

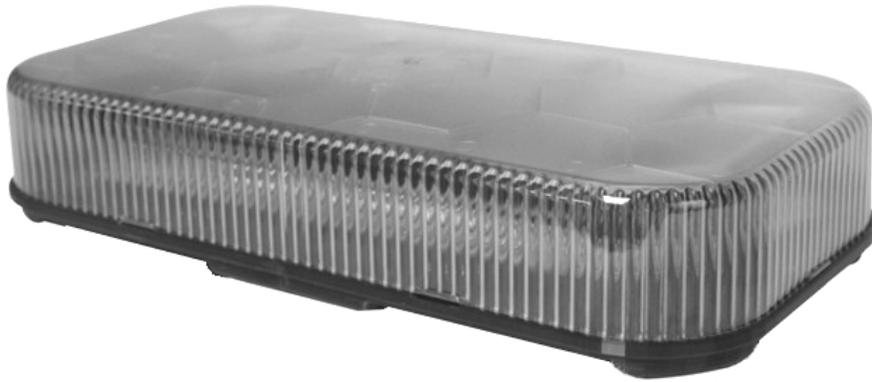


# CONTOUR™



## MODEL 9100DLED DUAL-COLOR MINIBAR

featuring the



**Star Headlight & Lantern Co., Inc.**  
 455 Rochester Street Avon, NY 14414 Phone: 585-226-9787 FAX: 888-478-2797  
**STAR** SINCE 1889  
**STAR** WARNING SYSTEMS  
**STAR**SIGNAL® VEHICLE PRODUCTS  
**BRADFORD** Vehicle Solutions  
[www.starheadlight.com](http://www.starheadlight.com)

***Please Note:*** These instructions are provided as a general guideline only. Specific mounting, wiring, and/or weather-sealing 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.

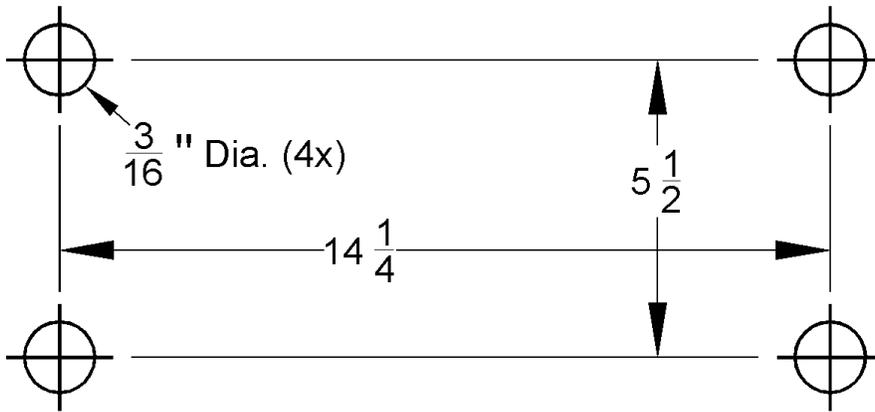


This light utilizes high-intensity LED Lamps. DO NOT stare directly into the light while it is on, as momentary blindness and/or permanent eye damage may occur.

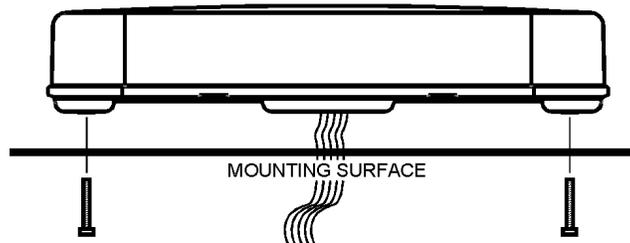
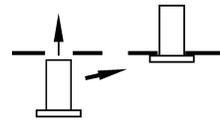


## Mounting Instructions

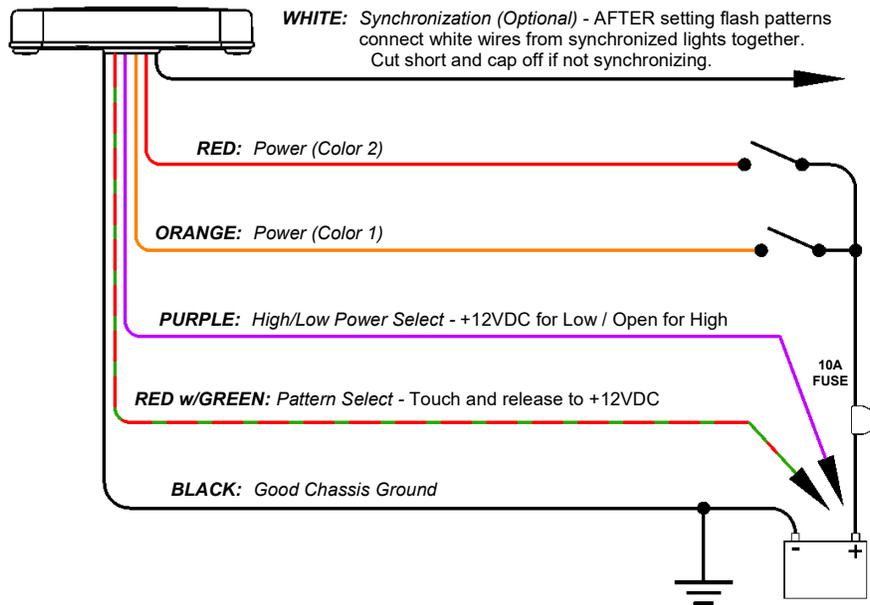
1. **IMPORTANT:** Please read all of the following instructions before installing your new warning light.
2. **CAUTION:** All of our DC powered warning lights are polarity sensitive. These lights are polarity protected *only if the appropriate fuse* is used. All wires connected to the positive terminal 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.**
3. Permanent mount lights are mounted using four bolts that screw into molly well nuts in each corner of the minibar. Mark the four mounting holes (and the center wire hole, if you will be needing one). Mark the holes on the corners of a 14-1/2" x 5-1/2" rectangle.



4. Check the underside of the marked locations to ensure that you do not damage any wires or other components. Drill a 3/16" hole in the four marked spots for the mounting bolts, and one in the center for your wires (if applicable).  
**CAUTION: Take care not to drill through the headliner below.**
5. If the 4 threaded molly well nuts are not already installed in the base of your bar, install them by pressing one into each of the four holes found on the corners of the base of the light until the lip rests on the bottom surface of the base.
6. Route your wires through the center hole (if applicable) and attach the light using the four enclosed bolts. Insert the bolts from below, through the holes you drilled in the mounting surface and screw them into the molly well nuts on the light. Tighten until snug.



## Electrical Connections



**White** - (Synchronization) Used to synchronize two lights together. If you are only installing one unit, cut the White wire short and tape the end. If you will be synchronizing two or more approved synchronizable lights, leave the white wire disconnected for now. Connect the white wires from both units together **ONLY AFTER PROGRAMMING** them for the **same** pattern (see Pattern Programming).

**Red** - (Power Color 2) Connect to +12 VDC through your switch. *Be sure to use a 10 amp fuse when connecting the switch to the positive side of the power supply.*

**Orange** - (Power Color 1) Connect to +12 VDC through your switch. *Be sure to use a 10 amp fuse when connecting the switch to the positive side of the power supply.*

**Purple** - (Optional - High/Low) Used to switch the light between High and Low power.

- Leave disconnected for High Power only (cover with wirenut or tape).
- Connect to +12VDC for Low Power only.
- Connect to +12VDC through a switch for High/Low switching option.

**Red w/Green** - (Pattern Select) Touch and release to +12 VDC to change patterns.

**Black** - (Ground) Connect to the negative side of the battery.

## Programming

### PATTERN PROGRAMMING

The Orange and Red wires can each be programmed for its own pattern.

1. Activate the wire that you wish to program (Orange or Red) by connecting it to power (and the Black to Ground).
2. Touch and release the Pattern Select wire (Red w/ Green) to +12 VDC to scroll through the patterns listed to the right. The cycle repeats after the last pattern.

Use the programming shortcuts listed in the chart below and to the right to quickly jump to several different patterns by holding the Red w/Green Stripe Wire to +12 VDC for the corresponding length of time for the pattern you would like to jump to.

3. Once you find the pattern you wish to display, tape off the Red w/Green wire, and deactivate the light. This will store the selected pattern.

Flash Pattern #	Pattern List	CPS
1	Alternating Flicker †	◀ 1
2	Alternating Fast Doubleflash	◀ 2.04
3	Alternating Tripleflash	◀ 2.5
4	Slow CCW Rotation	◀ 1.3
5	Fast CCW Rotation	◀ 2.7
6	Alternating Quadflash ††	◀ 1
7	Alternating Quadflash w/Post-Pop	◀ 1
8	Alternating Singleflash	◀ 1
9	Alternating Slow Doubleflash	◀ 1
10	Alternating Variable	◀ 0.2
11	Alternating Post Pop	◀ 1.4
12	Alternating Random	◀ 0.4
13	Alternating Quintflash †††	◀ 1.2
14	Swing	◀ 0.5
15	Alt. Fast Dbl., Alt. Flicker	◀ N/A
16	Alt. Quad, Alt. Flicker, Alt. Fast Dbl., Flicker	◀ N/A
17	CCW Rotation	◀ 1
18	Simultaneous Quad w/ post pop Phase 1	◀ 1
19	Simultaneous Quad w/ post pop Phase 2	◀ 1
20	Alt. Triple, Alt. Non-synch dbl, Alt. Quint, Alt. Flicker	◀ N/A
21	CW Rotation	◀ 1
22	Cycle All	◀ N/A
23	Quadflash w/Post-pop, Fast Double w/Post-Pop	◀ N/A
24	Alternating Non-Synch Doubleflash	◀ 3.4
25	Swing, Flicker	◀ N/A
26	Slow Doubleflash, Fast Doubleflash	◀ N/A
27	CCW, Flicker	◀ N/A
28	Simultaneous Flicker (Phase 1) †††	◀ 1
29	Simultaneous Flicker (Phase 2)	◀ 1
30	Simultaneous Fast Doubleflash (Phase 1)	◀ 2.04
31	Simultaneous Fast Doubleflash (Phase 2)	◀ 2.04
32	Simultaneous Fast Quadflash (Phase 1)	◀ 2.13
33	Simultaneous Fast Quadflash (Phase 2)	◀ 2.13
34	Sim. Fast Quadflash (Phase 1), Alt. Fast Doubleflash	◀ N/A
35	Sim. Fast Quadflash (Phase 2), Alt. Fast Doubleflash	◀ N/A

◀ SAE J845 compliant when properly configured

### STEADY BURN MODE

To program either of the wires for Steady Burn Mode, activate that wire and hold the Pattern Select wire (Red w/Green) to power until the light blinks 5 times (~15 seconds).

Hold Patt. Sel. to +12VDC For	Unit Blinks	Shortcut to
3 seconds	1 time	Pattern 1
6 seconds	2 times	Pattern 6
9 seconds	3 times	Pattern 13
12 seconds	4 times	Pattern 28
15 seconds	5 times	Steady Burn
18 seconds	6 times	Toggles Dual Color Mode

### DUAL-COLOR MODE

The default setting is for the Orange and Red wires to each activate a different color. If desired, you can program one wire to activate both colors. To do so, proceed as follows:

1. Activate the wire that is desired to be changed (Red or Orange) by connecting it to +12VDC and connecting the Black wire to Ground.
2. Hold the Pattern Select wire (Red w/Green stripe) to +12VDC until the light flashes 6 times (~18 seconds), then release the wire. The activated wire should now be displaying both colors.
3. Repeat process to turn off dual color mode.

(Programming CONT'D)

### **PRIORITY MODES**

If both colors are activated (either by using both wires, or if you have set one wire for Dual-Color Mode), the default setting is for both colors to flash their pattern, one after the other (No Priority in Sequential Mode). There are 3 optional Priority settings:

- **Orange Priority:** If both wires are activated only the Orange wire functions.
- **Red Wire Priority:** If both wires are activated only the Red wire functions.
- **Sequential/Integrated Mode:**
  - ▶ **Sequential Mode:** (*Default setting*) If both colors are activated the light will run a full cycle (On then Off) of one of the colors and its corresponding pattern, then run a full cycle of the other color and its corresponding pattern.
  - ▶ **Integrated Mode:** If both wires are activated the light will flash both colors using the pattern of the Orange wire. For alternating patterns, the colors will alternate halves back and forth with one color flashing on one side of the light and the other color flashing on the other side of the light at the same time. For simultaneous patterns, the entire light will quickly flash the pattern in one color, then the other color (similar to Sequential mode, but no off time).

To change the Priority Mode, Proceed as follows:

1. Connect either the Red wire or the Orange wire to +12VDC and connect the black wire to ground.
2. Hold both the Pattern Select wire (Red w/Green stripe) and the Synch wire (White) to +12VDC, releasing them after the light flashes the corresponding number of times indicated in the chart below.

<b><u>Hold Patt. Sel. and Synch Wires to +12VDC for</u></b>	<b><u>Unit Blinks</u></b>	<b><u>Priority Mode Shortcut</u></b>
<b>3 seconds</b>	<b>1 time</b>	<b>No Priority</b>
<b>6 seconds</b>	<b>2 times</b>	<b>Orange Priority</b>
<b>9 seconds</b>	<b>3 times</b>	<b>Red Priority</b>
<b>12 seconds</b>	<b>4 times</b>	<b>Toggles Sequential Mode</b>

### **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.



### 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, dimes, 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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