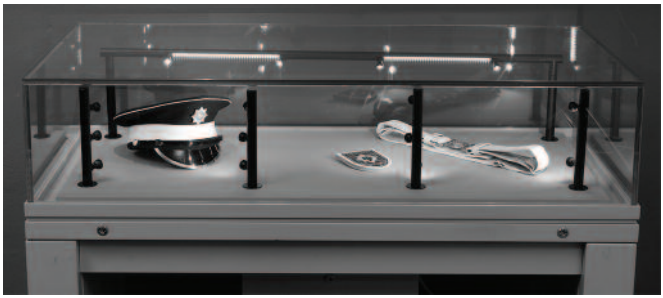
MetroLED User Guide



Models covered by this manual:

UFO MetroLED LW - Light Wand
UFO MetroLED LG - L Shaped Gantry
UFO MetroLED UG - U Shaped Gantry
UFO MetroLED FS - Free Standing Gantry
UFO MetroLED SP - Special Extrusion

Please read this manual fully before installing, operating or performing maintenance on the system.

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1. INTRODUCTION

Thank you for purchasing this UFO MetroLED lighting system.

Please read these instructions fully before performing any installation, operation or maintenance on the system, and before connecting to an electrical supply.

The UFO MetroLED is a fully configurable LED track lighting system which has been especially designed for ease-of-use and many installation environments.

Available in multiple configurations and with spotlight and linear lighting modules both available with a choice of 3000K or 4000K light outputs,

If your system requires reconfiguring with new parts, please contact your UFO sales representative for advice.

2. USER GUIDE

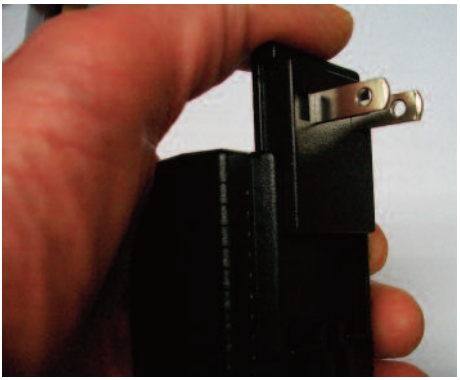
Before assembly, unpack the shipment and check that all component parts against the Component Parts List before commencing your build (see the Component Parts Section in this User Guide).

2.1 PREPARE THE 12V PSU

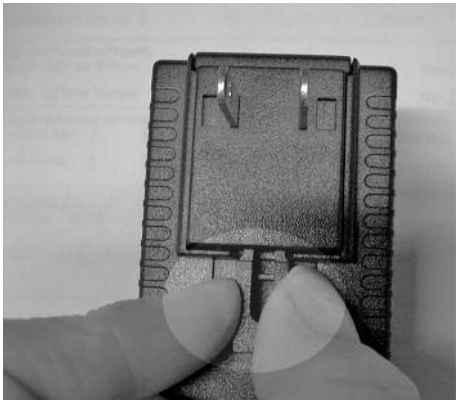
The MetroLED flexible lighting track system is powered from **EITHER** a multifunction, multi-voltage, 4 Amp desk top Power Supply Unit, **OR** an IEC input, multi-voltage boxed PSU.

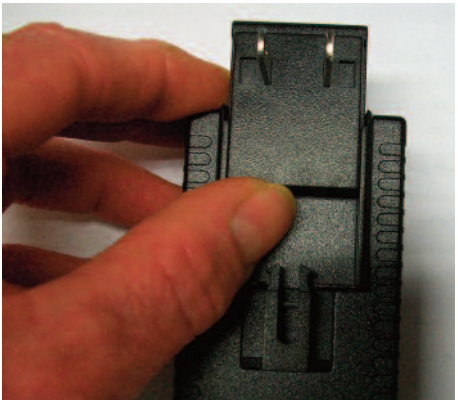
2.2 4A DESKTOP PSU

Remove the Desk Top PSU from its box.
This PSU is a multi-plug device catering for UK, European and USA plugs.



Select the correct plug and push it into the receptacle and press down until it clicks securely into place as shown above. The plug can be removed by squeezing together the locking pins and sliding the plug out as shown below





2. USER GUIDE

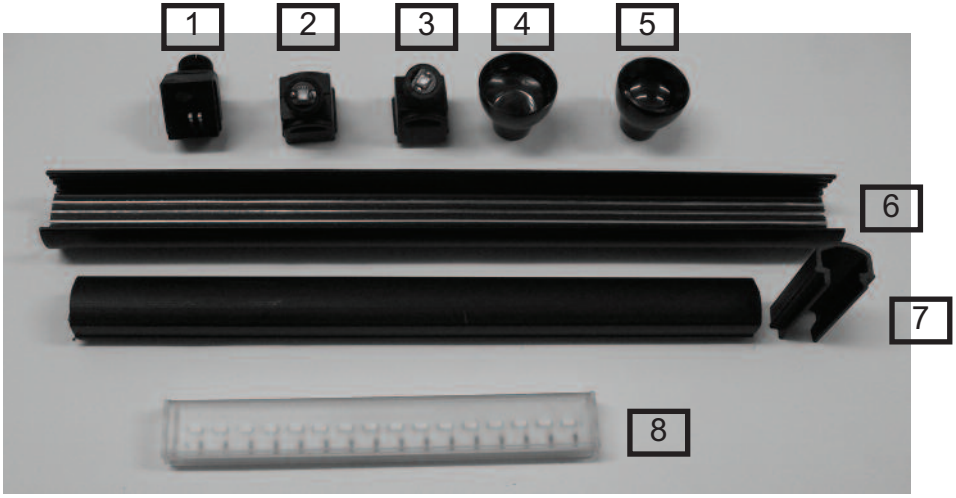
2.3 6A Desk Top PSU

Remove the PSU from its packing. This PSU is an IEC mains lead device catering for UK, European and USA plugs. Plug the mains lead into the IEC socket on the PSU – see below. The PSU is now ready for power.

DO NOT CONNECT PSU TO DIMMER UNTIL METROLED TRACK SYSTEM IS FULLY ASSEMBLED AND THE DIMMER IS CONNECTED

2.4 COMPONENT PARTS

MetroLED component parts are detailed below.

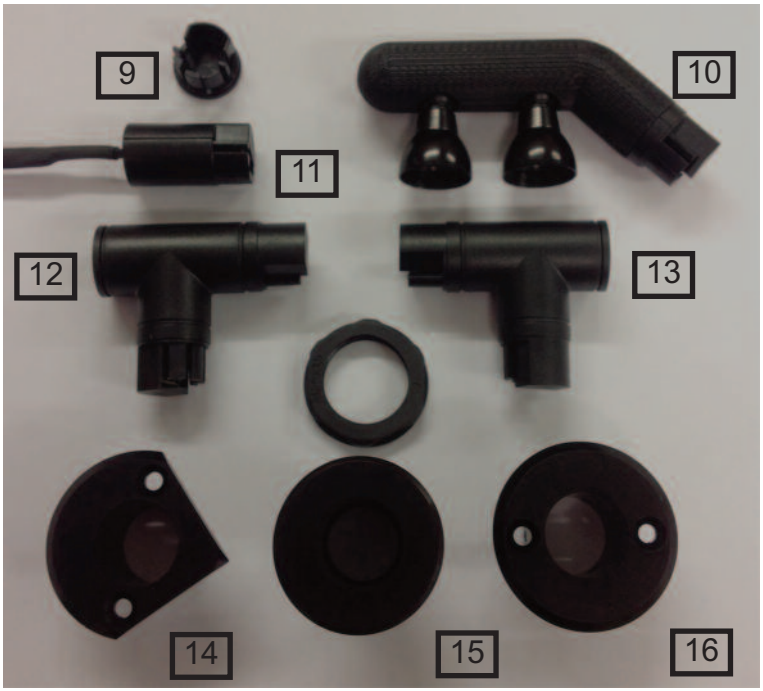


Item	Description
1	3000K spotlight
2	3000K spotlight (note colour coded green dot on base)
3	4000K spotlight (no colour coding on base)
4	Wide angle trumpet and lens
5	Narrow angle trumpet and lens
6	Metal extrusion fitted with track insert
7	Plastic infill strip
8	Linear wash LED strip. 3000K or 4000K (3000K identified on base)

2. USER GUIDE

2.4 COMPONENT PARTS

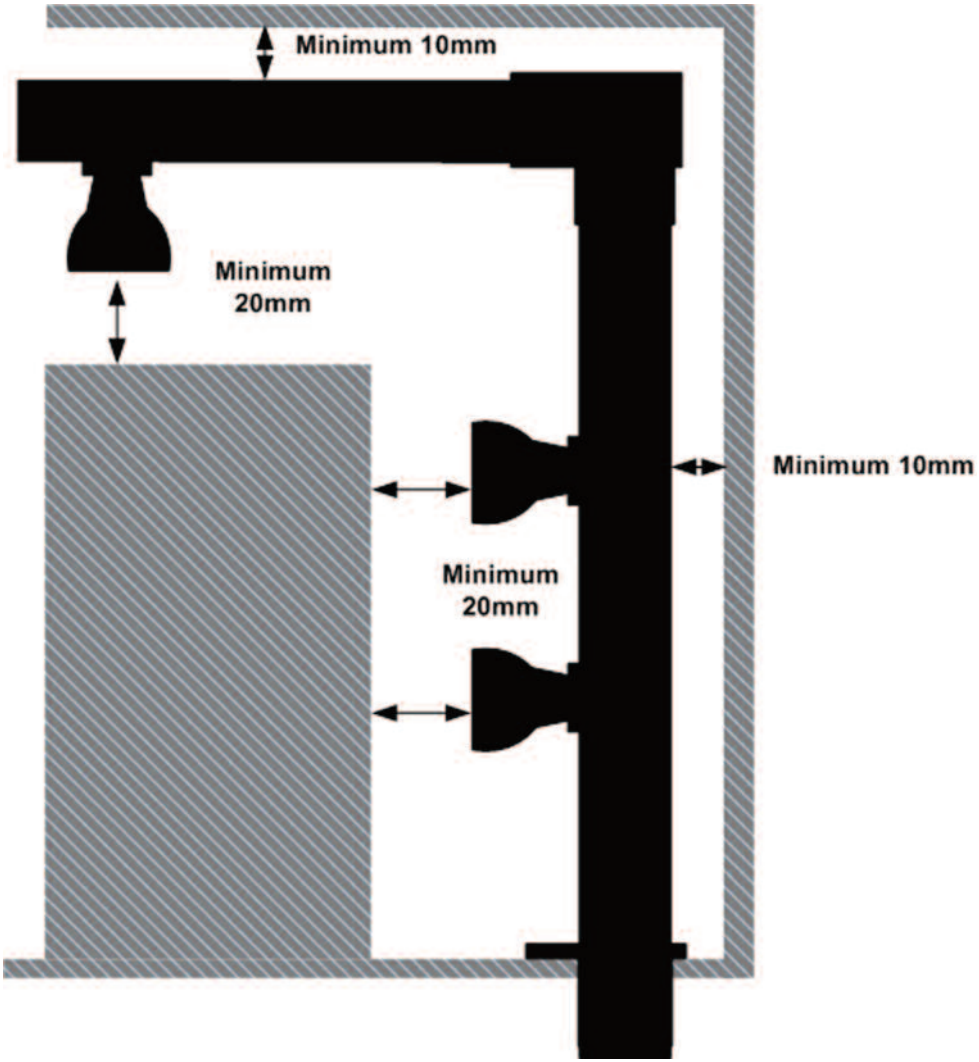
MetroLED component parts are detailed below.



Item	Description
9	Extrusion end cap
10	45° end fitting
11	Power in connector
12	Left hand rotating corner (static corner also available)
13	Right hand rotating corner (static corner also available)
14	Corner 30m foot, unthreaded, screw plate
15	Standard round 42mm foot with threaded lock nut
16	Standard round 30mm foot, unthreaded, screw plate

NOTE: ROTATING ELBOWS ARE DESIGNED TO ROTATE BY APPROXIMATELY 350º ONLY. A SMALL PLASTIC END STOP INSIDE THE FITTING RESTRICTS THE TURN. HOWEVER, IT IS POSSIBLE TO FORCE THE TURN PAST THIS END STOP WHICH WILL EVENTUALLY LEAD TO THE FLEXIBLE CONNECTOR INSIDE THE FITTING BEING DAMAGED. **ROTATE THESE ELBOWS WITH CARE AND DO NOT FORCE PAST THE END STOP**

RECOMMENDED MINIMUM SPACING

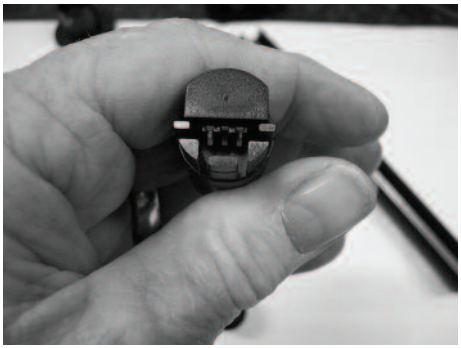


2. USER GUIDE

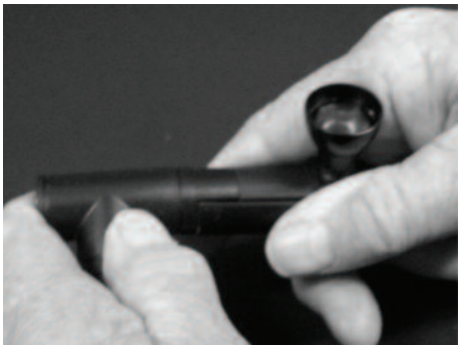
2.5 ASSEMBLY - Slide on Parts

Most MetroLED systems are shipped either fully or partly assembled. All LEDs should be already fitted to the 3 track extrusion. Assembly therefore will generally involve fitting together extrusions. Gantry Legs will be marked “Left” and “Right” to avoid confusion. **CAUTION** – fitting legs on the wrong side of a gantry can result in a rotating joint being incorrectly turned and damaged. Assemble the MetroLED system as per instructions below.

All plastic MetroLED components fit into the matching keyed sections of the metal extrusions, either by sliding on, or by twisting and locking see 2.6



Push the fitting carefully but firmly into the extrusion taking great care to avoid damaging adjacent LEDs. Make sure the plastic fitting is pushed fully home.



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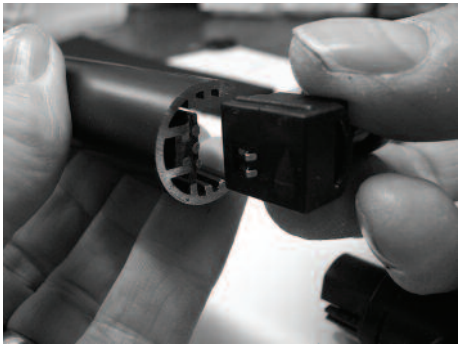
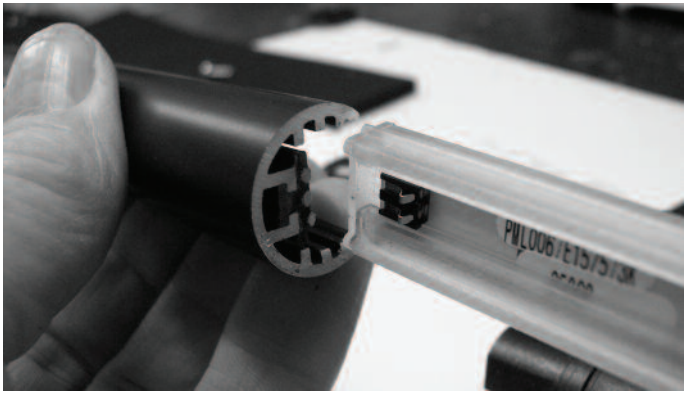
2.5 ASSEMBLY

If LED slide on fittings are removed from the track for any reason, ensure they are the correct way round when replacing. See examples below.



Correct - pins facing the right way

Incorrect - pins facing the wrong way



Correct - pins facing the right way

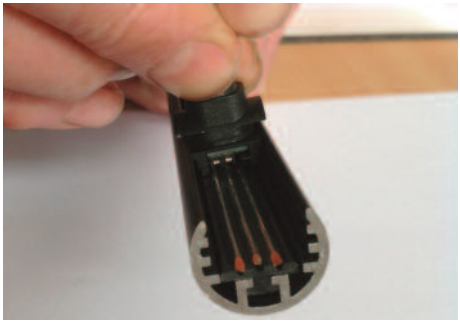
Pushing LED fittings on the wrong way will irreparably damage the spring contacts

2.6 ASSEMBLY TWIST LOCK PARTS

This is a 2 part assembly - see photographs below

Assembly apart

Push assembly firmly into Base - turn the top assembly so that it sits across the base as shown



Push the base assembly into the track so that the connector pins line up with the two tracks required.

Push down and twist the upper assembly through 90 degrees until it locks onto the track as shown below

NOTE:-
Care must be taken to push the fitting firmly down so that it is fully sitting in the track extrusion. If not fully inserted when twisting to lock, the plastic housing may become damaged which will result in the fitting not being locked in.

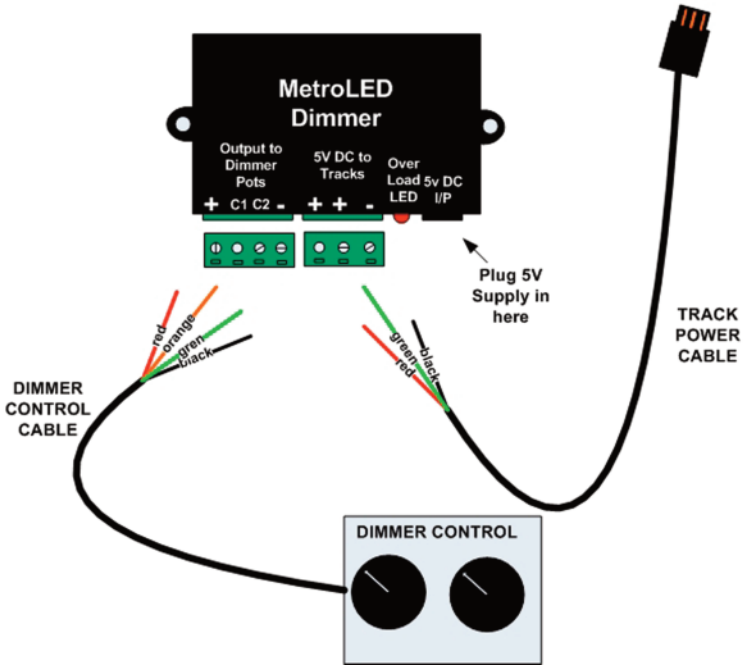
2. USER GUIDE

2.7 ELECTRICAL CONNECTIONS

There are 3 electrical connections required before connecting the system to the mains – see drawing below

1. Connect the extrusion power In connector track power cable to the MetroLED dimmer ensuring correct wire colour codes
2. Connect the dimmer box and cable to MetroLED dimmer ensuring correct wire colour codes
3. Plug the 5V DC jack plug into the input socket on the MetroLED dimmer

Dimmer Terminal	Terminal Description	Connector Description	Wire Colour
OUTPUT TO DIMMER POTs	+ (POSITIVE)	DIMMER CONTROL CABLE	RED
OUTPUT TO DIMMER POTs	CONTROL 1	DIMMER CONTROL CABLE	ORANGE
OUTPUT TO DIMMER POTs	CONTROL 2	DIMMER CONTROL CABLE	GREEN
OUTPUT TO DIMMER POTs	- (NEGATIVE)	DIMMER CONTROL CABLE	BLACK
5V DC TO TRACKS	+ (POSITIVE)	TRACK POWER CABLE	RED
5V DC TO TRACKS	+ (POSITIVE)	TRACK POWER CABLE	GREEN
5V DC TO TRACKS	- (NEGATIVE	TRACK POWER CABLE	BLACK



2. USER GUIDE

2.7 ELECTRICAL CONNECTIONS

The MetroLED Dimmer unit has two +ve track outputs which are limited to 3 Amps – exceeding the load on either track will cause the overloaded track to shut down and the overload indicator LED to illuminate.

Turn the dimming controls and check that the appropriate track dims and brightens.

Plug the mains plug into the electrical supply socket. Switch on power the LEDs on the track will illuminate. If no light is produced consult the TROUBLESHOOTING section

2.7 MAINTENANCE

Please Note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when. This MUST be dated for warranty purposes

Date	Maintenance Undertaken

3. TROUBLESHOOTING

Problem	Probable Causes	Remedy
Unit is dead - no light output from LED's	Main supply off	Check supply & reinstate
	Loose main plugs	Check plugs
	Loose DC output wire or connection	Check all connections
	PSU failed. Check output with DVM	Replace PSU
	Dimmer failed. Check input and output with DVM	Replace dimmer
LEDs on one track not working but no MetroLED dimmer overload LED	Loose DC output wire or connection to that particular track	Check all connections
	Dimmer output channel failed. Confirm by swapping output wires over	Replace dimmer or move channel wire of faulty channel to working channel
LEDs on one track not working MetroLED dimmer overload LED illuminated	Track overloaded	Disconnect +ve wire to overloaded track at dimmer. If LED extinguishes, track is overloaded. Remove LED fittings until overload LED extinguishes
	MetroLED dimmer faulty	Disconnect +ve wire to overloaded track at MetroLED dimmer. If LED remains illuminated replace dimmer
LEDs on one part of fixture/gantry not working	Bad connection on rotating joint	Inspect joint, check connection and ensure fully inserted
	Rotating joint failed	Open joint and inspect wire connections, if broken, replace joint
LEDs won't respond to remote dimmer controls	Bad connection on dimmer cable	Check connections
	Faulty dimmer box	Replace dimmer box
	Dimmer failed	Replace dimmer
Poor light output on individual LEDs	LED failed	Replace individual LED

Please complete troubleshooting procedures before returning unit to us.

4. LED SPECIFICATIONS

Component	Variant	Nominal Power	Working Current	Notes
Spotlight	3000K	0.5W	100mA	Available in spot and flood fitting
Spotlight	4000K	0.5W	100mA	Available in spot and flood fitting
Linear Light 45mm	3000K	0.4W	80mA	
Linear Light 45mm	4000K	0.4W	80mA	
Linear Light 95mm	3000K	0.8W	160mA	
Linear Light 95mm	4000K	0.8W	160mA	
Linear Light 245mm	3000K	2.3W	460mA	
Linear Light 245mm	4000K	2.3W	460mA	
MetroLED Driver	Version 2	N/A	300mA per channel	Overload indication and shut down

4. GENERAL TECHNICAL SPECIFICATIONS

Description	Details
Main supply voltage	100-240V AC, 47-63 Hz, 0.58A
PSU output	5V DC, 4A or 5V 6A
Min. ambient temperature	-10°C
Max. ambient temperature	+45°C
Power connection	2.1 x 5.5 x 12mm
LED type/model	White light
LED linear CRI	85 (typical)
LED linear colour temperature	3000K and 4000K
LED linear optical efficiency	112 Lumen / W
LED linear current	10mA
LED spot CRI	95 (typical)
LED spot colour temperature	3000K and 4000K
LED spot optical efficiency	66 Lumen / W
LED spot current	100mA
LED life	50,000 hours in ambient 25°C

5. NOTES

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