

LED Light Panel Install & Handling Guide

Components required



20 AWG wire



Bright Green LED Light Panel



Power supply



Wire connectors



Diffusing layer*

*We recommend using a diffusing layer with any LED Light Panel installation to obscure the grid pattern. This is not supplied as standard but can be supplied as an option.

Maximum illuminated dimensions



Bright Green LED Light Panel is available in larger sizes but we recommend making up larger areas with multiple, equal sized panels to ensure bright, even illumination. We can illuminate on more edges than shown above if a higher brightness is needed.

Construction

All LED Light Panels are custom manufactured with an optimised grid pattern for the panel size. This optimises performance and light distribution.

Principle materials:

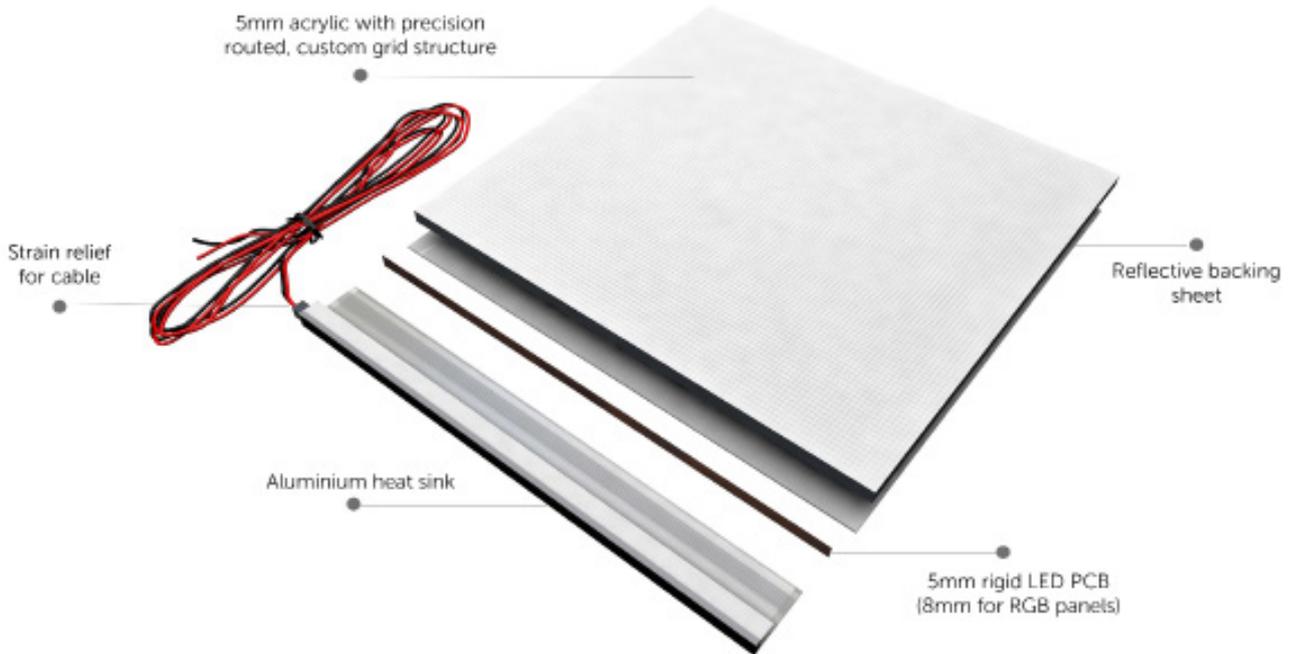
Aluminium, acrylic, PET

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Exploded view



Installation

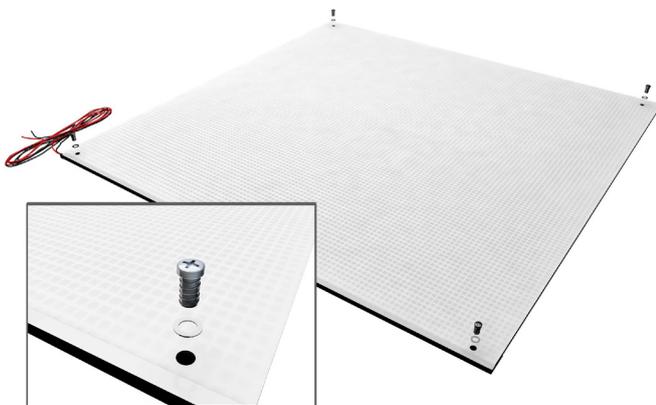
There is a minimum distance that must be left between the light panel and the diffusing layer/graphic, this distance will depend on the specific project and could be as much as 60mm.

We always suggest testing before installation to ensure even diffusion with your selected material.

Do not adhere graphics or any other material directly to the panel and do not fix anything to the rear of a Frame A panel as this may cause shadowing.

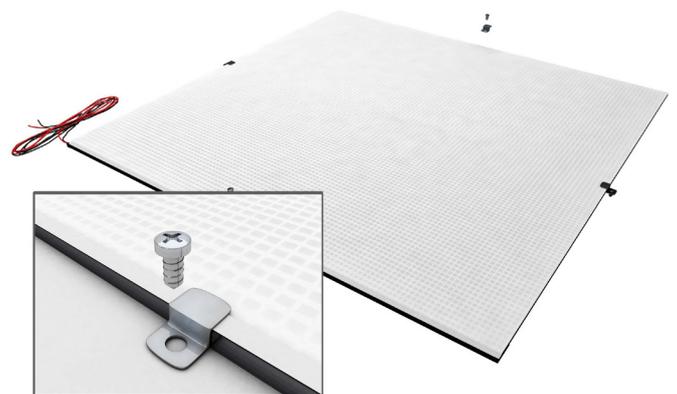
Leave a 5 - 10mm gap between panels to allow for heat expansion.

Screw mounting with pre-drilled holes:



Mounting with Z-bracket:

BGT-PT-122 (Frame A); BGT-PT-123 (Frame B);
BGT-PT-242 (Wide)



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Mounting with U-bracket:

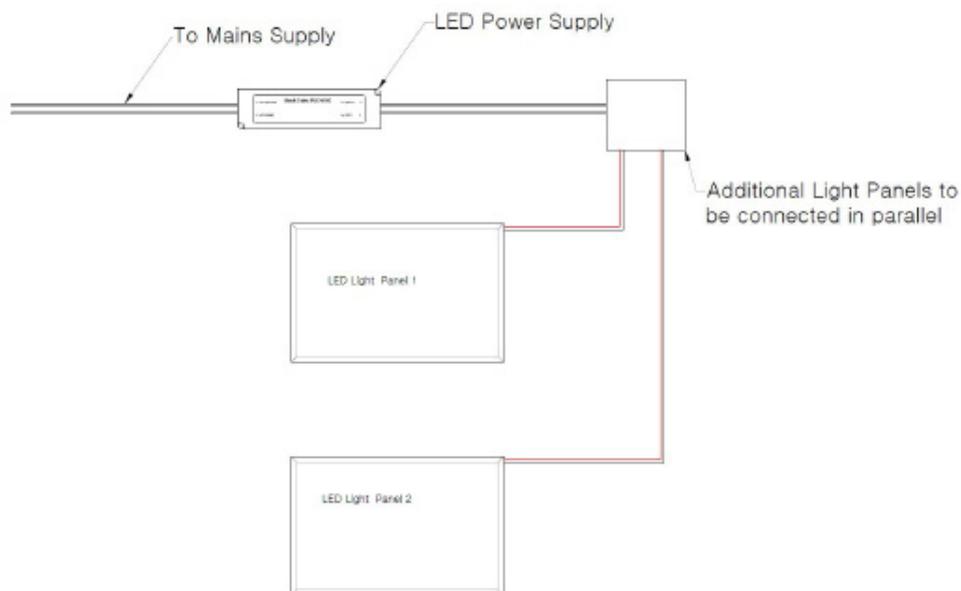
BGT-PT-243



Electrical connection and installation

Important note - Bright Green LED Light Panel can be supplied as either 12 or 24V. Make sure to always connect to the correct constant voltage power supply as recommended or sold by Bright Green Technology. The voltage of the LED Light Panel can be found on a label on the back of the panel.

If multiple LED Light Panels are wired to a single power supply, connect them in parallel, not in series to avoid voltage drop and maximise light output. Dimming should be provided by a suitable PWM dimming module.



When connecting the panel to the power supply and during installation make sure not to pull on the power wire. We can offer LED Light Panel with a number of different custom connectors e.g. JST type, DC Connectors & Mini Mate n Lok. Please speak to our Account Managers for more information.

When all connections have been made and the LED Light Panel has been installed into the correct position, remove the protective film. If the film is not removed the illumination will appear uneven.

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Storage

Store the panels in a cool, dry place, make sure to protect from dust and heat.

Handling and cleaning

When handling LED Light Panel always wear cotton gloves to avoid scratching or getting finger prints on the panel. To clean the LED Light Panel, turn off the power and use a non-solvent, non-abrasive glass cleaner on all plastic parts.

Care should be taken not to pull the cable from the LED Light Panel. Whilst the light panel is supplied with a small strain relief on the cable, you should check that the cable has suitable strain relief when installed into the fixture, particularly if it is in environment where it may be moved or knocked.

Operating notes

LED Light Panel should be operated in a dry environment.

The operating temperature must stay within -10° to 45°C , ensuring there is ventilation around the lit edges.

Do not cut the LED Light Panel or attempt to disassemble or modify the components in any way.

Do not drop or bend the LED Light Panel.

Do not drill holes in the LED Light Panel.

Do not place graphics or any other adhesive material directly onto the LED Light Panel.

Do not fix anything to the rear of the Frame A LED Light Panel.

Make sure to test that your LED Light Panel is working before installing into your structure.

Maintenance

No planned maintenance of the PCB for Bright Green LED Light Panel is required.