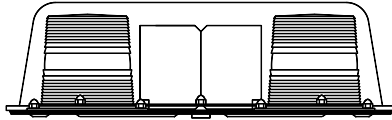


# 9200 HALO Series LED Mini-bars

featuring the

**S-LINK**  
SYSTEM



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

**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 Safety Technologies assumes no responsibility for the integrity of the installation for this or any of its products.

## LED FIVE YEAR LIMITED WARRANTY

Star Safety Technologies warrants this LED light against factory defects in material and workmanship for five years after the date of manufacture. 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.** Star 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.

## 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 Safety Technologies, 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 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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## Magnet Mounting

*If you are mounting the light on the roof of your vehicle, take extreme care to ensure that the magnet is firmly seated on your roof, and that the pull of the magnet is sufficient to secure the light in place. As the composition of the metal in the roofs of different vehicles may vary, as well as the contour, texture and/or condition, Star cannot guarantee the ability of the light to remain in place upon a moving vehicle. It is the sole responsibility of the owner to ensure the warning light is secure.*

**WARNING!!!!** Care should be taken when positioning any warning light on the roof, dash, or instrument panel of the vehicle, so that the light and/or cord does not interfere with the proper operation of any airbags! Failure to heed this warning may result in serious or fatal injury.

- **CAUTION:** Please be sure to check that your cigarette plug outlet is properly fused. **Testing the light before this fuse is properly installed will void the warranty on the light.**
- Once the light is secured, route your cord such that it does not interfere with the vision of the driver or the operation of any controls, including, but not limited to, the steering wheel, gear shifter, and/or airbag.
- This light has been factory tested and approved. If the light fails to work when the plug is inserted into the cigarette plug socket, twist the plug a few times to remove any ash or other deposits which might be preventing a good contact from being made. If the problem persists, check for a fuse inside of the plug itself. If present, remove the fuse from the circuit, check to see if it has blown, and clean the lighter socket and contact surfaces. Reconnect the fuse and test the light again.

## Permanent Mounting

1. **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.**
2. Remove the dome from your mini-bar. Take care not to damage the gasket. Place the light in the exact position it is to be mounted.
3. Using the base as a template, mark four holes on the mounting surface. Take care to ensure that the base does not move while you are marking each of the four holes.
4. Remove the base and drill a 3/8" hole in the four marked spots.  
**CAUTION: Take care not to drill through the headliner below.**
5. 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. *For external wiring of your new Star mini-bar skip to Step 8. For internal wiring, proceed as follows:* Remove the headliner from the inside of the vehicle. Draw two diagonal lines between the well nuts in the opposite corners. Mark the location at which they cross. Drill a 3/8" hole in the center marked location. Place the light on the surface of the vehicle, routing the wires through the hole. Align the four other holes with the well nuts, install the screws, and tighten until snug. Skip to Step 8.
7. *For external wiring,* place the light on the mounting surface and align the holes with the well nuts. Install the screws and tighten until snug.
8. Replace the dome on your mini-bar.

## 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.

If your light has a cig plug, you can skip this section and continue to **Pattern Programming** below.

<b>Black</b>	Ground
<b>Red</b>	Power (+12-24VDC through 5 Amp fuse)
<b>Green</b>	Pattern Select (Touch and Release to Ground—see below)
<b>White</b>	Synchronization (see page 3)

## Pattern Programming

- Power up the light and set the flash pattern by pressing Pattern Select switch (*cig plug versions only*), or briefly touching and releasing the green wire to ground (*hard-wired versions only*).
- These lights have 12 optional patterns.



Flash Pattern #	Pattern Type	Pattern Description	CPS	Pattern Defaults
1	K	Flicker †	1	
2	L	Fast Doubleflash	3.3	
3	M	Tripleflash	2.5	
4	A5	CCW Rotation 1 ( <i>Rotating Models</i> ) ††	1.3	<b>3Sec</b>
5	A6	CCW Rotation 2 ( <i>Rotating Models</i> )	2.7	
6	F	Quadflash †‡	1	<b>6Sec</b>
7	G	Quadflash w/Post-Pop †‡	1	
8	H	Singleflash †‡	1	
9	I	Doubleflash †‡	1	
10	J	Variable AKA Delta-Omega	0.3	
11	C	Post pop 1.4CPS	1.4	
12	E	Random 0.4CPS	0.4	
NA		Steady	NA	<b>18Sec</b>

† - Approved patterns for SAE J845    †† - Approved for 8-LED version Only  
 ‡ - California Title 13

- The 9200HL are preset for Pattern #6 (Quadflash)  
 The 9200H8L are set for Pattern #4 (CCW Rotation 1)  
 Use the Pattern Select Switch or Green wire to cycle through the other patterns.
- After the pattern has been set, tape, or place a wirenut over the end of the green wire to prevent it from coming into contact with ground again (hard-wired versions).
- SHORTCUTS:** Review the chart above for a list of how long you need to touch the green wire to ground or hold the Pattern Select button to jump directly to a desired pattern.

## Low Voltage Detection

These units have low input voltage detection. With this feature the beacon senses the input voltage and flashes a fast pattern (approximately 16 cycles per second) to indicate to the user that the battery voltage is low (less than 10V). Once the input voltage returns to normal (greater than 12V) the unit will return to the normal flashing.

## Synchronization of Multiple Lights

(Permanent Mount Versions Only)

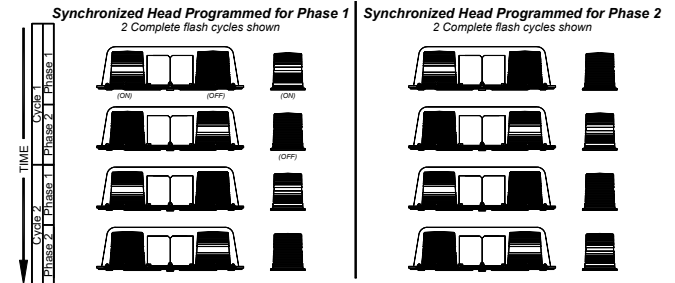
You can synchronize up to six total approved lights.

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 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.

**Please Note:** Most of our compatible products have patterns that can be programmed for Phase 1 or Phase 2. One side of the 9200 HALO minibar flashes in Phase 1, while the other flashes in Phase 2. When synchronizing any other light (excluding 9200 HALO), the Phase of the additional light being synchronized will determine which half of the minibar the additional light flashes in conjunction with.



- Review the **Pattern List** for each synchronized product, noting the **Pattern Type** for each product.
- Select a **Pattern Type** that is compatible with all of the lights/flashers you will be synchronizing.
- 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).
- 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.
- 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.**