

# Quick Stick Arrow Board



**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.

**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.

**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.

**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.

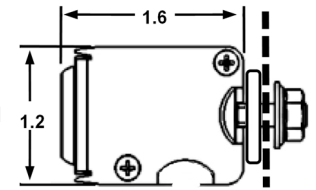
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## Mounting Instructions

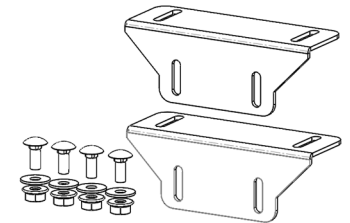
Prior to mounting the light, determine the path your cable will take. The cable should exit the left side when you are facing the lights on the arrowstick mounted on the rear of the vehicle.



1. There is a slot along the length of the back of the arrowstick that should be used to facilitate mounting. Insert the heads of the two enclosed #10 carriage bolts into the hole in the slot.
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.



## Operation

Using your user supplied switches, supply +12VDC to the wires indicated in the wiring diagram on the next page to activate the desired function.

Please note the following:

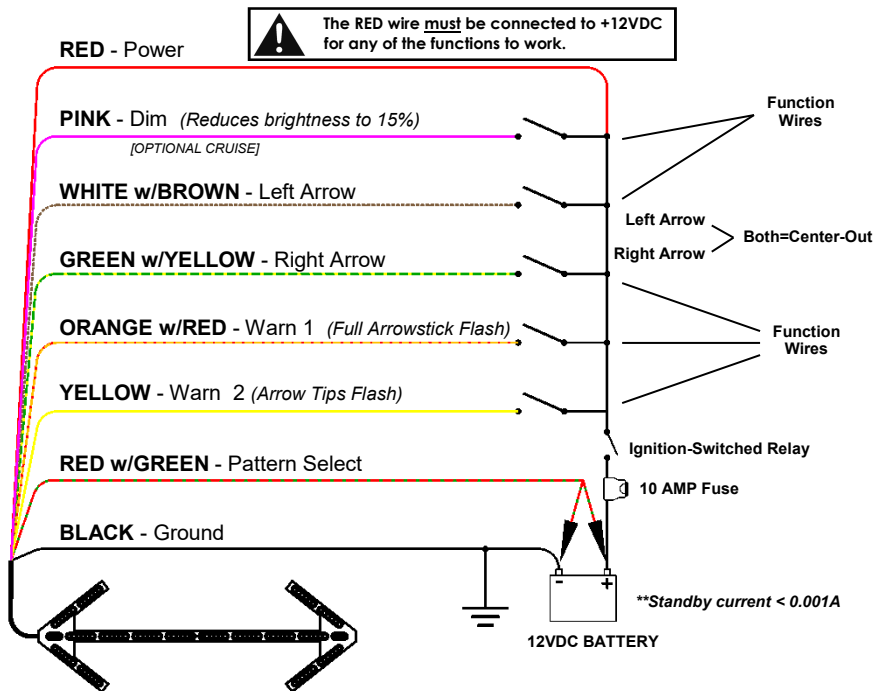
- The Red wire **MUST** have +12VDC applied to it for any of the functions to work.
- Activating the **Left Arrow** and **Right Arrow** together will produce a **Center-Out** display in the pattern programmed for Left.
- Activating the **Left Arrow** or **Right Arrow** will override either **Warn** pattern.
- **Warn 1** (Full Arrowstick) will override **Warn 2** (Arrow Tips Flash).
- **Dim** will dim all of the heads by 85%, which may be desirable in night time conditions.

## Electrical Connections

This wiring diagram below applies to the default programming of this light. There are several additional advanced features that, if programmed, may affect the wire functions shown. Most applications will not require any reprogramming, but you can find these options described in detail under the **Advanced Programming** section.

Use standard On/Off switches rated for 5 amps and make your connections according to the wiring diagram below.

### Default Wiring Setup



**Note:** The wires are shown above in order of Priority. Higher priority wires will override the patterns on any lower priority wires for the heads that are enabled.

HIGHEST PRIORITY LOWEST PRIORITY  
**Pink > White w/Brown > Green w/Yellow > Orange w/Red > Yellow**

(Please note that PINK will become the lowest priority if you reprogram it for Low Priority Cruise Mode)

## Optional Advanced Programming

**Programming is optional.** If the default settings are acceptable, skip this section.

Programmable features include the following:

- **Pattern Selection** (both WARN and Traffic Directing Patterns)
- **Head Enable** (which heads activate)
- **Phase Selection** (which heads alternate from one another)
- **Dim Settings**
- **Cruise Mode** (Steady Burn)

### Pattern Selection

- Full Warn (ORANGE w/RED)
  - Arrow Tips Warn (YELLOW)
  - 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.)
  4. Repeat for each function you wish to program.

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

### Patterns for Traffic Director

(8- and 6-Head Only)  
 Left, Right, and Center Out functions  
 all use the same pattern

- 1 Standard \*
- 2 6-Head TD with End Flash
- 3 Standard w/End Blink
- 4 Two-Head Traveling
- 5 Fast \*\* †
- 6 Ultra-Fast †
- 7 Four Head Traveling †
- 8 Snake †
- 9 Snake Pop
- 10 Pop
- 11 Marquee
- 12 Singleflash † \*\*\*
- 13 Doubleflash †
- 14 Quadflash †
- 15 Single/Double/Quad Combo

- \* Shortcut to Pattern #1 (3 sec/1 flash)
- \*\* Shortcut to Pattern #5 (6 sec/2 flashes)
- \*\*\* Shortcut to Pattern #12 (9 sec/3 flashes)
- † SAE Approved Pattern

### Warn Patterns

- 1 Flicker \* †
  - 2 Slow Singleflash †
  - 3 Fast Singleflash
  - 4 Slow Doubleflash †
  - 5 Medium 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 Fast Doubleflash †
  - 14 Fast 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
  - 33 Random 4
  - 34 Delta X
- \* Shortcut Pattern #1 (3 sec/1 flash)  
 \*\* Shortcut Pattern #2 (6 sec/2 flashes)  
 \*\*\* Shortcut Pattern #3 (9 sec/3 flashes)  
 † SAE Approved Pattern

**Programming (CONT'D)**

**Head Enable**

This arrowstick allows the installer to program which heads are active for any given function:

**Examples:** **Warn:** Remove arrow heads  
De-activate several heads to indicate less urgency.

**Traffic Director:** Utilize only a small arrowheads for your Traffic Director pattern.

There are separate settings for each of the two Warn patterns and an independent one for the directional patterns (same setting for all three TD functions).

1. Connect the RED wire to power and the BLACK wire to Ground.
2. 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).
4. Scroll through the optional variations below by touching and releasing the Pattern Select wire to GROUND (or Battery Neg). You can go directly to certain Head Enable Options by holding the Pattern Select to GROUND for the following lengths of time:  
Option #1 (3 sec/1 flash)  
Option #7 (6 sec/2 flashes)  
Option #12 (9 sec/3 flashes)
5. Repeat for each function you wish to program.
6. Disconnect all wires when set.

**Head Enable Options (Warn Patterns)**

	Head Group 1	Head Group 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	Head 9	Head 10	Head Group 11	Head Group 12
1	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
2		ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
3			ON	ON	ON	ON	ON	ON	ON	ON		ON
4				ON	ON	ON	ON	ON	ON			
5					ON	ON	ON	ON				
6						ON	ON					
7	ON											ON
8	ON	ON									ON	ON
9	ON	ON	ON							ON	ON	ON
10	ON	ON	ON	ON				ON	ON	ON	ON	ON
11	ON	ON	ON	ON	ON			ON	ON	ON	ON	ON
12	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON		
13			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

**Head Enable Options (Traffic Directing Patterns)**

	Head Group 1	Head Group 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	Head 9	Head 10	Head Group 11	Head Group 12
FULL ARROW	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON
SMALL ARROW			ON	ON	ON	ON	ON	ON	ON	ON	ON	ON

**Head Groups**

The location of the Head Groups referenced in the charts above are shown to the right.

Note: Head Groups 1 and 12 are not present and the light for the DLQS-ARO, but they are still found in the programming options.



**(Programming CONT'D)**

**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 heads 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 two Warn Patterns. It is not programmable for the directional functions (Left, Right, or Center Out).
- There are 3 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).
- The two Warns have independent Phases and can be programmed individually.

1. Connect the BLACK wire to Ground.
2. Connect the RED wire to +12VDC, which will activate the Warn function.
3. Depending upon which Warn you want to program, connect the corresponding wire (ORANGE w/RED or YELLOW) to +12VDC, which will activate the Warn function.
4. 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).
5. Scroll through the 3 optional Phase variations by touching and releasing the RED w/ GREEN wire to GROUND (or Battery Neg). (Holding the RED w/GREEN wire to Ground for 3 seconds, until it flashes once, will shortcut to Phase Setting #1.)
6. Disconnect power when you are on the Phase you wish to select.

	Head Group 1	Head Group 2	Head 3	Head 4	Head 5	Head 6	Head 7	Head 8	Head 9	Head 10	Head Group 11	Head Group 12
1	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2	Phase 1	Phase 2
2	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1
3	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 1	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2	Phase 2

**Dim Setting**

The Pink wire can be used to Dim the lights for night time use. By default, the Dim function will reduce the brightness of any active lights to 15%. If you would like to set it for a brighter level, proceed as follows:

1. Connect the RED and the PINK wires to power and the BLACK wire to Ground.
2. The lights will illuminate to the current setting. Touch and release the RED w/GREEN wire to Ground to scroll through the 6 levels of brightness:  
Low (15%) ▶ 2 ▶ 3 ▶ 4 ▶ 5 ▶ High (50%)
3. At any time you can skip directly to the default mode (Low/15%) by holding the RED w/ GREEN wire to Ground for 3 seconds (until the light flashes once) and then releasing it.
4. Disconnect all wires when set.

(Programming CONT'D)

### Cruise Mode / Steady Burn (disabled by default)

When Cruise Mode is enabled it will replace the Dim function. Applying power to the PINK wire will illuminate all of the programmed lights in a dim steady burn pattern (all heads by default). There are two options for Cruise Mode:

- **High Priority** - Cruise Mode will override all other functions when activated. The default setting is 50% brightness.
- **Low Priority** - Cruise Mode will be overridden by all other functions.. The default setting is 15% brightness.

Activate Cruise Mode by performing the following:

1. Connect the RED wire to power and the BLACK wire to Ground.
2. With no other functions activated, hold the RED w/GREEN wire to **Power** for the corresponding time indicated below:
  - Low Priority Cruise - Hold until the light flashes three times (~9 seconds)
  - High Priority Cruise - Hold until the light flashes four times (~12 seconds)
3. Disconnect all wires when set. The light will now be in Cruise Mode and whenever power is applied to the PINK wire, Cruise Mode will be activated.
4. To remove Cruise Mode and return the PINK wire to the Dim function, connect the RED and PINK wire to **Power**, connect the BLACK wire to Ground, and hold the RED w/ GREEN wire to **Power** until the light flashes three times (~9 seconds).

### CRUISE MODE BRIGHTNESS

By default, High Priority Cruise Mode is set for **50%** brightness and Low Priority Cruise Mode is set for **15%** brightness. If you would like to change the brightness level, proceed as follows:

1. Connect only the RED and PINK wires to power and the BLACK wire to Ground.
2. Hold the RED w/GREEN wire to **Ground** until the light flashes once (~3 seconds) then release it. Repeat this to scroll through the levels:  
Low (15%) ► Medium-Low ► Medium ► Medium High ► High
3. At any time you can skip directly to the default mode (Low/15%) by holding the RED w/ GREEN wire to **Ground** for 6 seconds (until the light flashes twice) and then releasing it.
4. Disconnect all wires when set.

### ACTIVE HEADS FOR STEADY BURN FUNCTION

By default, when the Steady Burn Function is activated all of the heads will illuminate. If you would like fewer heads illuminated, proceed as follows:

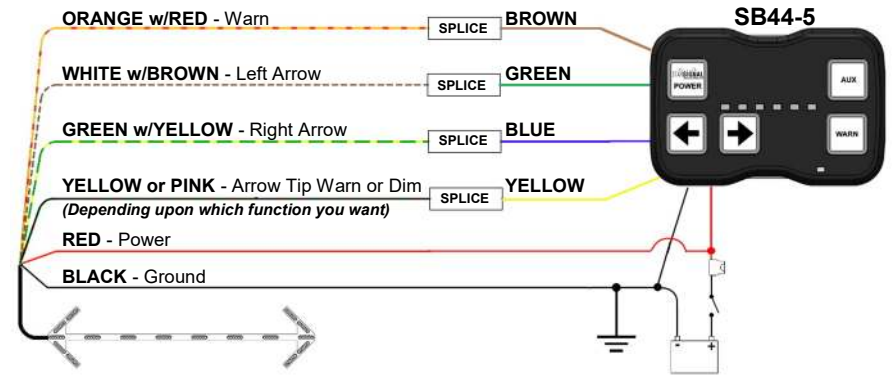
1. Connect only the RED and PINK wires to power and the BLACK wire to Ground.
2. Briefly touch and release the RED w/GREEN wire to Ground to scroll through the various options shown in the WARN PATTERN HEAD ENABLE CHART on the previous page.

*Please note: The active heads for each level will not actually display as you scroll through the list. To see which heads are enabled, touch the RED w/GREEN wire to +12VDC.*

3. Disconnect all wires when the desired layout is set.

## Optional Control Box

Typical On/Off switches can be used for standard installation. If you would like a preconfigured control box with feedback LEDs, please order the optional **SB44-5** (activates 4 functions). The **SB44-8** can also be programmed for TD mode and controls up to 8 functions.



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

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