



## **DLXTHR and DLXTHU**

(4" Round)

(Oval)

### **Auxiliary LED Warning Lights**



**Important:** This product is used to warn traffic. Improper use may result in vehicular collision, personal injury and/or death. Star Headlight & Lantern Co., Inc., and its subsidiaries shall not be held responsible for damages directly or indirectly caused by improper use of this product.

#### **LED FIVE YEAR LIMITED WARRANTY**

The manufacturer warrants this LED light against factory defects in material and workmanship for five years after the date of purchase. The owner will be responsible for returning to the Service Center any defective item(s) with the transportation costs prepaid. The manufacturer will, without charge, repair or replace at its option, products, or part(s), which its inspection determines to be defective. Repaired or replacement item(s) will be returned to the purchaser with transportation costs prepaid from the service point. A copy of the purchaser's receipt must be returned with the defective item(s) in order to qualify for the warranty coverage. Exclusions from this warranty include, but are not limited to, domes, and/or the finish. This warranty shall not apply to any light, which has been altered, such that in the manufacturer's judgment, the performance or reliability has been affected, or if any damage has resulted from abnormal use or service.

There are no warranties expressed or implied (including any warranty of merchantability or fitness), which extend this warranty period. **The loss of use of the product, loss of time, inconvenience, commercial loss or consequential damages, including costs of any labor, are not covered.** The manufacturer reserves the right to change the design of the product without assuming any obligation to modify any product previously manufactured.

This warranty gives you specific legal rights. You might also have additional rights that may vary from state to state. Some states do not allow limitations on how long an implied warranty lasts. Some states do not allow the exclusion or limitation of incidental or consequential damages. Therefore, the above limitation(s) or exclusion(s) may not apply to you.

If you have any questions concerning this or any other product, please contact our **Customer Service Department** at (585) 226-9787.

If a product must be returned for any reason, please contact our Customer Service Department to obtain a Returned Material Authorization number (RMA #) before you ship the product back. Please write the RMA # clearly on the package near the mailing label.

#### **NOTICE**

Due to continuous product improvements, we must reserve the right to change any specifications and information, contained in this manual at any time without notice. Star Headlight & Lantern Co., Inc. makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Star Headlight & Lantern Co., Inc. shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual.



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PLIT480 REV. E 10/7/20

## **Installation Notes**

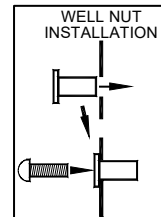
- Installer must have firm knowledge of vehicle electrical systems & emergency equipment. **It is the sole responsibility of the installer to ensure the warning light is secure. The manufacturer assumes no responsibility for the secure mounting of this light.**
- If you need to drill any holes when installing this light, please take care to check that BOTH SIDES of your drilling surface are clear from obstructions.
- Choose a mounting location away from any air bag deployment areas.
- Controls should be placed within convenient reach of the driver.
- Use only soap and water when cleaning product. Use of other chemicals may discolor lens and/or housing, diminishing light output. Replace discolored lenses immediately!

## **Mounting Instructions**

**Please Note:** These instructions are provided as a general guideline only. **Some vehicles may require special mounting, wiring, and/or weather-sealing. This is the sole responsibility of the installer.** Star Headlight & Lantern Co., Inc. assumes no responsibility for the integrity of the installation for this or any of its products.

### ***DLXTHR-1 (4" Round) and DLXTHU-1 (Oval)***

1. Review the mounting diagram at the bottom of the next page.
  - Use the #6 x 3/4" self tapping screws for applications where the mounting surface is a minimum of .060" (1/16") thick and is composed of a material that will provide sufficient "bite" for the self tapping screw.
  - Use the #6-32 x 1/2" machine screws and well nuts if your surface is less than .060" thick and/or composed of a material insufficient for securing a self tapping screws.
2. Use the gasket as a template to mark the mounting and wire holes and drill them with the appropriate sized bit.
  - #36 (0.1065") Drill Bit for Self -Tapping Screw Holes
  - Drill 5/16" Holes if Using Rubber Well Nuts
  - Drill a 3/8" hole for the wires.
3. Route the wires as shown on the next page.
4. Seal the wire hole with silicone to prevent your wires from becoming damaged.
5. *If you are using the well nuts*, push the enclosed rubber well nuts through the holes until the bottom side of the wider lip rests on the surface of the vehicle.
6. Review the mounting diagram and use the appropriate screws to mount the bezel.
  - **Check the gasket to ensure it is resting flat and that there are no gaps between the light and the mounting surface.**
  - **Take extreme caution not to over tighten the screws!!! Over tightening of the screws can strip the holes and result in a faulty mount.**
7. Once the bezel is firmly attached to the mounting surface, seat the foam compression gasket inside of it. Carefully feed any loose wire into the wire hole and press the LED head into the bezel taking care to ensure the text "TOP" is located at the top.



**DLXTHR-4, DLXTHU-4, and DLXTHR-5**



These models are designed to fit into the standard 4½" round or oval mounting holes that are common to most commercial vehicles.

**Rubber Grommet**

1. Insert the rubber grommet into the mounting hole.
2. Snap the light into the grommet taking care to ensure the text "TOP" is located at the top (round only).

**Chrome Ring**

1. Insert the light into the chrome ring.
2. Snap the light/ring assembly into the mounting hole taking care to ensure the text "TOP" is located at the top.

**Electrical Connections**



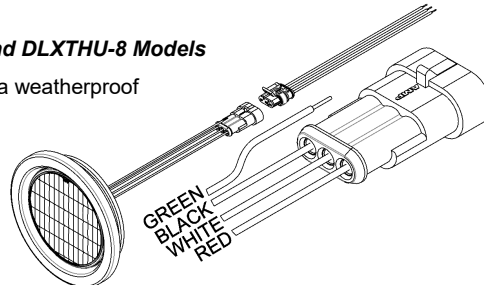
When wiring your lights, it is recommended that you take the following precautions to reduce any Electromagnetic Interference (EMI).

- Keep LED modules and any radios as far away from each other as possible.
- Separate the radio wires and the LED wires.
- Any excess wires should be cut short.
- The Ground wire, Power wire, and Synchronization wire should be bound tightly together as they run from light to light, through your switchbox, and to the battery.
- Do not ground each unit independently to the chassis. Run the ground for each unit in a "bus" like structure, to the negative terminal on the battery.

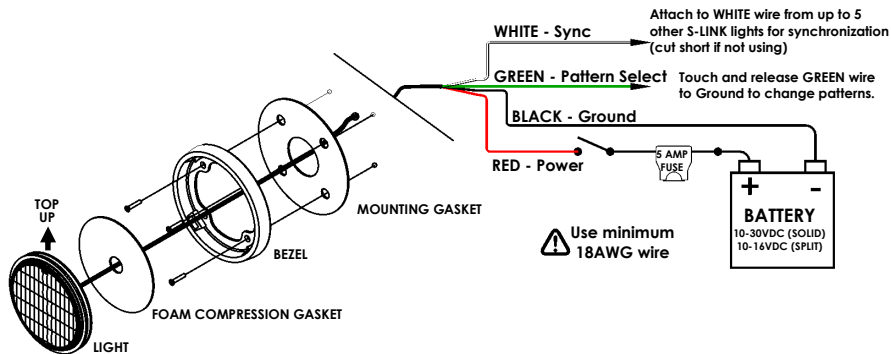
**Note:** The total wire length between the two farthest units should be no more than 40 feet.

**DLXTHR-2, DLXTHU-2, DLXTHR-8, and DLXTHU-8 Models**

- These models come equipped with a weatherproof connector pre-installed on the head.
- The mating connector with leads is also supplied.
- Connections and programming are the same as the models without the connectors.




*These heads are NOT synchronizable with the older LDHEF heads.*



## Programming

Touch and release the Green wire to ground to scroll through the patterns.

### SYNCHRONIZATION

You can synchronize up to six lights with  compatibility.

**DO NOT CONNECT WHITE WIRES UNTIL PROGRAMMING HAS BEEN COMPLETED FOR ALL LIGHTS!!**

1. Power up the first unit and select a Phase 1 pattern. Touch and release the green wire to ground to change patterns.


2. Program the second light with the same **Pattern Type**.

Lights with the SAME phase flash together (simultaneous).

Lights with DIFFERENT phases flash opposite one another (alternate).

3. After programming all lights, tie off the green wires and connect the white wires together.

4. Test lights by applying power to all of them at the same time.

Phase 1 Flash Pattern	Phase 2 Flash Pattern	Pattern Type	 Pattern Description	Shortcut
1	13	K	Flicker (1.0 CPS) †	← Pattern 1 (Phase 1): 3 sec or 1 flash
2	14	L	Fast Doubleflash (3.3 CPS)	
3	15	M	Tripleflash (2.5 CPS)	
4	16	N	PSU Flicker (0.7 CPS)	← Pattern 13 (Phase 2): 9 sec or 3 flashes
5	17	O	PSU Random (0.6 CPS)	
6	18	F	Quadflash (1.0 CPS) †	← Pattern 6 (Phase 1): 6 Sec or 2 flash
7	19	G	Quadflash w/Post-Pop (1.0 CPS)	
8	20	H	Singleflash (1.0 CPS) †	
9	21	I	Doubleflash (1.0 CPS) †	← Pattern 18 (Phase 2): 12 sec or 4 flashes
10	22	J	Variable AKA Delta-Omega	
11	23	C	Post pop(1.4 CPS)	
12	24	E	Random (0.4 CPS)	
N/A			Steady (see below)	18 sec or 6 flashes

† - Approved patterns for SAE J595 when properly configured

### SOLID/SPLIT MODES

Single color lights come programmed for Solid mode (entire light flashes together). Two color lights come programmed for Split Mode (two halves of the light flash back and forth). If you wish to change the mode, proceed below.

1. Connect BOTH the Black and Green Wire to Ground
2. Connect BOTH the Red and White wire to Power.
3. **Solid Mode** - Release the Green wire after the light flashes once.  
**Split Mode** - Release the Green wire after four flashes.

### STEADY BURN MODE

1. Power the light up: **Red** to power - **Black** to ground
2. Touch and hold the Green wire to Ground until the light blinks 6 times (approximately 18 seconds), then release it.

For lights in Solid Mode, the entire light should illuminate steady burn.

For lights in Split Mode, one half will become steady, the other will flash.

- To change the flashing pattern, touch and release the Green wire to Ground.
- To flip-flop the steady side and the flashing sides, hold the Green wire to Ground until the light flashes 5 times (approximately 15 seconds) and then release it.

3. To exit Steady burn pattern:

**Single Color Lights** - Touch and release the Green wire to Ground.

**Dual Color Lights** - Touch and hold the Green wire to Ground until the light blinks six times (approximately 18 seconds).