



INSTALLATION & OPERATION MANUAL

T-REX™ Series Exterior Lights

The T-Rex™ Lights are for the emergency vehicle market. The lights are to be connected directly to +12 VDC systems for independent flashing or through electromechanical or solid state flasher units.



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

WARNING: The use of this or any warning device does not ensure 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. Code 3, Inc., 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. It is important to recognize that the operator of the emergency vehicle is under psychological and physiological stress caused by the emergency situation. The warning device 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. 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. 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.

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

Read all instructions and warnings before installing and using.

Unpacking & Pre-Installation: Carefully remove the hardware, taking care not to scratch the lens, and inspect for transit damage. Report any damage to the carrier and keep the shipping carton. Verify the contents of the package (refer to Table 1 and Figure 1). Test the lights before installation. To test, touch the black wire to the ground and the red wire to 12 VDC. If problems occur, contact the factory.

Installation & Mounting

1. Mark off and drill two mounting holes (#32) and the 1" wire hole on the vehicles mounting surface using the dimensions shown on Fig 2. Verify free clearance exists behind the mounting surface for wires and fasteners before drilling.
2. Install customer supplied grommet in the 1" diameter wire hole.

3. Route the vehicle power wires and allow a minimum of 3" of slack to protrude from the center opening at each light head location. Use 18 AWG for wires up to 40' length, 16 AWG for wires up to 70' length.
4. Refer to the section "Flash Pattern Selection" prior to finalizing the electrical connections. Prepare the vehicle power wires and the light heads wires with terminations of the customer's choice (not supplied) as follows: Red: +12 VDC, Black: Ground, White: Program, Purple or Blue: Sync. Waterproof connectors are recommended.
5. Route the power wires through the center opening of the bezel gasket (refer to Figure 1). Connect the light heads power wires (black and red) to the vehicle system's ground and positive (+12 VDC), respectively. **Seal or cap the end of the white wire to prevent inadvertent changes to the flash pattern.** To sync light heads, connect the purple wires together.
6. Verify proper light head operation by supplying electrical power to the system wires.
7. Push the assembled electrical connectors through the center opening and into the vehicle.
8. Secure the assembled light head to the vehicle using the two #6 screws. To ensure the unit is properly installed and seals properly seated, torque the screws as follows: 6 in-lbs to 13 in-lbs.

Parts List and Exploded Views

TABLE 1

Assembly (Fig 1)	1 Light Head	2 Outer Lens	3 Seal Lens	4 Black Bezel	5 Bezel Gasket	6 Mounting Screws
TRX6A (Amber)	-----	T52156	T52155	T52163	T52150	T15759
TRX6B (Blue)	-----					
TRX6R (Red)	-----					
TRX6W (White)	-----					
TRX6RA (Red/Amber)	-----					
TRX6RB (Red/Blue)	-----					
TRX6RW (Red/White)	-----					
TRX6BW (Blue/White)	-----					

Note: Units come standard with black bezels. Chrome bezels, pn T52162, can be ordered separately.

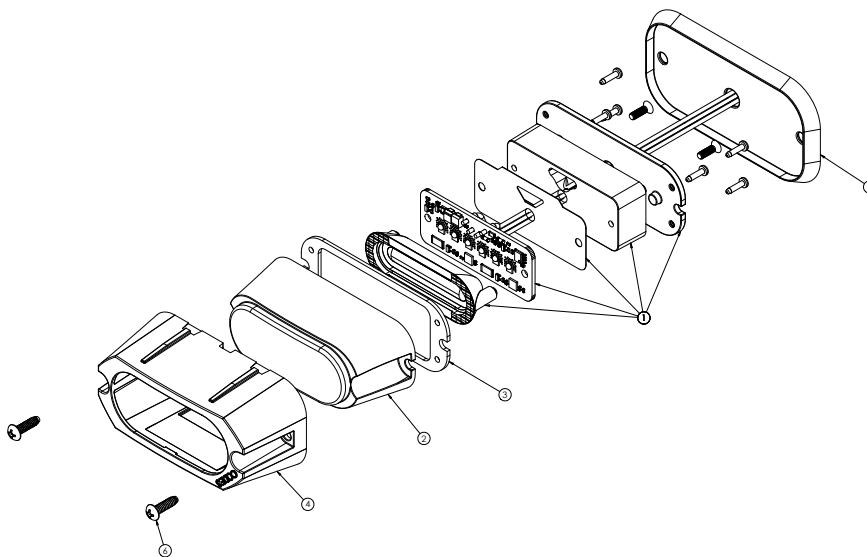


FIGURE 1

NOTE: It is acceptable to install the light without the Bezel Gasket (ref Figure 1).

Power Requirements

T-Rex™ 6 LED Light Head

CURRENT DRAW
Steady Burn (Peak)
0.60 amp average

Flash Pattern Selection

80FPM Quad Flash, Left/Right (Default)
80FPM Quad Flash, Solid
Steady Burn
75FPM Single Flash, Left/Right
75FPM Single Flash, Solid
150FPM Single Flash, Left/Right
150FPM Single Flash, Solid
75FPM Double Flash, Left/Right
75FPM Double Flash, Solid
150FPM Double Flash, Left/Right
150FPM Double Flash, Solid
75FPM Triple Flash, Left/Right
75FPM Triple Flash, Solid
150FPM Triple Flash, Left/Right
150FPM Triple Flash, Solid

75FPM Quad Pop Flash, Left/Right
75FPM Quad Pop Flash, Solid
150FPM Quad Pop Flash, Left/Right
150FPM Quad Pop Flash, Solid
Modular Flash, Left/Right
Modular Flash, Solid
75FPM Cycle Flash, Left/Right
75FPM Cycle Flash, Solid
150FPM Cycle Flash, Left/Right
150FPM Cycle Flash, Solid
Demo Mode, Left/Right
Demo Mode, Solid

To select a different flash pattern, apply +12 VDC to the red wire and connect the black wire to ground. Momentarily touch the white wire to ground to change to the next pattern. Cycle through the various patterns until the desired pattern is selected. To return to the default setting, hold the white wire to ground for approximately 3+ seconds. The unit will flash a couple of times then appear to turn off. Remove the white wire from ground and the unit will begin flashing in the default pattern. The unit will retain this pattern even when power is removed. For units that are flashed with an external control system such as a multiplexer or a flasher unit, the heads should be set to steady burn. It is suggested that all heads be set to the desired pattern at a workbench prior to installation.

Configuring Synchronized Lights to Alternate or “Wig Wag”

Multiple units can be configured to alternate or “wig wag” between each other without the use of a flasher:

Set the desired flash patterns on each unit.

Remove power from the units.

Reset the phase on one unit only by holding the pattern change wire (white) to ground and powering that unit up. The unit will flash once to indicate that the phase has changed.

Remove power from the unit.

Connect the purple sync wires between the two units.

Power both units up and they should now be flashing in an alternating or “wig wag” pattern.

Installation Template Dimensions

Do NOT scale from drawing supplied.

Use dimensions as indicated.

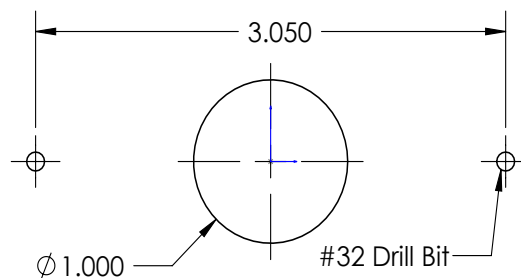


FIGURE 2

Maintenance

The bezel and outer lens are field removable for cleaning and replacement. Remove the components by unscrewing the two mounting screws. Use mild detergent, warm water and a soft cloth to clean both surfaces of the lens. Use of any other chemicals may void product warranty. Thoroughly dry before reinstalling.

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.

DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.

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This Limited Warranty defines specific legal rights. You may have other legal rights which vary from jurisdiction to jurisdiction. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages.

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.

*Code 3®, Inc. reserves the right to repair or replace at its discretion. Code 3®, Inc. assumes no responsibility or liability for expenses incurred for the removal and /or reinstallation of products requiring service and/or repair.; nor for the packaging, handling, and shipping; nor for the handling of products returned to sender after the service has been rendered.



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