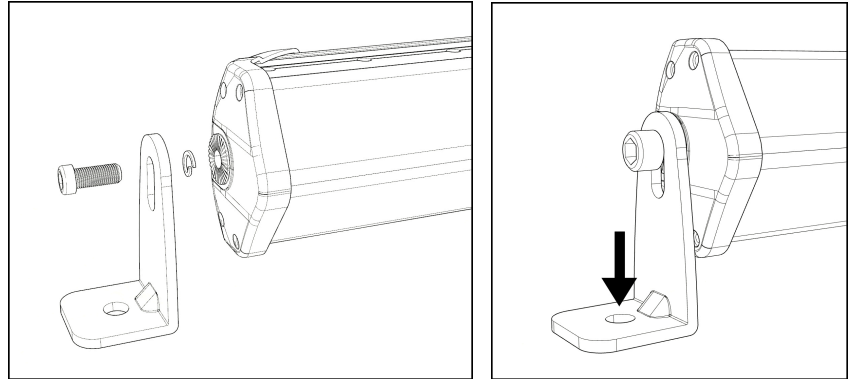


SAR Bar Installation

Before installing the components on the vehicle, begin with a quick test off of the vehicle. Follow the wiring information on the next page by first connecting all of the data input and data output wires between the SAR Controller and the SAR Bars. Then proceed by connecting all RED power wires to positive voltage and the BLACK power wires to a ground. The vehicle's battery will be sufficient for this test. Power on and test functionality of the system. It is not necessary to set orientation at this point as they may be mixed up when mounted on the vehicle.

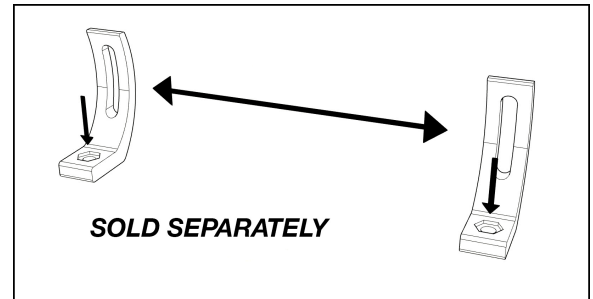
Mounting SAR Bars with L-brackets –

Included with each SAR Bar are two end-mount L-brackets. Following the diagram to the right, loosely mount the L-brackets to the ends of the light bar with the lock washer between the bar and the bracket. Place the light bar onto the vehicle in the desired location. Mark the holes indicated by the arrow and drill out the holes using a 3/8" drill bit. Secure the brackets with the included hardware. To finish the install, adjust light bar rotation to desired position and then tighten the end cap hex cap screws.

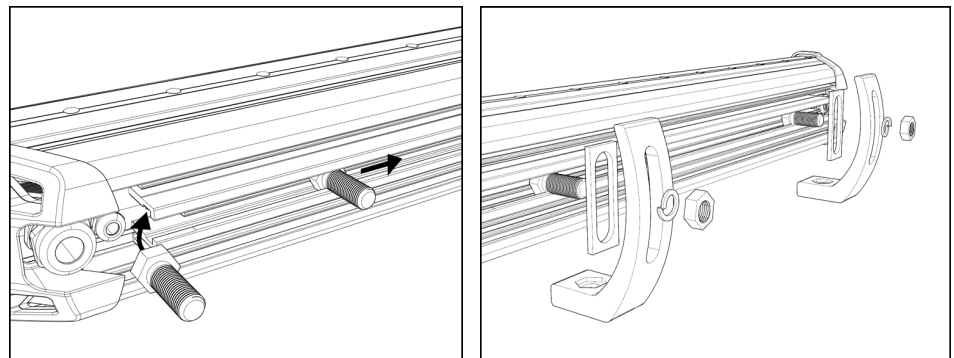


Mounting SAR Bars with Adjustable Rear Brackets (SOLD SEPARATELY) –

This portion covers installation of the SAR Bars with the optional Adjustable Rear Brackets. Begin first by mounting the brackets to the desired location on the vehicle. Please note that the **MAX** spacing between these brackets will be 7 inches **LESS** than the length of the bar (see arrow between brackets in diagram to the right). Example- on a 20 inch SAR Bar, the maximum distance these brackets can be apart is 13 inches. Measure, mark and drill a 3/8" hole for each bracket (downward facing arrows to the right). Secure the brackets to the vehicle using the supplied hardware.



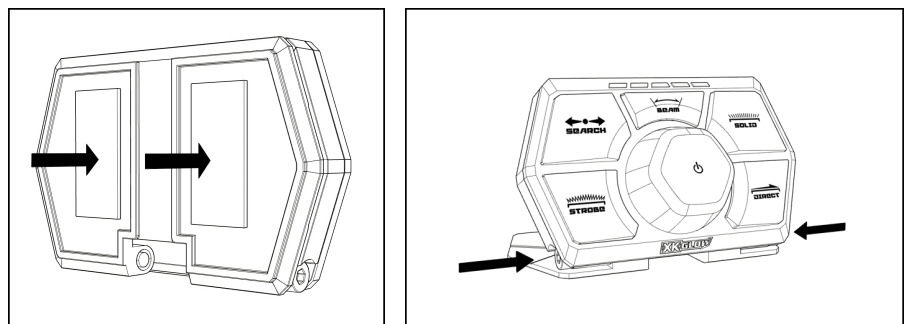
Insert the supplied bolts into the rear of the SAR Light bar. These will slide in on the side nearest the orientation button as shown in the first diagram to the right. Insert the rubber spacers onto the bolts. Position the light bar near the brackets, insert the bolts into the brackets, and secure with the included nuts and lock washers. To adjust rotation or to move the light bar from left to right, simply loosen these nuts, reposition, and snug back.



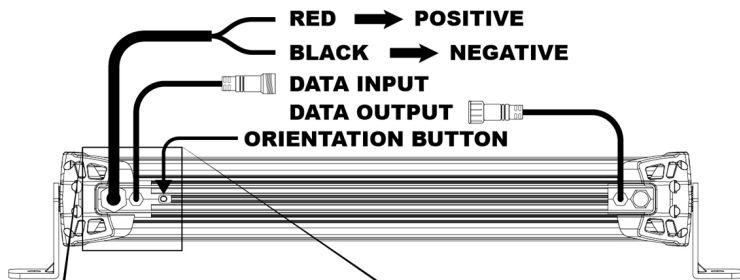
SAR Controller Installation

Find a convenient location to mount the SAR Controller. Using the provided 3M tape, firmly press the controller into the location. Use the center channel to feed the wiring through to the rear if necessary.

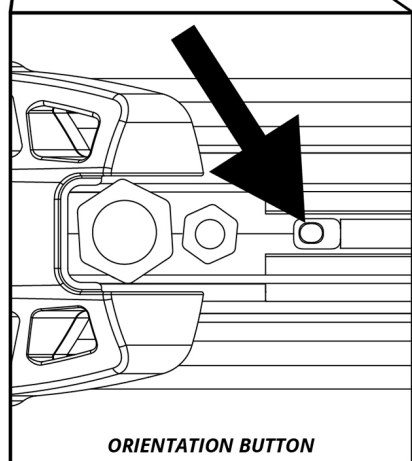
Once mounted, use the two screws pointed out in the second diagram to the right to adjust the angle of the SAR Controller. When in place, tighten the screws to lock the angle in place.



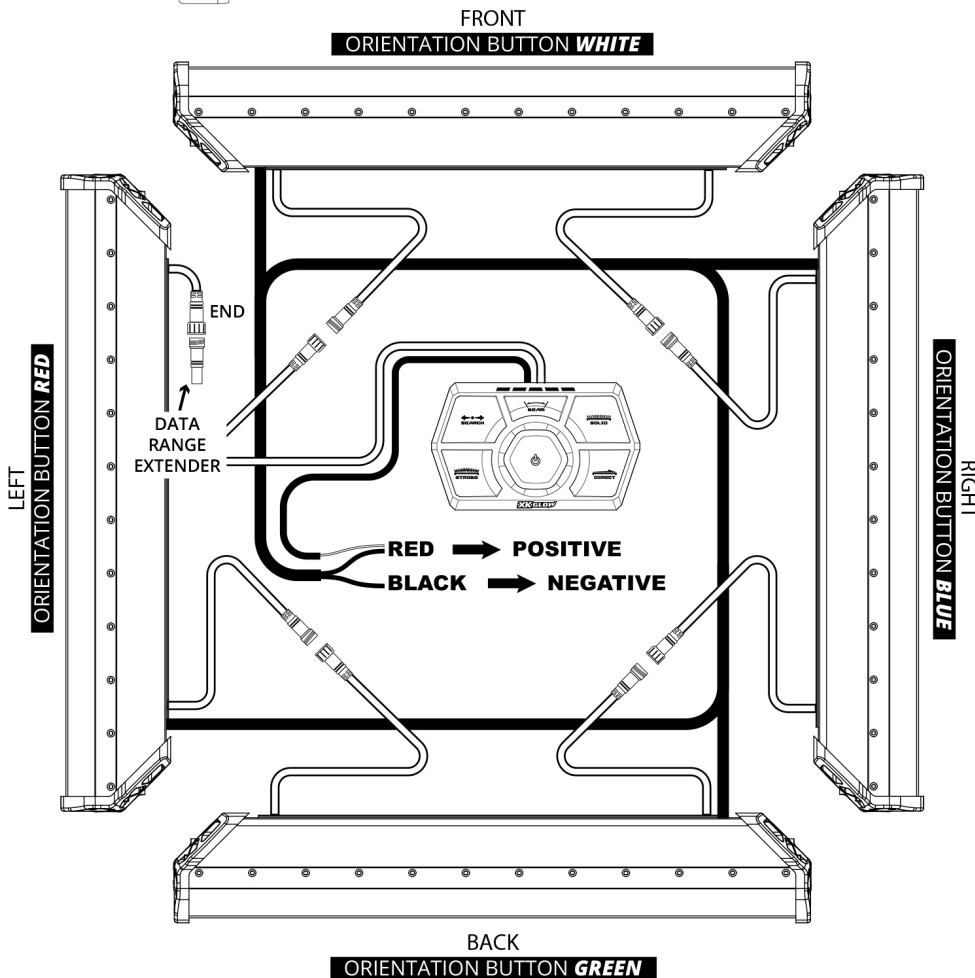
Wiring Information



There are 3 wires coming out of the back of each SAR Light Bar. Looking at the rear of the light bar as shown to the left; starting from the left side is the **power wire** to go to power and ground. Data input wire will either plug directly into the SAR Controller or into another SAR Light Bar on the vehicle. Next to the data input wire is the **orientation button**. This is to set the light bar to forward, left, right, or rear facing. On the right side of the bar is the **data output wire** which goes to the next SAR Light Bar.



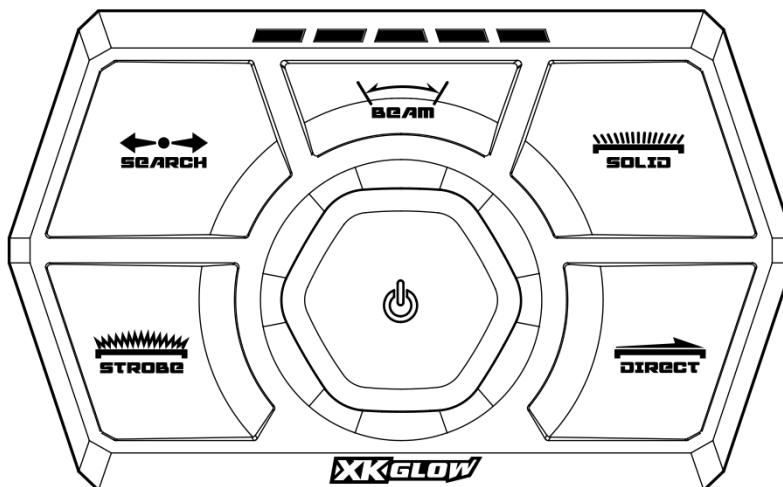
| ORIENTATION | LED COLOR |
|----------------------------------|-----------|
| FRONT <small>*DEFAULT</small> | WHITE |
| RIGHT | BLUE |
| REAR | GREEN |
| LEFT | RED |



Using the above wiring diagram, wire up each component of the SAR System. Each SAR Light Bar and the SAR Controller must be connected to constant power and ground. 12-gauge wiring or lower is required. Plug the SAR Controller into the first SAR Light Bar (data input wire) in the series. Using the data output wire from that bar, connect the next light bar in series. Repeat until all SAR Light Bars on the vehicle are connected. Please note – the order in which the bars are connected is not important. The orientation is set using the orientation button on the back of the light bar. Once the light bars are connected to power, use the chart above and set the orientation button to the corresponding color. If the total data wire length exceeds 24ft, please connect the data range extender plug (included in SAR 360 4-light bar system) to the output data wire of the last light bar.

Each SAR Light Bar must be connected to constant power with an inline fuse (included), however these can be connected to different power sources with common ground. Running multiple SAR Light Bars off of shared power and ground wires is fine, however, we do recommend staying below 40 amps per wire set. If your system exceeds 40 amps, simply run another power and ground wire to the SAR Light Bars with an additional inline fuse. The controller red wire must be connected to the same power as the 1st SAR bar.

SAR CONTROLLER



Enable Search mode to utilize the center dial to aim the light. 90 and 360 degree Search modes available.



The Beam select button adjust the width of the beam while in the Search mode. 6 beam width available.



Solid mode turns all connected SAR Bars to solid on.



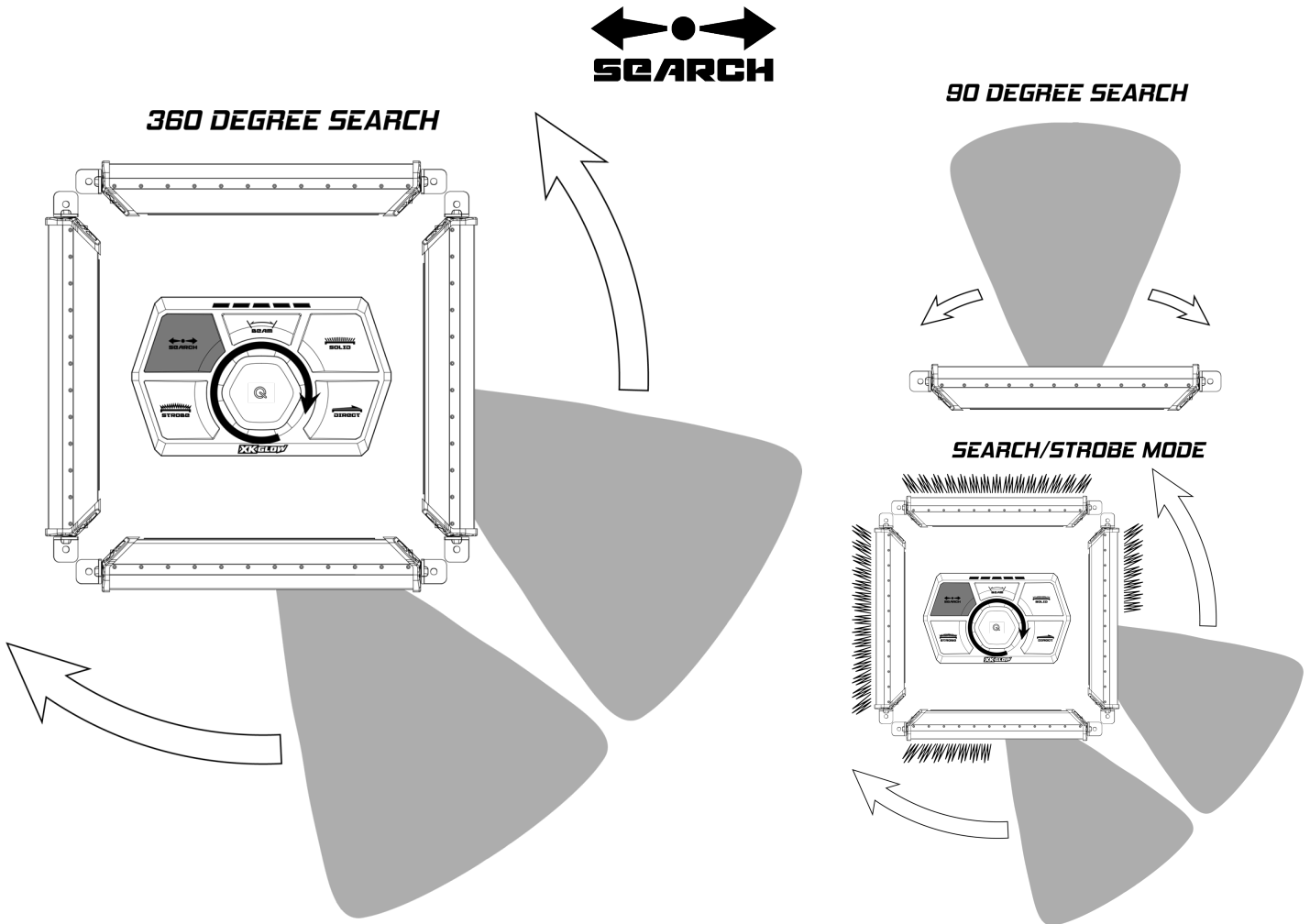
Strobe mode allows the user to cycle through five pre-defined strobe patterns.



Direct mode features Left, Right, and Center chasing patterns with the option to have the side bars strobe.

The **SAR Controller** is the command center of the SAR System. The single controller is capable of controlling every SAR Light Bar equipped to a vehicle.

To turn the lights ON/OFF, click the center dial. The green indicator LEDs at the top of the SAR Controller will illuminate. These indicator LEDs will respond to different modes when activated for visual confirmation.



Search Mode allows the user to direct the light where necessary. To activate Search, simply click the Search button. The forward-facing light bars will illuminate and can be controlled via the center turn dial. Turn the dial clockwise to direct right, and counterclockwise to direct left.

90 Degree Search vs 360 Degree Search –

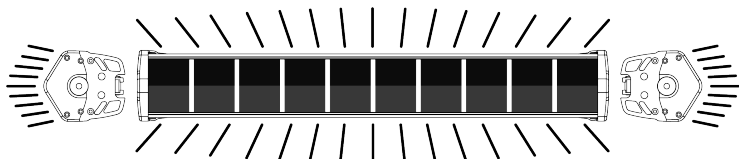
- Use the 90-degree setting when only forward-facing light bars are used. The 90-degree mode will lock the light beam to the forward-facing bar only. Example- if you turn the dial all the way left, the light will automatically stop when it reaches the end of the light bar.
- Use the 360-degree setting when SAR Light Bars are installed on multiple sides of the vehicle. The 360-degree mode will allow the light to pass by the ends of the light bar when directed. Example- when the light reaches the end of the forward-facing bar, it will pass to the bar on that side of the vehicle.
- To toggle between the **90 Degree Search** and the **360 Degree Search**, simply hold the Search button until the indicator LEDs at the top of the controller flash.

Search/Strobe Mode –

- The Search and Strobe mode is a variant of the standard Search mode but adds strobe when necessary. In the standard Search mode, all LEDs outside of the controllable beam section remain off but, in the **Search/Strobe Mode**, those off LEDs strobe on and off for lateral visibility.
- To activate the **Search/Strobe Mode**, double click the Search button. To return to normal Search Mode, simply click the Search button again.

SOLID

In Solid mode, all light bars on the vehicle will turn on in full 90-degree mode regardless of their orientation.



STROBE

Strobe mode consists of 5 preset strobe functions. Tap the Strobe button to cycle through the options in the order seen below. Strobe mode features an auto-memory function so if another mode is selected, the same strobe option will be selected when returning to Strobe mode.



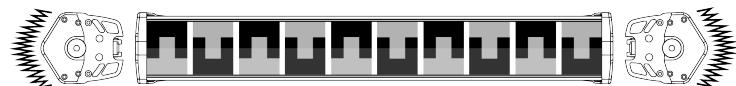
LIGHTHOUSE MODE

Lights rotate around 360 degrees (if applicable).



TRIPLE BURST

All LEDs triple flash followed by a short pause.



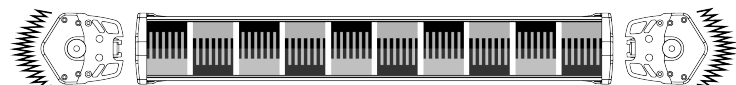
ALTERNATING SINGLE FLASH

Each alternating reflector single flash strobes.



RAPID BURST

All LEDs quick strobe.



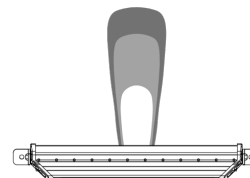
ALTERNATING RAPID BURST

Each alternating reflector flash strobes rapidly.

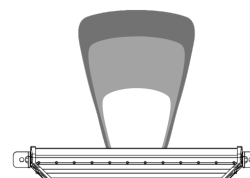
BEAM

The Beam button allows the user to control the width of the beam in the Search mode. While in Search mode, click the beam button to cycle through the 6 available widths ranging from 15 degrees all the way up to 90 degrees. A single click moves to the next larger beam width until the full 90 degrees is reached. Another click after 90 will return the beam back to 15 degrees and the cycle will start over. Beam chart can be seen in the diagram below.

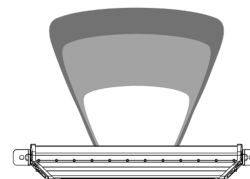
15 DEGREES



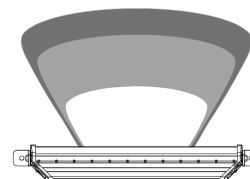
30 DEGREES



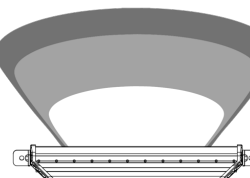
45 DEGREES



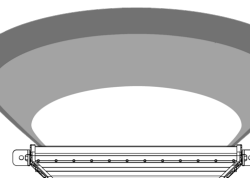
60 DEGREES



75 DEGREES



90 DEGREES





Direct mode is used in a situation where directing traffic is necessary, or even just when parked on the side of the road and want to be more visible to oncoming traffic. The Direct mode features 6 different directional settings. The first three modes control the forward facing and rear facing bars. The remaining three are a repeat of the first three with the addition of the side facing bars. When modes 4-6 are activated, the side bars will constant strobe for additional lateral visibility if the on-road situation requires. A detailed breakdown of all 6 of these settings can be seen in the diagram to the right. Just as the Strobe mode's auto-memory, the Direct mode features the same. Clicking out to another mode and returning to Direct will recall the last of the 6 settings.



RIGHT CHASE

Front and rear bars chase towards right side of vehicle.



LEFT CHASE

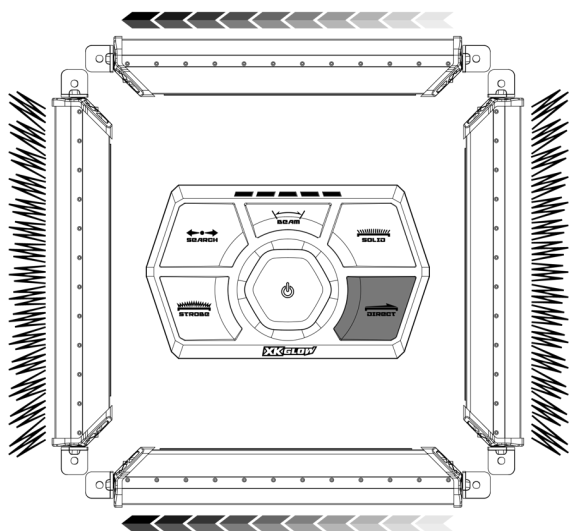
Front and rear bars chase towards left side of vehicle.



SPLIT CHASE

Front and rear bars chase outward towards both sides of vehicle.

LEFT CHASE + SIDE STROBE



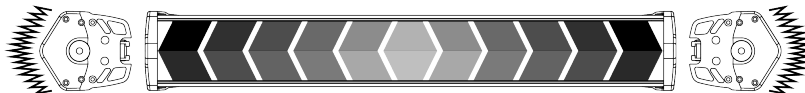
RIGHT CHASE + SIDE STROBE

Front and rear bars chase towards right side of vehicle. Side bars on constant strobe.



LEFT CHASE + SIDE STROBE

Front and rear bars chase towards left side of vehicle. Side bars on constant strobe.



SPLIT CHASE + SIDE STROBE

Front and rear bars chase outward towards both sides of vehicle. Side bars on constant strobe.

OTHER CONTROLLER FUNCTIONS

Change controller power-on default mode

Turn on the system and change to the mode you desire to save as power-on default. Hold the STROBE and DIRECT button together for 3 seconds and release. The led indicator on the controller will blink 3 times. The current mode will be the default mode next time you power up SAR system.

Controller reset

Turn on the controller, hold SOLID button for 5 seconds and release. The indicators will blink 5 times and the controller will be reset back to factory setting.

SAR light bar reset

Turn on the SAR light bar. Hold the rubber indicator button on the back of the light bar for 5 seconds and release immediately. The indicator will change to white color and the light bar will change back to factory setting.



| Input Voltage | Max Current – 20” Solid On | Max Current – 36” Solid On | Max Current – 52” Solid On |
|---------------|--------------------------------------|--------------------------------------|--------------------------------------|
| 12-24 DC | 7A 10 amp fuse included | 15A 20 amp fuse included | 24A 30 amp fuse included |