



Installation and Operation Instructions

Light Module Replacement

Matrix® Compatible Lightbars

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.



WARNING!

Failure to install or use this product according to manufacturers recommendations may result in property damage, serious injury, and/or death to those you are seeking to protect!

 **Do not install and/or operate this safety product unless you have read and understood the safety information contained in this manual.**

1. Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the safety of emergency personnel and the public.
2. Emergency warning devices often require high electrical voltages and/or currents. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation is vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that they can operate the system without losing eye contact with the roadway.
5. It is the responsibility of the vehicle operator to ensure daily that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
6. The use of this or any other warning device does not ensure all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is the vehicle operator's responsibility to be sure they can proceed safely before entering an intersection, drive against traffic, respond at a high rate of speed, or walk on or around traffic lanes.
7. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding emergency warning devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.



CAUTION!

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

Removal:

1. Disconnect the lightbar system from power.
2. Identify the lens(es) to be removed - not all lenses need to be removed to access the internal components.
3. Unfasten the retaining clips, as seen in Figure 1, from the lens(es) of the lightbar. Set the clips aside so they can be used to reattach the lenses at the end of the process.



Figure 1

4. Carefully lift the lens(es) off the seal – choose a suitable location to temporarily store so as to not scratch the surface.
5. Locate the Light Module (LM) to be replaced.
6. Remove red Power Connection cable from back of LM. See various examples of LMs in Figures 2 and 3.

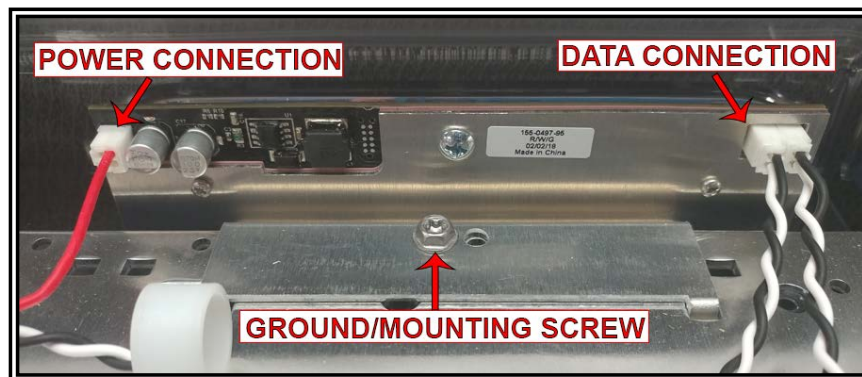


Figure 2

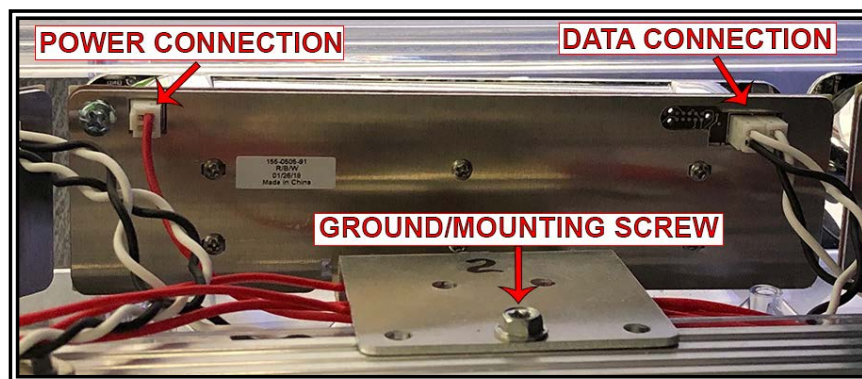


Figure 3

7. Remove black and white Data Connection cable(s), as seen in Figures 2 or 3, from back of LM. Some modules will only have one, some will have two.
8. Unscrew the ground/mounting screw as seen in Figures 2 and 3, and any additional mounting screws. Set the screw(s) aside. Additional replacement screws can be found with the LM packaging.
9. The LM should now be free to remove. Note placement of the bracket in the lightbar chassis: if only one LM is being replaced the replacement will need to match the orientation. Remove the LM from lightbar.

Installation:

1. Replace LM with new device. Ensure that bracket seats correctly in the lightbar chassis and that LM is oriented correctly.
2. Replace the ground/mounting screw and any additional mounting screws. Tighten to 18 IN-LB (2.0 N-M). Note: extruded aluminum can strip out. If it does, use alternate hole in bracket for mounting.
3. Reconnect the black and white Data Connection cable(s) to the LM using either of the two Data Connection ports as shown.
Note: there should be a continuous Data connection in sequence from the LBC to each LM in the bar.
4. Reconnect the red Power Connection cable to the LM.
5. Repeat from step one (1) as needed for any other replacements/retrofits
6. When reinstalling the lens(es), gently apply pressure around the upper lens taking care not to damage the seal around the lower lens set.
7. Reattach the retaining clips to fasten the upper lens to the lightbar.
8. Reapply power to the lightbar.
9. Apply Ignition to the central node to wake the system from the sleep state.
 - a. If only one (1) LM has been replaced with an identical module (color and type), the system will auto configure the new LM.
 - b. If more than one (1) LM has been replaced, or a LM of a different color and/or type has been replaced, the lightbar must be re-initialized using the Matrix Configurator. The lightbar will also need to be reconfigured if a non-default configuration is being used.

Note: Please ensure that no lightbar functions are activated by the Matrix network during lightbar configuration or re-initialization.

Troubleshooting:

Problem	Possible Cause(s)	Comments / Response
No Power	Power Wiring	Ensure that the red power connection(s) to the replacement LM(s) are secure.
No Communication	Connectivity	Ensure that the Data Connection cables between LM(s) form a continuous chain with the Light Bar Controller inside the bar and that all cables are properly seated.
	Ignition Input	An ignition wire input is first required to bring the central node out a sleep state. From that point, the central node controls the status of all other Matrix compatible devices, including the light bar. If the lightbar is actively communicating with the central node, you should see a flashing green STATUS LED on the light bar controller inside. See the installation manual of the customer selected central node for further troubleshooting of the ignition input.

Warranty:

Manufacturer Limited Warranty Policy:

Manufacturer warrants that on the date of purchase this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for Sixty (60) months from the date of purchase.

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Product Returns:

If a product must be returned for repair or replacement*, please contact our factory to obtain a Return Goods Authorization Number (RGA number) before you ship the product to Code 3®, Inc. Write the RGA number clearly on the package near the mailing label. Be sure you use sufficient packing materials to avoid damage to the product being returned while in transit.

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