RGB ProFlex & DMX Data Hub / PSU User Manual

ProFlex Specifications & Features

Flexible lighting on a roll
24v Power input to minimize voltage drop
Output: 14.4w / Metre
Dimensions: 12mm x 3mm
Roll Length: 5m
Bright Vivid colours using 60 x Tri-Colour LED's / metre
Cut Points: Every 10cm
IP65 Rated
3M sticky backing
Silicone coated for outdoor / indoor use

PSU / DMX Data Hub Specifications & Features

UK designed & manufactured
Panel mounted dip switches
Input: 240v AC 50-60Hz
Output: 4 x 24v @ 5A (total 20A)
Compact design (30 x 20 x 7.5cm)
Powers up to 20m of RGB ProFlex (4 x 5m lengths)
Weight: 1kg
Mains Link: (2 x IEC Sockets)
DMX Link: (2 x 3 pin XLR Sockets)
DMX 512 Compatible (3 Channels RGB)
4 x 4 way push on terminal connectors for easy connection of ProFlex
Compatible with the LED Technologies RGB Easy Controller or DMX 512 Controller

Note: We recommend using 2.5m sq four core cable to link from the PSU to the ProFlex. Up to 100m of cable can then be used with negligible voltage drop.

ProFlex Overview

RGB Proflex is an impressively bright, colour changing LED lighting solution designed to give a smooth colour changing wash to areas where flexibility is the primary requirement. Ideal for installations, ProFlex can be cut and joined and is IP65 rated with a 3M sticky backing to fix to most surfaces. The Tri-Colour LED's give smooth rich vibrant colour mixing and dimming from 0-100% with negligible drop out at 0%.

ProFlex PSU / DMX Data Hub

UP to 20m of ProFlex can be powered from this UK designed and manufactured Power Supply / DMX Decoder. Units can be linked together to power more flex and can be controlled with our RGB Easy Controller or a standard DMX 512 desk. The units can be set to slave mode or DMX using the panel mounted dip switches for easy addressing. Each unit is fitted with mains and DMX link sockets and four panel mounted push on terminal blocks for easy connection to the ProFlex.

Setup

Thank you for purchasing the ProFlex RGB Flexible lighting system. Please ensure that you follow the instructions carefully which will ensure many hours of operation from the system.

Unpack the PSU / Data Hub and check that it is not damaged due to transit. Units are supplied with a mains lead and fitted UK Plug.

Unpack the RGB ProFlex from the sealed pack.

Important Notes:

1. Knowledge of soldering and wiring is required to install this product. If unsure please consult a qualified electrician.
2. Do not cut or attempt to install the ProFlex whilst it is connected to the PSU. This could result in damage to the PSU. The ProFlex may be connected to the PSU before installation to check for proper operation but if still rolled onto the spool please ensure that it is not lit for more than 30 seconds.
3. ProFlex can **only** be cut at the clearly marked **10cm cutting points** and joined using 2.5mm sq four core cable.
4. When joining ProFlex take care to **ensure that the "–", "G", "R", & "B"** connections are maintained and not reversed or mixed between each length of ProFlex.
5. Ensure that **no more than 100m** of **2.5mm sq four core cable** is used to link from the PSU to each 5mtr length of ProFlex.
6. When installing the ProFlex, please ensure that **no more than 5m of Flex** is connected to each of the four terminals on the PSU.
7. Take care when soldering the cable onto the ProFlex and if it is to be installed in a wet or damp environment, please ensure that each joint is **properly** sealed with silicone sealant to maintain the IP65 rating. We would suggest that the ProFlex is cut and stuck into place before soldering the connections.
8. To stick into place, make sure that the area that the ProFlex is to be attached to is clean, dry and free from grease. Peal the sticky backing from the ProFlex and press firmly into place. Try not to avoid pealing off and re-attaching once fixed into place. To ensure a firm fixing, we recommend that that an additional blob of clear silicone sealant or a "square section" P clip" is used every half meter to keep the ProFlex in place.

Connecting the ProFlex to the PSU / Data Hub

Once the ProFlex is installed, the "flying lead" that connects the ProFlex to the PSU can be screwed into the terminal block, ensuring that the wiring of the "–", "G", "R", & "B" connections are maintained.

The terminal block is split into four sections; each section of the block must be connected to each 5m run of Proflex.

The wiring for each section of the block is: **"1=G", "2=R", "3=B" & "4=24V".** Push the Terminal Block onto one of the four terminal block receptors on the PSU.

Note: The PSU needs to be connected to a suitable DMX Controller, either a standard DMX 512 controller or the LED Technologies Easy Controller.

Once all the lengths of ProFlex are connected to the PSU, Connect the LED Technologies "Easy Controller" or a suitable DMX controller to the "DMX IN" socket on the PSU.

Note: Refer to the instructions for the Easy Controller or DMX Controller to operate the ProFlex.

Connect the mains lead to the PSU and the Controller and power on.

Operation

LED Technologies RGB Easy Controller

Set DMX all the switches on the PSU to: **"OFF"**.

Alternatively the switches can be set to **DMX Position 1**, i.e. Switch 10 **"ON"**

Connect the unit to the RGB Easy Controller using a suitable DMX lead fitted with 3 pin male and female XLR Connectors.

Notes: Refer to the instructions on the use of the RGB Easy Controller for details of operation.

Please note that the "Blackout" feature on the Easy Controller is not supported with ProFlex. To "Blackout" the ProFlex simply drop all three colour sliders to the **"OFF"** position.

DMX 512 Controllers

Set the dip switches according to the DMX address required.

The Dip Switches values on the PSU are: **Sw1= Mode Switch**.

Switching the mode switch to **"OFF"** will place the unit in **3 Channel DMX Mode**.

Note: Switching the mode switch to "ON" (switch 1), is for future use so is not applicable at this time.

Other Dip Switch DMX Values
S2=256, S3=128, S4=64, S5=32, S6=16, S7=8, S8=4, S9=2 & S10=1.

DMX Protocol Table

Channel	DMX Value	Function
1	000 – 255	Red
2	000 – 255	Green
3	000 – 255	Blue

Linking Multiple Units (DMX Linking)

Multiple PSU's can be linked together; "daisy chain" all the PSU's together using suitable 3 x PIN Male & Female XLR connectors and DMX Leads. The first unit in the chain will be connected to the Easy Controller or DMX controller.

Set the dip switches on each unit according to the DMX address required. Setting them all to the same address will effectively synchronise the colours across each unit connected.

Tip: When mixing a colour look at the area that the light shines onto and not directly at the LED's.