



Safety Message to Installers and Operators of Federal Signal Products

⚠ WARNING

People's lives depend on your proper installation and operation 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:

- These lights are intended for secondary warning only. They are not intended for use as a primary warning system.
- To properly install this light, 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's service manuals when installing equipment on a vehicle.
- DO NOT install equipment or route wiring in the deployment path of an airbag.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- For the light to function properly, a separate ground connection must be made. If practical, it should be connected to the negative battery terminal. At a minimum, it may be attached to a solid metal body or chassis part that provides an effective ground path.
- Locate the light control so the VEHICLE and CONTROL can be operated safely under all driving conditions.
- Do not attempt to activate or deactivate the light control while driving in a hazardous situation.
- You should frequently inspect the light to ensure that it is operating properly and that it is securely attached to the vehicle.
- This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.
- After installation, test the lights to ensure that it is operating properly.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- After testing is complete, provide a copy of these instructions to the 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.

Product Overview

The Federal Signal SignalMaster™ Latitude™ lightbar is built with Federal Signal's Solaris LED reflector design for superior light intensity. ROC® (Reliable Onboard Technology™) reduces potential failure points found in a typical lighting system. In addition, innovative co-extrusion, polycarbonate housing reduces potential failure points found in a typical lighting system. The SignalMaster™ Latitude is available in six-head and eight-head models, all of which have three LEDs per position. Brackets for interior or exterior mounting are also available.

Unpacking the Product

After unpacking the product, inspect it for damage that may have occurred in transit. If it has been damaged or is missing a part, 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 destroying them. 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).

Product Specifications

	6-Head (24 in)	8-Head (32 in)	8-Head (48 in)
Specifications			
Voltage	12.8 Vdc		
Amp Draw (Total)	3 A	4 A	4A
Operating Temp.	-22 °F to +149 °F (-30 °C to +65 °C)		
Dimensions			
Height	1.13 in (2.86 cm)	1.13 in (2.86 cm)	1.13 in (2.86 cm)
Length	24.2 in (61.5 cm)	31.8 in (80.5 cm)	48.0 in (121.92 cm)
Depth	2.63 in (6.67 cm)	2.63 in (6.67 cm)	2.63 in (6.67 cm)
Shipping Weight	3.8 lb (1.7 kg)	4.0 lb (1.8 kg)	4.3 lb (9.48 kg)

Mounting the Lightbar

⚠ WARNING

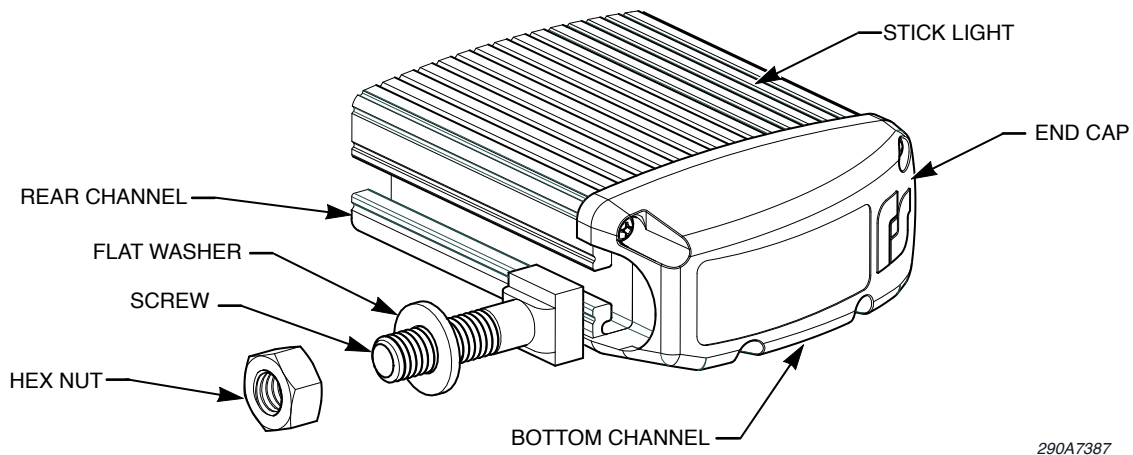
AIRBAG DEPLOYMENT— *Do not install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury or death.*

⚠ CAUTION

LIGHT OUTPUT COMPLIANCE — *This product is intended for supplemental warning and for use in conjunction with an approved primary warning light system. Consult local codes and regulations to determine if the power supply/ light head combination complies with the horizontal or vertical mount position desired in your application. Failure to follow this caution could result in reduced light output and reduced warning system effectiveness.*

To mount the lightbar:

1. Determine which side of the lightbar to secure to the mounting surface. From a horizontal orientation, the bottom and rear surfaces of the lightbar are available for mounting.
2. See Figure 1 on page 3. Locate the opening in the selected mounting-bolt channel and drop in four mounting screws.

Figure 1 Lightbar positioned horizontally with mounting hardware**NOTICE**

DRILLING PRECAUTIONS — Before drilling, check the area into which you are drilling 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 convolute/split-loom tubing.

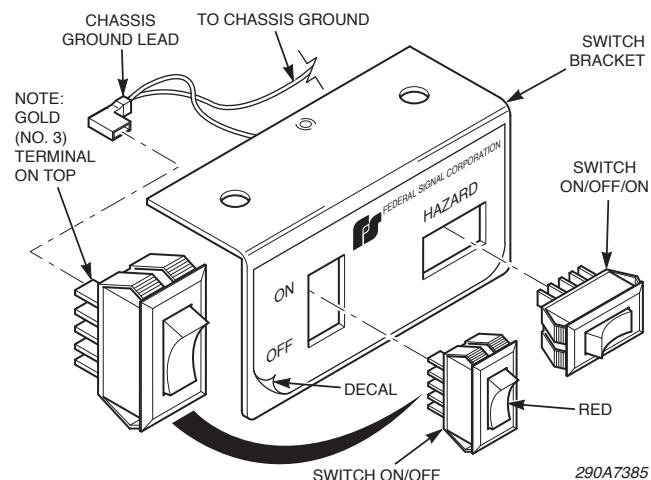
3. Drill holes as needed for the mounting screws.
4. Secure the lightbar to the mounting surface using the supplied nuts.

Mounting the Control Head

NOTE: When selecting a mounting location for the control head, it is necessary to keep in mind the cable length of the SignalMaster. Plan wiring and cable routing before installation.

To mount the control head:

1. Assemble the control head as shown in Figure 2. For proper operation of the unit, the switches must be installed as shown.

Figure 2 Electrical connections for control head

2. Select a mounting location for the control head that allows the vehicle and controls to be operated safely at all times.
3. Use the control head as a template and scribe two drill-position marks at the selected mounting location.
4. Drill two holes at the scribed position marks.
5. Secure the control head to the mounting surface with two user-supplied sheet-metal screws.

Wiring Power Connections to the Control Head

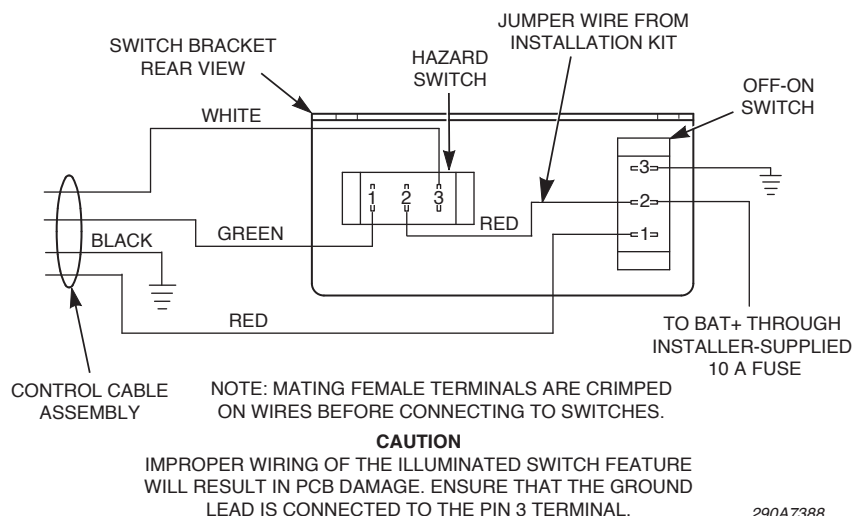
CAUTION

HIGH CURRENT ARCING — *Do not connect this system to the vehicle battery until all other connections are completed, mounting of all components is finished, and you have verified that no shorts exist.*

To wire the control head to power:

1. Route installer-supplied red and black 18 AWG (minimum) wires to the power source. Ensure that the power source is capable of supplying an additional 10 amperes.
2. Connect the black wire to a known good chassis ground. This connection must be capable of supplying 10 amperes. **Do not connect the red wire to the positive (+) power source terminal at this time.**
3. Wrap the control cable's stripped wire ends with tape and route the cable to the mounting location of the control head.
4. See Figure 3. Crimp four 1/4-inch straight-terminals on the ends of the cable wires and the jumper wire combination.
5. Connect the terminals on the switch as shown in Figure 3.

Figure 3 Terminal connections



Wiring the Illuminated ON/OFF Switch on the Control Head

⚠ CAUTION

HIGH CURRENT ARCING — Do not connect this system to the vehicle battery until all other connections are completed, mounting of all components is finished, and you have verified that no shorts exist.

NOTICE

PCB DAMAGE/IMPROPER WIRING — Improper wiring of the illuminated switch feature will result in printed circuit board damage. Ensure that the chassis ground lead is connected to the gold (Pin 3) terminal and that the unterminated end of the lead is connected to a known good chassis ground.

To wire the illuminated ON/OFF switch:

1. See Figure 3 on page 4. Connect the right-angle terminal on the ground lead of the switch bracket to the gold terminal (Pin 3) of the ON/OFF switch.
2. Route the unterminated end of the ground lead to a known good chassis ground.
3. Cut the lead to length and crimp the supplied ring terminal on the lead. If necessary, additional 18 AWG wire may be spliced to the ground lead.
4. Secure the lead to the chassis ground with a user-supplied screw.

Inspection and Final Installation

To complete and verify that the lightbar and control head work properly:

1. Ensure that there are no loose wire strands or other bare wires which may cause a short circuit. Also, all wires must be protected from any sharp edges which could eventually cut through the insulation.
2. Connect the 18 AWG red wire to the (+) positive terminal of the battery using an in-line, user-supplied 10 A fuse and fuseholder. To protect the entire length of the wire, locate the fuse as near to the battery as possible.

NOTE: If the leads of the power supply are reversed, all directional lamps will light simultaneously. Correct the wiring before proceeding.

3. Read and understand the following operation instructions and test the lights for proper operation of all functions.

Safety Message to Operators of Warning Lights

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People's lives depend on your safe use 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:

- Although your warning system is operating properly, it may not be completely effective. People may not see or heed your warning signal. You must recognize this fact and continue driving cautiously.
- Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others, such as raising your hood or trunk lid. If these situations occur, be especially careful.

- At the start of your shift, you should ensure that the light is securely attached and all lamps are operating properly.
- If a selected function does not perform properly or if any of the lamps remain on when the control is off, disconnect the power connector from the control head and contact the nearest service center.

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

Operating the Solaris SignalMaster

Verify that the following functions operate properly:

On/Off Switch

OFF position: The SignalMaster is not powered.

ON position: The switch lights and the center-out pattern is active. If the switch does not light, check the ground lead from the switch bracket for proper chassis ground connection.

Hazard Rocker Switch

The directional/hazard patterns will operate as selected by the hazard rocker switch.

LEFT position: The lightbar produces a left-arrow flashing pattern, instructing traffic to move left.

CENTER position: The lightbar displays the center-out pattern when on.

RIGHT position: The lightbar produces a right-arrow flashing pattern, instructing traffic to move right.

Cleaning the Lenses

Periodically cleaning the plastic lenses using proper procedures and compatible cleaners will prolong their service life.

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CRAZING/CHEMICALS — *Crazed, cracked or faded lenses reduce the light output and the effectiveness of the lighting system. Lenses showing this type of aging must be replaced. Failure to follow this warning may result in bodily injury or death to you or others.*

⚠ WARNING

CRAZING/CLEANING SOLUTIONS — *The use of cleaning solutions, such as strong detergents, solvents, and petroleum products, can cause crazing (cracking) of the lenses and reflectors. Failure to follow this warning can damage the lenses and may result in bodily injury or death.*

To clean the lenses:

1. Rinse the lenses with lukewarm water to loosen dirt and debris.
2. Use a mild soap, lukewarm water, and a soft cloth to gently clean the plastic surfaces. To avoid damaging the lenses, do not use heavy pressure or caustic, abrasive, or petroleum-based cleaners.
3. Rinse and dry the plastic surfaces with a soft cloth to prevent water spotting.

To remove fine scratches and haze, use a specialty plastic cleaner/polish such as Plexus® and a soft cloth. You can also use a high quality automotive paste cleaner/wax that is non-abrasive.

Getting Technical Support and Service

Federal Signal Corporation will service your equipment or provide 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 number. The RMA number can be obtained from your local distributor or Federal Signal. Please provide a brief explanation of the service requested or the nature of the malfunction. Contact your local dealer/distributor for replacement parts availability or contact the Service Department (7 A.M. to 5 P.M., Monday through Friday, Central Time) at:

Federal Signal Corporation
2645 Federal Signal Drive
University Park, IL 60484-3167
800-433-9132
800-343-9706 (fax)
E-mail: empserviceinfo@fedsig.com
www.fedsig.com

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). 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: #_____



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