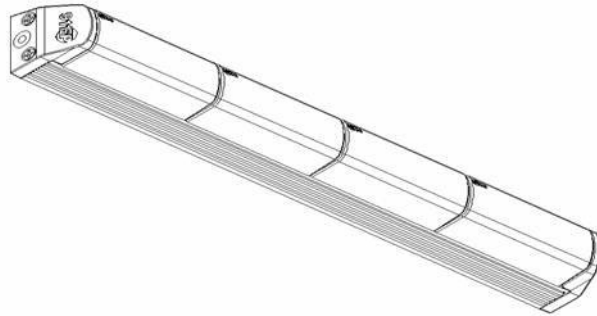


LS12 Product Line
LS12 Hard Wired: Model Number – LS12
LS12 Switched: Model Number – LS12SW



User's Guide



Thank you for purchasing a 911EP LS12 stick product!

!	This Product Contains NO User Serviceable Parts	!
!	Always Install Recommended Fuse Protection	!
!	Attempting to interchange LEDs will VOID the product's warranty	!

Overview:

The LS12 product line offers warning light features integrated into one durable, sleek, and low profile package. Each of the LS12 products can be configured to perform any of the different warning light flash patterns available.

Precautions:

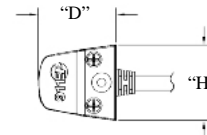
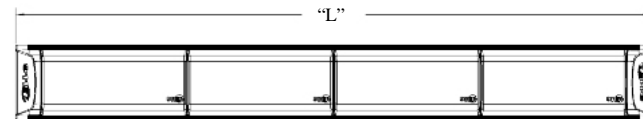
- ✓ Installing any LS12 requires a good understanding of automotive electronics, systems, and procedures.
- ✓ Please read all of the instructions before attempting to install or operate any of the LS12 products.
- ✓ Always disconnect power prior to installing or uninstalling this device.
- ✓ Never use a battery charger to bench test this device.

Product Specifications Electrical:

Optimum Operating Voltage – 13.8 volts DC (working range 12 – 15 volts DC)
 Stand-by Current Draw (not in use) - <.001A
 Operating Current Draw (at 13.8vdc) – 1A min / 3A max (determined by flash pattern activated)
 Recommended Fuse – 5A (user supplied)
 Operating Temperature Range – Min. -40°F (-40°C) / Max. 185°F (85°C)

Product Specifications Mechanical:

Product Length ("L") – 12.0 " (30.5 cm) Product Height ("H") – 1.44 " (3.6 cm)
 Product Depth ("D") – 1.47 " (3.7 cm) Side Mounting Inserts - #8-32 x 1/4" Threading
 Chassis Material – Aluminum Lens Material - Polycarbonate



Questions?

911EP® will try to quickly resolve any questions or concerns you may have as to the use of our products or issues you may experience with them. Please contact our Customer Service department with any general questions or our Technical Service department with any technical questions or concerns. **When contacting us about a product you have purchased, please have the product's serial number readily available.**

Warranty and Instruction Compliance

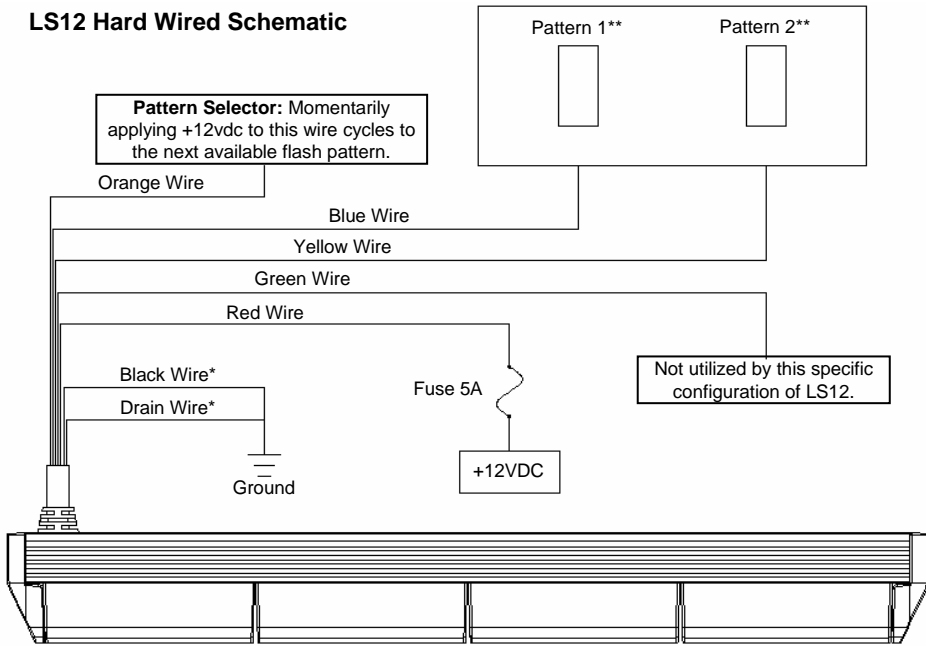
Please read the product's warranty and installation guidelines carefully.
 Failure to do so may limit the warranty coverage or completely void the warranty.

The 911EP Limited Warranty card describing the coverage details, terms, and conditions is included within the product's packaging. The warranty term chart for each specific product is on the front page. The product specific suggested maintenance schedule can be found on the back page.



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LS12 Hard Wired Schematic



* Black and drain wires to be securely connected to vehicles common ground.

** Pattern 3 is achieved by supplying a continuous +12vdc to both blue and yellow wires.

Installation Guidelines: LS12 Hard Wired Version

The LS12 hard wired version should, ideally, be used in association with a switch box or controller. A controller with 2 separate +12vdc switches is recommended in order to utilize all the features of this product to its fullest potential. However, a switch box to utilize all features and pattern activation wires is not required to operate this product.

Main Power Connection: Properly fuse (5A) the red wire and securely connect it to the vehicle's +12vdc power source.

Ground Connections: Securely connect the black wire and non-insulated drain (may be enclosed within heat shrink) to the vehicle's common ground.

Features: LS12 Hard Wired Version

Flash Pattern Activation: Activate any of the flash patterns by supplying the yellow and/or blue wires with a continuous +12vdc supply. The yellow and blue pattern activation wires provide up to 3 (each wire individually or both wires combined) configurable flash pattern options.

Configuring the Flash Patterns: All 3 of the flash patterns wires or wire combination have the ability to be configured to perform any of the flash patterns listed. A combined activation of the flash pattern wires, along with a momentary +12vdc supply to the orange wire (pattern selector), cycles through the flash patterns listed. Toggle thru the available flash patterns, when the preferred one is identified, discontinue the momentary supply to the orange wire and remove power from the pattern activation wire. The next time the same pattern wire is activated the product's memory automatically recalls and resumes the selected pattern.

Installation Guidelines: LS12 Switched Version

The LS12 switched version does NOT require the utilization of a switch box or controller. Integrated within the internally fused (5A) cig plug assembly is a 3 position switch. This switch provides all the necessary controls required to configure and operate the LS12.

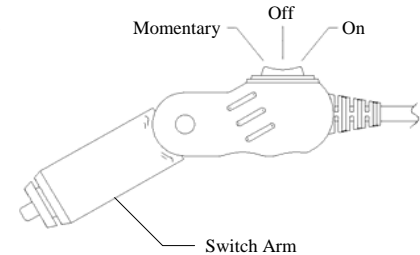
Main Power and Ground Connections: There is no necessary wiring required with this version. Simply insert the arm of the cig plug housing into any available +12vdc cig/power outlet to complete the ground and power connection portion of the installation.

Features: LS12 Switched Version

Pattern Previewing: Activate the forward (Momentary) switch position to preview and cycle through the available flash patterns.

Depress the switch in the momentary position and hold to preview a pattern. Releasing and depressing once again will cycle to the next available flash pattern for previewing.

Pattern Selection and Activation: The last pattern previewed will automatically be stored into memory once the switch is returned to the off position. At any point this pattern can be activated by depressing the switch in the opposing direction to the on position. The LS12 switched version will retain this pattern in its memory even when the product is unplugged.



Flash Pattern List:

1	Wig-Wag Pulsar	8	Double Pop	15	Cali 64 Flash
2	Double 64 Flash	9	Wig-Wag 3 Hz	16	Night Wig-Wag Chicago
3	Wig-Wag Double Pop	10	Inside Out	17	Night 64 Flash
4	Wig-Wag Chicago	11	On Off 1 Hz	18	Night Inside Out
5	64 Flash	12	Steady On	19	Night On Off
6	Wig-Wag Accelerator	13	Cycle (Patterns 1 - 8)	20	Night Steady On
7	Chaser	14	Cali Chicago		

Flash patterns #14 and #15 incorporate a continuous illumination of two segments. This feature is provided for when a steady-on/red compliance is required (commonly known as "Cali" mode).

Flash patterns #16 thru #20 are low intensity flash patterns. These are offered for the sole purpose of being utilized in nighttime scenarios where a less intense light output is preferred.

Flash pattern #13 repeatedly cycles through patterns #1 thru #8, pausing for approximately 10 seconds on each pattern before automatically cycling to the next.