

WHELEN[®]

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Installation Guide:
Traffic Advisor™ Control Head
Model TACTL5

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.

⚠ WARNING: This product can expose you to chemicals including Lead which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

- **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.**
- **Any holes, either created or utilized by this product, should be made both air- and watertight using a sealant recommended by your vehicle manufacturer.**
- **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!**

The TACTL5 is Traffic Advisor control head with features including:

- a Four-function Rotary Switch (Left Arrow, Right Arrow, Split Arrow, or Flash pattern).
- A Center-Off Rocker Switch, used to turn the unit on in either High or Low power mode.
- An LED status display that provides a visual indication of the current light pattern.
- An AUX On/Off switch that allows the operator to activate a remote device (10 Amp max).

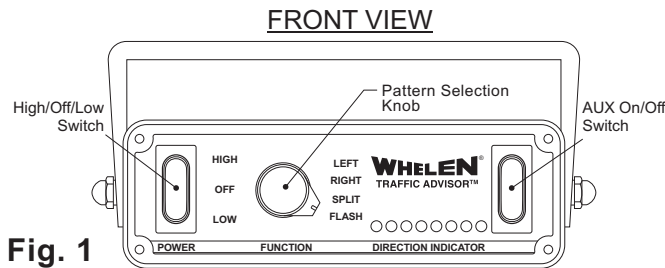


Fig. 1

Installation:

Mounting Control Head

1. Position the bail strap in the selected mounting location. Using an awl or other suitable tool, scribe the surface where the mounting hole are to be drilled.

CAUTION: As mounting the TACTL5 will require drilling, it is absolutely necessary to make sure that no other vehicle components could be damaged in the process. Check both sides of the mounting surface before starting and if damage is likely, select a different mounting location.

2. Carefully drill the mounting holes in the areas scribed in step one. The size of the drill bit should be determined by the size of the mounting hardware and the thickness of the mounting surface.
3. Using the supplied mounting hardware, secure the bail strap to the mounting location.

NOTE: There are two sets of holes on either side of the bail strap that can be used when installing the TACTL5, to position the control head at two different heights (see Fig. 2).

4. With the bail strap in place, insert the carriage bolt along with the external tooth lockwasher (supplied) into the assembly hole from the inner side of the Bail Strap as shown in Figure 2.
5. Place the split lockwasher and the acorn nut on the protruding bolt on the outer side of the bail strap. Loosely secure the acorn nut to the carriage bolt.
6. Now slide the control head onto the carriage bolts. Once it is in the position that the customer has chosen, tighten the acorn nuts until the unit is firmly secured.

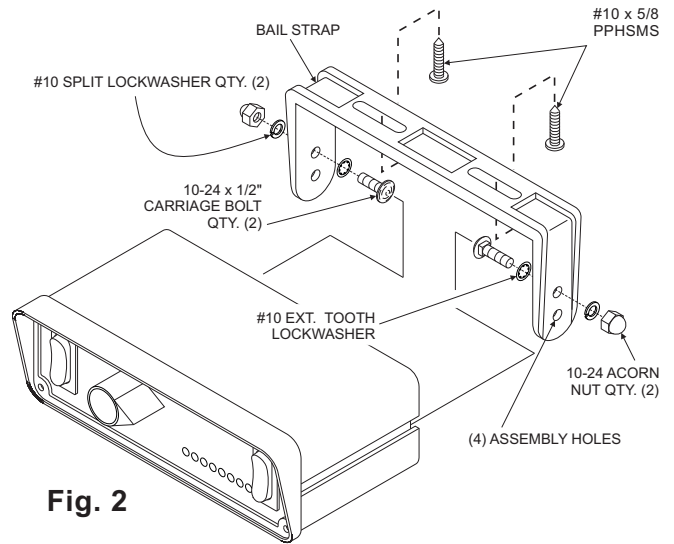


Fig. 2

Wiring the Traffic Advisor™ System

1. Locate the Main Power Connector and plug it into the back of the control head unit (see Fig. 3).
2. Extend the RED and BLACK wires to the battery.
3. Connect the RED wire to one end of a user supplied fuse block (see Fig 3). Do not connect this to the battery yet!
4. Connect the BLACK wire directly to the vehicle's chassis ground (typically adjacent to the battery).
5. Extend and connect the WHITE wire to the switch for the vehicle's back light control.
6. With the control head unit wired, route the cable from the TA to the control head.
7. Following the pin chart (Fig. 4), insert the contact wires into their given positions. Check the wires' retention fingers by pulling back on them with a force of 1 or 2 lbs. to confirm they are properly inserted into the connector. **NOTE:** Remote activation of this product is possible. Refer to the Pin Chart for details.
8. Plug the 12-position connector into the back of the control head unit.

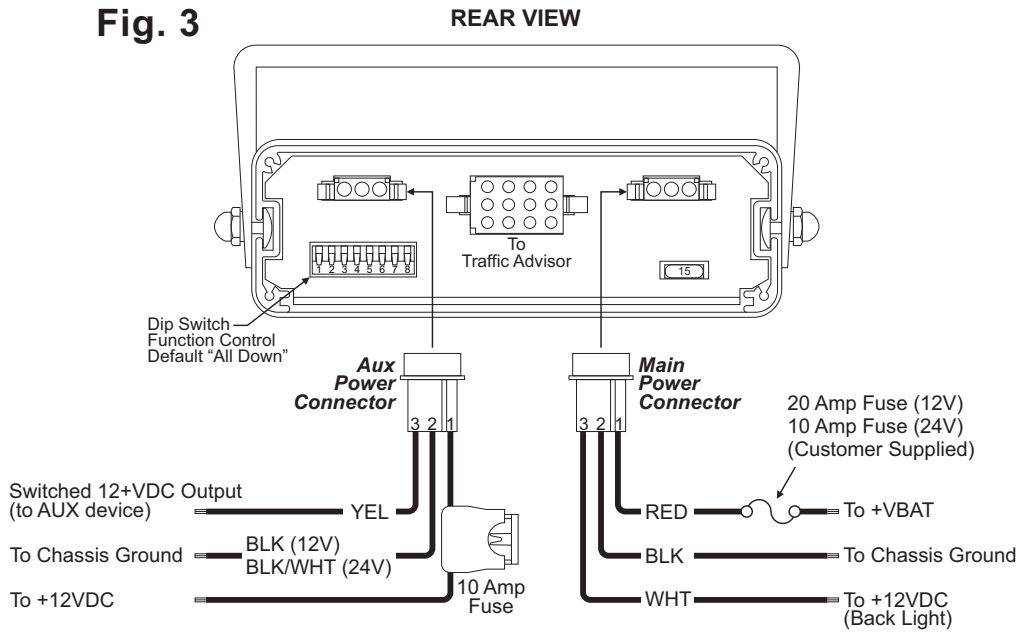
Note:

The installation of your Traffic Advisor System will be complete after the fuse block wire is connected to the POSITIVE (+) terminal of the battery. After this connection has been made, inspect the fuses at the control head and at the battery. If either of these fuses are blown, carefully inspect all of the circuit wires and make sure they are wire correctly. Replace the blown fuses with one of an identical amp rating as the original. If these fuses blow after installation or activation, contact Whelen Engineering Technical Support.

AUX Control

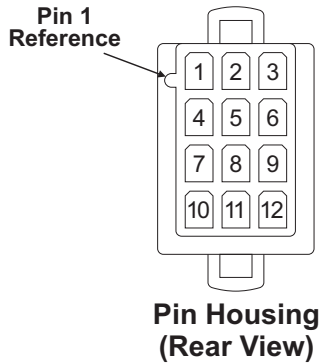
The TACTL5 may be used to provide switched, +12VDC to an Auxiliary device (10 amp max). See Fig.3 for wiring details. Refer to the instructions for your Auxiliary device for operating and wiring information.

Fig. 3



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 the load.

Fig. 4



PIN	TO:	WIRE	PIN	TO:	WIRE
1	LAMP 1	BROWN	7	LAMP 7	VIOLET
2	LAMP 2	RED	8	LAMP 8	GREY
3	LAMP 3	ORANGE	9	+BATTERY	WHITE
4	LAMP 4	YELLOW	10	N/C	N/C
5	LAMP 5	GREEN	11	N/C	N/C
6	LAMP 6	BLUE	12	REMOTE ACTIVATION*	WHT/BLU

* Remote Activation of your Traffic Advisor can be achieved by installing the WHT/BLU wire (provided) into position 12 of this connector and extending it to a switched, +12V circuit fused @ 3 Amps. Applying +12V to this wire will immediately activate the Traffic Advisor in FLASH mode, regardless of the rotor knob position.

The tables at the right shows how the TACTL5 dip switches are used to define your specific T/A characteristics, i.e.:

- The type of Traffic Advisor bar connected to the TACTL5
- The Pattern style.
- The Sequence style.

The default configuration setting (all switches **Down**), is as follows:

Dip Switches

- #1 & 2 8-Light Array
- #3 Traffic Advisor Bar
- #4 LED Lightheads
- #5 Action Flash
- #6, 7 & 8 Sequence On/Off

# OF LAMPS	DIP SWITCH	
	1	2
8	D	D
7	U	D
6	D	U
5	U	U

DIP SWITCH SETTINGS							
FUNCTION				DIP SWITCH			
SWITCH - UP	SWITCH - DOWN	3	4	5	6	7	8
ARROW TA BAR	TA BAR	U/D	-	-	-	-	-
HALOGEN	LED	-	U/D	-	-	-	-
MODU-FLASH	ACTION FLASH	-	-	U/D	-	-	-
SEQUENCE ON/OFF		-	-	-	D	D	D
SEQUENCE SOLID		-	-	-	U	D	D
1 LAMP SEQUENCE		-	-	-	D	U	D
2 LAMP SEQUENCE		-	-	-	U	U	D
3 LAMP SEQUENCE		-	-	-	D	D	U
CA SEQUENCE ON/OFF		-	-	-	U	D	U