

## Safety Message to Installers of Warning Light Equipment

### **▲ WARNING**

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

### **Before Installation or Service**

#### *Qualifications*

- To properly install or service this equipment, you must have a good understanding of automotive electrical procedures and systems along with proficiency in the installation and service of safety warning equipment. Always refer to the vehicle service manuals when installing equipment on a vehicle.

#### *Electrical Hazards*

- 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 and safety functions or circuits.

### **During Installation or Service**

- 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 gasses produced by a battery can cause a battery explosion that could result in vehicle damage and serious injury.
- Do not install equipment or route wiring or a plug-in cord in the deployment path of an airbag.
- Before mounting any components, check the manual to be sure that the component you are installing is suitable for use in that area of the vehicle. Many components are not suitable for use in the engine compartment or in other areas subject to extreme environmental exposure.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes to prevent electrical shorts, grommet all drilled holes through which wiring passes. Also ensure that mounting screws do not cause electrical or mechanical damage to the vehicle.

### **After Installation or Service**

- If a vehicle seat is temporarily removed, verify with vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- To ensure proper operation, test all vehicle functions, including horn operation, vehicle safety functions, and vehicle light systems. Ensure that installation has not affected vehicle operation or changed any vehicle safety function or circuit.
- After installation and testing are complete, provide a copy of these instructions to instructional staff and all operating personnel.
- 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.

## Mounting Bracket for MicroPulse® Ultra

This publication has instructions for using the MPSU-PB45H (horizontal) and MPSU-PB45V (vertical) brackets for mounting MicroPulse Ultra lighthoods on a push bumper or other flat surface.

**NOTE:** For electrical installation instructions, refer to the Installation and Maintenance Instructions packed with the lighthood.

## Unpacking the Kit

After unpacking the kit, 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 in the Kit Contents List are included in the package. Disposal of all shipping materials must be carried out in accordance with national and local codes and standards. 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).

**Table 1** Kit contents

Qty.	Description	Part Number
2	Bracket PB45H,MPSU or Bracket PB45V,MPSU	861302987 or 861302988
4	Screw #10 Type B	7011A122-06
4	Machine Screw ,6-32, Panhead,Phillips,Stainless Steel	7000491-08
4	Hexagonal Ext Keps Nut, 6-32,Stainless Steel	7058A046

## Installing the Brackets

### **⚠ 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.

**IMPORTANT:** Plan all cable routing before the installation.

1. Select a mounting surface for the bracket and position a bracket on it. Mark the center of the two mounting holes.

### **NOTICE**

**DRILLING PRECAUTION:** When drilling holes, check the area you are drilling into to be sure you do not damage vehicle components. All drilled holes should be deburred 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.

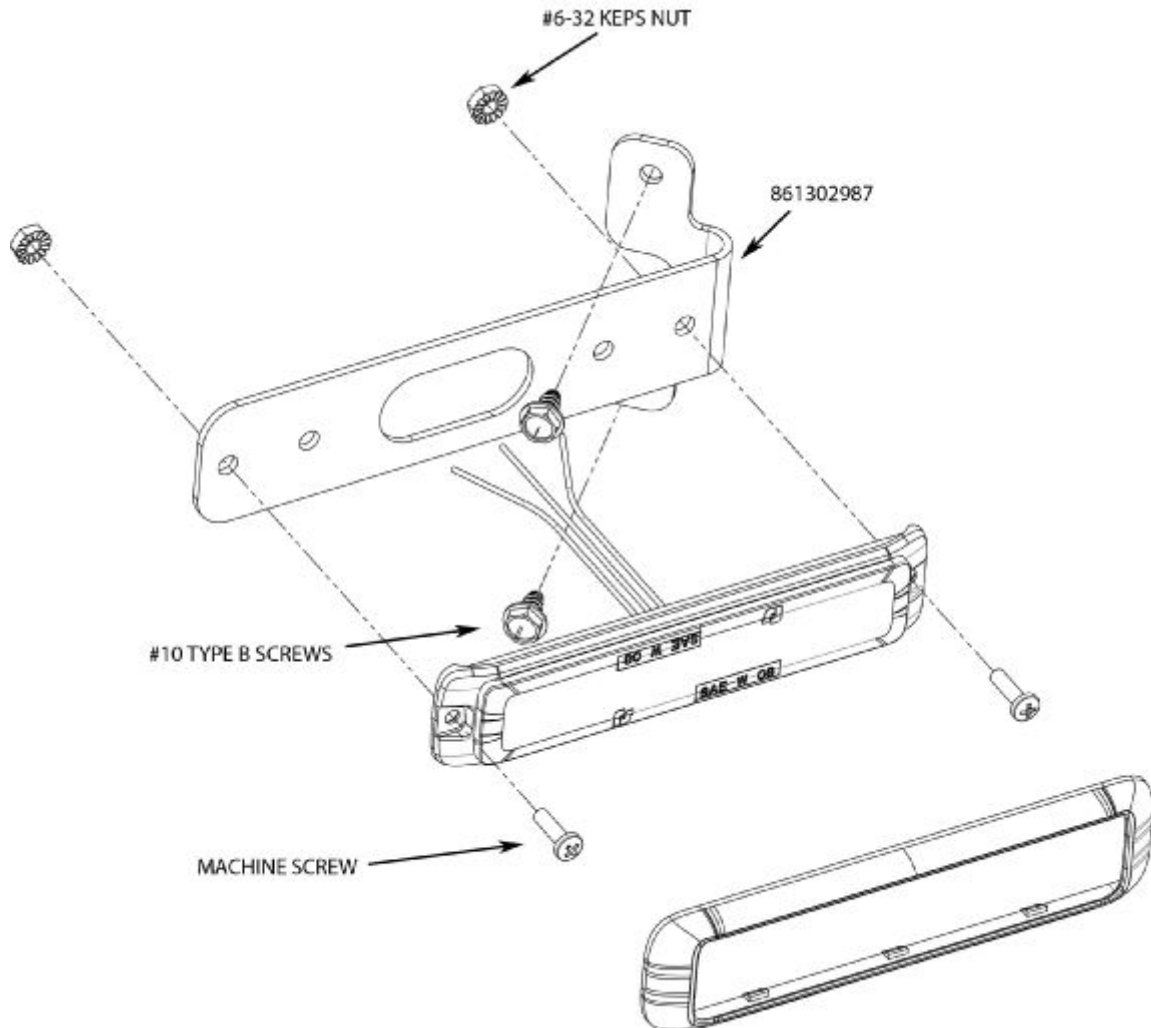
2. Use a #21 drill bit to drill two 0.159" holes.
3. Route the wire from the lighthood through the bracket.

**NOTICE**

**DO NOT OVERTIGHTEN SCREWS/NUTS** To avoid damage to the lightheads do not overtighten the screws and nuts.

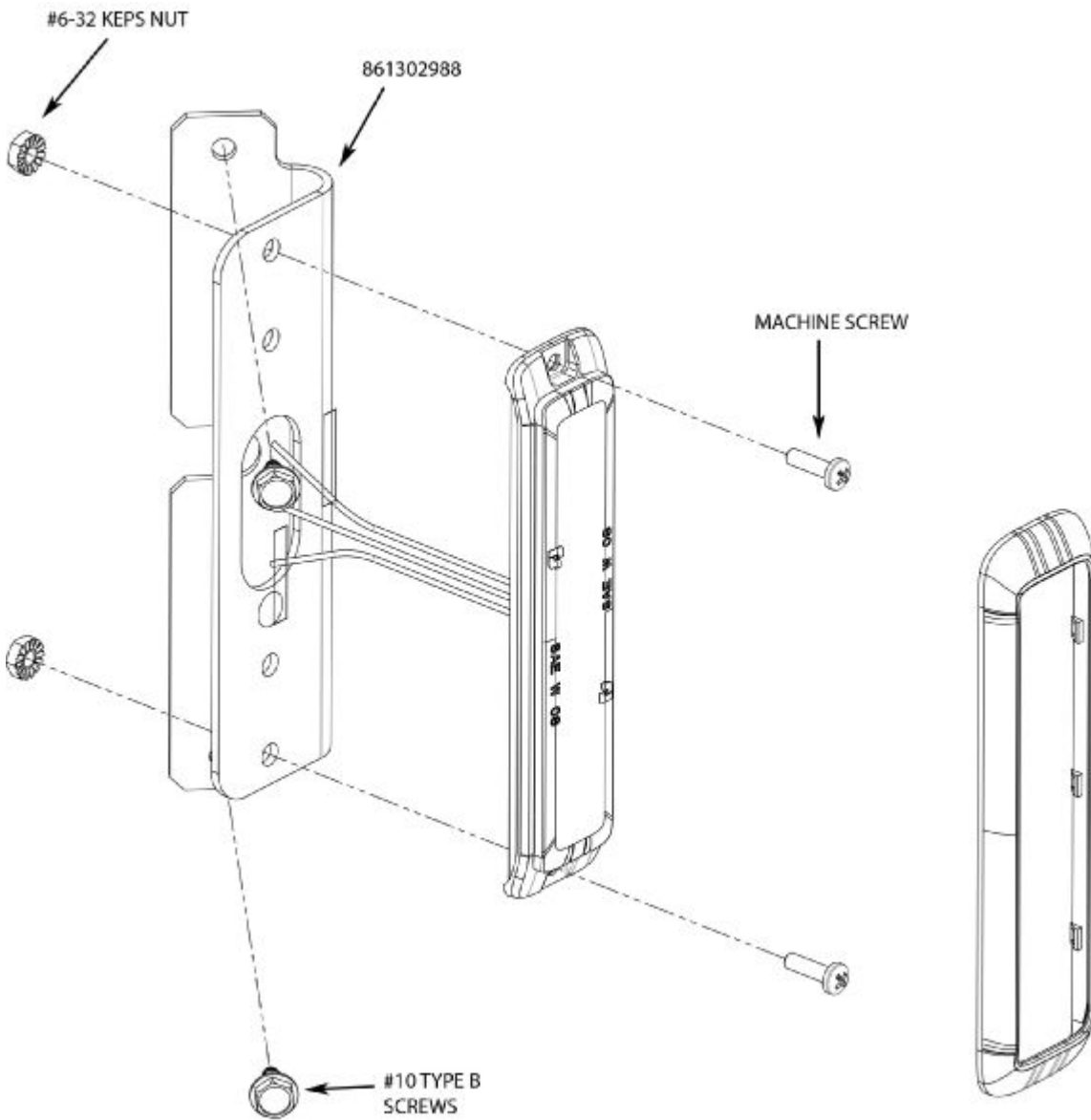
4. Mount the lightheads to the end brackets using the #6 hardware supplied with this kit.

**Figure 1** MPS600U Lighthead attached to horizontal bracket



5. Mount the lighthead/bracket assembly to the surface with the #10 Type B screws.
6. Repeat steps 1 through 5 for the other side.
7. Connect the MicroPulse Ultra lightheads as described in the instructions provided with the lightheads.
8. Test the lightheads for proper operation.

**Figure 2** MPS600U Lighthouse attached to vertical bracket



## **Ordering Replacement Parts**

To order replacement parts, call Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT) or contact your nearest distributor.

## **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](mailto: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 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

## **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 a.m. to 5 p.m., 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 2645 Federal Signal Drive University Park, IL 60484-3167 Attn: Service  
Department RMA: # \_\_\_\_\_

## **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](http://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](mailto: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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Technical Support: 800-524-3021

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