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Installation Instructions

For

50330, 50331, 50332, and 50333

Off Road Switch Panels

The 50330 and 50332 switch panels are designed to be mounted in the dash using the six screws provided.

The 50331 and 50333 switch panels are designed to be mounted in the box provided. The assembled box and panel may be attached to the roll cage or any location convenient for operation. The box can be attached to the roll cage with regular hose clamps by routing the clamp through the slots precut in the back of the box and then around the roll bar. No cutting or welding is necessary.

The following is included in this kit:

- 1- Switch Panel
- 1- Mounting Box (depending on which kit you have)
- 1- Formed Polyethylene Lliner
- 3or5- On/Off Switches (depending on which kit you have)
 - 1- On/Off/On Switch
 - 1- Momentary On Switch
- 4or6- Black Rubber Toggle Switch Boots (depending on which kit you have)
 - 1- 10 Amp Push Button Resettable Circuit Beaker (6 switch panel only)
- 1or2- 15 Amp Push Button Resettable Circuit Breakers (depending on which kit you have)
 - 2- 20 Amp Push Button Resettable Circuit Breakers
 - 1- 30 Amp Push Button Resettable Circuit Breakers
- 4or6- Clear Circuit Breaker Boots (depending on which kit you have)
 - 1- Keyed Ignition Switch With Weather Resistant Retaining Nut
 - 1- Diode Assembly
 - 1- Sheet Of Labels To Describe Switch Function
- 6- Mounting Screws
- 1- Rubber Grommet (kits with boxes only)
- 3- Plugs For Box Holes Not Used (kits with boxes only)
- 7or9- Ring Terminals (depending on which kit you have)
 - 4- 7" Tie Straps
- 100- 4" Tie Straps
- 5or7- Color-Coded Wires For Switch Attachment
 - 1- Red Input Power Wire
 - 1- Red Spliced Power Wire
 - 6- Red Power Jumper Wires
 - 1- Purple Starter Wire

First decide what switches will be used for your application and install them into the panel. Start by adjusting the hex shaped backing nut on each of the switches 3/4 of the way back toward the body of the switch. Insert the switch through the switch hole opening with the slot on the threads facing down, and screw the black toggle switch boot onto the front of switch by hand until snug. Next using either a 5/8" or a 16mm deep wall socket hold the switch boot in place while tightening the hex shaped backing nut to fully secure the switch to the panel. Tightening the switch using the nut inside the switch boot could damage the shoulders around the boot. In order to allow the maximum amount of room for the switch labels, line the switch boots up with the flat sides of the hex shaped nut running parallel with the top and bottom sides of the switch panel. Follow this same procedure for installing the push button circuit breakers. **NOTE: A thread locker may be used to assist in keeping the switch and circuit breaker mounting nuts from vibrating loose.**

Install the keyed ignition switch into the switch panel. Pass the key through the weather resistant retaining nut and then insert the key into the ignition switch cylinder. Tighten the weather resistant retaining nut by hand using the key to properly align the switch. The key should face up and down in the off position. Next tighten the ignition switch backing nut to fully secure the ignition switch to the panel. **NOTE: A thread locker may be used to assist in keeping the ignition switch nut from vibrating loose.**

The large single red wire is included to provide power from the battery to the keyed ignition switch **"BAT"** terminal. The large red wire that has been spliced several times is included to provide power from the keyed ignition switch **"IGN"** terminal to the circuit breakers. **See Illustration A.** Six or Four (depending on which kit you have) terminated jumper wires are provided to supply power from the circuit breakers to the toggle switches. **See Illustration B.**

Individual wires with terminals on one end are the wires to be routed from the toggle switch to the device being controlled. The terminal end is for the switch and once the wire has been routed, the extra length may be cut off and then terminated. Each kit has one extra switch and one extra wire, which may be needed in your particular application. The following chart is a guideline to what color wire is used for a particular circuit. The ignition switch has a dedicated **"START"** terminal for use with the purple starter wire included in this kit.

WIRE COLOR	CONNECTED TO
Red	12 volt Battery Source
Black	Chassis Ground
Purple	Starter Solenoid
Pink	Ignition Coil
White	Accessory
Blue/Yellow	Headlights
Orange	Accessory
Yellow/White	Fuel Pump
Green	Fuel Pump 2
Blue	Water Pump
Gray/White	Electric Cooling Fan Relay
Brown	Taillights

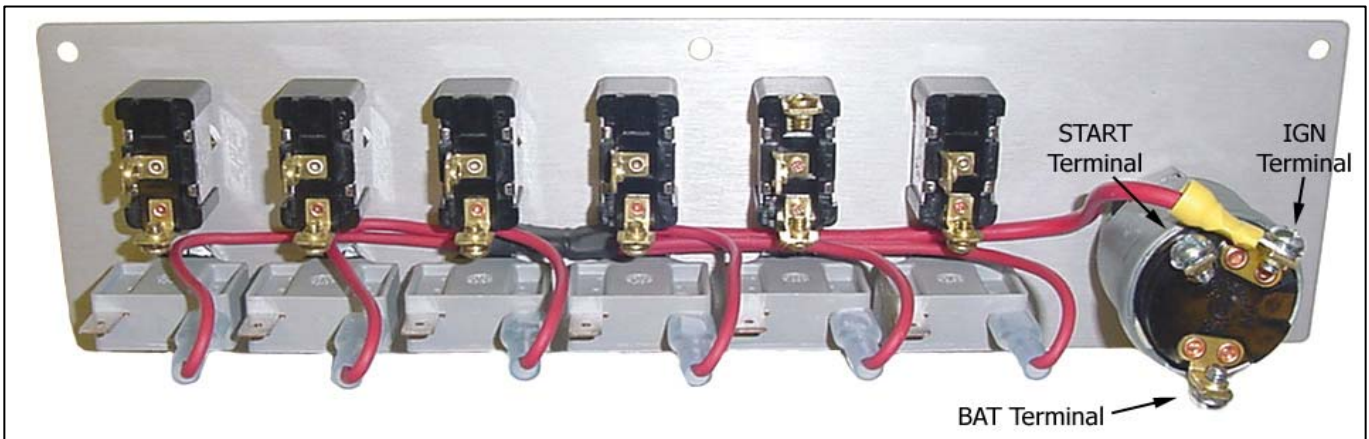


Illustration A Spliced power wire installation

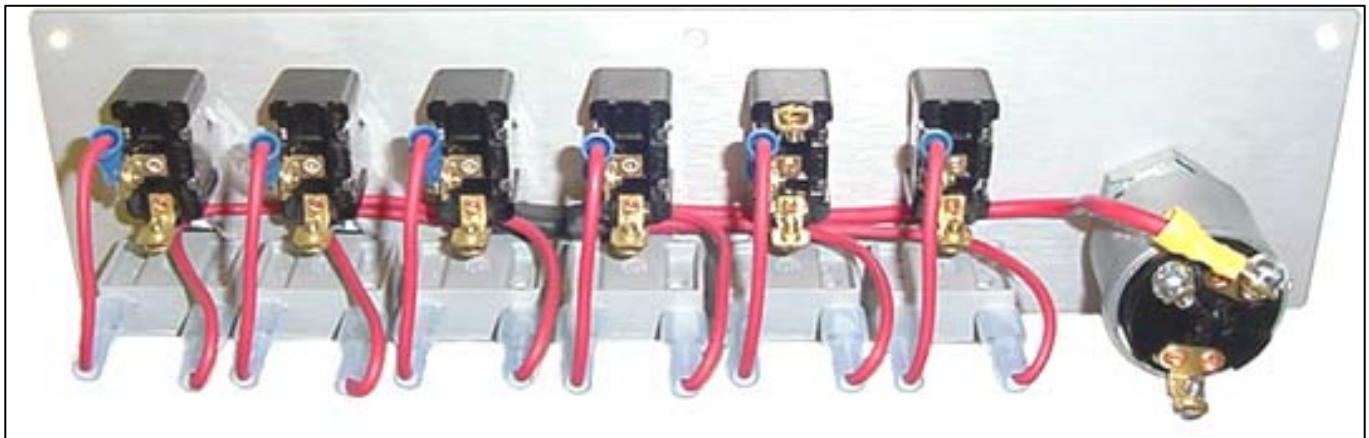


Illustration B Jumper power wire installation

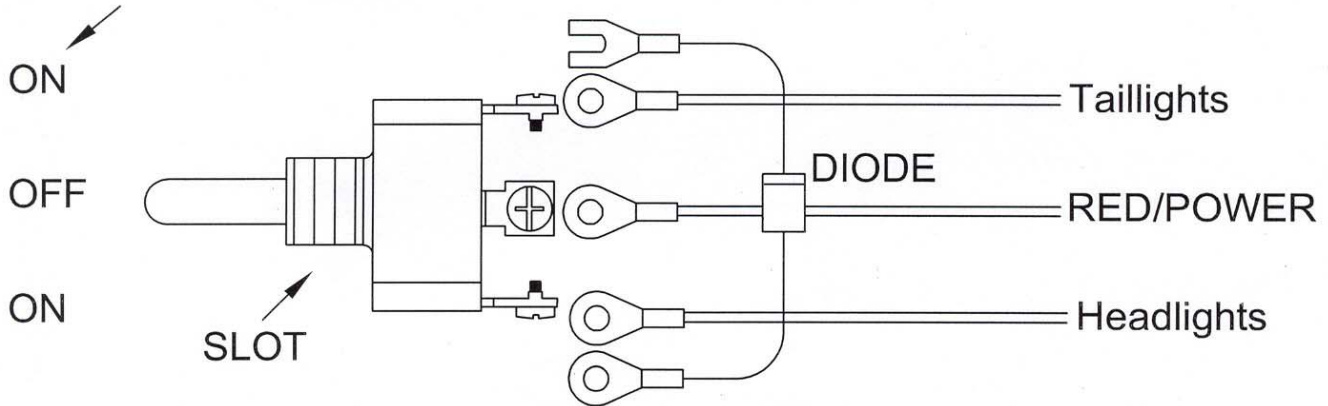
Illustration C, Figure "A" illustrates the proper hookup of wires using an on/off/on switch when two devices are to be operated and one of the devices is to be on in both positions. An example might be headlights and taillights. With the switch in the lower position only the taillights are on and in the upper position the headlights and taillights are on. The diode, in the illustration, allows this function to take place. If the diode is not used, the switch operates two devices independently as shown in Figure "C".

Illustration C, Figure "B" illustrates the proper hookup of wires to an on/off switch, which will control a single device.

Once all of the wires have been connected to the switches, the polyethylene liner can be installed. First decide which hole the wires will be exiting and make a small hole in the liner and pass the wires through the opening, then slide the liner over the switches and flush to the panel. If your kit has a box for roll bar mounting, install the rubber grommet in the corresponding hole selected in the liner and route the wires out that hole, use the plastic plugs to fill the remaining holes. Secure the switch panel with the liner installed down onto the box with the six screws provided in this kit. For dash mounted panels follow the same procedure as above, you must cut a 7-1/4" X 2-1/4" opening for the four switch panel or a 9-3/4" X 2-1/4" opening for the six switch panel to allow room for the polyethylene liner. **See Illustration D.** The plastic wire ties are for looming and securing the wires to the vehicle. The label sheet included is to identify each switch of its function. Simply peel off the label needed and place it under the switch wired for that function. The "R" and "L" labels are for right and left in the event an on/off/on switch is turned sideways for turn signals.

FIGURE A

In this position both devices are powered.



NOTE: The diode is to be used when wanting to operate two devices and have them both powered in one of the on positions.
Example: Headlights and Taillights

FIGURE B

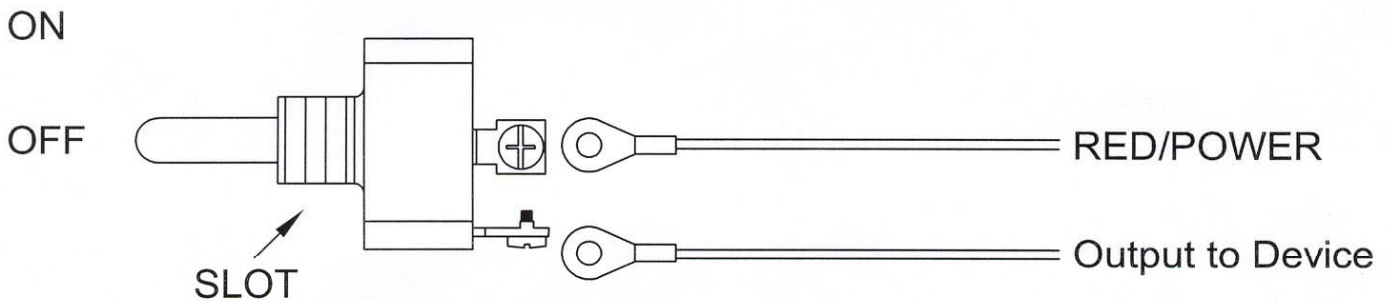


FIGURE C

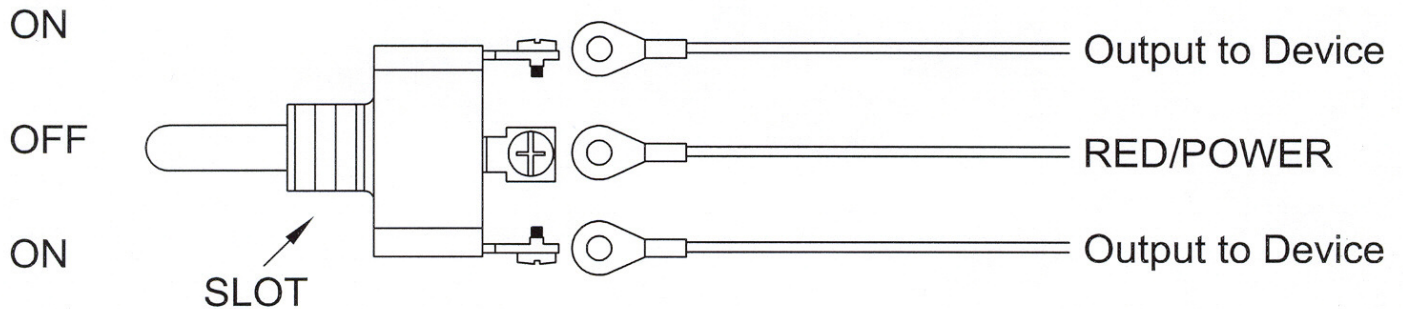


Illustration C Toggle Switch Connections

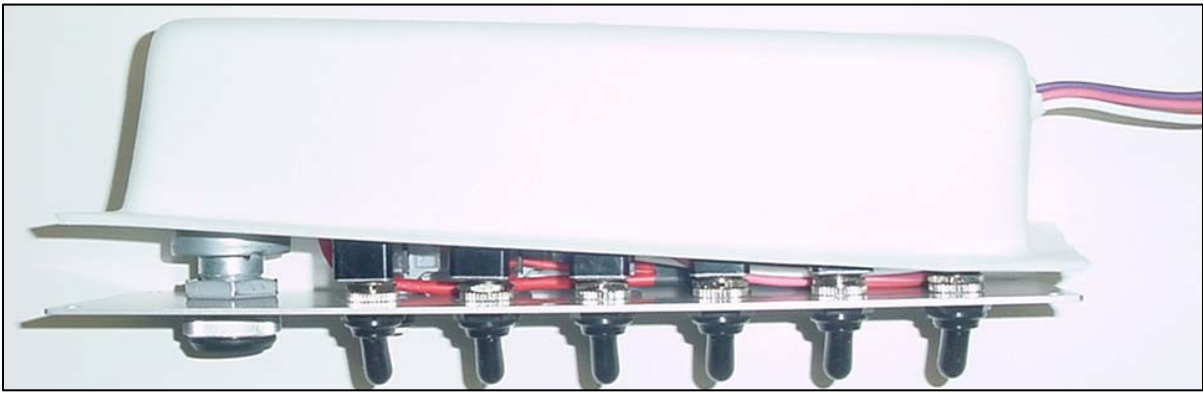
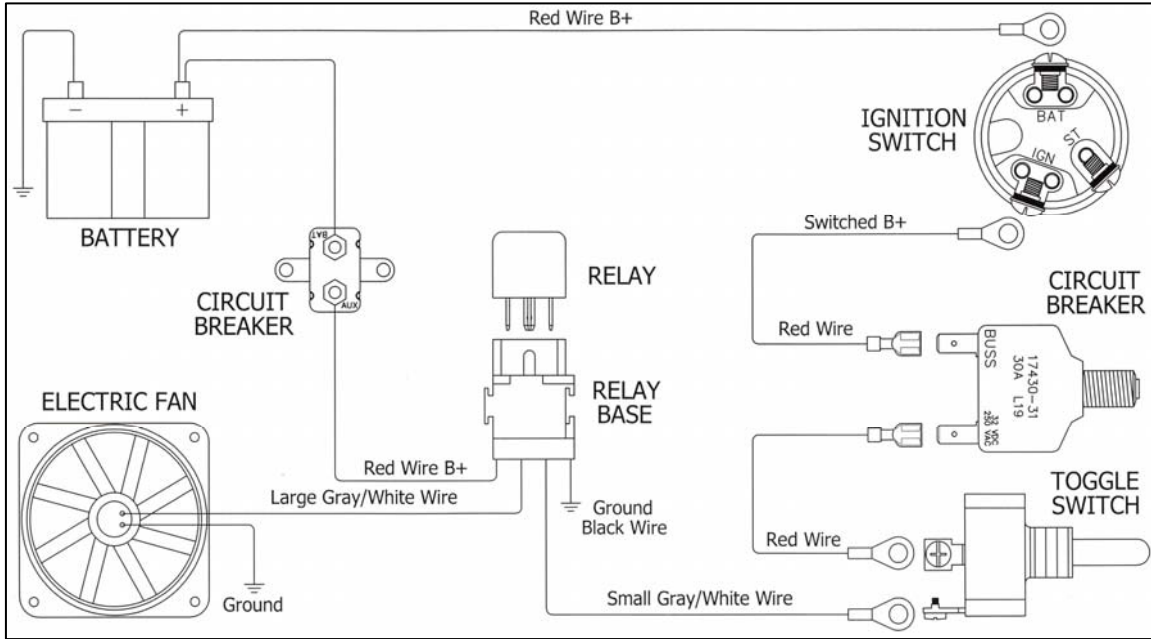
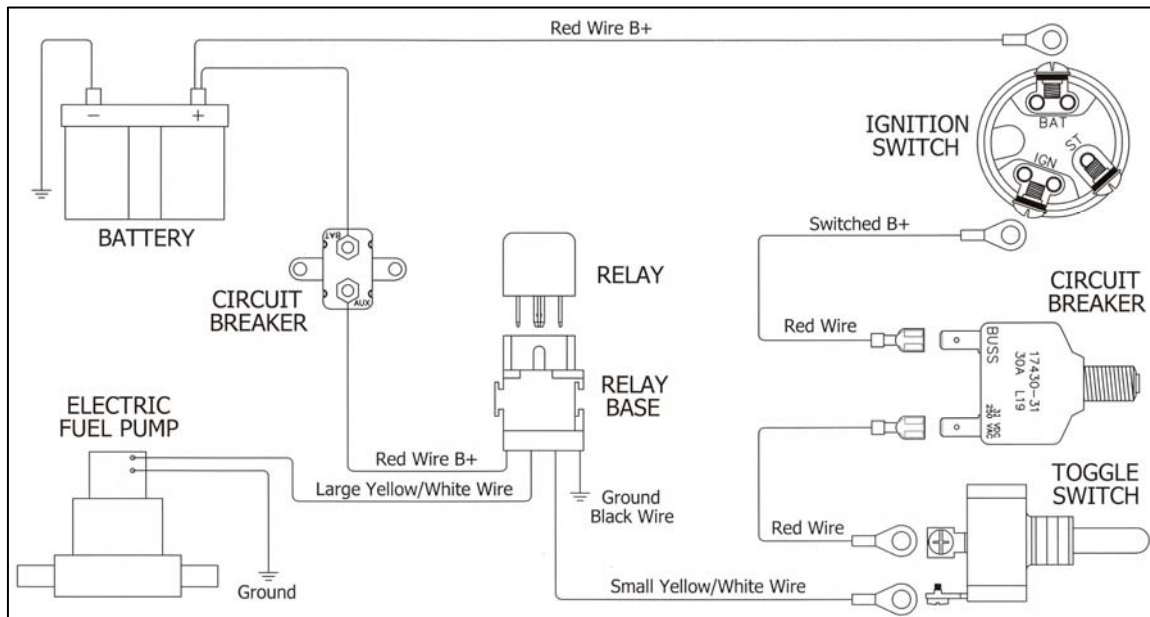


Illustration D Polyethylene Liner Installation

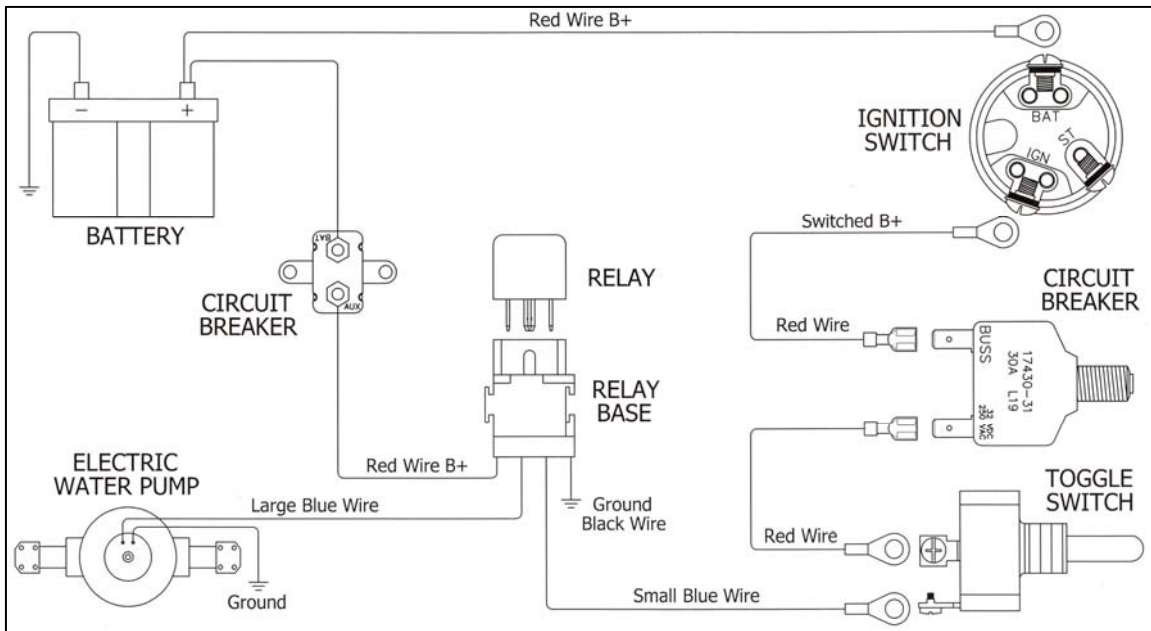
The illustrations below are some examples of typical relay installations.



Electric Cooling Fan connection using Painless weatherproof relay kit #30130



Electric Fuel Pump connection using Painless weatherproof relay kit #30131



Electric Water Pump connection using Painless weatherproof relay kit #30132

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