SWS
SAFETY WARNING SPECIALISTS
THE LEADERS IN PROFESSIONAL WARNING LIGHTS

INSTALLATION AND INSTRUCTION MANUAL
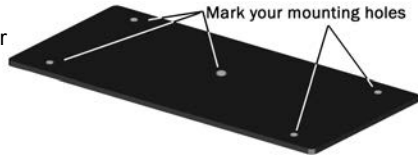
Model
9016LED
M-Tech Plus™ Minibar

Permanent Mounting

1. Using the gasket as a template, mark the four bolt holes on the mounting surface (and the center wire hole, if you will be needing one).
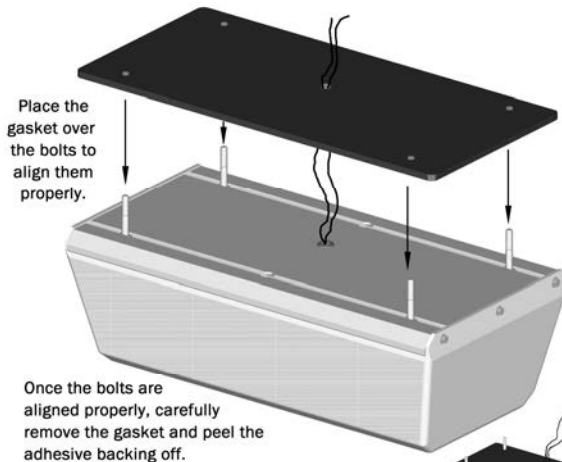
2. Drill a 9/32" hole in the four marked spots or the mounting bolts.
   CAUTION: Take care not to drill through the headliner below.

3. Insert the head of two mounting bolts into each of the access holes found along the slots on the bottom of the bar and slide one to each end of the base.

   Slide the heads of two mounting bolts into each bolt access hole along each of the two mounting slots.
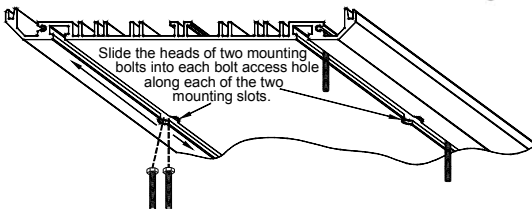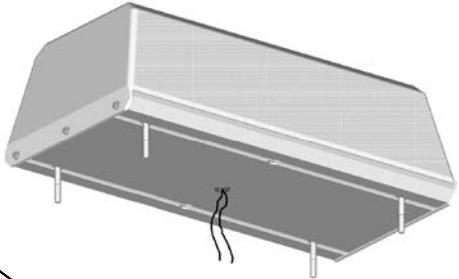
4. Route the wires through the center of the gasket and align the bolts properly BEFORE REMOVING THE BACKING.

5. **Remove the adhesive backing on the gasket and carefully stick the gasket onto the base**, over the bolts, with the wires routed through the center hole.

   Place the gasket over the bolts to align them properly.

6. Route your wires through the mounting surface if applicable.

   Once the bolts are aligned properly, carefully remove the gasket and peel the adhesive backing off.

   Carefully affix the gasket to the base over the bolts.
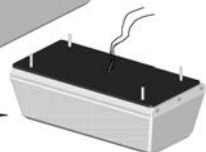
7. Install your light with the four bolts going through your mounting holes. Place a washer and nut on each of the bolts and tighten until snug.

Wiring for Permanent Mount Models

> **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 <u>at the battery</u> for their rated load. **Testing the light before this fuse is properly installed will void the warranty on the light.**

Red - *(Power)* Connect to +12-24 VDC through your switch. *Be sure to* **use a 10 amp fuse** *when connecting the switch to the positive side of the power supply.*

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

Purple - *(Optional - High/Low)* Switches the light between High and Low power.
- <u>High Power Only</u>: Leave disconnected (cover wire with wire nut or tape)
- <u>Low Power Only</u>: Connect to Ground
- <u>High/Low Switching Option:</u> Connect to Ground through a switch

Red w/Green - *(Pattern Select)* Touch and release to +12-24 VDC to change patterns *(see next page)*.

White - *(Synchronization)* If you are only installing one unit, cut the White wire short and tape the end.

Connect the white wires from both units together ***ONLY AFTER PROGRAMMING*** them for the ***same*** pattern.

Synchronization of Multiple Lights

You can synchronize up to six lights with S-LINK SYSTEM *compatibility.*

DO NOT CONNECT WHITE WIRES UNTIL PROGRAMMING HAS BEEN COMPLETED FOR ALL LIGHTS!!

1. Power up the first unit and select a pattern.

2. Program the second light with the same ***Pattern***.

- The two lights will flash together (simultaneous).
- Optionally you can program one light for Pattern 16 and the other for Pattern 17. This will cause the lights to flash opposite one another (alternate).

3. After programming all lights, tie off the green wires and connect the white wires together.

4. Test lights by applying power to all of them at the same time.

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. Since 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 on a moving vehicle. ***It is the sole responsibility of the owner to ensure the warning light is secure.***

> ⚠️ **WARNING!** *Care should be taken when routing the cig plug cord so that it does not interfere with the proper operation of the driver-side or passenger-side airbag! Failure to heed this warning may result in serious or fatal injury.*

Pattern Programming

- To change patterns, press and release the Pattern Select Button *(cig plug models only)* or briefly touch and release the Red w/Green Stripe wire to +12-24VDC *(hard-wired versions only)*.

- The cycle repeats after the last pattern.

- ***Pattern Shortcuts:*** Touch and hold the Red w/Green Stripe Wire to +12/24VDC (or hold the Pattern Select Button) for the length of time that corresponds to the pattern you would like to jump to.

Length of Hold	*Unit Blinks*	*Shortcut to*
3 seconds	1 time	Pattern 1
6 seconds	2 times	Pattern 6
9 seconds	3 times	Pattern 11
12 seconds	4 times	Pattern 16

Once you find the pattern you wish to display, connect the Pattern Select wire to ground *(hard-wire only)* and deactivate the light. This will store the selected pattern.

Flash Pattern #	Pattern Type	Patterns for ALL Colors Except For Amber	Patterns for Amber Lights
1	K	Alternating Flicker †	Alternating Flicker †
2	L	Alternating Fast Doubleflash	Alternating Fast Doubleflash
3	M	Alternating Tripleflash	Alternating Tripleflash
4	N	Alternating PSU Flicker	Alternating PSU Flicker
5	O	Alternating PSU Random	Alternating PSU Random
6	F	Alternating Quadflash ††	Alternating Quadflash ††
7	G	Alternating Quadflash w/Post-Pop	Alternating Quadflash w/Post-Pop
8	H	Alternating Singleflash	Alternating Singleflash
9	I	Alternating Doubleflash	Alternating Doubleflash
10	J	Alternating Variable	Alternating Variable
11	P	Alternating Quintflash †††	Alternating Post Pop
12	Q	Swing	Alternating Random
13	R	Alt. Fast Doubleflash, Alt. Flicker	Alternating Quintflash
14	S	Alt. Quad, Alt. Flicker, Alt. Double, Flicker	Alt. Fast Doubleflash, Alt. Flicker
15	T	Counter Clockwise Rotating Flash	Alt. Quad, Alt. Flicker, Alt. Double, Flicker
16	G	Sim. Quad w/Post Pop (Phase 1) ††††	Sim. Quad w/Post Pop (Phase 1) ††††
17	G	Sim. Quad w/Post Pop (Phase 2)	Sim. Quad w/Post Pop (Phase 2)
18	U	Alt. Triple, Alt. Non-Synch Double, Alt. Quint, Flicker	Alt. Triple, Alt. Non-Synch Double, Alt. Quint, Flicker
19	V	Steady burn one side, Other side Single Flash	Steady burn one side, Other side Single Flash
20	NONE	Cycle All	Cycle All

† = Programming Shortcuts 1, 2, 3, and 4 (see table above)

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.