

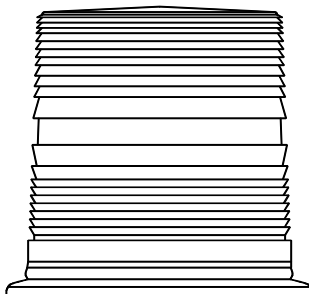
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# INSTALLATION AND INSTRUCTION MANUAL

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## 257HET Series 360° LED Lights

featuring the



**IMPORTANT:** Please read all of the following instructions before installing your new warning light.

### 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 Star 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 Materials Authorization number (RMA #) before you ship the product to Star. Please write the RMA # clearly on the package near the mailing label.



**Star Headlight & Lantern Co., Inc.**

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PLIT467 REV. B 5/22/12

## Permanent Mounting

1. Your new warning light comes complete with one foam mounting gasket, one wire grommet, two wire splicing terminals, three mounting screws, three lock washers, and three hex nuts.
2. These warning lights come equipped with a combination base, allowing the light to be mounted on either a 1" NPT conduit pipe or permanently mounted. For NPT pipe, mount the light using the threaded entrance hole in the base of the light, and then skip to the Wiring Instructions below. For the permanent mount, proceed to Step 3.
3. Before installing this light onto a flat surface, it is recommended that you seal up the pipe mount hole with a small amount of RTV. This will help prevent water damage.
4. Using the base as a template, mark three holes (on a 2.975" radius) on the mounting surface. Take care to ensure that the base does not move while you are marking the three holes.
5. Remove the base and drill a 7/32" hole in the marked spots.  
**CAUTION:** Take care not to drill through the headliner of the vehicle below.
6. **If your wires will not be routed through the mounting surface skip to Step 8.** If you are routing your wires through the mounting surface, then drill a 3/8" hole in the center to route the wires through.
7. Insert the enclosed rubber wire grommet into the center hole. Remove the headliner from the inside of the vehicle. Place the light on the surface of the vehicle, and route the wires through the grommet.
8. Align the outer holes of the base with the holes in the mounting surface, install the screws and nuts, and tighten until snug.

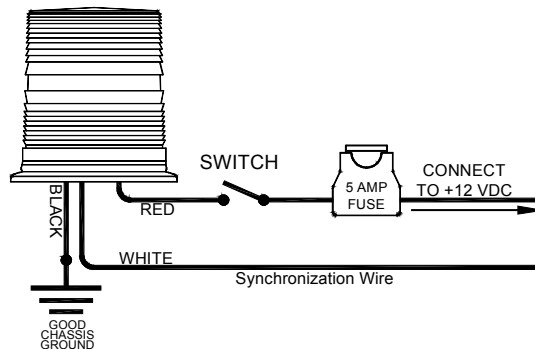
## Wiring Instructions

**CAUTION:** All of our DC powered warning lights are polarity sensitive. These lights are polarity protected *only if the appropriate fuse is used*. All wires connected to the positive terminal of the battery should be fused at the battery for their rated load. **Testing the light before this fuse is properly installed will void the warranty on the light.**

**Black:** wire is the ground lead and should be connected to a good chassis ground.

**Red:** Connect the red wire to the positive side of your power source (+12-24VDC) through a switch and a 5 Amp fuse. *Be sure to check your light for proper voltage.*

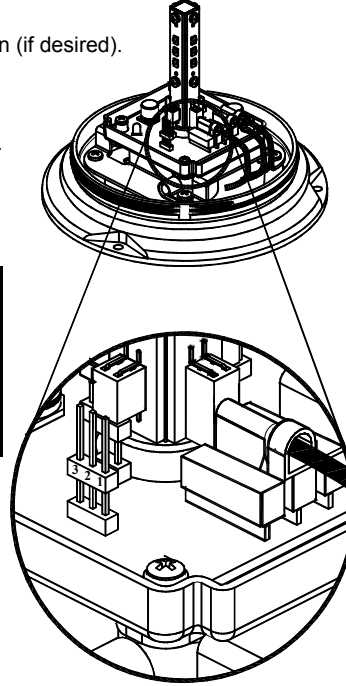
**White** Used for Synchronization. Cut short and tape off if not using. If synchronizing with another light, leave disconnected until after programming the patterns of all synchronized lights.



## Pattern Programming

1. Power up the light.
2. Use the internal jumper pins to change the pattern (if desired).
  - A. These lights have 12 patterns in either of two “phases” to select from (Refer to pattern list).
  - B. The lights are preset at the factory for Pattern #4. You can cycle through the other patterns by using a small screwdriver or other conductive tool and briefly shorting and releasing pins 1&2. (see diagram to right).

Hold	Unit Blinks	Jumps to	Description
1 sec	Does Not	Next Pattern	See Pattern List
3 sec	1 time	Pattern 4	ECE Doubleflash (Phase 1)
6 sec	2 times	Pattern 6	Quadflash (Phase 1)
9 sec	3 times	Pattern 16	ECE Doubleflash (Phase 2)
12 sec	4 times	Pattern 18	Quadflash (Phase 2)
18 sec	5 times	Steady Burn	Steady Burn



3. **SHORTCUTS:**  
There are a number of “shortcuts” available to make the programming of your light easier:  
  
Review the chart above for a list of how long you need to short pins 1 and 2 to go to the desired pattern.

Flash Pattern #	Pattern Type	Phase	Pattern Description	CPS	Pattern Defaults	ECE Reg 65 Approved	SAE J845 Approved
1	K	1	Flicker	1			X
2	L		Fast Doubleflash	3.3			
3	M		Tripleflash	2.5			X
4	A3		ECE Doubleflash	2.0	3Sec	X	X
5	A4		ECE Quadflash	2.1		X	X
6	F		Quadflash	1	6Sec		X
7	G		Quadflash w/Post-Pop	1			X
8	H		Singleflash	1			X
9	I		Doubleflash	1			X
10	J		Variable AKA Delta-Omega	0.3			
11	C		Post pop 1.4CPS	1.4			X
12	E		Random 0.4CPS	0.4			
13	K	2	Flicker	1			X
14	L		Fast Doubleflash	3.3			
15	M		Tripleflash	2.5			X
16	A3		ECE Doubleflash	2.0	9Sec	X	X
17	A4		ECE Quadflash	2.1		X	X
18	F		Quadflash	1	12Sec		X
19	G		Quadflash w/Post-Pop	1			X
20	H		Singleflash	1			X
21	I		Doubleflash	1			X
22	J		Variable AKA Delta-Omega	0.3			
23	C		Post pop 1.4CPS	1.4			X
24	E		Random 0.4CPS	0.4			
NA		N/A	Steady	NA	18Sec		

# Synchronization of Multiple Lights

(Permanent Mount Versions Only)

You can synchronize up to six total **S-LINK SYSTEM** approved lights.



If you will be synchronizing two or more units together, leave the white wires disconnected until programming for each has been completed. Connect the white wires from the units together **ONLY AFTER PROGRAMMING** them all for the same **Pattern Type** (Phase MAY differ).

If you will be synchronizing your light with any of our **S-LINK SYSTEM** products, please note the following:

- All units that are to be synchronized **MUST** have the same **Pattern Type**.
  - To check pattern compatibility with other “S-Link” products, review the **Pattern List** for each product, noting the **Pattern Type**. Certain patterns are compatible with some lights, but not compatible with others.
  - Although the programmable **Flash Patterns** can vary between our different lights, Pattern Types F, G, H, I, & J are fully compatible patterns with ALL of our other “S-Link” products.
1. Determine whether you want the two lights to flash alternately or simultaneously (*Review the diagram below for examples of Alternating and Simultaneous flashing*).
  2. Review the **Pattern List** for each synchronized product, noting the **Pattern Type** for each product.
  3. Select a **Pattern Type** that is compatible with all of the lights/flashers you will be synchronizing.
  4. Program each light according to the instructions enclosed with each. **For lights that have patterns with a Phase:** All lights programmed for the same Phase will flash ON and OFF at the same time (flash simultaneously). Lights that are programmed for different phases will flash opposite one another (alternate).
  5. **After** you have the correct patterns programmed for ALL of the lights you wish to synchronize, **turn all of the lights off** and connect the white wires from all units together.

6. Power all of the lights up **at the exact same time** to verify they are flashing in the desired pattern. **Power MUST be applied to all synchronized lights simultaneously. Excessive switch bounce or attempting to power the units up independently will result in erratic operation.**

