

LASERMET
MINIATURE LED SIGN
POWER AND SWITCH UNIT
INSTRUCTION MANUAL



PS-LEDS-1W
PS-LEDS-RG

Issue 3

LASERMET PS-LEDS Instruction Manual

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1 Safety Warnings

This device is intended to be used as part of a safety system which may be used to protect personnel and equipment from possible injury, damage, or loss.

As such it must be installed and wired according to these instructions and tested by suitably qualified persons. No attempt may be made to tamper with the parts, open them, or use them outside of the parameters contained herein.

The units are only designed to be fixed to surfaces using their inbuilt fixing holes. They must not come into contact with each other or any other moving part when in use. The parts should never be subject to impact or mechanical strain.

Safety switches should never be defeated or bypassed. It is imperative that all steps are taken to ensure that any spare actuators are made unavailable, such that they cannot be used to defeat the switch or reduce the protection offered by the system in any way.

2 Concept

The Miniature LED Sign Power and Switch Unit is intended to be used in conjunction with Lasermet's Miniature LED Signs. The Power and Switch Unit accepts a mains input and provides the correct voltage to illuminate the sign. A switch on the unit allows the sign to be turned on and off in the case of one-way signs and switched between off and the two indications in the case of two-way red/green signs. The unit is usually sited at a convenient position for users to operate the switch and can be wall or desk mounted.

The unit is able to power one Lasermet Miniature LED Sign.

Lasermet provides a full range of laser interlock equipment including control systems, interlock switches, illuminated warning signs, laser shutters, door locks, external power supplies etc. which can be connected to provide a complete laser interlock system. Full support, design and installation is available from Lasermet, please contact us for any queries. Contact details are given at the end of this manual.

3 Installation

The Power and Switch Unit is capable of operating one Lasermet LED Miniature Sign.

The unit is designed to be permanently attached to a wall or other fixed vertical surface. It should be mounted in a convenient position for use and wiring. Normally it is wall-mounted on the inside of the entry door of the controlled area.

During installation, fixed wired connections will need to be made from the Power and Switch Unit to the incoming mains supply and the Miniature LED Sign. A $\varnothing 20\text{mm}$ conduit hole is provided and allowance should be made for the installation of electrical conduit to make entry to the bottom of the unit.

Refer to Figure 1 for details of the fixing holes and cable entry. Secure the unit to the wall using suitable screws and wall plugs according to the type of wall.

Remove the plug from the bottom of the unit and attach the conduit.

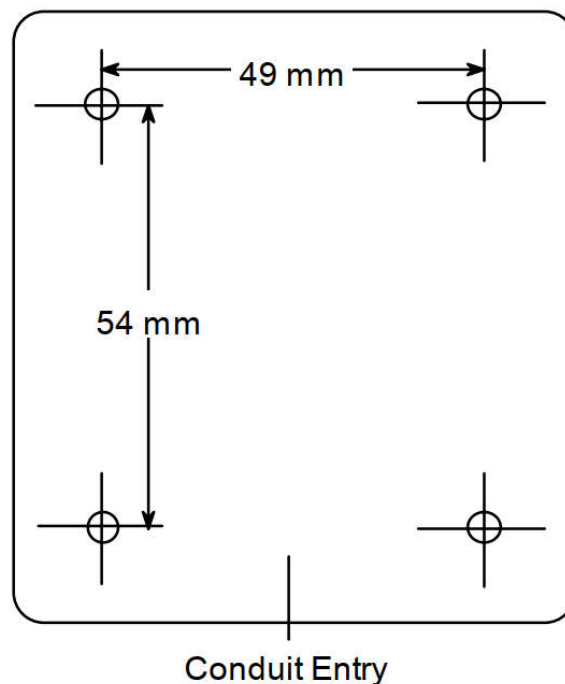


Figure 1. Fixing Centres

4 Wiring

The unit is factory configured for 110Vac input for US customers and 220-240Vac for UK and European customers.

The mains supply to the unit should incorporate a double pole isolator and overcurrent protection of a 3A or 5A circuit breaker or a 3A fuse. An earth connection is not required. Electrical installation must comply with local wiring regulations.

The incoming and outgoing wires share a common conduit, therefore the cable to the sign should have an insulation rating which exceeds the mains supply voltage. Unscreened 7/0.2mm cable approved to DEF STAN 61.12 parts 4 and 5 is recommended. One-way signs require two-core cable, Red/Green signs require three cores.

A two-way terminal block is provided for the incoming mains supply.

A three-way terminal block is provided for connection to the sign. In the case of PSLEDS-1W, the GN+ terminal is inoperative and is unused.

The connections for the One-Way Warning Sign with PS-LEDS-1W are shown in figure 2 on the next page.

The connections for the Two-Way Red/Green Warning Sign with PS-LEDS-RG are shown in figure 3.

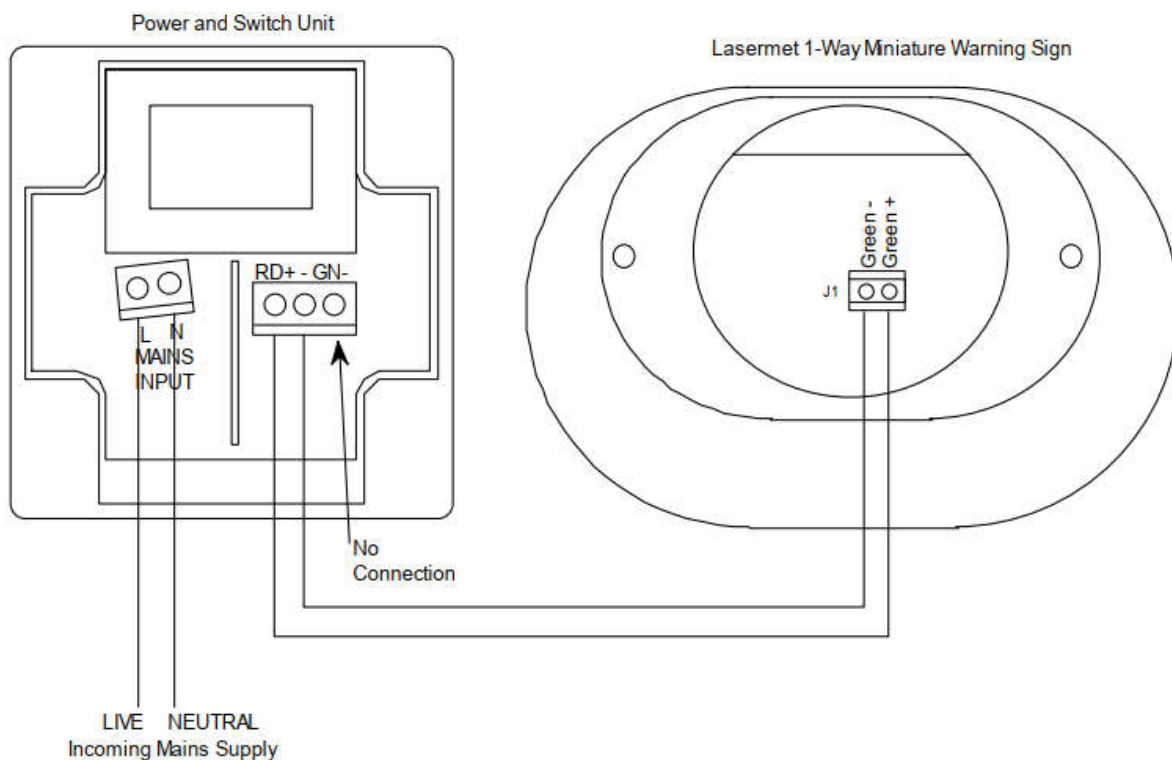


Figure 2. Wiring for 1-way LED Sign

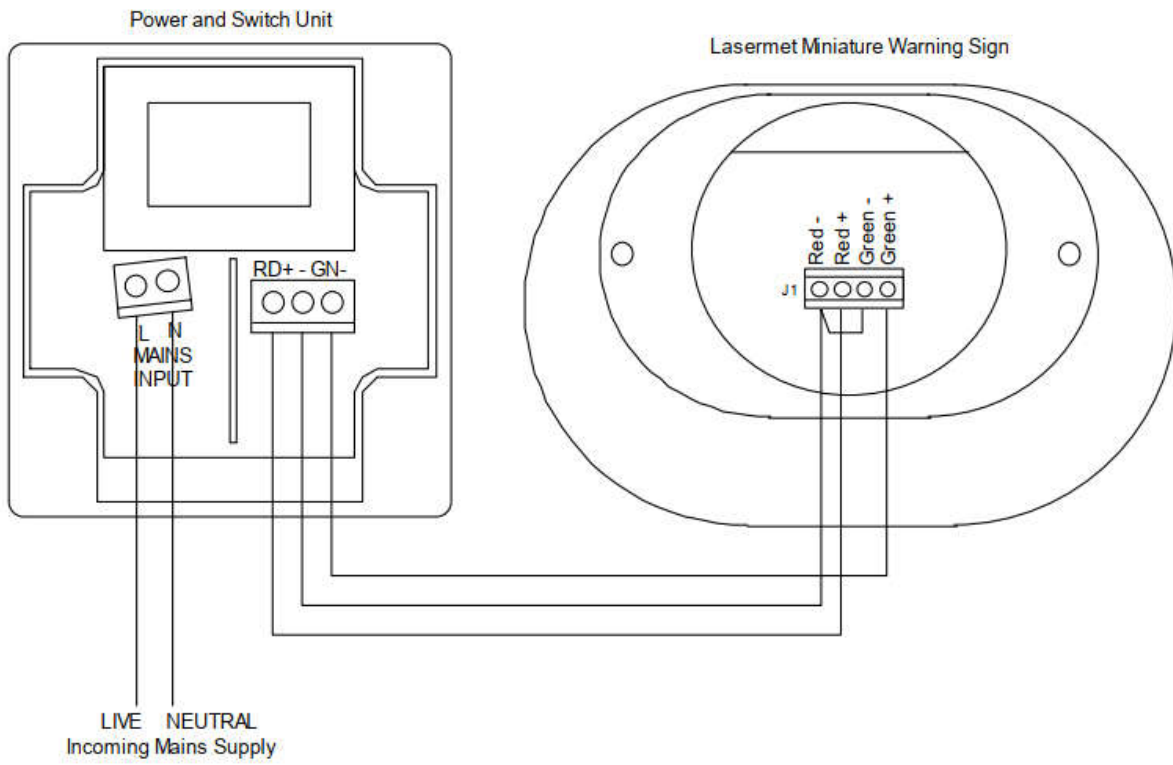


Figure 3. Wiring for 2-way Red/Green LED Sign

5 Specifications

Input Voltage	220-240VAC or 110-120VAC 50-60Hz
Output Voltage	24VDC nominal, 250mA maximum
Power Consumption	6W
Size	72mm wide X 78mm high X 64mm deep
Weight	0.3kg

Values given are average values measured across a number of samples and are not guaranteed. Lasernet reserve the right to alter any specification without prior notice.

6 Warranty

Lasermet provide a 12-month warranty for defects in materials and manufacture, from the date of installation or delivery. Installations completed by Lasermet are covered against defects in workmanship for 12 months.

Damage or defects caused by other factors are not covered. For example, industrial contamination, incorrect cleaning, storm damage. Consequential loss is not covered under warranty. Compensation for indirect or direct loss or damage is expressly excluded. Rectification of the defects or a replacement does not initiate a new warranty period.

For all deliveries, payments and other legal transactions, English law takes precedence for any litigation.

7 Contact Details

Lasermet provide a full range of laser interlock equipment including interlock switches, illuminated warning signs, laser shutters, entry keypads with built-in fail-safe override timer, door locks, external power supplies etc. which can be interconnected to provide a complete system. We also supply equipment and consultancy covering all aspects of laser safety. Full support, design, and installation is available from Lasermet, please contact us for any queries.

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