### OUR PARTS PUT YOU IN THE PASSING LANE

# ELECTRICAL

#### The only source you need.

From our ISO and ABS coiled cables to plugs, fuses, sockets, terminals and switches, Velvac offers a full line of electrical components to keep drivers doing what they do best - driving.

- Cable and plug assemblies
- Fuses, sockets, terminals and connectors
- Battery lugs and terminals
- And more



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#### **CABLE AND PLUG ASSEMBLIES**

### 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 #	Working length	Description
590061	12'	6/14 Gauge
050029	12'	Replacement cable

### 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 #	Description
590171	12' Two pole coiled cable assembly
5901 <i>7</i> 2	15' Two pole coiled cable assembly
590181	12' Vertical two pole coiled cable assembly
590182	15' Vertical two pole coiled cable assembly

### 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 #	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, heavyduty 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

1	Part #	Description
	590263	12' Tailgate lift battery charging 4 gauge cable assembly
	590264	15' Tailgate lift battery charging 4 gauge cable assembly

NOTE: Part numbers listed in RED are NEW!



#### **SEVEN-WAY COILED CABLE ASSEMBLIES**



### 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 #	Working Length	Description
590251	12'	2-12" Leads
590252	15'	2-12" Leads
590253	15'	1-48" Lead 1-12" Lead
590254	15'	1-72" Lead 1-12" Lead



### Seven-Way ABS Coiled Cable Assemblies

- 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 #	Working Length	Description
590160	12'	2-12" Leads
590161	15'	2-12" Leads
590163	15'	1-40" Lead 1-12" Lead
590080	20'	2-12" Leads
590081	20'	1-12" Lead 1-40" Lead

NOTE: See page E8 for ABS color code chart



### 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

Part #	Working Length	Description
590154	12'	6/12, 1/10 Gauge (2-12" Leads)
590156	12'	6/14, 1/12 Gauge (2-12" Leads)
590155	15'	6/12, 1/10 Gauge (2-12" Leads)
590157	15'	6/14, 1/12 Gauge (2-12" Leads)
590159	1 <i>5</i> '	6/12, 1/10 Gauge (1-72" Lead, 1-12" Lead)

### Seven-Way ABS & ISO Straight Cable Assemblies



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

,		
Part #	Working Length	Description
590255	12'	1/8, 2/10, 4/12 Gauge
590256	15'	1/8, 2/10, 4/12 Gauge

 ABS assemblies include heavy gauge wire commonly used to power trailer and dolly ABS - ABS cable meets SAE J2394 June 1998 Type F requirements

Part #	Working Length	Description
590165	12'	1/8, 2/10, 4/12 Gauge
590166	15'	1/8, 2/10, 4/12 Gauge
590179	20'	1/8, 2/10, 4/12 Gauge

 Heavy-duty zinc die cast plugs with spring guards included

Part #	Working Length	Description
590180	5'	6/12, 1/10 Gauge
590036	8'	6/12, 1/10 Gauge
590046	12'	6/12, 1/10 Gauge
<i>5</i> 901 <i>77</i>	10'	6/12, 1/10 Gauge
590178	15'	6/12, 1/10 Gauge

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#### **ELECTRICAL PLUGS**



- Heavy-duty nickel-plated zinc die cast housings on all except plastic plug, which has an unbreakable nylon housing
- Easy to remove interiors make 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 #	Description
593057	Plug with spring guard
593101	ISO plug with spring guard
593111	Plastic plug with weather guard
593019	Replacement interior for 593057, 593111
593060	Replacement spring guard

#### **Single Grip Seven-Way Plugs**

Part #	Description
593022	Plug with spring guard
593024	Plug without spring guard
593019	Replacement interior
593029	Replacement spring guard



#### 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 #	Description
591161	T-grip plug with spring guard
591105	Single grip plug without spring guard



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

Part #	Description
054001	Seven-way blade type plug

NOTE: See page E6 for seven-way blade type socket



#### Two Pole Plug

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

Part #	Description
593116	T-grip plug with spring guard
593123	Vertical T-grip plug w/ guard



- Heavy-duty zinc die cast housings
- Plug locking system works with socket door to ensure proper hookup and prevent unintentional disconnections
- Spring guard 055049 supports and protects cable

Part #	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
055051	Replacement interior for six-way plug



#### **PLUG ADAPTERS AND ACCESSORIES**









#### Truck Tractor to Trailer Adapters

- Heavy-duty zinc die cast housing on part nos. 591009 and 591010; also includes split brass pins and terminals and a spring clip to lock adapter and plug together
- Part no. 591116 constructed of molded PVC for impact resistance

Part #	Description
591009	Seven-way pin to six-way adapter
591010	Six-way round to seven-way adapter
591116	Seven-way round to four-way flat adapter









#### **Continuity Testers**

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

Part #	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**

- Set: 48" lead (female) side and 12" lead (male) side
- Single: 48" leads
- 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 #	Description
090226*	Four-way flat - female
090227*	Four-way flat - male
	*Together these replace Velvac part no. 054003
054003	Four-way flat set



#### **Seven-Way Plug Cleaner**

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

Part #	Description
055034	Seven-way plug cleaner

NOTE: Part numbers listed in RED are NEW!

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#### **ELECTRICAL SOCKETS AND ACCESSORIES**

#### Seven-Way Circuit Breaker Sockets and Adapter Boxes

- Non-corrosive, reinforced nylon housing for added durability
- Designed for #8 ring terminals (see page E27)
- ATA color-coded contacts (see page E8 for ATA color code chart)
- Solid brass split pins are zinc-plated for corrosion resistance

Part #	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

- Each socket includes automatic reset circuit breakers with positive snap open/snap closed action to eliminate arcing (unless 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



Deep adapter box with back entry



Deep adapter box with bottom entry



- 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 eliminated arcing

Part #	Description
593052	Socket with 20 amp circuit breakers
593054	Socket with 30 amp circuit breakers

#### 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.

ion	Part #
ocket	591113
ocket	593121
le socket	593124
terior for ocket	591090
ocket le socket terior for	593121 593124



#### Seven-Way Blade Type Socket

- 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

Part #	Description
054002	Seven-way blade type socket
090216	Mounting bracket

NOTE: See page E4 for seven-way blade type plug



bracket

**Optional** 

mounting



#### **ELECTRICAL SOCKETS AND ACCESSORIES**

Two hole socket with screw terminals









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 (SAE applies only to solid pins)

Part #	Description	
593083	Socket with solid pins	
593084	Socket with split pins	
05401 <i>7</i>	Terminal protector boot	
591022	Replacement solid pin interior	
591019	Replacement cover kit (includes door, hinge pin & spring)	

#### 593083

Optional terminal

protector boot

#### **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, noncorrosive, reinforced nylon housing
- Wires secured by set screws
- Mounting holes are 2-15/16" on center

Part #	Description
593106	ISO socket
054017	Terminal protector boot



### Four-Way and Six-Way Sockets

- 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 #	Description
055052	Six-way socket
055056	Four-way socket
090217	Mounting bracket
090218	Terminal protector boot
055053	Replacement six-way interior

#### **Seven-Way Sockets**

- Non-corrosive, reinforced nylon housing for added durability
- Screw type socket with split pins designed for #8 ring terminals (see page E27)
- Push type socket with solid pins designed for 180° snap receptacles (see Part No. 056079 on page E26)
- 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

Description
Two hole socket with screw terminals
Two hole socket with push terminals
Rubber terminal protector boot

NOTE: Part numbers listed in RED are NEW!

#### **ELECTRICAL CABLE**



#### **Battery and Starter Cable**

- 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

#### **Red Jacketed**

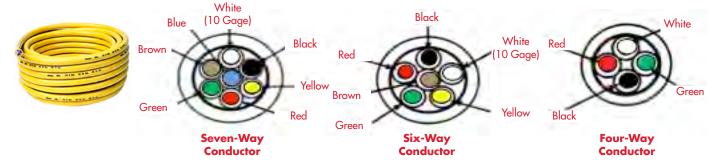
Part #	Coil Length	Wire Gauge
058033	25'	6
058033-7	100'	6
058035	25'	4
058035-7	100'	4
058037	25'	2
058037-7	100'	2
058039	25'	1
058039-7	100'	1
058241	25'	1/0
058241-7	100'	1/0
058243	25'	2/0
058243-7	100'	2/0
058245	25'	3/0
058247	25'	4/0

#### **Black Jacketed**

Part #	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	

NOTE: Battery terminals and lugs sold separately (see pages E10-12)

#### **Multiple Conductor Cable**



 ABS cable meets SAE J2394 June 1998 Type F requirements

#### **ADA Color Code Chart**

White Ground return to towing vehicle
Black ICC required marker and clearance light
Yellow Left-hand directional signal Red Stoplights
Green Right-hand directional signal Brown Tall lamps, 3-bar

marker lamps
Blue Auxiliary

Part #	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
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 CABLE**



#### **Battery-to-Battery Crossover Cable**

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

Part #	Description	
058212	12" Battery crossover cable	



#### **Ground Strap**

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

Part #	Description	
058116	Ground strap (12" - 14")	



#### **Switch-to-Starter Cable**

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

Part #	Description	
058115	18" Switch-to-starter cable	



#### **Battery Cable**

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

Part #	Description
05811 <i>7</i>	12" Battery cable

#### **Stud Top Battery Cable**

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

	•	
Part #	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



#### **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 #	Description
058152	16' Battery booster cable



#### **800A Booster Cable**

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 #	Description
058151	800A Booster cable



#### **BATTERY LUGS**

- 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 pages E33-E35)

#### **Standard Battery Lugs**

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



Part #	Wire Gauge	Stud Size
056033	6	1/4"
058073	6	5/16"
058074	6	3/8"
056034	4	1/4"
058076	4	5/16"
058077	4	3/8"
058078	4	1/2"
058079	2	5/16"
056035	2	3/8"
058081	1	5/16"
056036	1	3/8"

Part #	Wire Gauge	Stud Size
058082	1	1/2"
058083	1/0	5/16"
056037	1/0	3/8"
056038	1/0	1/2"
058084	2/0	5/16"
056039	2/0	3/8"
056040	2/0	1/2"
058086	3/0	3/8"
056041	3/0	1/2"
058088	4/0	3/8"
056042	4/0	1/2"

#### **Heavy-Duty Battery Lugs**

- Tin-plated for corrosion resistance
- Crimpable



Part #	Wire Gauge	Stud Size
058325	1/0	3/8"
058326	1/0	1/2"
058327	2/0	3/8"
058328	2/0	1/2"

Part #	Wire Gauge	Stud Size
058329	3/0	3/8"
058330	3/0	1/2"
058331	4/0	3/8"
058332	4/0	1/2"

**Flared Butt** 

**Connectors** 

Tin-plated for

Seamless construction

corrosion resistance

#### **Heavy-Duty Flared Lug Maintenance Kit**



Part #	Description
057002	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 #	Qty
056033	6
056034	6
056035	6
056036	6
056037	6

Part #	Qty
056038	4
056039	4
056040	4
056041	4
056042	4

Part #	Wire Gauge
058020	1
058021	1/0
058022	2/0
058023	3/0
058024	4/0



#### **BATTERY TERMINALS**

#### **Crimpable or Solderable Battery Terminals**

- One-piece, cast copper construction
- Lead-plated for corrosion resistance
- Cable size clearly designated on terminals for 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 E33)





### Right Angle Barrel Terminals

Part #	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 #	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

#### **Straight Barrel Terminals**

Part #	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



#### **Left Elbow Terminals**

Part #	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	

#### **Marine Terminal**

• 5/16" post

Part #	Description
058019	Marine terminal

#### Helpful hint:

Most Velvac terminals are colorcoded 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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#### **BATTERY TERMINALS**

### **ECO-MAX Battery Terminals**

- ECO-MAX is the first environmentally friendly, 100% copper battery terminal
- The post top design is manufactured with the highest quality C11000 ETP (Electrolytic Tough Pitch) copper and is completely lead free
- RoHS compliant and therefore exempt from CA Proposition 65 requirements
- C11000 ETP copper battery terminals provide the highest conductivity rating compared to any competing copper design
- Maximum electrical conductivity is 101% IACS at 68°F. Typical designs fall at 20% and 32% IACS at 68°F
- Tin plated for corrosion resistance
- Provided with nut and bolt installed
- Has a beveled barrel for facilitating cable insertion
- Color-coded for polarity identification and color and die coded for crimp settings
- Exceeds SAE Standard J-1811



ECO-Max right elbow



ECO-Max left elbow



ECO-Max flag



ECO-Max straight

Part #	Cable Gauge	Gage ID Color	Polarity	Terminal Style
058416	4	Gray	Negative	Straight
058417	4	Gray	Positive	Straight
058418	4	Gray	Universal	Straight
058419	1-2	Pink	Negative	Straight
058420	1-2	Pink	Positive	Straight
058421	1/0	Black	Negative	Straight
058422	1/0	Black	Positive	Straight
058423	2/0	Orange	Negative	Straight
058424	2/0	Orange	Positive	Straight
058425	3/0	Purple	Negative	Straight
058426	3/0	Purple	Positive	Straight
058427	4/0	Yellow	Negative	Straight
058428	4/0	Yellow	Positive	Straight
058445	1/0	Black	Negative	Flag
058446	1/0	Black	Positive	Flag
058447	2/0	Orange	Negative	Flag
058448	2/0	Orange	Positive	Flag
058449	3/0	Purple	Negative	Flag
058450	3/0	Purple	Positive	Flag
058451	4/0	Yellow	Negative	Flag
058452	4/0	Yellow	Positive	Flag
058437	1/0	Black	Negative	Left elbow
058438	1/0	Black	Positive	Left elbow
058439	2/0	Orange	Negative	Left elbow
058440	2/0	Orange	Positive	Left elbow
058441	3/0	Purple	Negative	Left elbow
058442	3/0	Purple	Positive	Left elbow
058443	4/0	Yellow	Negative	Left elbow
058444	4/0	Yellow	Positive	Left elbow
058429	1/0	Black	Negative	Right elbow
058430	1/0	Black	Positive	Right elbow
058431	2/0	Orange	Negative	Right elbow
058432	2/0	Orange	Positive	Right elbow
058433	3/0	Purple	Negative	Right elbow
058434	3/0	Purple	Positive	Right elbow
058435	4/0	Yellow	Negative	Right elbow
058436	4/0	Yellow	Positive	Right elbow



#### **BATTERY TERMINALS**



#### **Battery Stud Nut**

Stainless steel construction

Part #	Description
058068	3/8" Battery stud nut

#### **Heavy-Duty Terminal**

• For 1" 4/0 gauge wire



Part #	Description
058016	Heavy duty terminal

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

Base terminal

Part #	Wire Gauge	Polarity
058090	1/0	Universal
058091	2/0	Universal
058092	3/0	Universal
058093	4/0	Universal



Part #	Wire Gauge	Polarity
058251	1/0	Universal
058252	2/0	Universal
058253	3/0	Universal
058254	4/0	Universal



#### **Medium-Duty Terminal**

• For 6 to 2 gauge wire

Part #	Description
058012	Medium-duty terminal

#### Three-Way **Battery Terminals**

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

Part #	Description
058071	Three-way battery terminals

#### **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 #	Description
058296	OEM battery bolt



#### **Battery Post and Terminal Cleaner**

Part #	Description
058046	Battery post and terminal cleaner



#### **Side Post Termina**

For 6 to 2 gauge wire

Part #	Description
058013	Side post terminal

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



- All lead construction
- Both positive and negative posts included

Part #	Description
058017	Stud mount-to-post mount conversion terminals

#### **Protective Battery** Washers

Washers seal out



 Packaged in convenient plastic screw top jars

Part #	Description
058094	Protective battery washers - red
058095	Protective battery washers - black



#### **SWITCHES AND SOLENOIDS**



#### **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 #	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 sinale dashboard device
- Backlit for easy identification
- Fits standard 22 mm x 44 mm opening

Part #	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 #	Description
090210	Full boot
090211	Half boot



#### **License / Utility Lights**

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

Part #	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 selfgrounding single post adapter
- 67 bulb
- Mounting holes approx. 2-11/16" on center

Part #	Description
090174	Bumper mount license / utility light

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

Part #	Description
090212	Safety cover

#### **Battery Disconnect Switch**

- Two position: on/off
- Continuous rating 180 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

090233, 090234

090104

UL approved for 6 to 36 VDC

Part #	Description
090104*	Battery disconnect switch SPST
090233	Battery disconnect switch DPST
090234	Battery disconnect switch DPST w/ anti-rotation indexing post

\*Not UL approved

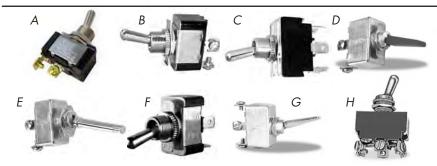
#### **Push Button** Switch

- Rated for 50 amps at 12VDC
- 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 #	Description
090190	Momentary push button switch



#### **SWITCHES AND SOLENOIDS**



- Frame and support constructed from steel with zinc chromate, brass terminals
- Neoprene-sealed toggles are moisture and dust resistant

### **Heavy Duty Toggle Switches**

- 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

Photo	Part #	Poles	Amp	VDC	Circuitry	Terminals	Miscellaneous
Single Pole							
В	090176	SPST	21A	14	On / Off	(2) 0.250" Flat blade	-
Α	090177	SPST	21A	14	On / Off	(2) Screw	-
В	090199	SPDT	21A	14	On / Off / On	(3) 0.250" Flat blade	-
Α	090200	SPDT	21A	14	On / Off / On	(3) Screw	-
Α	090201	SPDT	21A	14	(On) / Off / (On)	(3) Screw	-
Α	090202	SPDT	21A	14	On / Off / (On)	(3) Screw	-
F	090191	SPST	30A	12	On / Off	(3) 0.250" Flat blade	Red LED handle****
F	090192	SPST	30A	12	On / Off	(3) 0.250" Flat blade	Green LED handle****
F	090193	SPST	30A	12	On / Off	(3) 0.250" Flat blade	Blue LED handle****
D	090186	SPST	50A	12	On / Off	(2) Screw	Black handle**
D	090187	SPST	50A	12	On / Off	(2) Screw	Red handle**
D	090188	SPST	50A	12	On / Off	(2) Screw	Chrome handle**
Е	090189	SPST	50A	6/12/24	On / Off	(2) Screw	1-5/8" Chrome handle
G	090184	SPDT	50A	6/12/24	On / Off / On	(3) Screw	Chrome plated***
-	090040	SPDT	50A	6-24	On / On	(3) Screw	
-	090043	SPDT	50A	6-24	(On) / Off / (On)	(3) Screw	() indicates MOMENTARY
Double Pole					ACTION		
Α	090203	DPST	21A	14	On / Off	(4) Screw	
С	090204	DPST	21A	14	On / Off	(4) 0.250" Flat blade	** Die cast housing
Н	090048	DPDT	21A	14	On / On	(6) Screw	with silver-plated contacts, heavy
С	090205	DPDT	21A	14	On / On	(6) 0.250" Flat blade	copper terminals,
С	090206	DPDT	21A	14	On / Off / On	(6) 0.250" Flat blade	stems measure 15/32"
Α	090208	DPDT	21A	14	(On) / Off / (On)	(6) Screw	dia. X 15/32" long
С	090209	DPDT	21A	14	(On) / Off / (On)	(6) 0.250" Flat blade	*** Paddle type handle
"O" Ring Sealed							
Α	090179	SPST	21A	14	On / Off	(2) Screw	****Black toggle
Α	090194	SPST	21A	14	(On) / Off	(2) Screw	handles tipped with LED, min draw
Α	090196	SPDT	21A	14	On / On	(3) Screw	requirements for LED
Α	090197	SPDT	21A	14	On / Off / On	(3) Screw	is 20 mA at 12 VDC
В	090198	SPDT	21A	14	On / Off / On	(3) 0.250" Flat blade	
Α	090207	DPDT	21A	14	On / Off / On	(6) Screw	

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#### **SWITCHES AND SOLENOIDS**

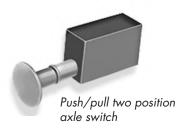
#### Two-Speed Axle Switch and Automatic Terminal **Block Switch**

- 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 E25)

Part #	Description
090078	Two-speed axle switch
090079	Automatic terminal block switch



Terminal block switch





#### Three Wire Connector

- Use as a flasher socket or any other three wire application (see page E19 for flashers)
- 18 gauge 12" leads

Part #	Description
090225	Three wire connector
090085	Three wire socket

#### **Dimmer Switches and Socket Assemblies**



#### **Application**

 Chrysler floor mounted (1841895, 1881938, 2097628, 2291202, CH-2437) Year: 1959-83

 Dodge Trucks Year: 1959-79

AMC (3156124, 3160926)

Year: 1959-83

Part #	Description
090073	Dimmer switch
090083	Dimmer switch socket assembly



#### **Application**

 All Ford floor mounted Year: 1959-83 (COTF-130A024A; COTZ-13A024A, SW-263)

Part #	Description
090081	Dimmer switch
090083	Dimmer switch socket assembly

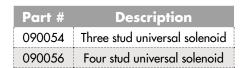


- Vehicles without auto dimmer
- All GM floor mounted (1997028) 1997037, 3841892, D808) Year: 1961-83
- All Jeep floor mounted (5461816) Year: 1974-82

Part #	Description
090080	Dimmer switch
090082	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







#### **SWITCHES AND SOLENOIDS**



Standard

Lighted

- 21 amps at 14 VDC
- .830" x 1.450" recommended mounting hole
- Universal, snap-in design allows for easy installation
- Moisture and dust resistant
- Packaging for all new switches displays easily on pegboards or wire display rack (see Retail section)

#### **Full Size Rocker Switches (Standard)**

Part #	Poles	Circuitry	Terminals
090109	SPST	On / Off	(2) .250" Flat blade
090150	SPST	(On) / Off	(2) .250" Flat blade
090147	SPST	On / (Off)	(2) Screw
090153	SPDT	On / (On)	(3) Screw
090111	DPST	On / Off	(4) .250" Flat blade
090149	DPST	On / (Off)	(4) Screw
090136	DPDT	On / On	(6) .250" Flat blade
090110	DPDT	On / Off / On	(6) .250" Flat blade
090158	DPDT	On / Off / (On)	(6) .250" Flat blade
) indicates M	OMENTARY AC	TION	

#### **Accessories**

Description
End bracket
Middle bracket
Single bracket
Panel plug

### Full Size Rocker Switches (Lighted)

Part #	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





Accessories

### 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
- (3) .187" flat blade terminals

Part #	Poles	Light Color
090167	SPST	Red
090168	SPST	Amber
090169	SPST	Green

- 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 #	Description
090166	Round rocker switch with On/Off markings





#### **SWITCHES AND SOLENOIDS**



#### **Universal Ignition Switch**

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

Part #	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

Part #	Description
090181	Push / pull switch



- Rated for 75 amps at 6 to 28 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 #	Description	
090180	Push / pull switch	7

#### **RELAYS**

















71 **VELVAC** 091233







#### **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 #	Description	Voltage	Amp	Terminals	Mounting Tab
091230	Relay with diode	12	40	5	No
Application for	091230: Diode eliminates to run up to 30 d	s voltage spikes the amps continuously		hen the relay is shut	off; it can be used
091231	Relay	12	40	5	Yes
091232	Relay	12	40	4	Yes
Application for	091232: Used to run up t	o 30 amps continu	iously		
091236	Relay	24	20	5	Yes
091237	Dual relay	12	40	5	Yes
Application for	Application for 091237: Controls two separate 20 amp accessories; also used as a single 40 amp relay				
091233	Heavy-duty relay	12	70	4	Yes
Application for 091233: Ideal for controlling larger devices; can run up to 50 amps continuously					
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					



#### SIGNAL FLASHERS

### Electro-Mechanical and Electronic Flashers

- 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





Style A electro-mechanical

Style B electronic

Part #	Style	Terminals	Color	Lamp Rating	Flash Rate FPM	Amp Rating
091215	Α	2	Clear smoke	1-10	60-120	25
091216	Α	3	Clear smoke	1-10	60-120	25
Applications fo	or 091216: F	its most American co	ars, older imp	ort cars and lig	jht trucks	
091208	В	2	Red	2-12	<i>7</i> 0-120	25
091209	В	3	Clear smoke	2-12	70-120	25
Applications fo	or 091209: S	Straight truck, single	trailer, high fl	asher usage		
091210	В	2	Clear smoke	2-16	70-120	35
091211	В	3	Clear smoke	2-16	70-120	35
Applications fo	or 091211: S	Straight truck, single	or double trai	ler or any vehi	cle with high flasher	usage
091212	В	2	Clear smoke	2-20	<i>7</i> 0-120	45
091213	В	3	Black	2-20	70-120	45
Applications for 091213: Severe duty, double or triple trailers or vehicles where flasher is frequently used						
091214	В	3	Clear smoke	10 Lamps / Side*	60-120	25
Application for 091214: Alternating "Wig-Wag" headlight application for emergency vehicles and school buses						

<sup>\*10</sup> lamps per side (1156, 1157) or 4 (H4651) sealed beams See page E16 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 #	Description
091203	Two terminal
091204	Three terminal







#### **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 #	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 #	Description
091201	Two terminal
091202	Three terminal

#### NOTES

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 duty for this type of application

Dash "- xx" indicates package quantity

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#### **CIRCUIT BREAKERS**

### Standard Circuit Breakers

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

Part # w/o mounting strap	Part # w/ mounting Strap	Amp
091011	091051	10
091015	091052	15
091020	091053	20
091025	091054	25
091030	091055	30
091040	091056	40
091050	091057	50



### ATM and MAXI™ Circuit Breaker

- Replacement for ATM/MINI® and MAXI™ blade type fuses
- 12 VDC, rated 5 to 30 amps
- -40°F (-40°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

ATM/Mini® Part #	Maxi™ Part #	Amp
091500-3	-	5
091501	091510-10	10
091502	091511-10	15
091503	091512-10	20
091504	091513-10	25
091505	091514-10	30

### 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 SAE J553 requirements

Part #	Amp
091080	10
091081	15
091082	20
091083	30

#### High Amp Circuit Breaker



- 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 #	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
091009	200 High amp

Tab C - For Kenworth — Tab A - For Ford Pickups



Tab B - For Chrysler, Dodge, Ford, Nissan, Toyota, GMC, Navistar, (IHC) Trucks

### Universal Snap-off Blade Type Circuit Breakers

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

Part #	Amp	Color
091076	6	Silver
091071	10	Red
091072	15	Blue
091073	20	Yellow
091074	25	Silver
091075	30	Green

#### **Fuse and Fuse Block**

- Isolates faults in equipment such as lift trucks and other battery operated systems
- Silver plated copper link visible through a mica window





Part #	Description
091351	ANL style fuse, 300 amp
091350	Fuse block for ANL style fuses



#### **FUSES AND ACCESSORIES**

#### AGC, AGX and SFE Fuses

AGC Part #	AGX Part #	SFE Part #	Amp
091131-5	-	-	1
091132-5	-	-	2
091133-5	-	-	3
091135-5	-	-	5
091137-5	-	-	7 1/2
091140-5	-	-	10
091141-5	-	-	15
091142-5	See below	0911 <i>7</i> 1-5	20
091143-5	-	-	25
091144-5	See below	0911 <i>7</i> 2-5	30

#### **AGX Fuse Assortments**

ı	Part #	Description
	091251	AGX 20-30 amp assortment

Includes (2) 20 amp, (2) 25 amp and (2) 30 amp AGX fuses

#### NOTES

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



#### **Electrical Junction Box**

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

Part #	Description
055060	Electrical junction box



AGC 1-30 / SFE 20, 30 AGC 20, 30



ATC/ ATO®





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

ATC/ ATO®	ATM/ MINI®	MAXI™	Amp	Color
-	091300-5	-	2	Gray
091173-5	091301-5	-	3	Violet
091174-5	091302-5	-	4	Pink
091175-5	091303-5	-	5	Tan
0911 <i>77-5</i>	091304-5	-	7-1/2	Brown
091180-5*	091305-5*	-	10	Red
091181-5*	091306-5*	-	15	Blue
091182-5	091307-5*	091400-5	20	Yellow
091183-5*	091308-5*	-	25	Clear
091184-5*	091309-5*	091401-5	30	Green
-	-	091402-5	40	Orange
-	-	091403-5	50	Red
-	-	091404-5	60	Blue
-	-	091406-3	80	Natural



#### 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 #	Description
091427	ATC/ATO® fuse panel



# 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 #	Description
091254	Fuse assortment with tester

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#### **FUSES AND ACCESSORIES**



#### 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 #	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 #	Description
091189	Heavy duty in-line fuse holder w/ 30 amp AGC fuse



#### Heavy Duty ATC/ATO® In-Line Fuse Holders

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

Part #	Description
091190	Heavy duty ATC/ATO® in- line fuse holder w/o fuse
091130	Heavy duty ATC/ATO® in-line fuse holder w/ 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 #	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
- 8 gauge lead wire
- Cover provides protection from harsh under-the-hood environmental elements
- Fuse sold separately

Part #	Description
091425	MAXI In-line fuse holder with cover





091325

091326

#### **Add-A-Circuits**

- Converts one circuit into two fuse protected circuits; plugs into fuseblock 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 #	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 14 gauge
- Fuse sold separately



Part #	Description	
057003	Self-stripping ATC/ATO® fuse holder	

In-line fuse holders (except MAXI) and add-a-circuits are display carded to fit on display rack in Retail section



#### **FUSES AND ACCESSORIES**

#### **Fuse Kits**



Part #	Description
091001	ATM/MINI® and MAXI fuse kit
091002	ATC/ATO®, AGC and ATM/MINI® fuse kit

- 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

#### ATM/MINI® and MAXI™ Fuse Kit ATC/ATO®, AGC and ATM/MINI® Fuse Kit

ATM/ MINI®	MAXI™	Qty	Amp
091300	-	10	2
091301	-	10	3
091303	-	10	5
091304	-	10	<i>7</i> -1/2
091305	-	10	10
091306	-	10	15
091307	-	10	20
091308	-	10	25
091309	-	10	30
-	091400	5	20
-	091401	5	30
-	091402	5	40
-	091403	5	50
-	091404	5	60
-	091406	3	80

Did	you	know

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

AGC	ATM/MINI®	AGC	Qty	Amp
091133	-	-	10	3
091135	-	-	10	5
091140	-	-	10	10
091141	-	-	10	15
091142	-	-	10	20
091144	-	-	10	30
-	091303	-	10	5
-	091305	-	10	10
-	091306	-	10	15
-	091307	-	10	20
-	091308	-	10	25
-	091309	-	10	30
-	-	091175	10	5
-	-	091180	10	10
-	-	091181	10	15
-	-	091182	10	20
-	-	091183	10	25
-	-	091184	10	30

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#### **TERMINALS AND 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 means 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 E32, E33 and E38)



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

#### **Crimp and Seal Terminals and Connectors**

Simple three step installation reduces wiring time and costs



- Heat-shrink terminals combine color-coded, heat-shrink tubing with one-piece solderless terminals to produce fast, watertight, corrosion
   Improved mechanical performance provides improved pull-out strength and strain relief
   Designed to withstand temperatures
  - Designed to withstand temperatures of -67°F (-55°C) to +221°F (+150°C)



- Electrical tape and heat gun available and sold separately (see page E38)
- Resist abrasion, scoring, cut-through and the effects of long term aging



resistance cutwire connections

UL approved

STEP 1: STRIP copper wire STEP 2: INSERT wire into sealing gel.
Rotate to coat wire

STEP 3: RE-INSERT wire until insulation contacts connector. CRIMP connector

### 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

# Heatless Terminals and Connectors-Revolutionary New Product

- A heatless, 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 resistance while remaining seamless
- Reduces overall installation costs by eliminating the need for torches or heat guns, reducing the installation time and improving productivity



Call the Velvac Sales Team: **800.783.8871** 

sales@velvac.com

#### **TERMINALS AND CONNECTORS**

#### **Butt Splices**



#### **Crimps**

Part #	Wire Gauge	Insulation
056051-50*	22-18	Vinyl-butted
057085-50	22-18	Nylon-smls**
056052-50*	16-14	Vinyl-butted
057086-50*	16-14	Nylon-smls**
056053-50*	12-10	Vinyl-butted
057087-50*	12-10	Nylon-smls**



Part #	Wire Gauge	Insulation
058362-50*	22-18	None
058028-50*	16-14	None
058029-50*	12-10	None

#### Brazed seam



Part #	Wire Gauge	Insulation
056054-10	8	Vinyl
056055-10	6	Vinyl
056056-10	4	Vinyl

Part #	Wire	Insulation
055106-10	Gauge 22-18	Nylon
055107-10	16-14	Nylon
055108-10	12-10	Nylon

#### **Helpful hint:**

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

Red 22 - 18 AWG, 8 AWG Blue 16 - 14 AWG, 6 AWG Yellow 12 - 10 AWG, 4 AWG



#### Crimp/Seal

Part #	Wire Gauge	Insulation
055067-10	26-22	Nylon
058312-50*	22-18	Heat shrink
055075-10	22-18	Nylon & copper
055075-50	22-18	Nylon & copper
058313-40*	16-14	Heat shrink
055076-10	16-14	Nylon & copper
055076-50	16-14	Nylon & copper
058314-40*	12-10	Heat shrink
055077-10	12-10	Nylon & copper
055077-50	12-10	Nylon & copper
055068-10	8	Nylon

#### **NOTES**

Dash - "x" indicates package qty

- \* Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number
- \*\* Seamless



#### **Step Down Splices**

Part #	Wire Gauge	Tube Color
055069-10	22-18/16-14	Blue
055070-10	16-14/12-10	Yellow
055071-10	12-10/8	Pink



#### Crimp/Solder/Seal

Part #	Wire Gauge	Insulation
056144-25	22-18	Heat shrink
056145-25	16-14	Heat shrink
056146-25	12-10	Heat shrink





#### Heatless

Part #	Wire Gauge	Insulation
056111-5	22-18	Nylon
056111-100	22-18	Nylon
056112-5	16-14	Nylon
056112-100	16-14	Nylon
056113-5	12-10	Nylon
056113-100	12-10	Nylon

**E25** 

#### **TERMINALS AND CONNECTORS**

#### **Spade Connectors**









#### Crimp/Seal



Wire Gauge	Crimp Part #	Stud Size, Insulation	Crimp Part #	Stud Size, Insulation
22-18	056043-50	8-10, Vinyl	056046-50	4-6, Vinyl
22-18	-	-	058345-50	6, Nylon
22-18	-	-	055114-10	6, Nylon
22-18	-	-	055115-10	10, Nylon
16-14	056044-50	8-10, Vinyl	056047-50*	4-6, Vinyl
16-14	057082-50	8-10, Nylon	057084-50	4-6, Nylon
16-14	-	-	055125-10	10, Nylon
12-10	056045-50	8-10, Vinyl	055135-10	10, Nylon
12-10	057083-50	8-10, Nylon	-	-

Part #         Wire Gauge         Stud Size           058309-50         22-18         8-10           055078-10         22-18         6           055079-10         22-18         10           058335-50         16-14         6           058310-50         16-14         8-10           058336-50         16-14         1/4"           055080-10         16-14         6           055081-10         16-14         10           058311-50         12-10         8-10           058337-50         12-10         1/4"			
055078-10         22-18         6           055079-10         22-18         10           058335-50         16-14         6           058310-50         16-14         8-10           058336-50         16-14         1/4"           055080-10         16-14         6           055081-10         16-14         10           058311-50         12-10         8-10	Part #		
055079-10         22-18         10           058335-50         16-14         6           058310-50         16-14         8-10           058336-50         16-14         1/4"           055080-10         16-14         6           055081-10         16-14         10           058311-50         12-10         8-10	058309-50	22-18	8-10
058335-50     16-14     6       058310-50     16-14     8-10       058336-50     16-14     1/4"       055080-10     16-14     6       055081-10     16-14     10       058311-50     12-10     8-10	055078-10	22-18	6
058310-50       16-14       8-10         058336-50       16-14       1/4"         055080-10       16-14       6         055081-10       16-14       10         058311-50       12-10       8-10	055079-10	22-18	10
058336-50     16-14     1/4"       055080-10     16-14     6       055081-10     16-14     10       058311-50     12-10     8-10	058335-50	16-14	6
055080-10     16-14     6       055081-10     16-14     10       058311-50     12-10     8-10	058310-50	16-14	8-10
055081-10         16-14         10           058311-50         12-10         8-10	058336-50	16-14	1/4"
058311-50 12-10 8-10	055080-10	16-14	6
	055081-10	16-14	10
058337-50 12-10 1/4"	058311-50	12-10	8-10
	058337-50	12-10	1/4"
055082-10 12-10 10	055082-10	12-10	10
055083-10 12-10 1/4"	055083-10	12-10	1/4"

#### Crimp/Solder/Seal

Part #	Wire Gauge	Stud Size
056155-25	22-18	10
056156-25	16-14	10
056157-25	12-10	10



Snap Termin	als and	Connecto	ors
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Plugs butted seam



Receptacles butted



Spades -



Receptacles



Wire Gaug	Part #	Snap Dia. Insulation	Part #	Snap Dia. Insulation	Part #	Stud Size Insulation	Part #	Snap Dia. Insulation
22-18	058338-50	0.156", Nylon	056076-50	0.156", Nylon	-	-	056080-50	0.1 <i>57</i> ", Vinyl
16-14	1 058340-50*	0.156", Nylon	056078-50	0.156", Nylon	057092-50	8, Vinyl	-	-

#### **Male/Female Bullet Connections**

Part #	Wire Gauge	Туре	Insulation
055104-10	16-14	Male	Nylon
055105-10	16-14	Female	Nylon
055116-10	22-18	Male	Nylon
05511 <i>7</i> -10	22-18	Female	Nylon
055126-10	16-14	Male	Nylon
055127-10	16-14	Female	Nylon



#### **TERMINALS AND CONNECTORS**

#### **Ring Tongue Connectors**



Crimp

Wire Gauge	Crimp Part #	Stud Size, Insulation
22-18	056001-50	4-6, Vinyl
22-18	056002-50	8-10, Vinyl
22-18	056003-50	12-1/4", Vinyl
22-18	055109-10	6, Nylon
22-18	055110-10	10, Nylon
22-18	055111-10	1/4", Nylon
22-18	055112-10	5/16", Nylon
22-18	055113-10	3/8", Nylon
16-14	056004-50	4-6, Vinyl
16-14	057075-50	4-6, Nylon
16-14	057076-50*	8-10, Nylon
16-14	056006-50*	12-1/4", Vinyl
16-14	057077-50	12-1/4", Nylon
16-14	056007-50*	5/16"-3/8", Vinyl
16-14	057078-50	5/16"-3/8", Nylon
16-14	055120-10	6, Nylon
16-14	055121-10	10, Nylon
16-14	055122-10	1/4", Nylon
16-14	055123-10	5/16", Nylon
16-14	055124-10	3/8", Nylon
12-10	056008-50*	8-10, Vinyl
12-10	057079-50	8-10, Nylon
12-10	056009-50*	12-1/4", Vinyl
12-10	057080-50	12-1/4", Nylon
12-10	056010-50	5/16", Vinyl
12-10	057081-50	5/16", Nylon
12-10	056011-50*	3/8", Vinyl
12-10	056012-50	7/16"-1/2",Vinyl
12-10	055130-10	10, Nylon
12-10	055131-10	1/4", Nylon
12-10	055132-10	5/16", Nylon
12-10	055133-10	3/8", Nylon
12-10	055134-10	1/2", Nylon



Hooked tongue butted seam

Wire Gauge	Crimp Part #	Stud Size, Insulation
16-14	056049-50	4-6, Vinyl



Brazed seam

Wire Gauge	Crimp Part #	Stud Size, Insulation
8	058349-50	8-10, Nylon
8	058350-50	12-1/4", Nylon
8	058351-50	5/16"-3/8", Nylon
8	058352-50	7/16"-1/2", Nylon
6	058353-50	12-1/4", Nylon
6	058354-50	5/16"-3/8", Nylon
6	058355-50	7/16"-1/2", Nylon
4	058356-50	12-1/4", Nylon
4	058357-50	5/16"-3/8", Nylon
4	058358-50	7/16"-1/2", Nylon

#### NOTES

Dash - "x" indicates package qty

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<sup>\*</sup> Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number

#### **TERMINALS AND CONNECTORS**

#### **Ring Tongue Connectors**

Continued

#### Crimp/Seal



Part #	Wire Gauge	Stud Size
058334-50	22-18	6
058301-50	22-18	8-10
055064-10	22-18	6, 8, 10
055084-10	22-18	6
055085-10	22-18	8
055086-10	22-18	10
055087-10	22-18	1/4"
055088-10	22-18	5/16"
058302-50	16-14	4-6
058303-50	16-14	8-10
058304-50	16-14	1/4"
058305-50	16-14	5/16"-3/8"
055065-10	16-14	6, 8, 10
055089-10	16-14	8
055090-10	16-14	10
055091-10	16-14	1/4"
055092-10	16-14	5/16"
055093-10	16-14	3/8"
058306-50	12-10	8-10
058307-50	12-10	1/4"
058308-50	12-10	5/16"-3/8"
055066-10	12-10	6, 8, 10
055094-10	12-10	10
055095-10	12-10	1/4"
055096-10	12-10	5/16"
055097-10	12-10	3/8"

### Pig Tails



Wire Gauge	Part #	Insulation
22 - 18	056184-50*	Nylon
16 - 14	056185-50*	Nylon
12 - 10	056186-50*	Nylon

#### Crimp/Solder/Seal



Part #	Wire Gauge	Stud Size
056147-25	22-18	10
056149-25	16-14	1/4"
056150-25	16-14	3/8"
056151-25	12-10	10
056152-25	12-10	1/4"
056153-25	12-10	3/8"
056154-25	12-10	1/2"

#### **NOTES**

Dash - "x" indicates package quantity

\*Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number

#### **Three and Four Way Connectors**





Wire Gauge	Four-Way #	Insulation	Three-Way #	Insulation
22 - 18	058346-10	Vinyl	058363-10	Vinyl
16 - 14	056084-10	Vinyl	056082-10	Vinyl
12 - 10	-	-	056083-10	Vinyl

Three-way

butted

### Wire Nuts



Part #	Size	Color
058364-50	71B	Grey
058365-50	72B	Blue
058366-40	73B	Orange
058367-10	74B	Yellow





Self strip connector

Part #	Wire Gauge
056093-50*	18-14
056094-10	12-10 Run, 18-14 Tap



#### TERMINALS AND CONNECTORS

Part #

058315-40

058316-40

058317-10

055118-10

055128-10

055136-10

#### Male Quick Slide Terminals And Connectors - Tab Width .250"



Butted seam fully insulated



**Butted** seam

#### Crimp/Seal

Wire

Gauge

22-18

16-14

12-10

22-18

16-14

12-10



Insulation

Ht Shrink

Ht Shrink

Ht Shrink

Nylon

Nylon

Nylon

Wire Gauge	Part #	Insulation	Part #	Insulation
22-18	056069-50	Nylon	056063-50	Vinyl
22-18	055098-10	Nylon	-	-
16-14	056070-50	Nylon	056064-50*	Vinyl
16-14	-	-	057090-50	Nylon
16-14	055100-10	Nylon	-	-
12-10	056071-50	Nylon	056065-50*	Vinyl
12-10	-	-	057091-50	Nylon
12-10	055102-10	Nylon	-	-



Double male to female		6 b	0° Flag utted seam
056088-50	None	056086-50	None



Fully insulated

#### Crimp/Solder/Seal

Wire Gauge	Part #	Insulation
22-18	056169-25	Vinyl
16-14	056159-25	Vinyl
12-10	056164-25	Vinyl

#### Female Quick Slide Terminals And Connectors - Tab Width .250"



Butted seam fully insulated



T-tap self stripping



**Butted** Seam

Wire Gauge	Part #	Insulation	Part #	Insulation	Part #	Insulation
22-18	056066-50	Nylon	058347-40	Nylon	056060-50	Vinyl
22-18	055099-10	Nylon	-	-	-	-
16-14	056067-50*	Nylon	057096-40	Nylon	056061-50*	Vinyl
16-14	055101-10	Nylon	-	-	057088-50*	Nylon
12-10	056068-50*	Nylon	058348-40	Nylon	056062-50*	Vinyl
12-10	055103-10	Nylon	-	-	057089-50	Nylon





Wire Gauge	Part #	Insulation
22-18	058318-50	Ht Shrink
22-18	055119-10	Nylon
16-14	058319-50	Ht Shrink
16-14	055129-10	Nylon
12-10	058320-10	Ht Shrink
12-10	055137-10	Nylon

#### Crimp/Solder/Seal



Fully insulated



**Butted** Seam

Wire Gauge	Part #	Insulation	Part #	Insulation
22-18	056165-25	Ht Shrink	056168-25	Vinyl
16-14	056166-25	Ht Shrink	056158-25	Vinyl
12-10	056167-25	Ht Shrink	056160-25	Vinyl

NOTES

Dash- "x" indicates package qty

\* Clam shell with quantity of ten (10) also available by adding "-10" to the base six digit number

#### **TERMINALS AND CONNECTORS**

#### **Terminal Kits**

- Convenient, pre-packaged terminal assortments
- Durable, see-through plastic cases with handy "locator" cards are easy to identify and refill
- Multi-functional kits can be displayed on the front counter to attract the impulse sale of single terminals or used as mini storage system

#### **Solderless Terminal Kit**

• 195 total fittings

175 10	idi illiligs	
Part #	Description	Qty.
057085	22-18 ga. Butt conn	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

Part #	Description
056096	Kit with crimping tool
056097	Kit without crimping tool

Part #	Description
056107	Solderless terminal kit
056108	Heat-shrink terminal kit
056109	Electrical connector kit

#### **Heat Shrink Terminal Kit**

132 total fittings

Part #	Description	Qty.
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. F. quick slide	6
058316	16-14 ga. F. quick slide	6
058317	12-10 ga. F. 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



NOTE: Terminals also sold separately on pages E24-E28. Tie straps sold separately on page E35. Crimping tool sold separately on page E37



#### **Electrical Connector Kit**

• 170 total fittings

Part #	Description	Qty.
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 dip	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

Part #	Qty.	Part #	Qty.
056002	20	056044	20
056004	20	056047	20
056005	20	058340	20
056006	20	056078	20
056061	20	056093	20
056064	20	056050	20
056067	20	056051	20
056070	20	056052	20
056009	20	056053	20
056011	20	056186	20
056014	20		



#### **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 #	Wire Gauge	Spool Size	Color
051101	18	100'	Black
051103	18	100'	Red
051105	18	100'	White
051117-6	16	1000'	Black
051121-6	16	1000'	Red
051123-6	16	1000'	White
051119-6	16	1000'	Green
051117	16	100'	Black
051121	16	100'	Red
051123	16	100'	White
051125	16	100'	Yellow
051127	16	100'	Blue
051129	16	100'	Brown
051119	16	100'	Green
051135-6	14	1000'	Black
051139-6	14	1000'	Red
051141-6	14	1000'	White
051143-6	14	1000'	Yellow
051145-6	14	1000'	Blue
051147-6	14	1000'	Brown
051137-6	14	1000'	Green
051135	14	100'	Black
051139	14	100'	Red
051141	14	100'	White

	20.00		_
Part #	Wire Gauge	Spool Size	Color
051143	14	100'	Yellow
051145	14	100'	Blue
051147	14	100'	Brown
051137	14	100'	Green
051157-7	12	500'	Red
051159-7	12	500'	White
051161-7	12	500'	Yellow
051163-7	12	500'	Blue
051155-7	12	500'	Green
051153	12	100'	Black
051157	12	100'	Red
051159	12	100'	White
051161	12	100'	Yellow
051163	12	100'	Blue
051165	12	100'	Brown
051155	12	100'	Green
051175-7	10	500'	Black
051171-7	10	500'	Red
0511 <i>77-7</i>	10	500'	White
051175	10	100'	Black
051171	10	100'	Red
0511 <i>77</i>	10	100'	White
051173	10	100'	Blue



#### **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 #	Description
691015	Primary wire rack



#### **SPIRAL WRAP**

- Replace worn or damaged 3-in-1 or 4-in-1 air/electrical assembly wrap
- Use to protect or bundle jumper lines, slider hoses, ABS lines, hydraulic hoses and more
- Prevents tangling and potential damage to lines
- Various sizes allow for customized bundle combinations

100' Coil	Diameter
020078	1.25"
020079	1.50"
020080	2"



#### **SPLIT LOOM**

#### **Convoluted Split Loom**

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

100' Coil	250' Coil	Loom I.D.
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"



NOTE: Part numbers listed in RED are NEW!



Call the Velvac Sales Team: 800.783.8871

sales@velvac.com

#### **PRIMARY WIRE AND ACCESSORIES**

### Gray Jacketed Parallel Wire

Part #	Wire Gauge	Spool Size
051050	16	100'
051058	14	100'
051066	12	100'
051050-7	16	500'
051058-7	14	500'



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

Part #	Wire Gauge	Conductor	Wire Color	Spool Size
051052	16	Three	Brown-Green-Yellow	100'
051060	16	Three	Brown-Green-Yellow	100'
051054	14	Four	Brown-Green Yellow-White	100'
051062	14	Four	Brown-Green Yellow-White	100'

#### **NOTES**

See page E8 for ATA color code description
\* Round wire glued together







#### **HEAT-SHRINK TUBING**

### **Heavy Wall Heat-Shrink Tubing With Liner**



Part #	Wire Gauge	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	8-1	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"

- 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 E38 for heat gun recommended heat range is 250°F (120°C) to 485°F (250°C)

#### **NOTES**

See next page for more heavy wall heatshrink tubing with liner

#### **HEAT-SHRINK TUBING**

#### **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 E38 for heat gun recommended heat range is 250°F (120°C) to 485°F (250°C)



Part #	Wire Gauge	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"

#### 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



Part #	Wire Gauge	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"
0 <i>57</i> 11 <i>7</i> -10	-	6"	Red	1.00"	.500"

**NOTES** 

Dash - "x" indicates package quantity

#### Thin Wall Heat-Shrink Tubing

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

Part #	Description
057131	3/16" I.D., Red
057132	1/4" I.D., Blue
057133	5/16" I.D., Yellow

Packaged in 8' rolls - one roll per disk pack





#### **HEAT-SHRINK TUBING**

### **Heat-Shrink Tubing Kits**

- 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 find items and refill

• 36 total fittings

Part #

057060

057059

057058

057074

057073

057158

Part #	Description
057110	Heavy wall heat-shrink tubing kit
057111	Thin wall heat-shrink

### Heavy Wall Heat-Shrink Tubing Kit Thin Wall Heat-Shrink Tubing Kit

86 total fittings

Pieces	Description	Part #	Pieces	Description
4 pcs	1.10" Black	057112	36 pcs	3/16" Black
4 pcs	.750" Black	057113	24 pcs	1/4" White
10 pcs	.400" Black	057114	12 pcs	3/8" Red
4 pcs	1.10" Red	057115	6 pcs	1/2" Black
4 pcs	.750" Red	057116	4 pcs	3/4" White
10 pcs	.400" Red	057117	4 pcs	1" Red





057111

#### TIE STRAPS, GROMMETS AND WIRE CLIPS

#### **Cable Tie Straps**

Stand. Part #	BK UV Tie Part #	Length	Min. Diam	Max. Diam	Min Ten. Strength	Stud Size
090002-100	090064-100	5"	1/16"	1-1/4"	30 lb	-
090004-100	090067-100	7"	1/16"	1-3/4"	50 lb	10
090006-25	090070-25	14"	3/16"	4"	120 lb	-
090010-25	090071-25	14"	3/16"	4"	120 lb	14
090014-100	090066-100	7"	1/16"	1-3/4"	50 lb	-
090016-100	090068-100	14"	1/16"	4"	50 lb	-
-	090030-50	24"	-	-	175 lb	-
-	090029-50	36"	-	-	175 lb	-



090014, 090066 090016, 090068 090030, 090029

**NOTES** Dash "-xxx" indicates package quantity

#### TIE STRAPS, GROMMETS AND WIRE CLIPS

#### **Rubber Grommets**

Part #	A	В	С	D	E
021059	9/16"	7/16"	5/16"	3/16"	1/16"
021061	1-3/8"	1"	1/2"	1/2"	1/8"
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 #	Description
021070	Nylon grommet

#### **Tube Clips**



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

Part #	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"
02101 <i>7</i>	1"	1/4"
021019	1-1/4"	5/16"

#### **Wire Clips**



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

Part #	Description
021021	1/4" Wire clip
021023	1/2" Wire clip

#### **Rubber Cushioned Clamps**



Clamp Diam.	3/8" Mount Screw, 5/8" Wide Part #	1/4" Mount Screw, 1/2" Wide Part #
1/4"	021102	021114
3/8"	021103	021115
1/2"	021104	021116
5/8"	021100	021117

Clamp Diam.	3/8" Mount Screw, 5/8" Wide Part #	1/4" Mount Screw, 1/2" Wide Part #
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	-



#### **SHOP TOOLS AND ACCESSORIES**



#### **Work Lights**

- Incandescent light includes grounded metal swing-open bulb guard and 25' 16/3 outdoor all-weather power cord (cord remains flexible in subzero temperatures to -20°F)
- 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 #	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 #	Description	
058026	Deluxe crimping tool	



#### **Economy Crimping Tool**

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

ı	Part #	Description	
ſ	058030	Economy crimping tool	



- Fluorescent light features new 3
  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 needed for easy bulb replacement means it's cool and energy efficient
- Includes 13 watt fluorescent twin tube

Part #	Description
057125	Light - 13 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 #	Description	
058171	Heavy-duty crimping tool	
058172	Replacement left jaw	
058173	Replacement right jaw	



#### 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 #	Description
057124	Light - 15 Watt



#### **Copper Cable Cutter**

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

Part #	Description
057072	Copper cable cutter



#### **Compact Cable Cutter**

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

Part #	Description	
057071	Compact cable cutter	

#### **SHOP TOOLS AND ACCESSORIES**



#### **Heat Gun**

- Produces temperatures from 750° to 1100°F
- Built-in circuit breaker and three position switch (Hot/Off/Fan only)

Part #	Description
058160	Heat gun



### 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 #	Description
057128	50' Extension cord



#### 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

Part #	Tape Thickness	Roll Size
058382	7 mil	3/4" x 60'



- Retractable 25' 16/3 cord rated at 10 amps, 125 VDC
- Housing constructed of high impact plastic with 4 builtin grounded outlets, 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 #	Description
057126	25' Cord reel



#### **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 with built-in carrying handle
- Includes quick release wall/ceiling mounting bracket for portability
- LASCO Truck Parts

	Description
057127	50' Cord reel



#### Silicon Self-Fusing Tape

- 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: -85° to +500°F
- Packaged in clamshell, 1" wide, 20' long rolls (qty 1 per clamshell)

Part #	Color	Description
058380*	Black	Self-fusing tape
058381*	Red	Self-fusing tape

\*Add -4 to the part number for 10 piece bucket display in Retail section

