Safety Message to Installers of Warning Light Equipment
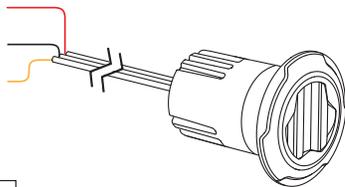
⚠ WARNING

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. Before installing this device, refer to its unabridged instructions for this device, which are available on line at www.fedsig.com. Print the online document and provide copies to the end users of this product and to the personnel who will service it.

Installing the 416300

- Black: To Chassis Ground
- Red: +Vdc activates Memory1 in Color1 (fuse at 1 A)
- Yellow: Synchronization and flash pattern

Connect the yellow wires of multiple units together for synchronization. (All heads must be set up correctly and use the same pattern upon power-up.)

Figure 1 Exploded view

⚠ WARNING

LIGHT HAZARD: 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.
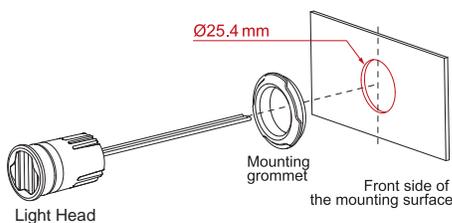
Flush Mounting

NOTE: The suggested mounting position is with the LEDs facing downward.
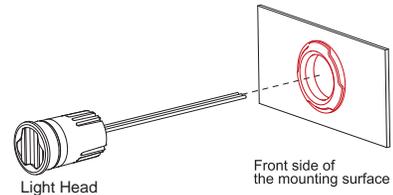
To install the flush mount:

1. Select a mounting location and drill a 1-inch (2.54 cm) cutout.
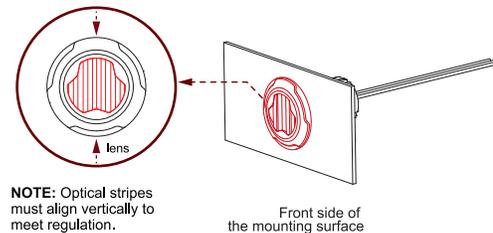
Figure 2 Drill a cutout

Ø25.4 mm
Mounting grommet
Front side of the mounting surface
Light Head

2. From the front, install the appropriate mounting grommet* onto the cutout and insert the light head.

Figure 3 Mounting Grommet

Light Head
Front side of the mounting surface

3. Ensure that the optical stripes are aligned vertically.

Figure 4 Optical stripes

lens

NOTE: Optical stripes must align vertically to meet regulation.

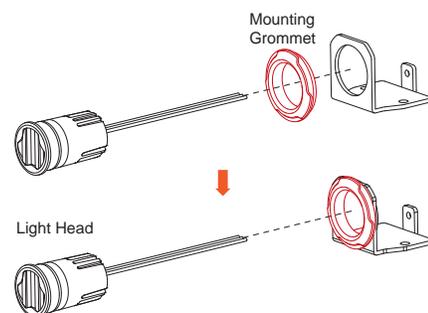Front side of the mounting surface

4. If necessary, apply silicone on the reverse side to prevent the unit from rotating.

Bracket Mounting (416301 sold separately)
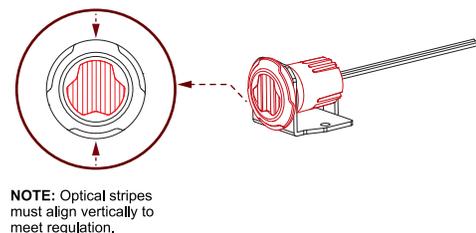
To install the bracket mount:

1. From the front, install the mounting grommet onto the bracket and insert the light head.

Figure 5 Mounting grommet

Mounting Grommet
Light Head

2. Ensure that the optical stripes are aligned vertically.

Figure 6 Optical stripes

NOTE: Optical stripes must align vertically to meet regulation.
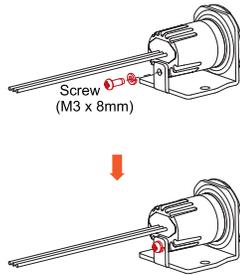
*Two mounting grommets are included for various material thicknesses.

3. Secure the light head onto the bracket with a screw.

Figure 7 Secure the light head

Screw
(M3 x 8mm)

4. Secure the bracket to the desired mounting surface with screws.

Figure 8 Secure the bracket

Screws
(#6 x 18mm)

Mounting
surface

Mounting
surface
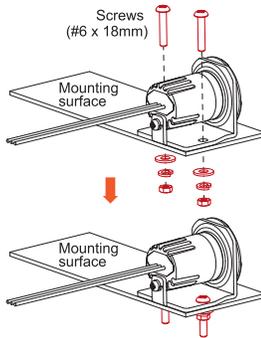
Synchronizing Multiple Units

Each unit can be set to one of the three different groups: CONTROLLER (default), FOLLOWER-SYNC, and FOLLOWER-ALT. If synchronized flashing is not required, select the desired flash pattern.

For synchronized flashing, one unti should be set to CONTROLLER mode, while all other units must be set to FOLLOWER-SYNC or FOLLOWER-ALT.

To synchronize the units:

1. To enter group selection, apply +Vdc to the red wires simultaneously, and then apply +Vdc to the yellow wires.

2. Once in group selection, the unit steady burns in low power and pulses in high power:

- Single pulse = CONTROLLER

- Double pulse = FOLLOWER-SYNC

- Triple pulse = FOLLOWER-ALT

3. Remove the yellow wire from +Vdc and then momentarily apply to +Vdc to change the mode:

- FOLLOWER-SYNC units flash simultaneously with the MASTER unit.

- FOLLOWER-ALT units flash alternately with the MASTER unit and all other FOLLOWER-SYNC units.

NOTE: If no CONTROLLER unit is present, all FOLLOWER units flash initially and steady burn for 2 seconds to detect any synchronization signal. You may also use this to easily pick out CONTROLLER vs. FOLLOWER units.

Table 1 Flash patterns

Number	Pattern
1	Triple 92.3 (all)
2	Triple 90 (all)
3	Single 122 (all)
4	Single 75 (all)
5	Single 90 (1ll)
6	Single 113 (all)
7	Single 73 (all)
8	Double 73 (all)
9	Triple 73 (all)
10	Quad 73 (all)
11	Quint 73 (all)
12	Mega (all)
13	Ultra (all)
14	Single-Quad (all)
15	Single H/L (all)
16	Steady All (all)
17	Random -

Getting Technical Support

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
Email: empserviceinfo@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 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 and shipments to the following:

Federal Signal Corporation
Service Department
2645 Federal Signal Dr.
University Park, IL 60484-3167