



**FEDERAL SIGNAL**  
Safety and Security Systems

# **Model SW300-B**

## **Switch Module**

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### ***Installation Instructions***

## Limited Warranty

This product is subject to and covered by a limited warranty, a copy of which can be found at [www.fedsig.com/SSG-Warranty](http://www.fedsig.com/SSG-Warranty). A copy of this limited warranty can also be obtained by written request to Federal Signal Corporation, 2645 Federal Signal Drive, University Park, IL 60484, email to [info@fedsig.com](mailto:info@fedsig.com) or call +1 708-534-3400.

This limited warranty is in lieu of all other warranties, express or implied, contractual or statutory, including, but not limited to the warranty of merchantability, warranty of fitness for a particular purpose and any warranty against failure of its essential purpose.



**FEDERAL SIGNAL**  
Safety and Security Systems

2645 Federal Signal Drive  
University Park, Illinois 60484

[www.fedsig.com](http://www.fedsig.com)

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

Work Truck: 800-824-0254 • +1 708 534-3400

Technical Support 800-433-9132 • +1 708 534-3400

### **Safety Messages to Installers of Emergency Vehicle Warning Equipment**

#### **▲ WARNING**

People's lives depend on your safe installation of our products. It is important to read, understand, and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this switch module, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- DO NOT install equipment or route wiring in the deployment path of an airbag.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Locate the switch module so the VEHICLE and CONTROLS can be operated safely under all driving conditions.
- When drilling into a vehicle structure, ensure that both sides of the surface are clear of anything that could be damaged.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

### **Unpacking the Product**

After unpacking the product, inspect it for damage that may have occurred in transit. If it has been damaged or is missing a part, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of the damage. Carefully check all envelopes, shipping labels and tags before removing or destroying them. If you are missing any parts, contact Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).

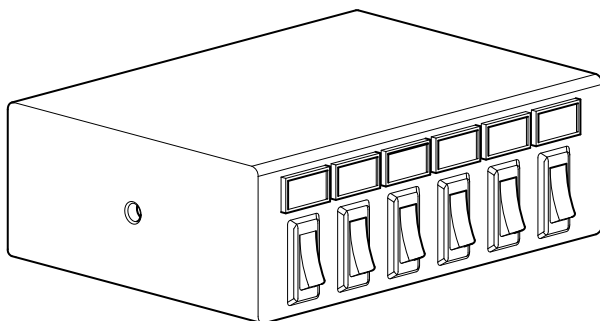
## **Overview of the Model SW300 Switch Module**

The Model SW300 switch module can accommodate six rocker switches, which are used to control various vehicle-mounted devices. The switches are rated at 20 A at 12 Vdc.

Dimensions (HWD) are 2-3/16 x 6-7/8 x 5-7/8 inches (including fuses). The weight of the module is 2 lb.

Six legend inserts can be installed above the switches as shown in Figure 1. Eighteen legend inserts are included as part of the accessory kit packed with the switch module.

**Figure 1** Model SW300-B switch module



A thermal lockout circuit breaker rated at 40 A protects the rotating light circuit (Circuit 1). The load current of Circuit 1 flows through the contacts of a relay rated at 40 A (K1). The other circuits (2 through 6) are each protected by automotive blade fuses rated at 20 A.

The switch module is designed to be installed on a vehicle mounting surface with a trunion mounting bracket.

It can be installed on top of the Model PA300 electronic siren with the hardware included in the accessory kit. It is secured to the mounting surface with the bracket included with the siren.

## Mounting the Switch Module

**▲ WARNING**

***AIRBAG DEPLOYMENT: Do not install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury or death.***

**NOTICE**

***UNIT REQUIRES UNRESTRICTED AIR FLOW: The switch module must be installed in an adequately ventilated area. Never install it near heat ducts.***

To mount the switch module:

1. Select a mounting location that allows the vehicle and all controls to be operated safely under all driving conditions.
2. Use the mounting bracket as a template and scribe two drill-position marks at the selected mounting location.

**NOTICE**

***DRILLING PRECAUTIONS: When drilling holes, check the area you are drilling into to ensure that you do not damage vehicle components while drilling. All drilled holes should be de-burred, and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing.***

3. Drill two 1/4-inch diameter holes at the position marks.
4. Secure the mounting bracket to the mounting surface with (2 each) 1/4-inch 20 x 3/4-inch hex head screws, 1/4-inch split lockwashers, and 1/4-inch 20 hex nuts.
5. Secure the switch module to the mounting bracket with 1/4-inch 20 x 3/8-inch hex head screws and 1/4-inch split lockwashers.
6. Adjust the tilt of the switch module if needed and tighten the 1/4-inch 20 x 3/8-inch hex head screws.

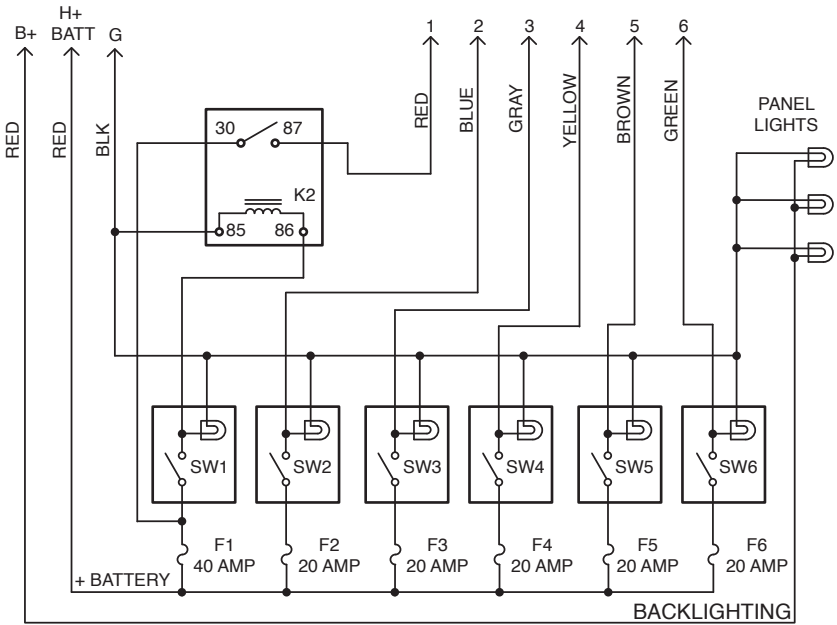
### **Wiring the Switch Module**

Figure 2 on page 7 shows the correlation of each color-coded wire to a corresponding switch. For example, FW1 on the left controls the signal at the unmarked red wire.

To wire the switch module:

1. Install user-supplied terminals on the end of the lead wire that mates with the lead wire of the wiring harness.
  - Use a yellow terminal for 12 AWG red wire.
  - Use blue terminals for the colored 14 AWG wires.
  - Use pink terminals for the red and black 12 AWG wires.
2. To match each color-coded wire to a corresponding switch, refer Figure 2 on page 7.
3. Use 18 AWG wire to connect the red backlighting circuit lead B to the accessory terminal of the ignition switch or the vehicle instrument light circuit.
4. The switch module can be powered from either the vehicle power distribution center or a 100 A remote/reset circuit breaker located near the battery.
5. Use 8 AWG wire to connect the red power lead H to the circuit breaker or distribution center. If you are connecting power in the engine compartment, you may have to drill a hole into the vehicle firewall.
6. Insert a grommet into the hole to protect the wire against damage from rough edges. A firewall grommet is recommended if you are routing wires through the engine compartment.

Figure 2 Model SW300-B wiring



### Getting Technical Support

For technical support, please contact:

Federal Signal Corporation

Phone: 1-800-443-9132

Email: [empserviceinfo@fedsig.com](mailto:empserviceinfo@fedsig.com)

### **Getting Repair Service**

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally.

Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain a RMA from a local Distributor or Manufacturer's Representative.

Provide a brief explanation of the service requested, or the nature of the malfunction.

Address all communications and shipments to the following:

Federal Signal Corporation  
Service Department  
2645 Federal Signal Drive  
University Park, IL 60484-3167



2645 Federal Signal Drive  
University Park, Illinois 60484

[www.fedsig.com](http://www.fedsig.com)

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