DLQS Quick Stick Series
TRAFFIC DIRECTORS and WARNING STICKS

Please Note: These instructions are provided as a general guideline only. Specific mounting and/or wiring, may be necessary and are 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.

⚠ **WARNING!** This light utilizes high-intensity LED Lamps. DO NOT stare directly into the light while it is on, as momentary blindness and/or permanent eye damage may occur.

**PROUDLY MADE IN THE USA**
An ISO 9001:2008 Certified Company

Before beginning the installation:

- Determine where the Traffic Director is to be mounted (on your lightbar, on your roof, in your rear window, etc.

- Check to see that there are no obstructions hindering the visibility of your traffic director.

- Determine how you will be controlling the traffic director (using independent switches, a siren controller, etc.).

- You will also need to determine the path your cable will take. The cable should exit the left side of the Traffic Director when you are facing the lights on the stick.
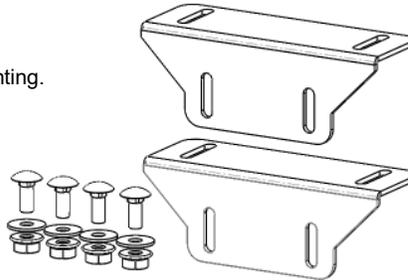
Mounting Instructions

1. There are two slots along the length of the lightstick that can be used to facilitate mounting. Depending upon your application, slide the two enclosed #10 carriage bolts into the appropriate slot (rear or bottom).

2. Slide them along the channel to the desired location and mark the locations for your mounting holes on the mounting surface.

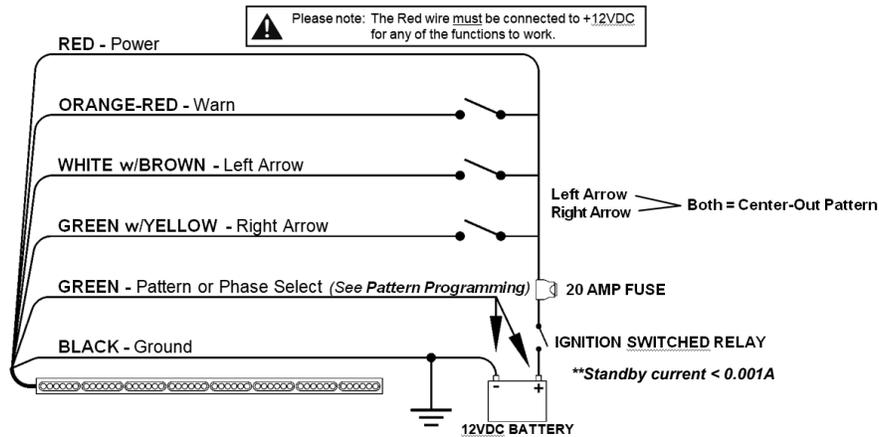3. Drill your holes and mount the light using the enclosed washers and nuts.
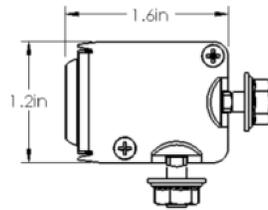
We also include two L-Brackets to facilitate mounting. These are optional and do not need to be used.

Electrical Connections

Wiring for 8- or 6-Head Units

> **Please note:** The Red wire _must_ be connected to +12VDC for any of the functions to work.

RED - Power

ORANGE-RED - Warn

WHITE w/BROWN - Left Arrow

GREEN w/YELLOW - Right Arrow

Left Arrow
Right Arrow — Both = Center-Out Pattern

GREEN - Pattern or Phase Select _(See Pattern Programming)_

20 AMP FUSE

IGNITION SWITCHED RELAY

BLACK - Ground

**Standby current < 0.001A

12VDC BATTERY

Note: Left, Right, and Center-Out patterns will override the Warn Pattern on the heads for which they are enabled.

Wiring for 4-Head Units

RED - Power

GREEN - Pattern or Phase Select _(See Pattern Programming)_

20 AMP FUSE

BLACK - Ground

12VDC BATTERY
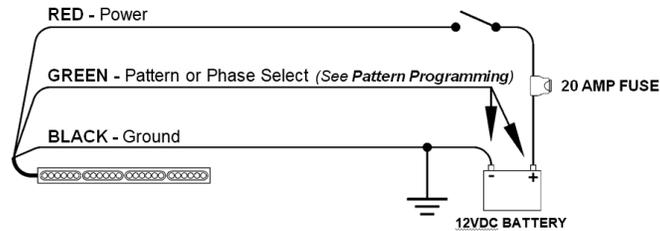
Programming

**Programming is optional.** If the default settings are acceptable, skip to the Operation section on page 5.

Programmable features include the following:

- Pattern Selection (both WARN and Traffic Directing Patterns)
- Phase Selection (which heads alternate from one another)
- Head Enable (which heads activate)
- Resetting the Factory defaults

Pattern Programming

Not only does this light have several Patterns to select from, but it also incorporates advanced programming that allows you to select which heads flash On and Off with one another *(Phase)*, and which heads are active in any of the functions *(Head Enable)*. Review the various section below and on the following two pages for details on these options.

Basic Pattern Selection

The first step in programming is to select a basic pattern for each of the 2 modes:

- Warn Function *(Orange w/Red)*
- Traffic Directing Patterns (L, R, and C-O) *(Green w/Yellow, White w/Brown, or Both)*

1. Connect the Red wire to power and the Black wire to Ground.

2. Activate the function you wish to program by connecting the corresponding wire to +12VDC.

3. Touch and release the Pattern Select wire to +12VDC to scroll through the patterns shown to the right. *(Traffic Director L, C-O, R shown below.)*

   <u>Note:</u> *At any time you can shortcut to the patterns with the asterisks by holding the pattern select wire to +12VDC for the indicated time.*

4. Repeat for each function you wish to program.

Warn Patterns

1	Flicker * *(factory default)*
2	Slow Singleflash
3	Fast Singleflash
4	Slow Doubleflash
5	Fast Doubleflash
6	Slow Tripleflash
7	Fast Tripleflash
8	Quadflash
9	Quintflash
10	Tripleflash w/Post Pop
11	Quadflash w/Post Pop
12	Quintflash w/Pre Pop
13	ECE Doubleflash
14	ECE Quadflash
15	Singleflash Flicker **
16	Doubleflash Flicker
17	Single, Quad w/Post Pop, Flicker
18	Delta-Omega
19	Random 1
20	Random 2
21	Random 3 ***
22	Flashing Bounce
23	Full Bounce
24	Split Bounce
25	Half Bounce
26	Bounce w/End Pop
27	Search Lights
28	Eyeballz
29	Fade Invert
30	Moving Out
31	Triple In/Triple Out
32	Two Speed *(Pursuit default)*
33	Random 4
34	Delta X

California Title 13 SAE J595 Approved Patterns (items 1–12)

Patterns for Traffic Director
(8– and 6-Head Only)
Left, Right, and Center Out functions all use the same pattern

1 Standard ***** *(factory default)*
2 6-Head TD with End Flash
3 Standard w/End Blink
4 Two-Head Traveling
5 California Title 13 **(SAE/T13)** ******
6 California Title 13 Fast **(SAE/T13)**
7 Four Head Traveling **(SAE/T13)**
8 Snake **(SAE/T13)**
9 Snake Pop
10 Pop
11 Arrowhead on Ends **(SAE/T13)**
12 Marquee

   *   Shortcut Pattern #1 (3 sec/1 flash)
  **   Shortcut Pattern #2 (6 sec/2 flashes)

   *   Shortcut Pattern #1 (3 sec/1 flash)
  **   Shortcut Pattern #2 (6 sec/2 flashes)
*** Shortcut Pattern #3 (9 sec/3 flashes)

> ⚠ Please note: All California Title 13 and SAE J595 approved patterns need to be configured properly to ensure compliance with those specifications.

Phase Selection *(Programmable for Patterns 1-18 only)*

Each head has two Phases, an "On" phase and an "Off" phase. All of the heads set for Phase 1 will illuminate at the same time and flash opposite from all of the ones set for Phase 2.

Prior to changing the Phase for any functions, please note the following limitations:

- The Phase option is only programmable for the Warn Pattern.
  It is not programmable for the directional functions (Left, Right, or Center Out).

- There are 5 different Phase options, allowing you to customize which heads flash On together and which are Off together.

- The Phase option is only compatible with Warning Patterns 1-18. You cannot alter the Phases for patterns 19-34 (the pre-set phase is crucial to the pattern).

1. Connect the Red wire to power and the Black wire to Ground.

2. For the 8- or 6-Head units, also connect the Orange w/Red wire to +12VDC, which will activate the Warn function.

3. Place the light in **_Phase Programming Mode_** by holding the Pattern Select wire to +12VDC until the unit flashes once, then twice, then three times, then four times, then five times (15 seconds).

4. Scroll through the 5 optional Phase variations by touching and releasing the Pattern Select wire to <u>GROUND (or Battery Neg)</u>.

5. Disconnect power when you are on the Phase you wish to select.

	Head 1	Head 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	
1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	(Def 1) 3 sec/1 Flash
2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	
3	Phase 2	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 1	Phase 1	
4	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	
5	Phase 2	Phase 2	Phase 2	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2	

4-Head Units

6-Head Units

Head Enable

This light also has the ability for the installer to select which heads are active for any given function. You may wish to de-activate several heads in your Warn Pattern to indicate less urgency. Or you may wish to have only a 6 head Traffic Director pattern, allowing the Warn pattern to still flash on the end heads.

This option is programmed separately for the Warn pattern and for the directional patterns.

1. Connect the Red wire to power and the Black wire to Ground.

2. For 8– and 6-Head units also activate the function you wish to program (Warn or directional) by connecting the corresponding wire to +12VDC.

3. Place the light in **Head Enable Programming Mode** by holding the Pattern Select wire to +12VDC until the unit flashes once, then twice, then three times, then four times (12 seconds).

3. Scroll through the 10 optional variations below by touching and releasing the Pattern Select wire to GROUND (or Battery Neg).
   Note: Only options 1 and 2 are available for the 8-Head Traffic Director Functions. For 6-Head sticks, do not re-program the Directional Pattern Head Enables, always use Option 2.

4. Repeat for each function you wish to program.

WARN PATTERN HEAD ENABLE CHART

	Head 1	Head 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	
1	ON	ON	ON	ON	ON	ON	ON	ON	(Def 1) 3 sec/1 Flash
2		ON	ON	ON	ON	ON	ON		
3			ON	ON	ON	ON			
4				ON	ON				
5	ON							ON	
6	ON	ON					ON	ON	
7	ON	ON	ON			ON	ON	ON	
8			ON			ON			
9		ON	ON			ON	ON		
10	ON	ON		ON	ON		ON	ON	

4-Head Units

6-Head Units

DIRECTIONAL PATTERN HEAD ENABLE CHART

	Head 1	Head 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	
1	ON	ON	ON	ON	ON	ON	ON	ON	(Def 1) 3 sec/1 Flash
2		ON	ON	ON	ON	ON	ON		

Resetting to Factory Default Settings (8- and 6-Head Versions Only)

1. Connect the Red wire to power and the Black wire to Ground.

2. Hold the Pattern Select wire to (Green w/Red) +12VDC until all of the heads light up sequentially from left to right then all flash quickly.

3. Release the Pattern Select wire and the light will be restored to the factory default settings.

Operation

Using your user supplied switches, supply +12VDC to the wires indicated in the wiring diagram on page 2 to activate the desired function.
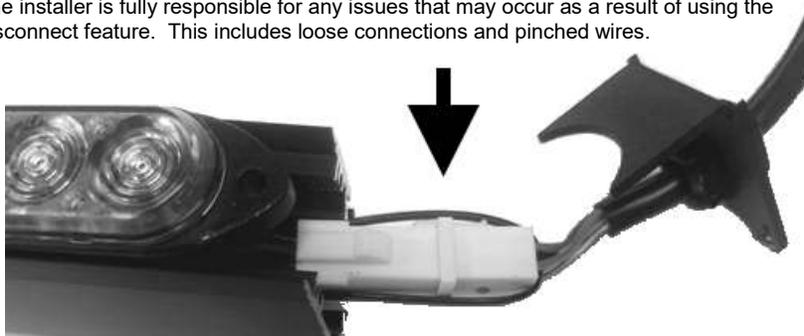
Please note the following:

- The Red wire MUST have +12VDC applied to it for any of the patterns to work.
- The 4-Head units DO NOT have a Traffic Director option.
- Activating the Right and Left patterns together will produce the Center-Out Pattern
- Activating the Right or Left pattern (or Center-Out) will override the Warn Pattern
- If you disable any heads for the Traffic Director Patterns (typically heads 1 & 8), and they are enabled for the Warn pattern, activating both functions will operate the Traffic Director pattern and the Warn Pattern will show on those heads.

Service

Removing the Quick Stick From the Harness

Please be aware that the Quick Stick is designed with an internal connector on the harness that can be accessed by removing the two screws securing the endcap and harness. This allows a Quick Stick that needs service to be removed from the vehicle without needing to remove the entire harness.

If you do use this feature, **it is *imperative*** that the zip tie securing the connection be replaced upon reinstallation to ensure that a good connection is maintained. Because the connector is inside the light stick, extra care must be taken so that it is reinstalled properly. The installer is fully responsible for any issues that may occur as a result of using the disconnect feature. This includes loose connections and pinched wires.

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

Important: This product is used to **direct** 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. Always carefully consider the effect on traffic that the selected light pattern will have before engaging the lights.

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