FEDERAL SIGNAL CORPORATION
Emergency Products

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INSTALLATION AND MAINTENANCE INSTRUCTIONS FOR MICRO-ESCAPE™ LED LIGHTBARS

SAFETY MESSAGE TO INSTALLERS OF FEDERAL SIGNAL LIGHT SYSTEMS

⚠WARNING

People's lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- **To properly install a light assembly: you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.**
- **When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.**
- **A light system is a high current device. In order for it 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 will provide an effective ground path as long as the light system is to be used.**
- **Locate light system controls so the VEHICLE and CONTROLS can be operated safely under all driving conditions.**
- **You should frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.**
- **This product contains high output LED devices. To prevent permanent eye damage, do not stare into the light beam at close range.**
- **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 to you or others.

I. UNPACKING.

After unpacking the Escape lightbar, inspect it for damage that may have occurred in transit. If the unit has been damaged, 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.

II. INSTALLATION.

The lightbar is completely wired at the factory and does not require any additional internal wiring. All the conductors necessary for control of any and all basic and optional functions are contained in the cable.

The basic light functions of the unit are controlled by a flasher inside the lightbar. See table 1.

Before proceeding, ensure that the lightbar has been installed on the vehicle roof properly.

⚠WARNING

Light system controls must be located so that VEHICLE and CONTROLS can be operated safely under all driving conditions.

⚠CAUTION

Reverse polarity may damage the LED lights and prevent operation. Ensure that correct polarity is observed.

NOTE

The lightbar functions can be activated by applying 12VDC to the appropriate control line.

Table 1. Wiring for LED Lightbars.

Wire Color	*Functions*
RED	Power: +12V activates the primary mode.
BLACK	Ground (-): Connect to a good battery/chassis ground.
BROWN	Program: Applying ground (-) will increment the lightbar to the next pattern.
BRN/WHITE	Mode (Pattern Select): Applying +12V changes the lightbar's pattern to the pattern selected for the secondary mode. Only active if the lightbar is normally flashing in primary mode.
ORANGE	Power: +12V activates the smart head with "built-in" flasher.
GREEN	Not used.
GRAY	Not used.

III. TESTING.

⚠WARNING

This product contains high output LED devices. To prevent permanent eye damage, do not stare into the light beam at close range.

After installation, check the entire system to ensure the lights are functioning properly and siren/light system functions are operating properly.

IV. BASIC MAINTENANCE.

⚠WARNING

High voltages are present inside the lightbar. Wait at least ten (10) minutes, after shutting off power, before servicing this unit. Failure to do so may result in property damage, serious injury, or death to you or others.

Disconnect ALL power to the lightbar before any maintenance is performed.

⚠WARNING

Crazing (cracking) of domes will cause reduced effectiveness of light system. Do not use cleaning agents (which will cause crazing) such as strong detergents, solvents, or petroleum products. If crazing of domes does occur, reliability of light for emergency warning purposes may be reduced until domes are replaced.

Ordinary cleaning of the plastic domes can be accomplished by using mild soap and a soft rag. Should fine scratches or a haze appear on the domes, they can ordinarily be removed with a non-abrasive, high quality automotive paste wax.