Safety Message to Installers and Service Personnel of Warning Light Equipment

⚠ WARNING

People's lives depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product and the original product. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this equipment, 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. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury to you or others.

- To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into the lights at a close range or permanent damage to your eyesight may occur.

- If a vehicle seat is removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.

- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes. To prevent electrical shorts, grommet all drilled holes through which wiring is run.

- Never attempt to install aftermarket equipment that connects to the vehicle wiring without reviewing a vehicle wiring diagram available from the vehicle manufacturer. Insure that your installation will not effect vehicle operation or mandated safety functions or circuits. Always check the vehicle for proper operation after installation.

- Locate the controls so the VEHICLE and CONTROLS can be operated safely under all driving conditions.

- The flasher should be frequently inspected to ensure that it is operating properly and that it is securely attached to the vehicle.

- File these instructions in a safe place and refer to them when installing and/or reinstalling the product.

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

Overview

The Federal Signal Model 605012 Relay Module/Two-Channel Flasher operates on the Federal Signal RS485 network.

Unpacking the Product

Table 1 lists the parts included with the product. After unpacking the kit, examine it for damage that may have occurred in transit. If the product has been damaged, file a claim immediately with the carrier stating the extent of damage. Carefully check all envelopes, shipping labels, and tags before removing or destroying them. Ensure all parts in the packing list are included in the shipment. If any parts are missing, call Federal Signal Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday, Central Time.

Table 1 Kit contents

Qty.	Description	Part Number
1	RS485 Relay Module	605012
2	Screw, Phil., Thread Forming, Pan Head, #8-18	7011A069-08

Mounting the Relay Module

To mount the relay module:

1. Select a mounting location for the relay module. Use the relay module as a template and scribe two drill-position marks.

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

2. Drill mounting holes at the two scribed marks to accommodate the #8 mounting hardware.

3. Secure the relay module to the mounting location with the two #8-18 thread-forming screws.

Wiring the Relay Module

To wire the relay module:

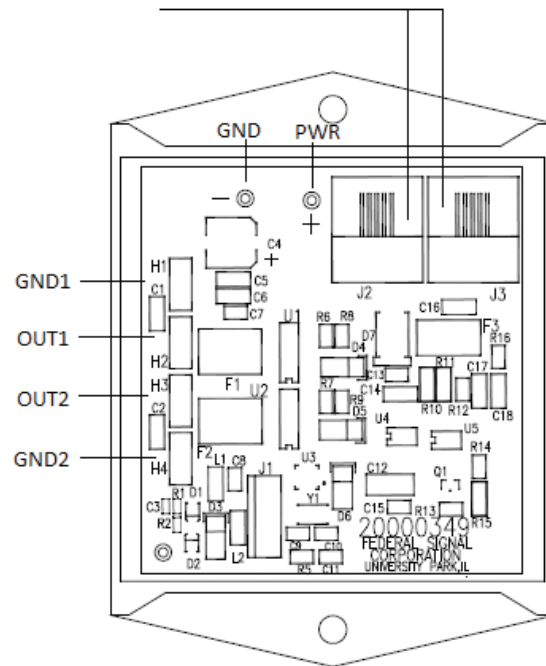| ⚠ WARNING	*BATTERY EXPLOSION—To avoid a battery explosion, always disconnect the negative battery cable first and reconnect it last. Avoid causing a spark when connecting near or to the battery. The gases produced by a battery can cause a battery explosion that could result in vehicle damage and serious injury.*

1. Disconnect the negative cable from the vehicle battery, then disconnect the positive cable.

2. See Figure 1 on page 3. Attach a black wire of a gauge heavy enough to handle the load current to the relay terminal GND.

⚠ WARNING	*EXPLOSION HAZARD—Failure to protect the Model 605012 with the recommended 15 A fuse could result in the destruction of the product, a direct short on the vehicle battery, an explosion, or personal injury or death.*

Figure 1 Model 605012 connections

3. Connect the RS485 cable from any Federal Signal controller programmed to send relay commands, or the PA300-CN siren amplifier, to the two network terminals on the relay module.

NOTICE	***DO NOT OVERDRAW CURRENT—Do not draw more than the maximum current from the terminals OUT1 and OUT2 as marked on the fuses. If your system needs more current draw than that available from the relay module, use a mechanical relay. The Model 605012 can activate and deactivate the mechanical relay using the network controller.***

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4. Connect the 12 Vdc battery power outputs (OUT1 and OUT2) of the relay module to the Federal Signal devices to be controlled. OUT1 and OUT2 can function as either steady outputs or two-channel relay outputs.

   The output terminals are fused with a maximum current draw of 7.5 A at OUT1 and 7.5 A at OUT2. The recommended total of the continuous operating amperage is 15 A or less.

6. Connect the red wire from the POWER terminal on the relay module through a 15 A in-line fuse to the positive (+12 Vdc) terminal of the vehicle battery.

7. Connect the black wire from the GND terminal on the relay module to the negative (–NEG) terminal of the vehicle battery.

8. Reconnect the positive battery cable, then the negative cable.

9. Test the entire light system to verify that it functions properly. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety functions or circuits.

Getting Technical Support

For technical support, please contact:

Service Department
Federal Signal Corporation
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com

Returning a Product to Federal Signal

Before returning a product to Federal Signal, call 800-264-3578, 800-433-9132, or 800-824-0254 to obtain a Returned Merchandise Authorization number (RMA number). To expedite the process please be prepared with the following information:

- Your Federal Signal customer or account number.

- The purchase order number under which the items were purchased.

- The shipping method.

- The model or part number of the product being returned.

- The quantity of products being returned.

- Drop ship information as needed.

- Any estimate required.

When you receive your RMA Number:

- Write the RMA number on the outside of the box of returned items.

- Reference the RMA number on your paperwork inside of the box.

- Write the RMA number down, so that you can easily check on status of the returned equipment.

Send all material with the issued RMA Number to:

Federal Signal Corporation
Public Safety Systems
2645 Federal Signal Drive
University Park, IL 60484-3167
Attn: Service Department
RMA: #_____

800-433-9132
800-343-9706 (fax)
www.fedsig.com

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Safety and Security Systems