

ProFlex Installation Overview

Installation Notes

ProFlex is designed for installation purposes only and should be installed by a qualified electrician. ProFlex should not be installed where it is subject to flexing as this could weaken the flex and cause it to fail, invalidating the warranty.

ProFlex can **ONLY** be cut and joined at the pre-marked 100mm cutting points, it must not be cut at any other point and it is not designed to be twisted or bent at sharp angles. If sharp angles are required, ProFlex must be cut (at the marked cutting points) and joined together using suitable cable and terminal blocks to make the angle.

Before installation, carefully measure the total amount of flex required taking into consideration:

1. A total **MAXIMUM** length of 5m of ProFlex can be daisy chained together in any one length.
2. An overall **TOTAL of 5m of ProFlex** can be powered from a 100w PSU.
3. An overall **TOTAL of 20m of ProFlex** (4 x 5m lengths) can be powered from a 350w PSU.

Note: To connect longer lengths of ProFlex, please see the section below on extending ProFlex.

TIP: We recommend that ProFlex should be cut to size and any soldered joints done **before** fixing.

Note: For ease of installation, we recommend that flying leads are soldered to the ProFlex where a joint is to be made. These leads can then be connected together using a four way terminal block which is much easier than trying to solder the joints onto the ProFlex once it is stuck into place.

Joining ProFlex

Soldered joints should be made on the underside side of the ProFlex, here's how:

1. Locate the marked cutting point (every 100mm) and cut the ProFlex using side cutters.
2. Carefully peel back the sticky backing tape cover by about 10mm to expose the silicone backing over the copper solder strips on the rear of the ProFlex.
3. Gently score a line across the ProFlex, about 5mm from the end of the joint using a sharp blade. **DO NOT** cut too deeply into the silicone, just enough so the silicone covering can be carefully peeled away from the flex to expose the copper soldering strips.
4. Carefully "Tin" each copper strip and the ends of the flying leads that are to be soldered to them.
5. Solder the flying leads onto the copper strips ensuring that each strip is soldered to the appropriate lead and that no solder bleeds over onto the adjacent copper strips. **DO NOT** let any loose strands of wire short out against adjacent wires or copper strips. If too much solder is applied then this could cause the solder to bleed over to the adjacent joints.
6. Connect the flying leads from each side of the joint using a four way terminal block; take care to ensure that the polarity of the ProFlex is maintained when joining the leads together. At each joint the copper strips are clearly marked: "**R**" "**G**" "**B**" & "**+**" them polarity of these connections **MUST** be maintained.

Fixing ProFlex

Once all the flying leads have been soldered into place and you are ready to attach the ProFlex, ensure that the area where it is to be attached is cleaned and free from grease **BEFORE** sticking into place.

Peel back the sticky backingtape and firmly press the ProFlex into position. **Note:** You only have one shot at this as the backing is very sticky and once pressed into place will not be

easy to re-apply. Re-applying will also degrade the sticky back and it may not then adhere to the surface.

TIP: We would recommend that an additional blob of clear silicone sealant is applied at intervals down the ProFlex to double stick into position. Once all the ProFlex is stuck into place, the flying leads can be connected into the terminal blocks to make the joints.

DO NOT attach ProFlex with nails or in any way pierce or cut into it (other than at the marked cutting points) as this will short out the system and invalidate the warranty.

If ProFlex is to be installed in a wet or damp environment, ensure that any joints are sealed with clear silicone sealant in order to maintain the IP65 rating. Any ingress of water or moisture could short out the system and invalidate the warranty.

Powering ProFlex

1. **DO NOT** "Daisy Chain" more than 5m of ProFlex from any Power Supply Unit (PSU).
2. **DO NOT** Power more than the total recommended maximum length of ProFlex from its PSU.

Extending ProFlex

For single colour, each 5m length of ProFlex must have its own 24v power supply from the Power Supply Unit (PSU). **DO NOT** Connect more than 5m of single colour ProFlex together in one length otherwise the ProFlex could fail invalidating the warranty.

For RGB colour changing ProFlex, an RGB Amplifier can be connected either to the RGB output on the controller or to either end of a 5m length of RGB ProFlex. The RGB Amplifier **MUST** however be connected to its own 24v Power Supply as the total length restrictions must be adhered.

Note: The RGB Amplifier is used to "copy" the colour changing information from the initial length of ProFlex to any additional lengths to avoid the need for an additional control system. There is no limit to the number of lengths of ProFlex that can be linked in this way **providing** that each RGB Amplifier used has its own 24v supply and that the total length of flex controlled does not exceed the total amount of ProFlex for the PSU used.

Additional PSU's can be incorporated into the system to power the RGB Amplifiers when required.

Please refer to the Schematic Diagram's on our website, or if in doubt please contact us for more information.

Important: Although it is normal for ProFlex to become warm when used, excessive heat can be generated if it is illuminated while still coiled. Please ensure that ProFlex is unrolled from its coil before powering up for more than 30 seconds as this could result in overheating which may result in component failure invalidating the warranty.

For schematic diagrams of all the various options available for controlling and wiring ProFlex, please refer to our website and download the appropriate schematic diagrams and manuals: www.ledtechnologies.co.uk/led_rgb_strip.htm