

Model SIFM Front ILS Light Bar



Installation, Maintenance, and Service Manual

Limited Warranty

This product is subject to and covered by a limited warranty, a copy of which can be found at www.fedsig.com/SSG-Warranty. A copy of this limited warranty can also be obtained by written request to Federal Signal Corporation, 2645 Federal Signal Drive, University Park, IL 60484, email to info@fedsig.com or call +1 708-534-3400.

This limited warranty is in lieu of all other warranties, express or implied, contractual or statutory, including, but not limited to the warranty of merchantability, warranty of fitness for a particular purpose and any warranty against failure of its essential purpose.



FEDERAL SIGNAL Safety and Security Systems

2645 Federal Signal Drive
University Park, Illinois 60484-3167

www.fedsig.com

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

Work Truck: 800-824-0254 • +1 708 534-3400

Technical Support 800-433-9132 • +1 708 534-3400

All product names or trademarks are properties of their respective owners.

Contents

Safety Message to Installers and Service Personnel.....	5
Safety Message to Operators of Warning Light Equipment.....	7
Unpacking the Light Bar	9
Introduction to the SIFM Series SpectraLux®.....	9
Selecting Configuration Options for the Serially-Controlled SIF.....	10
Control Wires for the Serial Interface Module	12
Control Wires for the Discrete-Wire SIFM ILS	13
Programming the Discrete-Wire SIFM ILS	14
Testing the Serial SIF ILS Controls.....	14
Wiring the SIFM ILS in the Vehicle.....	15
Maintaining the SIFM ILS	16
Cleaning the Shrouds.....	16
Cleaning the Reflectors	16
Servicing the SIFM ILS.....	17
Replacing a PCB.....	17
Getting Technical Support and Service.....	19
Getting Repair Service	19
Ordering Replacement Parts	20

Figures

Figure 1 DIP switch locations the control boards of the serial controlled ILS.....	10
Figure 2 Discrete wire control cable on the pasenger side.....	13
Figure 3 Exploded view of passenger side SIFM ILS (vehicle-specific).....	18
Figure 4 Split SIFMS shroud assemblies (driver and passenger sides)	21
Figure 5 Exploded view of Split SIFMS	21
Figure 6 Split SIFMD ILS shroud assembly (passenger side) (SIFMP shown)	22
Figure 7 Exploded view of Split SIF ILS (passenger side).....	23
Figure 8 Split SIFMP shroud assembly (passenger side).....	24
Figure 9 Exploded view of Split SIFMP (passenger side).....	25
Figure 10 Typical connections with a SignalMaster® controller (external control).....	26
Figure 11 Typical connections with a SmartSiren Model SS2000SM	27

Tables

Table 1	Switch settings on the control board of the serial-controlled ILS	11
Table 2	SIFM Rear light bar controls and wires from the Serial Interface Module	12
Table 3	Description of SIF SpectraLux ILS control wires	13
Table 4	Discrete wire SIF light bar controls	14
Table 5	Replacement parts for Rear SIFMS light bar (Figures 4 and 5)	20
Table 6	Replacement parts for Split SIFMD light bar (Figures 6 and 7)	22
Table 7	Replacement parts for Split SIF ILS light bar (Figures 8 and 9)	24

Safety Message to Installers and Service Personnel

People's lives depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product. Listed below are some other important safety instructions and precautions you should follow:

Before Installation or Service

Qualifications

- To properly install or service this equipment, you must have a good understanding of automotive mechanical and 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 performing equipment installations on a vehicle.

Light Hazards

- To be an effective warning device, this product produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range, or permanent damage to your eyesight may occur.
- Do not install the light system in an area that would block, impair, or blind the driver's vision. Ensure that the light system is mounted in a position that is outside of the driver's field of vision, so the driver can safely operate the vehicle.
- Federal Signal power supplies and light heads are designed to work together as a system. Combining light heads and a power supply from different manufacturers may reduce the warning effectiveness of the lighting system and may damage the components. Verify or test your combination to ensure that the system works together and meets federal, state, and local standards or guidelines.

Electrical Hazards

- Strobe systems present a shock hazard because they use high voltage to operate. Do not handle strobe cables, the power supply, or bulbs or remove the lens while the equipment is connected. Strobe systems can hold their charge even after they have been turned off. After disconnecting power to the unit, wait five minutes before handling any parts of the strobe system.
- A light system is a high current system. In order for the system to function properly, a separate negative (–) connection and positive (+) connection must be made. All negative connections should be connected to the negative battery terminal and a suitable fuse should be installed on the positive battery terminal connection as close to the battery as possible. Ensure that all wires and fuses are rated correctly to handle the device and system amperage requirements.
- Never attempt to install aftermarket equipment that connects to the vehicle wiring without reviewing a vehicle wiring diagram available from the vehicle manufacturer. Ensure that your installation will not affect vehicle operation or mandated safety functions or circuits. Always check the vehicle for proper operation after installation.

Safety Message to Installers and Service Personnel

- The lighting system components, especially light bulbs, strobe tubes, LEDs, and the outer housing, get hot during operation. Disconnect power to the system and allow the system to cool down before handling any components of the system.
- Do not mount a radio antenna within 18 inches (45.7 cm) of the lighting system. Placing the antenna too close to the lighting system could cause the lighting system to malfunction or be damaged by strong radio fields. Mounting the antenna too close to the lighting system may also cause the radio noise emitted from the lighting system to interfere with the reception of the radio transmitter and reduce radio reception.
- Do not attempt to wash any unsealed electrical device while it is connected to its power source.

During Installation and Service

- DO NOT get metal shavings inside the product. Metal shavings in the product can cause the system to fail. If drilling must be done near the unit, place an ESD-approved cover over the unit. Inspect the unit after mounting to be sure there are no shavings present in or near the unit.
- DO NOT connect this system to the vehicle battery until ALL other electrical connections are made, mounting of all components is complete, and you have verified that no shorts exist. If the wiring is shorted to the vehicle body or frame, high current conductors can cause hazardous sparks resulting in electrical fires or flying molten metal.
- DO NOT install equipment or route wiring (or the plug in cord) in the deployment path of an airbag.
- Before mounting any components, check the manual to ensure that the component you are installing is suitable for use in that area of the vehicle. Many components are not suitable for use in the engine compartment or other extreme environmental exposure areas.
- When drilling into a vehicle structure, ensure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes. To prevent electrical shorts, grommet all drilled holes through which wiring passes. Ensure that the mounting screws do not cause electrical or mechanical damage to the vehicle.
- Refer to the manual packed with the lighting system for proper electrical connections, additional precautions, and information.
- Because vehicle roof construction and driving conditions vary, do not drive a vehicle with a magnetically mounted warning light installed. The light could fly off the vehicle, causing injury or damage. Repair of damage incurred because of ignoring this warning shall be the sole responsibility of the user.
- To avoid denting the roof of the vehicle, place the light bar mounting feet as close to the outer edge of the roof as possible.
- Locate the light system controls so the VEHICLE and CONTROLS can be operated safely under all driving conditions.

After Installation or Service

- After installation, test the light system to ensure that it is operating properly.
- Test all vehicle functions, including horn operation, vehicle safety functions, and vehicle light systems, to ensure proper operation. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety function or circuit.
- Scratched or dull reflectors, mirrors, or lenses will reduce the effectiveness of the lighting system. Avoid heavy pressure and use of caustic or petroleum based products when cleaning the lighting system. Replace any optical components that may have been scratched or crazed during system installation.
- Do not attempt to activate or deactivate the light system control while driving in a hazardous situation.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- After installation and testing are complete, provide a copy of these instructions to 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.

RETAIN AND REFER TO THIS MESSAGE

Safety Message to Operators of Warning Light Equipment

People's lives depend on your safe use of our products. Listed below are some important safety instructions and precautions you should follow:

- Do not attempt to activate or deactivate the light system control while driving in a hazardous situation.
- 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 to drive cautiously.
- Situations may occur that obstruct your warning signal when natural and man-made objects are between your vehicle and others, such as raising your hood or trunk lid. If these situations occur, be especially careful.
- The effectiveness of an interior mounted warning light depends on the clarity, the tinting, and the angle of the glass it is being 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.

-
- All effective sirens and horns produce loud sounds that may cause, in certain situations, permanent hearing loss. You and your passengers should consider taking appropriate safety precautions, such as wearing hearing protection.
 - In order to be an effective warning device, this product produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range, or permanent damage to your eyesight may occur.
 - It is important that you fully understand how to safely operate this warning system before use.
 - Operate your vehicle and its light/sound system in accordance with your department's Standard Operating Procedures.
 - If a selected function does not perform properly or if any of the lamps remain illuminated when the control is off, disconnect the power connector from the control unit and contact the nearest service center.
 - At the start of your shift, ensure that the entire warning light system and the siren system are securely attached and operating properly.
 - Suction cup mounting is for temporary applications only. The unit should be removed from the window and stored securely when not in use. Temperature changes and sunlight can cause suction cups to lose holding power. Periodically check the unit to make sure the suction cups have a firm grip on the mounting surface. An improperly secured light could fall off of the vehicle causing injury and damage.
 - The holding power of magnetic mounting systems is dependent upon surface finish, surface flatness, and thickness of the steel mounting surface. Therefore, to promote proper magnetic mounting:
 - Keep the mounting surface and magnets clean, dry, and free of foreign particles that prevent good surface contact.
 - Ensure that mounting surface is flat.
 - DO not use a magnet mounting system on vehicles with vinyl tops.
 - To prevent sliding of light assembly on mounting surface, avoid quick acceleration and hard stops.

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

RETAIN AND REFER TO THIS MESSAGE.

Unpacking the Light Bar

After unpacking the ILS light assembly, inspect it for damage that may have occurred in transit. If it has been damaged, do not install it. 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. Ensure that the parts listed in kit contents list are included in the package. 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).

Introduction to the SIFM Series SpectraLux®

The SIF SpectraLux ILS is a center-focused, single-level LED light bar that mounts on the inside of the front windshield. It uses ROC (Reliable On Board Circuitry) technology, and Solaris® S2 reflectors. Split, Passenger only, and Driver only are available. The light bar operates at a nominal input of 13.6 Vdc (11 Vdc minimum). Both Discrete and Serial (Convergence Network) control are available as configured options.

Discrete models have eight control inputs that connect to the user supplied low-current switches. Serial models are controlled through the CAT5 serial communication cable. Discrete and Serial (Convergence Network) control are available as configured options. With the Serial Interface Module, the lightbar can be activated by Federal Signal lightbar controllers or individual low-current switches.

The backbone is a powder coated aluminum shroud. The light bar has 15-foot power and ground cables and a 25-foot control cable. Mounting hardware is a configured option. Refer to mounting instructions supplied with mounting hardware. The light bar has an operating temperature range of -30°C to $+65^{\circ}\text{C}$ (-22°F to $+149^{\circ}\text{F}$).

Selecting Configuration Options for the Serially-Controlled SIF

The serial controlled ILS has three configuration options that are selectable with DIP switches on the light bar control board. The options are described in Table 1.

Figure 1 DIP switch locations the control boards of the serial controlled ILS

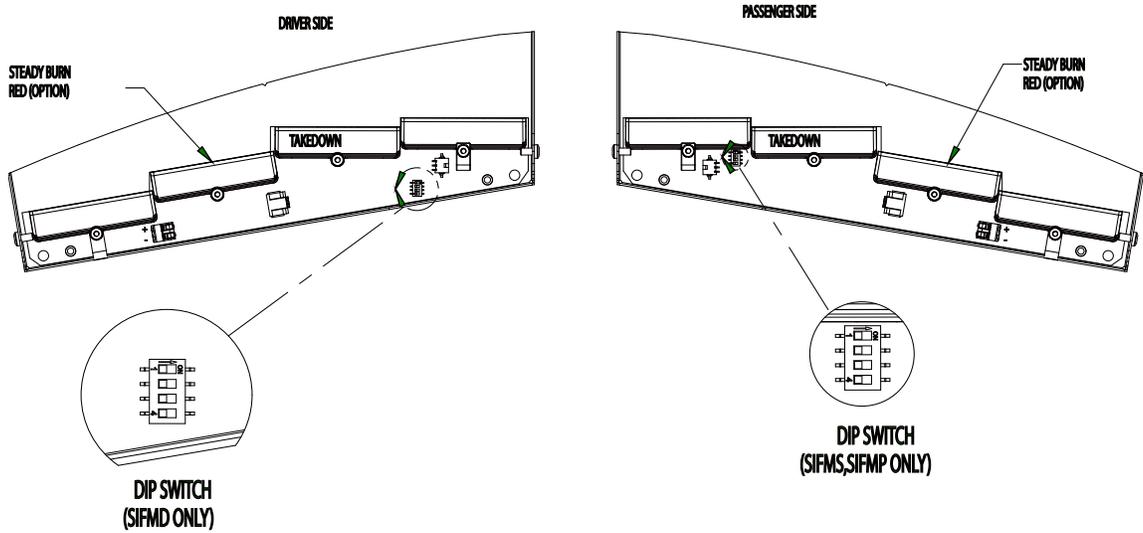


Table 1 Switch settings on the control board of the serial-controlled ILS

DIP Switch Position	Function
1	Sets what light heads turn on in Steady Burn. The default position for Switch 1 is OFF, which turns on the third outer heads on both sides of the Front ILS (Figure 1). To turn on the third outer head on the driver side only, set Switch 1 to ON.
2	Not used
3	<p>Switch 3 has two functions:</p> <ul style="list-style-type: none"> • Performs an LED scan to ensure that an LED board flashes the correct colors after it is installed. • Changes the Device ID to enable the SpectraLux ILS to operate independently of the light bar (available with the Convergence Configuration Software). <p>Performing an LED Scan When an LED board is changed, an LED scan must be done to enable the LED board to flash the correct colors.</p> <p>To perform the scan:</p> <ol style="list-style-type: none"> 1. Disconnect the red power (BAT+) wire to the SpectraLux ILS and maintain power to the control head. 2. Change the position of DIP Switch 3 and turn power ON to the SpectraLux ILS. The SpectraLux ILS emits a short flash to indicate the LED scan is done. 3. To return DIP Switch 3 to its original function, repeat the scan. <p>Changing the Device ID The default setting for the SpectraLux ILS is to respond to lightbar commands. For example, if the system includes a lightbar and a SpectraLux ILS, both devices perform the same functions. The Convergence Configuration programming software enables you to program the control head to send a set of commands dedicated only to the SpectraLux ILS, making its operation independent of the light bar.</p> <p>To reset the control head to the default setting, perform an LED scan as described above.</p>
4	Sets the ability to power the network cable for other devices. The default is OFF. Switch 4 should only be set if the main power cables are turned on through an ignition-activated relay. If powering other devices, such as the Six-Button Serial Controller, set DIP Switch 4 to ON. For more information, see the instructions included with the network-powered device.

Control Wires for the Serial Interface Module

The serially controlled SIFM SpectraLux ILS connects to a Federal Signal Convergence Network Siren/Controller or to the Serial Interface Module. Table 2 shows the functions of control wires from the Serial Interface Module. The first color of wire is the wire predominant color and additional colors are stripes. For programming options, see the instructions included with the Interface Module or the Federal Signal Convergence Network Siren/Controller.

Table 2 SIFM Rear light bar controls and wires from the Serial Interface Module

Light Bar Control	Wire Color	Description of Function
Mode 1	Blue	Lowest priority
Mode 2	Blue/White	Overrides Mode 1
Mode 3	Black/Red	Overrides Modes 1 and 2
Steady Burn	Red/White	One (driver side) or two heads (driver and passenger side) burn steadily when 12 Vdc is applied to the control wire for Steady Burn. See "Selecting Configuration Options for the Serially-Controlled SIF" on page 10.
Front Cutoff*	Green/White	Turns OFF power to the Split Front ILS
Front Enable*		Turns ON power to the Split Front ILS
Rear Cutoff	Orange/Black	N/A
Rear Enable		N/A
Intersection (SW-2 Switch 3 in the Serial Interface Module is in the UP position)	Blue/Black	Typically a high activity pattern. Overrides all three priority modes. Scene Light, Left is unavailable.
Scene Light, Left (SW-2 Switch 3 in the Serial Interface Module is in the DOWN position)		Applying 12 Vdc to the Scene Light, Left wire turns on the left half of the light bar. Intersection is unavailable.
Flash Takedown	Red/Black	Flashes the Takedown lights in Modes 1, 2, and 3 with every flash pattern. To have the Takedown lights remain off and flash only when the Flash Takedown wire is activated, see "Selecting Configuration Options for the Serially-Controlled SIF" on page 10
Left Alley	Green/Black	N/A
Right Alley	Orange/Red	N/A
Takedown	White/Black	Provides white light to the front. Overrides Flash Takedown lights and Front Cutoff.
Low Power	White/Black/ Red	Dims the lights approximately 50 percent to prevent blinding approaching drivers. Low Power is available only in Modes 1 and 2 and is disabled when switched to another flash pattern, including Mode 3 and Intersection.
Test Pattern (SW-2 Switch 3 in the Serial Interface Module is in the UP position)	Black/White/ Red	Cycles through each available color. Scene Light, Right is unavailable.
Scene Light, Right (SW-2 Switch 3 in the Serial Interface Module is in the DOWN position)		Applying 12 Vdc to the Scene Light, Right wire turns on the right half of the light bar. Light bar Test Pattern is unavailable.

* To set these options in the Serial Interface Module, see instruction sheet 2562248.

Control Wires for the Discrete-Wire SIFM ILS

The SIFM SpectraLux ILS is controlled through an eight-conductor discrete wire cable that connects to user-supplied, low current switches.

Figure 2 Discrete wire control cable on the pasenger side

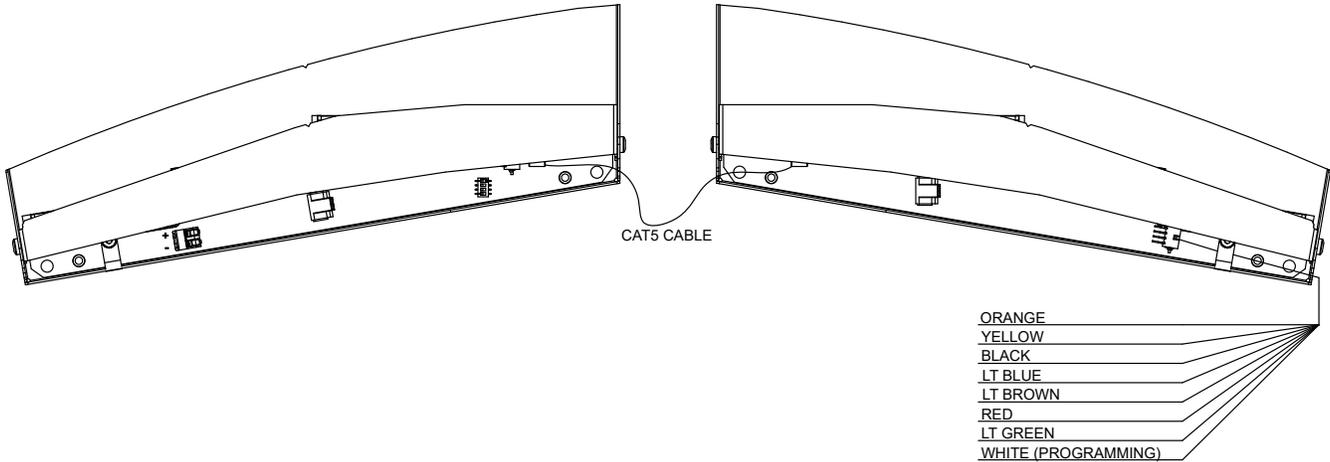


Table 3 Description of SIF SpectraLux ILS control wires

Light Bar Control	Wire Color	Function
Mode 1 Flash	Orange	Lowest priority.
Mode 2 Flash	Yellow	Overrides Mode 1
Takedowns	Black	Applying +12 Vdc provides white light to the front. Overrides flashing lights
White Flashing	Light Blue	When calling for the right of way, a vehicle responding to an emergency is permitted to have white light. Applying +12 Vdc activates the white flashing LED heads.
Dimming	Light Brown	Applying +12 Vdc dims the light bar 50 percent.
Steady Burn Red	Red	One (driver side) or two red-LED heads (driver and passenger side) burn steadily when +12 Vdc is applied to the control wire for Steady Burn Red.
Scene Light	Light Green	Applying +12 Vdc turns on the scene light.
Programming	White	Up to six operational settings can be selected by applying +12 Vdc to the control wire for the setting. See "Programming the Discrete-Wire SIFM ILS" on page 14

Programming the Discrete-Wire SIFM ILS

The white programming wire enables you to program the functions of the control wires. A description of each function is listed in Table 4. Only one control wire can be modified at a time. If more than one control wire is active, the programming wire is disabled.

To modify the function of a control wire:

1. Connect the black wire from the light bar to ground (–GND), then apply 12 Vdc (+BAT) to the 16 AWG red wire and the wire you want to modify.
2. Cycle through functions by tapping the white programming wire from the light bar to 12 Vdc (+BAT).
3. To save the setting, let the function run for five seconds before removing power. The available programming functions are listed in Table 4.

Table 4 Discrete wire SIF light bar controls

Light Bar Programming	Wire Color	Programming Functions
Mode 1 Flash	Orange	28 flash patterns, four cruise patterns, Mode 2 flash pattern overrides Mode 1.
Mode 2 Flash	Yellow	28 flash patterns (dimming disabled)
Takedowns	Black	Takedown location (inner/outer/double)
White Flashing (Independent)	Light Blue	17 takedown patterns (Pattern 1 adds white to any mode-wire flash pattern.) The rest of the patterns flash the takedown lights independently.
Dimming	Light Brown	N/A
Steady Burn Red	Red	Steady Burn Red location, four cruise patterns
Scene Light	Light Green	Scene light location (inner/outer/full)
Programming	White	Hold the wire to 12 Vdc (+BAT) more than five seconds to reset all settings to the factory defaults and also perform an LED scan.

Testing the Serial SIF ILS Controls

⚠ WARNING

LIGHT HAZARD: *To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at a close range. Do not stare directly into this lighting product at a close range, or permanent damage to your eyesight may occur.*

NOTE: After the installation, check the entire system to be sure the lights are flashing properly and all light systems are operating properly.

To test the light bar controls:

1. Connect the 16 AWG black lead from the light bar to the ground (–NEG) terminal of the vehicle battery and the 16 AWG red lead to the positive terminal.
2. Connect the black and black/white wires from the Serial Interface Module to the ground (–NEG) terminal of the vehicle battery.

3. Apply 12 Vdc to a control wire and to the ignition wire from the Serial Interface Module.
4. After the installation, check the entire system to be sure the lights flash properly and all light system functions operate properly.

Wiring the SIFM ILS in the Vehicle

NOTICE

INSTALLATION PRECAUTIONS: *The warning system and/or two-way radio system may operate improperly if a two-way radio antenna is installed on or within 18 inches of the light bar. Before permanently installing the light bar or a two-way radio antenna, test the warning system and two-way radio system. Some installations may require the relocation of the two-way radio antenna to the trunk or fender. DO NOT drill holes in the light bar or install auxiliary devices on the light bar, or the warning system may fail.*

⚠ WARNING

LOCATING OPERATOR CONTROLS: *The controls for the light system must be located so that the VEHICLE and CONTROLS can be operated safely under all driving conditions.*

NOTICE

REVERSE POLARITY/MISWIRING: *Reverse polarity may damage the siren amplifier. To avoid damage to the siren/amplifier, ensure that the battery voltage is the same voltage as the rating of the light and that the correct polarity is observed.*

Before proceeding, ensure that the light bar has been installed inside the vehicle in accordance with the instructions included with the mounting kit.

To wire the light bar in the vehicle:

1. Ensure that the lines are adequately fused. From the light bar, route the CAT5 control cable into the vehicle cab or trunk near the planned location of a control head that is compatible with the light bar or Serial Interface Module.
2. Connect the 16 AWG black lead to the battery ground (–NEG) terminal.
3. Connect the 16 AWG red lead through the supplied 15 A fuse at the source to the positive (+BAT) terminal.

Maintaining the SIFM ILS

⚠ WARNING

PERIODICALLY CHECK THE GLASS: *The effectiveness of the ILS light bar depends on the clarity of the glass it is being placed behind. Dirt and defects in the glass reduces the light output. The reliability of light for emergency signaling purposes may be reduced if the glass is dirty, cracked, or not clear. Be sure to periodically check the glass for cleanliness to ensure maximum light output of the light bar.*

Establishing a regular maintenance schedule for the ILS light bar extends its life and ensures safety. Periodically check that the light bar operates properly and that all mounting hardware is securely fastened to the vehicle. Also, inspect the reflectors for cracks, crazing (hairline cracks), discoloration, and other defects.

Cleaning the Shrouds

To clean the shrouds:

1. Remove the light bar from the vehicle according to the vehicle-specific installation instructions included with the ILS light bar.
2. Use a soft tissue to clean the shroud. If needed, you can use a solution of mild soap and water, but take care not to get water on the PCBs.
3. When finished, make sure the light bar is completely dry before reinstalling it according the vehicle-specific installation instructions.

Cleaning the Reflectors

⚠ WARNING

CRAZING HAZARD: *Crazed, cracked, or faded domes or reflectors reduce the light output and the effectiveness of the lighting system. Tops or reflectors 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

CLEANING SOLUTION WARNING: *The use of cleaning solutions, such as strong detergents, solvents, and petroleum products, can cause crazing (cracking) of the domes and reflectors. Failure to follow this warning can damage the domes and reflectors and may result in bodily injury or death to you or others.*

To clean the reflectors:

1. Remove the light bar from the vehicle according to the vehicle-specific installation instructions included with the SIF ILS.
2. Use a soft tissue to clean the reflectors. If needed, you can use a solution of mild soap and water, but take care to avoid getting the PCBs wet. Avoid heavy pressure and the use of caustic, abrasive, or petroleum-based cleaners, which will scratch or dull the reflectors.
3. When you are finished, make sure the light bar is completely dry before reinstalling it according to the vehicle-specific instructions.

Servicing the SIFM ILS

This section has instructions for replacing the light bar PCBs and reflectors. For additional service and support, call the Federal Signal Service Department at 800-433-9132, 7 a.m. to 5 p.m., Monday through Friday (Central Time). For lists of common replacement parts, see “Ordering Replacement Parts” on page 20.

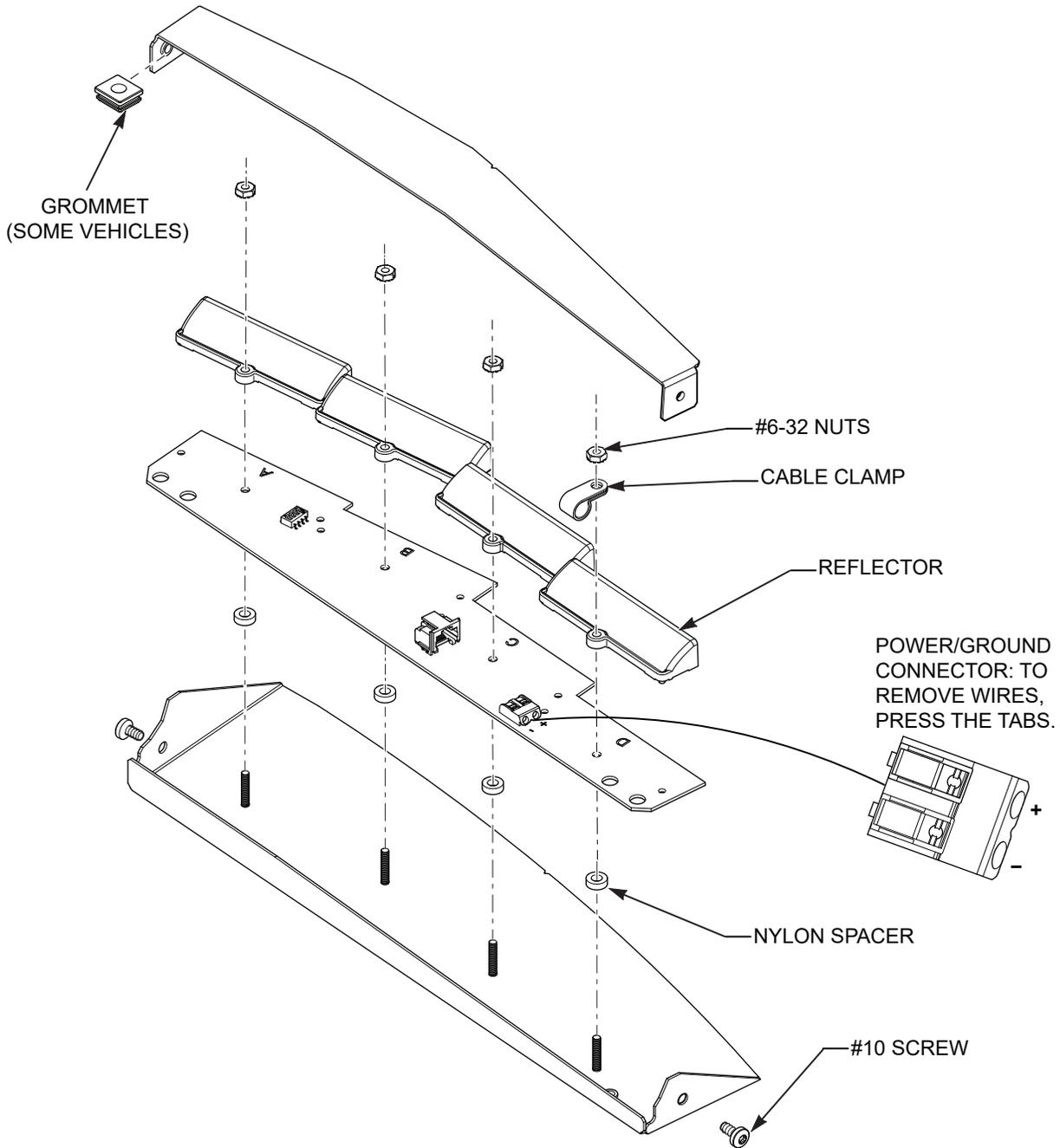
Replacing a PCB

NOTE: After replacing an LED board an LED scan may be necessary. For the serially controlled model, see Table 1 on page 10 for the DIP switch setting. For the discrete-wire model, see “Programming the Discrete-Wire SIFM ILS” on page 14 for information on cycling through the flash patterns using the white programming wire.

To replace a PCB:

- 1.** Remove the light bar from the vehicle according to the vehicle-specific installation instructions included with the SIFM ILS.
- 2.** See Figure 3 on page 18. Remove the #10 screws that hold the upper shroud.
- 3.** Disconnect the cables. For the power/ground connector, press the tabs with a pen or small screwdriver and remove the wires.
- 4.** Remove the #6-32 nuts that hold down the cable clamps, reflectors, and PCB. Lift off the parts and remove the PCB.
- 5.** Reassemble the light bar. Twist the power and ground cables to ensure there are no stray wires.

Figure 3 Exploded view of passenger side SIFM ILS (vehicle-specific)



Getting Technical Support and Service

For technical support and service, please contact:

Service Department
Federal Signal Corporation
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com
www.fedsig.com

Getting Repair Service

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally.

Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain a RMA from a local Distributor or Manufacturer's Representative.

Provide a brief explanation of the service requested, or the nature of the malfunction.

Address all communications and shipments to the following:

Federal Signal Corporation
Service Department
2645 Federal Signal Drive
University Park, IL 60484-3167

Ordering Replacement Parts

To order replacement parts, call the Federal Signal Service Department at 1-800-433-9132 or 1-708-534-3400, 7 A.M. to 5 P.M., Monday through Friday (Central Time) or contact your nearest distributor.

For the vehicle-specific part numbers, see doc. no. 25500313 “Mounting the SIFM ILS Lightbar in a Vehicle.”

For complete SIFM ILS systems, see the illustrations and parts lists starting on this page. The figures are for reference only and are subject to change.

Table 5 Replacement parts for Rear SIFMS light bar (Figures 4 and 5)

Item No.	Qty.	Part No.	Description
1	1	8624xxxxx	Driver Side Shroud Assembly (configured)
2	1	8624xxxxx	Passenger Side Shroud Assembly (configured)
3	8	77700356	Nylon Spacer
4	1	20000252-xxx	Driver Side PCB Assembly (configured)
5	1	20000258-xxx	Passenger-Side PCB Assembly (configured)
6	8	862400828	ZILS Wide Reflector
7	8	7058A035	#6-32 Steel KEPS® Nut
8	1	17500009-36	SILS Board-to-Board Cable
9	2	8240A072	1/4-inch Nylon Clamp
10	1	1751357-02	25-foot CAT5 Cable (Serial)
	1	17500274-300	SIF ILS Cable (Discrete)
11	1	C300216-02-079	180-inch C-Wire (3/8-inch NT/3/8-inch NT)
12	1	C300216-10-102	180 in C-Wire (3/8-inch NT/3/8-inch NT)
13	1	77700488	5/16-inch Nylon Clamp
14	*	228140	Square Grommet
15	1	8624xxxxx	Driver Side Upper Shroud (configured)
16	1	8624xxxxx	Passenger Side Upper Shroud (configured)
17	4	7011246-06	#10 Type B Black 6-Lobe Screw
18	1	1612358	Eye Damage Warning Label
19	1	81462266	ILS Nameplate

*Quantity varies per make and model of vehicle. (See instruction sheet no. 25500313.)

Figure 4 Split SIFMS shroud assemblies (driver and passenger sides)

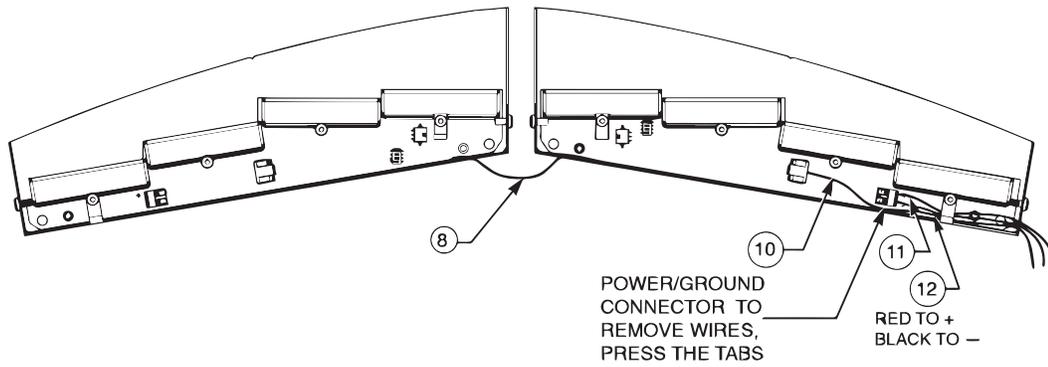
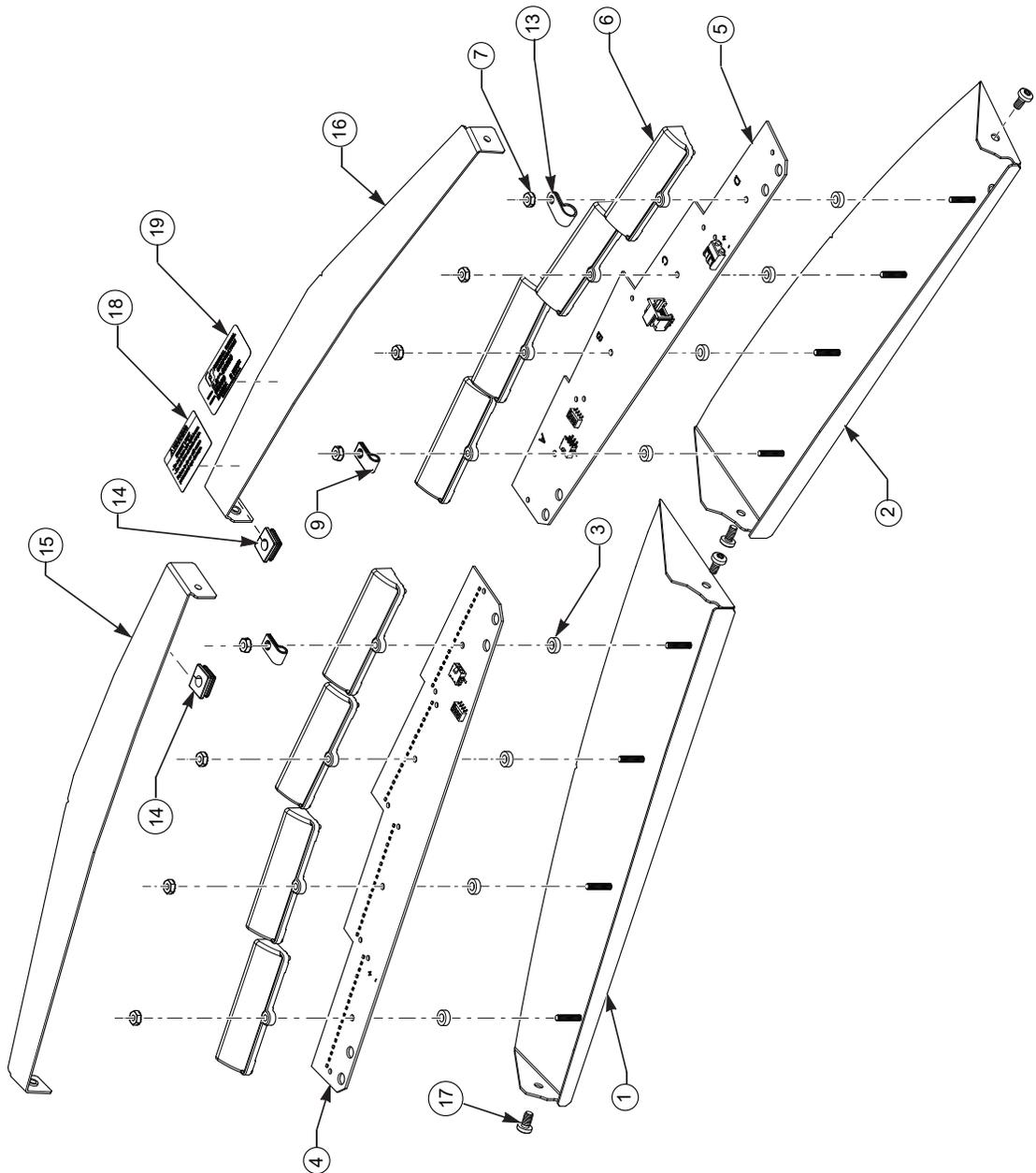


Figure 5 Exploded view of Split SIFMS



Ordering Replacement Parts

Table 6 Replacement parts for Split SIFMD light bar (Figures 6 and 7)

Item No.	Qty.	Part No.	Description
1	1	8624xxxxx	Driver Side Shroud Assembly (configured)
3	8	77700356	Nylon Spacer
4	1	20000252-xxx	Driver Side PCBA (configured)
6	8	862400828	ZILS Wide Reflector
7	8	7058A035	#6-32 Steel KEPS® Nuts
10	1	1751357-02	25-foot CAT5 Cable (Serial)
	1	17500274-300	SIFZ ILS Cable (Discrete)
11	1	C300216-02-079	180-inch C-Wire (3/8-inch NT/3/8-inch NT)
12	1	C300216-10-102	180-inch C-Wire (3/8-inch NT/3/8-inch NT)
13	1	77700488	5/16-inch Nylon Clamp
15	1	8624xxxxx	Driver Side Upper Shroud (configured)
17		7011246-06	#10 Type B Black 6-Lobe Screw
18	2	1612358	Eye Damage Warning Label
19	2	81462266	ILS Nameplate
20	*	228140-01	Square Grommet Plug (configured)

*Quantity varies per make and model of vehicle. (See instruction sheet no. 25500313.)

Figure 6 Split SIFMD ILS shroud assembly (passenger side) (SIFMP shown)

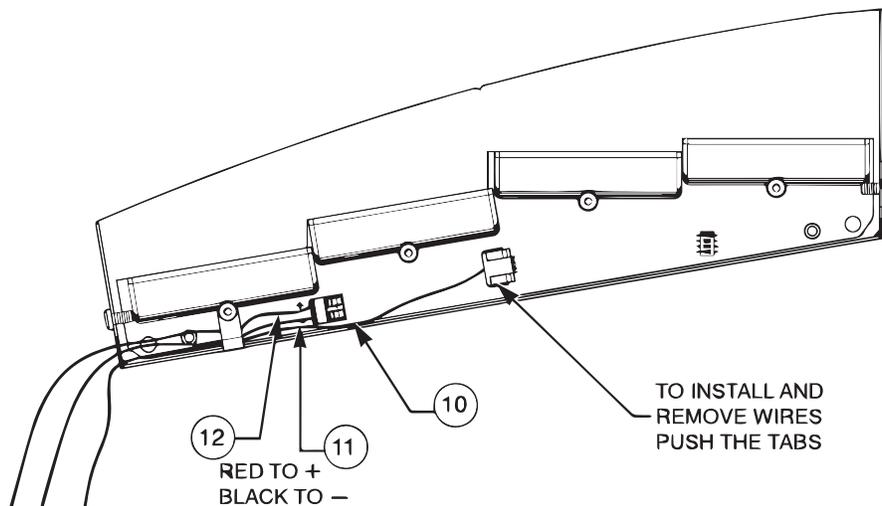
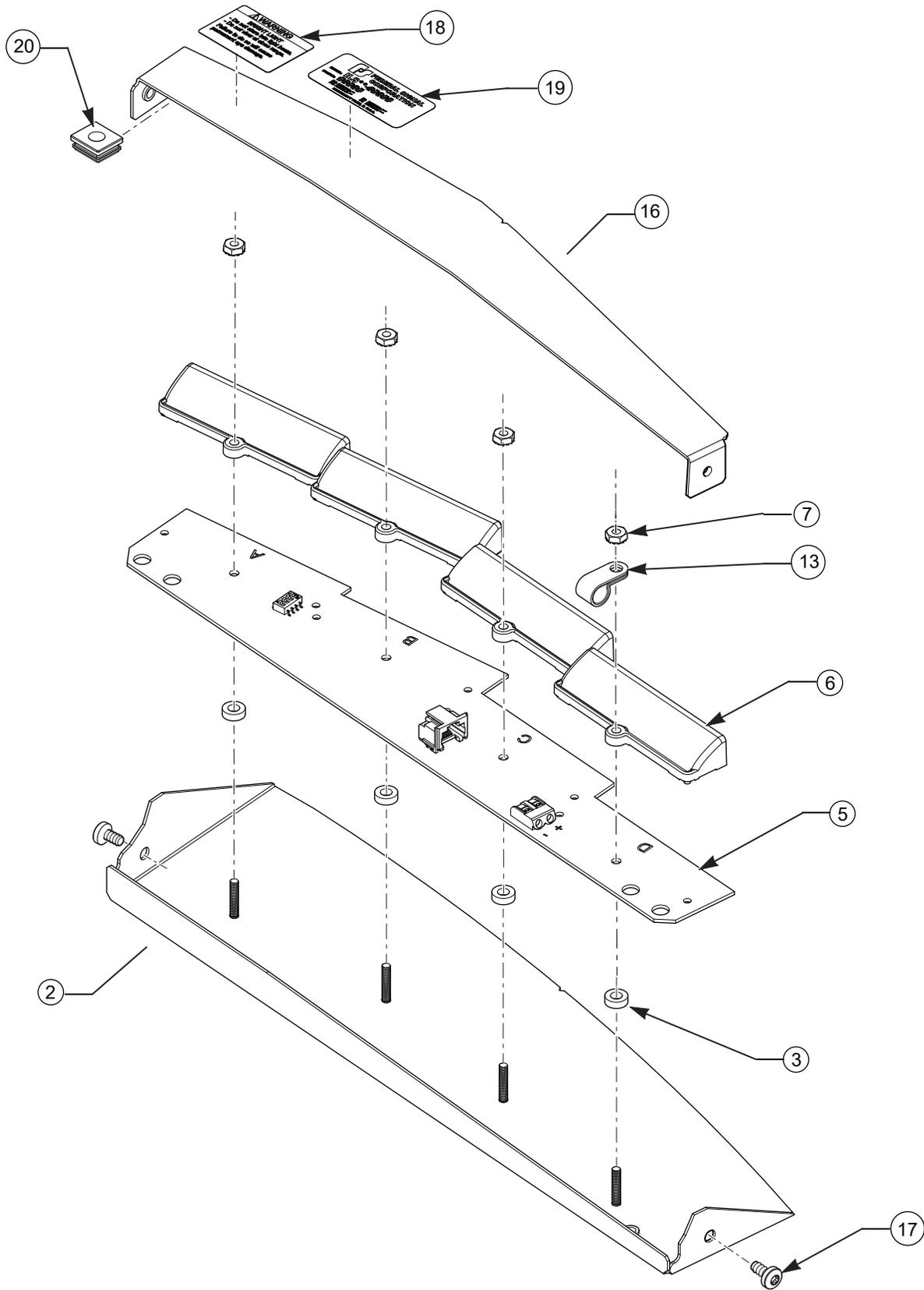


Figure 7 Exploded view of Split SIF ILS (passenger side)



Ordering Replacement Parts

Table 7 Replacement parts for Split SIF ILS light bar (Figures 8 and 9)

Item No.	Qty.	Part No.	Description
2	1	8624xxxx	Passenger Side Shroud Assembly (configured)
3	4	77700356	Nylon Spacer
5	1	Contact Service	Passenger-Side PCBA (configured)
6	4	862400828	ZILS Wide Reflector
7	4	7058A035	#6-32 Steel KEPS® Nut
10	1	1751357-02	25-foot CAT5 Cable (Serial)
	1	17500274-300	SIF ILS Cable (Discrete)
11	1	C300216-02-079	180-inch C-Wire (3/8-inch NT/3/8-inch NT)
12	1	C300216-10-102	180-inch C-Wire (3/8-inch NT/3/8-inch NT)
13	1	77700488	5/16-inch Nylon Clamp
16	1	8624xxxx	Passenger Side Upper Shroud (configured)
17	2	7011246-06	#10 Type B Black 6-Lobe Screw
18	2	1612358	Eye Damage Warning Label
19	1	81462266	ILS Nameplate
20	*	228140-01	Square Grommet Plug (configured)

*Quantity varies per make and model of vehicle (see instruction sheet no. 25500313).

Figure 8 Split SIFMP shroud assembly (passenger side)

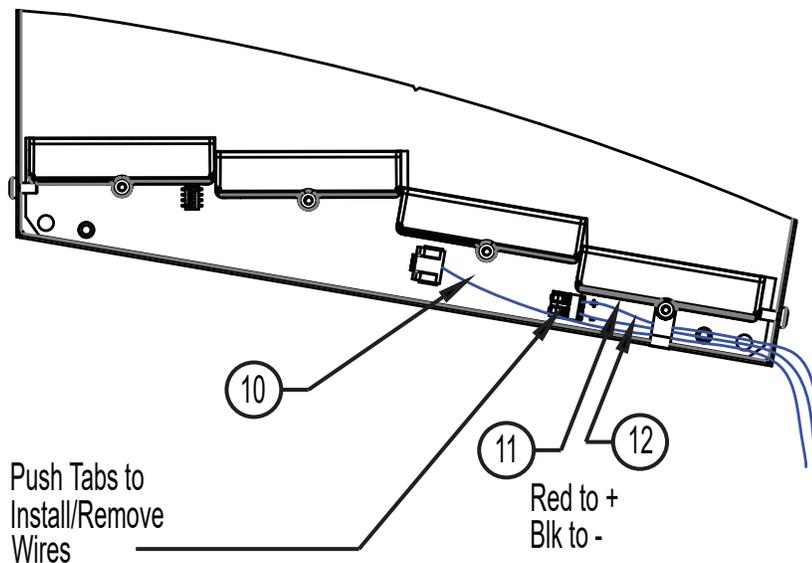


Figure 9 Exploded view of Split SIFMP (passenger side)

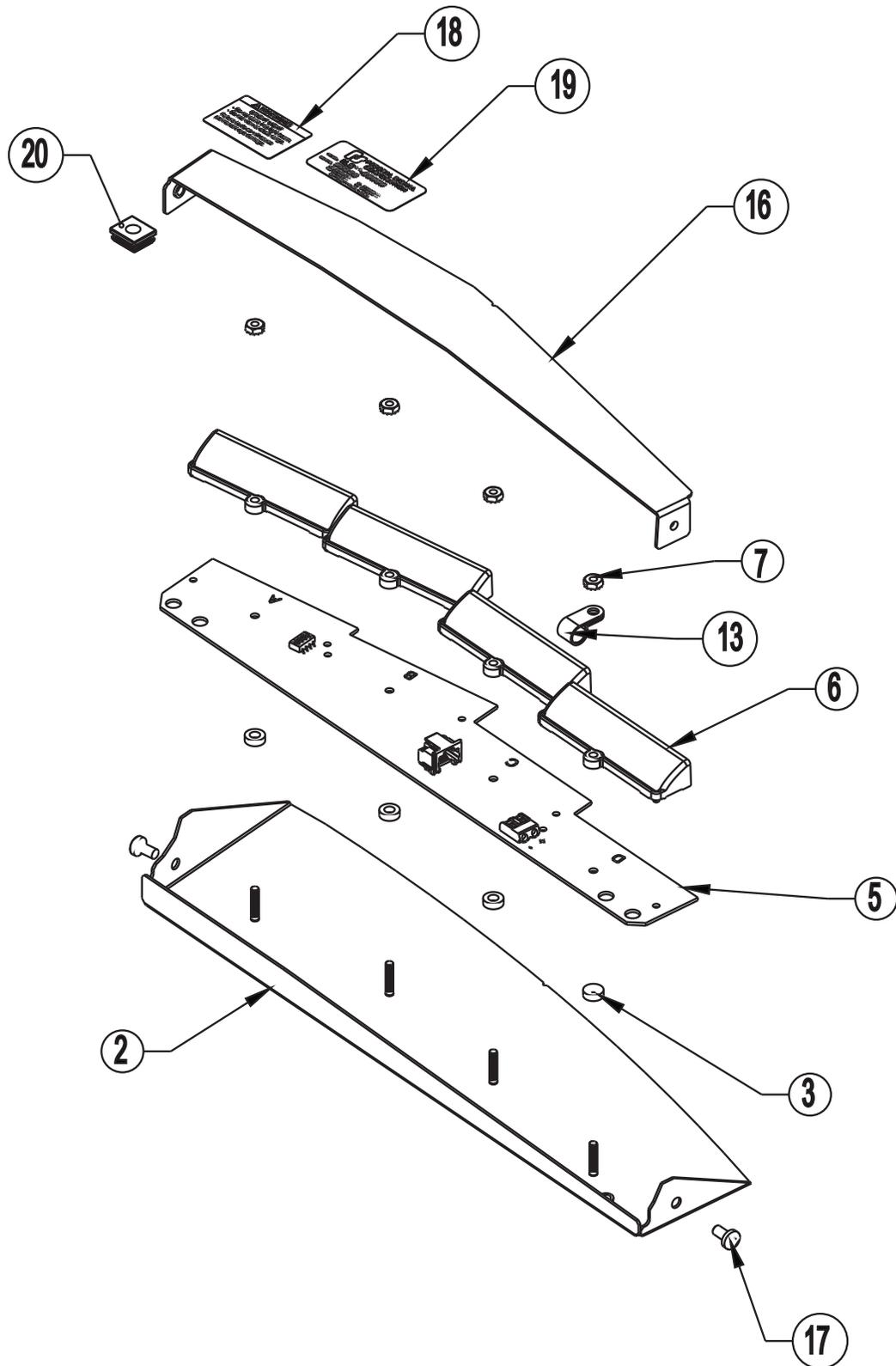
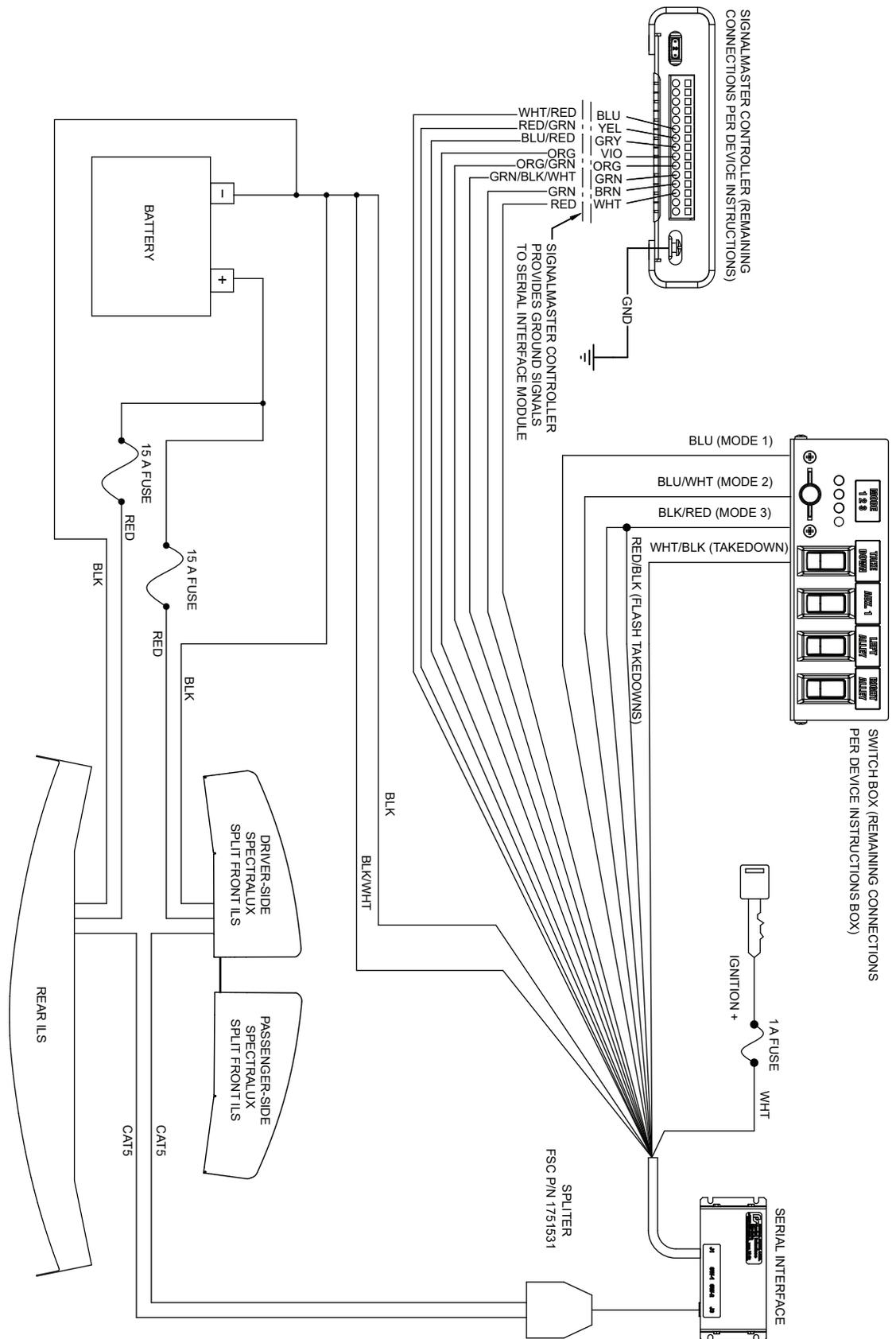


Figure 10 Typical connections with a SignalMaster® controller (external control)





FEDERAL SIGNAL
Safety and Security Systems

2645 Federal Signal Drive
University Park, Illinois 60484-3167

www.fedsig.com

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

Work Truck: 800-824-0254 • +1 708 534-3400

Technical Support 800-433-9132 • +1 708 534-3400