

WHELEN[®]

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Installation Guide:
Traffic Advisor™ System
Model(s): TA4437A, TA 4437M, TA4437L

Warnings to Installers

Whelen's emergency vehicle warning devices must be properly mounted and wired in order to be effective and safe. Read and follow all of Whelen's written instructions when installing or using this device. Emergency vehicles are often operated under high speed stressful conditions which must be accounted for when installing all emergency warning devices. Controls should be placed within convenient reach of the operator so that they can operate the system without taking their eyes off the roadway. Emergency warning devices can 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 vehicle damage, including fire. Many electronic devices used in emergency vehicles can create or be affected by electromagnetic interference. Therefore, after installation of any electronic device it is necessary to test all electronic equipment simultaneously to insure that they operate free of interference from other components within the vehicle. Never power emergency warning equipment from the same circuit or share the same grounding circuit with radio communication equipment. 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. Driver and/or passenger air bags (SRS) will affect the way equipment should be mounted. This device should be mounted by permanent installation and within the zones specified by the vehicle manufacturer, if any. Any device mounted in the deployment area of an air bag will damage or reduce the effectiveness of the air bag and may damage or dislodge the device. Installer must be sure that this device, its mounting hardware and electrical supply wiring does not interfere with the air bag or the SRS wiring or sensors. Mounting the unit inside the vehicle by a method other than permanent installation is not recommended as unit may become dislodged during swerving; sudden braking or collision. Failure to follow instructions can result in personal injury. Whelen assumes no liability for any loss resulting from the use of this warning device. **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.**

Warnings to Users

Whelen's emergency vehicle warning devices are intended to alert other operators and pedestrians to the presence and operation of emergency vehicles and personnel. However, the use of this or any other Whelen emergency warning device does not guarantee that you will have the right-of-way or that other drivers and pedestrians will properly heed an emergency warning signal. Never assume you have the right-of-way. It is your responsibility to proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes. Emergency vehicle warning devices should be tested on a daily basis to ensure that they operate properly. When in actual use, the operator must ensure that both visual and audible warnings are not blocked by vehicle components (i.e.: open trunks or compartment doors), people, vehicles, or other obstructions. It is the user's responsibility to understand and obey all laws regarding emergency warning devices. The user should be familiar with all applicable laws and regulations prior to the use of any emergency vehicle warning device. Whelen's audible warning devices are designed to project sound in a forward direction away from the vehicle occupants. However, because sustained periodic exposure to loud sounds can cause hearing loss, all audible warning devices should be installed and operated in accordance with the standards established by the National Fire Protection Association.

Safety First

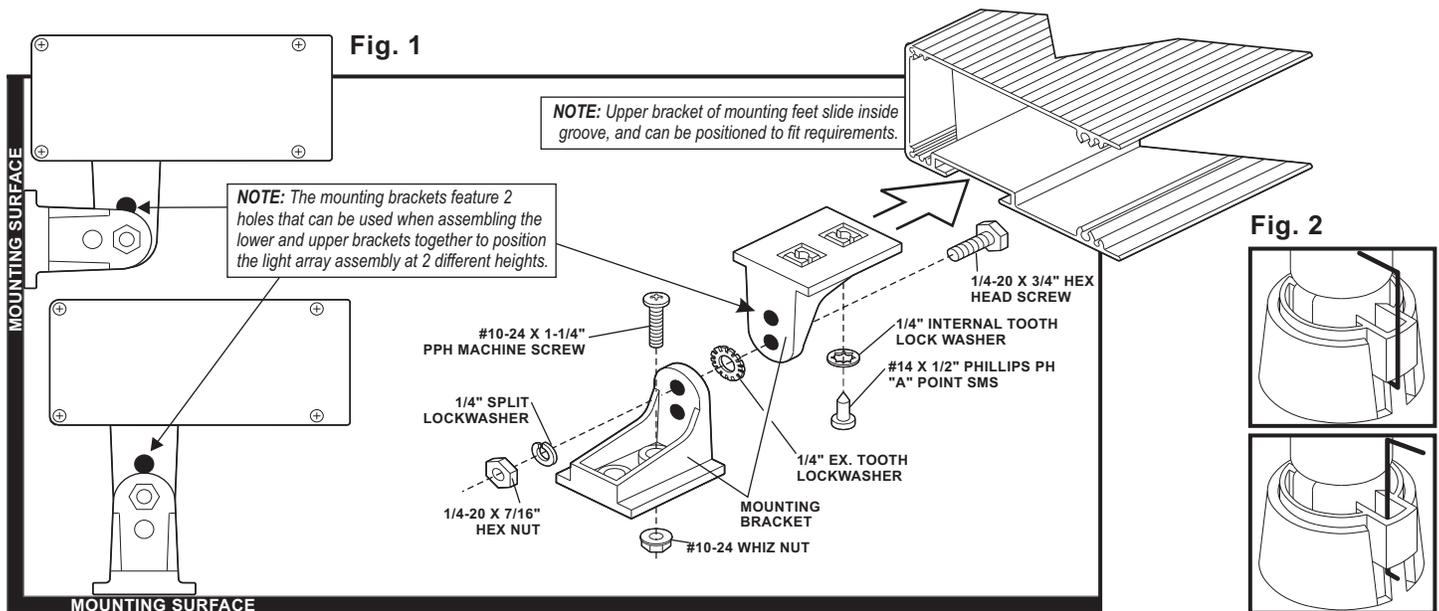
This document provides all the necessary information to allow your Whelen product to be properly and safely installed. Before beginning the installation and/or operation of your new product, the installation technician and operator must read this manual completely. Important information is contained herein that could prevent serious injury or damage.

- **Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.**
- **Whelen Engineering requires the use of waterproof butt splices and/or connectors if that connector could be exposed to moisture.**
- **Failure to use specified installation parts and/or hardware will void the product warranty.**
- **If mounting this product requires drilling holes, the installer MUST be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr the holes and remove any metal shards or remnants. Install grommets into all wire passage holes.**
- **If this manual states that this product may be mounted with suction cups, magnets, tape or Velcro®, clean the mounting surface with a 50/50 mix of isopropyl alcohol and water and dry thoroughly.**
- **Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area. The User/Installer assumes full responsibility to determine proper mounting location, based on providing ultimate safety to all passengers inside the vehicle.**
- **For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post (this does not include products that use cigar power cords).**
- **If this product uses a remote device for activation or control, make sure that this device is located in an area that allows both the vehicle and the device to be operated safely in any driving condition.**
- **Do not attempt to activate or control this device in a hazardous driving situation.**
- **This product contains either strobe light(s), halogen light(s), high-intensity LEDs or a combination of these lights. Do not stare directly into these lights. Momentary blindness and/or eye damage could result.**
- **Use only soap and water to clean the outer lens. Use of other chemicals could result in premature lens cracking (crazing) and discoloration. Lenses in this condition have significantly reduced effectiveness and should be replaced immediately. Inspect and operate this product regularly to confirm its proper operation and mounting condition. Do not use a pressure washer to clean this product.**
- **It is recommended that these instructions be stored in a safe place and referred to when performing maintenance and/or reinstallation of this product.**
- **FAILURE TO FOLLOW THESE SAFETY PRECAUTIONS AND INSTRUCTIONS COULD RESULT IN DAMAGE TO THE PRODUCT OR VEHICLE AND/OR SERIOUS INJURY TO YOU AND YOUR PASSENGERS!**

Installation: Mounting the Traffic Advisor™

Note: The mounting procedure shown here uses the optionally available mounting kit. If this kit is not used, it is the customer's responsibility to determine the best mounting method/style for their specific application.

1. Remove the two lower brackets of the mounting feet from the mounting kit and secure them to the upper brackets with the supplied hardware (Fig. 1).
2. Slide mounting feet to their desired position inside the groove in the extrusion and secure with supplied hardware.
3. Loosen the hex nuts holding the upper and lower brackets together and place the T/A in the desired position on the proposed mounting surface. Adjust the lower brackets of the mounting feet to rest firmly on the mounting surface and trace the outline of these brackets onto that surface. If the T/A power cable is to pass through the mounting surface, be sure to mark the area for this passage hole.



4. Remove the T/A from the mounting surface and separate the lower brackets of the mounting feet from the upper brackets. Align the lower brackets with the outlines traced in the previous step and trace the mounting hole locations onto the mounting surface. **Make sure that the lower bracket is facing in the same direction as it was when it was outlined on the mounting surface in step 3.**
5. Examine the back side of the mounting surface to insure that no damage will occur when drilling the mounting holes. Drill the mounting holes with a 7/32" drill. If a wire passage hole has been marked, drill the hole using a drill bit sized for the cable and a rubber grommet (customer supplied).
6. Secure the lower brackets to the mounting surface.
7. Lower the T/A assembly onto the two lower brackets and secure both brackets together with the supplied mounting hardware. Before tightening the upper and lower brackets together, adjust the T/A to an angle best suited to its mounting location.
8. Slide the cable through the wire passage hole and route the cable to the control head mounting location. Refer to your control head manual for wiring.

Wiring:

CAUTION: Do not connect the T/A System to power until the installation is completed. When servicing or troubleshooting always disconnect it from the power source.

Refer to the wiring diagram on the last page and wire as shown.

WARNING! All customer supplied wires that connect to the positive terminal of the battery must be sized to supply at least 125% of the maximum operating current and **FUSED** at the battery to carry that load. **DO NOT USE CIRCUIT BREAKERS WITH THIS PRODUCT!**

Servicing the Light Array:

1. Disconnect the lightbar from the power source and remove the end cap on the side that you wish to replace the lighthouse.
2. Slide the lighthouse you wish to replace out of the base (Fig. 3).

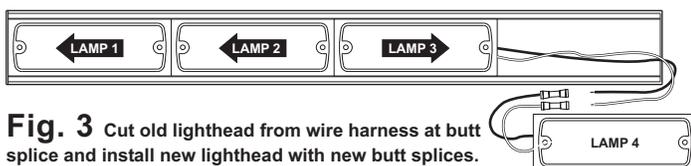


Fig. 3 Cut old lighthouse from wire harness at butt splice and install new lighthouse with new butt splices.

3. Cut the wires off of the old lighthouse (removing the old butt splice). Then, using a new butt splice, install the new lighthouse then slide the lighthouse(s) back into the base.

NOTE: Replacing a lens or halogen bulb does not require removing the lighthouse.

Halogen Bulb Replacement:

1. Remove the two lens screws and remove the lens.

CAUTION: To avoid personal injury, do not replace the lamp with your fingers. Use the lamp replacement tool supplied with spare lamp kits.

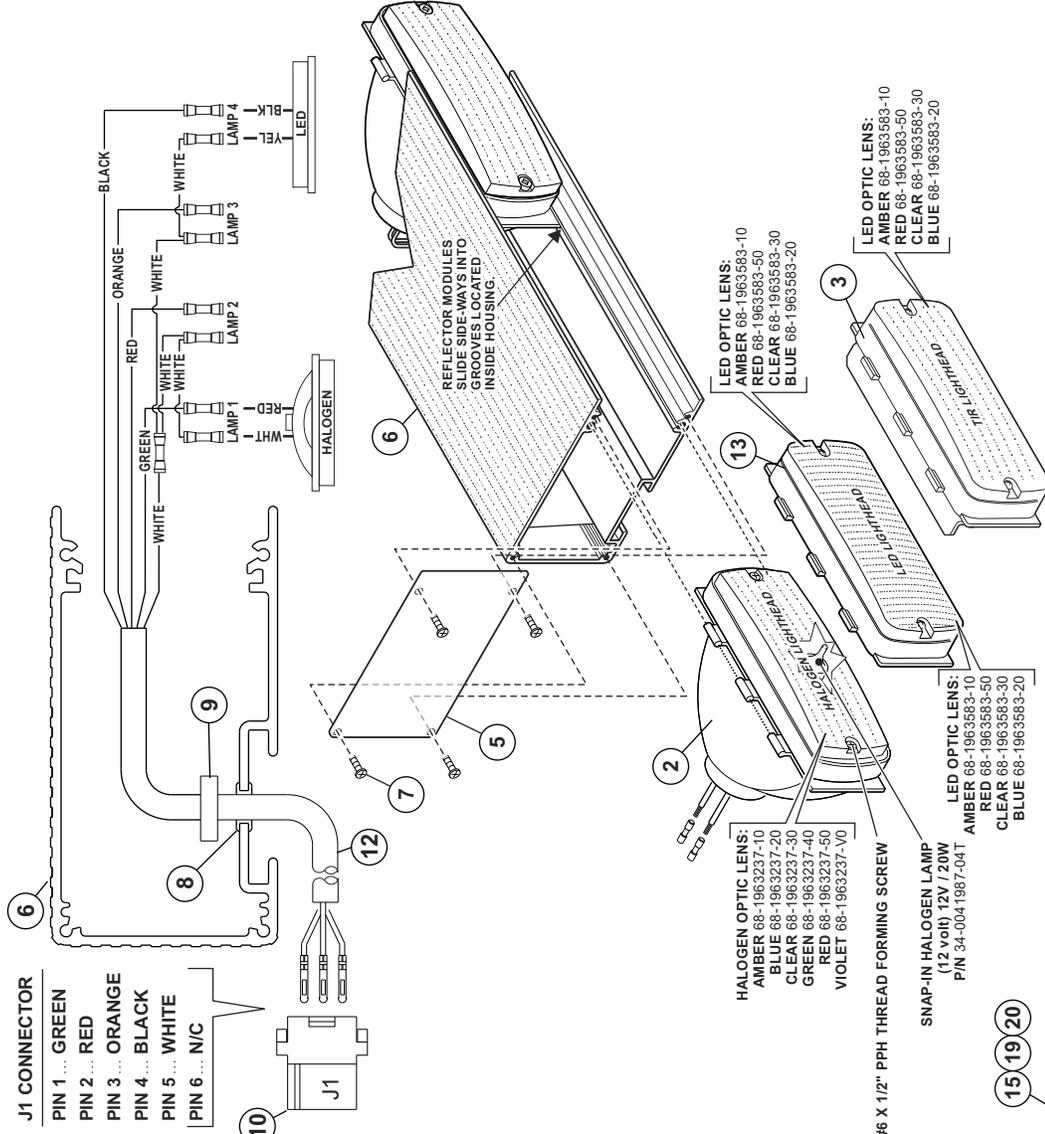
CAUTION: Replacing any bulb requires the use of safety glasses. Do not handle the bulb with bare hands. Use gloves.

2. Be sure the power is turned off. Locate the removal tool included with your new bulb. Use the small end of the tool to lift the base of the bulb assembly away from the socket until the bulb is free. Use either of the methods shown in Figure 2, depending upon application. Use a pair of pliers to hold the tool and aid bulb removal.
3. Insert the alignment tab of the new bulb into the bulb holder and press firmly into socket to lock the new bulb into place.
4. Wipe any finger prints from the glass bulb with a soft cloth or tissue. Replace lens and lens retaining screws.

TA4437A / TA4437M / TA4437L T.A. LIGHT ARRAY / PARTS LISTING

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
*	1		01-0683614-A4	TRAFFIC ADVISOR 4 HALOGEN 12VDC AMBER
*	1		01-0683614-MA4	TRAFFIC ADVISOR 4 TIR-SUPER LED 12VDC / AMBER
*	1		01-0683614-LA4	TRAFFIC ADVISOR 4 LED 12VDC / AMBER
A/R	A/R	1	01-0441769-01	MOUNTING KIT (OPTIONAL)
-	4	2	01-0683577-2A4	HALOGEN SNAP-IN 2 WIRE 2 POS 12V/20W AMBER
-	4	3	01-0263763-12	ASSY / TIR STEADY / AMB-AMB / 2 POS
1	1	4	46-0942424-00	INTERNAL HARNESS
2	2	5	11-241413-000	ENDCAP
1	1	6	11-463394-000	4 LIGHT HOUSING
8	8	7		SCREW / 6-32 X 1/2" PPHMS SELF TAP
1	1	8	21-11121603-0	GROMMET 3/8"
1	1	9	26-0121053-00	CABLE CLAMP
1	1	10	39-0406323-04	HOUSING / 6 POS PIN AMP
1	1	11	39-0408323-04	HOUSING / 8 POS SOCKET AMP
1	1	12	46-0746073-00	ASSY / INPUT CABLE
1	-	13	01-0363265-1A	ASSY / LED STEADY MAX / AMBER-AMBER

WIRING DIAGRAM - 4 LIGHT TRAFFIC ADVISOR™

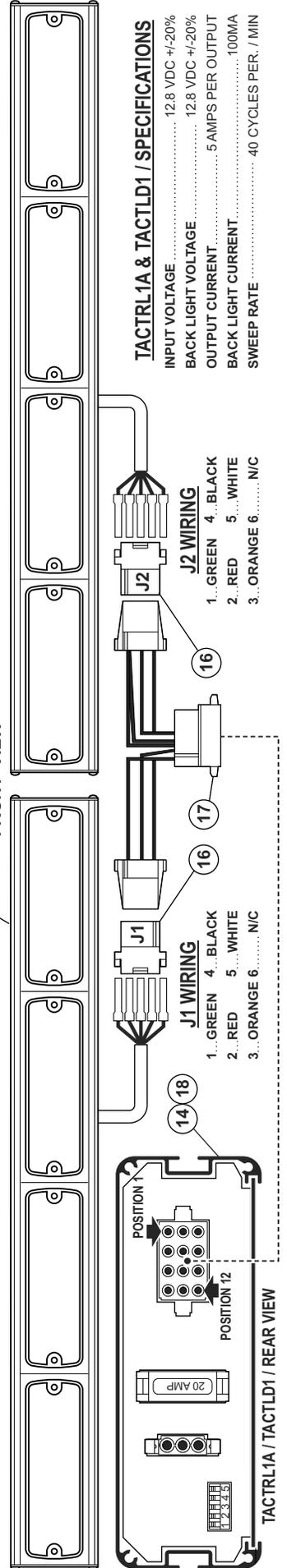


- J1 CONNECTOR**
- PIN 1 ... GREEN
 - PIN 2 ... RED
 - PIN 3 ... ORANGE
 - PIN 4 ... BLACK
 - PIN 5 ... WHITE
 - PIN 6 ... N/C

TA4437A / TA4437M / TA4437L T.A. SYSTEM / PARTS LISTING

QTY	QTY	ITEM	PART NUMBER	DESCRIPTION
*	1		01-0682970-01	TA4437M TIR TRAFFIC ADVISOR SYSTEM
*	1		01-0682970-00	TA4437A HALOGEN TRAFFIC ADVISOR SYSTEM
*	1		01-0682970-02	TA4437L LED TRAFFIC ADVISOR SYSTEM
-	1	14	01-0682340-00	TACTL1A CONTROL HEAD
-	2	15	01-0683614-A4	TA4437M LIGHT ARRAY / AMBER / HALOGEN / 12 VOLT
2	2	16	39-0406323-04	6 POS PIN HOUSING
1	1	17	46-0942423-00	INPUT CONNECTOR
1	-	18	01-0683850-00	TACTLD1 12V / LED CONTROL HEAD
-	2	19	01-0683614-MA4	TA4437M LIGHT ARRAY / AMBER / TIR / 12 VOLT
1	-	20	01-0683614-LA4	TA4437L LIGHT ARRAY / AMBER / LED / 12 VOLT

NOTE: If you are using a different control head from the one shown, refer to that control head's manual for connection and operational information.



- TACTL1A & TACTLD1 / SPECIFICATIONS**
- INPUT VOLTAGE 12.8 VDC +/-20%
 - BACK LIGHT VOLTAGE 12.8 VDC +/-20%
 - OUTPUT CURRENT 5 AMPS PER OUTPUT
 - BACK LIGHT CURRENT 100MA
 - SWEEP RATE 40 CYCLES PER. / MIN

- J2 WIRING**
- 1... GREEN
 - 2... RED
 - 3... ORANGE
 - 4... BLACK
 - 5... WHITE
 - 6... N/C

- J1 WIRING**
- 1... GREEN
 - 2... RED
 - 3... ORANGE
 - 4... BLACK
 - 5... WHITE
 - 6... N/C