



# ELECTRICAL CONTROLS APPLICATION GUIDE

For Trucks, Bus, Off-Road, Recreational Vehicles, Marine, Agricultural, Emergency Vehicles and Automobiles



Since 1909, Pollak® has provided the transportation industry with innovative designs, reliable manufacturing, high quality standards, competitive pricing and low life cycle costs. More than 1,000 employees located in three manufacturing locations totaling approximately 250,000 square feet of design, test and production space are now providing custom and standard components to OEM's and aftermarket suppliers in automotive, light, medium and heavy duty truck, agricultural, construction equipment, marine and related industries. Pollak® excels in its ability to design and manufacture from the concept stage through manual, semi-automatic and fully automated, high volume production. Pollak® is a certified ISO9001/QS9000 manufacturer and has also earned Q1 preferred status at Ford, General Motors' Mark of Excellence, Chrysler's Gold Pentastar, Navistar V and similar rankings with PACCAR, Freightliner, John Deere, Case, Caterpillar, Borg-Warner and other respected OEM's.





For senior design engineers at major OEM's, the operator of a heavy duty truck or the weekend camper, the name Pollak® has always symbolized technology and quality.

# **ELECTRICAL CONTROLS**





PollakAftermarket.com

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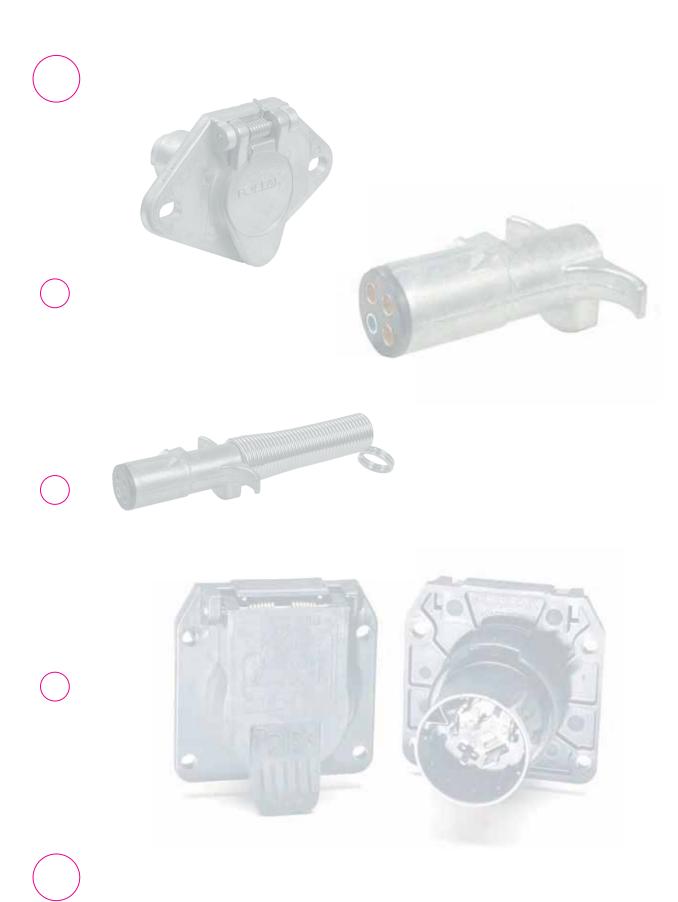
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#### **WARRANTY**

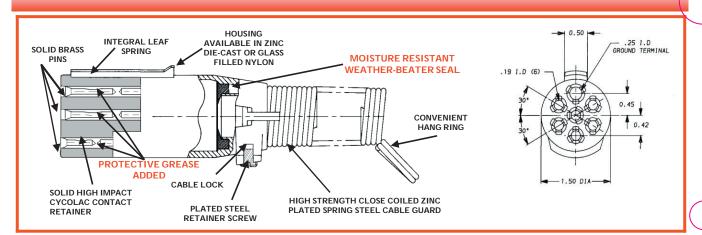
Our products are warranted to be free of manufacturing defects for one (1) year after date of manufacture. Buyer's exclusive remedy and seller's sole liability hereunder shall be limited to refund of the purchase price or replacement of product shown to be other than as warranted. Conditions resulting from misuse, negligence, accident or improper installation, maintenance or application shall absolve seller of all liability. The foregoing constitutes the sole warranty of Pollak® with respect to its products and is in lieu of all other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. In no event shall Pollak® be liable of consequential or special damages.

The product information published in this catalog is subject to change without notice. Changes to materials, finishes, technical specifications and other product characteristics may be necessary at our discretion. It is the buyer's responsibility to determine the suitability of the Pollak® device for its application. Pollak® makes no warranties, and assumes no liability as to the suitability or sufficiency for buyer's application of the device.

# CONNECTORS & ADAPTERS



# 7-POLE PLUGS



#### ZINC **DIE-CAST**

#### **GLASS** FILLED NYLON

#### 11-910 11-902 Weather-Weather-Beater Beater Plug Plug with Cable with Cable Guard Guard 11-702 11-710 Standard 7-Pole Standard 7-Pole Plug with Cable Plug with Cable Guard Guard 11-900 Weather-Beater Plug 11-700 Standard 7-11-704 Pole Plug Standard 7-Pole Plug 11-904 Weather-Beater

#### Insertion and Pull-Out Reauirements

- Meets and exceeds all standards of SAE J560.
- Floating pins for ease of alignment and maximum contact.
- Will accept the widest range of wire gauges, from #16 wires to #8 ground wire.
- Tapered design fits comfortably and conveniently for easy hand-position pull. Jumbo finger pull grips and two hang-up
- High-impact cycolac interior with extended lip for easy removal and replacement.
- Solid brass terminal screws.
- 40 amps continuous duty @ 6-28 VDC.
- WeatherBeater seal accommodates .450 minimum wire diameter.

NOTE: Pollak's® Terminal Pins are machined from solid brass bar stock unlike some competitors that provide unplated terminal pins stamped from sheet metal. Brass terminals ensure minimum voltage drop and dielectric grease protects against corrosion and resistance.

NOTE: Pollak's ® 7-Pole connectors are manufactured from quality materials and will help reduce maintenance cost and down-time associated with electrical failures

#### **ACCESSORIES**

Plug

#### 11-762

Rubber Boot Seals against dust and moisture, 2.5" long. For .460-.720 dia. cable, fits 11-852, 11-700, 11-900, 11-704, 11-904

#### 11-763

Cable Guard Plated steel, 3.56" long, fits 11-700, 11-704, 11-900, 11-904, and 11-852

## 11-764

screw.

Plug interior for 11-700,11-702,11-704, 11-710,11-900,11-902, 11-904,11-910. Supplied with mounting





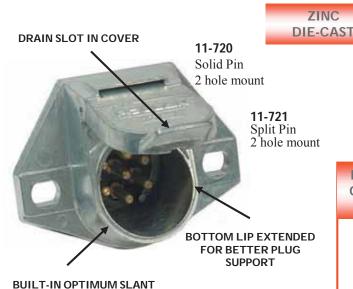


# **7-POLE SOCKETS**

- Meets and exceeds all standards of SAEJ560 (SAE applies only to solid pins)
- Floating pins for ease of alignment and maximum contact.
- Optimum slant mount and drain slot rid housing interior of accumulated moisture.
- Will accept the widest range of gauges from #16 wires to #8 ground wire. Ground Terminal Pin #1 will accept #14 gauge min. to #8 gauge max. Other terminals will accept #16 gauge min. to #10 gauge max.
- 40 Amps continuous duty @ 6-28 VDC.
- Self grounded. (Zinc Die-Cast Units Only) to #1 Ground Terminal.
- Stainless steel spring.
- Recommended Mounting Hole is 2" diameter
- Interchangeable with competitive makes.

No.	Color	Wire Gauge	FMVSS- 121 Anti- Lock Gauge	Circuit
1	White	10	8	Ground Return
2	Black	12	12	Clearance, Side Marker and Identification Lamps
3	Yellow	12	12	Left Turn & Hazard Signal
4	Red	12	10	Stop Lamps & Anti-Lock Devices
5	Green	12	12	Right Turn Signal & Hazard Signal
6	Brown	12	12	Tail, Rear Clearance Marker, License Plate Lamp
7	Blue	12	12	Auxiliary Circuit / ABS Power

#### **WIRE INSERTION STYLE SOCKETS**



1 S 3

**11-729** Solid Pin 3 hole mount

11-730 Split Pin 3 hole mount

POLLA/GLASS GLASS FILLED NYLON

**11-724**Nylon socket Split Pin

11-723 Nylon socket Solid Pin



#### **ACCESSORIES**

11-761
7 Pole Socket
Rubber Socket Boot
for 11-720,11-721, 11723, 11-724, 11729,11-730 and 11851; seals against dust
and moisture, 1.5"
long. For .460-.720
diameter cable.

FOR DRAINAGE



11-780
Neoprene rubber gasket for 3 hole mount die-cast sockets. May be used as template
11-773

Same as 11-780 except for 2 hole mount sockets.



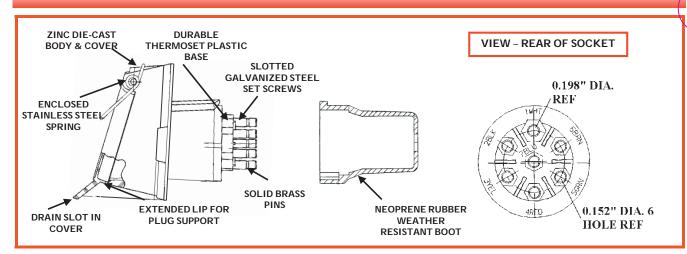
**11-771**7-Pole Socket bracket.
Fits all 7-Pole Sockets including 11-851.



11-777 Hardware Kit for 7-Pole Plugs (except RV)

11-781 Hardware Kit for 7-Pole Zinc Die-Cast Socket 11-779 Hardware Kit for 7-Pole Molded Pollak/Glass Sockets

# **7-POLE SOCKETS**



#### RING TERMINATION STYLE SOCKETS

#### 11-785

Same as 11-720 except with rear threaded terminals for ring terminals. Solid Pins.

<u>Note:</u> For some applications ring terminals provide a better mechanical connection than set screws when properly installed.

#### BULLET TERMINATION STYLE SOCKETS

#### 11-786

Bullet-Style solid brass terminals for push-on terminals. Will accept straight or "right angle" terminals. Extended hinge pin and external spring for increased closure force.



#### 11-797

Same as 11-786 except without extended hinge pin and external spring. Solid Pins

**11-833** (Not Shown) Same as 11-797 except with glass filled nylon shell and lid

#### ISO TYPE CONNECTORS

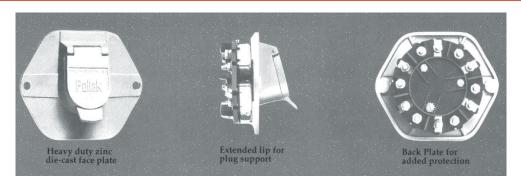
12-812 ISO 7-Way Connector Socket





**12-811** ISO 7-Way Plug with cable guard

# 7-POLE SOCKETS WITH REPLACEABLE CIRCUIT BREAKERS



Base plate and back plate made from rugged glass filled nylon to resist breaking. Bottom lip has been extended to allow for better plug and cable support. Drain hole has been incorporated into the housing to allow accumulated moisture to escape. Will accept the widest range of wire gauges from #14 wire to #8 ground wire. Will accept all plugs conforming to SAE J560 specifications. Ground may be tied to any screw mounting the rear terminal plate. Designed to provide easy serviceability of circuit breakers. Recommended that positive feed be attached to auxiliary post on circuit breaker.

#### WIRE INSERTION STYLE

**11-732** Solid Pin

11-733

Split Pin



Standard socket adapted to circuit breaker mounting plate without breakers. For use as a replacement of original equipment when circuit breaker protection is not required.

#### RING TERMINATION STYLE

(Not shown) 11-796 Split Pin Metal Circuit
Breaker

Plastic Circuit
Breaker

Glass filled nylon nose box offers more durability and weight saving features. Replaces old style heavy weight metal boxes which can cause short circuits.

Amperage	Pin Type	Part No.	Replacement Circuit Breaker Metal Housing	Replacement Circuit Breaker Plastic Housing
15	Split	11-735	54-115	*
20	Solid	11-736	54-120	54-120PL
20	Split	11-737	54-120	54-120PL
30	Split	11-739	54-130	54-130PL

#### **COMPONENT PARTS**

Part No.	Description
11-801	Adapter Housing Gasket
11-802	Adapter Housing (Includes Grommet and Screws)

#### 11-801

Adapter Housing Mounting Gasket provides weather resistant protection against rain and snow.

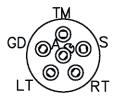


11-802 Adapter Housing



# 6-POLE CONNECTORS

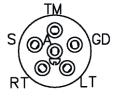
#### 6-POLE SOCKET



(Auxiliary in center)

Number	Color	Circuits	
GD	White	Ground Return	
TM	Brown	Tail Lights	
LT	Yellow	Left Turn	
S	Red	Stop and/or Electric Brake	
RT	Green	Right Turn	
А	Blue	Auxiliary Circuit (Center)	

#### 6-POLE **PLUG**



(Auxiliary in center)

Three socket versions to choose from: Exposed terminals, Rubber

boot coverage, or Die-Cast shell coverage. High impact plug

terminal pins for best conductivity,

terminals accept up to #12 gauge

without cable guard. Replaceable

mounting holes on 6-Pole sockets.

2-7/8" diameter on center. Mounts

maintenance costs. Plated steel cable guard prevents cable

chafing. Two 1/4" diameter

through 1-3/8" diameter hole.

wires. Plug available with or

plug interior helps reduce

interiors keyed for proper

assembly. Machined brass



11-604 Plug, no

cableguard 11-605

Plug with cableguard





11-609 Socket, Concealed **Terminals** 

#### Complete Assemblies (Plug and Socket) Part No Plug Socket 11-600 11-604 11-607 11-602 11-604 11-608 11-603 11-604 11-609

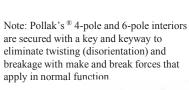
11-603 Assembly incorporates concealed terminals on socket side for exterior mounting. Recommended for RV and flat bed trailer use.



11-607 Socket, exposed terminals



11-614 Black Plastic Socket with metal lid





11-613 Connector Plug Chrome Plated



#### **ACCESSORIES**

6-Pole all Plastic

Socket with

rubber boot

#### 11-627

Connector Bracket Designed to fit under the trailer tongue, ball, or 2-hole frame mounting. Heavy gauge with black zinc coating for protection against rust and corrosion. Fits connectors 11-400, 11-408, 11-500, 11-600, 11-603, and 11-614.

#### 11-617

Same at 11-627 except without black zinc coating 4-way or 6-Way Sockets. for protection against rust and corrosion

12-720



#### 11-647

Connector Bracket for Heavy gauge with black zinc protective coating.



#### 11-606 Plug interior



11-616 Rubber Boot for 11-607 and 11-614 Sockets

# 4 & 5-POLE CONNECTORS

#### 4-POLE SOCKET



#### **4-POLE PLUG**



4-POLE POS	5-POLE POS	Color	Circuits
W	1	White	Ground Return
G	5	Green	Right Turn & Brake Lights
Y/R	3	Yellow or	Left Turn &
	4	Red	Brake Lights
В	2	Brown	Tail Lights

# 

#### 4-POLE CONNECTORS - 12-24 Volts, 35 Amp.

- Zinc Die-Cast 4-pole unit incorporates many new and improved features.
- Extended exterior and socket conceals terminals.
- Unique cable clamp prevents chafing, gives more cable support, and saves installation time.
- Integral finger grips for positive pull, difficult to shakes loose.
- Stainless steel spring.
- Dust and water resistant.
- Polarized for proper wiring
- Terminals accept up to #12 gauge wire.
- Two 1/4" diameter mounting holes on 4-pole sockets. 2-7/8" on center. Mounts through 1-3/8" diameter hole.

#### Interchangeable with competitive brands.

#### 11-402

Plug, no cable guard





11-403
Plug with cable guard



#### 4-POLE CONNECTORS - Chrome Plated, 12-24 Volts, 20 Amp

- Polarized design.
- Chrome Plated Die-Cast Zinc. with high impact insulators and split brass contacts.





11-410 Connector socket



11-408 Consists of 11-409 Plug and 11-410 Socket

#### 5-POLE CONNECTORS – 12-24 Volts, 15 Amps

- Polarized design.
- Chrome plated zinc housing with spring loaded cover.
- Durable interiors.
- Split brass contact for maximum current carrying capacity.
- Mounting holes 1 3/4" diameter on centers.



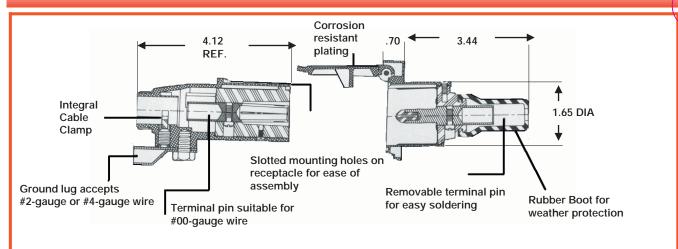
11-502 Connector socket



Consist of 11-501 Plug and 11-502 Socket

Connector plug

# SINGLE POLE CONNNECTORS



This rugged Single-pole
Connector has a continuous
duty capacity of 300 amps,
and is ideal for many power
applications on trucks,
agricultural equipment,
utility vehicles, winches, light
air-craft ground equipment,
etc. The connector is
interchangeable with
competitive brands.

Provides power for auxiliary equipment from battery.





#### TWO POLE CONNECTORS

#### 12-801

2 Pole Socket, 200 Amp service. One pole positive, one pole negative. Terminals accept 4 gauge cable.



#### 12-800

2 Pole Plug with cable guard. 200 Amp Service. One pole positive, one pole negative. Terminals accept 4 gauge cable.

# **CONNECTOR ASSEMBLIES**

12-24 Volts 20 Amp. Polarized design with high impact interior and split brass contacts for a perfect fit to ensure maximum current carrying capacity. Outer sleeves are unaffected by ozone or weather.







4-Pole Complete Assembly 12-24 Volts, 20 Amp





Car End Trailer End

11-200

2-Pole Complete Assembly 12-24 Volts, 20 Amp

#### **AUTOMOTIVE, MARINE, RECREATIONAL VEHICLES, TRUCKS**

12 Volts, 15 Amps. Molded Inline connectors (Flat Type) are an economical means of connecting electrical systems. Wires are color coded for easy installation. Standard 18 gauge automotive wire, 12 " wire length, except where noted. Polarized design to insure proper connection. Molded case offers all-round weather protection.



2-Pole Complete Assembly, 18 gauge wire.



4-Pole Complete Assembly, 18 gauge wire.



4-Pole Complete Assembly with 48" wire leads of female (car) side. 12" leads on male (trailer) side

# 6-Pole Complete Assembly 18 gauge wire.

#### **SQUARE TYPE**



6-Pole Complete Assembly with 48" wire leads on female (car) side. 12" leads on male (trailer) side.



12-600

12-300 3 Way Male to Female 12" Loop



12-400: 4 Way Boot Cap

**12-401:** 4 Way Flat Female 12" **12-425:** 4 Way Flat Female 48"



**12-500: 5** Way Flat Female 60"



**12-501: 5** Way Flat Male 60"



12-421: 4 Way Flat 12" Loop **12-412:** 4 Way Flat 24" Loop

**12-422:** 4 Way Flat 36" Loop **12-423:** 4 Way Flat 48" Loop

**12-413:** 4 Way Flat 60" Loop

**12-414:** same as 12-413 with boot covers (all parts above are 4 Way Male to Female)



**12-418:** 4 Way Flat Male 12" **12-424:** 4 Way Flat Male 48"

**12-419:** 4 Way Flat Male 12" Wishbone **12-405:** 4 Way Flat Male 24" Wishbone

**12-415:** 4 Way Flat Male 36" Wishbone

**12-417:** 4 Way Flat Male 48" Wishbone 12-402: 4 Way Flat Female 48" Wishbone

# 7-Pole RV Style Socket



11-893 - RV Socket 12V, 30 Amps



12-711U Mounting Bracket



11-998 Interlocking mating connector to the 11-893 Socket and 4' Harness.

- Pollak's® sealed RV socket is designed to be dependable in one of the harshest mounting environments for an electrical device - an exposed external mounting under the rear bumper of a sport utility or pickup truck. This connector design continues to earn the distinction of becoming the industry standard.
- Manufactured from high-impact nylon that solves corrosion problems and eliminates rusting when mated with special interlocking sealed connector.
- Socket lid features stainless spring and runner gasket to guarantee against moisture intrusion when closed. Socket lid also designed with slot to prevent sand and dirt from impairing closure and lid has wiring diagram on cover to facilitate installation.
- Socket lid also has a drain slot and is angled down for drainage.
- Terminal pins are tin plated copper alloy providing higher conductivity and less resistance and are sealed at the back of socket with silicone sealant to prevent moisture from making contact with mating connector.
- Fits Ford style and new universal Pollak® 12-711U mounting bracket for other OEM applications – Includes mounting hardware.

#### **SOCKET KITS**

&

#### 7-Pole RV Style Socket

#### 11-898P

Includes 11-893 Socket, 12-711U Bracket, Interlocking Connector and 4' Harness assembly with 0.5" convoluted tubing, and 7-wire leads color coded to RVI Standard (SHOWN)

#### 11-990P

Includes 11-893 Socket and 12-711U Bracket NEW- Includes mounting hardware.



11-916

New 'twist and lock' socket, suitable as a

replacement for Pollak OEM sockets.

#### **ADAPTERS**

#### 11-933

Rectangular-To-Round Harness Adapter.

- Fits OEM Harnesses.
- Mates with Pollak<sup>®</sup> Socket 11-893 and 11-932P



11-893 Socket



11-938 Kit

#### 11-932

- T-Connector
- Adaptor for 5<sup>th</sup> Wheel & Bumper Mount Socket
- Quickly & Easily Installs a Second RV Socket
- Plug and Play without Splicing into OEM Harness
- Fits GM and Ford Trucks and SUV's
- Fits Chrysler Trucks when used with 11-933 Adapter
- Mates with Pollak® Socket 11-893







11-893 Socket & 11-932 T-Connector

#### 7-POLE CONNECTOR

Trailer End

12-706

12-705 Series (7-Pole Set) Black Pollak® Plastic

Complete Set (12-707E and 12-706E) 12-705E 12-706 Trailer-End Only Plug 12-707E Car-End Only Socket 12-709 12-705E Plug & Socket with 12-711U Bracket 12-712EV 12-707E with a 12-711U Bracket

Plastic connector set eliminates rusting, poor appearance and difficulty in plug removal. Design offers dual grips for ease of plug removal from socket and incorporates vinyl inserts to keep out dirt and moisture. Interior design prevents internal short-circuiting, and the safety latch prevents damage from accidental pull-away. Color coded to RVI standards



12-707E Car End

12-702 Trailer End

12-700 Series	(7-Pole Set) Metal
---------------	--------------------

12-700	12-703 Socket & 12-702 Plug
12-702	Trailer-End Only Plug
12-703	Car-End Only Socket
12-704	12-700 Plug & Socket with 12-701U Bracket
12-710	12-703 with a 12-701U Bracket

Traditional metal connectors. Heavily plated for maximum weather and corrosion resistance. Stainless steel cover spring. Jumbo welded pistol grip. Unique safety latch prevents damage from accidental pull-away. Specially designed vinyl inserts keep out dirt and moisture. Color coded to RVI standards.

#### RECOMMENDED WIRE GAUGE No. Color Gauge Description 1 White 10 Ground Return 2 Blue 12 Electric Brake 3 14 Tail, License and Running Lights 4 10 Black **Battery Charge** 5 14 Stop & Left Hand Turn Signal Red 6 14 Brown Stop & Right Hand Turn Signal 7 Yellow 14 **Auxiliary Circuit**

#### **UNIQUE INTERIOR DESIGN ELIMINATES SHORTING OUT-**

Non-corroding, shock-resistant interiors with unique terminal reinforcer dams that eliminate short circuiting by preventing contact from spreading. Center pin will take up to

8-gauge wire for battery charge system.



#### 9-POLE CONNECTOR

- Staking methods proven in long term usage. No possibility of molding compound contaminating contacts to cause "dead spots".
- Unique method of machining from solid bar (not stamping) and spring loading contacts give long trouble-free service. Over 1.5 million trucks utilize this type of heavy duty connector contacts.
- "Floating Pins" originating with POLLAK® and a standard for the trucking industry are self-aligning offering continuous wiping action and the most positive contact.
- Terminals designed for 2-8 gauge, 2-12 gauge and 5-14 gauge to new industry standard for minimum voltage drop.
- Contacts on BOTH trailer and car side spring loaded. Completely FIELD serviceable.

	RECOMMENDED WIRE GAUGE				
No.	No. Color Gauge		Description		
1	White	8	Ground Return		
2	Blue	12	Electric Brake		
3	Green	14	Tail, License and Running Lights		
4	Black	8	Battery Charge		
5	Red	14	Stop & Left Hand Turn Signal		
6	Brown	14	Stop & Right Hand Turn Signal		
7	Yellow	14	Back-Up, Auxiliary Ground or Circuit		
8	Gray	12	Auxiliary Circuit		
9	Orange	14	Reefer (Tag) or Stop		







Trailer End

12-905	Complete for towing vehicle and trailer side
12-906	Trailer Side
12-907	Towing vehicle side
12-701U	Bracket for towing vehicle

#### MOUNTING BRACKETS

Right Angle Mounting Brackets for: 11-893. 12-703, 12-707, 12-907 NEW – Includes #11-926 mounting hdwre.



12-711U Black Epoxy Coated for protection against rust and corrosion

12-701U Constructed of Heavy Gauge Steel. Same as 12-711U but without black epoxy finish.

# **Trailer Tow Accessories**

#### TRAILER WIRING TIPS

Avoid splices wherever possible \* Establish a solid electrical ground \* Maintain clean and weatherproof wire connections \* Make sure that the various wires and harnesses are free of stress and are not dragging or likely to be snagged

#### 12-717 Connector Adaptor (6-Pole to 4-Pole)

- Converts 6-Pole Round Connector to a 4-Pole molded connector.
- Quick and easy to connect.
- Non-corrosive nylon shell and insert.
- Eliminates makeshift jumpers.





#### 12-716 Connector Adaptor (7-Pole to 4-Pole)

- Converts 7-Pole Blade Connector to a 4-Pole molded connector.
- Allows one vehicle to tow either campers or boat trailers without electrical brakes.
- · Connects ground, L.T., R.T., and Stop Circuits.
- Tethered cap for protection from sand, dirt or moisture intrusion.
- Non-corrosive nylon shell and insert.
- Eliminates makeshift jumpers.

#### 12-744 Connector Adaptor (7-Pole to 5-Pole; not shown)

#### 12-718 Connector Flex Adaptor (7-Pole to 5-Pole)

- Converts 7-Pole Blade Connector to a 5-Pole molded connector.
- Allows one vehicle to tow either campers or boat trailers with electrical brakes.
- Quick and easy to connect.
- · Full-length plug shell insures positive latching.
- Non-corrosive nylon shell and insert.

#### 12-743 Connector Flex Adaptor (7-Pole to 4-Pole; not shown)

#### 12-719 & 12-729 Connector Adaptor (7-Pole to 6-Pole)

- Converts 7-Pole Blade Connector to a 6-Pole Round Connector Plug.
- Allows one vehicle to tow either campers or Utility trailers.
- Quick and easy to connect.
- Non-corrosive nylon shell and insert.
- 12-719 Adapter had brake pin in center of 6-Pole (Shown)
- 12-729 Adapter has auxiliary pin in center of 6-Pole

#### 11-932 T-Connector

- Adaptor for 5th Wheel & Bumper Mount Socket
- Quickly & Easily Installs a Second RV Socket
- Plug and Play without Splicing into OEM Harness
- Fits GM and Ford Trucks and SUV's
- Fits Chrysler Truck when used with 11-933 Adapter
- Mates with Pollak Socket 11-893

- T-Connector Kit with OEM style 11-893 Socket
- Adaptor for 5th Wheel & Bumper Mount Socket
- Same as 11-932 but includes OEM style 7-way Socket











#### 11-938 T-Connector



#### Cable Assembly (Repairable)

#### 7 Way Harness Adapter

#### 14-117

Pollak® Plastic Trailer End 12-706 with 8 ft. of Cable. **14-116**: same as 14-117 but with 3 ft. of Cable

14-227: Overmolded

Trailer End – RV Plug with 8' Harness



- US Car adapter snaps in
- 3' Harness for easy wiring
- Protects warranty by leaving original OEM harness intact



# **Trailer Tow Accessories**



7 Way Pin Plug to **12-724** 7 Way RV Type Socket

## **Adapters**







4 Way Flat Plug to 12-610 6 Way Round Metal Socket



6 Way Round Male to 4 Way Flat Female Flex Adapter





4 Way Flat Plug to 7 Way Round Metal Socket



6 Way Round Plug to 5 Way Flat Adapter



12-742 7 Way Pin Plug to 4 Way Flat Adapter



12-727: Nylon 7 way RV plug to 7 Way HD Socket 12-728: Nylon 7 Way RV Plug to Zinc 7 Way HD Socket

#### **Testers**

# **Tail Light Converters**

7 Pin Circuit



12-741 - 7 Way Blade 12-777 - 7 Way Round (not shown)

4 Pin Circuit



12-751

Regular Duty 60"

Heavy Duty 60"



12-752 3 Way to 2 Way Converter (not shown)











#### **SWITCHES**

#### 50 AMPS 6-24 VOLT TOGGLE SWITCHES

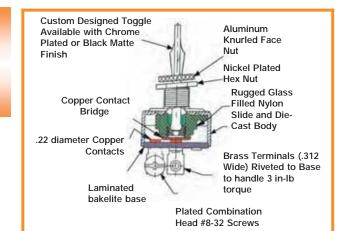
Pollak® Toggle Switches designed for many high-current applications. Oversized internal copper contacts will carry up to 50 AMP current loads. Provides the longest possible service life. (Note: Quick-Connect Blade terminals will carry 30 AMPS.)

34-216 Standard Chrome Handle (Quick-Connect Terminals)

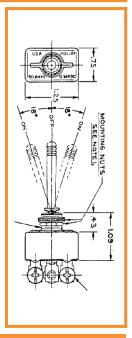


34-220 Long Chrome Handle #8-32 Screw Terminal





\	Part No.	Circuitry	No. of Terminals	Terminal Type	Handle Length	Handle Type	DC Volts	DC Amps
).			S.P.S.T (SINGL	E POLE – SINGL	E THROW)			
•	34-212	On-Off	2	Screw	Std. 1"	Chrome	12	50
	34-213	On-Off	2	Screw	Long 1.5"	Chrome	12	50
	34-216	On-Off	2	Blade	Std. 1"	Chrome	12	30
	34-219*	On-Off	2	Screw	Std. 1"	Black	12	50
	34-226*	On-Off	2	Blade	Std. 1"	Black	12	30
			S.P.D.T (SINGI	LE POLE – Double	e THROW)			
	34-225	On-On	3	Screw	Std. 1"	Chrome	12	50
	34-218	On-Off-On	3	Screw	Std. 1"	Chrome	12	50
).	34-222*	On-Off-On	3	Screw	Std. 1"	Black	12	50
Ι.	34-215	Mom On-Off-Mom On	3	Screw	Std. 1"	Chrome	12	50
	34-223*	Mom On-Off-Mom On	3	Screw	Std. 1"	Black	12	50
	34-220	Mom On-Off-Mom On	3	Screw	Long 1.5"	Chrome	12	50



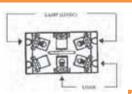
#### NYLON HANDLE DECORATOR STYLE 20 AMPS AT 12 VOLTS DC TOGGLE SWITCHES

Decorator style toggle switches designed with an O-Ring seal between toggle and bushing for splash proof reliability. Durable nylon housing, nylon face nut and brass terminals resist corrosion. Lighted versions have transparent Lexan handle. 20 AMPS @ 12 VDC.

34-586Q .250 Blade Terminals



34-586Q



Part No.	Circuitry	No. of Terminals	Terminal Type	Handle Length	Handle Type
	S.P.S.T (S	INGLE POLE -	SINGLE THR	OW)	
34-581Q	On-Off	2	Blade	Std. 11/16"	Black
34-586	On-Off	4	Screw	Std. 11/16"	Lighted

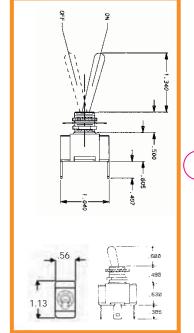
15/32-32 THREAD
.072X.038 KEYWAY
KNURL NUT
FACE PLATE
HEX NUT

<sup>\*</sup> Available in E/EP versions only

# **SWITCHES**

A complete selection of circuitry configurations for Truck, Off-Road, Automotive and Recreational Vehicle applications. Provides durable and long lasting solutions to new and replacement requirements. 20 Amps @ 12 VDC.

Part No.	Circuitry	No. of Terminals	Termina I Type	Handle Length	Handle Type	Notes
		S.P.S.T ( SINGL	E POLE – SIN	GLE THROW)		
33-302	On-Off	2	Screw	Std. 11/16"	Chrome	
34-571	On-Off	2	Screw	Std. 11/16"	Chrome	
34-571Q	On-Off	2	Blade	Std. 11/16"	Chrome	
34-571L	On-Off	2	Screw	Long 1.5"	Chrome	
34-571LQ	On-Off	2	Blade	Long 1.5"	Chrome	
34-579	On-Mom Off	2	Screw	Long 1.5"	Chrome	
34-579Q	On-Mom Off	2	Blade	Long 1.5"	Chrome	
34-570	Mom On-Off	2	Screw	Std. 11/16"	Chrome	
34-570Q	Mom On-Off	2	Blade	Std. 11/16"	Chrome	
	S.P.	D.T ( SINGLE	POLE – DO	UBLE THROW )		
34-572	On-On	3	Screws	Std. 11/16"	Chrome	
34-572Q	On-On	3	Blade	Std. 11/16"	Chrome	
34-573	On-Off-On	3	Screw	Std. 11/16"	Chrome	
34-573Q	On-Off-On	3	Blade	Std. 11/16"	Chrome	
34-653	On-Off-On	3	3 Wire	Std. 11/16"	Chrome	Coated Lead
34-575	Mom On-Off-Mom On	3	Screw	Std. 11/16"	Chrome	
34-575Q	Mom On-Off-Mom On	3	Blade	Std. 11/16"	Chrome	
34-596	On-Off-Mom On	3	Screw	Std. 11/16"	Chrome	
	D.P.	S.T. ( DOUBL	E POLE – SI	NGLE THROW)	)	
34-574	On-Off	4	Screw	Std. 11/16"	Chrome	
34-574Q	On-Off	4	Blade	Std. 11/16"	Chrome	
	D.P.I	D.T. ( DOUBL	E POLE – DO	OUBLE THROW	)	
34-654	On – Off - On	6	6 wire	Std. 11/16"	Chrome	Coated Lead
34-576Q	On-On	6	Blade	Std. 11/16"	Chrome	
34-577	On-Off-On	6	Screw	Std. 11/16"	Chrome	
34-577Q	On-Off-On	6	Blade	Std. 11/16"	Chrome	
34-577LQ	On-Off-On	6	Blade	Long 1.5"	Chrome	
34-578	Mom On-Off-On	6	Screw	Std. 11/16"	Chrome	
34-578Q	Mom On-Off-On	6	Blade	Std. 11/16"	Chrome	
34-580	Mom On-Off-Mom On	6	Screw	Std. 11/16"	Chrome	
34-580Q	Mom On-Off-Mom On	6	Blade	Std. 11/16"	Chrome	
34-580L	Mom On-Off-Mom On	6	Screw	Long 1.5"	Chrome	
34-580LQ	Mom On-Off-Mom On	6	Blade	Long 1.5"	Chrome	
34-591Q	Mom On-Off-Mom On	4	Blade	Std. 11/16"	Chrome	Reversing
34-591LQ	Mom On-Off-Mom On	4	Blade	Long 1.5"	Chrome	Reversing
34-592	On-On	6	Screw	Std. 11/16"	Chrome	Reversing
34-592Q	On-On	6	Blade	Std. 11/16"	Chrome	Reversing
34-593LQ	On-Off-On	6	Blade	Long 1.5"	Chrome	DHP Circuits Headlamp Switc

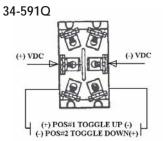


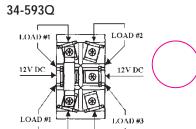


34-571L Long Handle Screw Terminals

34-592Q Jumper Blade s Style

#### WIRING DIAGRAMS





#### **ACCESSORIES**

The best combination of space-saving size and economy. Universal for Automotive, Light Truck, Off-Road and Recreational vehicles. Furnished with mounting hardware.



Toggle Boot with 15/32-32 thread. Provides

weather and ozone. Can be used on toggle

protection against salt spray and is resistant to

switches with 15/32" diameter mounting stem.

#### 33-300

25-370

2 Position Toggle Switch, On-Off 6 Volt-35 Amps 12 Volt-20 Amps Brass construction. Screw terminals. Toggle and Face Nut CHROME PLATED, Mounting Stem 3/8" Long, 7/16" diameter



2 Position Toggle Switch, 20 Amps @ 12 VDC, S.P.S.T. Knurled Face Nut Indicator Plate, Back Nut and **Terminal Screws** assembled.



#### 25-371

1/2 Toggle Boot Same as Toggle Boot #25-370 except allows Toggle Handle (of any length) to protrude. Accommodates all toggle lever diameters from .155" - 240" including all Pollak toggles except nylon handle series.





#### 34-504

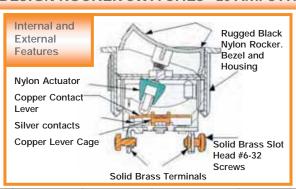
Face Plate On-Off

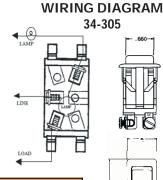
See Page 23 For Wiring Diagrams, Terms and Tips.

#### **UNIVERSAL DESIGN ROCKER SWITCHES - 20 AMPS AT 12 VDC**

12V

Universal Design for Automotive, Truck, Bus, Marine & Recreational Vehicles. Snap-in mounting fits .830 x 1.450 panel cutout in .093, .125, .187 thick panels. Brass screw or .250 blade terminals. Nylon bezel actuator and housing.





1,685	

		No. of Terminals				
Part No.	Circuitry	and Type	Actuator	Lens	Notes	Application
		S	P.S.T. ( SINGLE PO	LE – SINGLE THRO	W)	
34-301	On-Off	2 Screw	Black			Signaling Switch, Day
34-308	On-Off	2 Blade	Black			Signaling Switch, Day
		S.P.S.T. ( SING	LE POLE – SINGI	LE THROW) WIT	H PILOT LIGHT	
34-305	On-Off	3 Screw	Black	Red	Red Pilot Light	
34-360	On-Off	3 Blade	Black	Red	Red Pilot Light	
34-306	On-Off	3 Screw	Black	Green	Green Pilot Light	
34-307	On-Off	3 Screw	Black	Amber	Amber Pilot Light	
34-310	On-Off	4 Blade	Black	Red	Red Pilot Light	
		D.P.D	.T. ( DOUBLE PO	LE – DOUBLE TH	HROW)	
34-311	Off-On-On	4 Blade	Black			Two Speed Windshield Wiper
34-359	On-On	6 Blade	Black		Reversing	Selector Valves, Fans, Booms
	D	.P.D.T. ( DOUBLE	POLE – DOUBLE	E THROW ) WITH	H DUAL CIRCUITRY	
34-312	High-Low-Off	6 Blade	Black		Dual Actuators High-Low-Off	





34-305

## **SWITCHES**

#### **SEALED ILLUMINATED ROCKER SWITCHES**

- Designed for complete protection against dust and moisture.
- Rated 20 Amps at 12 VDC.
- Features include black plastic housing, nylon bezel, silver contacts, white lens with LED bulb, and .250' quick connect terminals.
- May be used with Pollak's new single and modular mounting brackets.

34-230	On-Off, S.P.S.T	34-236	Mom. On-Off-Mom. On, S.P.D.T.
34-231	Mom. On-Off, S.P.S.T.	34-237	On-On, D.P.D.T.
34-232	Off-On-Off, S.P.S.T.	34-238	On-Off, D.P.S.T.
34-233	On-On, S.P.D.T.	34-239	Mom .On-Off-Mom. On, D.P.D.T.
34-234	On-Off-On, S.P.D.T.	34-240	Off-On-On, Progressive
34-235	On-On-On, S.P.3.T.	34-241	On-On-Mom. On, Progressive



(Panel cut-out dimension: .83 " W x 1.45" H)







34-255

#### ROCKER SWITCHES MOUNTING BRACKETS

- New Modular mounting brackets and single mounting bracket #34-260 (Not shown) for use with installing Pollak's ® new rocker switches #34-230 Series (Shown above).
- To be used when installing rocker switches in panels.
- Stackable mounting end brackets #34-258 are reversible and can be connected to either side of middle bracket #34-259.
- Single mounting bracket #34-260 may be used for a single switch mount.

34-255	Panel Gasket Seal
34-258	Mounting Bracket End Piece
34-259	Mounting Bracket Middle Piece
34-260	Single Mounting Bracket



#### WEATHER RESISTANT TOGGLE SWITCH

- Weather resistant plastic coating with O-Ring in stem.
- 2 Positions: On-Off, S.P.S.T., Rated 20 Amps, 12 VDC
- Knurled face nut, hex back nut, and 2 plastic coated wire leads 8" long.
- Chrome plated bat handle, mounting stem 15/32 diameter., 3/8" long.
- 34-111 Same as 34-571C except with 2 plastic coated wire leads 24" long.

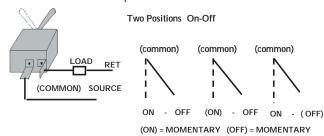


#### TOGGLE SWITCH GUARD

- Spring loaded snap action holds the guard cover in the up or down position. Switch cannot be operated with the cover in the down position.
- Recommended for use with two position (Off-On or On-On) toggle switches with standard 11/16" bat handle and 15/32" diameter mounting stem and keyway.
- Face plate is steel with black glossy finish. Switch cover coated with red urea.

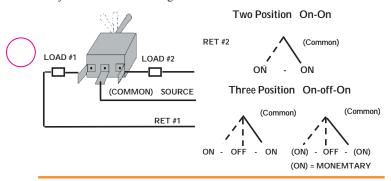
#### S.P.S.T, (Single Pole/Single Throw)

A two terminal switch which opens or closes one circuit.



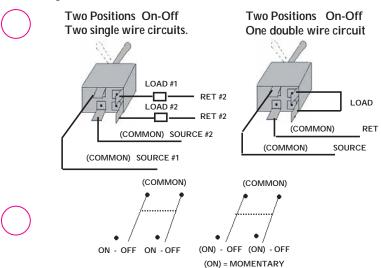
#### S.P.D.T. (Single Pole/Double Throw)

A three terminal switch that controls two single-wire circuits. Permits only one circuit to be energized at a time



#### D.P.S.T. (Double Pole/Single Throw)

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

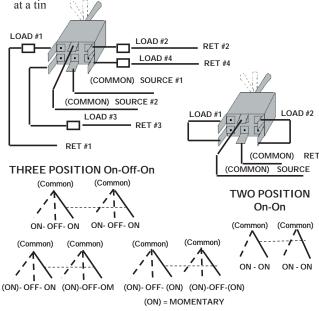


#### SERVICE TIP

- Replacement switch must have the same or higher rating as original switch.
- Unplug circuit or turn off power at electrical panel.
- Remove wires from old switch one-at-a-time and attach to new switch in same manner, or follow wiring diagram.
- For Screw Terminals Twist stranded wire together. Loop wire clockwise around screw. Tighten securely.
- For Blade Terminals Use Female push-on terminals. Crimp tightly on stranded wire. Make sure you have a snug fit.
- Turn on power

#### D.P.D.T. (Double Pole/Double Throw)

A six terminal switch that controls two double wire circuits permitting only one circuit to be energized at a time, or four single wire circuits permitting only two circuits to be energized



#### **ELECTRICAL TERMS**

**AMPERE** Electrical unit indicating rate of flow of electricity through a circuit.

**CIRCUIT** Path taken by electrical current flowing through conductor from one terminal source of supply to another.

**CURRENT** The movement of electrons through a conductor measured in amperes.

**DOUBLE POLf** A switch that operates simultaneously in two separate electric circuits.

**DOUBLE THROW** A switch that alternately completes a circuit at either end of its extreme positions.

DOUBLE POLE/SINGLE THROW D.P.S.T -A switch that has four terminals and is used to connect or disconnect two pairs of terminals simultaneously.

**DOUBLE POLE DOUBLE/THROW D.P.D.T** A switch that has six terminals and is used to connect one pair of terminals to either of the other two pairs.

INDUCTIVE LOAD Initial amps needed to engage a circuit and/or a load which allows a momentary flow of current when a circuit is open. {Devices that create inductive loads are typically motor coils and solenoids.)

**LAMP LOAD** Light bulb current expressed in amps at a rated voltage. **MONENTARY** Momentary action is obtained by holding switch in position with pressure. Upon release the switch returns to the previous position.

**REVERSING** Reversing action is obtained by reversing the polarity of a switch with jumper wires or blades to change the rotation of a motor. Typical applications are winches, plows, radio antennas and fuel selector valves.

**SINGLE POLE** A switch that opens, closes, or changes connection in a single conductor of an electrical circuit to a common contact.

**SINGLE THROW** A switch that opens, closes or completes a circuit at only one of the extreme positions of its actuator.

**SINGLE POLE/SINGLE THROW** S.P.S.T. - A two terminal switch which opens or closes one circuit.

SINGLE POLE/DOUBLE THROW S.P.D.T. - A three terminal switch for connecting one terminal to either of two other terminals.

VOLT The unit that measures the potential difference in electrical force or "pressure" between two points on a circuit.

**WATT** The unit of power that indicates the rate at which a device converts electric current to another form of energy, either heat or motion.

# SWITCHES - PUSH-PULL

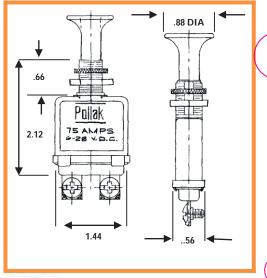
#### 35-331 Same as 35-306 with Red Metal Knob

35-330 Same at 35-306 with Black Metal Knob

35-319 Same at 35-306 except the hardware is assembled on the switch.



**35-306**6-28 VOLTS - 75 AMP D.C.
2 POSITION S.P.S.T. OFF-ON
Die-Cast Body, CHROME PLATED,
Knob, Copper Terminals, Mounting Stem
5/8" long, 15/32" Diameter





35-335
12 VOLTS - 50 AMP D.C.
2 POSITION S.P.S.T. OFF-ON
Green LED – lighted in on position



12 VOLTS - 30 AMP D.C. 2 POSITION S.P.S.T. OFF-ON



**35-333**12 VOLTS - 30 AMP D.C.
3 POSITION OFF-ON-ON
Two separate circuits



3 POSITION 12V OFF-ON-ON Combination Rheostat, Panel and Headlight. Push Pull for Headlights, Turn to Dim Panel. With 20 Amp Circuit Breaker, 5 Terminals, Bright Metal Knob, Mounting Stem 3/8" Long, 3/8" diameter.

**35-300**2 POSITION
OFF-ON 25 Amp at 6V
15 Amps at 12V. Mounting Stem 5/8"
Long 7/16" diameter. Ivory Plastic Knob.



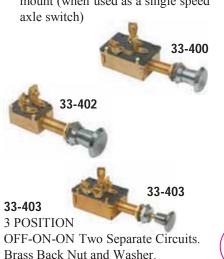
#### **MARINE**

33-400
3 POSITION
OFF-ON-BOTH ON FOR
CONTROLING RUNNING
LIGHTS, etc. Large 3/4"
diameter. Face Nut of
POLISHED CHROME.
Brass Back Nut and Washer.
CHROME PLATED plastic
knob. Mounting Stem
l-1/4"Long 7/16" diameter.

33-402
2 POSITION 25 Amps at 6V
15 Amps at 12V
OFF-ON POLISHED
CHROME Face Nut and
CHROME PLATED plastic
knob. Brass Back Nut and
Washer. Mounting Stem
1-1/4" Long, 3/8" diameter.



2 Position Off-On (Normally Off) – One Circuit. Rugged Nylon housing and mounting bracket. Bushing .59" long, .59 diameter Silver plated brass terminals mate with Mating Connector #52-642. Panel mount or transmission shaft mount (when used as a single speed axle switch)



BRASS CHROME PLATED Knob and Face Nut. Mounting Stem 1-1/4"

Long, 3/8" diameter.

# **SWITCHES**

#### MOMENTARY PUSH SWITCHES

FOR TRUCKS, TRACTORS, FARM, MARINE, INDUSTRIAL APPLICATIONS – POPULAR FOR DIESEL STARTING.

Momentary push-button switches function by having an operator push the plunger to make electrical contact. When the actuating force is removed, the plunger returns to the original position, breaking the electrical contact.

Momentary Push Switches 2 Positions - OII-On, Normally Off (Push to Out)

Zinc Die-Cast Housing, Silver Contacts, Brass Terminals.

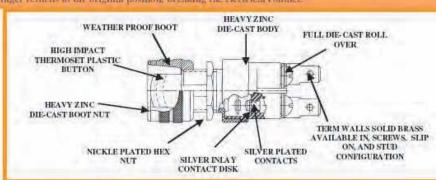
Operation: 50,000 Cycles Mounting stem: 5/8-32 Thread Accommodates panels up to 1/4"

#### Contact Rating:

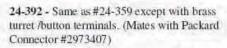
@ 14VDC: Make 70 Amps, Break 20 Amps Inductive Load @ 28 VDC: Make 35 Amps, Break 10 Amps Inductive Load

#### 24-359 -

- · Silver-plated contacts
- · Flush terminal screws in molded insulator
- Housing rolled over insulator to seal out Dust and Moisture
- · Hex Back Nut
- · Bright Polished Face Nut
- · Black Molded Plunger
- Mounting Stem 5/8" Long, 5/8" Diameter Thread
- Overall Length 1-13/16"
- Housing diameter 15/16"
- 24-360 WEATHER AND DUSTPROOF, Same as #24-359 except with #25-358 Cap and Face Nut, to seal out Weather and Dust.
- 24-362 (Not Shown). Same as #24-359 except with #25-372 Protection Collar.
- 24-363 (Not Shown) Same as #24-392 except with #25-358 black rubber boot.
- 24-373 (Not Shown) Same as #24-359 except with 2 Male Blade "quick connect" terminals.
- 24-391 (Not Shown). Same as #24-392 except without hex face nut.
- 24-390 (Not Shown), Same as #24-359 except for hex nut thickness.







24-392

24-394

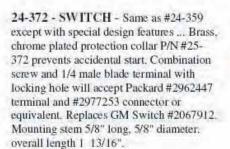


24-394 Same as #24-359 except with black face nut and 3/8" long #8-32 threaded terminals. (Freightliner, Navistar)



24-393 - Same as #24-394 except with #25-358 back rubber boot. (Not Shown)

24-395 - Same as #24-393 except with #25-352 red rubber boot.







### **SWITCHES**

#### **BOOT NUT ASSEMBLIES**

WEATHER and DUSTPROOF Neoprene rubber type Boot Nut Assemblies. With 5/8-32 thread, Can be used on #52-611 and #33-200 and on other Momentary Switches with this Mounting Stem



Protective Collar - Safety Bezel with 5/8"-32 thread may be used on #24-359, #52-611, #33-200 and on other momentary switches with this mounting stem.



Same as 25-358 except with recessed "horn" symbol.



Yellow boot with recessed "cold start" symbol.



25-349 Same as 25-352 except with recessed "start" symbol.



52-611 52-613 Universal-Mounting Bushing Same as 52-611 except with 3/4"Long, 5/8"diameter. Hex 25-358 boot nut and PVC coated Pal Back Nut knurled Face Nut assembled. 25 AMPS @ 6V, 15 AMPS body for weather and dust protection. 14" wire loop. & 12V. Mounts in 5/8 "diameter hole.

#### 52-600

25-352

Red

REPLACES: 21A11500A, Screw Terminals. 15 AMPS @ 6V, 10 AMPS @ 12V, 15/16" Mounting Hole Required. Mounting Stem 7/8"-20, .45" long. Supplied with 7/8"-20 palnut.

#### **MOMENTARY SWITCHES**

2 Positions: On- Off Normally On (Push to Off)



Momentary Switch -Normally On (Push to Off). Moisture Proof with two 6" 16 gauge wire leads with Packard Electric Connector #12010973. Mates with Packard #12015792.

#### 21-560

Same as 21-541 except Normally Off (Push to On). Mates with Packard # 15300027

# **MARINE**

15 Amps at 12V



#### 33-200

ALL BRASS, CHROME PLATED Button and Face Nut Furnished. Brass Back Nut and Washer Mounting Stem 1 1/4" Long 5/8" diameter. 25 Amps @ 6V. Fits 1" thick panel.

#### SEALED PLUNGER SWITCHES

2 Positions: On- Off Normally On (Push to Off)



#### 52-624

Sealed Plunger Switch #52-620 and Mating Connector #52-622. 10 Amps at 14V. Self tapping thread. Self-Adjusting, Switch length 2 1/8". Mating connector has three 8" 18 gauge wire leads.



#### 52-623

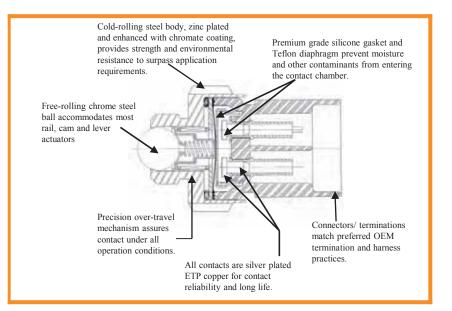
Door Jamb Switch to accept two Bullet terminals. 5 Amps at 12V. REPLACES: Ford OA1-13713, BOA-13713, B9MF-13713A, C3AZ-13713A.

# PRECISION BALL SWITCHES

As the leading manufacturer of precision ball-actuated switches, Pollak<sup>®</sup> has provided custom switches to meet the requirements of OEM's and aftermarket suppliers. Typical applications include: neutral and top gear sensing, back-up lamp switching, anti-lock brake switching, power takeoff interlock and operator presence detecting. The switches shown here represent the transportation industry's most commonly requested configurations. If the switch you need cannot be found on these charts, please contact us for your specific requirements.



Normally Open - Exposed Terminals





21-458 Screw Terminals



**21-481**Turret Terminals

)	Part No.	Thread	Hex	Free Position	Make/Break	Connector Terminals	Mating Connector	Special Features
	21-361	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Stud Terminals		
	21-381	9/16-18	7/8	.765 / .760 (19.43-19.30)	.730 / .715 (18.54-18.16)	Turret Terminals		
	21-458	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Screw Terminals	Ring Terminals	
	21-481	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Turret Terminals	PE 02973407	
	21-487	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Screw Terminals	Ring Terminals	21-458 with O-Ring
	21-509	3/4-16	7/8	.577 / .551 (14.15-14.00)	.533 / .513 (13.54-13.03)	Screw Terminals		

#### CHARACTERISTICS:

Normally Closed - Exposed Terminals

21-456 .250 Blade Terminals



21-517 .250 Blade Terminals



	Part No.	Thread	Hex	Free Position	Make/Break	Connector Terminals	Mating Connector	Special Features
_	21-434	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Turret	PE 02973407	
	21-435	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Screw	Ring Terminals	
	21-437	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Screw	Ring Terminals	Plating
$\sqrt{}$	21-448	3/4-16	7/8	.606 / .601 (15.39-15.27)	.600 / .384 (15.24-14.86)	Screw	Ring Terminals	Aluminum Washer resist Corrosion
7	21-456	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	.250 Blade	Rect. Receptacle Term	
7	21-517	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	.250 Blade	Rect. Receptacle Term	21-456 With O-ring

#### **CHARACTERISTICS:**

Normally Open - Sealed Terminals





Part No.	Thread	Hex	Free Position	Make/Break	Connector	Mating Connector	Special Features
21-363	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Packard 56 Series	029S4092	
21-364	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Ford Automotive Type	C0AF-14A121-A	
21-370	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Packard Weather Pack	12015792	
21-400	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Ford Automotive Type	E2EB-14A464-AB	
21-443	M14*1.5	M22	.460 / .450 (11-68-11.43)	.435 / .415 (11.05-10.54)	Ford Automotive Type	D6ZB-14A336-BA	Teflon Tape Thread Sealant
21-465	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Packard Metri-Pack	12052644	
21-491	5/8-18	7/8	.433 / .417 (11.00-10.59)	.405 / .380 (10.29-09.65)	Packard Weather Pack	12103784	
21-492	M14*1.5	M22	.577 / .567 (14.66-14.40)	.561 / .543 (14.25-13.79)	Packard Metri-Pack	12052644	
21-532	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Packard Weather Pack	12015792	Teflon Tape Thread Sealant
21-595	M16*1.5	7/8	.980 / .970 (24.89-24.64)	.960 / .945 (24.38-24.00)	Packard Weather pack	12015792	Teflon Tape Thread Sealant

#### **CHARACTERISTICS:**

Normally Closed - Sealed Terminals

Part No.	Thread	Hex	Free Position	Make/Break	Connector	Mating Connector	Special Features
21-444	5/8-18	7/8	.433 / .417 (11.00-10.59)	.405 / .380 (10.29-09.65)	Packard Weather Pack	12103784	
21-495	9/16-18	7/8	.657 / .652 (16.69-16.56)	.644 / .625 (16.36-15.88)	Packard Weather Pack	12015792	Assembled with O-Ring
21-538	M16*1.5	M22	.609 / .598 (15.47-15.19)	.594 / .579 (15.09-14.71)	Packard Weather Pack	12103784	

#### **CHARACTERISTICS:**

Normally Open - Encapsulated with Wire Leads

Part No.	Thread	Hex	Free Position	Make/Break	Connector	Mating Connector	Special Features
21-467	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Packard Metri-Pack	15300027	
21-493	M14*1.5	M22	.577 / .567 (14.66-14.40)	.561 / .543 (14.25-13.70)	Packard Metri-Pack	12052644	
21-562	9/16-18	7/8	.421 / .416 (10.69-10.57)	.406 / .391 (10.31-09.93)	Packard Metri-Pack	15300027	

#### **CHARACTERISTICS:**

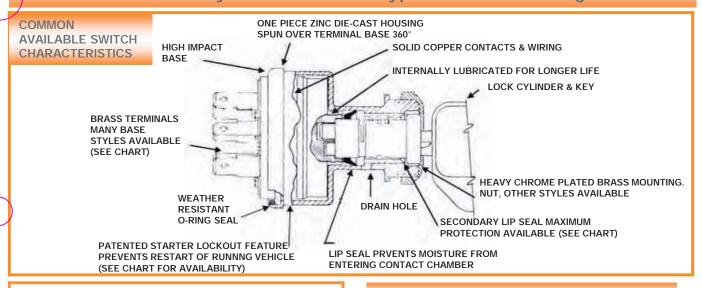
Normally Closed - Encapsulated with Wire Leads



Part No.	Thread	Hex	Free Position	Make/Break	Connector	Mating Connector	Special Features
21-478	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Packard Weather Pack	12010973	
21-482	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Packard Weather Pack	12010973	Assembled with O-Ring
21-547	9/16-18	7/8	.421 / .416 (10.69-10.57)	.408 / .390 (10.36-09.93)	Packard Metri-Pack	15300002	Assembled with O-Ring

#### **IGNITION STARTER SWITCHES**

#### Momentary Start Universal Type Die-Cast Housing



#### **BASE TYPES & CONNECTIONS**



Base Types (3, 3A & 7) fit Packard Connector #2984017

For Specific Applications Consult Factory

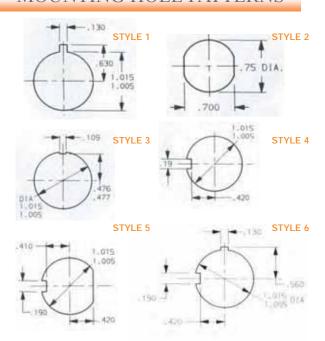
# Typical Ratings @ 14 Volts DC (50,000 Cycles) Ignition Accessory Start Terminal

Ignition Terminal	Accessory Terminal	Start Terminal
8 Amps	30 Amps (Inductive)	75 Amps make 20 Amps Break

Continuous Current Carrying Capacity – 30 Amps @ 14V. Accessory Terminal with #10 Gauge Wire.

For Specific Applications Consult Factory

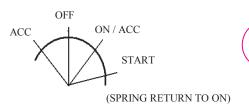
#### MOUNTING HOLE PATTERNS



#### **4-POSITION SWITCHES**

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only









8.4	0.			100			9.0
Base Type	Part No.	Starter Lockout	Key Logo	Key code	# of Lip Seals	M/H/P	Remarks
1	31-103	N	Pollak	Various	0	2	
1	31-104	N	Pollak	PK556	0	2	
1	31-105	Y	Pollak	Various	0	2	
1	31-106	Y	Pollak	PK556	0	2	
1	31-109	N		No L/Cyl	0	1	No Base Hardware Supplied
1	31-110	N	Pollak	Various	0	1	No Base Hardware Supplied
1	31-111	N		No L/Cyl	0	1	No Base Hardware Supplied
1	31-131	N	Pollak	Various	0	1	Spc. Hardware Clips
1	31-159	N	None	Special	1	3	Key Code 31-159-100
1	31-178	N	L/Cyl Mfg	D250	2	5	•
1	31-180	N	L/Cyl Mfg	Various	2	5	"O" Sealed Base
1	31-190	N	No Key	Universal	1	4	No Base Hardware or Keys Supplied
1	31-196	N	Pollak	Universal	1	4	
1	31-233	Y		No L/Cyl	0	2	
1	31-292	Y	Pollak	Various	0	2	Black Mounting Nut
1	31-292-801	Y	Pollak	C801	0	2	Black Mounting Nut
1	31-292-802	Y	Pollak	C802	0	2	Black Mounting Nut
1	31-292-803	Y	Pollak	C803	0	2	Black Mounting Nut
1	31-292-804	Y	Pollak	C804	0	2	Black Mounting Nut
1	31-292-805	Y	Pollak	C805	0	2	Black Mounting Nut
1	31-292-806	Y	Pollak	C806	0	2	Black Mounting Nut
1	31-305	Y	L/Cyl Mfg	D250	2	5	
1	31-607	N	Lever		0	2	
1	31-608	Y	Lever		0	1	
1	31-610	Y	Pollak	Universal	1	4	
2	31-124	N		No L/Cyl	0	3	Spc. Hardware Clips
3	31-228	N	Pollak	Universal			Terminal Ground ID Tag
2	31-242	Y	Pollak	Universal	1	4	Spc. Hardware Clips
3	31-132	N	L/Cyl Mfg	Various	0	Spc.	Bezel Mfg.

#### **4-POSITION SWITCHES**

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only





ON / ACC

START

(SPRING RETURN TO ON)

(HOUSING TIED TO GROUND TERMINAL)



		(HOUSING HED TO GROUND TERMINAL)						
	Base Type	Part No.	Starter Lockout	Key Logo	Key code	# of Lip Seals	M/H/P	Remarks
	1	31-527	N	Pollak	D250	2	*	Spring return aux. / glow plug warmer
	1	31-537	N	Pollak	Lever	2	*	Spring return aux. / glow plug warmer
	2	31-112	N	Pollak	PK556	0	2	Special Hardware Clips
۱	2	31-257	Y	L/Cyl Mfg	D250	1	5	O-Ring Sealed Base, Spc. Hdw Clip
4	3	31-114	N	Pollak	Various	0	1	Caution Tag on GND Term
	3	31-152	N		No L/Cyl	0	1	Caution Tag on GND Term
	3	31-229	N	L/Cyl Mfg	D250	2	5	
	3	31-243	Y	Lever		1	5	
	3	31-249	N	Pollak	PK556	0	1	Caution Tag on GND Term
	3	31-289	N		No L/Cyl	0	1	Caution Tag on GND Term
	3A	31-290	Y	L/Cyl Mfg	D250	1	5	O-Ring Sealed Base
	3A	31-322	Y	Encap key	D250	1	5	No Logo on Encap keys
	3	31-498-01	N	None	Various	0	3	Supplied with high durability double cut L/Cyl & keys
)	3A	31-139	N	L/Cyl Mfg	Various	0	Spc.	Bezel Mtg
	3A	31-191	Y	L/Cyl Mfg	Various	1	5	O-Ring Sealed Base
	3A	31-231	Y	L/Cyl Mfg	D250	1	5	O-Ring Sealed Base
	3A	31-273	N	L/Cyl Mfg	Various	2	5	O-Ring Sealed Base
	3A	31-280	N	None	Various	1	5	O-Ring Sealed Base, Mtg Nut Sold Separately
	3	31-359	N	None	Various	0	3	

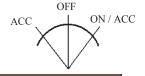
 $<sup>\</sup>ensuremath{^*}$  - Mounting hole pattern similar to MHP style 5 without key way.

#### **3-POSITION SWITCHES**

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only



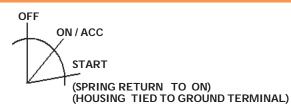


	Base Γype	Part No.	Starter Lockout	Key Logo	Key code	# of Lip Seals	M/H/P	Remarks
	1	31-119	N		No L/Cyl	0	1	Extra Long Studs in all Positions
	1	31-122	N	Pollak	C805	0	1	No Base Hardware Supplied
	1	31-192	N		No L/Cyl	0	1	No Base Hardware Supplied
	1	31-245	N	L/Cyl Mfg	D250	2	5	No Base Hardware Supplied, O-Ring Sealed Base
	3	31-164	N		No L/Cyl	0	3	Mtg. Nuts Sold Seperately
$\sqrt{}$	4	31-600	N	Pollak	Various	0	.75" D	
)	4	31-601	N	Pollak	PK556	0	.75" D	

#### **3 POSITION SWITCHES**

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only







Base Type	Part No.	Starter Lockout	Key Logo	Key code	# of Lip Seals	M/H/ P	Remarks
*	31-267	Y	L/CYL Mfg	D250	1	5	Black Mounting Nut, 4 Screw Terminal Base
2	31-302	Y	Pollak	Universal	1	5	
2	31-345	N	Pollak	Universal	1	4	
3A	31-285	N	L/CYL Mfg	D250	2	5	O-Ring Sealed Base
3A	31-297	Y	Pollak	Universal	1	4	

Base Types (3, 3A & 7) fit Packard Connector #2984017

M/H/P = Mounting Hole Pattern

#### **3 POSITION SWITCHES**

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only







# of Base Starter Key Lip Part No. Lockout Key Logo Seals M/H/P Remarks Type code 1 31-253 Ν Lever 1 5 O-Ring Sealed Base none 2 1 31-609 0 Ν Blank Various \* 31-309 Y L/CYL Mfg 5 10 Blade Terminal, No Ground Pin D250 3 Y 5 31-337 Pollak D250 1 7 31-223 Y 0 Special PROOF terminal Lever

Base Types (3, 3A & 7) fit Packard Connector #2984017

M/H/P = Mounting Hole Pattern

**BASE TYPES** 







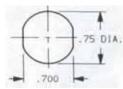


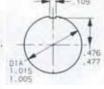


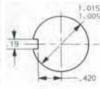
**MOUNTING** HOLE **PATTERNS** 

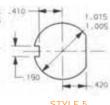


STYLE 1









STYLE 4

STYLE 5

#### 2-POSITION SWITCHES

**FUNCTIONS & POSITIONS** 

Key Removable in "Off" Position Only







Base Type	Part No.	Starter Lockout	Key Logo	Key code	# of Lip Seals	M/H/P	Remarks
5	31-288	N	Pollak	PK580	0	2	
5	31-602	N	None	Various	0	.75"D	
5	31-603	N	Pollak	PK556	0	.75"D	
5	31-604	N	Lever		0	.75"D	
6	31-117	N		No L/Cyl	0	2	
6	31-282S	N	Pollak	PK556	0	2	

M/H/P = Mounting Hole Pattern

**BASE** 

**TYPES** 



TYPE 5



TYPE 6

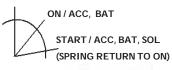
**MOUNTING** HOLE **PATTERNS** 

STYLE 2 .700

#### MARINE STARTER SWITCHES - (for Magneto applications)

Magneto grounded in "Off" Position. Glass filled Delrin Housing, Stainless Steel Terminals. Molded Velox Base. 13/16" Diameter Mounting Bushing. Special weather proofing seal and drain hole. Furnished with Terminal Hardware, Mounting Nuts and Two Keys.

#### OFF (MAGNETO GROUNDED)





#### 33-104

Special long bushing allows mounting in panels up to 1 1/4" thick. Replaces - Johnson-Evinrude Numbers 386496, 379047, 378238.

#### 33-107

Same as 33-104 except all switches keyed alike. (Key #:33-150-101-31)

#### **OFF (MAGNETO GROUNDED)**





#### 33-105

Special "Push to Choke" feature eliminates need for separate Electronic Choke Switch. Switch mounts in panels up to 1/4".thick. Replaces - Johnson-Evinrude Numbers 388173, 390129, 390133.

#### **RATING @ 12 VDC**

M-M Grounded-10 Amps Inductive

B-A 5 Amp

B-S 10 Amp

B-C 1 Amp (33-105 Only)

#### **OFF (MAGNETO GROUNDED)**

ON / ACC, BAT START / ACC, BAT, SOL (SPRING RETURN TO ON)



#### 33-150

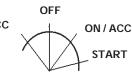
Delrin, Stainless Steel, 6 terminals, special weather-proofing seal and drain holes. Furnished with face nut and brass screws. Various key changes for security. Mounting bushing 1 1/4" thick. Length = 1/2" long. Switch mounts in panels up to 1/4" thick Replaces Johnson-Evinrude numbers 386496, 379047 and 378238.

**33-150-100** – blank key for 33-104/107/150

#### **IGNITION STARTER SWITCHES**

# (Special Applications)







#### 31-527

#### SPECIAL 4 POSITION IGNITION SWITCH

Specially designed with glow plug 'warm' position.

#### 31-537

#### **SPECIAL** 4 POSITION IGNITION SWITCH

Same as 31-527 except with lever. Specially designed with glow plug 'warm' position

#### 31-499

#### SPECIAL (HI POWER) IGNITION SWITCH

Ratings at 14VDC

Ign -15 Amps (8 Amps, standard)

Acc - 40 Amps Continuous (30 Amps Standard)

Start - 75 Amp Make, 20 Amp Break (Standard)

#### Unique Features

- Silver Plated Contacts
- Silver Plated Wiper Heat Disipating Contact Connections
- Enhanced features available in Standard Envelope.



52-800 SPECIAL Rotary Reversing Switch 12 Volt 50Amp DC 3 Position On-Off-On

ON / ACC

**START** 



# REPLACEMENT KEYS











31-332

31-166-001

31-600-103

31-339

31-159-001

#### D-250 Series

**19564, Coined, 2 keys per ring.** Replacement key for 31-178, 31-229, 31-231, 31-245, 31-257, 31-267, 31-285, 31-290, 31-305, 31-309, 31-322, 31-324, 31-337

#### **Universal key Series**

31-166-001, Coined, 2 keys per ring (Pollak Logo & Lightening Bolt)
31-332, Encapsulated, (Pollak Logo), 2 keys per ring
31-339, Encapsulated, (No Logo), 2 keys per ring
Replacement keys for 31-190, 31-610, 31-242, 31-175, 31-302, 31-345, 31-297

(Unless otherwise noted, all keys sold individually. )

#### **PK Series**

**31-600-103 (PK556), Coined, 2 keys per ring (Pollak Logo)** Replacement keys for 31-104, 31-106, 31-112, 31-249, 31-282S, 31-603

#### 31-173-104, blank key, Coined,

Blank replacement keys for 31-132, 31-139, 31-180, 31-191, 31-272, 31-280

#### 31-159-001

Replacement keys (2 per ring) for part No. 31-159

#### 33-150-100

Blank replacement key for Part No. 33-104, 33-107 & 33-150

#### 3-237-100

Blank replacement key for Part No. 33-105

## **SWITCHES**

#### BATTERY MASTER DISCONNECT SWITCHES

Master disconnect switches designed for 12 VDC vehicles (Truck, Automotive, Marine, RV) to disconnect all circuitry to reduce possibility of theft or accidental electrical fires. Available in keyed or lever versions, with or without indexing pins, and various sizes of terminal studs.

#### 51-902EP

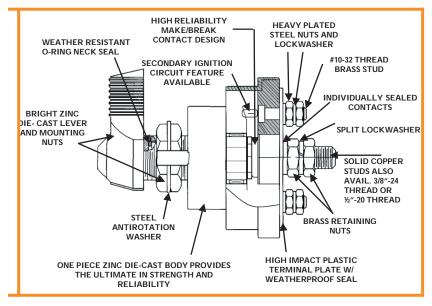
#### LEVER OPERATED 6-36 VDC 180 AMPS CONTINUOUS CAPACITY 1000 AMPS IN RUSH S.P.S.T. (OFF-ON) TWO STUD TERMINALS

For battery circuit only. Does not disconnect alternator or generator field circuit. On vehicles equipped with alternators/engine must be shut off to avoid potential damage to alternator diodes. (See 51-904EP)

- Individually Sealed Contacts
- One piece die-cast housing sealed with O-rings at base and mounting stem to keep out dust and moisture.
- Large die-cast, lever for ease of operation.
- Two 3/8" copper alloy stud terminals with hex nuts and lock washers.
- Overall length 4 3/8". Diameter 2 5/8"approx.
- Conforms to requirements of U.L. #558
- Mounting stem 3/4" diameter, 1/2" long, with two hex nuts and lock washer.
   (Note: Mounting nuts not to exceed 12 ft. lbs. torque).
- Designed for protection against battery drain, electrical fires, tampering and theft.
- Fits panels up to 1/4" thick.

# 51-927EP MASTER DISCONNECT SWITCH.

Continuous Rating (Make Break) = 180 AMPS @ 12VDC Intermittent Rating (Carrying Current Only) = 1800 AMPS @ 12VDC. 1 cycle = 4 seconds ON/20 Minutes OFF, Silver Plated 1/2" - 20UNF Copper Studs. Recommended wire size #00-gauge or larger for 1800 AMP application. OUR NEW ENCAPSULATED "REMOVABLE KEY" VERSION OFFERS THE ULTIMATE IN SECURITY AND EASE OF OPERATION (Anti-Rotation Pin Version, also available)



#### 51-915 EP

Same as 51-902EP except with .25 antirotation indexing post.

#### 51-916EP

Same as 51-915EP except with two encapsulated removable keys (31-332).





51-902EP

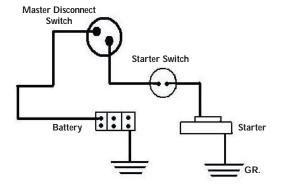


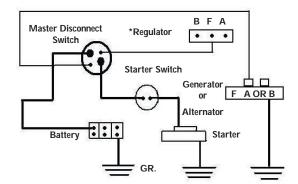
#### WIRING DIAGRAM FOR S.P.S.T. MASTER DISCONNECT SWITCH

#### WIRING DIAGRAM FOR D.P.S.T. MASTER DISCONNECT SWITCHES. FOR USE WITH ALTERNATOR OR GENERATOR SYSTEMS

Part Numbers: 51-302, 51-315, 51-316, 51-307

Part Numbers: 51-304, 51-318, 51-319





51-303

51-322

**ACCESSORIES** 

FACE PLATE - For use with

Switches. Polished aluminum

FACE PLATE - For use with #'s

51-915, 51-916, 51-917, 51-918,

Master Disconnect Switches.

letters. 2.5" diameter, .76"

diameter post, .032" thick.

Polished aluminum with black

Replacement Zinc Die-Cast lever

#'s 51-902,51-905, 51-904,

51-907 Master Disconnect

hole, .032 thick.

51-308EP KIT

NOTE: Hex nuts against base Must remain stationary and Must not be tightened or loosened. Secure power cables to mounting surface no greater than 10" from switch mounting

#### 51-904EP

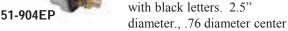
#### **LEVER OPERATED - 6-36 VOLT** D.P.S.T. (OFF-ON FOUR STUD TERMINALS)

For battery and alternator or generator field circuit. Designed to break alternator generator circuit prior to battery circuit disconnect.



- One piece die-cast housing sealed with O-rings at base and mounting stem to keep out dust and moisture.
- Two 3/8" and two #10-32 copper alloy stud terminals with hex nuts and lock washer.
- Overall length 4 1/8". Diameter 2 5/8" approx.
- Fits panels up to 1/4" thick. (Note: Mounting nuts not to exceed 12 ft. lbs. torque).





51-918EP

#### RATING:

Continuous Rating (Make Break) Large Studs – 180 Amps Small Studs – 20 Amps Intermittent Rating (Carrying) Large Studs – 1000 Amps (20 sec. "On" -5 Minutes "Off"



Same as 51-904EP except with .25" diameter anti-rotation indexing post.

#### 51-919 EP

Same as 51-918EP except with two encapsulated keys (31-332).



51-311 Special flange plate and lever to accept a padlock for many lockout/tag-out safety regulations.

# and Zinc Plated set crew for Pollak® Master Disconnect

Encapsulated Keys with Pollak® logo. Fits #'s 51-916EP & 51-919EP Disconnect Switches.











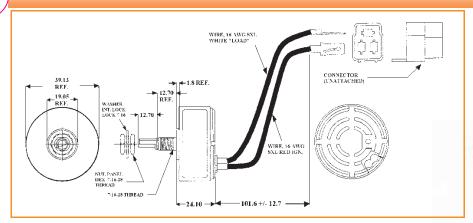




51-919EP

# **SWITCHES**

### **ELECTRONIC DIMMER CONTROLS**







Part No.	Max Current Load	Connector Type	Panel Mount	Manufacturer Application
52-262	10 Amp	Packard Metri-pack #12034344	7/16"-28 Thread	Mack/Volvo/Gm*
52-263 10 Amp Packard 56 Series		3/8"-32 Thread	Freightliner**,Peterbilt**, Kenworth**	

<sup>\*</sup> Note: Does not apply to all Volvo/GM models. Check with Manufacturer.

If you can't afford the down time to have your lights go out contact your nearest Pollak® distributor today.

NOTE: If Panel Lamp Dimmer is hooked up backward, the unit will not work. This will not damage the
unit but it is important to insert terminals correctly

### PRODUCT DESCRIPTION

The Electronic Panel Lamp Dimmer Control is a cost effective reliable method of safely controlling the intensity of dash board lighting in the cab of vehicles. Pollak® Panel Lamp Dimmer controls have been specified by Mack Trucks, Freightliner, Peterbilt and Kenworth. These manufacturers know that electronic reliability keeps trucks on the road and out of the shop. An electronic Panel Lamp Dimmer eliminates the old fashion rheostat type control. Sophisticated electronic pulse width control circuitry and power MOSFET technology used in the panel lamp dimmer's design eliminates the heat build up found with traditional rheostats. Pollak's two wire design allows the Pollak® controls to be a drop in replacement for existing rheo-stat applications, (see chart for appropriate part number). State of the art surface mount electronic design reduces the housing size and weight while eliminating expensive product failure caused by vehicle vibration. This Pollak® Panel Lamp Dimmer is designed in accordance with stringent SAE J1455 recommendations. Load dump and transient conditions will not adversely affect the dimmer's operation and it is completely protected from continuous short circuit overload,

As dash panels become more complicated the strain on the panel dimmer is increased. The truck O.E.M.'s know this and have converted to electronic dimmers.

### **PRODUCT FEATURES**

- Universal Application Design
- Simple Two Wire Design Replaces Old Three Wire Style
- Ground Connector Not Needed Works on positive or negative vehicle systems
- Small Housing Easily fits most dashboards
- Light weight
- Smooth gradual dimming control
- Reliability of electronic components
  - · Switch generates very low heat
  - Rugged vibration resistant design
- Operating temperature: -40C to + 85C
- Zinc die-cast housing
- Works ONLY on 12 VDC systems
- Wire strain relief
- Black plastic knob, white indicator arrow
- Power MOSFET Transistor design
- Meets SAE J1455
  - Fully short circuit protected
  - 150V load dump protected
  - 700V transient spike protected
  - Reverse Polarity protected
- Nominal 205° shaft rotation

<sup>\*\*</sup> Installation sheet included for connecting terminals to connector.

### SOLENOID SWITCHES

AUTOMOTIVE, TRUCK, FARM TRACTOR, INDUSTRIAL, CONSTRUCTION, OFF-THE-ROAD, RECREATIONAL VEHICLE APPLICATIONS

TYPICAL APPLICATIONS INCLUDE: SNOW PLOWS, TRUCK WINCH, LIFT TRUCKS, LOW VOLTAGE EQUIPMENT,

- 6-24 VDC Systems
- Plated Steel or Phenolic Housings
- Ignition & Ground Terminals, # 10-32 thread
- Contact Terminals 5/16"-24 Thread
- Bracket Mounting Holes; 5/16" x 19/32"
- 2 1/8" on Center

### Contact Factory for availability of additional solenoids.

CONTINUOUS DUTY (6-24VDC), 150Amps In Rush "S.P.S.T." Normally Open Contacts - Off - On

**52-307-01** 12V, 100 Amps, Continuous Duty, Insulated, with hardware UL listed

**52-312-01** Same as 52-307-01 except grounded with three terminals (not shown, not UL listed).

**52-315** Same as 52-307-01 except coated with protective grey plastic coating. (Dust & Moisture Resistant)

**52-324-01** Same as 52-307-01 except 24 Volt, continuous duty. 100 Amps, (not shown, not UL listed)

**52-337** – 12V, 100 Amp continuous duty with diode (see page 50 for more complete description).

52-307-01

52-315



52-337

**52-327** 12 Volt, continuous duty. 100 Amps

52-336 36 Volt, continuous duty. 100 Amps

**52-329** 12 Volt, continuous duty. 200 Amps

**52-339** 24 Volt, continuous duty. 200 Amps

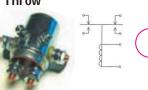




### **Double Pole Single Throw**

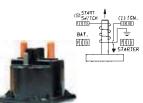
**52-330** 12 Volt, 2 circuits, SPDT, Normally Open /Normally Closed, continuous duty. 100 Amps, insulated

**52-340** 24 Volt version of 52-330



**INTERMITTENT DUTY** (6-12VDC, 750Amps Make, 100 Amps Break) "S.P.S.T." Normally Open Contacts - Off - On

**52-305-01** UNIVERSAL - 12-V Applications - Grounded Base, Flat Bracket, Internally grounded to housing, other end connected to small terminal.



52-328 12V, 100 Amp, SPST, Insulated, Short Case







52-305-01

**52-331** (Replaces 52-304). 12V, 600 Amp make, 200 Amp break, Normally off, SPST, one circuit Off/On, Short Case.

**52-332** 24V, 2 Min Cycle version of 52-331





52-333 Heavy Duty, SAE J1171 Marine Rated, 10 Min. Duty Cycle

**52-334** Heavy Duty same as 52-333 but not Marine Rated



### **DOOR SWITCHES**

**52-620** (SEALED) Door Jamb Switch for most Ford and Chrysler products, 14V at 10 Amps Lamp Load Overall length 2-1/8", Plunger travel 3/16", Self-tapping thread. Self-Adjusting.

**52-622 Mating Connector** for 52-620 Switch. Three 8" 18 gauge wire leads.

### 52-624 (KIT)

52-620 Switch and 52-622 Mating Connector.

### 52-616

UNIVERSAL, 5 Amps @ 12V, Screw Terminals "ON" when plunger is out. Dual Mounting Hole 1-3/8", 2-1/16 on center. REPLACES: Chrysler 882943, KF-204229,

### 52-623

Door Jamb Switch to accept two Bullet Terminals. Weather Resistant plastic plunger and body. Accepts two bullet terminals. Pits panels .030" - .070" thick. Mounting hole .850 diameter. max., 5 Amps @ 12V. REPLACES: Ford OA1-13713, BOA-13713, B9MT-13713A, C3AZ-13713A.

52-620



**52-633** 52-620 with mounting hardware.

**52-625** – Shell for 52-622 **52-626** – Boot for 52-622

**52-627** – Pin for 52-622

52-622





### AXLE SWITCH



### 52-260

TWO SPEED AXLE SHIFT LIMIT SWITCH. For use in controlling the Eaton two speed electric axle. Phenolic insulator base with O-Rings on studs. Used with Pollak® #52-261 Axle Switch.

### AXLE SWITCH



### 52-261

2 Position Both On controls. High and Low Axle Ranges. Die-cast body protected with rubber cover. Three Female Terminals to receive Bullet Terminals. For use in controlling the Eaton two speed electrical axle.

### STOPLIGHT SWITCH



**52-104 (N.O.)**HYDRAULIC (60-100 P.S.I.)
Pressure switch

### **DIMMER SWITCHES**

2 POSITIONS - ON Low Beam) ON (High Beam) S.P.D.T.



### 52-250

UNIVERSAL - Mounts through floorboard. Three 1/4" - 20 tapped holes, 3/4" and 1-3/4" on center, With 3 Flat Screw Terminals and 4 Bullet Terminals supplied in separate hardware kit. 3 Screw Terminals.



### 52-252

Floor Mounted Type. Mounting holes 1-5/8" on center, 7/32" diameter., 3 Special Terminals, for Plug connection.



### 52-253

Special Floor Mounted Type. Mounting holes 1-6/8" on center, 9/32" diameter., 3 Special Terminals for Plug Connection.

# CIRCUIT BREAKERS



# CIRCUIT BREAKERS

### What are Circuit Protection Devices and how do they work?

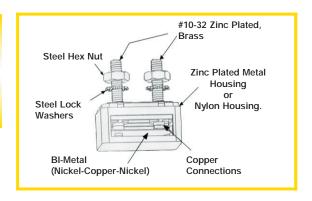
Circuit Protection Devices are manufactured for use in multiple power strips, boats, recreational vehicles, battery charges, welding equipment, portable generators, agricultural equipment, trucks, passenger and school buses and off-road construction equipment.

### GENERAL OPERATING PRINCIPLES

Circuit Protectors are single pole thermal type devices. Basic construction consists of two terminals, one terminal with a composite alloy reed to which a precious metal contact has been attached, and the second terminal with a precious metal contact. When a circuit protector is assembled and in the operational mode, the precious metal contacts rest against each other. Current flow is from one terminal through the composite alloy reed to the contacts and out the second terminal. In general, the size, material composition and the way the reed is processed during manufacturing, coupled with the type of contacts and terminals, determines the current rating of the device. Under normal conditions, circuit protectors are designed to handle 100% of rated current on a continuous basis. When the current rating is exceeded heat will be generated and the composite alloy reed will bend up, separating the contacts. The speed at which this process occurs is dependent on two main variables, the amount of current in excess of rating and temperature. The method in which the breaker is reset depends on the types of breakers used.

### **Automatic Reset**

Type 1 will cycle continuously during an over-current condition. The composite alloy material will bend and separate the contacts when an over current situation occurs and return to the run mode as it cools. This process will continue until the source of the over-current is removed or corrected.



### **Modified Reset**

Type 2 Unlike the auto reset design, Type 2 has an additional resistive component built into it which raises the ambient temperature within the circuit protector. This limits the number of cycles (less than 10) by not allowing the composite alloy to cool and reset the circuit. The circuit will remain open with less than 1.0 amp current flow as long as the voltage is applied.

### Manual Reset

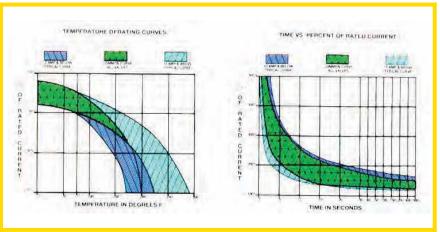
<u>Type 3</u> circuit protector introduces a noncurrent carrying object between the contacts when they open. To reset the contacts, an external button or lever must be activated to return to normal operation.

### Sizing A Circuit Protector

Temperature and percent of rated current will affect the performance characteristics of a thermal circuit breaker. These parameters should be taken into consideration when specifying which size and type device is needed for your application. All Pollak® circuit protectors are designed to run continuously at 100% of rated current at 77°F. However, as a general rule you should size your breaker so that your continuous current is 75-80% of the rated current of your circuit protector. For example, if your application runs at a continuous 8 amps, you should choose a 10 amp breaker.

Another major factor to consider is the affect that temperature has on the rating of the circuit protector. As with all thermal devices, as temperatures change the continuous current rating of the circuit protector changes. As stated earlier, all Pollak circuit protectors are designed to run continuously at 100% or rated current at 77°F. The bottom chart shows the effect temperature has on the rated current for circuit protectors.

Notes: Circuit Breakers vs fuses			
	Circuit Breaker	Fuse	
Resettable Cycles	Yes	No	
Adjustable Ambient Compensation	Yes	No	
Locate Anywhere (even under hood)	Yes	No	
Permanent Mounting Capability	Yes	No	



### Typical Circuit Breaker Applications

Accessory Circuit, Cooling Fan, Door Locks, Headlamps, Tail Lamps, Window Lift, Sunroof, Trailering Package

### **CIRCUIT BREAKERS - TYPE I** Cycling - Automatic Reset

Single Pole Thermal Type Breakers Rating From: 5A to 50A; 12VDC.

Operating Temperature: -10°F (-23°C) to 150°F

(65°C).

Storage Temperature: -20°F (-29°C) to 200°F

(93°C).

Applications: Battery charges, trucks, buses, RV's,

trolling motors, etc..

Ampere Rating	Plastic Base 12 VDC	Metal Base 12 VDC	
10	54-110PL	*	
15	54-115PL	54-115	
20	54-120PL	54-120	
25	54-125PL	54-125	
30	54-130PL	54-130	
35	54-135PL	*	
40	*	54-140	
50	54-150PL	54-150	
* Currently not available No Mounting Bracket			

Ampere Rating	Plastic Base 12 VDC	Metal Base 12 VDC	
15	54-215PL	54-215	
20	54-220PL	54-220	
25	*	54-225	
30	54-230PL	54-230	
30	54-831PL (Plasti	ic 24 VDC)	
40	54-240PL	54-240	
50	54-250PL	54-250	
* Currently not available 90° Mounting Bracket			

Ampere Rating	Plastic Base 12 VDC	Metal Base 12 VDC	
10	54-510PL	*	
15	54-515PL	54-515	
20	54-520PL	54-520	
25	*	54-525	
30	54-530PL	54-530	
40	54-540PL	54-540	
50	54-550PL	54-550	
* Currently not available Straight Mounting Bracket			

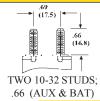
### **NOTES: PLASTIC VS METAL**

- VIBRATION...Plastic housings with mounting brackets are one piece molded and are less prone to vibration. Metal housings with brackets are two piece designs. The bracket is attached by spot welding and can be loosened by vibration.
- SHORTING OUT... If a wire should loosen from a terminal on a plastic housing version, it will not short out against the housing as it may do with a metal housing.
- WEIGHT...The plastic housing is also lighter than the metal housing.

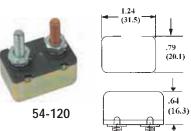
### NOTES: 24V VS 12V CIRCUIT BREAKERS

A 24V Circuit Breaker may be used in a 12V application because of the thermal metals used in assembly. However a 12V Circuit Breaker in not recommended for 24V since the materials are Heat affected...not current affected.

Terminal Options - Battery Terminal has yellow dichromate plating Aux Terminal = Zinc Plating

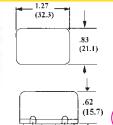


### **METAL COVER**



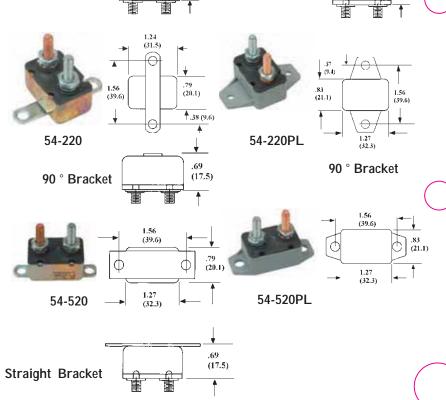






PLASTIC COVER





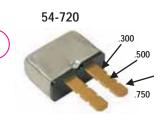
### Circuit Breakers - Type II

### Plug-In Terminal Type

### Non-Cycling - Modified Reset

Designed with an additional resistive component this style breaker remains open as long as power is available or until the load is removed.

Special "snap-off" feature provides three lengths of .300, .500, or .750" (18 mm) H. Blades = .78" (19.9 . Body = 1" (25.27 mm) L x .40" (10.03 mm) W x (.70mm) L



Blade Type Part #	Ampere Rating
54-705	5
54-710	10
54-715	15
54-720	20
54-725	25
54-730	30

### **NOTES: STUD TERMINALS VS.250QC BLADE TERMINALS**

- ACCESSIBILITY/VIBRATION...If the circuit breaker is not easily accessible or subject to vibration then stud terminals/lock washers are preferred.
- OFF-ROAD, CONSTRUCTION...For Quick Connect applications (i.e., Bus, RV, Conversions...) 250 quick connect terminals are preferred.

### Sealed Circuit Breakers (Type I)

- •Designed for exposed applications (moisture, dust, oil).
- With and without mounting brackets.
- Supplied with 12" wire loop.

Ampere Rating	Sealed	Sealed with Bracket
20	54-920	54-921
30	54-930	54-931
40	54-940	54-941



### **MOUNTING BRACKETS**

Rugged steel brackets with detents permit simple snap-in of 54-115 thru 54-150 (Type 1) series metal only circuit breakers.



52-241

No. Gangs	Part No.	Length	Mounting Hole Center
2	52-240	4.81"	4.00"
4	52-241	6.63"	5.81"
6	52-242	8.44"	8.44"
8	52-243	10.25"	10.25"



Bus bar for studded circuit breakers. .20 X .30 slots (.91 typ. On center)



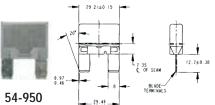
52-249 7-Breaker Junction box

L 7..5" X W 3.75" X H 2..5"

### **CIRCUIT BREAKERS - TYPE II**

### Maxi-Style Plug-In

OEM style replacement circuit breaker for Ford, Paccar, & Freightliner Body= (29.mm) L x (8.90mm) W x (21.6mm) H Blades= (12.7mm) L



### MAXI STYLE METAL: TYPE II-Non-Cycling-Blade Terminals

Ampere Rating	Blade Terminals	Style
20	54-950	Generic
30	54-951	Generic



Ampere Rating	Blade Terminals	Style
10	54-953	Ford HD 8
15	54-954	Ford HD 8
20	54-955	Ford HD 8
30	54-956	Ford HD 8

### ATO Style Plug-In

OEM style replacement circuit breaker for Ford Class 8 Vehicles Body= (29.mm) L x (8.90mm) W x (21.6mm) H Blades= (12.7mm) L



3.8(.150")

### Mini-Style Plug-In

OEM style replacement circuit breaker for Freightliner and Paccar Class 8 Vehicles Body= .98" (24.90mm) L x .40" (9.50mm) W x .70 (18.0mm) H Blades- .50" (11.00mm) L x 11" (2.90mm) W



54-957

# MINI BLADE METAL: TYPE II - Mon-Cycling-Blade Terminals

Ampere Rating	Blade Terminals	Style	
10	54-597	Freightliner HD 8	
15	54-958	Freightliner HD 8	
20	54-959	Paccar HD 8	
30	54-960	Paccar HD 8	

# **CIRCUIT BREAKERS - TYPE III**

### Push Button - Manual Reset

Breaker remains open on overload and has to be manually reset with the push of the button.

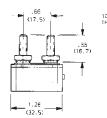
### Single Pole Thermal Type Breakers

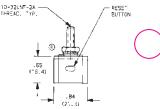
Rating From: 5A to 50A; 12VDC – 24VDC

Operating Temperature: -10°F (-23°C) to 150°F (65°C). Storage Temperature: -20CF (-29°C) to 200°F (93°C). Applications: Battery charges, trucks, buses, RV's,

trolling motors, etc.



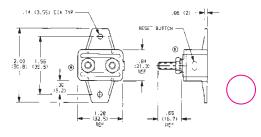




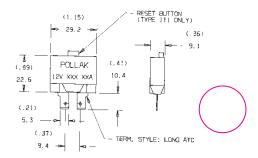
Ampere Rating	Plastic	Plastic w/ 90° Bracket	Maxi-Style
10	*	*	54-311PL
15	*	54-616PL	*
20	*	*	54-321PL
25	*	*	*
30	54-630PL	54-631PL	54-331PL
40	54-640PL	54-641PL	*
50	54-650PL	54-651PL	*

**Note:** Maxi-Style Breakers plug into Pollak Blade Type Fuse Panels. (See page 48)





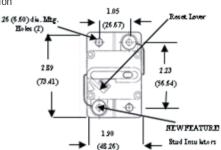




### **CIRCUIT BREAKERS - HIGH AMP**

Manual trip push button on Series 54-870PL. Open circuit indication via reset lever position.

SURFACE MOUNT



Type I & III Single Rate Thermal Type Breakers

Rating: from 40A to 150A; 12VDC.

Operating Temperature: -25°F(-32°C) to 180°F(82°C). Storage Temperature: -30°F(-34°C) to 300°F(149°C). Applications: Typically used in auxiliary and accessory

circuits - trucks, buses, RV's and marine applications. Others might include battery charges and DC audio systems. Sealed for engine compartment and bilge area applications.

**Housing:** Thermoset plastic: **Mounting:** Panel or surface.

Indicator: Series 54-870 (Type III) have a unique reset mechanism which provides visible indication of tripped condition. Splash Proof, Dust Proof.

Operating Temperature: -25°F(-32°C) to 180°F(82°C).

Storage Temperature: 15° to 250° F, (Available in other amperages upon

request - 50 to 150 Amps).

**Ampere** 

Rating

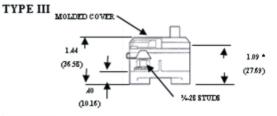
60

100

150

80

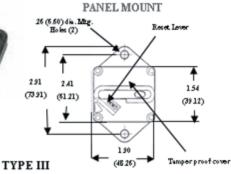
120

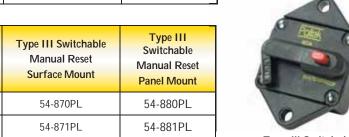


Ampere Rating	Type I Auto Reset Surface Mount	Type I Auto Reset Panel Mount
60	54-850PL	54-860PL
80	54-853PL	54-863PL
100	54-851PL	54-861PL
120	54-854PL	54-864PL
150	54-852PL	54-862PL
200	54-855PL	*
250	54-856PL	*



Type I Auto Reset



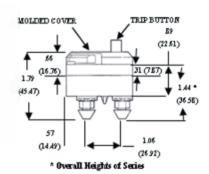


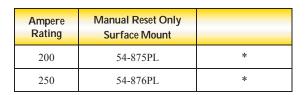
54-882PL

54-883PL

54-884PL

Type III Switchable





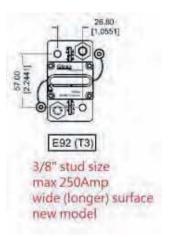
54-872PL

54-873PL

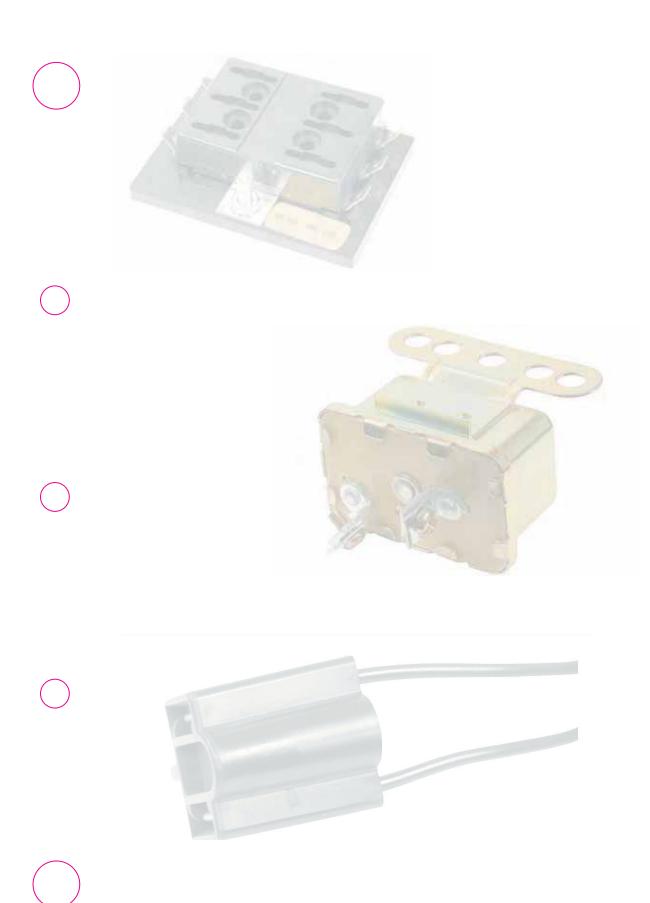
54-874PL



Manual Reset Only



# SPECIALIZED ELECTRICAL PRODUCTS



# SPECIALIZED ELECTRICAL PRODUCTS

### **SPECIFICATIONS**

### **Interchangeable Blade Terminals:**

Accepts ATC® blade-type fuses, or blade-type, auto or manual reset circuit breakers. **Wiring:** Output terminals - .250" x .032" OC rated 30A max. per circuit; Input terminals - #10-32 stud input rated 150A max.

**Positions:** Provides 6-24 protected output

**Material:** Black, thermoplastic, -20°F to

**Applications:** Compact and lightweight, yet rugged enough for use in trucks, buses, boats, RV's etc.

Other Features: No top cover needed; recessed trifurcated fuse contacts. Recessed mounting holes.

52-406

### ATC BLADE TYPE FUSE PANEL

Position	Blade Type	Dimensions	Mounting Hole Center
6	52-406	L 2.47"x D 3.38" x H 0.81"	0.62"
8	52-408	L 3.09"x D 3.38" x H 0.81"	1.25"
10	52-410	L 3.72"x D 3.38" x H 0.81"	1.87"
12	52-412	L 4.34"x D 3.38" x H 0.81"	2.50"

### **FUSE PANEL**

Position	Blade Type	Blade Terminals	Dimensions
12	52-214	52-214Q	L 7.38" x D 2.0" x H 0.56"

For economical tight cluster mounting of 1/4" x 1-1/8" fuses. Breakaway design, 300 volt rating. Blocks are molded glass-filled thermoplastic, polyester clips are spring-bronze; Alboloy-plated.

### **Junction Boxes**



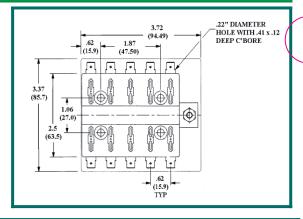
**52-248** 10-Terminal Junction Box



7-Circuit Breaker Junction Box



**52-259 7**-Terminal
Junction Box



### TERMINAL BLOCKS (Non Feed-Thru)

Rating: 30A, 12 VDC.

Operating Temperature:  $250^{\circ}F$  ( $120^{\circ}C$ ).

**Standards:** 2 to 10 steel studs on .750" centers and a "dog point" to guide nut into 10-24 thread. **Torque:** Recommended 20 in / lb (25 in / lb max).



52-244

No. of Gangs	Terminal Block	Length	Mounting Hole Center		
4	52-244	4.5"	0.62"		
6	52-245	6"	1.25"		
8	52-246	7.5"	1.87"		
10	52-247	9"	2.50"		

# TERMINAL BLOCKS WITH INDEPENDENT FEEDS

No. of Gangs	Terminal Block	Dimensions	Mounting Hole Center
4	52-270	L 2.51" X W 1.37" X H 0.75"	2.18"
6	52-271	L 3.38" X W 1.37" X H 0.75"	3.06"
8	52-272	L 4.25" X W 1.37" X H 0.75"	3.93"
10	52-273	L 5.13" X W 1.37" X H 0.75"	4.81"
14	52-274	L 6.87" X W 1.37" X H 0.75"	6.56"

Rating: 20A, 12 VDC Center Spacing: 7/16"

Wiring: Terminals will accept maximum wire size of AWG #12.

Terminal Screw Size: #6-32 philslot combination. Distance Between Barriers: 0.353".

Mounting: #6 Screws.

**Temp. Rating:** °F(°C); 302 (150) max. -40 (-40)min.

### **BATTERY JUMPER TERMINALS**

- Jumper terminals designed to provide remote mounting for battery connections either inside or outside of the vehicle.
- Easily installed, the positive terminal can be individually used or in conjunction with the negative terminal as a pair.
- Rubber caps, solid brass studs, brass hex nuts and brass lockwashers.
- Dimension for grooved contact post: 13/16" (20.63mm) dia., 1-1/8" (28.77) long.



52-138

Red Cap - Positive Terminal



52-139

Black Cap - Negative Terminal

# SEALED BEAM FLASHER CONNECTORS

### 52-255

2 Wire connector assembly used on all vehicles with 2 prong seal beam lighting, or 2 prong flashers

### 52-256

3 Wire connector assembly used on 3 prong seal beam lighting, or 3 prong flashers.



52-256

### **PILOT LIGHT**

### 52-115

12 VOLT PILOT LIGHT. Red 1/2" diameter faceted lens. For panel mounting through 5/16" hole. Has snap-out socket for conventional bulb replacement.



### **BUZZER**

### **UNIVERSAL**

Truck Low Air Pressure And Bus Rear Door Warning

### 52-400

### 52-400

12 Volt-2 Screw Terminals. 76dB @ 4: REPLACES: Ford FDM 2938A; GMC Truck and Coach 76023; Wayne Works Div., Divco-Wayne E-11811A and other 12 volt applications.



### **HORN BUTTONS**

### 52-660

Large IVORY Button, 1-11/16" Dia. with clamp-On Bracket. Fits Steering column up to 1-1/2".

### 52-777

Large BLACK Button , Chrome Plated Housing.

### 52-661

FLAT SURFACE MOUNTING BLACK Plastic Button, Nickel Plated Housing, Mounting Holes 2-1/8" on centers







### **STOP LIGHT SWITCH**

### 52-602

MECHANICAL. REPLACES DR-1997901, 1997915 & 1997922



# Look What's NEW...





Pollak® has a "new and improved" website; visit us at www.pollakaftermarket.com

# Pollak® NEW 12 Volt Solenoid, Includes Diode



52-337

When power is applied to the relay coil, a magnetic field is created and energy is stored in the coil. When power is removed, the magnetic field collapses causing a reverse voltage to be generated (it's called inductive kickback or back EMF). The back EMF can easily reach 200 volts. The diode will absorb the reverse voltage spike. This voltage, if not absorbed by the diode, will cause premature failure of switch contacts or feed back to other crucial vehicle electrical parts.



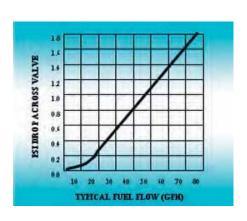


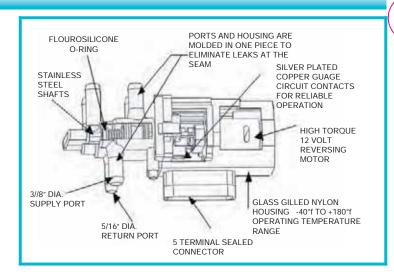






# **FUEL TANK SELECTOR VALVES**





### **MOTORIZED FUEL SELECTOR VALVES -**

(Diesel or Gas) These valves are designed for use in applications which involve in-tank fuel pumps, not exceeding the rated pressure of the valve. Motorized valves are driven into position by an electric motor and are stable in either position. They only draw power for a fraction of a second during transfer. A switch in the valve shuts off the motor when the valve reaches the selected position.

**NOTE:** Another switch within the valve provides automatic fuel gauge readout for selected tank.

### 42-159 (65 PSI) LIGHT TRUCK 6-PORT MOTOR DRIVEN VALVE

Incorporates six ports including return, draws -.5 amps. max. at 12 volts, fits 3/8" I.D. hose for fuel supply and 5/16" hose for return lines. Mounting holes: 2 5/16" threaded nuts on 1 3/16" centers. Valve remains in actuated position after power is disconnected. For new installations 42-203 connector and 34-592 toggle switch required. Installation sheet included.

# 42-300 KIT - 6 PORT MOTORIZED VALVE; CONNECTOR, SWITCH AND FACE PLATE

Contains: 42-159, 42-203, 34-592, 42-201 Specifications: Same as 42-159

### 42-302P KIT - 6 PORT MOTORIZED VALVE AND CONNECTOR

Contains: 42-159, 42-203 Specifications: Same as 42-159



# **FUEL TANK SELECTOR VALVES**

### 42-151 3 PORT MOTORIZED VALVE

Maximum Fuel System Pressure: 65 psi Fuel Hose: 3/8" ID. Connector (Required): 42-203 Recommended Fuse: 7.5A

42-308 KIT-3 PORT MOTORIZED VALVE; CONNECTOR, SWITCH AND FACE PLATE

Contains: 42-151, 42-203, 34-592, 42-201 Specifications: Same as 42-151



### **SERVICE TIPS**

Motorized Valves – Use 18 AWG (or heavier wire for long runs) to insure adequate voltage at the valve during operation. These valves are designed for use in vehicles with 12 volt systems.

Motorized Valve Common Solutions for the 42-159 & 42-151

**PROBLEM-** The gauge reads the fuel level in the wrong tank. Check the wiring for the fuel tank gauge sending units to the valve. Exchanging the wires to terminals "A" and "C" may correct this.

**PROBLEM-** The valve won't switch tanks. Check all wiring to the valve. The valve changes position when the voltage polarity at the terminals "D" and "E" is reversed. The valve should always have 12 volts between terminals "D" and "E".



42-201



34-592

### General

*Always use fuel filters* between the tanks and the valve. Contamination from unfiltered fuel is a leading cause of valve damage and resultant failure.

These valves are not for marine applications.

**Not for use with water.** These valves are designed and manufactured to provide trouble free operation in multiple tank fuel systems. The internal components require diesel or gas fuel to lubricate the working parts.

Do not allow valves to remain dry for extended periods of time. Dried fuel will cause the internal seals to stick and can damage them when the valve is eventually actuated. The use of a fuel stabilizer during long term storage is recommended.

# **FUEL TANK SELECTOR VALVE ACCESSORIES**

34-592 Toggle Switch D.P.D.T.

Circuit: DPDT ON-ON Reversing

Positions: 2

Termination: 6 Screw 2 Jumper Blades Mounting: 15/32" Dia. Bushing



Rocker Switch 34-359
Reversing Rocker Switch,
(Main/Aux.)
On-On D.P.D.T.2 Positions,
6 Blade Terminals with
Jumper Blades, Fits .830" x
1.450" Panel Cutout in .093,
.125, .187 thick panels.
Black Bezel & Actuator.
Housing has nylon gasket for

protection against moisture

intrusion.



**42-201 Faceplate** (Supplied in 42-300)
Material: Bright Nickel Plated
Steel Legends: AUX, MAIN



25-371
1/2 Toggle Boot
Same as Toggle Boot #25-370
except allows Toggle Handle
(of any length) to protrude.
Accommodates all toggle lever
diameters from .155" - .240"
including all Pollak toggles
except nylon handle series.



25-370
Toggle Boot
EPDM Rubber Boot with 15/32-32
thread. Provides protection against salt spray and is resistant to weather and ozone. Can be used on 34-570
Series and other toggle switches with 15/32" Dia. mounting stem.



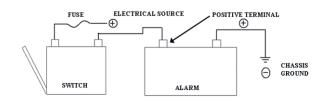


# **BACK-UPALARMS**

Pollak® provides a complete family of back-up alarms manually adjustable and single level. Selection of a back-up alarm should result in an alarm that has a sound level output higher than the ambient noise level of the work environment.

### Features Standard To Pollak® Electronic Back-Up Alarms:

- Manufactured of high-impact, non-corroding nylon.
- 100% Factory Tested
- Solid state electronics sealed against dust, moisture, and vibration.
- Can be used in positive or negative ground vehicles.
- Steam cleanable.



### 41-761 (9-24 Volts)

### MANUALLY ADJUSTABLE 112/107/97db

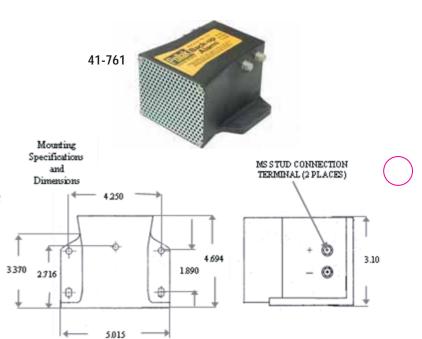
<u>Heavy-duty adjustable unit</u> for largest construction and mining vehicles, graders, dumps, crawlers, tractors, belly dumps, etc. Designed for high performance, the most compact lowest cost unit of this type available.

### **SPECIFICATIONS:**

- Adjustable sound levels... 112dB... 107dB...97dB(A)
   ±4 @ 4'
- Multi-voltage 9 to 24 volts
- Voltage spike protected
- Current draw less than 1 amp
- Solid state electronics
- Certified conformance to S.A.E, J994, types A, B, & C
- Meets State, Federal, O.S.H.A., Bureau of Mines, and Army Corps of Engineers' requirements
- Size 5" W x 4.7" D x 3.1" H
- Mounting 2" x 4 1/4" centers
- Net weight 2.0 lbs.

### **FEATURES**:

- Made of high impact, non-corroding plastic
- Weather resistant and steam cleanable
- Operates in temperature ranges (-40° F to +170° F)
- Can be used on positive and negative ground vehicles





### 41-802

- · Robust Heavy Duty Switch
- · Water Resistant
- 15 Amps @ 12VDC
- Single Pole Double Throw with 360 Degree Movement
- Mounting Bracket & Instruction Sheet Included



### 41-706

- Switch for vehicles not equipped.
   with automatic back-up light circuit. Mounts adjacent to reverse shift
- Spring loaded lever permits overtravel
- Normally off
- 2.5 Amps Inductive @ 14-28V

For vehicles not equipped with an automatic back-up circuit. Use with any back-up alarm, but the "Pro's" trust **Pollak**®.

# **BACK-UPALARMS**

Pollak® provides a complete family of back-up alarms manually adjustable and single level. Selection of a back-up alarm should result in an alarm that has a sound level output higher than the ambient noise level of the work environment.

NEW: 41-851, 41-820, 41-821& 41-822

- Slotted mounting 'drop in' replacement
- Wire leads enhance corrosion protection (from traditional studs)
- New design smaller size, less heat, longer life
- Consult factory for additional models

### 41-851 (12-24 Volts) SINGLE LEVEL 107db

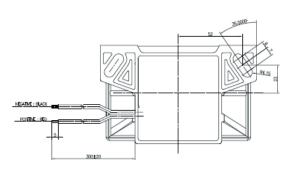
A Medium to Heavy-Duty unit for off-highway trucks, dump trucks, loaders, cranes, backhoes, etc.

### **SPECIFICATIONS:**

- Single level...107dB (A) ±4 @ 4'
- Voltage spike protected
- Reverse polarity protected
- Current draw less than 0.3 amps
- Solid state electronics
- Certified conformance to S.A.E. J994, type B
- Meets all European Standards for on and off-road vehicles (CE & E-Mark Certified)
- State, Federal, O.S.H.A., Bureau of Mines and U.S. Army Corps of Engineers' requirements
- 12" Wire Leads
- Size-5"Wx3.25"Dx3."H
- Mounting 2 slots .75"Lx.25"W and 2 slots 1"L x .25"W on 4.25" centers
- Net Weight 1.2 lbs.

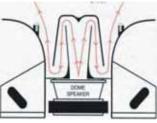
### **FEATURES:**

- Rugged Glass-Filled Nylon Housing
- Steam cleanable/Pressure Washable
- Low Current High Efficiency Dome Speaker
- Meets extreme requirements of off-highway equipment
- Operates in temperature ranges (-40° F to +185° F)
- Can be used on positive and negative ground vehicles

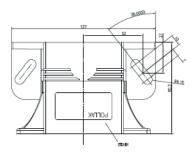








Patent Pending *Dome Speaker* demonstrating the self-cleaning feature; expelling concrete dust.



### 41-820 (12-24 Volts) SINGLE LEVEL 97db

The rugged and compact 41-820 allows replacement of unnecessarily large and bulky alarms currently used on light and medium duty trucks, dump trucks, motor homes, campers, electric fork lifts and other similar applications.

### **SPECIFICATIONS:**

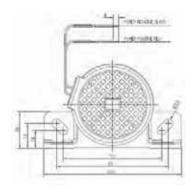
- Single level...97dB(A) ± 4 @ 4'
- Multi-voltage -12-24 volts
- Voltage spike protected
- Reverse polarity protected
- Current draw less than 0.3 amps
- Solid state electronics
- Certified conformance to S.A.E. J994, type C
- Meets State, Federal and U.S. Army Corps of Engineers' requirements
- Meets all European Standards for on and off-road vehicles (CE & E-Mark Certified)
- Size-4"Wx1.25"Dx2.5"H
- Mounting four .5"Lx .25"W slots on 3.25" centers

### **FEATURES**:

- Rugged glass-filled nylon housing
- Steam Cleanable/Pressure Washable
- Can be used on positive and negative ground vehicles
- Compact size allows for horizontal or vertical mounting in protected areas

# 41-821 (Not Shown) Same as 41-820 but with Stud Terminals







### 41-822 (12 to 24 Volts) SINGLE LEVEL ALARM 107db

For use in medium to light duty applications where a louder warning level is required.

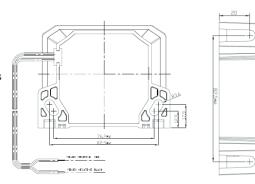
### **SPECIFICATIONS:**

- Single level...107dB(A) ± 4 @ 4'
- Multi-voltage-12-24 volts
- Voltage spike protected
- Reverse polarity protectedCurrent draw less than 0.3 amps
- Solid state electronics
- Certified conformance to S.A.E. J994, type B
- Meets State, Federal and U.S. Army Corps of Engineers' requirements
- Meets all European standards for on and off-road vehicles (CE & E-Mark Certified)
- Size 4"W x 2.5"D x 3."H
- Mounting two .5"Lx.25"W slots and two .75"Lx.25W slots on 3.25" center
- Net Weight 1 lb

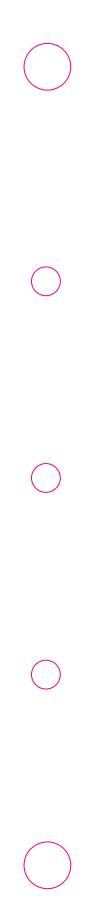
### **FEATURES**:

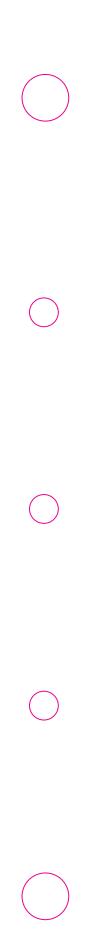
- Rugged glass filled nylon housing
- Steam Cleanable/Pressure Washable
- Low current, high efficiency dome speaker
- Can be used on positive and negative ground vehicles
- Compact size allows for horizontal or vertical mounting in protected areas











**ELECTRICAL** CONTROLS **SINCE 1909** 



# **WIRING COLOR CODES**

	RECREATION VEHICLE									
	7 - POLE CONNECTORS									
No.	Col	or	Circuits	Recommended Wire Gauge						
1	White		Ground Return	10 Ga						
2	Blue		Electric Brake	12 Ga						
3	Green		Tail, License and Running Lights	14 Ga						
4	Black		Battery Charge	10 Ga						
5	Red		Stop & Left Hand Turn Signal	14 Ga						
6	Brow n		Stop & Right Hand Turn Signal	14 Ga						
7	Yellow		Auxiliary Circuit	14 Ga						

	HEAVY DUTY TRUCK								
	7 - POLE CONNECTORS								
No.	Co	lor	Circuits	Recommended Wire Gauge					
1	White		Ground Return	8 Ga					
2	Black		Clearance, Side Marker, and Identification Lamps	12 Ga					
3	Yellow		12 Ga						
4	Red		Stop Lamps & Anti-Lock Devices	10 Ga					
5	Green		Right Turn Signal & Hazard Signal	12 Ga					
6	Brow n		Tail, Rear Clearance, Marker, and License Plate Lamps	12 Ga					
7	Blue		Auxiliary Circuit/ABS	10 Ga					

	UNIVERSAL 6 - POLE CONNECTORS								
No.	Col	lor	Circuits						
1	White		Ground Return						
2	Brown Tail Lights								
3	Yellow		Left Turn						
4	Red		Stop						
5	Green		Right Turn						
6	Blue		Auxiliary Circuit						

	UNIVERSAL 4 - POLE CONNECTORS									
No.	С	olor	Circuits							
1	White		Ground Return							
2	Green		Right Turn & Brake Lights							
3	Yellow or Red		Left Turn & Brake Lights							
4	Brow n		Tail Lights							

For POLLAK® products, contact:

Note: Check all circuits before operating

vehicles

### WIRE GUAGE SELECTION CHART

Note: This chart is based upon a 10% voltage drop. For 5% voltage drop, use double the measured wire length. When mechanical strength is a factor, use next larger wire gauge.

12-VOLT	Total I	Total length of Cable in Circuit from Battery to Most Distant Lamp									
		2.5	5	10	20	30	40	50	60	80	100
AMPS	Candle	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft	Ft.	Ft.
(Appl).	Power	GA.	GA.	GA.	GA.	GA.	GA.	GA.	GA.	Ga.	Ga.
1.0	6	20	20	20	20	20	20	20	20	20	18
1.5	10	20	20	20	20	20	20	20	20	18	18
2	16	20	20	20	20	20	20	18	18	16	16
3	24	20	20	20	20	20	18	18	16	16	14
4	30	20	20	20	20	18	16	16	16	14	12
5	40	20	20	20	18	18	16	14	14	12	12
6	50	20	20	20	18	16	16	14	14	12	12
7	60	20	20	20	18	16	14	14	12	12	10
8	70	20	20	20	16	16	14	12	12	10	10
10	80	20	20	18	16	14	12	12	12	10	10
11	90	20	20	18	16	14	12	12	10	10	8

12-VOLT	SYSTEM	Total I	Total length of Cable in Circuit from Battery to Most Distant Lamp								
		2.5	5	10	20	30	40	50	60	80	100
AMPS	Candle	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft.	Ft	Ft.	Ft.
(Appl).	Power	GA.	GA.	GA.	GA.	GA.	GA.	GA.	GA.	Ga.	Ga.
12	100	20	20	18	16	14	12	12	10	10	8
15	120	20	20	18	14	12	12	10	10	8	8
18	140	20	20	16	14	12	10	10	8	8	8
20	160	20	18	16	12	12	10	10	8	8	6
22	180	20	18	16	12	10	10	8	8	8	6
24	200	20	18	16	12	10	10	8	8	6	6
36		20	16	14	10	8	8	8	6	6	4
50		18	16	12	10	8	6	6	4	4	2
100		14	12	10	6	4	4	2	2	1	0
150		14	10	8	4	2	2	1	0	00	000
200		12	8	6	4	2	1	0	00	000	0000

# Open Space for your notes:

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