Economic 150 Amp

## Universal Snap-off Blade Type Circuit Breakers



- Replacement for ATC/ATO® blade type fuses
- Color-coded for easy identification
- 12 VDC
- Rated from 6 to 30 amps
- -40° F.C to 185° F (85° C) operating temperature range
- Type I Automatic Reset type breakers meet applicable SAE J553 requirements

Part No.	Description	Color
091076	6 Amp	Silver
091071	10 Amp	Red
091072	15 Amp	Blue
091073	20 Amp	Yellow
091074	25 Amp	Silver
091075	30 Amp	Green

## ATM and MAXI™ Circuit Breakers



- Replacements for ATM/MINI® and MAXI™ blade type fuses
- 12 VDC, rated 5 to 30 amps
- -40° F/C to 185° F (85° C) operating temperature range
- ATM/MINI® Type II Modified Reset type breakers and MAXI™ Type I Automatic Reset type breakers meet applicable SAE J553 requirements

Part No.		Description
ATM/MINI®	MAXI™	
091500-3	—	5 Amp
091501	091510-10	10 Amp
091502	091511-10	15 Amp
091503	091512-10	20 Amp
091504	091513-10	25 Amp
091505	091514-10	30 Amp

NOTE: dash "-x" indicates package quantity

## Fuses

### AGC, AGX and SFE Fuses

Revised Part No.

Part No.			Description
AGC	AGX	SFE	
091131-5	—	—	1 Amp
091132-5	—	—	2 Amp
091133-5	—	—	3 Amp
—	—	See Below	4 Amp
091135-5	—	—	5 Amp
—	—	See Below	6 Amp
091137-5	—	See Below	7-1/2 Amp
—	—	See Below	9 Amp
091140-5	—	—	10 Amp
—	—	091170-5	14 Amp
091141-5	—	—	15 Amp
091142-5	See Below	091171-5	20 Amp
091143-5	—	—	25 Amp
091144-5	See Below	091172-5	30 Amp

### AGX and SFE Fuse Assortments

Part No.	Description
091251	AGX 20-30 Amp Assortment includes (2) 20 Amp, (2) 25 Amp and (2) 30 Amp AGX Fuses
091252	SFE 4-9 Amp Assortment Includes (1) 4 Amp, (1) 6 Amp, (2) 7-1/2 Amp, (2) 9 Amp SFE Fuses
091253	SFE 14-30 Amp Assortment Includes (2) 14 Amp, (2) 20 Amp and (1) 30 Amp SFE Fuses

**NOTE:** dash "- xx" indicates package quantity

\* In addition to display card packaging, fuses may also be ordered in bulk packs of 25 by adding a 25 to the part number shown



### ATC/ATO®, ATM/MINI® and MAXI™ Fuses

Part No.			Description	Color
ATC/ATO®	ATM/MINI®	MAXI™		
—	091300-5	—	2 Amp	Gray
091173-5	091301-5	—	3 Amp	Violet
091174-5	091302-5	—	4 Amp	Pink
091175-5	091303-5	—	5 Amp	Tan
091177-5	091304-5	—	7-1/2 Amp	Brown
091180-5*	091305-5*	—	10 Amp	Red
091181-5*	091306-5*	—	15 Amp	Blue
091182-5*	091307-5*	091400-5	20 Amp	Yellow
091183-5*	091308-5*	—	25 Amp	Clear
091184-5*	091309-5*	091401-5	30 Amp	Green
—	—	091402-5	40 Amp	Orange
—	—	091403-5	50 Amp	Red
—	—	091404-5	60 Amp	Blue
—	—	091406-3	80 Amp	Natural

ELECTRICAL

### ATC/ATO® Fuse Assortment with Combination Fuse Tester/Puller



- Assortment contains 42 ATC fuses—seven each of the six most popular fuses from 5 to 30 amps
- Combination fuse tester/puller tests and removes blade type and a variety of glass fuses
- Reclosable heavy-duty display pkg.

Part No.	Description
091254	Fuse Assortment with Tester

[www.velvac.com](http://www.velvac.com)

### ATC/ATO® Fuse Panel



- Accepts blade-type fuses, auto or manual reset circuit breakers
- 6 circuits, 30 amps per circuit with quick connect terminals
- No top cover needed; recessed fuse contacts provide touch-safe protection
- Black thermoplastic construction - temperature rating of -20° F (29° C) to +150° F (65° C)
- Fuses/Circuit Breakers sold separately

Part No.	Description
091427	ATC/ATO® Fuse Panel

### Electrical Junction Box



- Measures 6-9/16" x 3-1/4"
- Includes all fasteners and grommets

Part No.	Description
055060	Electrical Junction Box

**Universal In-Line Fuse holder**



- Universal nylon twist-lock fuse holder for 1/4" x 1-1/4" AGC, AGA, AGW, AGX and SFE fuses
- 20 amp maximum load
- 14 gauge lead wire
- Fuse sold separately

Part No.	Description
091188	Universal In-Line Fuse holder

**Heavy Duty In-Line Fuse holder**



- Nylon heavy duty fuse holder for 1/4" x 1-1/4" glass fuses
- 30 amp maximum load
- 12 gauge lead wire
- Includes one 30 amp AGC fuse installed

Part No.	Description
091189	Heavy Duty In-Line Fuse holder with 30 Amp AGC Fuse

**Heavy Duty ATC/ATO® In-Line Fuse holders**



- Fit blade type fuses from 3 to 30 amps
- 12 gauge lead wire
- Part No. 091130 includes one 30 amp ATC fuse

Part No.	Description
091190	Heavy Duty ATC/ATO® In-Line Fuse holder without Fuse
091130	Heavy Duty ATC/ATO® In-Line Fuse holder with 30 Amp ATC Fuse

**ATM/MINI® In-Line Fuse holder with Cover**



- Fits ATM/MINI® blade type fuses from 2 to 30 amps
- 12 gauge lead wire
- Cover provides protection from harsh under-the-hood environmental elements
- Fuse sold separately

Part No.	Description
091426	ATM/MINI® In-Line Fuse holder with Cover

**MAXI™ In-Line Fuse holder with Cover**



- Fits MAXI blade type fuses from 20 to 60 amps
- 6 gauge lead wire
- Cover provides protection from harsh under-the-hood environmental elements
- Fuse sold separately

Part No.	Description
091425	MAXI In-Line Fuse holder with Cover

**Add-A-Circuits**



- Converts one circuit into two fuse protected circuits; plugs into fuse-block and accepts two fuses to provide protection for the existing circuit and the add-on circuit
- 10 amp maximum circuit load
- Fuse sold separately

Part No.	Description
091325	ATM/MINI® Add-A-Circuit
091326	ATC/ATO® Add-A-Circuit

**Self-Stripping ATC/ATO® Fuse holder**

- For use with ATC/ATO® blade type fuses up to 30 amps
- Easily attaches to wires ranging from 18 to 4 gauge
- Fuse sold separately



Part No.	Description
057003	Self-Stripping ATC/ATO® Fuse holder

*In-Line Fuse holders (except MAXI) and Add-A-Circuits are display carded to fit on new wire display rack shown on page 141*

**Fuse Kits**



- Convenient, pre-packaged fuse assortments save time by keeping popular sized fuses close at hand
- Durable, see-through plastic cases with handy "locator" cards are easy to refill for using over and over
- Multi-functional kits can be displayed on the front counter to attract the impulse sale of single fuses or used as mini storage systems to save time and money by eliminating multiple trips to the shop for additional parts

Part No.	Description
<b>091001</b>	ATM/MINI® and MAXI fuse kit
<b>091002</b>	ATC/ATO®, AGC and ATM/MINI® fuse kit

Display assortment includes the following fuses:

**ATM/MINI® and MAXI™ Fuse Kit**

Part No.		Qty	Description
ATM/MINI®	MAXI™		
<b>091300</b>	—	10	2 Amp
<b>091301</b>	—	10	3 Amp
<b>091303</b>	—	10	5 Amp
<b>091304</b>	—	10	7-1/2 Amp
<b>091305</b>	—	10	10 Amp
<b>091306</b>	—	10	15 Amp
<b>091307</b>	—	10	20 Amp
<b>091308</b>	—	10	25 Amp
<b>091309</b>	—	10	30 Amp
—	<b>091400</b>	5	20 Amp
—	<b>091401</b>	5	30 Amp
—	<b>091402</b>	5	40 Amp
—	<b>091403</b>	5	50 Amp
—	<b>091404</b>	5	60 Amp
—	<b>091406</b>	5	80 Amp

**ATC/ATO®, AGC and ATM/MINI® Fuse Kit**

Part No.				
AGC	ATM	AGC	Qty	Description
<b>091133</b>	—	—	10	3 Amp
<b>091135</b>	—	—	10	5 Amp
<b>091140</b>	—	—	10	10 Amp
<b>091141</b>	—	—	10	15 Amp
<b>091142</b>	—	—	10	20 Amp
<b>091144</b>	—	—	10	30 Amp
—	<b>091303</b>	—	10	5 Amp
—	<b>091305</b>	—	10	10 Amp
—	<b>091306</b>	—	10	15 Amp
—	<b>091307</b>	—	10	20 Amp
—	<b>091308</b>	—	10	25 Amp
—	<b>091309</b>	—	10	30 Amp
—	—	<b>091175</b>	10	5 Amp
—	—	<b>091180</b>	10	10 Amp
—	—	<b>091181</b>	10	15 Amp
—	—	<b>091182</b>	10	20 Amp
—	—	<b>091183</b>	10	25 Amp
—	—	<b>091184</b>	10	30 Amp

**DID YOU KNOW.....**

Federal Motor Carrier Safety Regulation 393.95 requires every bus, truck, truck tractor and a drive-away tow-away operation to carry a replacement fuse for each kind and size in the vehicle?

Velvac offers a wide variety of terminals and connectors. For the same application the following terminals maybe available: crimp, crimp and seal, crimp/solder/seal, snap, or heatless connectors

### Crimp Terminals and Connectors

- One-piece construction assures maximum electrical conductivity
- Electro bright, tin-plated annealed copper construction for maximum corrosion resistance
- Injection-molded insulation allows a funnel barrel construction for easy installation and ensures a consistent wall thickness for maximum reliability after crimping
- Crimp ridge on each terminal for positive location of crimp tool on terminal barrel - fewer mis-crimps
- Open end terminal design permits easy inspection of wire
- Designed to withstand temps of -40° to +221° F (+105° C)
- Heat-shrink tubing and electrical tape available and sold separately (see pages 98 and 99)



### Crimp and Seal Terminals and Connectors

Simple three step installation reduces wiring time and costs ---

Insert wire

Crimp it

Heat to activate

Sealed



- Heat-shrink terminals combine color-coded, heat-shrink tubing with one-piece solderless terminals to produce fast, watertight, corrosion resistance wire connections
- UL approved
- Improved mechanical performance- provide improved pull-out strength and strain relief
- Designed to withstand temperatures of -67° F (-55° C) to +221° F (+150° C)
- Heat gun and electrical tape available and sold separately (see pages 98, 99 and 102)
- Resist abrasion, scoring, cut-through and the effects of long term aging

### Crimp/Solder/Seal Terminals and Connectors

- Pre-inserted solder terminals reduce installation time and increase efficiency, while achieving the benefits of both crimp terminals and solder terminals
- Each terminal contains solder for increased strength and conductivity
- Adhesive-lined heat shrink tubing seals out moisture and contaminants
- Wire gauge is printed on each connector for easy ID

Insert wire

Crimp it

Heat to activate solder

NEW

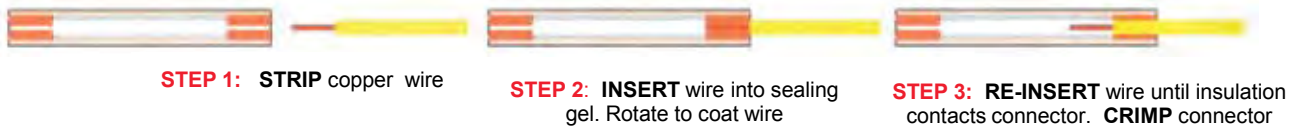
Sealed



### Heatless Terminals and Connectors-Revolutionary New Product

- A heat-less, solder-less terminal utilizing a revolutionary anaerobic sealing technology requires **NO HEAT**
- Simply strip the wire and crimp, activating the sealant that reacts when the copper wire is inserted into the connector to create an environmentally sealed connection
- Easily installs in a fraction of the time of comparable heat seal connectors
- Prevents the ingress of moisture and air that can result in corrosion
- Nylon insulation provides maximum abrasion and puncture resistant while seamless
- Reduces overall installation costs by eliminating the need for torches or heat guns, reducing the installation time and improving productivity

NEW



**BUTT CONNECTORS**

Wire Gauge	Crimp		Crimp/Seal		Crimp/Solder/Seal		Heatless		
	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Revised Part No.</div>									
	22-18	<b>056051-50*</b>	Vinyl-butted	<b>058312-50*</b>	Heat shrink	<b>056144-25</b>	Heat shrink	<b>056111-5</b>	Nylon
	22-18	<b>057085-50</b>	Nylon-smls**					<b>056111-100</b>	Nylon
	16-14	<b>056052-50*</b>	Vinyl-butted	<b>058313-40*</b>	Heat shrink	<b>056145-25</b>	Heat shrink	<b>056112-5</b>	Nylon
	16-14	<b>057086-50*</b>	Nylon-smls**					<b>056112-100</b>	Nylon
	12-10	<b>056053-50*</b>	Vinyl-butted	<b>058314-40*</b>	Heat shrink	<b>056146-25</b>	Heat shrink	<b>056113-5</b>	Nylon
12-10	<b>057087-50*</b>	Nylon-smls**					<b>056113-100</b>	Nylon	

		
22-18	<b>058362-50*</b>	None
16-14	<b>058028-50*</b>	None
12-10	<b>058029-50*</b>	None





		
		<i>Brazed Seam</i>
8	<b>056054-10</b>	Vinyl
6	<b>056055-10</b>	Vinyl
4	<b>056056-10</b>	Vinyl

**HELPFUL HINT:**

Terminal insulation is color-coded according to wire gauge specifications:

Red	-	<b>22 - 18 AWG, 8 AWG</b>
Blue	-	<b>16 - 14 AWG, 6 AWG</b>
Yellow	-	<b>12 - 10 AWG, 4 AWG</b>





**SPADE CONNECTORS**

Wire Gauge	Crimp		Crimp		Crimp/Seal		Crimp/Solder/Seal		
	Part No.	Stud Size, Insulation	Part No.	Stud Size, Insulation	Part No.	Stud Size	Part No.	Stud Size	
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Revised Part No.</div>									
	22-18	<b>056043-50</b>	8-10, Vinyl	<b>056046-50</b>	4-6, Vinyl	<b>058309-50</b>	8-10		
	22-18			<b>058345-50</b>	6, Nylon			<b>056155-25</b>	10
	16-14	<b>056044-50</b>	8-10, Vinyl	<b>056047-50*</b>	4-6, Vinyl	<b>058335-50</b>	6		
	16-14	<b>057082-50</b>	8-10, Nylon	<b>057084-50</b>	4-6, Nylon	<b>058310-50</b>	8-10	<b>056156-25</b>	10
	16-14					<b>058336-50</b>	1/4"		
12-10	<b>056045-50</b>	8-10, Vinyl			<b>058311-50</b>	8-10	<b>056157-25</b>	10	
12-10	<b>057083-50</b>	8-10, Nylon			<b>058337-50</b>	1/4"			

**NOTE:** dash - "x" indicates package quantity

\* Quantity (10) available with clam shell packaging to fit wire display rack (page 141) by adding "-10" to the base six digit number

\*\*Seamless

RING TONGUE CONNECTORS								
Wire Gauge	Crimp		Crimp		Crimp/Seal		Crimp/Solder/Seal	
	Part No.	Stud Size, Insulation	Part No.	Stud Size, Insulation	Part No.	Stud Size	Part No.	Stud Size
Revised Part No.		<i>Butted Seam</i>		<i>Hooked Tongue-Butted</i>				
	22-18	<b>056001-50</b>	4-6, Vinyl	—		<b>058334-50</b>	6	—
	22-18	<b>056002-50</b>	8-10, Vinyl	—		<b>058301-50</b>	8-10	<b>056147-25</b>
	22-18	<b>056003-50</b>	12-1/4", Vinyl	—		—	—	—
	16-14	<b>056004-50</b>	4-6, Vinyl	<b>056049-50</b>	4-6, Vinyl	<b>058302-50</b>	4-6	—
	16-14	<b>057075-50</b>	4-6, Nylon	—		—	—	—
	16-14	<b>056005-50*</b>	8-10, Vinyl	<b>056050-50</b>	8-10, Vinyl	<b>058303-50</b>	8-10	<b>056148-25</b>
	16-14	<b>057076-50*</b>	8-10, Nylon	—		—	—	—
	16-14	<b>056006-50*</b>	12-1/4", Vinyl	—		<b>058304-50</b>	1/4"	<b>056149-25</b>
	16-14	<b>057077-50</b>	12-1/4", Nylon	—		—	—	—
	16-14	<b>056007-50*</b>	5/16", 3/8", Vinyl	—		<b>058305-50</b>	5/16", 3/8"	<b>056150-25</b>
	16-14	<b>057078-50</b>	5/16", 3/8", Nylon	—		—	—	—
	12-10	<b>056008-50*</b>	8-10, Vinyl	—		<b>058306-50</b>	8-10	<b>056151-25</b>
	12-10	<b>057079-50</b>	8-10, Nylon	—		—	—	—
	12-10	<b>056009-50*</b>	12-1/4", Vinyl	—		<b>058307-50</b>	1/4"	<b>056152-25</b>
	12-10	<b>057080-50</b>	12-1/4", Nylon	—		—	—	—
	12-10	<b>056010-50</b>	5/16", Vinyl	—		<b>058308-50</b>	5/16", 3/8"	<b>056153-25</b>
	12-10	<b>057081-50</b>	5/16", Nylon	—		—	—	—
12-10	<b>056011-50*</b>	3/8", Vinyl	—		—	—	<b>056154-25</b>	
12-10	<b>056012-50</b>	7/16", 1/2", Vinyl	—		—	—	—	

BRAZED SEAM			PIG TAILS			WIRE NUTS		
Wire Gauge	Part No.	Stud Size, Insulation	Part No.	Wire Gauge	Insulation	Part No.	Size	Color
8	<b>058349-50</b>	8-10, Nylon						
8	<b>058350-50</b>	12-1/4", Nylon						
8	<b>058351-50</b>	5/16"-3/8", Nylon						
8	<b>058352-50</b>	7/16"-1/2", Nylon						
6	<b>058353-50</b>	12-1/4", Nylon						
6	<b>058354-50</b>	5/16"-3/8", Nylon	<b>056184-50*</b>	22 - 18	Nylon	<b>058364-50</b>	71B	Grey
6	<b>058355-50</b>	7/16"-1/2", Nylon	<b>056185-50*</b>	16 - 14	Nylon	<b>058365-50</b>	72B	Blue
4	<b>058356-50</b>	12-1/4", Nylon	<b>056186-50*</b>	12 - 10	Nylon	<b>058366-40</b>	73B	Orange
4	<b>058357-50</b>	5/16"-3/8", Nylon				<b>058367-10</b>	74B	Yellow
4	<b>058358-50</b>	7/16"-1/2", Nylon						

THREE AND FOUR WAY CONNECTORS							
Wire Gauge	Four-Way- Butted		Three-Way- Butted		Self Strip Connector		
	Part No.	Insulation	Part No.	Stud Size,	Part No.	Wire Gauge	
Revised Part No.							
	22-18	<b>058346-10</b>	Vinyl	<b>058363-10</b>	Vinyl	<b>056093-50*</b>	18-14
	16-14	<b>056084-10</b>	Vinyl	<b>056082-10</b>	Vinyl	<b>056094-10*</b>	12-10 Run, 18-14 Tap
12-10	—	—	<b>056083-10</b>	Vinyl	—	—	


NOTE: dash- "x" indicates package quantity

\*Quantity (10) available with clam shell packaging to fit wire display rack (page 141) by adding "-10" to the base six digit number.


**MALE QUICK SLIDE TERMINALS AND CONNECTORS - TAB WIDTH .250"**

Wire Gauge	Crimp		Crimp		Crimp/Seal		Crimp/Solder/Seal	
	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation
<b>Revised Part No.</b>		Butted Seam-fully Insulated		Butted Seam		Fully Insulated		Fully Insulated
22-18	<b>056069-50</b>	Nylon	<b>056063-50</b>	Vinyl	<b>058315-40</b>	Ht Shrink	<b>056169-25</b>	Vinyl
16-14	<b>056070-50</b>	Nylon	<b>056064-50*</b>	Vinyl	<b>058316-40</b>	Ht Shrink	<b>056159-25</b>	Vinyl
16-14	—	—	<b>057090-50</b>	Nylon	—	—	—	—
12-10	<b>056071-50</b>	Nylon	<b>056065-50*</b>	Vinyl	<b>058317-10</b>	Ht Shrink	<b>056164-25</b>	Vinyl
12-10	—	—	<b>057091-50</b>	Nylon				
		Double Male to Female		90 Flag Butted				
	<b>056088-50</b>	None	<b>056086-50</b>	None				

**FEMALE QUICK SLIDE TERMINALS AND CONNECTORS - TAB WIDTH .250"**

Wire Gauge	Crimp		Crimp		Crimp/Seal		Crimp/Solder/Seal	
	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation	Part No.	Insulation
<b>Revised Part No.</b>		Butted Seam-fully Insulated		T-tap Self Stripping		Fully insulated		Fully insulated
22-18	<b>056066-50</b>	Nylon	<b>058347-40</b>	Nylon	<b>058318-50</b>	Ht Shrink	<b>056165-25</b>	Ht Shrink
16-14	<b>056067-50*</b>	Nylon	<b>057096-40</b>	Nylon	<b>058319-50</b>	Ht Shrink	<b>056166-25</b>	Ht Shrink
12-10	<b>056068-50*</b>	Nylon	<b>058348-40</b>	Nylon	<b>058320-10</b>	Ht Shrink	<b>056167-25</b>	Ht Shrink
		Butted Seam						
22-18	<b>056060-50</b>	Vinyl					<b>056168-25</b>	Vinyl
16-14	<b>056061-50*</b>	Vinyl		—			—	—
16-14	<b>057088-50*</b>	Nylon		—			<b>056158-25</b>	Vinyl
12-10	<b>056062-50*</b>	Vinyl		—			<b>056160-25</b>	Vinyl
12-10	<b>057089-50</b>	Nylon		—				

**SNAP TERMINALS AND CONNECTORS**

Wire Gauge	Plugs-Butted Seam		Receptacles-Butted		Spades-Butted		Receptacles-Double	
	Part No.	Snap Dia, Insulation	Part No.	Snap Dia, Insulation	Part No.	Stud Size, Insulation	Part No.	Snap Dia, Insulation
<b>Revised Part No.</b>								
22-18	<b>058338-50</b>	0.156", Nylon	<b>056076-50</b>	0.156", Nylon			<b>056080-50</b>	0.157", Vinyl
22-18	<b>058339-50</b>	0.180", Nylon	<b>058360-50</b>	0.180", Nylon				
16-14	<b>058340-50*</b>	0.156", Nylon	<b>056078-50</b>	0.156", Nylon	<b>057092-50</b>	8, Vinyl		
16-14	<b>058341-50</b>	0.180", Nylon	<b>056079-50</b>	0.180", Nylon	<b>057093-50</b>	10, Vinyl		

**NOTE:** dash- "x" indicates package quantity

\*Quantity (10) available with clam shell packaging to fit wire display rack (page 141) by adding "-10" to the base six digit number.

### Terminal Kits

- Convenient, pre-packaged terminal assortments save time by keeping popular sized terminals close at hand
- Durable, see-through plastic cases with handy "locator" cards are easy to refill for using over and over
- Multi-functional kits can be displayed on the front counter to attract the impulse sale of single terminals or used as mini storage systems to save time and money by eliminating multiple trips to the shop for additional parts



Part No.	Description
056107	Solderless Terminal Kit
056108	Heat-Shrink Terminal Kit
056109	Electrical Connector Kit

ELECTRICAL

Electrical Connector Kit		
Part No.	Description	Pieces
<b>Part No. 056109 Total Pieces 170</b>		
056051	22-18 ga. Butt Conn	12
056052	16-14 ga. Butt Conn	12
056053	12-10 ga. Butt Conn	12
021007	3/8" tube O.D. clip	6
056091	22-14 ga. Pigtail	15
056093	18-14 Tap	10
056002	22-18 Ring Tongue	12
056005	16-14 Ring Tongue	12
056008	12-10 Ring Tongue	12
021009	1/2" tube O.D. tube clip	6
056092	18-10 ga. Pigtail	15
056094	12-10 run 18-14 tap	10
056043	22-18 Spade	12
056044	16-14 ga. Spade	12
056045	12-10 ga. Spade	12

Heat Shrink Terminal Kit		
Part No.	Description	Pieces
<b>Part No. 056108 Total Pieces 132</b>		
058312	22-18 ga. Butt Conn	8
058313	16-14 ga. Butt Conn	8
058314	12-10 ga. Butt Conn	8
058309	22-18 ga. Spade	8
058310	16-14 ga. Spade	8
058311	12-10 ga. Spade	8
058302	16-14 ga. Ring Tongue	8
058303	16-14 ga. Ring Tongue	8
058304	16-14 ga. Ring Tongue	8
058305	16-14 ga. Ring Tongue	8
058306	12-10 ga. Ring Tongue	8
058308	12-10 ga. Ring Tongue	8
058315	22-18 ga. M. Quick Slide	6
058316	16-14 ga. M. Quick Slide	6
058317	12-10 ga. M. Quick Slide	6
058318	22-18 ga. F. Quick Slide	12
058319	16-14 ga. F. Quick Slide	6
058320	12-10 ga. F. Quick Slide	6

Solderless Terminal Kit		
Part No.	Description	Pieces
<b>Part No. 056107 Total Pieces 195</b>		
057085	22-18 ga. Butt Conn	12
	Tongue	12
057086	16-14 ga. Butt Conn	12
057087	12-10 ga. Butt Conn	12
056002	22-18 ga. Ring Tongue	12
056005	16-14 ga. Ring Tongue	12
056011	12-10 ga. Ring Tongue	12
056043	22-18 ga. Spade Tubing	12
056044	16-14 ga. Spade	12
056045	12-10 ga. Spade	12
057061	16-14 ga. Shrink Tubing	5
057062	12-10 ga. Shrink Tubing	5
057149	22-18 ga. Shrink Tubing	5
056061	16-14 ga. F. Quick	12
056062	12-10 ga. F Quick	12
056064	16-14 ga. M. Quick	12
056065	12-10 ga. M. Quick	12
058340	16-14 ga. Snap Plug	12
056078	16-14 ga. Snap Plug	12

### Solderless Terminal Fleet Maintenance Kit

- Packaged in a heavy-duty steel box with 20 popular styles of solderless terminals and nylon tie straps

Revised  
Part No.

Part No.	Description
056096	Kit with Crimping Tool
056097	Kit without Crimping Tool



#### Kit Includes:

Part No.	Qty	Part No.	Qty
056002-50	20	056044-50	20
056004-50	20	056047-50	20
056005-50	20	058340-50	20
056006-50	20	056078-50	20
056061-50	20	056074-50	20
056064-50	20	056092-50	20
056067-50	20	056093-50	20
056070-50	20	056050-50	20
056009-50	20	056051-50	20
056011-50	20	056052-50	20
090014-50	20	056053-50	20

NOTE: dash "-xx" indicates package quantity

Terminals also sold separately on pages 92 - 94  
Tie straps sold separately on page 99. Crimping tool sold separately on page 101

## PRIMARY WIRE AND ACCESSORIES

### General Purpose Primary Wire



- Soft annealed copper strands
- PVC outer jacket
- Designed to withstand temperatures up to +250° F
- Wire meets SAE J1128 Type GPT requirements

Part No.	Gauge	Spool Size	Color	Part No.	Gauge	Spool Size	Color
051101	18	100'	Black	051143	14	100'	Yellow
051103	18	100'	Red	051145	14	100'	Blue
051105	18	100'	White	051147	14	100'	Brown
051117-6	16	1000'	Black	051137	14	100'	Green
051121-6	16	1000'	Red	051157-7	12	500'	Red
051123-6	16	1000'	White	051159-7	12	500'	White
051119-6	16	1000'	Green	051161-7	12	500'	Yellow
051117	16	100'	Black	051163-7	12	500'	Blue
051121	16	100'	Red	051155-7	12	500'	Green
051123	16	100'	White	051153	12	100'	Black
051125	16	100'	Yellow	051157	12	100'	Red
051127	16	100'	Blue	051159	12	100'	White
051129	16	100'	Brown	051161	12	100'	Yellow
051119	16	100'	Green	051163	12	100'	Blue
051135-6	14	1000'	Black	051165	12	100'	Brown
051139-6	14	1000'	Red	051155	12	100'	Green
051141-6	14	1000'	White	051175-7	10	500'	Black
051143-6	14	1000'	Yellow	051171-7	10	500'	Red
051145-6	14	1000'	Blue	051177-7	10	500'	White
051147-6	14	1000'	Brown	051175	10	100'	Black
051137-6	14	1000'	Green	051171	10	100'	Red
051135	14	100'	Black	051177	10	100'	White
051139	14	100'	Red	051173	10	100'	Blue
051141	14	100'	White				

**Primary Wire Rack**



- Holds (12) 100' spools, (8) 100' and (2) 1000' spools or (4) 1000' spools
- Heavy gauge plated steel construction
- Wire spools sold separately

Part No.	Description
691015	Primary Wire Rack

**Gray Jacketed Parallel Wire**



Part No.			Spool Size
16 Gauge Black-White	14 Gauge Black-White	12 Gauge Black-White	
051050	051058	051066	100'
051050-7	051058-7	—	500'

**Three-Way and Four-Way Bonded Parallel Wire\***



Part No.		Conductor	Wire Color	Spool Size
16 Gauge	14 Gauge			
051052	051060	Three	Brown-Green-Yellow	100'
051054	051062	Four	Brown-Green Yellow-White	100'

*NOTE: See page 73 for ATA color code description*

*\*Round wire glued together*

**ELECTRICAL**

**SPLIT LOOM**

**Convolved Split Loom**



- High temperature loom suitable for engine compartment use
- Split seam permits easy insertion and repair or wire, tubing, cable, etc.
- Convolved black nylon allows for excellent pinch and abrasion resistance
- Designed to withstand temperatures from -40° to +200° F
- Meets FMVSS 302 requirements

Part No.		Loom I.D.
100' Coil	250' Coil	
020104-7	020104	1/4"
020106-7	020106	3/8"
020108-7	020108	1/2"
020110-7	020110	5/8"
020112-7	020112	3/4"
020116-7	—	1"
020117-7	—	1-1/4"
020118-7	—	1-1/2"
020119-7	—	1-7/8"

## Heavy Wall Heat-Shrink Tubing With Liner

- Durable polyolefin construction
- Inner liner melts to produce a flexible, waterproof seal for the life of the connection
- UL Listed/CSA certified in direct buried applications
- Flame retardant
- 3:1 shrink ratio
- See page 121 for heat gun-recommended heat range is 250° F (120°) to 485° (250°C)

Revised Part No.



Part No.	Wire Gauge Range	Length	I.D. Pre-Shrink	I.D. After
057147-10	18-14	6"	.300"	.100"
057158-10	14-6	6"	.400"	.150"
057073-10	8-1	6"	.750"	.220"
057151-25	8-1	1-1/2"	.750"	.220"
057153-2	8-1	48"	.750"	.220"
057074-10	2-4/0	6"	1.100"	.375"
057098-25	2-4/0	1-1/2"	1.100"	.375"
057174-2	2-4/0	48"	1.100"	.375"

Revised Part No.



Part No.	Wire Gauge Range	Length	I.D. Pre-Shrink	I.D. After
057146-10	18-14	6"	.300"	.100"
057148-5	18-14	48"	.300"	.100"
057058-10	14-6	6"	.400"	.150"
057159-5	14-6	48"	.400"	.150"
057059-10	8-1	6"	.750"	.200"
057150-25	8-1	1-1/2"	.750"	.200"
057152-2	2-4/0	48"	.750"	.200"
057060-10	2-4/0	6"	1.100"	.375"
057097-25	2-4/0	1-1/2"	1.100"	.375"
057160-2	2-4/0	48"	1.100"	.375"

NOTE: dash "-x" indicates package quantity

## Thin Wall Heat-Shrink Tubing Without Liner

- Durable polyolefin construction
- UL recognized and flame retardant
- Continuous operating temperature: -67° F (-55° C) to 275° F (135° C)
- Recommended heat range is 250° F (120° C) to 485° F (250° C)
- 2:1 shrink ration

Revised Part No.



Part No.	Wire Gauge Range	Length	Color	I.D. Pre-Shrink	I.D. After
057061-25	16-14	2"	Blue	.250"	.125"
057062-25	12-10	2"	Yellow	.375"	.187"
057149-25	22-18	6"	Red	.125"	.062"
057112-10	—	6"	Black	.190"	.093"
057113-10	—	6"	White	.250"	.125"
057114-10	—	6"	Red	.375"	.187"
057115-10	—	6"	Black	.500"	.250"
057116-10	—	6"	White	.750"	.370"
057117-10	—	6"	Red	1.00"	.500"

NOTE: dash "-x" indicates package quantity

### Thin Wall Heat-Shrink Tubing

**NEW**

- Disk packaging for convenient storage and waste reduction
- Packaged for showroom display and impulse buying
- Available in three colors corresponding to NEMA color-code standards
- Convenient packaging easily fits in toolbox



Part No.	Description
057131	3/16" ID, Red
057132	1/4" ID, Blue
057133	5/16" ID, Yellow

*Packaged in 8' rolls - one roll per disk pack*

### Heat-Shrink Tubing Kits



Part No. 057110

- Convenient, pre-packaged tubing assortments save time by keeping popular sized tubing in 6" lengths close at hand
- Durable, see-through plastic cases with handy "locator" cards are easy to refill for using over and over

Part No.	Description
057110	Heavy Wall Heat-Shrink Tubing Kit
057111	Thin Wall Heat-Shrink Tubing Kit

#### Heavy Wall Heat-Shrink Tubing Kit

Part No. 057110 Total Pieces 36

Part No.	Pieces	Description
057060	4 pcs	1.10" Black
057059	4 pcs	.750" Black
057058	10 pcs	.400" Black
057074	4 pcs	1.10" Red
057073	4 pcs	.750" Red
057158	10 pcs	.400" Red



Part No. 057111

#### Thin Wall Heat-Shrink Tubing Kit

Part No. 057111 Total Pieces 86

Part No.	Pieces	Description
057112	36 pcs	3/16" Black
057113	24 pcs	1/4" White
057114	12 pcs	3/8" Red
057115	6 pcs	1/2" Black
057116	4 pcs	3/4" White
057117	4 pcs	1" Red

## TIE STRAPS, GROMMETS AND WIRE CLIPS

### Cable Tie Straps



Part Nos. 090002, 090064



Part Nos. 090004, 090067



Part Nos. 090006, 090070



Part Nos. 090010, 090071



Part Nos. 090014, 090066

Part Nos. 090016, 090068

Part Nos. 090030, 090029

Revised Part No.

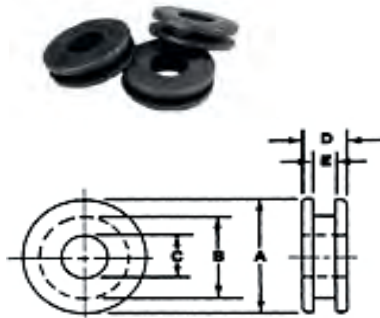
Part No.

Standard Tie Strap	Black UV Tie Strap	Length	Minimum Diameter	Maximum Diameter	Minimum Tensile Strength	Stud Size
090002-100	090064-100	5"	1/16"	1-1/4"	30 lbs.	—
090004-100	090067-100	7"	1/16"	1-3/4"	50lbs.	10
090006-25	090070-25	14"	3/16"	4"	120 lbs.	—
090010-25	090071-25	14"	3/16"	4"	120 lbs.	14
090014-100	090066-100	7"	1/16"	1-3/4"	50 lbs.	—
090016-100	090068-100	14"	1/16"	4"	50 lbs.	—
	090030-50	24"			175 lbs.	
	090029-50	36"			175 lbs.	

NOTE: dash "-xxx" indicates package quantity

**NEW**

**Rubber Grommets**



Part No.	A	B	C	D	E
021059	9/16"	7/16"	5/16"	3/16"	1/16"
021061	1-1/8"	7/8"	1/2"	7/16"	7/32"
021063	1-1/4"	31/32"	5/8"	3/8"	1/8"
021065	1-3/4"	1-3/16"	3/4"	1/2"	7/32"

**Nylon Grommet**



- Provides protection for 16, 14 and 12 gauge wires
- Fits into a 3/8" diameter mounting hole with wall thickness up to 1/8"

Part No.	Description
021070	Nylon Grommet

**Wire Clips**



- Spring tension clips are ideal for holding primary wire to truck frame
- Tips are vinyl coated for wire protection

Part No.	Description
021021	1/4" Wire Clip
021023	1/2" Wire Clip

**Tube Clips**



- Zinc-plated steel construction for corrosion resistance
- Rubber coating protects tubing and wires

Part No.	Tube O.D.	Mounting Bolt Size
021001	3/16"	1/4"
021003	1/4"	1/4"
021005	5/16"	1/4"
021007	3/8"	1/4"
021009	1/2"	1/4"
021011	5/8"	1/4"
021013	3/4"	3/8"
021015	7/8"	1/4"
021017	1"	1/4"
021019	1-1/4"	5/16"

**Rubber Cushioned Clamps**



**NEW**

Clamping Diameter	Part No. 3/8" Mounting Screw - 5/8" Wide	Part No. 1/4" Mounting Screw - 1/2" Wide
1/4"	021102	021114
3/8"	021103	021115
1/2"	021104	021116
5/8"	021100	021117
3/4"	021105	021118
1"	021106	021119
1-1/4"	021107	
1-1/2"	021108	
2"	021109	
2-1/2"	021110	
3"	021111	
4"	021112	
5"	021113	

**Work Lights**



- Incandescent light includes grounded metal swing-open bulb guard and 25' 16/3 outdoor all-weather power cord (cord remains flexible in sub-zero temperatures to -20°)
- On/Off switch, grounded three prong outlet and 13 amp resettable circuit breaker built into handle
- Metal hanging hook
- For use with up to 75 watt standard incandescent bulb (not included)

Part No.	Description
057123	Work light

**Deluxe Crimping Tool**



- Crimps terminals ranging in size from 26 to 6 gauge
- Five popular sized bolt cutting stations cleanly cut mild steel and nonferrous material

Part No.	Description
058026	Deluxe Crimping Tool

**Short Tube Work Light 13 Watt**



- Fluorescent light features new ergonomic handle, shatter resistant housing and 25' 16/3 attached cord
- Ballast, on/off switch and three prong tool outlet built into bottom end of handle
- Handle accepts 360° adjustable magnet mounting clip allowing lamp to adhere to metal surface
- Shatter resistant polycarbonate lens with 270° arc of light
- 360° adjustable swivel hanging hook
- No tools, easy bulb replacement - cool and energy efficient
- Includes 13 watt fluorescent twin tube

Part No.	Description
057125	Light - 13 Watt

**Economy Crimping Tool**



- Accepts 8 through 4/0 gauge uninsulated terminals, butt connectors, battery terminals and lugs
- Hammer required for operation

Part No.	Description
058030	Economy Crimping Tool

**Long Tube Work Light 15 Watt**



- Fluorescent light features shatter resistant lamp housing an 25' 18/2 attached power cord
- On/Off switch built into handle
- Plug-in ballast built into power cord plug
- Non-glare reflector
- 360° adjustable swivel hanging hook

Part No.	Description
057124	Light - 15 Watt

**Heavy-Duty Crimping Tool**



- For crimp-type terminals from 6 to 4/0 gauge
- Rotating, letter-coded crimping die
- Reference guides on handles for proper die settings

Part No.	Description
058171	Heavy-Duty Crimping Tool
058172	Replacement Left Jaw
058173	Replacement Right Jaw

**Heat Gun**



- Produces temperatures from 750° to 1100° F
- Built-in circuit breaker and three position switch (hot / off / fan only)

Part No.	Description
058160	Heat Gun

**Copper Cable Cutter**



- Capable of cutting up to 1" diameter copper stranded electrical cable
- 13" long steel handles with vinyl hand grips

Part No.	Description
057072	Copper Cable Cutter

**Compact Cable Cutter**



- Designed to cut copper wire and cable up to 4/0 gauge

Part No.	Description
057071	Compact Cable Cutter

**25' Cord Reel**



- Retractable 25' 16/3 cord rated at 10 amps, 125 VDC
- Housing constructed of high impact plastic with built-in grounded outlets (4), 10 amp resettable circuit breaker and a convenient wind-up knob
- When completely wound, reel fits easily into tool box or drawer
- Carrying handle attached for convenient portability

Part No.	Description
057126	25' Cord Reel

**Triple Outlet All-Weather Extension Cord**



- 50' 12/3 high visibility yellow cord rated at 15 amps, 125 VDC
- Heavy duty power block at female end with resettable 15 amp circuit breaker and three grounded outlets

Part No.	Description
057128	50' Extension Cord

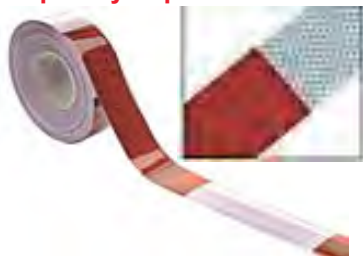
**50' Cord Reel**



- Retractable 50' 14/3 yellow cord rated at 13 amps, 125 VDC to -40°
- Heavy duty cord includes heavy duty power block with built-in resettable 13 amp circuit breaker and three grounded outlets
- Industrial/Commercial grade, auto ratcheting plastic alloy reel housing built-in carrying handle
- Includes quick release wall/ceiling mounting bracket for portability
- All hardware and instructions are included

Part No.	Description
057127	50' Cord Reel

**Conspicuity Tape**



**Red and White**

Designed to mark the side and rear perimeter of trucks and trailers for enhanced visibility and detection  
**DOT-C2 certified and guaranteed to meet or exceed all FMVSS 108 and NHTSA requirements**

- Alternates 11" of red and 7" of white
- Superior daytime visibility and nighttime reflectivity
- 3 year warranty

Part No.	Description
058370	2" x 150'



**Yellow**

School bus yellow tape is designed for retrofit applications. Enhanced daytime appearance and sight detection for safety. Withstands the abuse of mechanical and high pressure washings.

- Meets and exceeds 2000 National Standard for buses ASTM D4956-01 (Type V), FMVSS 131 and FMVSS 217
- 3 year warranty

Part No.	Description
058379	2" x 150"

**General Purpose Vinyl Electrical Tape**



- Rated to 176°F (80°C)
- Meets UL510 requirements for UV resistance
- UL listed 539H and meets Canadian Standards Association LR48769

Tape		
Part No.	Thickness	Roll Size
058368	7 mil	3/4" x 60'

**ELECTRICAL**

**Conspicuity Strips and Reflective Circles**



- DOT-C2 certified conspicuity strips
- Replaces damaged or worn out tape with cost cost efficient conspicuity strips
- Conspicuity tape is weather, solvent and UV resistant and applies easily to painted or non-painted surfaces
- SAE-A DOT reflective circles
- Add more visibility without adding costly lights
- Conveniently packaged in Polybags ready to display
- Four reflectors per package

Part No.	Description
058373	2" x 18" (7-11) Conspicuity Strips
058374	2" x 12" (7-11) White Conspicuity Strips
058377	2-3/4" Diameter Red Reflective Circles
058376	2-3/4" Diameter Orange Reflective Circles

**Silicon Self-Fusing Tape**

**NEW**



- Tape self fuses and cures in 24 hours to form a permanent moisture tight seal
- Has no adhesive lining leaving the application clean with no sticky residue
- Provides high tech alternative to heat shrink tubing
- Ideal for high temperature applications, such as battery terminals
- High dielectric strength
- Temperature range from -85 to +500 F
- Packaged in clamshell, 1" wide, 20' long rolls - quantity 1 clamshell

Part No.	Color	Description
058380*	Black	Silicon Self-Fusing Tape
058381*	Red	Silicon Self-Fusing Tape

\*Add -4 to the part number for 10 piece bucket display on page 139.