SIGN LIGHTING AUSTRALIA
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suppliers of Acrylic Edge-Lighting systems and LED lighting for signage

LED Module Installation Manual

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INTRODUCTION

Sign Lighting Australia, is a national supplier, based on the Gold Coast. Initially, dedicated to the manufacture and supply of Acrylic Edge-Lit signage Lighting systems, in 2010, it was one of the first to transition to LEDs, and subsequently evolved into a One Stop Shop for Signage Lighting supply.

With 30 years experience as a wholesaler to the signage, shop fitting, display and electrical industries, our company objective has always been focused on one thing; - providing reliability, installation efficiency and reducing installation, and ongoing maintenance costs

Our Suppliers have dedicated the last 20 years in partnership with IPLED in Europe who have been making signage for over 30 years in seven different Western European countries so their know-how and experience of lighting a sign is forefront in the ongoing development of led modules for signage.

Our range of waterproof LED modules will cater to applications for the likes of Channel Letters, and slim back lit light boxes from just 40mm deep, right through to edge lighting 300mm double sided light boxes.

CE-certified and RoHs compliant, Age and UV tested, using only 'Premium' grade LEDs selected from Epistar, Osram, Cree, Nichia to meet each specific job requirement, all of our smd LEDs are supplied with a 5 year warranty.

For 7 years now, we have imported and branded our own range of waterproof LED drivers which have proven to be both reliable and cost effective. These are also supported with our own 5 year warranty. All other lighting products are supported with a 3 year warranty. Our warranty process is simple, and administered here in Australia for a quick and stressless solution.

Let us help you to make your signs more attractive, more reliable, more energy efficient and for less money.

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SAFETY

Turn the power off at the fuse or breaker panel before installation, inspection, service, or removal of the LED system and / or power supplies. Sign Lighting Australia's LED's have an IP65 rating, however, we recommend using this product in dry or damp locations only. Power supplies must be properly grounded before operation. All wire connections must be made per Australian Electrical Standards and local codes.

WARRANTY

Sign Lighting Australia's LEDs are supplied with a warranty of 5 years on the SMD modules and including Power supply units, unless otherwise specified. Excluded from warranty are failures caused by the following conditions:

- Incorrect use of the LED
- Short circuit, or incorrectly wired circuits
- Wrong connection of the power supply
- Wrong Power Supply - overloading
- Mixing of different module types

Replacement costs are to be discussed in mutual agreement - if the LED's are in operation for 24 hours a day, the LED's will devaluate in light output if they cannot get rid of their heat, this will shorten their life, and warranty (calculated at 19 hrs operation per day - 35,000 hours).

We strongly advise the installation of a twilight switch or timer on the installation.

Sign Lighting Australia is not responsible for consequential damage to other devices, buildings. or any associated reparation

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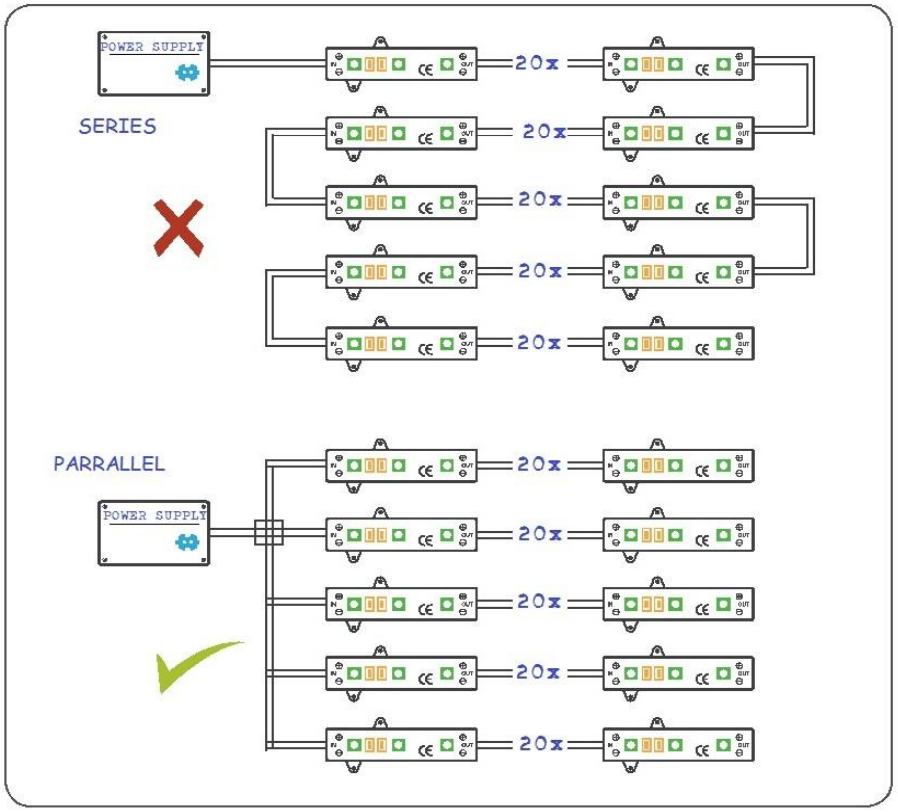
WARNINGS

1) Install the Power Supply within 5 meters from the first Led modules or when the distance is longer than 5 meters, you have to adjust the wire thickness.
2) When placing power supply units, there must be at least 5 cm between the power supply units.
3) Power supply should not be placed in direct sunlight and should be equipped with protected box for outdoor use with ventilating holes.
4) Use IP67 (waterproof) connectors if installed out-door.
5) Power supplies should not be placed in water.
6) Load all Power supply wires equally.
7) Temperature control. Use between - 20 & + 65 degree C
8) Warning low voltage (12VDC) NEVER connect the LED directly to 230vAC
9) The power supply achieves optimal results when 80-85% loaded. Use the LED / power diagram to select the correct power supply.
10) When working with electricity, removing covers, or examining your wiring, be certain to turn the power OFF first.
11) Do not put pressure on the lens/chip



TOOLS

- **RULER** – Measure the required row and distance of Led modules.
- **PENCIL** – Mark the place and distance between the rows.
- **CUTTER / NIPPERS** – Cut number of LED modules per string.
- **ELECTRIC DRILL** – Drilling holes for the attachments of the power supply.
- **SCREWS** – Mounting the power supply, and modules
- **SCREW DRIVER** – Mounting the power supply and modules.
- **CONNECTORS** – Connecting the wires and modules together, although we highly recommend that ALL joins are soldered.
- **SILICONE SEALANT** – Use silicone sealant to secure the LED modules. - The self-adhesive backing is only to assist in the placement of modules.

WIRE GAUGE DISTANCE CHART

When the distance between the power supply and the first LED of a letter or sign increases, the thickness of the wire should be increased.

Distance in Meters from Power Supply			
Power (W)	**5 meter**	**5 to 10 meter**	**10 to 20 meter**
30W	**1mm2**	**1mm2**	**2mm2**
60W	**1,5mm2**	**2mm2**	**2,5mm2**
100W	**1,5mm2**	**2mm2**	**2,5mm2**

Note: Overloading will cause the power supply to shut down. REMOVE OVERLOAD. Restart the power supply by reconnecting the 230v power.

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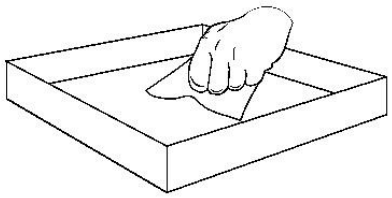
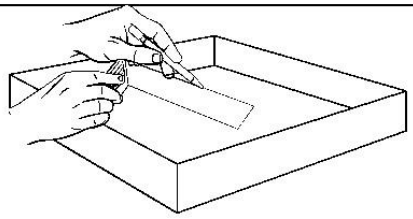
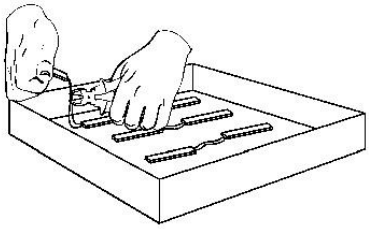
INSTALLATION GUIDE – LED MODULES



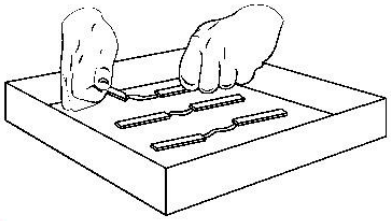
1 CLEAN THE SIGN



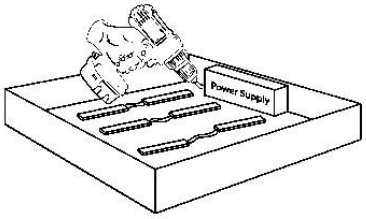
2 MEASURE AND MARK LED POSITIONS



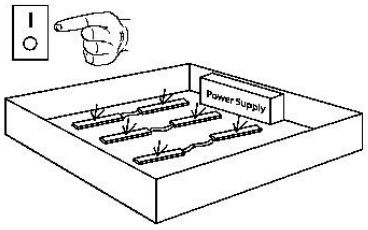
3 MEASURE & CUT LED MODULES



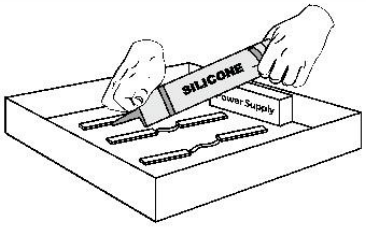
4 INSTALL THE LED MODULES



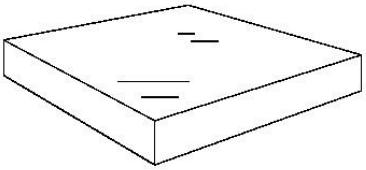
5 INSTALL THE POWER SUPPLY & WIRES



6 CONNECT & TEST THE LED MODULES



7 SILICONE THE LED MODULES



8 CLEAN THE SIGN

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MALFUNCTION & SOLUTIONS TABLE

Malfunction	Probable causes	Solutions
No LEDs work	No power from power supply	Supply power
	Short circuit or automatic short circuit protection of power supply	Troubleshoot short circuit and supply power again
	Power supply fuse is burnt	Replace the burnt fuse with a new one
Part of the LED module strings don t work	No power from power supply(ies)	Check the power supply system and troubleshoot
	Some power supply wires are wrongly connected	
Brightness of LED is not consistent or is not enough	Power supply overloading	Add power supply quantity
	Too much current loss of power supply wires	Thicken wires or add wire quantity or adjust the power supply positions to ensure each connection point voltage is no less than 90% voltage stipulated
	More then one LED module string is seriesly connected	Connect each string directly to the master wires from the power supply as diagram on page 5. Dont connect the strings by series
Led twinkling	Poor wire contacting	Identify poor contacts and troubleshoot.
Individual LED doesnt work	Breakdown due to electrostatics	Replace with new LED or new LED Modules

We recommend that an electrician oversees installation.
Any queries, please consult with our sales department

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