



RAYDIAN S2

AS BRILLIANT
INSIDE AS IT IS OUTSIDE.

The RAYDIAN S2 lightbar from Federal Signal 

THE RAYDIAN S2 LIGHTBAR

BRIGHT NEW THINKING

From the leader in emergency warning technology.

> SAFER

PATENTED HOTFOOT

The first lightbar in the industry with lighted mounting feet — Federal Signal added more lighting positions with the introduction of the patented HotFoot™ mounting system (U.S. Patent No. 7,244,053).



- Powerful alley and takedown lights that don't interrupt the primary warning signal
- Bright 50-watt halogen lights provide officer safety during traffic stops
- Optional LED lights available for additional off-axis warning if takedown or alleys are placed in the main lightbar

SOLARIS - THE BEST AND BRIGHTEST IN LIGHTING TECHNOLOGY

Our patent-pending Solaris® design features the latest in LED reflector technology for a bright and intense off-axis light output.



New Ultra White LED Takedown and Alley Lights in the Bar — the brightness of halogens with LED Solaris performance.

ADDITIONAL FEATURES FOR SAFER OPERATION

The Raydian S2 is loaded with additional features such as the advanced micro-processor controller which provides three modes of operation, a library of flash patterns, adjustable alley and takedown lights, front/rear cut-off, dimming, and intersection warning.

Dimming Provides Additional Officer and Pedestrian Safety

The dimming feature can significantly reduce the light output intensity in modes one and two. For officer safety, the dimming feature is not activated in mode three.



Adjustable HotFoot Lighting

The HotFoot takedown and alley lights can be adjusted horizontally and vertically based on officer preference.



Front Cut-off



Rear Cut-off

Front and Rear Cut-off may be used in Mode One, Two, or Three

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First all – LED lightbar with ne
True 360-degree continuous c

> SMARTER

ROC SOLID CONSTRUCTION Patent-pending ROC (Reliable Onboard Circuitry™) design eliminates approximately 85% of potential failure points in a lightbar. This means emergency vehicles stay on the road longer and repair costs are kept to a minimum.



ROC with the Micro-processor Controller provides advanced communication between the lightbar and the controller head.

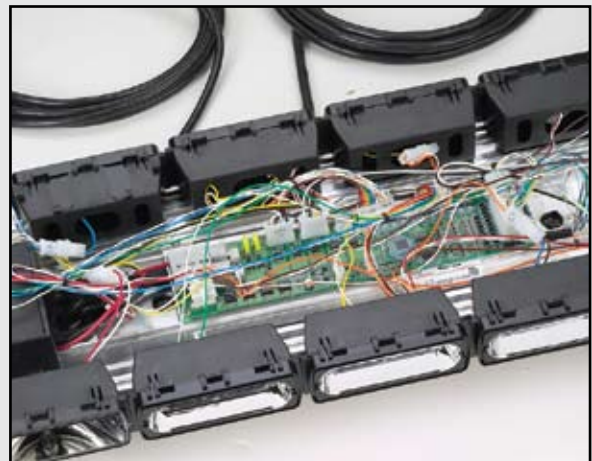
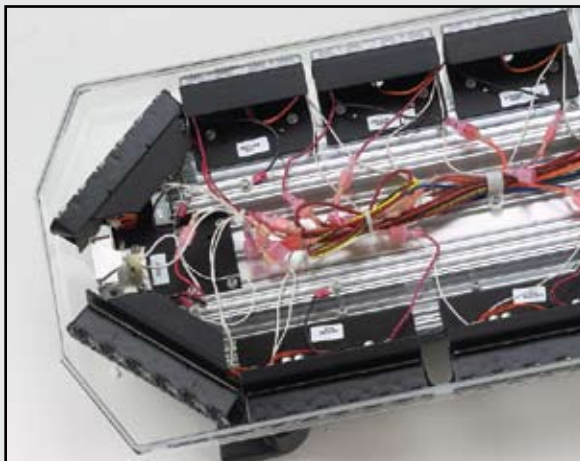


Minimal Board-to-Board Connections eliminate about 85% of possible failure points. A printed circuit board in one assembly reduces the number of electrical connections in a lightbar.



Solaris optics and curved end caps offer superior LED reflector technology for bright 360-degree coverage, excellent off-axis light output and no dark spots.

YESTERDAY'S TECHNOLOGY. The most common failure points found in a typical lightbar, as shown below, occur between the connector and its light source and the lightbar's power source. With older technology, each light head usually has at least two, sometimes four, connections per light head. ROC technology reduces the number of parts found in a typical lightbar by approximately 65%.



new white LED takedown and alley lights – as bright as traditional 50 watt halogens while drawing fewer am
coverage provides effective visual warning in a stealthy, quiet design.

>SIMPLER

SIMPLE TO CUSTOMIZE AND CONFIGURE The Raydian S2 may be repaired or reconfigured without taking the lightbar off the vehicle or removing or rewiring individual modules. Domes or lenses are quickly and easily replaced as needed.



1 Remove two screws in both end domes and two screws in the end brackets.



2 Disconnect the ROC board by the 22-gauge wire harness.



3 Slide front or rear lenses off for quick replacement.

Internal SignalMaster™ Directional Warning

Raydian S2 can be configured for internal Federal Signal SignalMaster control operation. In this mode, an external SignalMaster controller is not required. A simple slide switch activates the lightbar's internal SignalMaster.



While operating in three priority modes, all modules keep sequence with the flash pattern. Once directional warning is selected, the SignalMaster modules override the current flash pattern.

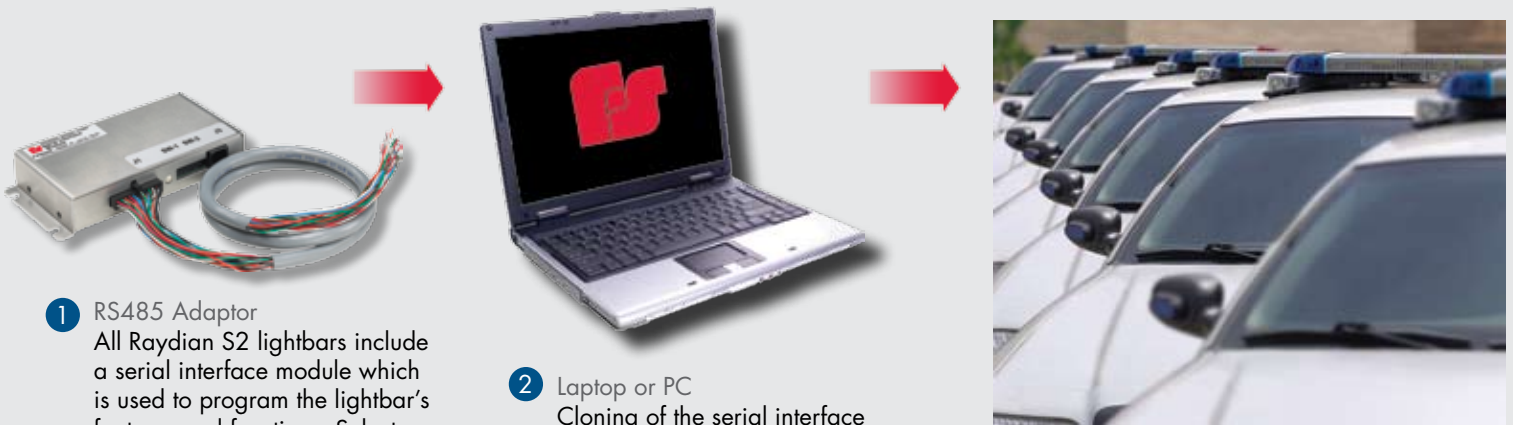


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RAYDIAN S2 AND RS485 SYSTEM The RS485 System makes it fast and easy to clone and duplicate patterns from vehicle to vehicle. The function of each individual light head can be controlled with the RS485 system.

- Four default patterns are included for positions 1, 2, 3 and the intersection clearing mode.
- Raydian S2 lightbars are controlled through a standard RS485 bus connection. Protocol is based on SAE J1708 and J1587 standards.
- Compact serial interface module is included with every Raydian S2 lightbar for those vehicles not equipped to accept RS485 bus connections.
- Built-in SignalMaster directional warning capability is standard with the Raydian S2. SignalMaster patterns can be activated via a standard switch and do not need a separate directional warning controller.
- Additional pre-programmed options such as front/rear cut-off, intersection warning, and dimming can easily be programmed into the lightbar operation and cloned from vehicle to vehicle.

EASY CONFIGURATION



1 RS485 Adaptor
All Raydian S2 lightbars include a serial interface module which is used to program the lightbar's features and functions. Select from default flash patterns or customize your lightbar with 26 newly designed warning patterns.

2 Laptop or PC
Cloning of the serial interface module is accomplished with the use of a laptop or desktop and an EPIC™ programmer, sold separately.

3 Fleet Programming
The EPIC USB programmer is used to quickly program lightbars for any size fleet, providing significant time and cost savings. This is especially important when working with a large fleet.



LED colors are offered in red, blue, white, amber, and green.
Domes are available in red, blue, and clear.

SMARTER, SIMPLER, AND SAFER — DISCOVER THE RAYDIAN S2 ADVANTAGE

To learn more about what the Raydian S2 performance can do for you, call 800-264-3578.

FEDERAL SIGNAL'S ON-LINE LIGHTBAR CONFIGURATOR IS QUICK AND EASY TO USE.

To configure your Raydian S2 42" and 52" lightbars, go to www.fedsig.com. Save, print, or e-mail your configuration to a Federal Signal Customer Support Representative or contact your local distributor today.

Warning Light Specifications			
Lighting Option	Current Draw	Lamp/Technology	Reflector Style
Solaris S2 LED Takedown Light	1.0 A*	Six Gen III high brightness LEDs	Offset, compound-curve, polished spot beam reflector
Solaris S2 LED Alley Light	1.0 A*	Six Gen III high brightness LEDs	Offset, compound-curve, polished spot beam reflector
Solaris S2 2" Flashing positions	0.5 A*	Three Gen III high brightness LEDs	Offset, compound-curve, polished reflector
Solaris S2 4" and 5" Flashing positions	1.0 A*	Six Gen III high brightness LEDs	Offset, compound-curve, polished reflector
HotFoot Option			
Halogen Takedown Light	3.9 A**	bi-pin halogen MR16, 50W	12-degree polished reflector
Halogen Alley Light	3.9 A**	bi-pin halogen MR16, 50W	24-degree polished reflector
TriOptic LED, 2-pack	1.0 A*	Six Gen III high brightness LEDs	No reflector (precision Fresnel lens)
*Amperage in steady burn mode			
**Amperage per pair, with flashing takedown and alley lights			

Technical Specifications - Lightbar only							
Model	Length	Height	Width	Weight*	Operating Voltage	Current Draw**	Operating Temperature
RS242	42.2 in (107.2 cm)	2.5 in (6.4 cm)	14.7 in (37.3 cm)	21.8 lbs (9.89 kg)	12.8 VDC	10.5 A bar only (17.3 A with Halogen HotFoot)	-30°C to +65°C
RS252	52.3 in (132.8 cm)	2.5 in (6.4 cm)	14.7 in (37.3 cm)	26.8 lbs (12.16 kg)	12.8 VDC	12.5 A bar only (19.3 A with Halogen HotFoot)	-30°C to +65°C
*Add 8.8 lbs (3.99 kg) for low profile mounting foot option; 10.5 lbs (4.76 kg) for HotFoot mounting option							
**Amperage for a typical loaded lightbar, with all lights flashing at 50% duty cycle							



Advancing security and well-being.

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U.S. Patent No. 7,244,053

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