



## LUMITEC 600816-A Javelin Device Instruction Manual

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### LUMITEC 600816-A Javelin Device



### INSTALLATION INSTRUCTIONS

- ORIENTATION IS VERY IMPORTANT! Lights should be mounted horizontally or parallel to water line
- Lights must be operated on an appropriately fused or circuit breaker protected circuit.
- Lights are not recommended for mounting on running surfaces (e.g., the bottom surface of a hull)
- For best performance, lights should be mounted below the waterline

- Bottom paint is not required, however lights can be painted with any bronze-safe paint if desired.

## Operation

An abrupt OFF/ON toggle of your standard (SPST) switch allows Javelin to transition through various light output modes.

### JAVELIN SPECTRUM Light Output Modes

Light will cycle through all available colors within the first 20 seconds, (including white). A brief OFF/ON toggle will allow the user to select any discrete color during the cycle. After 20 seconds without interruption, the light will continue a full color cycle over a period of 3 minutes – Discrete colors can still be chosen during the 3 minute cycle. If a discrete color is not selected, the light will repeat the 3 minute cycle continuously. Light resets after power is off for more than 3 seconds. JAVELIN Dual Color Light Output Modes 1 – Cross-Color Fade – gently undulating color mix, 2 – On Blue, 3 – On White

## Mounting Location

Mounting surfaces should be flat, clean, dry, and free of any existing hardware or holes. Before mounting ensure that the light will not interfere with the operation of engines, trim tabs, rudders, etc. Ideal mounting locations include transoms, the side and back surfaces of engine brackets, and the undersides of dive platforms. For maximum performance JAVELIN lights should be mounted 6" to 16" below the waterline. Installation at depths greater than 36" is not recommended.

## Mounting your JAVELIN light

Tape the mounting template in the desired mounting location. Drill holes for the mounting screws and wire boss as indicated on the mounting template.

**Note:** Mounting screws and isolating hardware is provided with your JAVELIN light. Extreme care must be taken when driving screws to prevent screw heads from shearing off. The diameter of the pilot hole required for the mounting screws will depend largely on the composition and thickness of the mounting surface. Size pilot holes so that only moderate torque is needed to drive the screw into the mounting surface. Typically this hole size will be slightly smaller than the outside diameter of the widest threads. Test the size of the mounting hole prior to installation. Carefully turn screws to avoid breaking them. If screw is too tight, back out and re-size screw hole. When drilling fiberglass, slightly countersinking the hole using a 3-fluke countersink bit will reduce gelcoat chipping. Thoroughly coat the back surface of the JAVELIN light with a marine-grade sealant designed for below-waterline applications. Dab additional sealant on the holes in the mounting surface, forcing some sealant into the holes. Extreme care should be taken to properly seal the through-hull (wire) hole to prevent water intrusion. Press the JAVELIN firmly into place to bed it in the sealant. Tighten the mounting screws evenly. Sealant should be forced from all sides as the light is tightened down.

**Note:** Any time a hole is bored into a vessel's hull (for example mounting screws for transducers, dive platforms, through-hull fittings, etc.), the possibility of water intrusion into the hull or completely into the vessel exists. Water intrusion may result in significant structural damage to a vessel or the vessel sinking. Considerable care should be taken to ensure that the through-hull hole is thoroughly sealed on both sides of the hull. Additionally, the back (inside) surface where the wire exits the through-hull hole should be carefully sealed using the wire strain relief.

## Under Voltage Behavior

If the voltage at the device is less than 10V when the device is on, the device will gradually dim to minimum brightness. Factors which may result in under voltage conditions include insufficient wire gauge, bad battery cell, bad connection at switch, connectors, fuse and/or circuit breaker. Lumitec, Inc. assumes no responsibility whatsoever for any damage, loss, or injury that may result from the incorrect installation of this product, including but not limited to the vessel sinking, structural damage due to water intrusion, electrical malfunction, etc.

## Limited Warranty

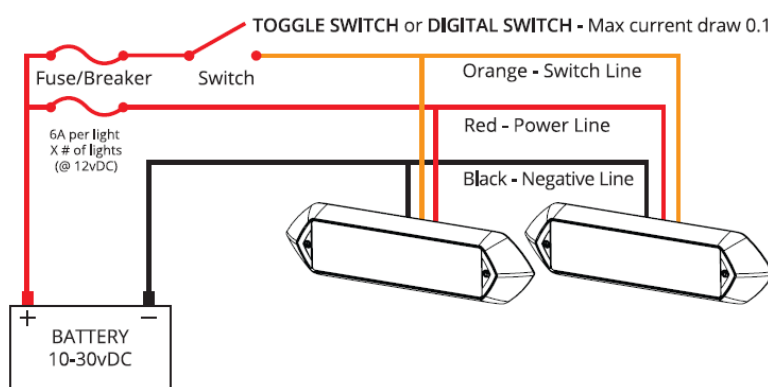
The product is warranted to be free from defects in workmanship and materials for a period of three (3) years from the date of original purchase. Lumitec is not responsible for product failure caused by abuse, neglect, improper installation, or failure in applications other than those for which it was designed, intended, and marketed. Lumitec, Inc. assumes no responsibility whatsoever for any damage, loss, or injury that may result from the incorrect installation of this product, including but not limited to structural damage due to water intrusion, electrical malfunction or vessel sinking when used in marine applications. Should your Lumitec product prove defective during the warranty period, promptly notify Lumitec for a return authorization number and return product with freight prepaid. Lumitec will, at its option, repair or replace the product or defective portion without charge for parts or labor, or, at Lumitec's option, refund purchase price. Products repaired or replaced under this warranty shall be warranted for the unexpired portion of the warranty applying to the original product(s). No warranty or affirmation of fact, express or implied, other than as set forth in the limited warranty statement above is made or authorized by Lumitec, Inc. Any liability for consequential and incidental damages is expressly disclaimed. Lumitec liability in all events is limited to, and shall not exceed, the purchase price paid.

## Wiring Instructions

Due to the high lumen output of the JAVELIN light, sufficiently rated wiring and electrical components must be used to minimize voltage drop to the lights. When connecting multiple JAVELIN lights to a common switch this becomes even more critical. THE TYPICAL RECOMMENDATION IS TO SELECT WIRING SYSTEM COMPONENTS TO ENSURE THAT VOLTAGE DROP FROM POWER SOURCE TO THE LIGHTS DOES NOT EXCEED 3%. To simplify the installation on vessels with multiple lights Lumitec has introduced a remote switch internal to the JAVELIN light, allowing for less expensive low current wire and components to be used during the installation.

- Allows for more lights to be controlled by a single switch
- Switch placement can be much further from lights
- Fewer channels required on your digital switching system
- Will allow for PLI color control via compatible digital switching system through a Multi Functional Display (MFD)

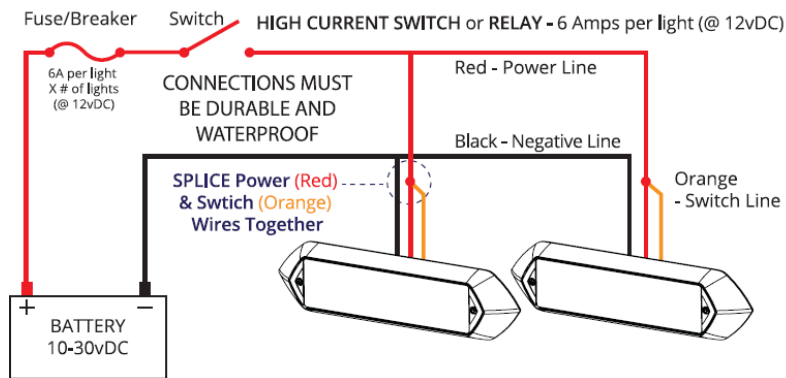
### 3-WIRE CONNECTION



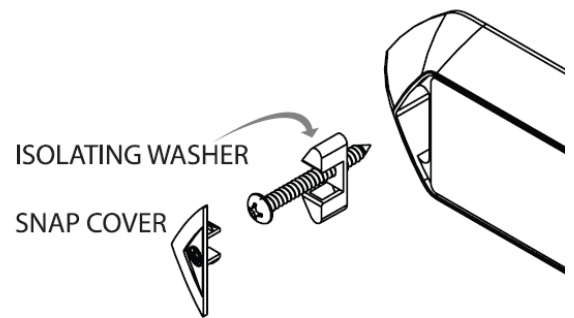
To use the 3-wire system, simply connect the red and black 10-30VDC lines to an appropriately fused power buss with constant power and the Orange wire to a switched +10-30VDC buss referenced to the same ground as the power lines.

### 2-WIRE CONNECTION

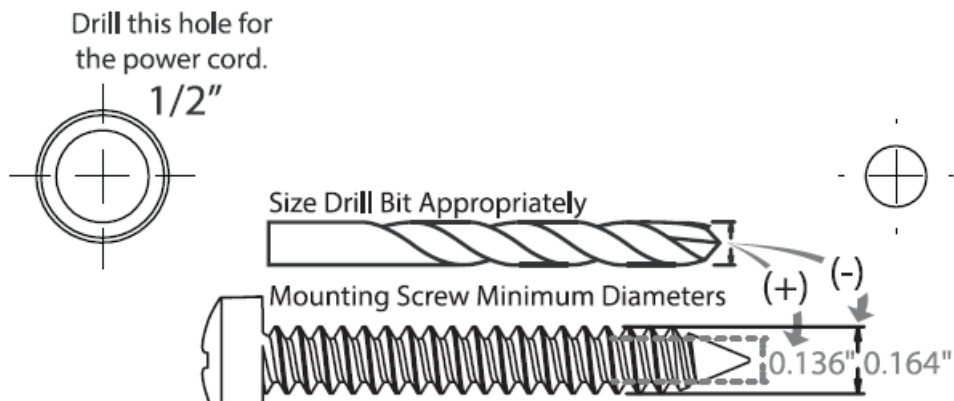
Fuse/Breaker Switch HIGH CURRENT SWITCH or RELAY- 6 Amps per light(@ 12vDC)



**NOTE:** The JAVELIN can also be wired in a standard two wire installation as well by simply connecting the red and orange wires together and powering via an appropriately rated switched power buss.



When predrilling mounting screw holes use an appropriately sized bit for the composition and thickness of the mounting surface. Most applications will require a drill bit sized larger than the minimum diameter of the screw, but smaller than the maximum thread diameter.



## Documents / Resources

	<p><a href="#">LUMITEC 600816-A Javelin Device</a> [pdf] Instruction Manual 600816-A, Javelin Device, 600816-A Javelin Device</p>
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