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## SAFETY MESSAGE TO INSTALLERS

## AWARNING

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install this warning 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.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- DO NOT install equipment or route wiring or cord in the deployment path of an air bag.
- You should frequently inspect the light to ensure that it is operating properly and securely attached.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- Locate light control so the vehicle and light can be safely operated in all driving conditions.
- Do not attempt to activate the light while driving in a hazardous situation.
- Place all warning labels provided, in a visible location on the equipment.
- File this instruction sheet in a safe place and refer to it 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.

## I. GENERAL.

The Federal Signal 3330 and Smart 3600 Series perimeter LED modules are sealed, low current devices designed for warning purposes. Amber, blue, white, and red models are available with either a narrow or wideangle lens. They incorporate an internal flasher with ten user-selectable flash patterns plus a steady-on mode. Two or more lights (up to six) may be synchronized, or alternately flashed, configuring one light as master and the others as slaves. Lights are supplied configured as master and quad-flash. They are powered by 12VDC.

## II. UNPACKING.

After unpacking the part, inspect it for damage that may have occurred in transit. If it has been damaged, 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.
III. INSTALLATION.

## NOTE

Read all instructions and plan all wiring and cable routing before performing any installation. Use grommets, wire ties, looms, and cable mounts (installer supplied) as needed to secure the wiring and to prevent chafing of the wiring.

## ACAUTION

Before drilling or cutting holes in ANY part of a vehicle, be sure that both sides of the mounting surface are clear of parts that could be damaged; such as brake lines, electrical wiring or other vital parts.
A. Surface Mounting (Bezel).

1. Determine the mounting locations for the light-heads and the user supplied control switch.
2. Using figure 1 as a guide and the Surface Mount Bezel (FS \#330501) as a template, scribe the mounting hole locations on the mounting surface. Scribe a wire routing hole location on the mounting surface in the center of the Bezel.
3. Drill four $0.14 "(3.5 \mathrm{~mm})$ holes at the scribed mounting hole locations. Drill a $0.20 "(5 \mathrm{~mm})$ hole at the


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Figure 1.
scribed wire routing hole location. Remove all burrs and sharp edges.
4. Install the supplied grommet in the wire routing hole.
5. Install the Surface Mount Bezel (FS\# 330501) using the screw supplied with the Bezel kit.
6. Route the wires through the rubber grommet in the mounting surface.
7. Press light-head into bezel until firmly seated. Apply pressure to each end of the light-head alternately. A firm, steady pressure is needed.
8. Route a 20 GA wire from the power source to the switch location. Install an user-supplied fuse and fuse-holder as close to the power source as possible. Each pair of lights should have a 2 -Ampere fuse. Two pairs should have a 4-Ampere fuse.
9. Route a 20 GA wire from the switch to the location of each of the light-heads.
10. Route a 20 GA wire from each light-head installation area to the nearest convenient chassis ground. The battery is recommended.
11. Connect the light-heads using figure 3 as a guide.

The warning light's wires function as follows:

| Black | Ground (-) |
| :--- | :--- |
| Red | Power (+12 VDC) |
| Green | Mode Select (Touch to (+12 |
|  | VDC) for 3 seconds to select |
|  | Master or Slave mode. When <br> in Master mode, touch to <br> (+12VDC) for 1 second to <br> sequence through the flash <br> patterns. |
| Yellow | Synchronized Output (In <br>  <br>  <br> Orange <br> Master) <br> Input (In Slave) <br> Alternating Output (In Master) |

12. Once the light-heads are connected in the desired configuration, use the Master Light-head's Green wire to cycle through the flash patterns until the desired flash pattern is found (see table 1).
13. A slave without synnchronized signals will produce short, unsynchronized light pulses.
B. Flush Mounting (Grommet).
14. Determine the mounting locations for the light-heads and the user supplied control switch.
15. Using figure 2 as a guide and the Flush Mount template (supplied in FS \#330502), scribe the outline and center mark locations on the mounting surface.
16. Drill two 1.73 " $(44 \mathrm{~mm})$ holes at the scribed center mark locations. Cut the "flats" along the scribed outline on the mounting surface. Remove all burrs and sharp edges.
17. Install the Flush Mount Grommet (FS\# 330502 ) into the mounting surface.
18. Route the wires through the rubber grommet in the mounting surface.
19. Press light-head into Grommet until firmly seated. Apply pressure to each end of the light-head alternately. A firm, steady pressure is needed.
20. Route a 20 GA wire from the power source to the switch location. Install an user-supplied fuse and fuse-holder as close to the power source as possible. Each pair of lights should have a 2 -Ampere fuse. Two pairs should have a 4-Ampere fuse.
21. Route a 20 GA wire from the switch to the location of each of the light-heads.
22. Route a 20 GA wire from each light-head installation area to the nearest convenient chassis ground. The battery is recommended.
23. Connect the light-heads using figure 3 as a guide.

The warning lights wires function as follows:

| Black | Ground (-) |
| :--- | :--- |
| Red | Power (+12 VDC) |
| Green | Mode Select (Touch to (+12 |
|  | VDC) for 3 seconds to select |
|  | Master or Slave mode. When in |
|  | Master mode, touch to <br> $(+12 V D C) ~ f o r ~ 1 ~ s e c o n d ~ t o ~$ |
|  | sequence through the flash <br> patterns. |
| Yellow | Synchronized Output (In <br>  <br> Master) <br> OrangeInput (In Slave) <br> Alternating Output (In Master) |

11. Once the light-heads are connected in the desired configuration, use the Master Light-head's Green wire to cycle through the flash patterns until the desired flash pattern is found (see table 1).
12. A slave without synnchronized signals will produce short, unsynchronized light pulses.


Figure 2.

## Table 1.

Flash Patterns

1. Steady On
2. Quad Flash (Default)
3. Quad and Double Random Flash
4. 5-Flash
5. Triple Flash
6. Double Flash
7. Single Flash
8. Fast Single Flash
9. Triple Random Flash
10. Random Flash 3
11. Random Flash 4


Figure 3.

