## Pollak ${ }^{\circledR}$

A Stoneridge Company

## igineered solutions

to design
challenges


## Pollak ${ }^{\circ}$

## A Stoneridge Company

Since 1909, Pollak $^{\circledR}$ 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 $\mathbf{2 5 0 , 0 0 0}$ 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 ${ }^{\circledR}$ excels in its ability to design and manufacture from the concept stage through manual, semi-automatic and fully automated, high volume production. Pollak ${ }^{\circledR}$ is a certified ISO9001/OS9000 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.


Stoneridge's Control Devices Division located in Canton, MA and Lexington, OH is a leading supplier of electrical connectors, switches, and sensors. This division develops, manufactures and supplies a wide variety of electromechanical products including toggle, rocker, door, pedal and ignition switches, back-up alarms, circuit breakers and related items. Pollak ${ }^{\circledR}$ is the Aftermarket business located within the Stoneridge's Control Devices Division. In 2009 Pollak ${ }^{\circledR}$ celebrated it's100th year in business.


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Stoneridge's Electronics Division located in El Paso, TX and Juarez, Mexico is an independent producer of electronic displays for the North American Trucking industry. This division designs and manufactures electronic modules, power converters and instrument clusters for transportation related industries.


Electronic Products Division 11801 Miriam Drive, Suite B1, El Paso, TX 79936 Tel: 915-592-5700 $>$ Fax: 915-593-7379

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.
As a Stoneridge Company, Pollak ${ }^{\circledR}$ continues the tradition today.


Stoneridge

- (NYSE: SRI)
- www.stoneridge.com
- www.pollakaftermarket.com


## ALPHABETICAL INDEX

## (See Numerical Index, pages 66-67)

| Adapters |  | 14,16-17 | Ignition Starter \& Lock Switches | 29-34 |
| :---: | :---: | :---: | :---: | :---: |
| Adaptor Housing, Connector |  | 9 | Ignition Starter \& Lock Switches (Marine) | 33 |
| Alarms, Back-up |  | 55-58 | Inserts, Plugs | 6 |
| Anti-Restart Ignition Switches |  | 29-33 | Inserts, Sockets | 7-8 |
| Axle Switches |  | 24,39 | Master Disconnect Switches | 35,36 |
| Back-up Alarms and Switches |  | 55-58 | Merchandisers | 59-64 |
| Back-up Lamp Switches (Ball Operated) |  | 27-28 | Molded Connectors | 13 |
| Battery Disconnect Switches |  | 35-36 | Momentary Start Switches | 25,26 |
| Battery Jumper Terminals |  | 12, 49 | Momentary Start Switches (Marine) | 26 |
| Boot Nut, Starter Switch |  | 26 | Panel Indicator Light (Pilot Light) | 49 |
| Brackets, Connector |  | ,12,14,15 | Plug Interiors, Connector | 6 |
| Buzzer |  | 49 | Plunger Switches | 26,39 |
| Circuit Breakers |  | 40-46 | Push/Pull Switches (Marine) | 24 |
| Circuit Breakers Brackets | , | 45 | Push/Pull Switches | 24 |
| Circuit Breakers Sockets |  | 9 | Rocker Switches | 21,22 |
| Circuit Breakers Junction Box | $\checkmark$ | 48 | Rocker Switches Accessories | 22 |
| Connector Hardware Kits |  | 7,10 | RV Connectors | 10-15 |
| Connectors, Molded |  | 13 | Sealed Beam Connectors | 49 |
| Connectors, Trailer |  | 5-13 | Starter Solenoid Switches | 38 |
| Dimmer Switches | $\cdots$ | 38 | Stop Light Switches | 39 |
| Displays (Merchandising) |  | 59-64 | Terminal Blocks | 48 |
| Door Switches |  | 39 | Toggle Accessories | 21,22 |
| Electronic Dimmer Switches |  | 37 | Toggle Switches | 19-22 |
| EZ-ELD Electronic Logging Device |  | 46 | Trailer Connectors | 6-15 |
| Fuel Tank Selector Valves |  | 51-54 | Transmission Mounted Switches | 27,28 |
| Fuse Blocks |  | 48 | Universal Connector Brackets | 8,10,14,15 |
| Fuse Holders |  | 48 | Valves, Electrical Fuel Tank Selector | 52-54 |
| Fuse Panels |  | 48 | Value Line Connectors and Adapters | 64 |
| Harness, Trailer Wiring |  | 14,16 | Wiring Color Codes | 65 |

## 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 ${ }^{\circledR}$ 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 ${ }^{\mathbb{B}}$ 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 ${ }^{\circledR}$ device for its application. Pollak ${ }^{\circledR}$ makes no warranties, and assumes no liability as to the suitability or sufficiency for buyer's application of the device.



## 7-POLE PLUGS




11-902
Weather-Beater Plug with Cable



11-910
Weather-
Beater Plug with Cable Guard
11-710
Standard 7-Pole Plug with Cable Guard

## Insertion and Pull-Out

## Requirements

- 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 holes.
- 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 ${ }^{\circledR}$ 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 ${ }^{\circledR} 7$-Pole connectors are manufactured from quality materials and will help reduce maintenance cost and down-time associated with electrical failures.

## ACCESSORIES

11-762
Rubber Boot
Seals against dust and moisture, $2.5^{\prime \prime}$ long. For $.460-.720$ dial. 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
Plug interior for
11-700,11-702,11-704, 11-710,11-900,11-902, 11-904,11-910.
Supplied with mounting
 screw.

## 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 <br> Gauge | FMVSS- <br> 121 Anti- <br> Lock <br> Gauge |  |
| :---: | :---: | :---: | :---: | :--- |
| 1 | White | 10 | 8 | Ground Return |
| 2 | Black | 12 | 12 | Clearance, Side Marker and Identification <br> 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 <br> 7 |
| Blue | 12 | 12 | Auxiliary Circuit / ABS Power |  |

## WIRE INSERTION STYLE SOCKETS



## ACCESSORIES

## 11-761

7 Pole Socket Rubber Socket Boot for 11-720,11-721, 11723, 11-724, 11-729,11-730 and 11851; seals against dust and moisture, $1.5^{\prime \prime}$ long. For . 460-. 720 diameter cable.


## 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.


11-777
Hardware Kit for 7-Pole Plugs (except RV)
7-Pole Socket bracket. Fits all 7-Pole Sockets including 11-851.

## 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



> VIEW - REAR OF SOCKET


RING TERMINATION
STYLE SOCKETS

## 11-785

Same as 11-720
except with rear


Note: 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

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 | RING TERMINATION STYLE |  |  |  | Metal Circuit <br> Breaker |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $11-732$ <br> Solid 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. |  | (Not sho | $\begin{array}{r} 11-796 \\ \text { Sp lit Pin } \end{array}$ |  |
|  |  |  |  |  |  |
| Glass filled nylon nose box offers more durability and weight saving features. Replaces old style heavy weight metal boxes which can cause short circuits. | AmperagePin Type Part No. Replacement <br> Circuit Breaker <br> Metal Housing Replacement <br> Circuit Breaker <br> 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 Mounting Gasket provides weather resistant protection against rain and snow.


# 6-POLE CONNECTORS 


(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 |
| A | Blue | Auxiliary Circuit (Center) |


(Auxiliary in center)


11-604
Plug, no


11-605
Plug with cableguard


Socket with
rubber boot


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.
 Black Plastic


11-614 Socket with metal lid
11-607
Socket, exposed terminals

Three socket versions to choose from: Exposed terminals, Rubber boot coverage, or Die-Cast shell coverage. High impact plug interiors keyed for proper assembly. Machined brass terminal pins for best conductivity, terminals accept up to \#12 gauge wires. Plug available with or without cable guard. Replaceable plug interior helps reduce maintenance costs. Plated steel cable guard prevents cable chafing. Two $1 / 4$ " diameter mounting holes on 6-Pole sockets. $2-7 / 8$ " diameter on center. Mounts through 1-3/8" diameter hole.

Note: Pollak's ${ }^{\circledR}{ }^{(1)} 4$-pole and 6-pole interiors are secured with a key and keyway to eliminate twisting (disorientation) and breakage with make and break forces that apply in normal function.

11-613


Connector Plug Chrome Plated

## ACCESSORIES

## 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 11400, 11-408, 11-500, 11-600, 11-603, and 11-614.

## 11-617

Same at 11-627 except without black zinc coating for protection against rust and corrosion


12-720
6-Pole all Plastic Socket with rubber boot

## 4 \& 5-POLE CONNECTORS



## 4-POLE PLUG



| 4-POLE <br> POS | 5-POLE <br> POS | Color | Circuits |
| :---: | :---: | :---: | :---: |
| W | $\mathbf{1}$ | White | Ground Return |
| G | $\mathbf{5}$ | Green | Right Turn \& Brake Lights |
| Y/R | $\mathbf{3}$ | Yellow <br> or |  <br> Brake Lights |
|  | $\mathbf{4}$ | Red | Tail Lights |
| $\mathbf{B}$ | $\mathbf{2}$ | Brown |  |

5-POLE SOCKET


5-POLE PLUG


## 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. $2-7 / 8^{\prime \prime}$ on center. Mounts through $1-3 / 8^{\prime \prime}$ diameter hole.

Interchangeable with competitive brands.
11-402
Plug, no cable guard


## 11-403

Plug with cable guard


11-404
Connector socket


Consist of 11-402 Plug and 11-404 Socket.

## 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.

11-409
Connector Plug
$11-410$
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 $13 / 4$ " diameter on centers.


Connecto socket

## 11-500

Consist of 11-501 Plug and 11-502 Socket

11-501
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.


## 11-853

Consist of 11-852 Plug and 11-763 Cable Guard


## TWO POLE CONNECTORS

## 12-801

2 Pole Socket, 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.


Car End


Trailer End

## 11-405

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


Trailer End Car 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.


12-200
2-Pole Complete Assembly, 18 gauge wire.


4-Pole Complete Assembly, 18 gauge wire.


4-Pole Complete Assembly with $48^{\prime \prime}$ wire leads of female (car) side. 12 " leads on male (trailer) side


12-601


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


## 12-300

3 Way Male to Female
12" Loop


12-500: 5 Way Flat Female 60"


12-501: 5 Way Flat Male $60^{\prime \prime}$


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 ${ }^{\circledR}$ 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 ${ }^{\circledR}$ 12-711U mounting bracket for other OEM applications - Includes mounting hardware.


## SOCKET KITS

## 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 ${ }^{\circledR}$ Socket 11-893 and 11-932P



## 11-938 Kit

11-893 Socket \& 11-932 T-Connector

## 11-932

T-Connector

- Adaptor for $5^{\text {th }}$ 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 ${ }^{\circledR}$ Socket 11-893



## 7-POLE CONNECTOR



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 Trailer End


## 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 ${ }^{\circledR}$ 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. | 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 |



12-907
Car End
12-905 Series (9-Pole Set)

| $12-905$ | Complete for towing vehicle and trailer side |
| :--- | :--- |
| $12-906$ | Trailer Side |
| $12-907$ | Towing vehicle side |
| $12-701 \mathrm{U}$ | 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


Trailer End 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


11-938 T-Connector

- 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



## Cable Assembly (Repairable)

## 7 Way Harness Adapter

## 14-117

Pollak ${ }^{\circledR}$ 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

## 11-934

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



## Trailer Tow Accessories



## Adapters



4 Way Pin Plug to 4 Way Flat Flex Adapter


6 Way Round Plug to $\mathbf{1 2 - 7 2 5}$ 7 Way RV Type Socket


6 Way Round Male to 4 Way Flat Female Flex Adapter



4 Way Flat Plug to
7 Way Round Metal Socket


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


7 Pin Circuit (not shown)


4 Pin Circuit


12-410

Heavy Duty 60"



## SWITCHES



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


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

Custom Designed Toggle Available with Chrome Finish




|  |  | No. of | Terminal | Handle | Handle | DC | DC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part No. | Circuitry | Terminals | Type | Length | Type | Volts | Amps |

S.P.S.T (SINGLE POLE - SINGLE 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 (SINGLE POLE - Double | 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 |
| $34-215$ | 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 |

* Available in E/EP versions only


## 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


| Part No. | Circuitry | No. of <br> Terminals | Terminal <br> Type | Handle <br> Length | Handle <br> Type |
| :---: | :---: | :---: | :---: | :---: | :---: |
| S.P.S.T ( SINGLE POLE - SINGLE THROW ) |  |  |  |  |  |
| $34-581 \mathrm{Q}$ | On-Off | 2 | Blade | Std. 11/16" | Black |
| $34-586$ | On-Off | 4 | Screw | Std. 11/16" | Lighted |
| $\boldsymbol{Q = Q u i c k}$ Connect . 250 Terminals |  |  |  |  |  |



See page 46 for information On the EZ-ELD (80-100) Electronic Logging Device


## 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 1 Type | Handle Length | Handle Type | Notes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S.P.S.T ( SINGLE POLE - SINGLE 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 - DOUBLE 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 Leads |
| 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. ( DOUBLE POLE - SINGLE THROW ) |  |  |  |  |  |  |
| 34-574 | On-Off | 4 | Screw | Std. 11/16" | Chrome |  |
| 34-574Q | On-Off | 4 | Blade | Std. 11/16" | Chrome |  |
| D.P.D.T. ( DOUBLE POLE - DOUBLE THROW ) |  |  |  |  |  |  |
| 34-654 | On - Off - On | 6 | 6 wire | Std. 11/16" | Chrome | Coated Leads |
| 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 Switch |


(See page 23 for Circuit 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.

## 33-300

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


25-370
Toggle Boot with 15/32-32 thread. Provides protection against salt spray and is resistant to weather and ozone. Can be used on toggle switches with $15 / 32^{\prime \prime}$ diameter mounting stem.

## 34-500

2 Position Toggle


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

34-513
2 Position Toggle Switch. 10 Amps @ 12 V

## 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

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


WIRING DIAGRAM




34-305

See Page 23 For Wiring Diagrams, Terms and Tips.

## SWITCHES



34-571C


## 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 VIC
- 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.


Two Positions On-Off

(ON) = MOMENTARY (OFF) = MOMENTARY
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


Three Position On-off-On


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

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

## Two Positions On-Off Two single wire circuits.

> Two Positions On-Off One double wire circuit

(ON) - OFF (ON) - OFF
(ON) = MOMENTARY
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


## TWO POSITION

 On-OnON- OFF-ON ON-OFF-ON

(ON)- OFF- ON (ON)-OFF-OM (ON)- OFF- (ON) (ON)-OFF-(ON) (ON) = MOMENTARY

## 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 POL£ 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

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


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

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

35-334
12 VOLTS - 30 AMP D.C. 2 POSITION S.P.S.T. OFF-ON

## 35-316



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 6 V
15 Amps at 12 V . 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 1-1/4"Long 7/16" diameter.

## 33-402

2 POSITION 25 Amps at 6 V
15 Amps at 12 V
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)


33-402

33-403

## 3 POSITION



OFF-ON-ON Two Separate Circuits. Brass Back Nut and Washer. BRASS CHROME PLATED Knob


## 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 - Off-On, Normally Off (Push to On)

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

Operation: 50,000 Cycles Mounting stem: 5/8-32 Thread Accommodates panels up to $1 / 4^{\prime \prime}$ thick.


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 $15 / 16^{\prime \prime}$

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


24-392

24-392 - Same as \#24-359 except with brass turret /button terminals. (Mates with Packard Connector \#2973407)
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.




24-394 Same as \#24-359 except with black face nut and $3 / 8^{\prime \prime}$ long \#8-32 threaded terminals. (Freightliner, Navistar)

24-393 - Same as \#24-394 except with \#25358 back rubber boot. (Not Shown)

24-395 - Same as \#24-393 except with \#25352 red rubber boot.

24-372 - SWITCH - Same as \#24-359 except with special design features ... Brass, chrome plated protection collar $\mathrm{P} / \mathrm{N}$ \#25372 prevents accidental start. Combination screw and $1 / 4$ male blade terminal with locking hole will accept Packard \#2962447 terminal and \#2977253 connector or equivalent. Replaces GM Switch \#2067912.
 Mounting stem $5 / 8^{\prime \prime}$ long, $5 / 8^{\prime \prime}$ diameter. overall length 1 13/16".

## 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

25-372


Protective Collar - Safety Bezel with 5/8"-32 thread may be used on \#24359, \#52-611, \#33-200 and on other momentary switches with this mounting stem.

## 52-611



Universal-Mounting Bushing 3/4"Long, 5/8"diameter. Hex Pal Back Nut knurled Face Nut assembled. 25 AMPS @ 6V, 15 AMPS \& 12V. Mounts in 5/8 "diameter hole.


## 25-351

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

## 52-613

Same as 52-611 except with 25-358 boot nut and PVC coated body for weather and dust protection. 14" wire loop.


Yellow boot with symbol. recessed "cold start "

## MOMENTARY SWITCHES

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

## 21-541



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 12 V

## 33-200



ALL BRASS, CHROME PLATED Button and Face Nut Furnished. Brass Back Nut and Washer Mounting Stem $11 / 4$ " Long $5 / 8$ " diameter. 25 Amps @ 6V. Fits 1" thick panel.

## SEALED PLUNGER SWITCHES

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

52-622


52-624
Sealed Plunger Switch \#52-620 and Mating Connector \#52-622. 10 Amps at 14 V . 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 12 V . REPLACES: Ford OA1-13713, BOA-13713, B9MF-13713A, C3AZ-13713A.


PRECISION BALL SWITCHES

As the leading manufacturer of precision ball-actuated switches, Pollak ${ }^{\circledR}$ 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.

CHARACTERISTICS:

- Normally Open - Exposed Terminals


21-458
Screw Terminals


21-481
Turret Terminals

| Part <br> No. | Thread | Hex | Free Position | Make/Break | Connector <br> Terminals | Mating <br> 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 <br> 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 |
| 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 |
| 21-456 | 9/16-18 | 7/8 | . $421 / .416$ (10.69-10.57) | . 408 / . 390 (10.36-09.93) | . 250 Blade | Rect. Receptacle Term |  |
| 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: <br> - Normally Open - Sealed Terminals |  |  |  | 21-370 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Part No. | Thread | Hex | Free Position |  | Make/Break | Connector | Mating Connector | Fatures |
| 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

| Mart No. | Thread | Hex | Free Position | Make/Break | Connector | 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



## IGNITION STARTER SWITCHES



## BASE TYPES \& CONNECTIONS



| Typical Ratings @ $\mathbf{1 4}$ Volts DC (50,000 Cycles) |  |  |
| :---: | :---: | :---: |
| Ignition <br> Terminal | Accessory <br> Terminal | Start Terminal |
| 8 Amps | 30 Amps <br> (Inductive) | 75 Amps make <br> 20 Amps Break |

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

## For Specific Applications Consult Factory

## MOUNTING HOLE PATTERNS



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

## 4-POSITION SWITCHES

FUNCTIONS \& POSITIONS
Key Removable in "Off" Position Only

(SPRING RETURN TO ON)


4-POSITION SWITCHES


ACC

$\mathrm{ON} / \mathrm{ACC}$
START
(SPRING RETURN TO ON)
(HOUSING TIED TO GROUND TERMINAL)


*     - Mounting hole pattern similar to MHP style 5 without key way.
3-POSTTION SWITCIHES
FUNCTIONS \& POSITIONS
Key Removable in "Off" Position Only

| Base <br> Type | Part No. | Starter <br> Lockout | Key Logo | Key code | \# of Lip <br> Seals | $\mathrm{M} / \mathrm{H} / \mathrm{P}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | $31-119$ | N |  | No L/Cyl | 0 | 1 | Extra Long Studs in all Positions |
| 1 | $31-122$ | N | Pollak | C 805 | 0 | 1 | No Base Hardware Supplied |
| 1 | $31-192$ | N |  | $\mathrm{No} \mathrm{L/Cyl}$ | 0 | 1 | No Base Hardware Supplied |
| 1 | $31-245$ | N | L/Cyl Mfg | D 250 | 2 | 5 | No Base Hardware Supplied, O-Ring Sealed Base |
| 3 | $31-164$ | N |  | No L/Cyl | 0 | 3 | Mtg. Nuts Sold Seperately |
| 4 | $31-600$ | N | Pollak | Various | 0 | $.75 " \mathrm{D}$ |  |
| 4 | $31-601$ | N | Pollak | PK556 | 0 | $.75 " \mathrm{D}$ |  |

## 3 POSITION SWITCHES

## FUNCTIONS \& POSITIONS

Key Removable in "Off" Position Only


31-267
(SPRING RETURN TO ON)
(HOUSING TIED TO GROUND TERMINAL)


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

(SPRING RETURN TO ON)


Base Types (3, 3A \& 7) fit Packard Connector \#2984017
M/H/P = Mounting Hole Pattern


## 2-POSITION SWITCHES




31-604



M/H/P = Mounting Hole Pattern


STYLE 2


## 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 $11 / 4$ " 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)


## 33-150

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 $11 / 4$ " thick. Length $=1 / 2$ " long. Switch mounts in panels up to $1 / 4$ " thick Replaces Johnson-Evinrude numbers 386496, 379047 and 378238.

# IGNITION STARTER SWITCHES <br> (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.


## REPLACEMENT KEYS



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

## SWITCHES

## sATTERY MASTER DISCONNECT

## SWITCHES

Master disconnect switches designed for 12 VDC vehicles (Truck, Automotive, Marine, $R V)$ 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, $1 / 2^{\prime \prime}$ 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).



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

[^0]WIRING DIAGRAM FOR D.P.S.T. MASTER DISCONNECT SWITCHES. FOR USE WITH ALTERNATOR OR GENERATOR SYSTEMS


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.

- Incorporated silver plated contacts.
- 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 $41 / 8^{\prime \prime}$. Diameter $25 / 8^{\prime \prime}$ approx.
" Fits panels up to $1 / 4$ " thick. (Note: Mounting nuts not to exceed 12 ft . lbs. torque).



## 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"


51-918EP
Same as $51-904 \mathrm{EP}$ except with .25 " diameter anti-rotation indexing post.

51-919EP

## ACCESSORIES

51-303
FACE PLATE - For use with \#'s 51-902,51-905, 51-904, 51-907 Master Disconnect Switches. Polished aluminum with black letters. 2.5 " diameter., .76 diameter center hole, .032 thick.

51-322
FACE PLATE - For use with \#'s 51-915, 51-916, 51-917, 51-918, Master Disconnect Switches. Polished aluminum with black letters. 2.5" diameter, .76" diameter post, $.032 "$ thick.

## 51-308EP KIT

Replacement Zinc Die-Cast lever and Zinc Plated set crew for Pollak ${ }^{\circledR}$ Master Disconnect Switches.


51-311


POLLAK
Boston, Mass.

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

31-332
Encapsulated Keys with Pollak ${ }^{\circledR}$
logo. Fits \#'s 51-916EP \& 51-919EP
Disconnect Switches.
Same as 51-918EP except with two encapsulated keys (31-332).




## 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 ${ }^{\circledR}$ 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 ${ }^{\circledR}$ 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 ${ }^{\circledR}$ 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: -40 C to +85 C
- 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
- 150 V load dump protected
- 700 V transient spike protected
- Reverse Polarity protected
- Nominal $205^{\circ}$ shaft rotation


## 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,

- Contact Terminals 5/16"-24 Thread
- 6-24 VDC Systems
- Bracket Mounting Holes; 5/16" x 19/32"
- Plated Steel or Phenolic Housings
- $21 / 8^{\prime \prime}$ on Center


## Contact Factory for availability of additional solenoids.



## 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).

52-327 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 $52-330$


52-307-01


52-315


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.


52-305-01

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

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


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

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

52-620 (SEALED) Door Jamb Switch for most Ford and Chrysler products, 14 V 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, B9MT13713A, C3AZ-13713A.

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

52-627 - Pin for 52-622

52-620 with mounting hardware.




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 ${ }^{\circledR}$ \#52-261 Axle Switch.
 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.


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 $1-5 / 8^{\prime \prime}$ on center, $7 / 32^{\prime \prime}$ diameter., 3 Special Terminals, for Plug connection.


52-253
Special Floor Mounted Type. Mounting holes $1-6 / 8^{\prime \prime}$ on center, 9/32" diameter., 3 Special Terminals for Plug Connection.

## 0 $\underset{\sim}{2}$ <br> $\stackrel{\square}{4}$

LIคDXD


## 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

## Manual 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.

Type 3 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 ${ }^{\circledR}$ circuit protectors are designed to run continuously at $100 \%$ of rated current at $77^{\circ} \mathrm{F}$. 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 $77^{\circ} \mathrm{F}$. The bottom chart shows the effect temperature has on the rated current for circuit protectors.

| Notes: Circuit Breakers vs fuses |  |  |
| :--- | :---: | :---: |
|  | Circuit <br> Breaker | Fuse |
| Resettable <br> Cycles | Yes | No |
| Adjustable <br> Ambient <br> Compensation | Yes | No |
| Locate <br> Anywhere <br> (even under <br> hood) | Yes | No |
| Permanent <br> Mounting <br> 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: $-10^{\circ} \mathrm{F}\left(-23^{\circ} \mathrm{C}\right)$ to $150^{\circ} \mathrm{F}$ $\left(65^{\circ} \mathrm{C}\right)$.
Storage Temperature: $-20^{\circ} \mathrm{F}\left(-29^{\circ} \mathrm{C}\right)$ to $200^{\circ} \mathrm{F}$ $\left(93^{\circ} \mathrm{C}\right)$.
Applications: Battery charges, trucks, buses, RV's, trolling motors, etc..

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

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


TWO 10-32 STUDS; . 66 (AUX \& BAT)


## 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 (. 70 mm ) L

$$
54-720
$$



| Blade Type <br> Part \# | Ampere <br> Rating |
| :---: | :---: |
| $54-705$ | 5 |
| $54-710$ | 10 |
| $54-715$ | 15 |
| $54-720$ | 20 |
| $54-725$ | 25 |
| $54-730$ | 30 |

In 2009 Pollak ${ }^{\circledR}$ celebrated its $100^{\text {th }}$ year in business.


Pollak's ${ }^{\circledR}$ Canton, Massachusetts manufacturing plant.

## 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 | $52-243$ | $10.25^{\prime \prime}$ | $10.25 "$ |

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 <br> Bracket |
| :---: | :---: | :---: |
| 20 | $54-920$ | $54-921$ |
| 30 | $54-930$ | $54-931$ |
| 40 | $54-940$ | $54-941$ |



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


L 7..5" X W 3.75" X H 2.5 "

52-249
7-Breaker Junction box

CIRCUIT BREAKERS - TYPE II

Maxi-Style Plug-In
OEM style replacement circuit breaker for Ford, Paccar, \& Freightliner Body $=(29 . \mathrm{mm}) \mathrm{L} x$ $(8.90 \mathrm{~mm})$ W x $(21.6 \mathrm{~mm})$ H Blades $=$ ( 12.7 mm ) L

ATO Style Plug-In
OEM style replacement circuit breaker for Ford Class 8 Vehicles Body $=(29 . \mathrm{mm}) \mathrm{L} x(8.90 \mathrm{~mm}) \mathrm{W}$ x ( 21.6 mm ) H Blades=
$(12.7 \mathrm{~mm}) \mathrm{L}$

Mini-Style Plug-In
OEM style replacement circuit breaker for Freightliner and Paccar Class 8 Vehicles Body= .98" ( 24.90 mm ) Lx . 40 "
(9.5 Om) W x . $70(18.0 \mathrm{~mm}) \mathrm{H}$ Blades- . 50 " ( 11.00 mm ) L x $11^{\prime \prime}$ (2.9 Om) W


54-953


54-957

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

| Ampere <br> Rating | Blade Terminals | Style |
| :---: | :---: | :---: |
| 20 | $54-950$ | Generic |
| 30 | $54-951$ | Generic |

ATO STYLE METAL: TYPE II-Non-Cycling-Blade Terminals

| Ampere <br> 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 |

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

| Ampere <br> 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 - 24 VDC
Operating Temperature: $-10^{\circ} \mathrm{F}\left(-23^{\circ} \mathrm{C}\right)$ to $150^{\circ} \mathrm{F}\left(65^{\circ} \mathrm{C}\right)$.
Storage Temperature: $-20 \mathrm{CF}\left(-29^{\circ} \mathrm{C}\right)$ to $200^{\circ} \mathrm{F}\left(93^{\circ} \mathrm{C}\right)$.
Applications: Battery charges, trucks, buses, RV's, trolling motors, etc.

| Ampere <br> Rating | Plastic | Plastic w/ <br> $90^{\circ}$ Bracket | Maxi-Style |
| :---: | :---: | :---: | :---: |
| 10 | $*$ | $*$ | $54-311 \mathrm{PL}$ |
| 15 | $*$ | $54-616 \mathrm{PL}$ | $*$ |
| 20 | $*$ | $*$ | $54-321 \mathrm{PL}$ |
| 25 | $*$ | $*$ | $*$ |
| 30 | $54-630 \mathrm{PL}$ | $54-631 \mathrm{PL}$ | $54-331 \mathrm{PL}$ |
| 40 | $54-640 \mathrm{PL}$ | $54-641 \mathrm{PL}$ | $*$ |
| 50 | $54-650 \mathrm{PL}$ | $54-651 \mathrm{PL}$ | $*$ |

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


54-311PL


## CIRCUIT BREAKERS - HIGH AMP

Type I \& III Single Rate Thermal Type Breakers
Rating: from 40A to 150A; 12VDC.
Operating Temperature: $-25^{\circ} \mathrm{F}\left(-32^{\circ} \mathrm{C}\right)$ to $180^{\circ} \mathrm{F}\left(82^{\circ} \mathrm{C}\right)$. Storage Temperature: $-30^{\circ} \mathrm{F}\left(-34^{\circ} \mathrm{C}\right)$ to $300^{\circ} \mathrm{F}\left(149^{\circ} \mathrm{C}\right)$.
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: $-25^{\circ} \mathrm{F}\left(-32^{\circ} \mathrm{C}\right)$ to $180^{\circ} \mathrm{F}\left(82^{\circ} \mathrm{C}\right)$.
Storage Temperature: $15^{\circ}$ to $250^{\circ} \mathrm{F}$, (Available in other amperages upon request - 50 to 150 Amps ).


| Ampere <br> Rating | Type I Auto Reset <br> Surface Mount | Type I Auto <br> Reset <br> Panel Mount |
| :---: | :---: | :---: |
| 60 | $54-850 \mathrm{PL}$ | $54-860 \mathrm{PL}$ |
| 80 | $54-853 \mathrm{PL}$ | $54-863 \mathrm{PL}$ |
| 100 | $54-851 \mathrm{PL}$ | $54-861 \mathrm{PL}$ |
| 120 | $54-854 \mathrm{PL}$ | $54-864 \mathrm{PL}$ |
| 150 | $54-852 \mathrm{PL}$ | $54-862 \mathrm{PL}$ |
| 200 | $54-855 \mathrm{PL}$ | $*$ |
| 250 | $54-856 \mathrm{PL}$ | $*$ |



Type I Auto Reset


Type III Switchable


Manual Reset Only

TYPE III

PANEL MOUNT

$3 / 8^{\prime \prime}$ stud size max 250Amp wide (longer) surface new model

SURFACE MOUNT 54-870PL. Open circuit indication via reset lever position.

With the FMCSA's upcoming ELD legislation affecting an estimated three million drivers on the road today, and the December 2017 deadline approaching, it's time for fleet operators to get ready for the new rules and regulations.


## An easy solution

We know you're looking for an easy and coat-effective solution that keeps you compliant when this legislation comes into farce.

So that's exactly what we've developed. The EZ-ELD will help you stay the right side of the new rules, offering a cost-effective solution to help track and manage your drivers' Hours af Service.

Dice fitted with an EZ-ELD, your trucks will be fully compliantwith the FMCSA's ELD regulations, without the need for added extras or further investment.

## A quick fit

The EZ-ELD's installation is an easy "plug and play" process. The unit is simply fitted to the trucks diagnostics port, the driver securely connects to the device with the mobile app and that's it, they're ready to hit the road.

Unlike competitor products, you dan't need to worry about the type af OBD port you have. You'll get three interchangeable connectors with the device, making it easy to switch between vehicles and removing the need to buy another unit if you change or upgrade your truck.

## In the driver's seat

With the EZ-ELD, everything is about simplicity. Drivers will find the smartphone or tablet interface easy to navigate and effortless, leaving them to focus an doing what they do best. And when your drivers are out an remote, long-houl drives where connectivity can be an issue, the EZ ELD has you covered. I's able to store up to 8 months of data an the device.
For drivers working across multiple vehicles in the fleet, EZ-ELD comes with 'Scan and Drive" technology. Drivers simply scan the QR code linked to the unit, their smartphone will automatically link with the vehicle and they are ready to go.

## Back in the office

It's in the office where our software comes into it's own. You can easily manage different drivers and devices in the same fleet simultaneously. To help keep your business moving, we've made additional storage available an the EZ-EL D software. We've also added an instant messaging feature to helpyou stay in touch with drivers out on the rose.

- Only ELD solution that comes with interchangeable connectors included
- Unique Scan and Drive ${ }^{\text {TM }}$ truck pairing
- Quick and simple "Plug and Play" installation
- FMCSA certified
- No hidden fees and no contract
- Super-simple user interface for drivers via mobile app, with Android \& iOS compatibility
- $\$ 15 /$ month subscription INCLUDES DVIR and IFTA reporting
- OPS vehicle positioning for real-time tracking
- 6 months of data storage on device
- Unlimited drivers per device
- Free installation, set up and training - and with customer service available from a company with more than 50 years' experience with Commercial Vehicle Fleets

> To get a simple, secure and stress-free ELD solution for your fleet, Buy the Stoneridge EZ-ELD* today at www.EZ-ELD.com

## SPECIFICATIONS

## Interchangeable Blade Terminals:

Accepts ATC® blade-type fuses, or bladetype, auto or manual reset circuit breakers.
Wiring: Output terminals - 250 x x $.032^{\prime \prime}$
OC rated 30A max. per circuit; Input terminals - \#10-32 stud input rated 150A max.
Positions: Provides 6-24 protected output circuits.
Material: Black, thermoplastic, $-20^{\circ} \mathrm{F}$ to $150^{\circ} \mathrm{F}$.
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 <br> Type | Dimensions | Mounting Hole <br> 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 <br> Type | Blade Terminals | Dimensions |
| :---: | :---: | :---: | :---: |
| 12 | $52-214$ | $52-214 \mathrm{Q}$ | L 7.38" x D $2.0 " \times \mathrm{H} 0.56 "$ |

For economical tight cluster mounting of $1 / 4 " \times 1-1 / 8 "$ 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

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: ${ }^{\circ} \mathrm{F}\left({ }^{\circ} \mathrm{C}\right) ; 302$ (150) max. $-40(-40) \mathrm{min}$.

## BATTERY JUMPER TERMINALS

$\square$
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.


## PILOT LIGHT

## 52-115

12 VOLT PILOT LIGHT. Red 1/2" diameter faceted lens. For panel mounting through $5 / 16^{\prime \prime}$ 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., DivcoWayne 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 $1-1 / 2^{\prime \prime}$.

## 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


52-661

STOP LIGHT SWITCH
52-602
MECHANICAL. REPLACES
DR-1997901, 1997915 \& 1997922


## Look What's NEW...



Pollak ${ }^{\text {TH }} 300$ Dan Road, Carton, MA $02021 \quad$ Phone: 781.830 .0340 Fax 761.575 .8964 Email jerry boker@stoneridge com
Pollak ${ }^{\circledR}$ has a "new and improved" website; visit us at www.pollakaftermarket.com

## Pollak ${ }^{\circledR}$ 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.


O


## 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) <br> 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 $5 / 16^{\prime \prime}$ hose for return lines. Mounting holes: $25 / 16^{\prime \prime}$ threaded nuts on $13 / 16^{\prime \prime}$ 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".


## 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

## Motorized

Valve Connector 42-203
Connector,
Type: 5 Wire, Weatherproof Pigtail: 5" 18 Gauge Wires

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.

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


## 25-370

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.

$\qquad$




## 2 2 2 2 2 2 2

## BACK-UPALARMS

## Pollak ${ }^{\circledR}$ 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 ${ }^{\circledR}$ 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

Heavy-duty adjustable unit 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) $\pm 4$ @ 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 $\left(-40^{\circ} \mathrm{F}\right.$ to $\left.+170^{\circ} \mathrm{F}\right)$


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 over-
travel
- 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 ${ }^{\circledR}$.

## BACK-UP ALARMS

Pollak ${ }^{\circledR}$ 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 <br> - Wire leads enhance corrosion protection (from traditional studs) <br> - New design - smaller size, less heat, longer life <br> - 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) $\pm 4$ @ 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 $\left(-40^{\circ} \mathrm{F}\right.$ to $\left.+185^{\circ} \mathrm{F}\right)$
- Can be used on positive and negative ground vehicles



## 41-820 (12-24 Volts)

SINGLE LEVEL 97db

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

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) $\pm 4$ @ $4^{\prime}$
- 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 $.25^{\prime \prime} \mathrm{W}$ slots on $3.25^{\prime \prime}$ 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



## 41-822 (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... $107 \mathrm{~dB}(\mathrm{~A}) \pm 4$ @ $4^{\prime}$
- 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 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 $3 .{ }^{\text {. }} \mathrm{H}$
- Mounting - two .5 "Lx. 25 "W slots and two .75 "Lx. 25 W 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



## MERCHANDISING DISPLAYS



WIRE RACK DISPLAYS

UPC BAR CODED PACKAGING


RETAIL
PACKAGING

DISPLAY
BOARDS

## MERCHANDISING DISPLAYS

TOGGLE SWITCHES Heavy Duty - 50 Amps, 12 Volt D.C.
53-210 Contains Assortment 6 each \#34-212 and \#34-213
53-212 Contains 12 \#34-212, with Short Bat Handle
53-213 Contains 12 \#34-213, with Long Bat Handle.


MOMENTARY START SWITCHES
Extra Heavy Duty - 60 Amps, 12V, 40 Amps 24V
53-359 Contains 12 \#24-359
53-360 Contains 12 \#24-360
53-372 Contains 12 \#24-372


## PUSH PULL SWITCHES

Heavy Duty - 75 Amps, 12 Volt D.C.
53-306 Contains 12 \#35-306

- Die Cut hole to accommodate standard peg hooks.
- Pull out easel enables flexible positioning on shelf or counter top.
- Sturdy 11" x 14" board, with colorful new graphics, puts 10 fast-moving \#35-306 heavy duty push-pull switches in view of your customers.
- Boosts impulse sales and increases profits.



## Pollak® Connector \& Towing Center

## E Pollak



> Pollak $^{\circledR}$ Connector and Towing Center... supporting the Great American Outdoors


End Cap Display: 53-136
(consult factory to create your own customized display)


## Packaging \& Merchandising Options

## Connectors, Adapters \& Switches for the

 Value conscious consumer:Currently available:

- 4-Pole Connectors
-6-Pole Connectors
- 7-Pole Connectors
- RV Connector Adapters
- Heavy Duty Toggle Switches
- Heavy Duty Push-Pull Switches
- New Products added often, look for updates...
- Most popular connector and adapter items available
- Attractive packaging - easy order box quantities
- Connectors certified to SAE J560 specifications
- All products validated in Pollak's ${ }^{\circledR}$ Certified Labs


## Packaging Options



Bulk Packed


53-134 Spinner Rack. Stand alone floor display - shown with Value Line retail bags.


## Retail Bags

Using Stoneridge's global manufacturing "footprint", Pollak ${ }^{\circledR}$ continues to expand its offering of price competitive alternatives to the renowned Pollak ${ }^{\circledR}$ North American products. In stock, ready to go, and priced to sell.

## Pollak ${ }^{\circ}$

ELECTRICAL
Canton, Massachusetts
CONTROLS SINCE 1909

A Stoneridge Company
Phone: 800-225-6046
Fax: 800-888-1126
Website:
www.pollakaftermarket.com

## WIRING COLOR CODES

| RECREATION VEHICLE |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 7 - POLE CONNECTORS |  |  |  |  |  |


| HEAVY DUTY TRUCK |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| No. | Color POLE CONNECTORS |  |  |  |



For POLLAK ${ }^{\circledR}$ products, contact:
$\square$

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.
$\square$

| 12-VOLT SYSTEM |  | 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 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:

POLLAK ${ }^{\circledR}$ Numerical Part Number Index

| PART \# PAGE\# | PART \# PAGE\# | PART \# PAGE\# | PART \# PAGE\# | PART \# PAGE\# |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CONNECTORS | CONNECTORS CON'T | BALL SWITCHES | 31-139...................... 31 | 33-105..................... 33 |  |
| 11-200..................... 13 | 11-990...................... 14 | 21-361..................... 27 | 31-152..................'.. 31 | 33-107..................... 33 |  |
| 11-400...................... 11 | 11-998...................... 14 | 21-363..................... 28 | 31-159..................... 30 | 33-150..................... 33 |  |
| 11-402...................... 11 | 12-200....................... 13 | 21-364..................... 28 | 31-159-001................. 34 | 33-200..................... 26 |  |
| 11-403..................... 11 | 12-300...................... 13 | 21-370..................... 28 | 31-164..................... 31 |  |  |
| 11-404...................... 11 | 12-400...................... 13 | 21-381..................... 27 | 31-166-001................. 34 | TOGGLE/ROCKER |  |
| 11-405...................... 13 | 12-401...................... 13 | 21-400..................... 28 | 31-173-102................ 34 | SWITCHES |  |
| 11-408...................... 11 | 12-402...................... 13 | 21-434.................... 27 | 31-173-104............... 34 | 33-300...................... 21 |  |
| 11-409..................... 11 | 12-405...................... 13 | 21-435..................... 27 | 31-178..................... 30 | 33-302...................... 20 |  |
| 11-410..................... 11 | 12-403...................... 13 | 21-437..................... 27 | 31-180_.................... 30 | 33-400...................... 24 |  |
| 11-500..................... 11 | 12-404...................... 13 | 21-443..................... 28 | 31-190_.................... 30 | 33-402...................... 24 |  |
| 11-501..................... 11 | 12-410...................... 17 | 21-444.................... 28 | 31-191...................... 31 | 33-403..................... 24 |  |
| 11-502...................... 11 | 12-411...................... 17 | 21-448..................... 27 | 31-192..................... 31 | 34-111..................... 22 |  |
| 11-600...................... 10 | 12-412...................... 13 | 21-456.................. 27 | 31-196................... 30 | 34-212..................... 19 |  |
| 11-602..................... 10 | 12-413...................... 13 | 21-458................... 27 | 31-223..................... 31 | 34-213..................... 19 |  |
| 11-603..................... 10 | 12-414...................... 13 | 21-465.................. 28 | 31-228.................... 30 | 34-215..................... 19 |  |
| 11-604...................... 10 | 12-415...................... 13 | 21-467.................. 28 | 31-229.................... 31 | 34-216..................... 19 |  |
| 11-605...................... 10 | 12-417...................... 13 | 21-478................... 28 | 31-231..................... 31 | 34-218..................... 19 |  |
| 11-606..................... 10 | 12-418....................... 13 | 21-481................... 27 | 31-233...................... 30 | 34-219E. ................... 19 | - |
| 11-607...................... 10 | 12-419...................... 13 | 21-482.................. 28 | 31-242.................... 30 | 34-220..................... 19 |  |
| 11-608..................... 10 | 12-421...................... 13 | 21-487................... 27 | 31-243...................... 31 | 34-222E .................. 19 |  |
| 11-609..................... 10 | 12-422...................... 13 | 21-491.................... 28 | 31-245...................... 31 | 34-223E ................. 19 |  |
| 11-613..................... 10 | 12-423...................... 13 | 21-492................... 28 | 31-249...................... 31 | 34-225..................... 19 |  |
| 11-614..................... 10 | 12-424...................... 13 | 21-493................... 28 | 31-253.................... 32 | 34-226E ................... 19 |  |
| 11-616..................... 10 | 12-425...................... 13 | 21-495................... 28 | 31-257...................... 31 | 34-230..................... 22 |  |
| 11-617...................... 10 | 12-426..................... 13 | 21-509................... 27 | 31-267...................... 32 | 34-231..................... 22 |  |
| 11-626..................... 10 | 12-500...................... 13 | 21-517.................. 27 | 31-273.................... 31 | 34-232..................... 22 |  |
| 11-627...................... 10 | 12-501...................... 13 | 21-532................. 28 | 31-280...................... 31 | 34-233..................... 22 |  |
| 11-647E..................... 10 | 12-600..................... 13 | 21-538.................. 28 | 21-282S...................... 33 | 34-234..................... 22 |  |
| 11-700....................... 6 | 12-601...................... 13 | 21-541................... 26 | 31-285...................... 32 | 34-235..................... 22 |  |
| 11-702...................... 6 | 12-610...................... 17 | 21-547................... 28 | 31-288...................... 33 | 34-236..................... 22 |  |
| 11-704...................... 6 | 12-611...................... 17 | 21-562.................. 28 | 31-289..................... 31 | 34-237...................... 22 |  |
| 11-710...................... 6 | 12-625...................... 17 | 21-595.................... 28 | 31-290.................... 31 | 34-238...................... 22 |  |
| 11-720...................... 7 | 12-700..................... 15 | MOMENTARY | 31-292..................... 30 | 34-239..................... 22 |  |
| 11-721..................... 7 | 12-701U.................... 15 | SWITCHES | 31-292-801................. 30 | 34-240..................... 22 |  |
| 11-723...................... 7 | 12-702..................... 15 | 24-359.................... 25 | 31-292-802................ 30 | 34-241.................... 22 | $\square$ |
| 11-724...................... 7 | 12-703..................... 15 | 24-360................... 25 | 31-292-803................. 30 | 34-255.................... 22 |  |
| 11-729...................... 7 | 12-704..................... 15 | 24-362.................... 25 | 31-292-804................. 30 | 34-258..................... 22 |  |
| 11-730...................... 7 | 12-705...................... 15 | 24-363.................... 25 | 31-292-805................. 30 | 34-259..................... 22 |  |
| 11-732...................... 9 | 12-706...................... 15 | 24-372.................... 25 | 31-292-806 ................. 30 | 34-260..................... 22 |  |
| 11-733...................... 9 | 12-707...................... 15 | 24-373..................... 25 | 31-297...................... 32 | 34-301..................... 21 |  |
| 11-735...................... 9 | 12-709...................... 15 | 24-390.................... 25 | 31-302...................... 32 | 34-305..................... 21 |  |
| 11-736...................... 9 | 12-710...................... 15 | 24-391.................... 25 | 31-305...................... 30 | 34-306..................... 21 |  |
| 11-737...................... 9 | 12-711U.....................14,15 | 24-392.................... 25 | 31-309................... 32 | 34-307...................... 21 |  |
| 11-739...................... 9 | 12-712..................... 15 | 24-393..................... 25 | 31-322................... 31 | 34-308..................... 21 |  |
| 11-761...................... 7 | 12-716..................... 16 | 24-394..................... 25 | 31-324.................... 31 | 34-310..................... 21 |  |
| 11-762...................... 6 | 12-717...................... 16 | 24-395.................... 25 | 31-332.....................34,36 | 34-311..................... 21 |  |
| 11-763...................... 6 | 12-718...................... 16 | 25-349.................... 26 | 31-337....................... 32 | 34-312..................... 21 |  |
| 11-764...................... 6 | 12-719..................... 16 | 25-350.................... 26 | 31-339...................... 34 | 34-359.......................21,54 |  |
| 11-771...................... 7 | 12-720..................... 10 | 25-351...................21,26 | 31-345....................... 32 | 34-360...................... 21 |  |
| 11-773...................... 7 | 12-723...................... 17 | 25-352.................... 26 | 31-359...................... 31 | 34-500..................... 21 |  |
| 11-777....................... 7 | 12-724..................... 17 | 25-358.................... 26 | 31-498-01................... 31 | 34-504..................... 21 |  |
| 11-779.................... 7 | 12-725...................... 17 | 25-370....................21,54 | 31-499................... 34 | 34-508..................... 22 | ( |
| 11-780..................... 7 | 12-726...................... 17 | 25-371.................... 54 | 31-527....................31,34 | 34-513...................... 21 | $\checkmark$ |
| 11-781..................... 7 | 12-727........................ 17 | 25-372.................... 26 | 31-537....................... 34 | 34-570...................... 20 |  |
| 11-785...................... 8 | 12-728...................... 17 | IGNITION SWITCHES | 31-600_.................... 31 | 34-570Q.................... 20 |  |
| 11-786...................... 8 | 12-729..................... 16 | 31-103.................... 30 | 31-600-103.................. 34 | 34-571...................... 20 |  |
| 11-796..................... 9 | 12-741..................... 17 | $\text { 31-104........................ } 30$ | 31-601..................... 31 | 34-571C................... 22 |  |
| 11-797..................... 8 | 12-742..................... 17 | 31-105.................... 30 | 31-602.................... 33 | 34-571L.................... 20 |  |
| 11-801...................... 9 | 12-743...................... 16 | 31-106.................... 30 | 31-603................... 33 | 34-571LQ................... 20 |  |
| 11-802...................... 9 | 12-744..................... 16 | $\text { 31-109........................ } 30$ | 31-604.................... 33 | 34-571Q.................. 20 |  |
| 11-833..................... 8 | 12-750..................... 17 | 31-110.................... 30 | 31-607.................... 30 | 34-572............................ 20 |  |
| 11-850_................. 12 | 12-751...................... 17 | 31-111................... 30 | 31-608................... 30 | 34-572Q.................... 20 |  |
| 11-851................... 12 | 12-752...................... 17 | $\text { 31-112........................ } 31$ | 31-609.................... 32 | 34-573..................... 20 |  |
| 11-852.................... 12 | 12-777...................... 17 | 31-114...................... 31 | 31-610......................... 30 | 34-573Q................... 20 |  |
| 11-853.................... 12 | 12-800..................... 12 | 31-117.................... 33 | 33-104.................... 33 | 34-574.................... 20 |  |
| 11-893.................... 14 | 12-801....................... 12 | 31-119..................... 31 |  | 34-574Q.................... 20 |  |
| 11-896..................... 16 | 12-811....................... 8 | 31-122.................... 31 |  | 34-575..................... 20 | $\square$ |
| 11-898..................... 14 | 12-812...................... 8 | $\text { 31-124........................ } 30$ |  |  | - |
| 11-900...................... 6 | 12-905.................... 15 | 31-131..................... 30 |  |  | - |
| 11-902..................... 6 | 12-906...................... 15 | 31-132......................30,34 |  |  |  |
| 11-904...................... 6 | 12-907...................... 15 |  |  |  |  |
| 11-910...................... 6 | CABLES |  |  |  |  |
| 11-932.......................14,16 | $14-116 \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots . . . . . . . . . . . . . . . .$ |  |  |  |  |
| 11-933........................14,16 | 14-117............................ 16 | 66 |  |  |  |

POLLAK ${ }^{\circledR}$ Numerical Part Number Index


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