



## INSTALLATION AND OPERATIONAL GUIDE

### AWL SMARTSTICK

MODEL: LS-SS44, LS-SS46, LS-SS48



Please read this manual thoroughly before installing or operating your new product in order to prevent any injury or damage. Failure to follow these instructions may result in damage to you, your passengers, or your product.

- Proper installation of this product requires the installer to have a good understanding of automotive electronics, systems and procedures.
- This product contains high-intensity LEDs. Do not stare directly into the lights. Momentary blindness and/or eye damage could result.
- Do not install this product or route any wires in the deployment area of your air bag. Equipment mounted or located in the air bag deployment area will damage or reduce the effectiveness of the air bag, or become a projectile that could cause serious personal injury or death. Refer to your vehicle owner's manual for the air bag deployment area.
- The user/installer assumes full responsibility to determine proper mounting location that will provide ultimate safety to all passengers inside the vehicle.
- If mounting this product requires drilling holes, the installer must be sure that no vehicle components or other vital parts could be damaged by the drilling process. Check both sides of the mounting surface before drilling begins. Also de-burr any holes and remove any metal shards or remnants. Install rubber grommets into all wire passage holes.
- For this product to operate at optimum efficiency, a good electrical connection to chassis ground must be made. The recommended procedure requires the product ground wire to be connected directly to the NEGATIVE (-) battery post.
- If this product uses a remote device to activate or control this product, make sure that this control is located in an area that allows both the vehicle and the control to be operated safely in any driving condition.

**IMPORTANT:** Do not attempt to activate or control this device in a hazardous driving situation.

**WARNING:** Failure to follow these safety precautions and instructions could result in damage to the product or vehicle and/or serious injury to you and your passengers.

## WIRING:

Figure 1.1:

| Wire color:  | Function:                  |
|--------------|----------------------------|
| RED          | Positive (+)               |
| BLACK        | Negative (-)               |
| PURPLE       | To +VDC For Mode 1         |
| GREEN        | To +VDC For Mode 2         |
| YELLOW       | To +VDC For Left Arrow     |
| WHITE        | To +VDC For Right Arrow    |
| YELLOW+WHITE | To +VDC For Center Out     |
| BROWN        | To +VDC For Flood Mode     |
| BLUE         | To +VDC For Pattern Select |

To activate the light stick, the PURPLE (Mode 1) or GREEN (Mode 2) wire must be connected to the RED wire.

Mode 1 will override Mode 2. Flood Mode will override Mode 1 and Mode 2. Arrow patterns will override all modes.

To activate other light stick functions, touch corresponding colored wire(s) to the RED wire.

## OPERATION (HARDWIRE):

The AWL SmartStick comes standard with a 3.5M (11.5Ft) wire harness with a quick-connect connector attached at the end of the harness. For hardwire applications, first remove the quick-connect connector.

- 1) Extend the RED wire to the positive (+) terminal of the vehicle's battery. The bar should be fused at the appropriate amperage:
  - a. LS-SS44: 5 Amps
  - b. LS-SS46: 10 Amps
  - c. LS-SS48: 15 Amps
- 2) Extend the BLACK wire to the negative (-) terminal of the vehicle's battery.
- 3) Connect the PURPLE and RED wires to activate Mode 1.
- 4) To activate a different function of the light stick (e.g. Mode 2, Arrow Patterns, Flood Mode, etc.), pair the corresponding wire with the RED wire (see Figure 1.1).
- 5) Change flash patterns by momentarily touching the BLUE wire to the RED wire.
- 6) High-Low Output Function: The AWL SmartStick is equipped with a High-Low Output Function. When the Low Output Function is triggered, the output of the light stick will be decreased by approximately 50%. This is especially helpful during nighttime when the maximum brightness of the LEDs may effect surrounding operators.
  - a. To switch the light stick from High Output to Low Output, touch the BLUE wire to the RED wire for 3 seconds. The light stick's light output should decrease, and will remain at this output level even after turning the light stick off and on.
  - b. To switch the light stick from Low Output to High Output, touch the BLUE wire to the RED wire for 3 seconds. The light stick's light output should increase to full brightness.

## OPERATION (CIGAR PLUG):

An optional cigar plug extension cable is available for purchase with the AWL SmartStick. This plug will come standard with an on/off/on switch and pattern select switch with an additional 3.5M (11.5Ft) of cable.

- 1) Connect the connector from the end of the AWL SmartStick wire harness to the cigar plug extension cable.
- 2) Plug in cigar plug to vehicle's outlet.
- 3) Power on light by pressing the on/off/on switch to either the up or down position. Center position is 'Off.'
- 4) To change a flash pattern, press the pattern button momentarily.

**SPECIFICATIONS:**

|                            | <i>AWL SmartStick 4</i>                                       | <i>AWL SmartStick 6</i>                                       | <i>AWL SmartStick 8</i>                                       |
|----------------------------|---|---|---|
| <i>Input Voltage:</i>      | 12/24VDC  | 12/24VDC  | 12/24VDC  |
| <i>Max. Current Draw:</i>  | 2.6A@12V  | 3.9A@12V  | 5.2A@12V  |
| <i>Housing Material:</i>   | Aluminum  | Aluminum  | Aluminum  |
| <i>Lens/Clip Material:</i> | PC/ABS  | PC/ABS  | PC/ABS  |
| <i>Dimensions:</i>         | 19.1" L x 1.6" W x 2.3" H                                     | 28.6" L x 1.6" W x 2.3" H                                     | 38.0" L x 1.6" W x 2.3" H                                     |
| <i>Cable Length:</i>       | 11.5 Feet   | 11.5 Feet   | 11.5 Feet   |
| <i>Flash Patterns:</i>     | 36 Warning Patterns<br>26 Arrow Patterns<br>62 Total Patterns | 36 Warning Patterns<br>26 Arrow Patterns<br>62 Total Patterns | 36 Warning Patterns<br>26 Arrow Patterns<br>62 Total Patterns |

**MOUNTING:**

- For your convenience, L brackets, suction cups, and mounting screws are included with your AWL SmartStick. It is important to note that vehicles may differ, and the included universal brackets/hardware may not suit your specific application. It is recommended that warning bars be permanently mounted using the provided L brackets and screws. Warning bars mounted with suction cups may fall and cause damage to the unit due to the motion of your vehicle.
- Mounting brackets can also be fastened at multiple placements on the rear of the light bar. Simply slide the mounting bracket(s) to the desired location in the rear channel, and fasten.

## TROUBLESHOOTING:

| <b>Problem:</b>               | <b>Solution:</b>  |
|-------------------------------|---|
| Light stick does not turn on. | <u>Cig. Plug:</u> <ul style="list-style-type: none"><li>• Ensure that the cig. Plug is fully inserted into the vehicle socket and that the LED indicator is illuminated.</li><li>• Advance to next pattern to ensure the bar is not set to the 'off' flash pattern.</li></ul> <u>Hardwire:</u> <ul style="list-style-type: none"><li>• Ensure that the PURPLE wire is connected to the RED wire (+VDC). The PURPLE wire must be connected to activate the light stick.</li><li>• Advance to next pattern to ensure the bar is not set to the 'off' flash pattern.</li></ul> |
| Output appears dim.           | The AWL SmartStick is equipped with a High-Low Output Function. Ensure that the light stick's High Output Function is activated by following the steps outlined in the Operation (Hardwire) Step 6b.  |

## WARRANTY:

This product was factory tested and found to be operational at the time of manufacture. Provided this product is installed and operated in accordance with the manufacturer's recommendations, AWL guarantees this product for a period of 5 years from the day of purchase or delivery, whichever is later. Units demonstrated to be defective within the warranty period will be repaired or replaced at the discretion of AWL. Improper installation or use of inappropriate or inadequate wiring or circuit protection shall result in a void of warranty. Failure or destruction of the product resulting from abuse or unusual use and/or accidents is not covered by this warranty. AWL shall in no way be liable for other damages including consequential, indirect or special damages whether loss is due to negligence or breach of warranty. AWL makes no other express or implied warranty including, without limitation, warranties of fitness or merchantability, with respect to this product.

## NOTES:

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