

Safety Message to Installers 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. Listed below are some other important safety instructions and precautions you should follow:

- To properly install the lighting system, you must have a good understanding of automotive 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.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Refer to the instructions packed with related products for additional precautions and information.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.
- Do not stare directly into the lights at a close range or permanent damage to your eyesight may occur.

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

Introduction

MicroPulse perimeter lights feature an advanced high-output LED light head for additional warning around the outside of your vehicle. Available in solid and dual color models, MicroPulse lights can be programmed to operate as a single unit or in synchronization with multiple MicroPulse light heads. Built-in flash patterns enable multiple vehicle perimeter lights to be either synchronized in the same pattern or in reverse sequence.

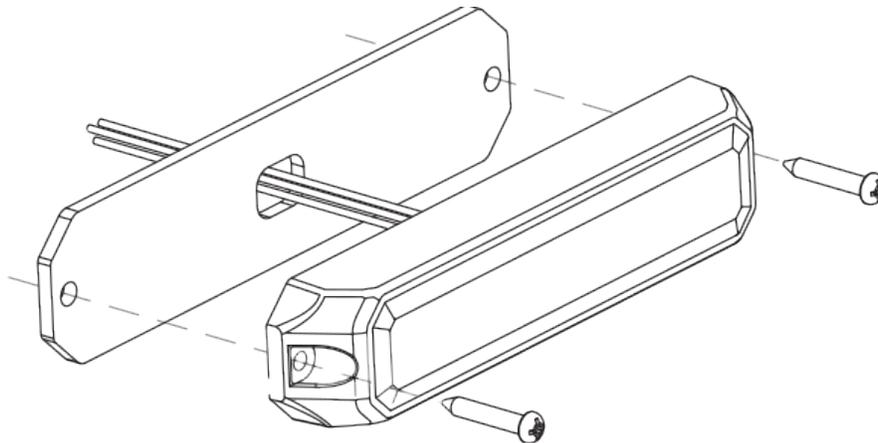
Unpacking the Product

After unpacking the product, 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. Failure to identify damage before installation could lead to rejection of any claim. Carefully check all envelopes, shipping labels, and tags before removing or destroying them. If you are missing any parts, contact Federal Signal Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).

Installing the MicroPulse® 600 and 650

- Red: To +VDC (fuse @ 3 A)
- Black: To Chassis Ground
- Yellow: Connect the yellow wires of all heads together for synchronization. (All heads must be set at the same pattern.)

Figure 1 Exploded view



Modes of Operation

⚠ 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.

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SEAT REMOVAL PRECAUTION: If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.

Each unit has three modes: MASTER (default), SLAVE-SYNC, and SLAVE-ALT.

If synchronized flashing is not needed, select the desired flash pattern. For synchronized flashing, only one unit must be set to MASTER mode while all other units are set to SLAVE-SYNC or SLAVE-ALT mode:

1. To enter MODE selection, apply +VDC to the RED and YELLOW wires simultaneously, or apply +VDC to YELLOW for at least 4 seconds while the unit is activated. Once in MODE selection, the unit steady burns in low power and pulses in high power:
 - Single Pulse: MASTER (default)
 - Double pulse: SLAVE-SYNC
 - Triple pulse: SLAVE-ALT
2. Remove YELLOW wire from +VDC and momentarily apply to +VDC to change MODE:
 - SLAVE-SYNC units flash together with MASTER units.
 - SLAVE-ALT units alternate with SLAVE-SYNC and MASTER units.

3. To exit MODE selection, apply +VDC to YELLOW for at least 4 seconds or disconnect all power.

NOTE: When there is no MASTER unit present, all SLAVE units flash initially and then steady burn for 2 seconds when no synchronization signal is detected. This is so that the installer/user can easily distinguish between SLAVE vs. MASTER units.

To select a flash pattern, momentarily apply +VDC to the YELLOW wire once for the next pattern or quickly three times to reset.

Table 1 Flash Patterns

1	Random	11	Double (all)
2	Single (split)	12	Quad (all)
3	Double (split)	13	Quint (all)
4	Quad (split)	14	Mega (all)
5	Quint (split)	15	Ultra (all)
6	Mega (split)	16	Single-Quad (all)
7	Ultra (split)	17	Single H/L (all)
8	Single-Quad (split)	18	Steady Half
9	Single H/L (split)	19	Steady All
10	Single (all)		

Split = Left half alternating right half

NOTE: This unit might not be factory-set at FP#1.

Mounting the Light Head

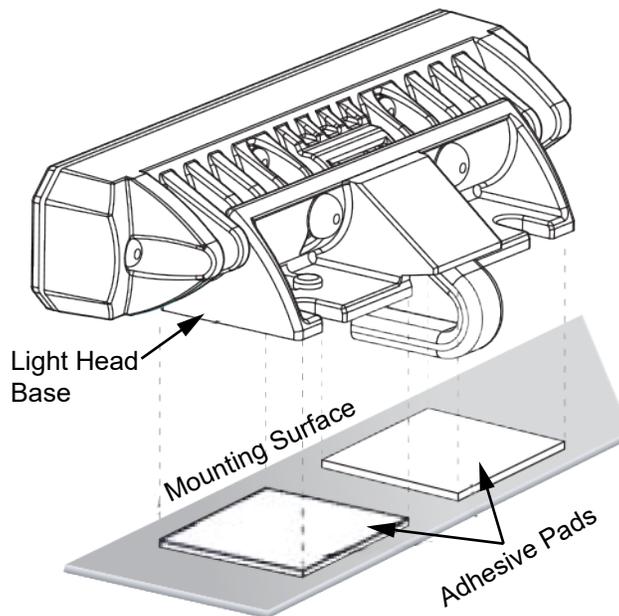
There are three methods for mounting the light head: adhesive mounting, screw mounting, and bracket mounting.

Adhesive Mounting

To mount the lighthouse using this method:

1. Select and clean the mounting location.
2. Peel the paper from one of the adhesive pads and apply the pad to the light head base.
3. Repeat step 2 with the other pad.
4. Firmly attach the light head to the mounting surface.

Figure 2 Adhesive Mounting



Screw Mounting

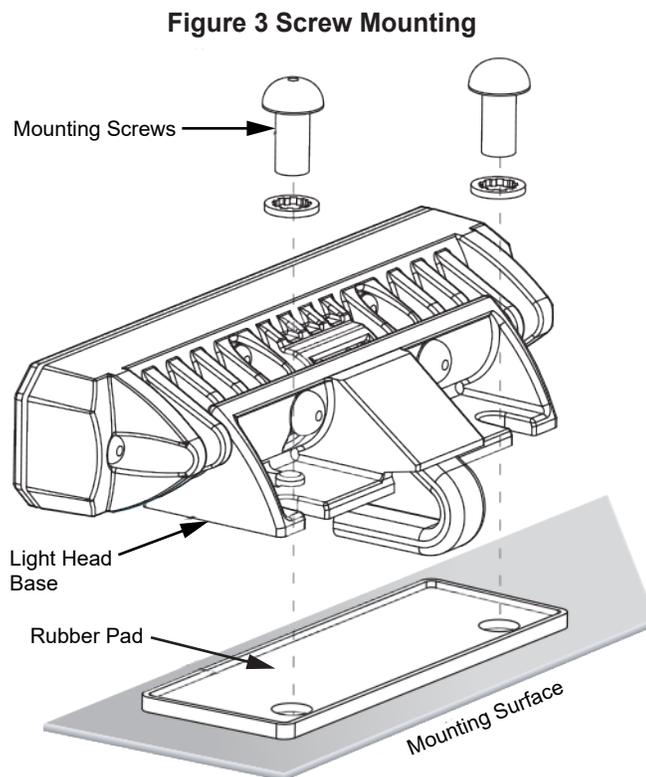
To mount the lighthouse using this method:

1. Select the mounting location.

NOTICE

DRILLING PRECAUTIONS: Before drilling holes, check the area into which you plan to drill to ensure that you do not damage vehicle components while drilling. All drilled holes should be deburred, and all sharp edges should be smoothed. All wires going through drilled holes should be protected by a grommet or convolute/split-loom tubing.

2. Mark and drill the mounting holes.
3. Place the rubber pad on the bottom of the light head base.
4. Secure the light head to the mounting surface with the supplied screws.



Bracket Mounting

To mount the light head using this method:

1. Select the mounting location.
2. Place the rubber pad on the bottom of the light head base.
3. Place the light head on the mounting surface.
4. Align the top holes of the bracket with the mounting holes in the bottom of the light head.
5. Secure the light head with the supplied screws through the bottom of the bracket.

Figure 4 Bracket Mounting

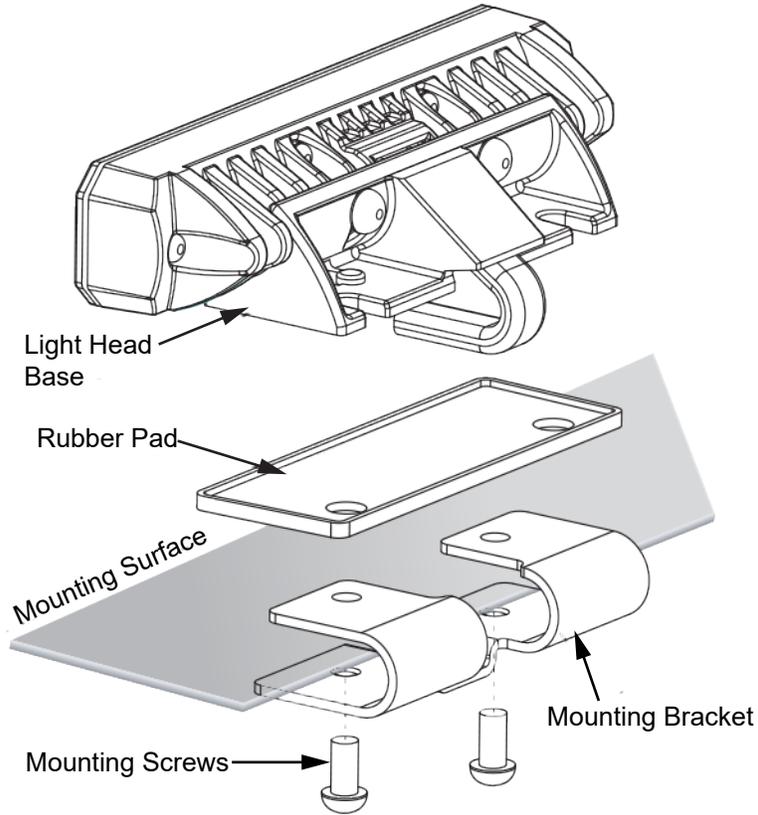
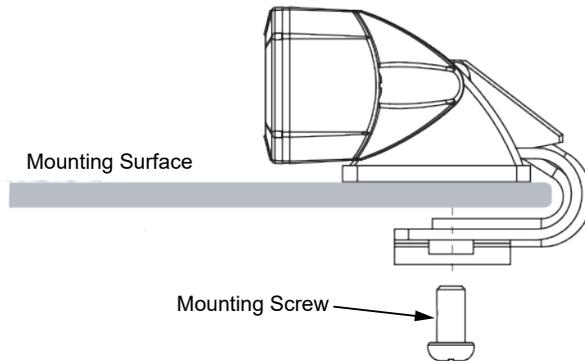


Figure 5 Bracket Mounting Side View



Getting Technical Support

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
Email: empsserviceinfo@fedsig.com

Getting Repair Service

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally. Any product returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain a 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 and shipments to the following:

Federal Signal Corporation
Service Department
2645 Federal Signal Dr.
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.



FEDERAL SIGNAL
Safety and Security Systems

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