Global Series
Multi-Signal Fixtures, Accessories, and Service Kits
For Use in Hazardous Locations

Installation and Maintenance Instructions
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Installation and Maintenance Instructions

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Safety Messages to Installers and Users

⚠️ WARNING ⚠️

It is important to follow all instructions shipped with this Global Series multi-signal configuration or kit. This multi-signal configuration or kit is to be installed by a trained electrician who is thoroughly familiar with and will follow all applicable national and local codes in the country of use.

This multi-signal configuration and any optional Global Series kits or accessories should be considered a part of the warning system and not the entire warning system.

The selection of the mounting location for the Global Series warning device, its controls, and the routing of the wiring are to be accomplished under the direction of the facilities engineer and the safety engineer. In addition, listed below are some other important safety instructions and precautions you should follow:

• Read and understand all instructions before installing any Global Series multi-signal configuration or optional kits and before operating any Global Series device.

• Never alter any Global Series device or multi-signal configuration in any manner without an approved Federal Signal Global Series kit. Safety in hazardous locations may be endangered if additional openings or other alterations are made in units or kits which were specifically designed for use in these locations.

• Do not connect any Global Series device or multi-signal configuration to the system when power is on.

• Do not assemble any kit to an existing working device or system when power to the system is on.

• All effective warning speakers produce loud sounds, which may cause, in certain situations, permanent hearing loss. Take appropriate precautions such as hearing protection. The device should be installed far enough away from potential listeners to limit their exposure while still maintaining its effectiveness.

• After installation, ensure that all threaded joints are properly tightened.

• After installation, test the configured system to ensure that it is operating properly.

• Keep the unit tightly closed when in operation.

• After testing is complete, provide a copy of this manual to all personnel.

• Brass inserts have the potential to store charge when they are not plugged. Consideration should be taken to prevent these from becoming a sparking hazard.

• Establish a procedure to routinely check the configured system for proper activation and operation.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.
Approved and Certified Global Series Kits and Accessories

Global Series kits in this manual are only approved with the corresponding Global Series Strobe, LED, Sounder, Louderpeaker, and Amplified Speaker devices. The agency certifications are on the nameplate on the side of all Global Series signaling devices. For details of the agency listing, refer to the Installation and Maintenance Instructions for the device.

Unpacking the Multi-Signal Device or Kit

After unpacking the product, examine it for damage that may have occurred in transit. If any part of it has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of the damage. Carefully check all envelopes, shipping labels, and tags before removing or discarding them. If any parts are missing, please call Federal Signal Customer Support at +1 708-534-4756 or +1 877-289-3246. Disposal of all shipping materials must be carried out in accordance with national and local codes and standards.

Field Installation Applications and Options

Three standard surface-mount configurations are available for the Global Series per configured device. The kits and accessory compatibility options are:

Discrete Base Module (Ex d) Devices (Audible, LED, or Strobe)
- Colored indicator ring + placard (G-KIT-RP-*)
- Single Trunnion mount (G-KIT-ST)

Base Modules with increased safety enclosure (Ex de) eBox
- Colored indicator ring + placard (G-KIT-RP-*)
- eBox Coupling (G-KIT-EC90, G-KIT-EC180, G-KIT-ECSM)
- eBox Extension Box (G-KIT-EXTB)

Dual Device Units (Audible, LED, or Strobe)
- Colored indicator ring + placard (G-KIT-RP-*)
- eBox Coupling (G-KIT-EC90, G-KIT-ECSM)
- eBox Extension Box (G-KIT-EXTB)
- Dual Trunnion mount (G-KIT-DT)

* Insert color selection BK (black), B (blue), G (green), M (magenta), R (red), or Y (yellow)
Surface-Mounting a Multi-Signal Configuration

**WARNING**

SECURELY ATTACH THE DEVICE: To prevent injury, this apparatus must be securely attached to the mounting surface in accordance with the installation instructions. Use installer-supplied fasteners suitable for the mounting surface.

Mount multi-signal configurations to a flat surface capable of supporting the combined weight of the entire fixture using the available 8.5 mm diameter mounting holes. Use installer-supplied fasteners suitable for the mounting surface.

**NOTE:** Any multi-signal configurations built in the field using proprietary coupling kits (G-KIT-EC90, G-KIT-EC180, G-KIT-ECSM, G-KIT-EXTB) should be assembled prior to mounting any portion of the fixture to a substrate. For reference, relative mounting hole spacing for the available configurations are shown in the following three figures:

**Figure 1** eBox to ebox side-mount coupling kit (G-KIT-ECSM)
Figure 2  eBox to ebox 90° coupling kit (G-KIT-EC90)

Figure 3  eBox to ebox 180° coupling kit (G-KIT-EC180)
Installing a Trunnion-Mount Configuration

Mount the trunnion bracket to a flat surface capable of supporting the weight of the fixture using the two 7.0 mm diameter mounting holes on the single trunnion bracket or four 7.0 mm diameter holes on the dual trunnion bracket. Use installer-supplied fasteners suitable for the surface to which the device will be mounted.

To adjust the vertical angle of the Global Series signal(s), loosen the fasteners on the mounting bracket to disengage the ratchet. Vertically aim the signal(s), and tighten the fasteners.

**Figure 4** Single device trunnion mount

![Single device trunnion mount](image)

**Figure 5** Dual-device trunnion mount (side view)

![Dual-device trunnion mount](image)
Fixturing Multi-Signal Configurations in the Field

Four kits are available for coupling Global Series increased safety Ex de signals and factory assembled dual-signal units into multi-signal configurations in the field: G-KIT-EC90, G-KIT-EC180, G-KIT-ECSM, and G-KIT-EXTB.

**Tools required:**

- Ball-end hex key, M5
- Hex key, M3
- Hex key, M10 (for M20 plug removal if present on eBox)

**G-KIT-EC90 eBox to eBox 90° Coupling Mounting Kit**

A vertically aligned eBox can be adjoined to a horizontally aligned eBox using kit G-KIT-EC90.

**The kit contains:**

- 1 U-shaped coupler
- 4 M6 stainless steel socket-head cap screws
- 1 coupling gasket
- 1 flanged coupling end cap (replaces the existing M20 end cap on one of the eBoxes)

**Joining Vertically and Horizontally Aligned eBoxes**

To join vertically and horizontally orientated e-Boxes:

1. Remove the four M4 socket-head cap screws securing the cover of one eBox.
2. Remove the two M6 socket-head cap screws inside the eBox near the M20 end cap.
3. Remove the two remaining M6 socket-head cap screws securing the M20 end cap on the underside of the eBox, and remove the end cap.
4. Replace the M20 end cap with the flanged coupler end cap. Replace and tighten all four M6 socket-head cap screws.

5. Replace and tighten the four M4 screws that retain the ebox cover.

6. If the M20 black nylon plug is present at the coupling location, remove it.

7. Peel off the paper liner on one side of the coupler gasket and adhere the gasket to the entryway of the flanged coupling end cap. Remove the paper liner on the other side of the gasket.

**Figure 7** Procedure for eBox-to-eBox 90° configuration

8. Place both eBoxes on a flat surface. Align the axes of the cable entries and join both eBoxes together at 90 degrees ensuring the gasket is aligned to both eBoxes.

9. To expose the brass inserts for the M6 coupler screws, remove and discard the two rubber plugs from the eBox flange.

10. Place the U-shaped coupler onto the flanged coupling areas where the two eBoxes adjoin and press down on it.
**Figure 8** Assembled eBox to eBox 90° configuration

---

**NOTICE**

**DO NOT OVERTIGHTEN SCREWS**

*To avoid fracturing the coupler or eBox flange, do not overtighten the M6 socket-head screws.*

11. Insert one M6 socket head screw on one side of the coupler and thread it into the brass insert of the eBox flange. Insert another screw into the brass insert on the opposite side diagonally opposed from the first screw. Tighten both screws.

12. Insert and tighten the two remaining M6 socket-head cap screws into the U-shaped coupler. Do not overtighten the screws.
**G-KIT-EC180 eBox to eBox 180° In-line Coupling Mounting Kit**

Two eBoxes can be joined horizontally with the G-KIT-ECSM kit.

**The kit contains:**

1. U-shaped coupler
2. 4 M6 stainless steel socket-head cap screws
3. 1 coupling gasket
4. 2 flanged coupling end caps
   (replaces the existing M20 end caps on both eBoxes)

**Joining Horizontally Aligned eBoxes**

To join two horizontally orientated e-Boxes:

1. Remove four M4 socket head cap screws on each eBox and remove the covers.
2. Remove the two M6 socket-head cap screws inside the eBoxes near the M20 end cap.
3. Remove the two M6 socket-head cap screws from the bottom of the eBoxes securing the M20 threaded end caps.
4. Remove the M20 end caps from eBoxes.
5. Replace the M20 end caps with the two flanged coupler end caps.

**Figure 9** Procedure for eBox to eBox 180° configuration
6. Insert and tighten all four M6 socket head-cap screws on each flanged coupling end cap.

**Figure 10** eBox to eBox 180° configuration

7. Insert and tighten the four M4 screws that retain each eBox cover.

8. Peel off the paper liner on one side of the coupler gasket and adhere the gasket to the entryway of one of the flanged coupling end caps. Remove the paper liner on the other side of the gasket.

9. Place both eBoxes on a flat surface, align the axes of cable entries, and adjoin both eBoxes in line ensuring the gasket is aligned to both eBoxes.

8. Place the U-shaped coupler on the flanged coupling area where the two eBoxes adjoin and press down on it.

9. Insert an M6 socket-head screw on one side of the coupler and thread it into the brass insert of the eBox flange. Insert a screw on the opposite side diagonally opposed from the first screw. Tighten both screws.

**NOTICE**

**DO NOT OVERTIGHTEN SCREWS**

*To avoid fracturing the coupler or eBox flange, do not overtighten the M6 socket-head screws.*

10. Insert and tighten the two remaining M6 socket-head cap screws into the U-shaped coupler. Do not overtighten the screws.
**G-KIT-ECSM eBox to eBox Side Mount Coupling Mounting Kit**

Two eBoxes can be joined vertically with the G-KIT-ECSM kit.

**Kit contents:**

1. U-shaped coupler
2. 4 M6 stainless steel socket-head cap screws
3. 1 coupling gasket

To join vertically orientated e-Boxes:

1. If present at the coupling location, remove the M20 black nylon plugs.
2. Peel off the paper liner on one side of the coupler gasket and adhere the gasket to the cable entry of one of the eBoxes. Remove the paper liner on the other side of the gasket.
3. Place both eBoxes on a flat surface, align the axes of cable entries, and adjoin both eBoxes together in line ensuring the gasket is aligned to both cable entries on the eBoxes.
4. Remove and discard the four rubber plugs from the eBox flanges, revealing the brass inserts.

**Figure 11** eBox to eBox side-mount configuration
5. Place the U-shaped coupler onto the cable-entry coupling area where the two eBoxes adjoin, and press down on it.

6. Thread an M6 socket-head screw into the brass insert on one side of the eBox. Thread another screw on the opposite side diagonally opposed from the first screw. Tighten both screws.

**NOTICE**

**DO NOT OVERTIGHTEN THE SCREWS**

*To avoid fracturing the coupler or eBox flange, do not overtighten the M6 socket-head screws.*

7. Insert the two remaining M6 socket-head cap screws into the U-shaped coupler and tighten them.
G-KIT-EXTB eBox Extension Box Mounting Kit

The eBox extension box can be used with coupling kits G-KIT-EC90, G-KIT-EC180, or G-KIT-ECSM as a spacer between two Global Series increased-safety Ex de units, two factory assembled dual-signal units, or between one Ex de unit and one factory assembled dual-signal unit. Because the extension box has the same cover and M20 end-cap construction as an eBox on a standard Ex de unit, follow the attachment instructions in the G-KIT-EC90, G-KIT-EC180, or G-KIT-ECSM sections of this manual to form a multitude of signal configurations.

NOTE: Standalone Ex d units cannot be converted to Ex de units in the field with this kit.

Kit contents:

1. eBox base unit
2. eBox cover with captive M4 socket-head cap screws (mounted on base unit)
3. 8 M6 stainless steel socket-head cap screws (mounted in place)
4. 2 M20 threaded boss end caps (mounted in place)
5. 3 M20 nylon plugs (mounted in place)

Figure 12 eBox extension box mounting kit
Accessory Kits G-KIT-ST and G-KIT-DT

G-KIT-ST (single trunnion) is compatible with any Global Series explosion-proof Ex d device. G-KIT-DT (double trunnion) is compatible with any factory assembled Global Series standard dual-signal unit. Both accessory kits use the same trunnion side mounts and mounting hardware. The only difference is in the length of the trunnion bracket.

Kit contents:

- 2 trunnion side-mounts
- 4 M6 stainless steel socket-head cap screws
- 2 ratchets, side mount
- 2 washers, stainless steel
- 2 lock washers, stainless steel
- 2 M6 stainless steel hex-head bolts
- 1 mounting bracket (for single device or dual device)

Tools required:

- M5 hex key
- Socket driver for M6 hex head

Figure 13 Dual and single trunnion mount systems
To assemble the trunnion mount and secure the device:

1. See Figure 14. From the back of the device housing, attach the two side-mount components to the opposite sides of the device using the four M6 socket-head cap screws.

**NOTE:** The two side mounts should be positioned on two opposing sides without the nameplate label so the label is not obscured by these mounts.

2. Carefully hold in place the two ratchets in the inside of the mounting bracket so that the oval boss of the ratchets resides in the bracket cutout.

3. While holding both ratchets in place on the inside of the bracket, align the bracket over the device. Apply an outward force on the U-shaped bracket so it extends outwards for the ratchet to mate up with the corresponding ratchet geometry on the side mounts previously attached to the device.

4. While holding the bracketed assembly in place, attach the side-mount hardware consisting of a flat washer, lock washer and hex-head bolt on both sides while adjusting the ratchet to the desired position of the device when mounted.

**Figure 14** Dual and double signal devices secured to trunnion-mount brackets
5. Ensure that the side-mount M6 hex-head screws are tightened so that the device is securely mounted. For mounting dimensions, refer to the diagrams starting on page 7.

**G-KIT-RP-x Indicator Ring with Placard Mounting Kit**

Colored indicator rings are available along with a placard mounting as an additional alerting visual indication for Global Series signals.

**Figure 15** Indicator ring and placard assembled to signal device

The available colors are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-KIT-RP-B</td>
<td>Blue indicator ring + black placard</td>
</tr>
<tr>
<td>G-KIT-RP-BK</td>
<td>Black indicator ring + black placard</td>
</tr>
<tr>
<td>G-KIT-RP-G</td>
<td>Green indicator ring + black placard</td>
</tr>
<tr>
<td>G-KIT-RP-M</td>
<td>Magenta indicator ring + black placard</td>
</tr>
<tr>
<td>G-KIT-RP-R</td>
<td>Red indicator ring + black placard</td>
</tr>
<tr>
<td>G-KIT-RP-Y</td>
<td>Yellow indicator ring + black placard</td>
</tr>
</tbody>
</table>

The indicator rings can be mounted without the placard. The placard requires an indicator ring for mounting to the device. Recommended blank labels (not included) for the placard are:

ULINE Weather Resistant Polyester Laser Labels, 2-5/8 in x 1 in, #S-16643 (for use with laser printers and copiers)

BRADY LABELS ToughWash B-855 Labels, 1.0 in width (for use with Brady label printer)
The kit includes:
1 indicator ring
1 placard
8 #6 pan-head x 1-1/4 in, 6-lobe, Type 25 stainless steel thread-cutting screw

Tools required:
T15 Torx screwdriver

To attach the indicator ring and placard:
1. Slide the indicator ring over top of the device and align the perimeter holes with the holes on the housing.
2. If you are installing the placard, center the holes in the placard with those in the perimeter ring.
3. Secure the placard and indicator ring to the housing with two #6 pan-head screws.
4. Use the remaining six #6 screws to attach the indicator.

Multi-Field Replacement of Internal Subassemblies
Three distinct internal subassemblies are available for field replacement of visual LED, visual strobe, and audible sounder, speaker and loudspeaker devices. For field wiring layouts, see the Federal Signal Global Series Wiring Guide #850000454.

⚠️ WARNING
EXPLOSION/SHOCK HAZARD
• Device is to be serviced only by a trained electrician who is familiar with the Global Series line of products and is fully aware of local codes and jurisdictions covering the install and use of this hazardous location device.

• Device is not to be serviced in a hazardous environment where explosive gas or dust is present in the atmosphere.

• Device could present a potential electrostatic discharge. Before servicing the device, wipe it with a damp cloth to dissipate any residual electrostatic charge.

• Device is not to be opened while it is energized. To dissipate any residual internal charge, turn the device off and wait at least 15 minutes before opening it.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.
Global Series Multi-Signal Fixtures, Accessories, and Service Kits

The replacement internal subassembly includes:

1 device subassembly with:

- Side-mounted M3 captive screw
- Attached strobe tube
- Attached LED lighthead

### Strobe replacement parts numbers

<table>
<thead>
<tr>
<th>Part Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Strobe Tube, 21J, PCBA 24VDC Kit</td>
<td>K859501402-024</td>
</tr>
<tr>
<td>Strobe Tube, 21J, PCBA 120VAC Kit</td>
<td>K859501402-120</td>
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<tr>
<td>Strobe Tube, 21J, PCBA 240VDC Kit</td>
<td>K859501402-230</td>
</tr>
<tr>
<td>Strobe Tube, 15J, PCBA 24VDC Kit</td>
<td>K859501402-024-15J</td>
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<tr>
<td>Strobe Tube, 15J, PCBA 120VAC Kit</td>
<td>K859501402-120-15J</td>
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<tr>
<td>Strobe Tube, 15J, PCBA 240VDC Kit</td>
<td>K859501402-230-15J</td>
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<td>Strobe Tube Only</td>
<td>K8107177A</td>
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### DC LED (24VDC) Internal Sub-Assembly Kits

*(Includes PCBA, bracket, LED light head and mounting screw)*

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<tr>
<th>Part Description</th>
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<tbody>
<tr>
<td>LED/PCB DC Sub-Assy, Amber</td>
<td>K859501400-A</td>
</tr>
<tr>
<td>LED/PCB DC Sub-Assy, Blue</td>
<td>K859501400-B</td>
</tr>
<tr>
<td>LED/PCB DC Sub-Assy, White</td>
<td>K859501400-W</td>
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<tr>
<td>LED/PCB DC Sub-Assy, Green</td>
<td>K859501400-G</td>
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<tr>
<td>LED/PCB DC Sub-Assy, Magenta</td>
<td>K859501400-W</td>
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<tr>
<td>LED/PCB DC Sub-Assy, Red</td>
<td>K859501400-R</td>
</tr>
<tr>
<td>LED/PCB DC Sub-Assy, Yellow</td>
<td>K859501400-W</td>
</tr>
</tbody>
</table>

### AC LED (120-240VAC) Internal Sub-Assembly Kit

*(Includes PCBAs, bracket, LED light head and mounting screw)*

<table>
<thead>
<tr>
<th>Part Description</th>
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<tbody>
<tr>
<td>LED/PCB AC Sub-Assy, Amber</td>
<td>K859501401-A</td>
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<tr>
<td>LED/PCB AC Sub-Assy, Blue</td>
<td>K859501401-B</td>
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<tr>
<td>LED/PCB AC Sub-Assy, White</td>
<td>K859501401-W</td>
</tr>
<tr>
<td>LED/PCB AC Sub-Assy, Green</td>
<td>K859501401-G</td>
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<tr>
<td>LED/PCB AC Sub-Assy, Magenta</td>
<td>K859501401-W</td>
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<tr>
<td>LED/PCB AC Sub-Assy, Red</td>
<td>K859501401-R</td>
</tr>
<tr>
<td>LED/PCB AC Sub-Assy, Yellow</td>
<td>K859501401-W</td>
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### Attached cast driver (for sounder, speaker, and loudspeaker devices)

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<th>Part Number</th>
<th>Description</th>
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<tr>
<td>K859501403</td>
<td>Driver/PCB Assy., Amplifier Speaker</td>
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<tr>
<td>K859501404</td>
<td>Driver/PCB Assy., Sounder</td>
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<tr>
<td>K859501405-070</td>
<td>Driver/PCB Assy., Speaker, 70 V</td>
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<tr>
<td>K859501405-100</td>
<td>Driver/PCB Assy., Speaker, 100 V</td>
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</tbody>
</table>

Tools required:
Global Series Multi-Signal Fixtures, Accessories, and Service Kits

Installation and Maintenance Instructions

M 1.5 hex key, (for housing cap removal)
screwdriver, #1 Phillips (for device subassembly removal from housing)
T15 Torx screwdriver (for indicator ring removal if option is present)
spanner wrench for 3/8 in (9.5 mm) diameter access holes

To replace the subassembly:

1. If present, detach the indicator ring or indicator ring/placard attached to the housing by removing the eight screws securing it.

2. Locate and remove the side M3 captive screw securing the threaded cap assembly.

**NOTICE**

**DO NOT APPLY EXCESSIVE FORCE ON THE CAP**

*When removing the cap on the LED and strobe devices, do not apply more force than necessary on the wire guard and lens. Failure to heed this precaution will damage the lens.*

3. Using a spanner wrench, locate the three 120-degree spaced 3/8 in (9.5 mm) diameter side holes on the housing cap. Apply a counter-clockwise force on the cap to loosen the threaded joint.

**Figure 16** Subassembly removed from strobe signal device

4. Remove the cap assembly and the M3 Phillips captive screw securing the internal circuit assembly to the base housing.

**Figure 17** Subassembly removed from LED signal device
5. Unscrew the M3 screw and carefully pull upward on the internal subassembly as far as the wiring permits.

6. Note the wiring connections and carefully disconnect them.

7. Rewire the connections to the new internal subassembly and slide it back in place along grooves within the base housing.

8. Screw the cap assembly securely onto the base housing. Lock the subassembly to the base housing using the M3 captive screw.

9. Reattach the cap to the base housing using the spanner wrench. Ensure that the cap fully is fully seated on the base housing. A silicone-based, non-hardening, chemically compatible grease can be applied if required.

10. Insert and tighten the M3 set screw to lock the base module to the cap assembly.

11. Test the device to ensure it is fully functional.

**Figure 18** Subassembly removed from audible device
**Lens Replacement for Strobe and LED Devices**

The colored polycarbonate lens on the strobe or LED device can be changed in the field without opening the device for the LED or strobe devices.

**G-LED Replacement Lens**

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<th>Description</th>
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<td>K859500821-02</td>
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<td>Lens, Amber</td>
<td>K859500815</td>
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<tr>
<td>Lens, Blue</td>
<td>K859500815-01</td>
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<tr>
<td>Lens, Clear</td>
<td>K859500815-02</td>
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<tr>
<td>Lens, Green</td>
<td>K859500815-03</td>
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<tr>
<td>Lens, Red</td>
<td>K859500815-04</td>
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<tr>
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<td>K859500815-05</td>
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<tr>
<td>Lens, Yellow</td>
<td>K859500815-06</td>
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**G-STR Replacement Lens**

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Lens Guard</td>
<td>K859500821-01</td>
</tr>
<tr>
<td>Lens, Amber</td>
<td>K859500814</td>
</tr>
<tr>
<td>Lens, Blue</td>
<td>K859500814-01</td>
</tr>
<tr>
<td>Lens, Clear</td>
<td>K859500814-02</td>
</tr>
<tr>
<td>Lens, Green</td>
<td>K859500814-03</td>
</tr>
<tr>
<td>Lens, Red</td>
<td>K859500814-04</td>
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<tr>
<td>Lens, Magenta</td>
<td>K859500814-05</td>
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<tr>
<td>Lens, Yellow</td>
<td>K859500814-06</td>
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**Replacement lens includes:**

1 strobe or LED lens
1 O-ring seal
3 M4 x 12 mm stainless-steel, knurled point set-screws

**Tools required:**

Hex key, M3 (for set-screw removal x 3)

**Figure 19** Replacement of lens for strobe and LED signaling devices
Global Series Multi-Signal Fixtures, Accessories, and Service Kits

To replace the lens:

1. Remove the three M4 knurled-point set screws on the flange of the cap.

2. Carefully pull up on the stainless steel wire guard to separate it from the assembly.

3. Remove the lens and O-ring, noting the location of the O-ring, which provides a condensation seal between the glass dome and inside of the lens.

4. Re-seat the new O-ring and lens on the device and align the three brass inserts to the three M3 screw holes on the cap.

5. Reattach the wire guard, noting that the three longer legs of the guard are to be inserted in the holes on the lens that have the adjacent brass inserts.

**NOTICE**

_Do Not Apply Excessive Force on the Cap_

_When removing the cap on the LED and strobe devices, do not apply more force than necessary on the wire guard and lens. Failure to heed this precaution will damage the lens._

6. While applying a moderate downward force to the lens top to compress the O-ring, reattach the set screws one at a time, partially threading them into the lens brass insert to insure the lens is held in place.

7. Complete tightening of the three set screws and insure the wire guard is securely held in place.

**Getting Repair Service or Technical Assistance**

Products returned for repair require a Return Authorization form from your local distributor or from Federal Signal. To obtain repair service or technical assistance from Federal Signal, call 708-534-4756 or 877-289-3246.

For instruction manuals and information on related products, visit: http://www.federalsignal-indust.com.
Returning the Product for Credit

Product returns for credit require a return authorization from your local distributor prior to returning the product to Federal Signal. Please contact your distributor for assistance.

A product is qualified to be returned for credit when the following conditions are met:

- The product is resalable and in the original cartons.
- The product has not been previously installed.
- The product is the current revision.
- The product has not been previously repaired.
- The product is a standard product.
- The product is not a service part.

All returns are subject to a re-stock fee.

Defective products that are returned within the warranty period will be repaired or replaced at Federal Signal’s sole discretion. Defective products do not include those products with lamp failure.

Circumstances other than those listed above will be addressed on a case-by-case basis.