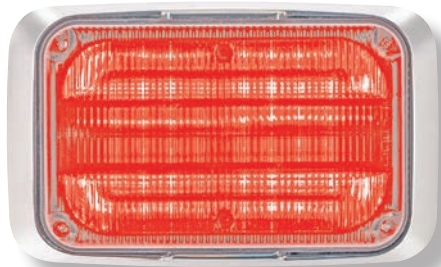




FEDERAL SIGNAL
Safety and Security Systems

QuadraFlare® DOT



Installation and Service Instructions

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visite www.fedsig.com

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.



FEDERAL SIGNAL Safety and Security Systems

2645 Federal Signal Drive
University Park, Illinois 60484

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

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Safety Message to Installers

Safety Message to Installers

⚠ WARNING

People's lives depend on your proper installation of our products. It is important to read, understand and follow all instructions shipped with the products. 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 or cord 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.
- 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 light control while driving in a hazardous situation.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- 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.

Overview of the QuadraFlare

The Federal Signal QuadraFlare DOT Warning Light is a self-contained, high intensity, LED light designed for mounting to the exterior of a vehicle. All models are available in a variety of colors and are to be driven by an external flasher. All units are designed to work with Federal Signal flashers. Refer to the particular flasher instructions for proper wiring. Model QuadraFlare DOT Warning Light is designed for operation on 12 Vdc at 2.0 A. The QuadraFlare DOT Warning light may be available in dual color models.

NOTE: All warning light units should NOT be considered for steady burn applications.

Table 1 Wire Functions

| Models | Red | White |
|---------------|------------|--------------|
| Warning | Color 1 | Color 2 |
| BTT | Brake/Turn | Tail |
| Reverse | Reverse | N/A |

Unpacking the QuadraFlare

After unpacking the light, inspect it for damage that may have occurred in transit. If it has been damaged, do not attempt to install or operate it. 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 that the parts listed in Table 2 are included in the package. 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).

Kit Contents List

Table 2 Kit Contents List

| Qty. | Description | Part No. |
|-------------|-----------------------------------|-----------------|
| 4 | #6 x 2-inch Stainless Steel Screw | 7000A404-32 |
| 4 | #6-32 Rubber Rivet Nut, Rubber | 70900417 |

Installing the QuadraFlare

⚠ WARNING

INSTALL IN RECOMMENDED AREAS: *When installing equipment inside airbag equipped vehicles, the installer MUST ensure that the equipment is installed ONLY in areas recommended by the vehicle manufacturer.*

Failure to observe this warning reduces the effectiveness of the airbag, damage the airbag, or potentially damage or dislodge the equipment, causing serious injury or death to you or others.

NOTE: For maximum coverage and effectiveness, mount the light assembly in a horizontal orientation. See Figure 1.

Before proceeding with installation, determine the approximate location of the light assembly and plan all cable/wire routing.

⚠ 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.*

To install the QuadraFlare:

1. Position the QuadraFlare Warning Light assembly on the desired mounting surface. Ensure that the unit is level side to side. Using the dimensions provided in Figure 1, scribe the four mounting hole locations and a wiring routing hole location on the mounting surface.

Figure 1 Mounting hole locations

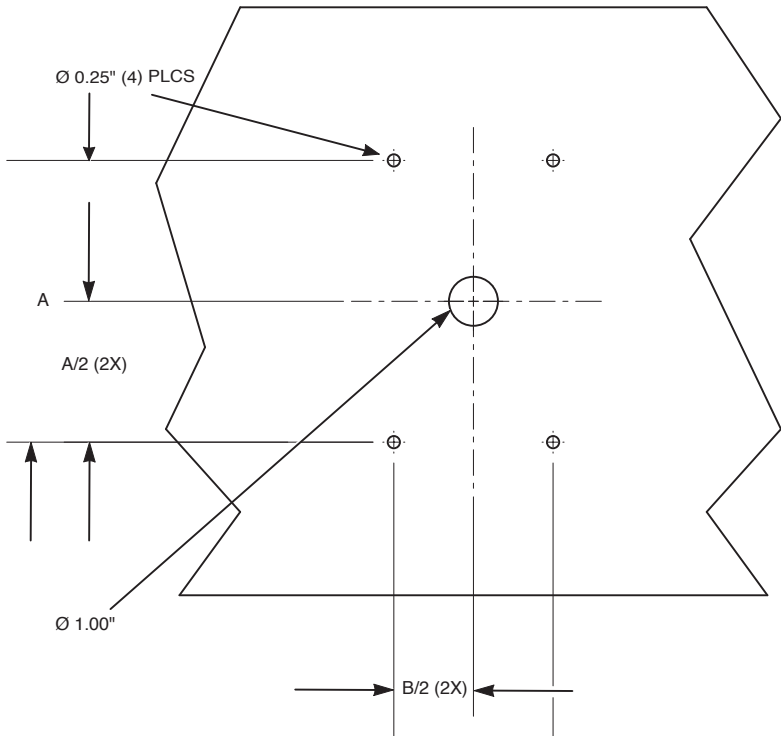


Table 3 Hole patterns

| Nominal size | A | A/2 | B | B/2 |
|--------------|-------|-------|-------|-------|
| 4 x 3 | 4.200 | 2.100 | 2.375 | 1.188 |
| 6 x 4 | 5.750 | 2.875 | 3.250 | 1.625 |
| 7 x 3 | 6.562 | 3.281 | 2.375 | 1.188 |
| 9 x 7 | 7.250 | 3.625 | 5.250 | 2.625 |

NOTICE

DAMAGE TO LIGHT: When installing the QuadraFlare light on a vehicle, you **MUST** use the manufacturer's supplied screws and screw grommets. Do not use an impact drill or an electric screw gun when installing the light. Torque the mounting screws to the manufacturer's recommended specification of 12 in-lb +/-10 percent.

Installing the QuadraFlare

Failure to observe these precautions damages the light and void any warranty claims for the light.

NOTICE

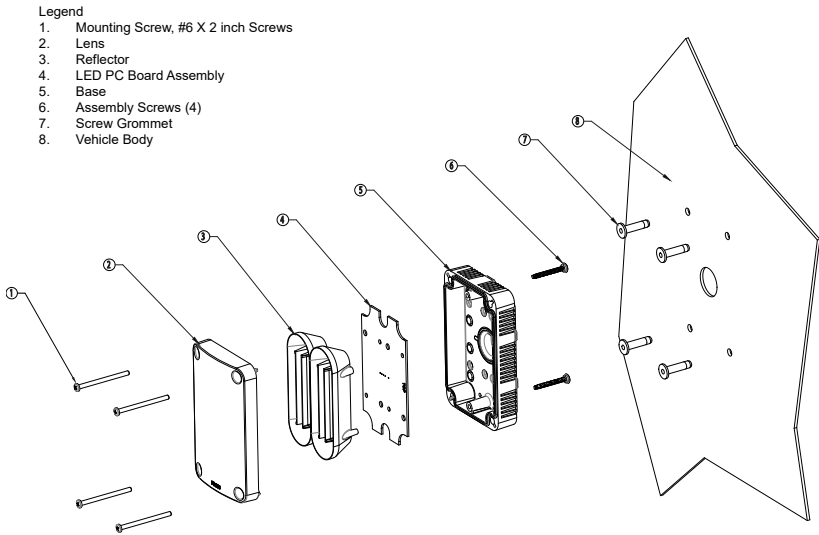
DRILLING PRECAUTIONS: When drilling holes, check the area you are drilling into to ensure that you do not damage vehicle components while drilling. All drilled holes should be de-burred, and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet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

- 2.** Drill four 1/4-inch mounting holes and a 1-inch wire routing hole at the previously scribed locations.
- 3.** Install the four supplied rubber rivet nuts into the four 1/4-inch mounting holes.

NOTE: When removing the QuadraFlare Warning Lights, inspect the mounting grommets for wear and replace them as needed.

- 4.** The QuadraFlare Warning Light assembly has two or three 12-inch long lead wires that exit the back of the unit for making electrical connections.
- 5.** Complete the electrical connections as described in the Wiring the QuadraFlare section.
- 6.** Align the QuadraFlare Warning Light assembly with the previously inserted rubber rivet nuts and secure with the provided #6 by 2-inch screws. See Figure 2.

Figure 2 Exploded view



NOTE: QuadraFlare models have identifiable color-coded sticker dots on the back of the light assembly. The color-coded sticker dots correspond to the LED colors on the PC board.

The first letter in the model number extension “_XX” is the color that activated by the red wire. The second is activated by the white wire.

⚠ WARNING

Never apply power to both red and white wires. Both colors will illuminate incorrectly.

Wiring the QuadraFlare

Wiring the QuadraFlare

The Model QuadraFlare Warning Light assembly operates on 12 Vdc. Five 12-inch long lead wires are supplied for making electrical connections to the QuadraFlare Warning Light assembly. Ensure that all wires are properly connected and insulated appropriately.

To make electrical connections:

1. Using 18 AWG (minimum) wire, connect the red (+) lead to the positive power source terminal and the black (–) lead to the negative power source terminal at the flasher.
2. For pre-terminated models, plug connector to the cable.

Cleaning the QuadraFlare

⚠ WARNING

CRAZING/CRACKING *Crazing (fine cracks) of lenses causes reduced effectiveness of the light. Do not use cleaning agents (which cause 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.*

Scatched or dull reflector, mirrors, or lenses reduce the effectiveness of the lighting system. Use a mild, non-abrasive, neutral-pH cleaning agent and a soft, clean cloth when cleaning the lighting system. Replace any optical components that may have been scratched or crazed during system installation. The use of strong, non-neutral-pH cleaners voids the warranty.

Safety Message to Operators

Safety Message to Operators

⚠ WARNING

Peoples' lives depend on your safe use of our products. Listed below are some important safety instructions and precautions you should follow:

- Although your warning system is operating properly, it may not be completely effective. People may not see or heed your warning signal. You must recognize this fact and continue driving cautiously.
- Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others, such as: raising your hood or trunk lid. If these situations occur, be especially careful.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- At the start of your shift, you should ensure that the light is securely attached and operating properly.

Failure to follow these safety precautions may result in property damage, serious injury, or death to you, to passengers, or to others.

Retain and refer to this message.

Getting Technical Support and Service

For technical support and service, please contact:

Federal Signal Corporation
Service Department
Public Safety Systems
Phone: 1-800-433-9132
Email: empserviceinfo@fedsig.com

Getting Technical Support and Service

Getting Repair Service

The Federal Signal factory provides technical assistance with Any units returned to 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. Provided 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

Ordering Replacement Parts

To order replacement parts, please contact your local dealer/
distributor or:

Customer Support

Federal Signal Corporation

Phone: 1-800-264-3578, 1-708-534-3400

Monday - Friday, 7:00 a.m. to 5:00 p.m. CST

<http://www.fedsig.com>

Table 4 Replacement Parts

| Description | QL43 | QL73 |
|------------------------------------|--------------|--------------|
| Mounting Screws, #6 x 1-1/2" | 7000A404-26 | 7000A404-26 |
| Rubber Rivet Nut, #6-32 | 70900417 | 70900417 |
| Lens, Fluted, Red | 801201253 | 801201545 |
| Lens, Fluted, Amber | 801201253-01 | 801201545-01 |
| Lens, Fluted, Clear | 801201253-02 | 801201545-02 |
| Lens, Fluted, Blue | 801201253-03 | 801201545-03 |
| Lens, Fluted, Green | 801201253-04 | 801201545-04 |
| Lens, Fluted, Red DOT | 801201252 | 801201544 |
| Lens, Fluted, Amber DOT | 801201252-01 | 801201544-01 |
| Lens, Fluted, Clear DOT | 801201252-02 | 801201544-02 |
| Lens, Fluted, Blue DOT | 801201252-03 | 801201544-03 |
| Lens, Fluted, Green DOT | 801201252-04 | 801201544-04 |
| Lens, Smooth, Red | N/A | N/A |
| Lens, Smooth, Amber | N/A | N/A |
| Lens, Smooth, Clear | N/A | N/A |
| Lens, Smooth, Blue | N/A | N/A |
| Lens, Smooth, Green | N/A | N/A |
| Optional Chrome Bezel w/ Gasket | QL43MC | QL73MC |

N/A indicates not available.



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