

Safety Message to Installers and Operators of Warning Lights

⚠ 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 and the original product. In addition, listed below are some other important safety instructions and precautions you should follow:

- 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.
- The effectiveness of an interior mounted warning light depends on the clarity, the tinting, and the angle of the glass it is placed behind. Tinting, dirt, defects, and steeply-angled glass reduce the light output of the warning light. This may reduce the effectiveness of the light as a warning signal. If your vehicle has dirty, tinted, or steeply-angled glass, use extra caution when driving your vehicle or blocking the right of way with your vehicle.
- 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 stick light 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 Latitude™ Solaris® Stick Light is a non-directional flashing LED warning light that is designed to operate as a standby device. Eight-head, six-head, and four-head models are available. The light mounts horizontally with supplied hardware on the interior or exterior of a vehicle with the 30-foot cable exiting from the rear. The end caps are compression-sealed by gaskets to the extruded housing. Each stick light is programmed with ten flash patterns plus one test pattern that are selectable by a control head without opening the housing.

Models SL8F, SL6F, and SL4F are available with Solaris® LED colors of red, blue, white or amber. Solaris LED lighthoods. Models SL8FF, SL6FF, and SL4FF are equipped with red and white Solaris LED light heads and White Light Control that enables the driver to turn on and off white light on the front of the Latitude.

A selection of internal and external mounting brackets makes the Latitude ideal for many applications including municipal, utility, construction, public safety, and tow and recovery.

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, (708-534-340) 7 A.M. to 5 P.M., Monday through Friday (CT).

Product Specifications

Electrical:	Operates on 12.8 V
Cable:	SL#F Models: 30 ft, Jacketed 3-Conductor SL#FF Models: 30 ft, Jacketed 4-Conductor
Wire Colors:	Red (Positive) Black (Negative) White (Programming) Green (White Light Control: SL#FF Models Only)
Operating Temperature:	-22 °F to +149 F (-30° C to +65 °C)
Material:	High-Impact Polycarbonate
Dimensions	
Height:	1.125 in (2.86 cm)
Depth:	2.625 in (6.67 cm)
Length:	
8-head	31.75 in (80.65 cm)
6-head	24.23 in (61.54 cm)
4-head	16.87 in (42.85 cm)

Mounting the Stick Light

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.

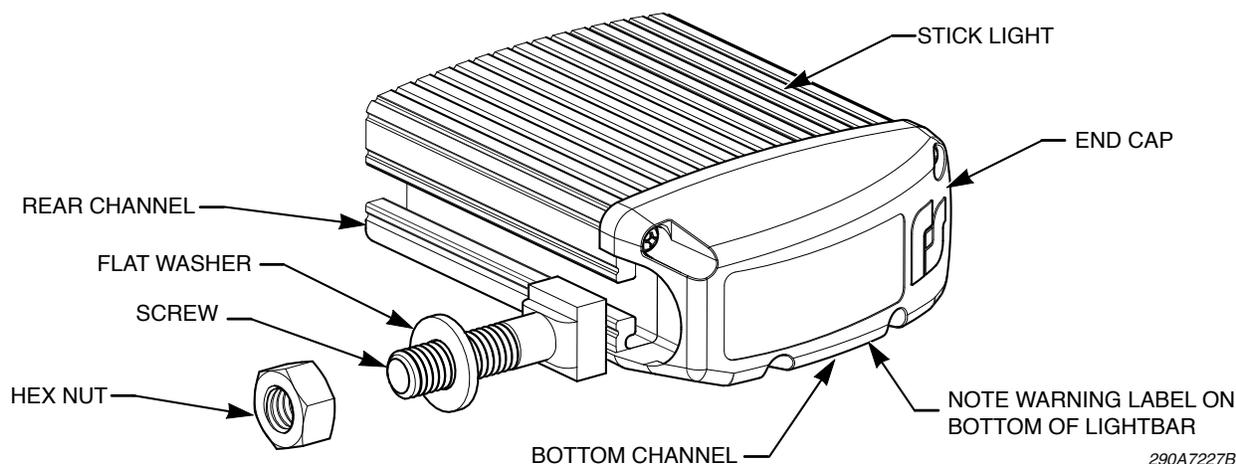
NOTICE

WATER DAMAGE PRECAUTION – When installing the Latitude on the exterior of a vehicle, ensure that it is mounted with the bottom channel facing down (Figure 1). Failure to follow this precaution may cause water to enter the lightbar and damage the circuitry.

To mount the stick light:

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

Figure 1 Stick light positioned horizontally with mounting hardware



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.

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 stick light to the mounting surface using the supplied nuts.

Wiring the Latitude to Ground and Power

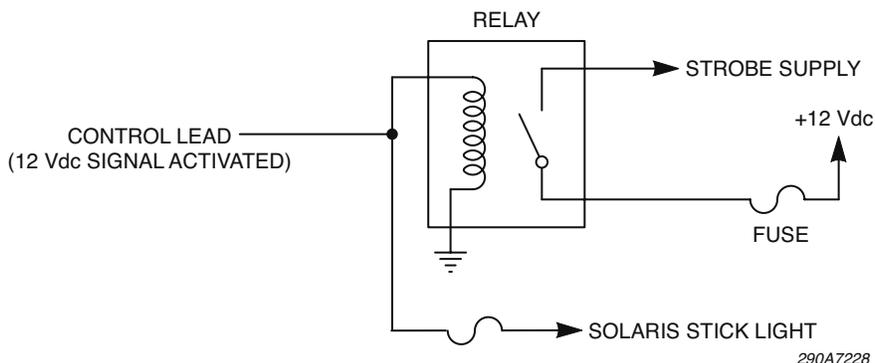
NOTE: Extend wiring with 18 AWG leads or thicker.

To wire the Latitude to vehicle ground and power:

1. Connect the BLACK wire to ground.
2. Connect the RED wire to a positive 12 Vdc source through an installer-supplied 5 A fuse.
3. Insulate spliced leads with twist-on wire connectors. Fold and seal unused leads. Use wire ties and hold-downs for strain relief.

IMPORTANT: Powering multiple devices with a common control lead may cause one or more units to briefly remain functional after signal power is removed. For example, due to high-input filter capacitance, a strobe supply can briefly provide the current required to operate a low current device such as a Solaris Stick Light. If necessary, use a relay to isolate devices with large filter capacitors. See Figure 2 for a suggested schematic. All components and wires are installer-supplied.

Figure 2 Relay for isolating devices with large filter capacitors



Wiring for White Light Control (Models SL8FF, SL6FF, SL4FF)

White Light Control enables the driver to activate and deactivate the white LED modules in Latitude models SL8FF, SL6FF, and SL4FF. White light is activated by +12 V and deactivated by -GND.

NOTE: Extend wiring with 18 AWG leads or thicker.

To wire the Latitude for White Light Control:

1. Connect the GREEN wire from the Latitude to the electrical circuit that provides +12 V or -GND.
2. Insulate spliced leads with twist-on wire connectors. Fold and seal unused leads. Use wire ties and hold-downs for strain relief.

Selecting a Flash Pattern

⚠ WARNING

LIGHT HAZARD – To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight at close range. Do not stare directly into the light at close range or permanent damage to your eyesight may occur.

⚠ CAUTION

BURN HAZARD – After prolonged operation, the Latitude dissipates heat and can cause burns. Do not hold it in your hands for extended periods of time. Do not touch it during, or shortly after, operation. Always allow the stick light to cool before handling.

The Latitude Series Stick Light features 10 patterns that are selected by touching the WHITE programming wire to the 12 Vdc power source. Tables 1 and 2 list the available patterns.

The Latitude is designed to start at the last flash pattern selected before it was de-energized. For example, if it is de-energized at the seventh flash pattern and then re-energized, the seventh pattern is activated.

Table 1 8-head and 4-head flash patterns

No.	Description	Flash Rate
1	Quad Flash	60 QFPM (Default)
2	7X Flash	60 FPM
3	Double Flash	60 DFPM
4	Double Flash	115 DFPM
5	Single Flash	115 FPM
6	Quad Odd/Even	60 QFPM
7	Single Odd/Even	97 FPM
8	Double Paired	72 DFPM
9	Single Paired	60 FPM
10	Single Out/In	91 FPM
11	TEST	Dim

Table 2 6-head flash patterns

No.	Description	Flash Rate
1	Quad Flash	60 QFPM (Default)
2	7X Flash	60 FPM
3	Double Flash	60 DFPM
4	Double Flash	115 DFPM
5	Single Flash	60 FPM
6	Single Flash	115 FPM
7	Quad Odd/Even	60 QFPM
8	Double Odd/Even	60 DFPM
9	Double Out/In	72 DFPM
10	Single Out/In	91 FPM
11	TEST	Dim

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, 708-534-340
 800-343-9706 (fax)
 E-mail: empserviceinfo@fedsig.com
www.fedsig.com

Ordering Replacement Parts

To order replacement parts, please contact your local dealer/distributor or:

Customer Support

Federal Signal Corporation

Phone: 800-264-3578 or 708-534-3400

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: # _____

1-800-433-9132

1-800-343-9706 (fax)

1-708-534-3400

www.fedsig.com



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