



**IMPORTANT NOTICE TO INSTALLER:** Make sure to read and understand all instructions and warnings before proceeding with the installation of this product. Ensure that the manual and any warning cards are delivered to the end user of this equipment. Proper installation of the lightbar requires the installer to have a thorough knowledge of automotive electronics, systems, and procedures. Lightbars provide an essential function of an effective visual warning system. The use of the lightbar does not insure that all drivers can or will abide by or react to an emergency warning signal, especially at high rates of speeds or long distances. The operator of the vehicle must never take the right of way for granted and it is the operator's responsibility to proceed safely. The effectiveness of the this lightbar is highly dependant on the correct mounting and wiring. The installer must read and follow the manufacturer's installation instructions and warnings in the manual. The vehicle operator should verify daily that the lightbar is securely fastened to the vehicle and properly functioning before operating vehicle. The lightbar is intended for use by authorized personnel only. It is the user's responsibility to ensure they understand and operate the emergency warning devices in compliance with the applicable city, state and federal laws and regulations. SoundOff Signal assumes no liability for any loss resulting from the use of this warning device.

**Components/Contents**

Standard Equipment:

- 1 - SKYFIRE™ LED Lightbar built to your specifications

Other Parts that may be included depending on your configuration:

- 1 - Vehicle Specific Hook Kit w/ Hardware\*
- 2 - Fixed Height Mounting Brackets w/ Hardware or
- 1 - Flat Mount Hardware Kit or
- 2 - Headache Brackets w/ Hardware

\*Kits will vary with each lightbar depending on vehicle specified on order form.

**Unpack Lightbar**

1. Remove the lightbar from box and packaging.
2. Save packaging for later shipping.
3. Check components/contents.
4. Please reference these instructions for proper wiring and installation.

**Tools Required for Installation**

- 1/2" Socket with ratchet or 1/2" box end
- Phillips Head Screwdriver

**Important Information:**

- Warning devices are strictly regulated and governed by Federal, State and Municipal ordinances. These devices shall be used ONLY on approved vehicles. It is the sole responsibility of the user of these devices to ensure compliance.
- DO NOT install this product or route any wires in the Air Bag Deployment Zone. Refer to your vehicle Owner's Manual for the location of any air bag deployment zones.
- DO NOT connect this device to a strobe power supply. This product is self-contained and does not require an external power supply.

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**INSTALLATION:**

- 1) Brackets are sold separately. Refer to specific bracket instructions for mounting.
- 2) Route wires to control box. **NOTE: Installation of this lightbar must NOT encroach on Air-Bag Deployment Zone.** If in doubt, installer should consult vehicle manufacturer.
- 3) Use a grommet (installer supplied) or other adequate protection to prevent wire from being abraded or damaged. Eliminate all sharp edges.

**⚠ WARNING**

This product contains high intensity LED devices. To prevent eye damage, DO NOT stare into the light beam at close range.

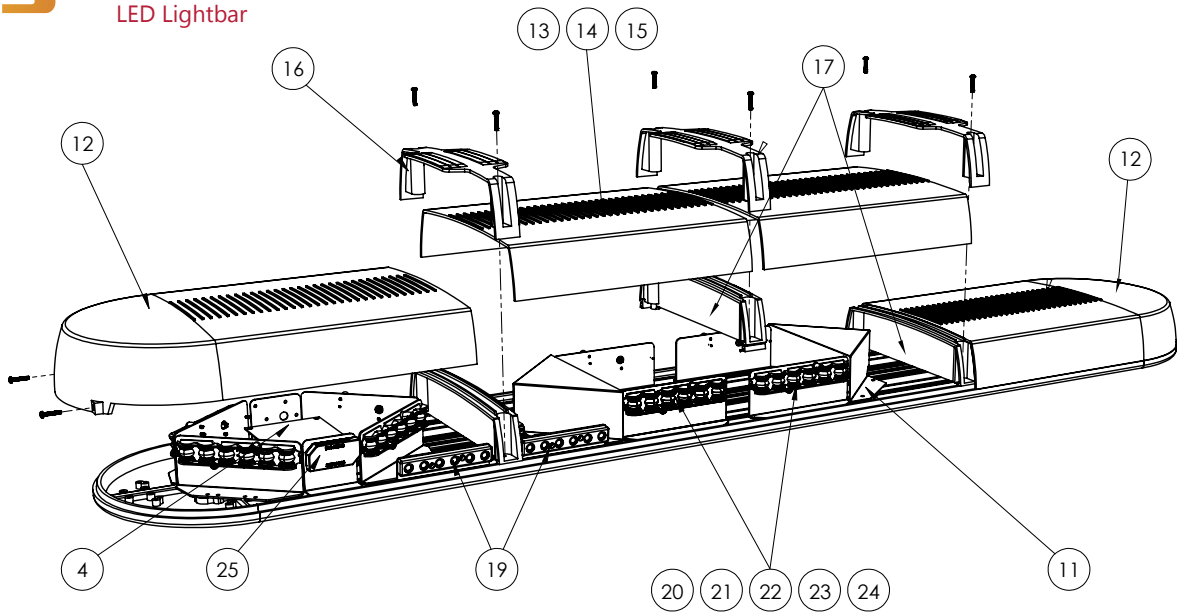
POWER SPECIFICATIONS			
Input Voltage Range:	10 -16 Vdc		
Current Draw in Amps (A) @ 12.8 Vdc:			
	Flashing	Steady On	Power Consumption
Warning Module	0.5A	1A	6 watts
Stop/Turn/Tail Module	Stop/Turn: 0.11 mA Tail: 25 mA	0.46 mA	Stop/Turn: 1.5 watts Tail: 0.3 watts
LED Take Down/Work Light	1A	1A	12.8 watts
Halogen Take Down/Work Light	2.6A	2.6A	35 watts

TECHNICAL SPECIFICATIONS	
Overall Dimensions:	3" (76 mm) H x 11.25" (29 cm) D Available Lengths: 48" (122 cm), 55" (140 cm) or 60" (152 cm)
Flash Patterns:	27 flash patterns
Input Voltage Range:	10-16 Vdc
Current Consumption:	<6 amps
Operating Temperature:	-40° to +70° C



To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product please visit our website. If you have questions regarding this product please contact Technical Services, Monday - Friday, 8 am to 5 pm at 1.800.338.7337, press #4 to skip the automated message. Questions or comments that do not require immediate attention may be emailed to [techsupport@soundoffsignal.com](mailto:techsupport@soundoffsignal.com).

1.800.338.7337. / [www.soundoffsignal.com](http://www.soundoffsignal.com) / Thank you for trusting us with your safety!



**Replacement Parts & Accessories:** \_\_\_\_\_

- #PESF1K00 ..... LOW PROFILE BRACKET (ea.)
- #PETLK06 ..... HEADACHE RACK BRACKET (ea.)
- #PESF1HK16..... FLAT MOUNT HARDWARE KIT
- ④ #PESF1E00 ..... MOTHERBOARD
- #PESF1HNLTD ..... LED TAKE DOWN/WORK LIGHT INTERNAL HARNESS
- #PESF1HNHTD ..... HALOGEN TAKE DOWN/WORK LIGHT HARNESS
- #PESF1HNST1 ..... HARNESS FOR STT MODULE (Wire Exit Side)
- #PESF1HNST2..... HARNESS FOR STT MODULE (Non-wire Exit Side)
- #PESF1HNCTD ..... 4 PIN LED TAKE DOWN/WORK LIGHT EXTERNAL CONTROL HARNESS
- #PESF1HNWM..... OPTIONAL WARNING MODULE HARNESS
- #PESF1SM1 ..... SMART MIRROR (1-piece)
- ①① #PESF1SM2 ..... SMART MIRROR (2-piece Diamond)
- ①② #PESF1ECD(x)\* ..... END CAP DOME - All Lengths
- ①③ #PESF1M48D(x)\* ..... CENTER DOME - 48"
- ①④ #PESF1M55D(x)\* ..... CENTER DOME - 55"
- ①⑤ #PESF1M60D(x)\* ..... CENTER DOME - 60"  
\*(x)=Dome color: C=Clear or R=Red
- ①⑥ #PESF1BRDC..... BRIDGE - Clear
- ①⑦ #PESF1DVDC..... DIVIDER - Clear
- #PESF1HH1C ..... HALOGEN TAKE DOWN/WORK LIGHT  
- Requires Harness #PESF1HNHTD
- ①⑨ #PESF1HL6W ..... LED TAKE DOWN/WORK LIGHT  
- Requires Harness #PESF1HLTD
- ②① #PESF1LS6A ..... LED WARNING MODULE - Amber
- ②② #PESF1LS6B..... LED WARNING MODULE - Blue
- ②③ #PESF1LS6G..... LED WARNING MODULE - Green
- ②④ #PESF1LS6R..... LED WARNING MODULE - Red
- ②⑤ #PESF1LS6W ..... LED WARNING MODULE - White
- ②⑥ #PESF1ST3R-D ..... LED STT MODULE w/ HARNESS - Red (Wire Exit Side)
- ②⑦ #PESF1ST3R-P ..... LED STT MODULE w/ HARNESS - Red (Non-wire Exit Side)

**Module Replacement or Reconfiguration:**

- 1) Remove outer dome & bridges as needed to access module location.
- 2) Remove unwanted module and install new module with screws provided.
- DO NOT OVERTIGHTEN SCREWS!  
TORQUE MUST NOT EXCEED 10 inch-pounds!**
- 4) Test new module for functionality.
- 5) Reassemble components.  
**DO NOT OVERTIGHTEN SCREWS!**



#ESF1000 Skyfire™ LED Lightbar

**To Program Warning Lights/Select Flash Patterns:**

All Warning lights are activated using the 12 conductor cable that exits the bar. All wire colors referenced in the below instructions refer to the 12 conductor cable.

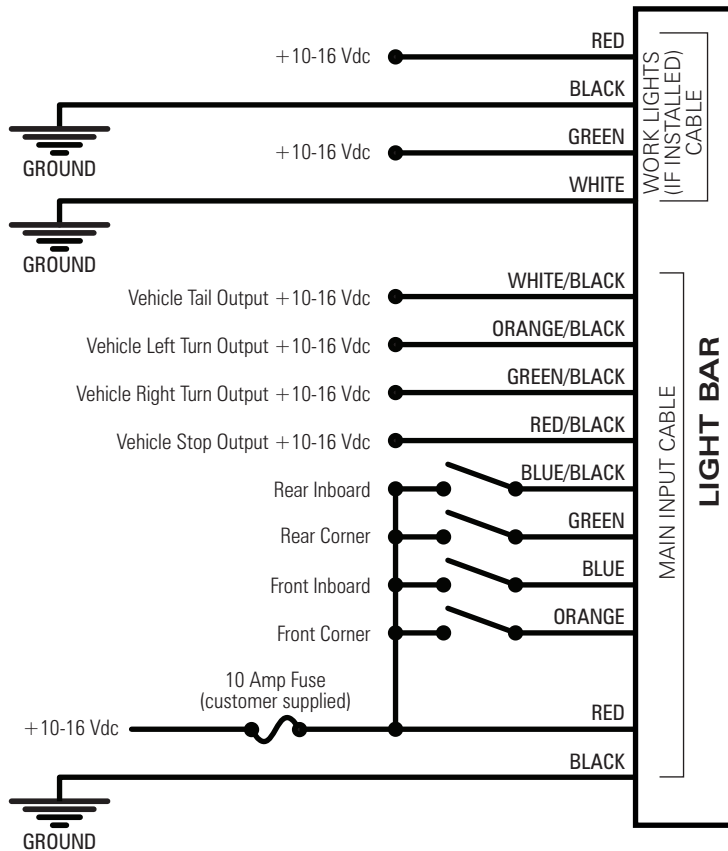
**For Complete Bar Simultaneous or Alternating Synchronized Patterns:**

1. Activate all WARNING modules by applying +10-16 Vdc to the RED, ORANGE, BLUE, GREEN and BLUE/BLACK wires. Apply BLACK wire to Ground.
2. Momentarily touching and removing the WHITE wire to ground for no more than one second will advance the lightbar to the next flash pattern. See flash pattern table provided below for complete list. Continuing to touch and remove the WHITE wire to ground will allow you to scroll through the pattern list. After the last pattern, #28 is reached the patterns will start over beginning at flash pattern #1.
3. To go back one flash pattern: Touch WHITE wire to ground for more than two seconds but less than five seconds.
4. To reset to flash pattern #1: Touch WHITE wire to ground for more than five seconds. Lightbar will reset to flash pattern #1 after five seconds.

**For Individual Corner and Inboard Simultaneous and Alternating Synchronized Patterns:**

1. Apply +10-16 Vdc to activate the desired WARNING modules using the activation wires outlined in the diagram provided.
2. Momentarily touching and removing the WHITE wire to ground for no more than one second will advance the modules to the next flash pattern. See flash pattern table provided below for complete list.
3. To go back one flash pattern: Touch WHITE wire to ground for more than two seconds but less than five seconds.
4. To reset to flash pattern #1: Touch WHITE wire to ground for more than five seconds. Lightbar will reset to flash pattern #1 after five seconds.

**NOTE:** SKYFIRE™ is equipped with Flash Pattern Recall. Once you have selected a pattern the lightbar will always activate to that pattern every time the unit is powered up. Remember to tape up and secure WHITE wire so that it will not accidentally change your selected pattern once set.



FLASH PATTERNS	
<b>Left against Right</b>	
1. Warp	6. ALTERNATING WARP 1, 2, 3
2. Quad	7. Alternating Progressive
3. Quad2	8. Q-Switch™
4. Quint	9. Intercycle
5. Double2	
<b>Whole Bar</b>	
10. Warp	14. Double2
11. Quad	15. Warp 1, 2, 3
12. Quad2	16. Solid Progressive
13. Quint	
<b>Criss-Cross Patterns</b>	
17. Warp	22. ALTERNATING WARP
18. Quad	23. Alternating Progressive
19. Quad2	24. Q-Switch™
20. Quint	25. Intercycle
21. Double2	
<b>Chase Patterns</b>	
26. Opposite Sides 1x1	
<b>Cycle Patterns</b>	
27. Solid On, three flashes	





#ESF1000 Skyfire™ LED Lightbar

**CLEANING & CARE OF YOUR LIGHTBAR:**

Keeping the lenses clean and scratch free will optimize the performance of the lightbar. The exterior of the lightbar including lenses should be cleaned with mild soapy water and a soft cotton cloth to remove dirt, grime and insects. Never use window cleaners or harsh chemicals on the lenses; this may cause failure of the lenses or reduce clarity resulting in the reduction of light output.

**MOUNTING INTEGRITY:**

A review of bolt/hardware/mounting bracket integrity should be performed at the beginning and end of each shift.

**WARNING MESSAGES - PLEASE READ:** \_\_\_\_\_

**WARNING - DRILLING ANY HOLES INTO THE LIGHTBAR IS NOT RECOMMENDED! THE RISK OF DAMAGING INTERNAL COMPONENTS AND THE RESULTING FAILURE OF THE LIGHTBAR WILL VOID ANY WARRANTY OF THIS PRODUCT.**

**WARNING - CARE MUST BE TAKEN WHEN DRILLING THROUGH THE ROOF OF THE VEHICLE NOT TO DRILL INTO ANY EXISTING WIRING AND NOT TO DRILL THROUGH THE HEADLINER OR SUPPORT MEMBERS OF THE VEHICLE. CHECK BOTH SIDES OF THE MOUNTING SERVICE PRIOR TO DRILLING. DE-BURR ANY HOLES AND REMOVE ANY METAL SHARDS OR REMNANTS. INSTALL GROMMETS INTO ALL WIRE PASSAGE HOLES.**

**WARNING - ROUTE WIRES ONLY IN LOCATIONS THAT ARE NOT SUBJECTED TO POTENTIAL WEAR. MAKE SURE TO AVOID ROUTING WIRES IN THE DEPLOYMENT AREA OF YOUR AIR BAG. REFER TO YOUR VEHICLE OWNER'S MANUAL FOR AIR BAG DEPLOYMENT ZONES.**

**WARNING - ALL CUSTOMER SUPPLIED POWER WIRES CONNECTING TO THE POSITIVE (+) OR NEGATIVE (-) BATTERY TERMINAL OR LOCAL CHASSIS GROUND (-) MUST BE SIZED TO SUPPLY AT LEAST 125% OF THE MAXIMUM CURRENT AND PROPERLY FUSED AT THE POWER SOURCE WITH APPROPRIATELY RATED FUSE.**

**IMPORTANT:** When passing cables through fire wall or other sheet metal, insert grommet to protect the cable!

**Warranty Return Process:**

Please contact your SoundOff Signal Sales Representative, Customer Services staff or our Technical Department (800.338.7337) for a RMA #, Return Merchandise Authorization Number.

The following information is required for issuance of the RMA #:

- Reason for returning the product\*
- Address where replacement product is to be shipped\*
- Telephone number where you may be reached\*
- SoundOff Signal invoice number on which product was purchased\*\*
- SoundOff Signal part number and serial number\*\*
- E-mail address where RMA # should be e-mailed\*\*
- Fax number where RMA # should be faxed\*\*

SoundOff Signal will NOT accept returns without an RMA #. Each RMA # is good for only one (1) item and will expire (10) days after the date it was issued. Products must be shipped back to SoundOff Signal and the RMA # clearly marked on the outside of the package near the shipping label. Please use the following address on your shipping label:

SoundOff Signal  
ATTN: RMA # / Technical Services  
3900 Central Parkway  
Hudsonville, MI 49426

**Warranty Exclusions:**

Shipping & Handling, labor and service fees are non-refundable. SoundOff Signal is not liable for any damage due to installation or personal injury as a result of using SoundOff Signal product.

**Warranty Forfeiture:**

Warranty will not be granted if the Warranty Return Policy & Procedure rules are not strictly followed. Physical damage resulting from customer abuse will void warranty. Warranty will also be voided if any SoundOff Signal and/or manufacturer serial tags, product stickers, seals, or the like, are removed, altered or tampered with. Returned product that is damaged by shipping via the RMA # procedure is not the responsibility of SoundOff Signal.

\* RMA # will not be given without this information.

\*\* If available, please provide this information.

Document effective date on cover and below supersedes previously dated policies and statements.

There are no other warranties, expressed or implied, including, but not limited to, any implied merchantability or fitness for a particular use. SoundOff Signal reserves the right to modify this warranty statement at any time; or to discontinue, modify, or upgrade any products of its manufacture with design improvements without prior notice.



To review our Limited Warranty Statement & Return Policy for this or any SoundOff Signal product please visit our website. If you have questions regarding this product please contact Technical Services, Monday - Friday, 8 am to 5 pm at 1.800.338.7337, press #4 to skip the automated message. Questions or comments that do not require immediate attention may be emailed to [techsupport@soundoffsignal.com](mailto:techsupport@soundoffsignal.com).

1.800.338.7337. / [www.soundoffsignal.com](http://www.soundoffsignal.com) / Thank you for trusting us with your safety!