

2562591 Rev. C 0815

Safety Message to Installers and Users of Warning Light Equipment

⚠ WARNING

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

- To properly install this light, 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.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- 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.
- In order for the light to function properly, a separate ground connection must be made. If practical, it should be connected to the negative battery terminal. At a minimum, it may be attached to a solid metal body or chassis part that will provide an effective ground path as long as the light system is to be used.
- Locate the light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Do not attempt to activate or deactivate the light control while driving in a hazardous situation.
- You should frequently inspect the light 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 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 Warning Light

After unpacking the light, inspect it for damage that may have occurred in transit. If it 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. If you are missing any parts (Table 1 on page 2), contact Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT). Installer-supplied 18 AWG wires or thicker for extending the power and ground leads is required for wiring the light. Also required is an installer-supplied switch with a current capacity of at least 5 A or an installer-supplied switch with a current capacity of at least 1 A coupled with a 5 A fuse.

Table 1 Parts list

Qty.	Description
2	Connector, Self-Stripping
1	Bushing, 0.312" Hole
2	Bolt Hook, 1/4"-20, 2.5" Long
1	Mounting, Rubber, U-Channel
2	Nut, Machine, Hex, 1/4"
2	Washer, 1/4"
2	Lock Washer, 1/4"

Permanently Mounting the Warning Light

⚠ 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.

⚠ WARNING

ROOF SUPPORT STRUCTURE: There is a roof support member that spans the distance between the driver and passenger side. **DO NOT DRILL THROUGH THIS MEMBER!** Adjust any hole locations until the holes can be drilled without going through this member. Failure to follow this warning will weaken the roof of the vehicle and may lead to an increased chance of bodily injury or death in a roll-over accident.

⚠ WARNING

BATTERY EXPLOSION: To avoid a battery explosion, always disconnect the negative battery cable first and reconnect it last. Avoid 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.

NOTICE

DRILLING PRECAUTIONS: When drilling holes, check the area into which you are drilling to be sure you do not damage vehicle components. 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.

Before installing the warning light, plan all wiring routing. Ensure that the voltage supply of the vehicle is within the voltage rating shown on the label of the warning light. Extend wiring with 18 AWG wire or thicker.

Because there is a variety of mounting option kits available for the Models 651 and 851 LED warning lights, instruction sheets for each option are packed with the mounting kit.

Wiring the Warning Light

⚠ WARNING

LIGHT HAZARD: For the light to function properly, a separate ground connection must be made. If practical, it should be connected to the negative battery terminal. At a minimum, it may be attached to a solid metal body or chassis part that will provide an effective ground path as long as the light system is to be used.

NOTICE

REVERSE POLARITY/MISWIRING: Reverse polarity or incorrect voltage may damage the light. To avoid damage to the light, ensure that the battery voltage is the same as the voltage rating of the light and that the correct polarity is observed. If you are connecting to a cigarette lighter plug, connect the positive wire to the center terminal and connect the negative wire to the outer terminal.

NOTICE

PROPERLY GROUND THE LIGHT: The diecast base has a corrosion-resistant coating that may insulate against a ground connection. Ensure that there is an adequate ground to the pipe. If such a ground is unfeasible, run a ground to the vehicle chassis.

To wire the warning light in the vehicle:

1. Refer to the instructions included with the mounting option kit and use one of these two options:
 - a switch with a minimum capacity of 5 A
 - a switch with a minimum capacity of 1 A coupled with a 5 A fuse
2. Depending on the selected mounting option, it may be necessary to cut off the ring terminal from the black ground wire and use the supplied butt connector to make the ground connection.
3. After you complete the wiring, test the light for proper operation. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety functions or circuits.

Cleaning the Dome

⚠ WARNING

CRAZING/CLEANING SOLUTIONS: The use of cleaning solutions, such as strong detergents, solvents, and petroleum products, can cause crazing (hairline cracks) of the dome. To clean the dome, use a soft cloth and a solution of water and a mild detergent. Failure to follow this warning can damage them, reducing the effectiveness of the lighting system, which may result in injury or death.

Establishing a regular maintenance schedule for the warning light extends the life of the light and ensures safety. Periodically check that the light operates properly and that all mounting hardware is securely fastened to the vehicle. Also, inspect the dome for cracks, crazing (hairline cracks), discoloration, and other defects.

⚠ WARNING

CRAZING/CHEMICALS: A crazed, cracked, or faded dome reduces the light output and the effectiveness of the lighting system. A dome showing this type of aging must be replaced. Failure to follow this warning may result in injury or death.

Dirt on the plastic dome reduces the effectiveness of the warning light. Periodic cleaning not only maintains the effectiveness of the warning light, but prolongs the life of the dome.

To clean the dome:

1. Rinse the dome with lukewarm water to loosen dirt and debris.
2. Use a mild soap, lukewarm water, and a soft cloth to gently clean the plastic surfaces. To avoid damaging the dome, do not use heavy pressure or caustic, abrasive, or petroleum-based cleaners.
3. Rinse the dome and dry it with a soft cloth to prevent water spotting.

To remove fine scratches and haze, use a specialty plastic cleaner/polish and a soft cloth. You can also use a high quality automotive paste cleaner/wax that is non-abrasive.

Getting Technical Support and Service

The warning light contains no user-serviceable parts. For technical support and service, please contact:

Federal Signal Corporation
Service Department
Public Safety Systems
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com
(7 a.m. to 5 p.m., Monday through Friday, Central Time)

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) (7 AM to 5 PM, Monday through Friday, Central Time).

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: # _____