

2562501A REV. A 609

## Safety Message to Installers and Users

### **⚠ 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 beacon, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Locate the light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- 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 to you or others.**

## Unpacking the Beacon

After unpacking the beacon, examine it for damage that may have occurred in transit. If the beacon has been damaged, 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.

*Table 1: Mounting hardware*

Qty.	Description
2	Nylon Arrow Clip
4	Screw, Sems, 10-32 x 5/8"
1	Screw, #8-32
1	Lockwasher, Ext., #8
2	Terminal, Male
2	Terminal, Female
1	Fuse, 5 A, Fast Acting, Slow Blow
1	Fuseholder
1	Grommet

**NOTE:** An installer-supplied pipe flange, terminal connectors, and wire leads are required to complete the installation. Also required are two installer-supplied switches with a current-handling capacity of at least 1 ampere.

## Before You Begin

Before you mount the beacon, plan where to route the wires. Use 18 AWG wire for runs under 20 ft. To prevent voltage drop in wire runs over 20 ft, use a thicker gauge wire. Ensure that the supply voltage of the vehicle is within the voltage rating specified on the beacon.

Some models include a low power mode which is activated by the white wire. Before proceeding determine if the low power mode is required.

If you are not using the white wire from the beacon, dress the wire so that it cannot be pinched when the beacon is installed on the mounting surface. To prevent shorting to anything in the base of the beacon, insulate the end of the wire.

## Mounting the Beacon

### **⚠ WARNING**

#### **AIRBAG DEPLOYMENT**

**Do not install equipment or route wiring in the deployment 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 mount the beacon:

1. Insert the supplied nylon arrow clips (hole plugs) into mounting holes on bottom side of base (*Figure 1* on page 3).

### **NOTICE**

#### **REVERSE POLARITY/MISWIRING**

**Reverse polarity or incorrect voltage may damage the beacon. 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,**

2. Connect the red wire from the beacon to one side of an installer-supplied switch with a current-handling capacity of at least 1 ampere.
3. Connect the black ground wire from the beacon to the aluminum base with the supplied lockwasher and #8-32 screw.
4. Connect the remaining switch terminal from the red wire to one end of the supplied in-line fuseholder as close as practical to the battery. Connect the other end of the fuseholder to the vehicle battery with installer-supplied wire. Install the supplied 5 A fuse in the fuseholder.
5. Strokes operate in the high power mode if the white wire is left unconnected, and operate in the low power mode when the white wire is connected to the positive terminal of the power supply. If required, connect the white wire to one side of an installer-supplied switch with a current-handling capacity of at least 1 ampere. Connect the remaining switch terminal to the in-line fuseholder with installer-supplied wire.
6. Secure the beacon to the aluminum base using the supplied #10-32 Sems screws.
7. Place the beacon on the pipe. Make sure not to obstruct the drain hole.
8. Test the beacon to verify that it operates properly.

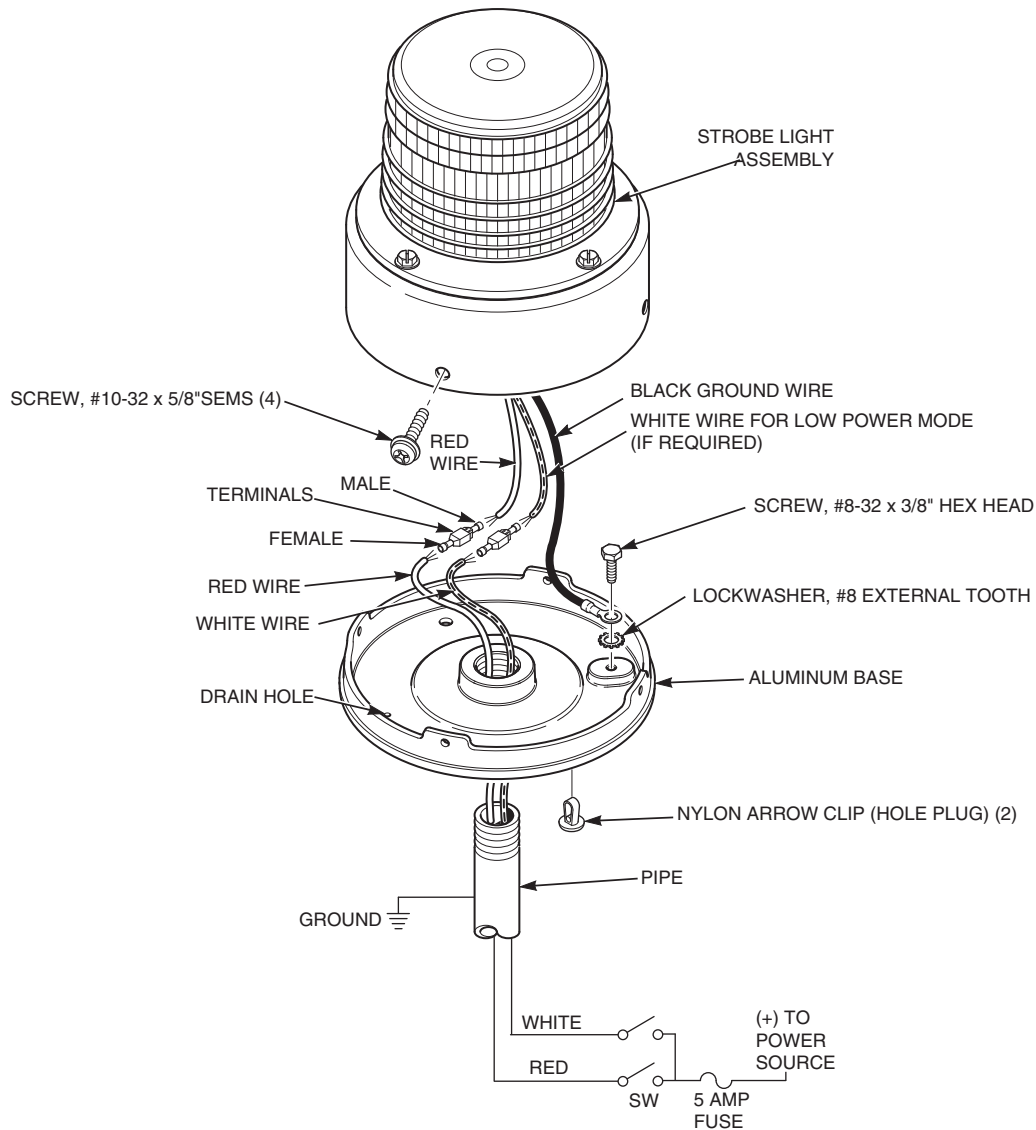


Figure 1: Model 901/951 pipe-mounted beacon

## Changing the Flash Tube

### **⚠ WARNING**

#### **SHOCK HAZARD**

High voltage generated by the power supply of the beacon may cause property damage, serious injury, or death to you or others. Ensure that the power to beacon is disconnected and wait at least 5 minutes before working on the beacon.

### **⚠ CAUTION**

#### **HANDLE THE FLASH TUBE CAREFULLY**

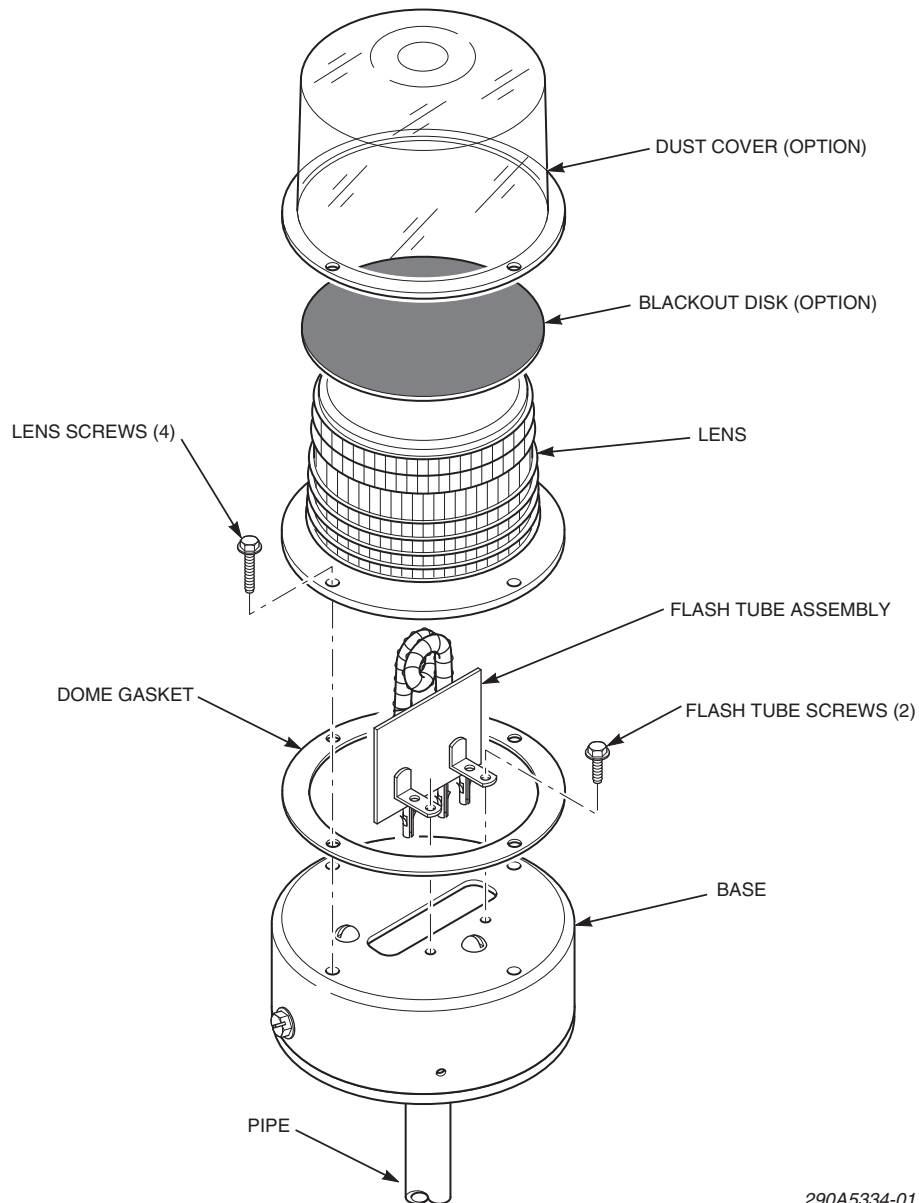
Flash tubes get hot enough to burn you. Always allow the flash tube to cool before handling it. Flash tubes are pressurized and, if broken, can result in flying glass. Always wear gloves and eye protection when handling the flash tube.

Failure to follow this caution may result in personal injury.

As strobe lights are used the flash tubes begin to darken, causing the light output to decrease. This darkening is characteristic of flash tubes. Also, as flash tubes age, they may have a tendency to misfire (not fire periodically). After extended operation, occasionally check for flash tube degradation. Replace the flash tube if the it misfires or has a noticeable decrease in light output or it glows continuously.

To replace the flash tube:

1. Disconnect power to the beacon.
2. Remove and retain the four screws that secure the lens and the dust cover (if equipped) to the base (*Figure 2*). Remove the dust cover, blackout disk (if equipped), and lens from the base.



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*Figure 2: Flash tube replacement*

3. Remove and retain the screws that secure the flash tube assembly to the base.

**NOTICE****DO NOT TOUCH THE FLASH TUBE WITH BARE HANDS**

Oil deposits on the glass portion of the tube can cause the glass to fracture during use. If you are unsure whether the glass portion has been handled without gloves, clean the glass using a soft cloth and isopropyl alcohol before installing the tube.

4. Grasp the flash tube by the printed circuit board and pull it off of the pins with a gentle rocking motion.
5. Install the new flash tube. Secure the flash tube assembly to the base with the four screws removed in step 3.
6. Ensure that the dome gasket rests flat on the base and reassemble the light.
7. Secure the lens with the blackout disk and the dust cover (if equipped) to the base with the four screws removed in step 2.
8. Reconnect power and test the beacon to verify that it operates properly.

## Cleaning and Inspecting the Beacon

Frequently inspect the beacon to ensure that it is securely attached to the vehicle and operates properly. Clean the beacon with a mild soap and a soft rag.

## Getting Replacement Parts

To order replacement parts, call our Mobile System Customer Support at 1-800-264-3578, 7 AM to 5 PM, Monday through Friday (CT) or contact your nearest distributor.

## 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  
2645 Federal Signal Drive  
University Park, IL 60466  
Attn: Service Department  
RMA: #\_\_\_\_\_



2645 Federal Signal Drive, University Park, IL 60466-3195  
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