



**LEDcentre.uk.com**

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## Installation manual for 12V DC MR11 LED lights

Thank you for shopping at LEDcentre.uk.com.

We would like to help your electrician with the installation.



**Performance:** Please check product details on the website.

**Operating Voltage:** 12V. AC / DC, constant voltage

**Voltage tolerance:** 10-15V DC.

Operating the lights with batteries (ship, boat, yacht, caravan, van) voltage may go up while the battery is being charged. MR11 LED lights are not affected by higher voltage within the tolerance rate for up to five hours.

**Transformers:** we recommend using our Waterproof LED driver/power supply only. To calculate the required output of the LED driver, please use the power consumption details displayed on the product. The total power consumption of MR11 12V SMD LED products connected to the power supply should never be higher than the Wattage of the power supply.

**Batteries:** The advantage of the SMD LED products is that they operate at 12V DC, so 12V batteries are suitable for running them. If the charging of the battery is not regulated, it is advisable to include a voltage regulator within the system for the long lifespan of the lights.

**Please note: Conventional electronic transformers are not suitable for LED lighting. There is no warranty for LED lights ruined by unsuitable LED lights.**

The mains supply must always be isolated prior to installation. The overall electrical installation must conform to the relevant regulations.

The ends of the circlip should never touch the MR11 SMD LEDs when held in place by circlips. Please always insulate the end of the circlip in such cases.

The LEDcentre does not take any responsibilities for personal injuries or damage of the goods caused by incorrect installation. All installation must be carried out by qualified persons.