

## **WARNING**

**THIS PRODUCT USES A HIGH BRIGHTNESS LED. DIRECT VIEWING OF THE LED AT CLOSE RANGE SHOULD BE AVOIDED.**

**KEEP PRODUCT AWAY FROM CHILDREN.**

**HAVING ISSUED THIS WARNING THE LITEWAVE COMPANY ACCEPTS NO RESPONSIBILITY FOR ISSUES ARISING FROM ANY FAILURE TO COMPLY WITH THIS CLEAR INSTRUCTION.**

**LITEWAVE WILL NOT ACCEPT RESPONSIBILITY FOR ANY OTHER ISSUES ARISING FROM IMPROPER USE OR FITTING OF THIS PRODUCT AS THESE MATTERS ARE BEYOND OUR CONTROL.**

## **Installation**

Prior to Installation we advise that you bench test the Mini LED Screw Lights. Connect the red wire to the positive (+) terminal of a 12vdc battery (a 9v pp3 will also work), then connect the remaining black wire to the negative (-) terminal.

Ensure that all of the LEDs are fully lit – **AVOID VIEWING THE LEDS DIRECTLY**

Decide where you want to place the LEDs. Drill a hole slightly larger than the thread. Remove the serrated nut from the LED then push the wires through the hole, on the other side of the hole fit the nut over the wires and tighten onto the threaded body of the LED.

## **Wiring**

The LED Screw Lights have 2 wires, one red, the other black it is important to connect these the right way around or the LEDs will not light up.

The red wire is positive (+) and should be connected to the positive wire from the output of the power supply.



The black wire from the LED Screw Lights is negative (-) and connects to the remaining wire from output of the Power Supply.

The wires can be connected to the output of the power supply with the the DC Adaptor supplied (5A is the maximum load that should be put on it), alternatively you could use a terminal block, or bullet connectors. Whatever the connection method it should be located in the dry.

Once the connection has been made the power can be switched on. If the LEDs do not light up swap the black and red wires around.

Multiple LED Screw Lights can be parallel linked by running the red wires from every LED Screw Light back to the same terminal block, and all of the black wires to the terminal block. All of the reds go into the same connection on one side of the terminal block, and all of the blacks to the remaining connection.

If extending the wire use wire of sufficient Amperes for the number of Screw lights being powered.

If a power supply having a significantly greater current capacity than the current requirement of the LED product(s) is to be used then a safety fuse will be required along the positive input wire to the product. This is to prevent excess current flowing through the supply wiring and LED product(s) under fault conditions such as accidental damage. Such a fuse must be located as near to the supply or driver to protect the installation wiring and shall have a current rating just higher than the total load anticipated under normal operating conditions.

**PLEASE NOTE:** If using in a vehicle or on a vehicle battery **it is essential** to use an in-line fuse along the + input to the LED Product, if unsure consult a qualified vehicle electrician. Follow the cable ratings on page 4 for the appropriate amperage fuse.

**Note that a fuse may only be omitted from the low voltage side if the power supply provides its own overload protection and is unable to significantly exceed the maximum rating of the wiring and LED product before it trips.**

## Warranty

This product is warranted from manufacturing defect only. This warranty is valid for 1 year from the date of purchase. This warranty does not apply to damage caused by user installation or normal wear and tear. The Litewave Company nor its respective owners gives no warranty against damage to any surface due to removing or applying this product.

Please follow instructions and warnings carefully.

## Specifications

Nominal supply voltage:	12 Volts DC
Viewing Angle:	30 Degrees
Maximum current drain:	~ 0.02 Amps (20ma) per LED
IP Rating:	None

## Resources

To see the full Litewave product range visit <http://www.litewave.co.uk>

## Environmental Information



At the end of this product's usable life it should be disposed of according to WEEE regulations, which means it should be taken to your local municipal site for safe disposal/recycling.

## Safety Information:

- Keep away from children
- The product itself and all its components should not be mechanically stressed.
- Installation must not damage or destroy conducting paths or other parts of the product
- Installation of LED product (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
- Correct electrical polarity needs to be observed. Wrong polarity may damage or destroy the LED product.
- Parallel connection is highly recommended as safe electrical operation mode.
- Serial connection is not recommended. Unbalanced voltage drop can cause hazardous overload and damage the strip.
- Please ensure that the power supply is of sufficient power to operate the total load.
- Only power the LED product with Switchmode Power Supplies (constant voltage). Do not use a constant current Power Supply.
- If fixing on metallic or otherwise conductive surfaces, there should be an electrical insulator between the product and the mounting surface.
- All LEDs are static sensitive.
- Damaged by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
- Identify Positive (+) and negative (-) outputs of the Power Supply by using a multimeter.
- Electrical Connections should be in a dry area unless adequately sealed.

LITEWAVE LTD. MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THESE LITEWAVE LTD. MAKES PRODUCTS AVAILABLE SOLELY ON AN "AS-IS" BASIS. IN NO EVENT SHALL LITEWAVE LTD. BE LIABLE TO ANYONE FOR SPECIAL, COLLATERAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF PURCHASE OR USE OF LITEWAVE PRODUCTS. THE SOLE AND EXCLUSIVE LIABILITY TO LITEWAVE LTD, REGARDLESS OF THE FORM OF ACTION, SHALL NOT EXCEED THE PURCHASE PRICE OF THE LITEWAVE PRODUCT DESCRIBED HERE IN.