

# TRAFFIC MASTER *Halogen* DIRECTIONAL SIGNAL BAR [ETTMH0]

Emergency warning devices often require high electrical voltages and/or currents. Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.

## INTRODUCTION

The TRAFFIC MASTER HALOGEN DIRECTIONAL SIGNAL is a revolutionary new emergency warning product. It is the **Highest Wattage** Traffic Directing device to be offered in a package small enough to mount to the back of a lightbar — or practically anywhere else.

Offering maximum light intensity with minimum power draw, the Traffic Master draws a maximum of 2.2 amps during its left / right sequential pattern. The solid state design and absence of moving parts make the Traffic Master virtually repair free. The low profile construction and universal mounting brackets allow connection to most lightbars without blocking the warning signal.

The Traffic Master Control Module delivers five (5) distinct warning patterns — Left Arrow, Right Arrow , Center Out, Flash Mode 1 and Flash Mode 2. High / Low Intensity Control and Fast / Slow Speed Control is also provided.

**INSTALLER:** This manual must be delivered to the end user of this equipment!

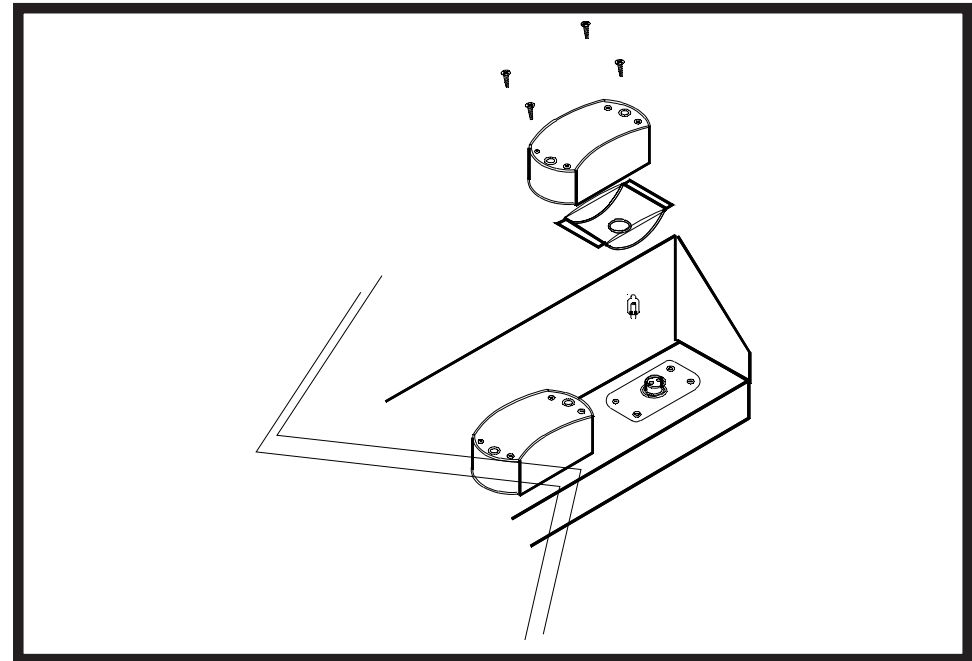


Figure 7

## REPLACEMENT PARTS

<u>Part #</u>	<u>Description</u>
ET2HLG40	Halogen Bulb
PETMLA-P	Traffic Master lense—Amber
PETMRS-P	Traffic Master Reflector
ETTMBRKT	Traffic Master Mounting Bracket

Any electronic device may create or be affected by electromagnetic interference. After installation of any electronic device operate all equipment simultaneously to insure that operation is free of interference. Never power emergency warning equipment from the same circuit or share the same ground circuit with radio communication equipment.

PROPER INSTALLATION COMBINED WITH OPERATOR TRAINING IN THE PROPER USE OF EMERGENCY WARNING DEVICES IS ESSENTIAL TO INSURE THE SAFETY OF EMERGENCY PERSONNEL AND THE PUBLIC.

### INSTALLATION AND MOUNTING

#### GENERAL

All devices should be mounted in accordance with the manufacturer’s instructions and securely fastened to vehicle elements of sufficient strength to withstand the forces applied to the device.

#### WIRING

Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g. 3M® Scotchlock type connectors). Route wiring using grommets and sealant when passing through compartment walls. High ambient temperatures (e.g. under-hood) will significantly reduce the current carrying capacity of wires, fuses, and circuit breakers. Use “SXL” type wire in engine compartment. Minimize the number of splices to reduce voltage drop. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.

Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity. Ground terminations should only be made to substantial chassis components, preferably directly to the vehicle battery.

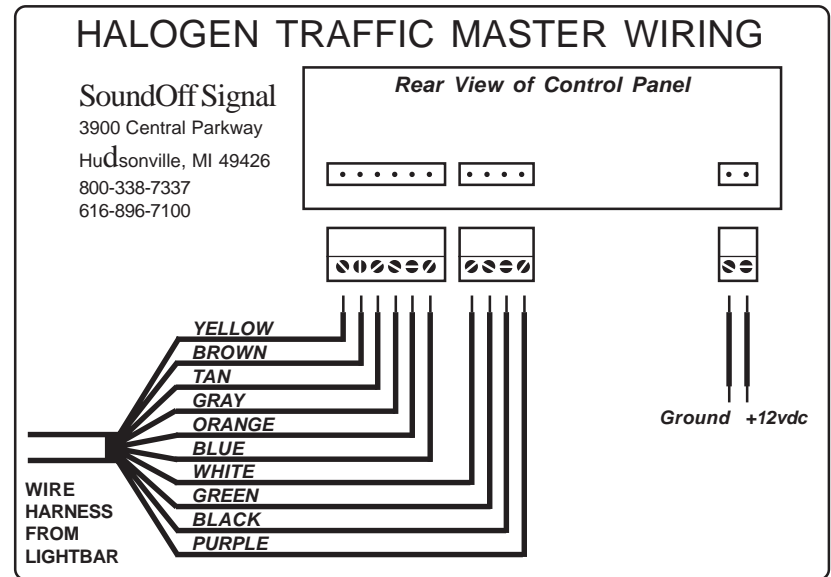


Figure 5 (Rear View of Control Module)

#### OPERATIONS

A five position rotary switch controls all of the Traffic Master’s primary functions. The Traffic Master Control Module faceplate is shown in Figure 6.

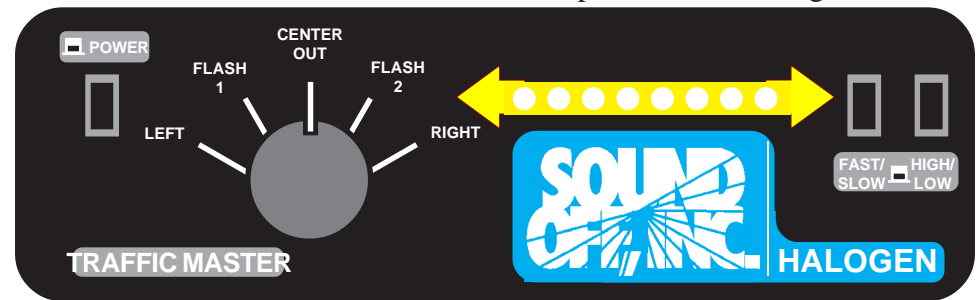


Figure 6

Your new Halogen Traffic Master is equipped with High / Low Intensity Control. This feature is activated by using the push button switch located at the far right of the control module faceplate. In addition, you fast / slow speed control to increase or decrease the flash pattern speed of your Traffic Master.

The LED’s on the control box mimic the actions of the Traffic Master to ensure proper selections and operation of the pattern chosen. If the Traffic Master is not functioning correctly, call the SoundOff Signal Technical Service Hotline at **(800) 338-7337**

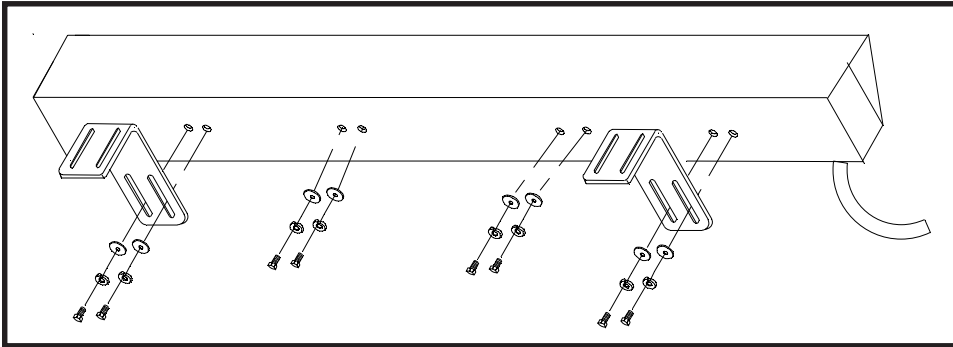


Figure 1

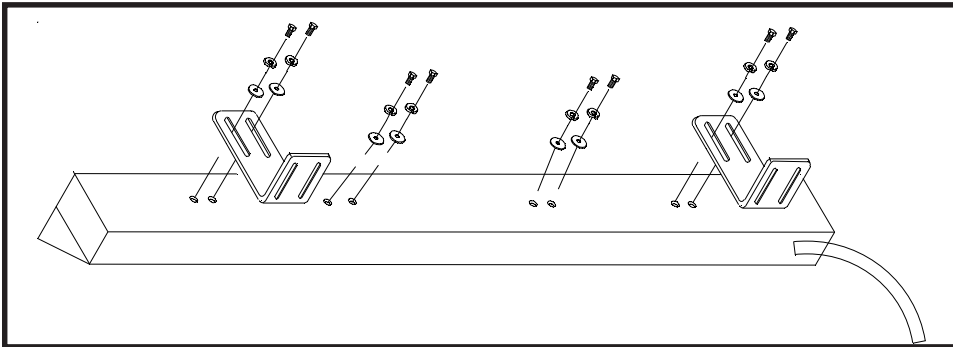


Figure 2

### **LIGHTBAR MOUNTING**

- 1) If a lightbar is already mounted on the vehicle, remove the lightbar from the vehicle roof and turn it upside down. Rest it on cloth or some other soft surface. It is not necessary to disconnect the wiring.
- 2) Mount the Traffic Master bracket on the front or rear of the Lightbar frame as desired. Use either existing holes in the lightbar frame, if available or drill holes as needed. NOTE: Remember to properly seal all holes made in any lightbar to prevent water damage. In some situations use of the plastic shims supplied in the parts bag will be required to ensure level mounting of the Traffic Master (refer to Figure3).

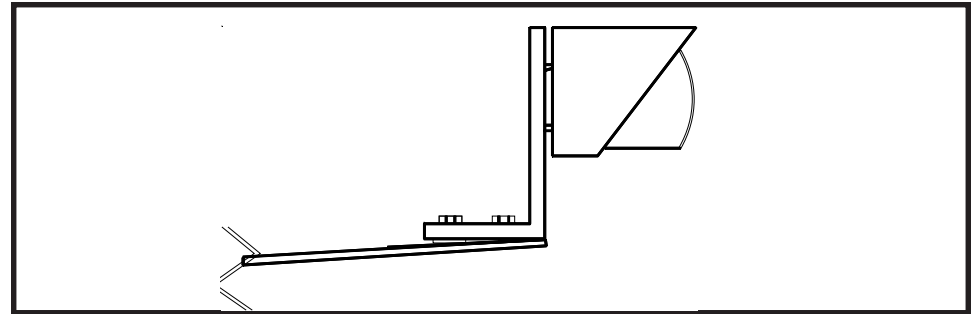


Figure 3

- 3) Turn the lightbar right side up and attach the Traffic Master to its mounting bracket as shown in Figure 4.

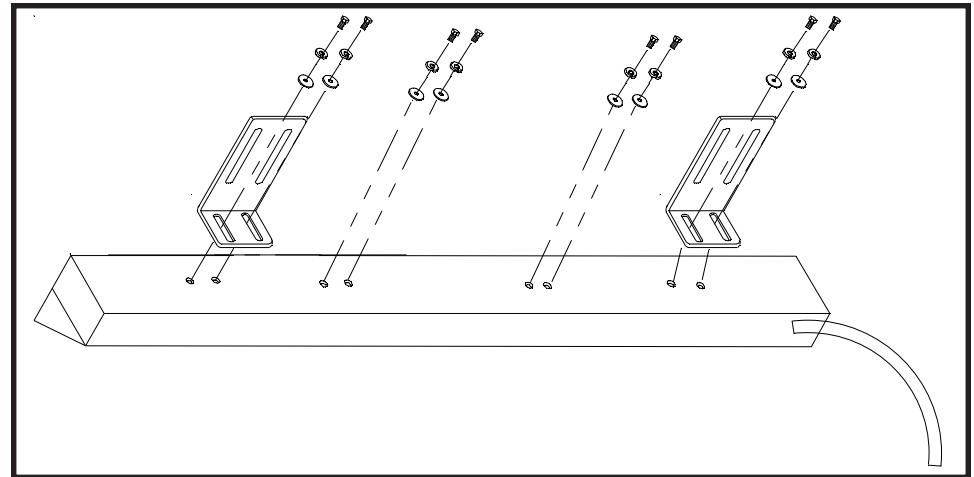


Figure 4

- 5) Put the lightbar on the vehicle roof making sure not to scratch the vehicle. Check for clearance below the lightbar as you proceed.
- 6) Reposition the lightbar and secure it to the vehicle.
- 7) Tighten the bolts that hold the Traffic Master mounting bracket to the lightbar, checking that the brackets are aligned with each other. Some bending of these brackets may be required to insure that the directional signal is level. Do so as needed.
- 8) Position the Traffic Master in the center of the vehicle and tighten the bolts that hold it to the mounting bracket.

**CONTROL MODULE WIRING**

NOTE: DO NOT USE FUSIBLE LINKS, CIRCUIT BREAKERS OR GLASS FUSES!!!

- 1) Choose the ideal mounting location for the Control Module. It fits into any standard vehicle console that is designed to hold radio or other electronic equipment. It also works well when mounted under the vehicle's dash.
- 2) Route a **14 awg** wire attached to a reliable ground source (the vehicle's battery is the ideal source). NEVER FEED RADIO EQUIPMENT WITH THE SAME GROUND CIRCUIT!!!! THIS CAN CAUSE ELECTROMAGNETIC INTERFERENCE WITH COMMUNICATION EQUIPMENT.
- 3) Route a **14 awg** wire attached to a power source (12vdc) (the vehicle's battery is again the ideal source. Place a 20 amp in-line blade type fuse on this circuit DO NOT USE FUSIBLE LINKS, CIRCUIT BREAKERS, OR GLASS FUSES!!!
- 4) Attach the power and ground wire to the appropriate pins in the 2 pin socket housing as shown in figure 5 (next page).
- 5) Attach the wires from the 12 wire harness into the appropriate 6 & 4 pin connectors as shown in figure. BE SURE TO PLACE THE PINS IN THE PROPER SEQUENCE!!!!
- 6) With the control module switched to the "off" position plug the two pin socket housing into the appropriate position in the rear of the control module.
- 7) Mount the Control Module in the selected location.

The user should install a fuse sized to approximately 125% of the maximum amp capacity in the supply line and each switched circuit to protect against short circuits. For example, a 30 Amp fuse should carry a maximum of 24 Amps. DO NOT USE 1/4" DIAMETER GLASS FUSES AS THEY ARE NOT SUITABLE FOR CONTINUOUS DUTY IN SIZES ABOVE 15 AMPS. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

Fuses should be located as close to the vehicle power takeoff points as possible and properly sized to protect the wiring devices.

**WARNING!:** Quartz Halogen lamps are extremely hot! Allow to cool completely before attempting to remove.

**FAILURE TO FOLLOW THE WARNINGS OR INSTALLATION AND USER INSTRUCTIONS CAN RESULT IN LOSS OF WARRANTY COVERAGE.**

The following installation instructions provide direction for mounting the Traffic Master to most Lightbar frames. Questions about a specific application should be directed to the Technical Hotline number given on the last page of this manual.

**PERMANENT MOUNTING**

Prior to mounting, consideration should be given to cable location and lamp replacement. the cable should exit the endcap on the driver's side unless otherwise specified. The lamp replacement procedure is explained in the Maintenance section of this manual.

The Traffic Master should be mounted using the "L" brackets which are provided. Follow the instructions below for specific mounting instructions. In addition note figures 1 & 2 relating to pendant mounting instructions and passenger vehicle rear-deck mounting instructions.

MAINTAINANCE

**WARNING!!!** Lamps are extremely hot! Allow to cool completely before attempting to remove. Gloves should be worn when handling Quartz Halogen Bulbs to protect hands from the effects of heat and to avoid potential cuts from shattering glass. In addition, the use of gloves is required for handling of all halogen bulbs as contaminants and oil from bare hands will destroy the bulbs.

The Traffic Master requires little routine maintenance. Occasional cleaning of the lens is all that is required to sustain maximum light output. Use plain water and a soft cloth, or lens polish and a very soft paper towel or facial tissue. Since plastic scratches easily, cleaning is recommended only when necessary. If a problem does develop, call the Technical Service Hotline.

**Changing the Quartz Halogen Bulbs**

(Refer to figure 7 next page)

- 1) Determine the location of the non-working bulb.
- 2) Remove the appropriate lense from the Traffic Master housing.
- 3) Using clean gloves or cloth, grasp the bulb and pull to remove from white socket..
- 4) Again, using clean gloves or cloth, replace with new bulb.
- 5) Make sure that the rubber gasket has sealed properly prior to re-attaching lens.

OVERVIEW

The use of this or any warning device does not insure that all drivers can or will observe or react to an emergency warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.

The effectiveness of this warning device is highly dependent upon correct mounting and wiring. Read and follow the manufacturer's instructions before installing or using this device. The vehicle operator should insure daily that all features of the device operate correctly. In use, the vehicle operator should insure the projection of the warning signal is not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions.

This equipment is intended for use by authorized personnel only. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should check all applicable city, state and federal laws and regulations.

SoundOff Signal assumes no liability for any loss resulting from the use of this warning device. Proper installation is vital to the performance of this warning device and the safe operation of the emergency vehicle. Warning devices should be installed in such a manner as to: A) Not reduce the output performance of the system, B) Place the controls within convenient reach of the operator so that he can operate the system without losing eye contact with the roadway. Halogen Bulbs are pressurized and under certain conditions may explode—be sure to wear eye protection when servicing!! **Never touch Halogen Bulbs with your bare hands.** Properly protect and use caution around live electrical connections. Grounding or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire. Quartz Halogen lamps can become extremely hot, allow to cool completely before attempting to remove.



MADE IN THE U.S.A.

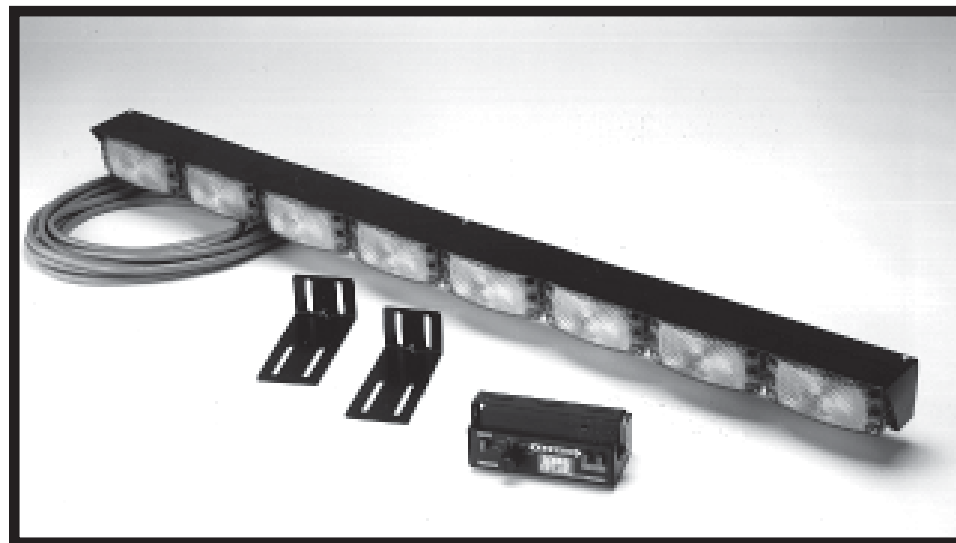
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# Traffic Master Halogen



# Installation/Operation Booklet