SP8100 8-Switch Programmable
Switch Panel Power System

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100 amp Power Module
Power Module Mounting Plate
Nut w/nylon insert, M6
Screw, M6x20
Nut, M6
Zip ties
Tap-a-circuit w/fuse
Yellow Butt Splice (heat shrinkable)
Blue Butt Splices (heat shrinkable)
Red t-tap
Red t-tap Blade Connector
Programming Instruction Card
Piece Nylon Sleevings

Installation

1. Identify which accessories you will be powering with your Switch Panel Power System. Remember that Switches 1-7 are limited to 18 amps, and Switch 8 is limited to 30 amps. Therefore, the accessory with the largest draw should be connected to Switch 8 (lower right corner). Ignition Input, 12V, turns on backlighting and enables ignition programmed switches. Lights input turns on backlighting (dims backlighting, if ignition is on). See panel diagram below for switch numbering.

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Switch 1 | Switch 3 | Switch 5 | Switch 7
Switch 2 | Switch 4 | Switch 6 | Switch 8
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2. Once your outputs are determined, select the appropriate legends from the Switch Legends sheet, and affix them to the panel. NOTE: The legends are made of polycarbonate and have an industrial grade adhesive backing, making them very difficult to move once adhered. Therefore, it is critical that you center each legend within the embossed rim of each switch when attaching. **Should you need to remove a legend, we suggest you use a straight pin and lift at the upper corner until you can grasp it with your fingers. DO NOT dig at the graphic overlay, as the membrane could be damaged.**

You are now ready to install your hardware. **DO NOT CONNECT POWER TO THE POWER MODULE UNTIL THE 16 PIN CONNECTOR IS PLUGGED INTO THE MODULE AND THE GROUND WIRE IS CONNECTED!**
3. **FOR YOUR SAFETY**, disconnect the negative battery lead from the vehicle’s battery before proceeding with installation, and to avoid damage to the electrical system!

4. Attach Power Module to mounting plate, using 2 M4 screws and 2 M4 nuts with locking washer (Figures 1&2) NOTE: on Jeep JK, nuts must be placed on the front of the PM, due to limited clearance on the back side. Other vehicles can have the nut attached on the back side.

5. For Jeep JK, remove plastic ‘stud covers’ (which are attached to the wire loom running along back wall of engine compartment). Place Mounting Plate/Power Module assembly onto factory wire harness studs, and secure with M6 Nuts with nylon inserts (Figure 3). Place the factory plastic ‘stud covers’ over the mounting plate studs (Figure 4). All other vehicles can mount the Power Module in any desired place.

6. Next, locate the **Black wire** on the harness with the 16 pin connector. This is your ground wire, and should be connected to the negative terminal on the battery (preferred method), or a nearby ground stud. Plug the 16 pin connector into the connector on the face of the power module. **THIS MUST BE DONE BEFORE CONNECTING POWER TO POWER MODULE!!**

7. Connect the **Yellow wire** light signal input. First, determine where you will get your Light input signal. For Jeep JK, use the white wire with green stripe, which comes from the fender side marker light. For all other vehicles, your signal should come from a Parking light or Side marker light signal. Cut the wire to appropriate length, and crimp the supplied red blade connector to the end. Next, attach the supplied red t-tap to the light source wire, and connect the blade connector to the t-tap. **DO NOT use headlights as your light signal source!**

8. Connect the **Blue wire** for the ignition sense signal. This can be any signal that supplies a 12 volt signal when the ignition is on. Switched Accessory outlet signals will also work. We have included a Fuse Tap-A-Circuit for Jeep installations.

   For 2007 and newer Jeeps, locate the Accessory fuse M7, under the hood, in the fuse box. Remove the M7 fuse, insert it into the empty slot of the Fuse Tap-a-Circuit. Insert the Tap-A-Circuit into the empty M7 slot. (See Figure 5). Next, strip back the cover of the Blue Wire, and crimp the butt splice of the Tap-A-Circuit onto the end to make the connection.

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For more information, visit [www.switch-pros.com](http://www.switch-pros.com) or call 949.581.2991.
9. Route the Switch Panel harness (4 wires, in expandable nylon sleeve, with 4 pin connector) through the firewall and into the cab to the location where the Switch Panel will be mounted. Plug the 4 pin female connector into the 4 pin male connector on the switch panel. Note: On most vehicles, there is a rubber plug or access hole on both sides of the engine compartment, which accesses the cab at the sides of the dashboard.

10. The remaining wires of the 16 pin connector harness, will connect to your outputs. See Figure 6 for diagram.

11. For outputs 1-7, use the supplied blue butt splices to connect to the positive side of your load. If utilizing the max amperage of 30 amps for one load on output 8, then tie wires 8 and 16 together using the supplied yellow butt splice. If using two loads (eg. Two separate lights), connect one light to wire 8 and one light to wire 16, using the supplied blue butt splices. Both yellow and blue butt splices are heat shrinkable. Use heat gun to shrink ends for a more secure fit. For all outputs, connect the ground for each load to either the negative terminal of the battery, or any ground stud on the vehicle. THOUGH OUR SYSTEM DOES NOT REQUIRE RELAYS TO BE USED WHEN POWERING MOST ACCESSORIES, WE RECOMMEND USING THE RELAY THAT IS EITHER BUILT IN OR SUPPLIED WITH THE ACCESSORY. THIS IS RECOMMENDED FOR ALL INDUCTIVE LOADS (e.g. air compressors, high current fuel pumps).

12. Next, mount the Switch Panel in the desired location, using the supplied M4 screws. You may mount the panel directly to your dash, using the M4 screws and the mounting tabs on the panel enclosure. Or, you may want to use the stainless mounting bracket, included in your installation kit. If using the mounting bracket, use the supplied M4 screws and nuts to connect the switch panel to the bracket, and the M5 screws and nuts to mount the bracket to the mounting location.

13. Connecting the Battery Cable: Connect the ‘long’ end of the battery cable to the Power Module. This is the section of the cable which has a longer lead from the fuse to the end lug. Next, connect the ‘shorter’ end to the POSITIVE terminal on the vehicle’s battery stud. NOTE: NEVER disconnect the 16 pin connector while a load is switched on. This could cause damage to the module. If it is necessary to unplug the connector, disconnect the power cable from the battery first!

Installation of your system is now complete, and you may begin the programming process. This can be done either directly from the Switch Panel, or by Bluetooth connection, using an Android device. Apple app is due out in Spring, 2015.

For programming directly from the Switch Panel, see page 4. For Bluetooth Programming steps, see page 5.
Programming Your SP8100
8-Switch Power Panel System

Locate the Switch-Pro logo on the face of the switch panel

1. Press and hold for 4 seconds to activate programming mode. The 1st flash indicates you are ready to select which switches should have a Momentary function. (Default for all switches is On/Off). Press Switch-Pro logo to continue programming process.

2. The 2nd flash indicates you are ready to select which switches should be Battery input. Any switch selected during this step will REMAIN ON, even when vehicle ignition is turned off. (Default for all switches is Ignition input, unless selected during this step). Press Switch-Pro logo to continue programming process.

3. The 3rd flash indicates you are ready to select which switches will have a Flash function. This will be used for lighting outputs. Any switch selected during this step will have a secondary Flash function when the switch is double tapped from the Off position. (Default for all switches is Off, or no flash function). Press Switch-Pro logo to continue programming process.

4. The 4th flash indicates you are ready to select which switches will have a Strobe function. This will be used for lighting outputs. Any switch selected during this step will have a secondary Strobe function when the switch is double tapped from the Off position. (Default for all switches if Off, or no Strobe function). Press Switch-Pro logo to continue programming process.

5. The 5th flash indicates you may override the Low Voltage Disconnect function, if desired. If left active, the system will monitor battery voltage and, if it senses voltage at 11.5 volts or lower for 60 seconds, it will shut down. If, after shut down, it sees the voltage raise to 12 volts for 60 seconds, the system is able to be powered on again. However, it will not turn back on automatically. To DISABLE this function, press Switch 7, located at the upper right corner of the panel. (Default for system is On). Press Switch-Pro logo to continue programming process.

6. The 6th flash indicates you are ready to select which switches will have a Memory function. Each switch selected during this step will “remember” to come back on each time the ignition input is sensed. (Default is Off).

Press the Switch-Pro logo to exit the programming process.

To adjust Night-time backlighting and LED indicator brightness:

1. Press the Switch-Pro logo 3 times quickly.

2. Switches 1 and 2 (upper and lower left corners) adjust the LED indicator brightness. Press Switch 1 (upper left) to increase brightness. Press Switch 2 (lower left) to decrease brightness.

3. Switches 7 and 8 (upper and lower right corners) adjust the backlighting brightness. Press Switch 7 to increase brightness. Press Switch 8 to decrease brightness.

Press Switch-Pro logo to exit the programming process.

NOTE: Backlighting and LED brightness is adjustable only for nighttime driving (when headlights are on), and is set at a standard level (nonadjustable) for daytime driving.
Programming Your SP-8100

Using The Bluetooth Function

The SP-8100 app will interface with devices running Android 4.3 with BLE and newer

1. Download the Switch-Pro SP8100 app from the Google Play Store (Apple app is in development, and is expected in Spring of 2015, but was not available at the time this publication was written).

2. With Power Module connected to the vehicle battery AND with your Android device within communication range, open the app and press Scan For Local Devices. A window will pop up. Press Scan For Devices in that window. Select the listing that reads SWITCH-PRO_xxxx. The app will load and establish connection to the Switch Panel. NOTE: On the primary screen, it is best to select Auto Connect and Reset BT Adapter on Connect

3. Once app is open, the Switch Panel is displayed and the blue light will illuminate on the switch panel. This is what you will see on your device screen:

Settings screen: This is where you will program switch functions.

Set Dimming: This is where you will adjust the Backlighting for the Switches and the Indicator LEDs (for nighttime driving only, as daytime brightness is preset and not adjustable).

Set Switch Names: Tap each switch name to create names for your switches, based on your outputs. Use keyboard to type the switch name, using the space bar (not the return key) to add text for a second line. Your switch name should not exceed two lines.

Set Password: Your new system will come without a password programmed. We highly recommend creating a password (up to 12 characters long) in the programming screen, to avoid your system being activated without your approval.

Exit: To exit the programming function. This will return you to the Switch Panel command screen.

NOTE: The Bluetooth app allows you to program a Master Switch, which will control any/all of the other switches on the panel. (e.g. Switch 1 can be programmed to turn on Switch 1, Switch 2 and Switch 3 outputs).

ALSO NOTE: If there is a BT connection established, the Switch Panel in the vehicle will also be functional, regardless of Battery/Ignition Switch programming. This means that if you remove the keys from the vehicle, AND your Bluetooth device is still connected, ALL switches on the switch panel will function, even if they are programmed as Ignition input. If the Bluetooth device is disconnected, then the switches on the switch panel that are programmed for Ignition input will only function with the ignition on.

If Bluetooth connection is lost, or app is closed while outputs are on, outputs will remain ON.