

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. 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, ensure 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.
- Frequently inspect the light to ensure that it is operating properly and that it is securely attached to the vehicle.
- In order to be an effective warning device, this product produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range, or permanent damage to your eyesight may occur.
- Do not install the light system in an area that would block, impair, or blind the driver's vision. Ensure that the light system is mounted in a position that is outside the driver's field of vision so that the driver can maintain safe vehicle operation.
- A light system is a high current system. For the system to function properly, a separate negative (-) connection and positive (+) connection must be made. All negative connections should be connected to the negative battery terminal, and a suitable fuse should be installed on the positive battery terminal connection as close to the battery as possible.
- Ensure that all wires and fuses are rated correctly to handle the device and system amperage requirements.
- Never attempt to install aftermarket equipment that connects to the vehicle wiring without reviewing a vehicle wiring diagram available from the vehicle manufacturer. Ensure that your installation will not affect vehicle operation or mandated safety functions or circuits. Always check the vehicle for proper operation after installation.
- 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.

Introduction

This manual gives instructions for pipe mounting Federal Signal Model 901 and 951 beacons.

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-inch
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 A.

Before You Begin

Before you mount the beacon, plan where to route the wires. Use 18 AWG wire for runs under 20 feet. To prevent voltage drop in wire runs over 20 feet, 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 that 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.

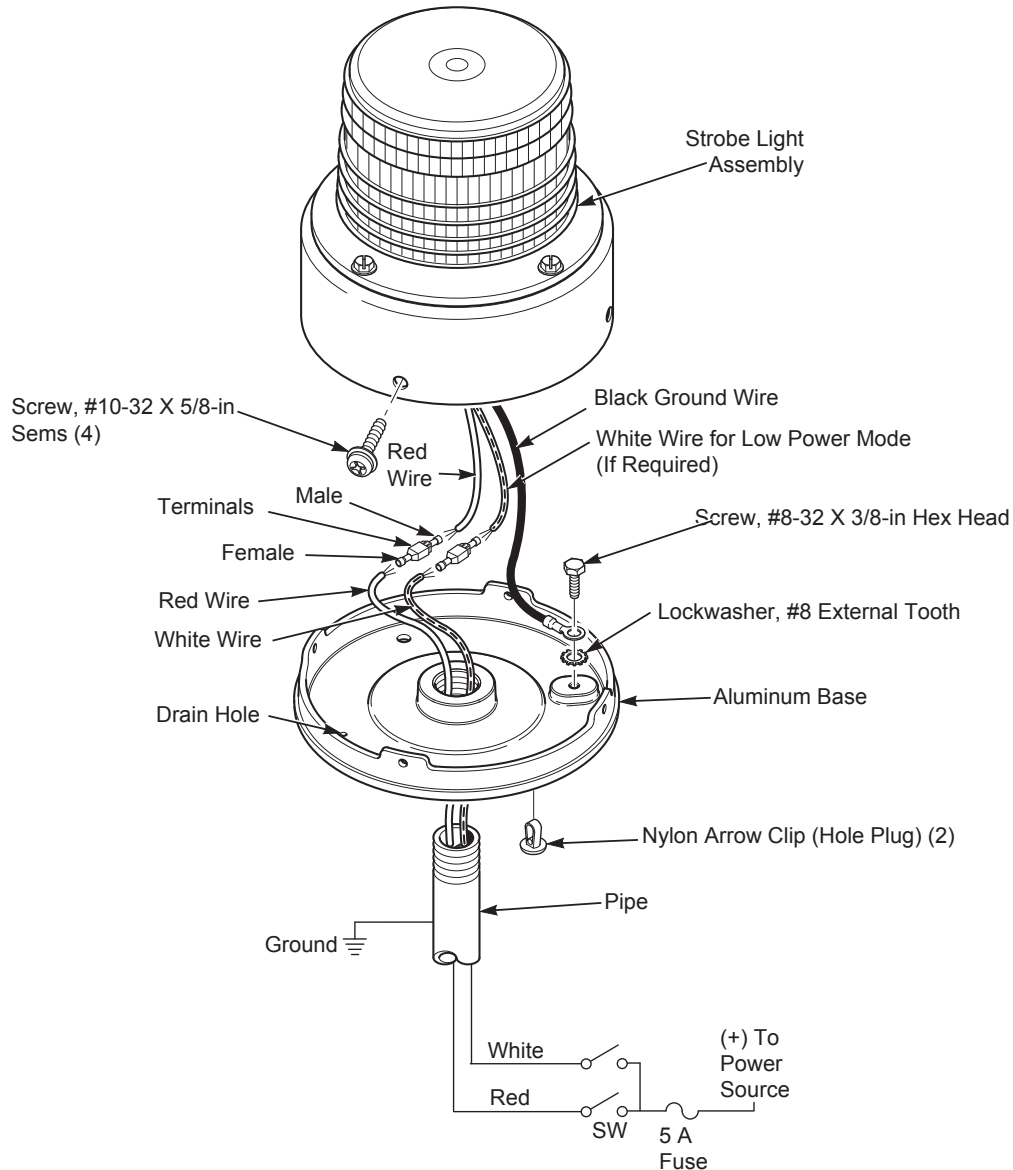
WARNING

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.

To mount the beacon:

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

Figure 1 Model 901/951 pipe-mounted beacon



290A5338-01

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 A.
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.

Installing Models 901 and 951 Pipe-Mount Beacons

5. Strobes 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 A. 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.

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 the beacon is disconnected and wait at least 5 minutes before working on the beacon.*

⚠ CAUTION

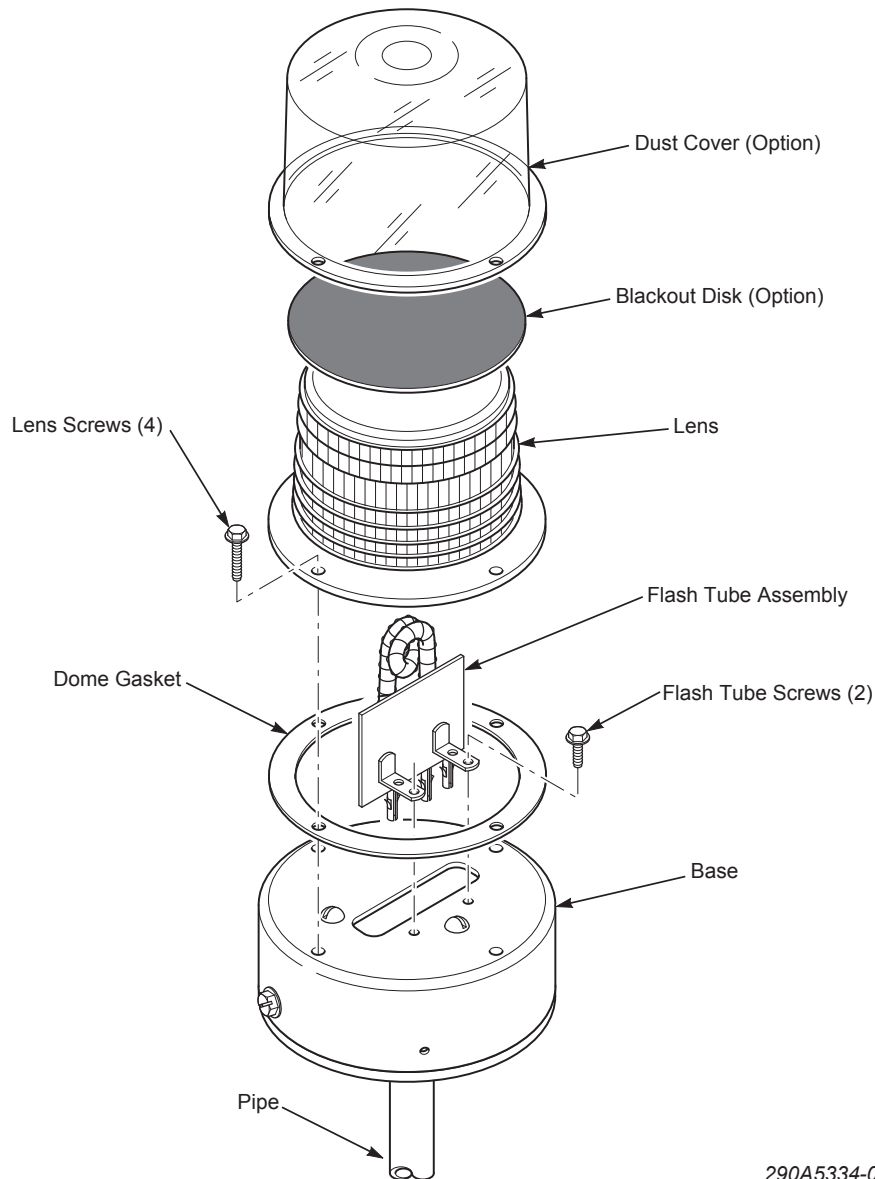
HANDLE THE FLASH TUBE CAREFULLY: *Flash tubes get hot enough to burn you. Always allow the flash tube to cool before handling it. Flash tubes are pressurized and, if broken, can result in flying glass. Always wear gloves and eye protection when handling the flash tube. Failure to follow this caution 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 an extended operation, occasionally check for flash tube degradation. Replace the flash tube if 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. See Figure 2. Remove the dust cover, blackout disk (if equipped), and lens from the base.

Figure 2 Flash tube replacement



290A5334-01

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 screws removed in step 3.
6. Ensure that the dome gasket rests flat on the base and reassemble the light.

Installing Models 901 and 951 Pipe-Mount Beacons

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

⚠ WARNING

CRAZING/CRACKING *Crazing (fine cracks) of lenses causes reduced effectiveness of the light. Do not use cleaning agents (which causes crazing) such as strong detergents, solvents, or petroleum products. If crazing of the lenses does occur, the reliability of light for emergency signaling purposes may be reduced until the lenses are replaced.*

NOTICE

CLEANING the POLYCARBONATE LENSES: *To extend the life of this device, periodic cleaning is necessary. Clean the lens with a mild, non-abrasive, neutral-pH cleaning agent and a soft, clean cloth. Rinse the device thoroughly to ensure that no cleaning agent residue remains. To avoid water spots, dry the device with a soft clean cloth. Failure to follow this precaution can cause crazing or cracking of the lens/dome and voids the warranty claims for the light.*

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

Getting Technical Support

For technical support, please contact:

Federal Signal Corporation

Service Department

Phone: 1-800-433-9132

Fax: 1-800-343-9706

Email: 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 an 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 to the following address.

Federal Signal Corporation

Service Department

2645 Federal Signal Drive

University Park IL 60484-3167

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. 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 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.



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www.fedsig.com

Customer Support

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

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

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