



User Guide



UFO IONIC LED TRACK LIGHTING SYSTEM

This guide contains important safety information and installation instructions.

Please read fully before installing, operating or performing any maintenance on the product.

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Introduction & Safety

Thank you for purchasing the UFO Ionic Lighting System. This user guide contains important information and should be read fully before any installation work commences. Please keep for future reference.

The UFO Ionic is a fully configurable magnetic track lighting system which has been specifically designed for ease-of-use and many installation environments.

A basic Ionic system consists of a length of magnetic track, a number of LED light fittings and control gear as specified on order.

Ionic spotlights are available in a choice of 2700k, 3000K, and 4000K colour temperatures. These spot lights are dimmable locally using the dimmer controls on the fittings or globally using a UFO supplied dimmer/driver system.

Ionic spotlights operate on a constant voltage low voltage supply. Constant current and constant voltage LEDs cannot be inter-mixed on the same driver. Please refer to the specific section within this manual for connection guidance.

Important

This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product, its component parts and the hazards involved.

Electrical wiring and connection must be carried out by a suitably qualified person observing all local and statutory electrical regulations.

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

The Ionic system should only be connected to a class 3/SELV power supply unit.

Important Safety Information $t_a 40^{\circ}\text{C}$ 12V DC

The Ionic system operates on a low voltage constant voltage electrical supply. Constant voltage and constant current LEDs cannot be intermixed on the same driver. Refer to the specific section of this guide for wiring and connection guidance.

The Ionic system operates on 12V DC only. Connecting the system to a driver with excessive voltage output will result in catastrophic damage to the LED devices within the Ionic fittings. Always check the output voltage of the driver to ensure correct output voltage prior to powering up the system.

The Ionic system is suitable for indoor / dry area use only and must not be installed in damp or wet locations.

The maximum length of supply cable between the class 3 PSU and the driver must not exceed 5 metres.

It is the end users responsibility to ensure electrical, mechanical and thermal compatibility between the track system and luminaires attached to it.

External Wires

To allow for full articulation of the Ionic snoot, there are 2 low voltage wires connecting it to the fitting body.

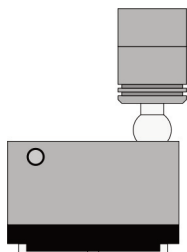
Please ensure these wires are not twisted around the neck of the snoot. Applying too much force to these wires could cause irreparable damage to the fitting.



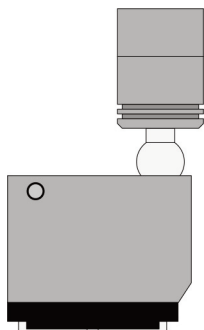
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Spotlight Fittings Overview

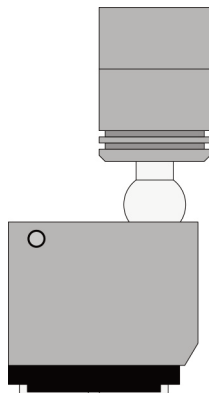
There are 3 different spotlight fittings available in the Ionic range.



Ionic SX Fitting



Ionic MX Fitting

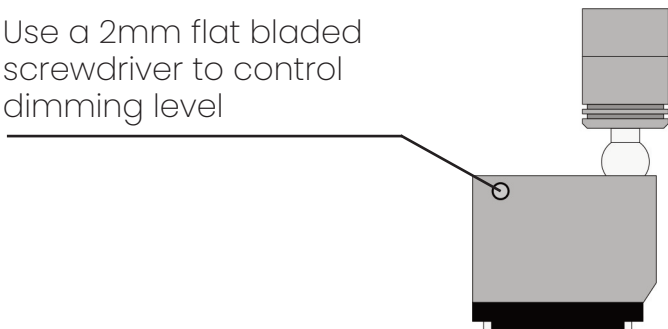


Ionic LX Fitting

Independent local dimming is available on all systems irrespective of driver/interface option specified.

Dimming of each individual fitting is controlled by the recessed potentiometer on the body of each fitting. The potentiometer is shown as a circle in the above images.

Use a 2mm flat bladed screwdriver to control dimming level



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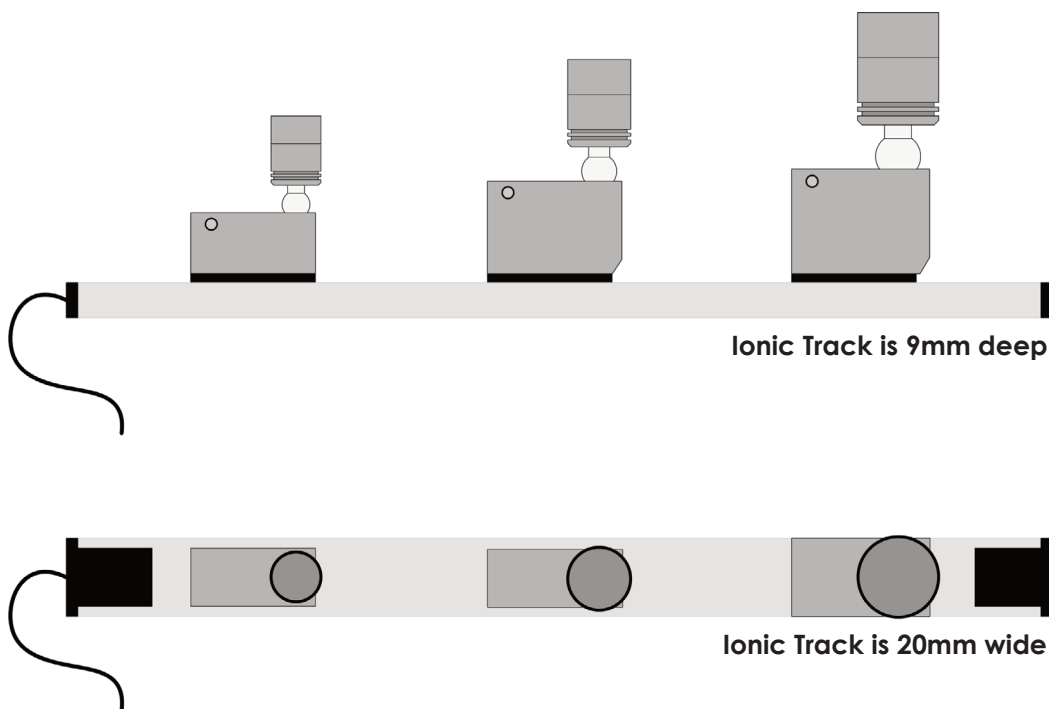
	Ionic SX	Ionic MX	Ionic LX
LED Type	Osram Oslon Square		
LED Life (L70,B10)	>54,000 hours		
Power Consumption	1.6W	2.8W	3.4W
Colour Temp.	2700K / 3000K / 4000K		
CRI	>95		
Lumen Output	64lm	132lm	178lm
Luminous Efficacy	35lm/W	49lm/W	52lm/W
Available Optics	16° / 23° / 36° 45° x 20° 20° x 50° 61° / 80°	13.5° / 19° 28° Using a adaptor we can also fit the SX range. A focusable snoot is also available.	13.5° / 19° 28°
Rotation	360°		
Tilt	77°	70°	65°
Securing Method	Magnetic to track		
Material	Aluminium		
Weight	29g	64g	134g
Operating Env.	Indoor / Dry		
Finishes	Anodised black or silver. Custom finishes possible on request at extra cost		

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Track Overview

Ionic track is manufactured from aluminium. Supplied as standard in either anodised black or silver.

Extrusion can be supplied in lengths up to 2800mm. In standard systems the ends of the track are terminated by a power-in connector at one end and an end cap at the other.



Ionic track can be supplied in straight lengths or we can attach corners to make U, L, rectangular or square shaped structures. Ionic track is cut and assembled to order and should not be modified by the end user.

The maximum load of the track is 3KG. No weight greater than this should be attached to, or hung from, the track.

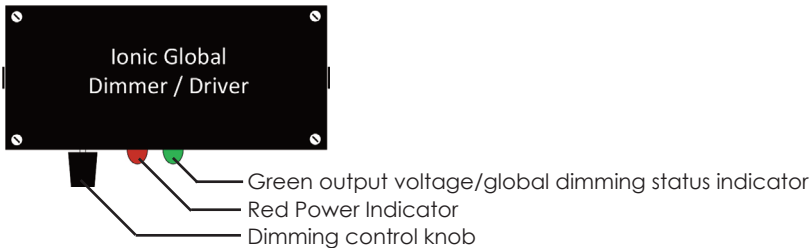
Control Overview

We can supply the Ionic system in global dimming and non-global dimming versions. Note that all ionic spotlight fittings are locally dimmable via a potentiometer on the fitting body. This works independently of driver type and is available whichever global option is specified.

When only one track is connected in a non-global dimming configuration then no driver or splitter is required. The track is wired straight to the power supply unit.

Global Dimmer / Driver

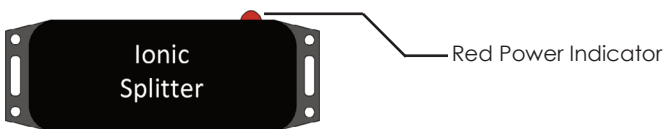
Provides global dimming to all fittings installed on between 1 & 4 tracks.



Dimensions: 195mm x 90mm x 34mm

Splitter Box

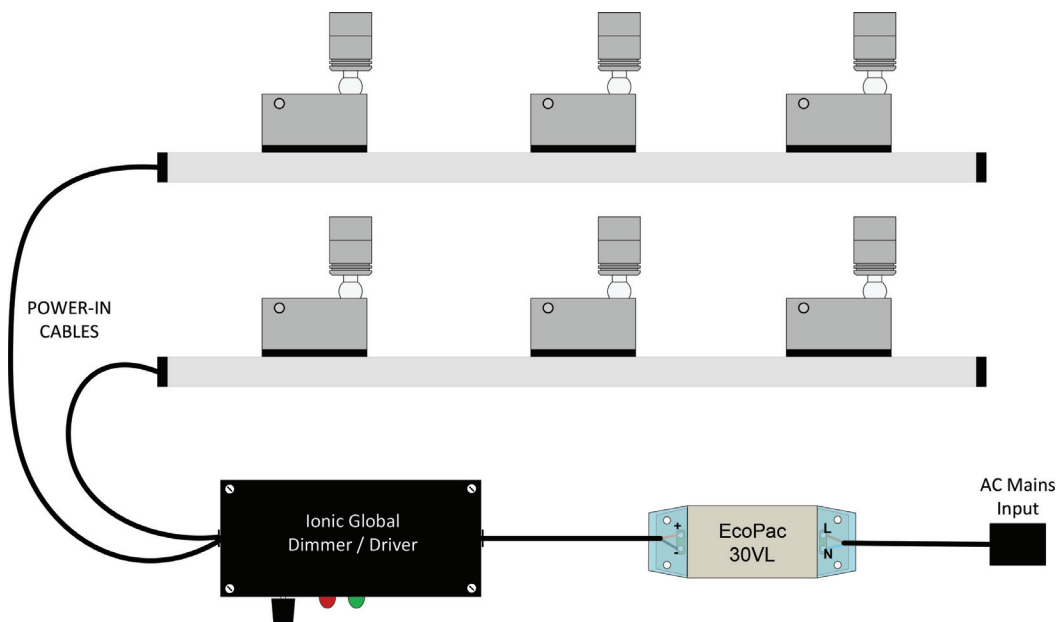
No global dimming supported. Two versions available, 4-way and 6-way. Used when more than one track is to be powered from a single PSU.



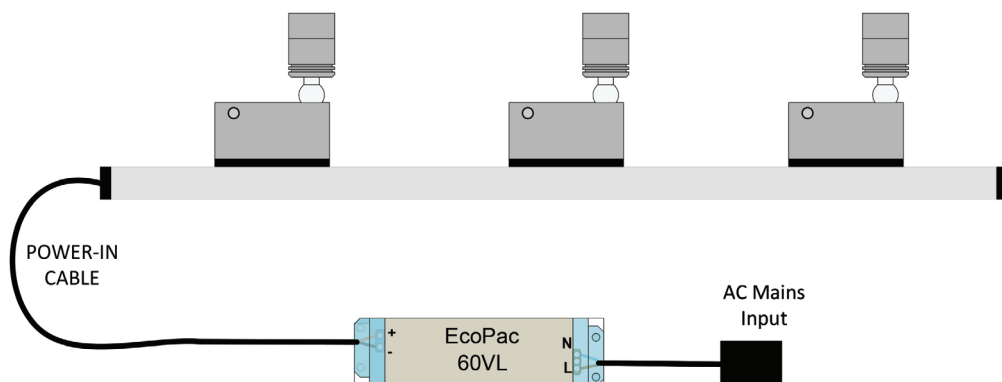
Dimensions: 4 way splitter box: 125mm x 50mm x 25mm / 6 way splitter box: 145mm x 66mm x 40mm
(dimensions include mounting flange)

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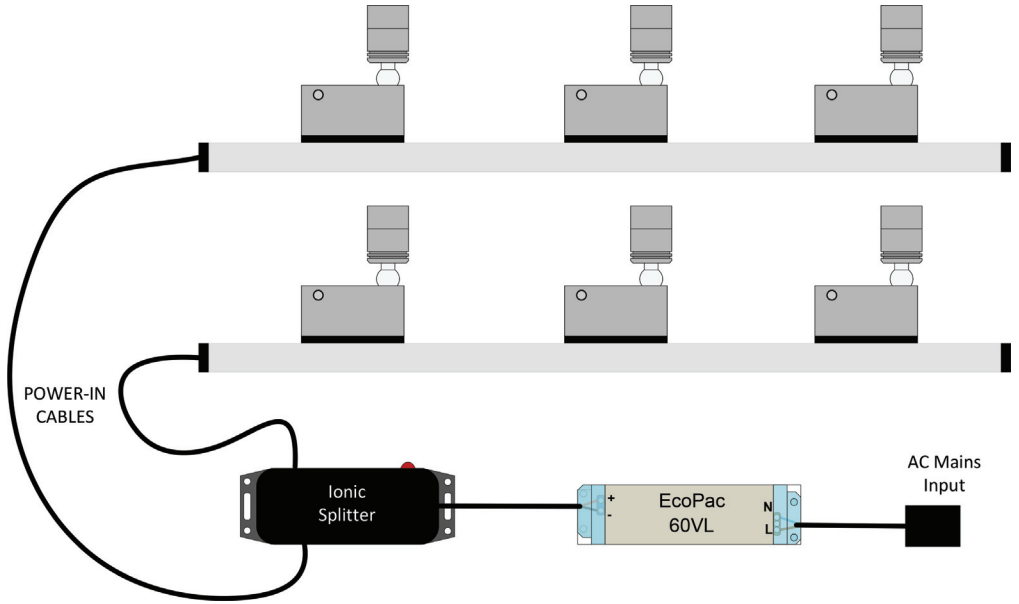
Connection - for global dimming system (1 to 4 tracks)



Connection - for non dimming system (1 track)



Connection - for non dimming system (2 to 6 tracks)



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Connection Order

The spotlight fittings

First, the spotlight fittings should be fitted to the track. The fittings are held in place by magnetic attraction and they are polarity agnostic so can be fitted either way round.

Ensure that the local dimming control located on each fitting is turned fully clockwise. We recommend using a 2mm flat bladed screwdriver for this.

The 12V Power Input

The red & black 12V wires from the track power-in cables can now be connected to the driver (for global dimming systems), the splitter (for multi-track non-global dimming systems) or straight to the PSU (for single track non-global dimming systems). See page 11, opposite for wiring details.

Before performing this step, ensure that the wires are routed through cases etc. as required.

The Mains Power Connection

Finally the mains cable can be plugged into the mains supply, and switched on. This cable is prewired from the AC plug to the input side of the PSU and carries mains voltage electricity. In case of any faults or wiring issues, only a suitably qualified person should inspect or perform any maintenance on this part of the fixture.

All the spotlights should now illuminate at full brightness. If this is not the case, consult the troubleshooting section further on in this user guide.

Electrical Connections

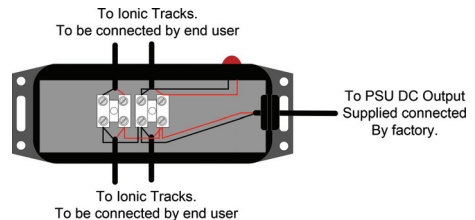
Local Dimming Only - Single Track

Remove the blue cover from the secondary connections side of the PSU. Connect the red wire(s) to the positive terminal and the black wire(s) to the negative terminal. Replace the PSU's cover.



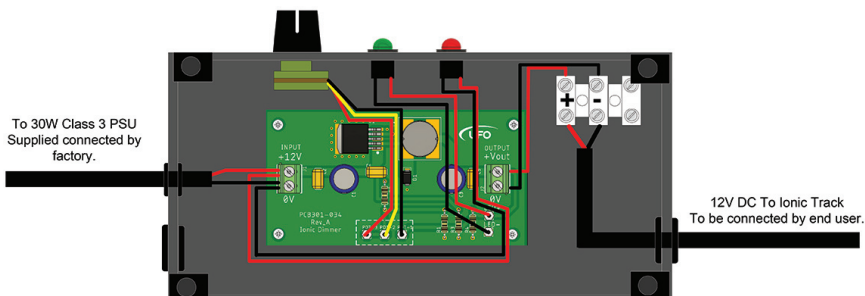
Local Dimming Only - 2 to 6 Tracks

Remove the top cover from the splitter box and connect each ionic track to the terminal connectors as shown. Diagram shows 4-way splitter however 6-way works in same way. Replace the splitter's cover.



Global Dimming - 1 to 4 Tracks

Remove the cover from the CV2 driver and push the cables from the ionic track(s) through the grommet. Wire the red wire(s) to the positive terminal and the black wire(s) to the negative terminal. Replace the driver's cover.



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Electrical Information

Ionic spotlight fittings can be added, removed and moved between tracks as long as the overall power capacity of the connected power supply unit is not exceeded.

The following tables show the most common configurations of Ionic and highlight the maximum number of fittings that should be connected for each.

Ionic with interface or splitter and PSU

	Ionic SX	Ionic MX	Ionic LX
Power Consumption	1.6W	2.8W	3.4W
Max. Fittings (60W PSU)	33	18	14

Ionic with global dimming driver

	Ionic SX	Ionic MX	Ionic LX
Power Consumption	1.6W	2.8W	3.4W
Max. Fittings (30W PSU)	13	7	5

Note that the maximum number of fittings may need to be reduced if very long cable lengths are specified – this is due to voltage drop over the cables length.

Connecting too many Ionic spotlight fittings to a driver, interface or splitter causing excessive load, or using an underrated 12V PSU, will result in the system shutting down and may cause damage to the driver circuit.

Always check the maximum output power of the fittings and ensure that based on the maximum load of the PSU, a suitable number of fittings are connected (see above), and a correctly rated PSU for the fittings load is selected, prior to powering up the system.

Mounting Options Overview

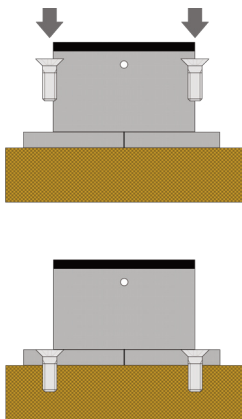
There are 4 surface mounting options for Ionic track - C-clips, corner mounting feet, straight magnetic brackets and 45° magnetic brackets.

If a recessed mount is required, a channel can be cut to allow the track to be fitted.

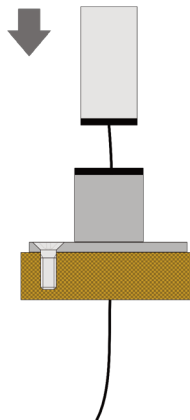
Mounting with Corner Feet

Corner mounting feet are primarily used for mounting vertical lengths of track in the corners of a glass display case. For very short track lengths, one foot on the base is suitable, however most installations require a foot at both the top and bottom of the track.

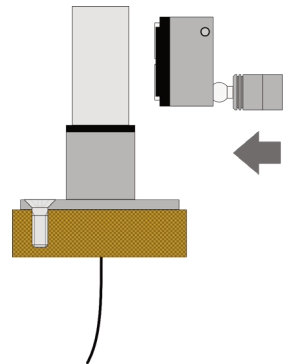
- ① Sit the foot on the mounting surface and using 2 screws which are suitable for the surface material secure the foot.



- ② Thread the power cable from the end of the Ionic track through the foot and push the track in until it can't go any further.



- ③ Finish wiring the system as detailed on pages 8 & 9 and attach Ionic fittings.



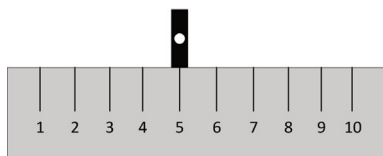
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Mounting with C-Clips

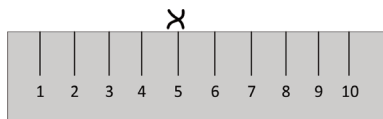
The track is straight and the clips **MUST** be installed in a straight line. Any bend in the installation or attempt to make the track fit in improperly aligned clips could damage the track, fittings and clips.

Clips must be installed no more than 500mm apart. A clip must be installed within 50mm of each end of the track.

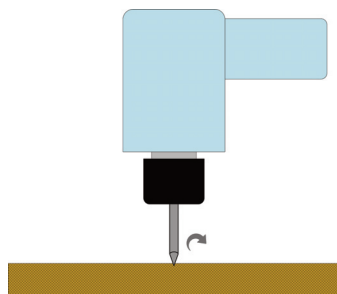
- ① Using a straight edge or laser mark the track position.



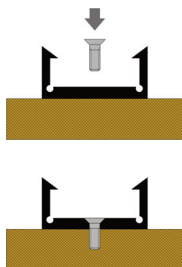
- ② Mark the centre position of each clip on the straight line.



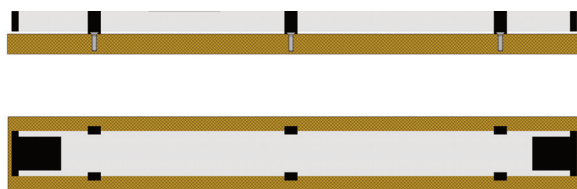
- ③ Use a 2mm or smaller drill bit to create pilot holes for the mounting screws.



- ④ Use 3mm countersunk screws suitable for the mounting surface to secure the clips.



- ⑤ Fit the track by gently pushing the track into the clips

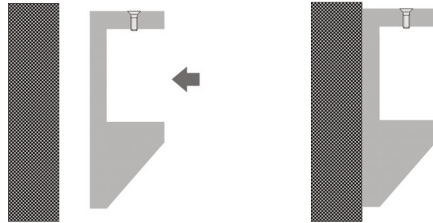


Mounting with Magnetic Clips

There are 2 different type of magnetic clips available - straight and 45°. Both are suitable for mounting lengths of track onto a solid magnetic/metallic surface.

Clips must be installed no more than 500mm apart. A clip must be installed within 50mm of each end of the track.

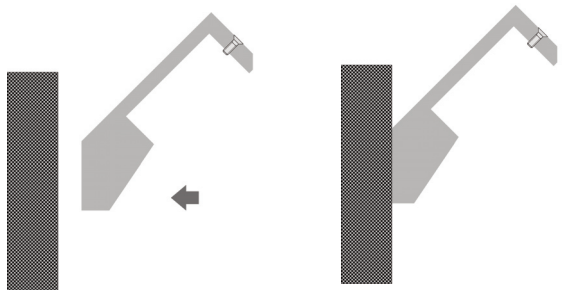
- 1 Attach the back of the clips to a magnetic metal surface. Use a straight edge to line up all clips.



- 2 Fit the track by gently pushing the track into the clips. Tighten the grub screws in each of the clips to secure the track in place.



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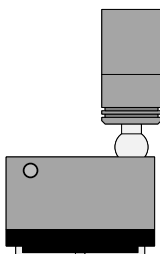
16 Accessories

We have a range of accessories for all 3 of the spotlight types. Fitting is as shown below and removal is the reverse process.

Note that the instructions are shown for the SX spotlight however the MX and LX accessories are installed using the same procedure.

Extended Snoot (SX, MX & LX Fittings)

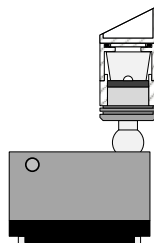
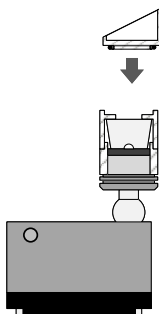
The extended snoot is fitted by unscrewing the standard snoot and screwing the new one on in its place.



Directional Snoot (SX, MX & LX Fittings)

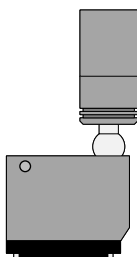
The directional snoot push fits on top of the standard or extended snoot and is held in place by the attached o'ring.

If required, use a slight rocking motion to help with the push-fit.



Focusable Snoot (MX Fitting Only)

The focusable snoot is fitted by unscrewing the standard snoot and screwing the new one on in its place.



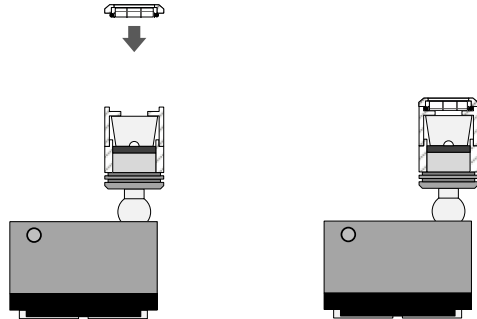
Diffuser (SX, MX & LX Fittings)

An accessory cap is fitted with the diffuser lens.

The cap is then push fitted to either the standard or extended snoot.

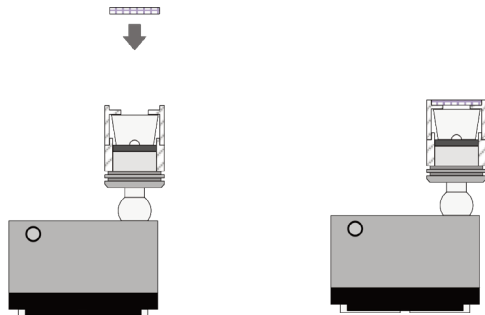
If required use a slight screwing motion to help with the push-fit.

Once the accessory cap is held in place with an o'ring.



Honeycomb (SX, MX & LX Fittings)

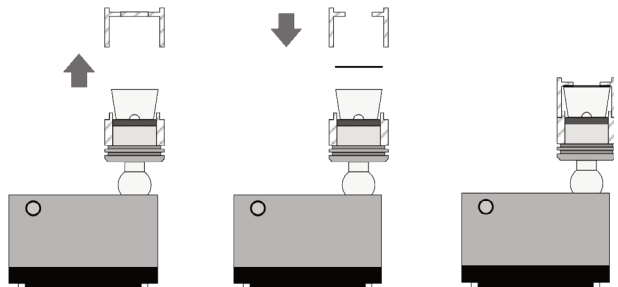
The honeycomb is simply push-fitted into the top of either the standard or the extended snoot.



Colour Filter (SX, MX & LX Fittings)

Unscrew the snoot and place the colour filter on the top of the lens.

Carefully screw the snoot back onto the fitting to hold the filter in place.



18 Maintenance

Note that a record of all maintenance **must** be kept in the table below. This must be dated and is required for warranty purposes.

[illegible]

System is dead. Power LED on inter- face / splitter / driver is not lit and no light output from ionic light fittings	Mains supply off or disconnected from PSU	Check supply and reinstate
	Loose / damaged connector(s) or faulty cable	Check all connectors and cables from mains to track for damage or other faults.
	PSU failed – check output with DVM	Replace PSU
	Track(s) being shorted out by bad connection or debris on track itself	Power down system and check for short circuits using DVM. Ensure tracks are clear of debris
One track dead – not powering light fittings – all other tracks okay (Be sure to try known working light fittings on affected track)	Loose or faulty connection or faulty cable from interface / splitter / driver to affected track	Check connections and reconnect/repair as required. Replace connection cable if damaged
	Faulty track	Replace affected track
Light fittings on tracks flash on/off steadily	PSU capacity has been exceeded	Remove some light fittings or, if 30W PSU is being used, upgrading to 60W PSU will provide extra capacity. See Connections page for further details.



Universal Fibre Optics

Home Place
Coldstream, TD12 4DT
United Kingdom
+44 (0) 1890 883416
www.ufo.lighting

Universal Fiber Optics USA

1749 Northgate Blvd
Sarasota, FL34238
United States
941-343-8115
www.fiberopticlighting.com

UFO Licht GmbH

Andreastrasse 20
93059 Regensburg
Deutschland
+49 (0) 9491 955880
www.ufo-licht.de



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