www.litewave.co.uk

WARNING

This product uses High Brightness LEDs. direct viewing of the LED Bars at close range should be avoided.

Keep product away from children.

Litewave LTD. Will not accept responsibility for any other issues arising from improper use or fitting of this product where such matters are beyond our control.

Having highlighted a number of safety issues and warnings in this installation guide Litewave LTD. will accept NO responsibility for issues arising from any failure to comply with these instructions and recommendations.

Installation

Prior to Installation we advise that you bench test the LED Bars, these are usually tested prior to dispatch. Connect the red (or brown) wire to the positive (+) terminal of a 9v battery (a fully charged 9v pp3 is ideal), connect the remaining black (or blue) wire to the negative (-) terminal of the battery.

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

The area where the LED Bar is to be fitted should be relatively flat.

The LED Bar has 2 fixing clips, 1 for each end of the bar.

Decide where you want to place the LED Bar, using a marker pen mark where the Bar will start and end. Move in 10mm from this point on both ends and mark 2 points through the clip where you will drill the holes for the clips.

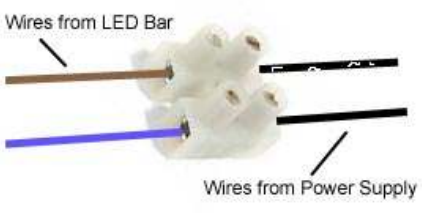
Next take a 2mm drill bit and pre-drill each of the marks before screwing in the mounting clamps.

Wiring

The LED Bars have 2 wires it is important to connect these the right way around or the LEDs will not light up. A multimeter is recommended to identify the positive and negative outputs from the power supply.

Connect the positive (+) wire from the LED Bar to the positive (+) output of the power supply. There are two wires from the output, identify the positive wire (a voltmeter or multimeter is recommended) and connect it to the + wire of the LED Bar, the + wire is the red (or brown) wire from the LED bar. The remaining wire from the power supply is negative and should be connected to the remaining negative "-" wire of the LED Bar. **The wires can be connected together by using a terminal block.**

To join the wires it is advisable to use terminal blocks as this is more secure and safer than using electrical tape. As an added safety precaution we also advise using a 1 amp fuse between the positive wire of the power supply and the positive wire of the LED Bar. **Terminal blocks are suitable for dry use only.**



The + wire from the LED Bar should go into the terminal block directly opposite the + wire from the power supply. The remaining wire from the LED Bar connects opposite the remaining wire from the power supply. It should look like the diagram.

If the LED Bars do not light, switch the power off and reverse the wires, LEDs have a polarity and will only work one way around. They should now light.

Multiple LED Bars can be parallel linked by running the positive wire from each Bar back to the terminal/junction block they should all connect into the same circuit for that polarity, all of the negative wires should be wired the same way on their own circuit via their own terminal/junction block. Connect the positive output from the power supply to the positive circuit and the remaining negative to the negative circuit.

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. The Fuse size should be rated as near to the load as possible, so a 500ma fuse should be used for a 300mm LED Bar.

The LED Bars are weather resistant, but should not be submerged in water.

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.

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.

If hard-wiring the input of the Power Supply to the AC mains it is essential to use a fused wall switch or outlet. The fuse on the mains side should be 3A or less. Only a qualified electrician should hard-wire the Mains PSU.

Power Supplies should be installed in a dry location.

If in doubt consult a qualified electrician.

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. Litewave Ltd 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:	120-140 Degrees
Approx. Current drain at 12vdc per 300mm (1ft) length:	
	White: 0.250 Amps (250ma)
	Warm White: 0.320 Amps (320ma)
	Blue: 0.380 Amps (380ma)
LED Type:	SMD
Durability:	Lightly Splashproof

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.