User Guide

UFO IONIC
GLOBAL DMX DRIVER

Rev. D1 UK

This guide contains important safety information and installation instructions.

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

02 Introduction & Safety

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

This unit is a constant voltage driver designed to drive the UFO Ionic track lighting system with luminaires drawing up to 60W*.

Always check the total load of the Ionic LED fittings as detailed in the table below, to ensure the total load of the driver does not exceed 60W prior to powering up the system.

Ionic Fitting	Wattage at 12V	Max. Fittings
Ionic SX	1.6W	33
Ionic MX	2.8W	18
Ionic LX	3.4W	14

Fitting types can be mixed on the same track however the total fitting Wattage must not exceed 60W*

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.

The LED driver may only be connected and installed by a qualified electrician.

All applicable regulations, legislation, and building codes must be observed.

Incorrect installation of the LED driver can cause irreparable damage to the LED driver and the connected LEDs.

Pay attention when connecting the LEDs: polarity reversal results in no light output and often damages the LEDs.

Important Safety Information

This driver is designed to work on a DC input voltage of 12V ONLY. The DC PSU supplying this driver must have an output capability sufficient to power up the driver and maintain the output load and should be Class 3 / SELV rated.

Connecting this driver to any other LED devices may result in catastrophic failure of the LED device and/or the driver.

Always check the input current and voltage of the LED devices to ensure compatibility prior to powering up the system.

Never hot swap LED fittings. When adding or removing LED fittings always power down the system first.

The driver is suitable for indoor/dry areas and must not be installed in damp or wet conditions.

Please refer to the separate Ionic User Guide for full details of the Ionic luminaires, the track extrusion and the accessory range.

* Note that we would always recommend leaving approx. a 10% buffer from the total Wattage to allow for any power fluctuations that may occur. This is the reason the power draw for max. number of fittings we recommend is lower than 60W.

04 Operation

Overview

The Ionic Global DMX Driver works in conjunction with any standard DMX controller to provide global dimming effects to UFO Ionic luminaires installed on Ionic track.

The driver is a DMX addressable unit which can be set to any address between 1 and 512. The addresses are set using a bank of dip switches on the side of the unit.

There are 2 inbuilt LEDs - the green LED illuminates when a functional DMX connection is detected and the red LED shows that the driver is powered on.

The driver can be used to control the luminaires on one track or can be connected to a splitter unit to drive up to 6 tracks. Drivers can also be daisychained with each one having a different DMX address, this way an almost limitless number of tracks can be controlled from one DMX controller.

Each driver is able to power a maximum of 60W worth of Ionic luminaires. See the table on page 2 for details of luminaire power consumption.

The driver is used to dim all luminaires which are mounted on connected tracks to the same overall level. Each Ionic luminaire also has an inbuilt local dimmer. The level these are set at will affect the overall brightness. If all luminaires need to be set the same, then the local dimmer controls should all be set to maximum output. The Global DMX driver can then be used to set all luminaires to the same light output level. See the user guide supplied with the Ionic luminaires for more information on local dimming.

Dip Switch Settings

On the side of the driver is a bank of 10 dip switches which are used to set the unit's DMX address and to control DMX termination.

Switches 1 to 9 are used for address setting and switch 10 is the termination switch.

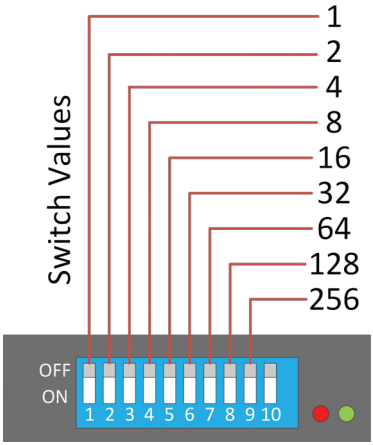
Note that switch position down is on and switch position up is off.

DMX Termination

To properly terminate the DMX sequence, dip switch 10 must be set to **on** on the last driver in the chain. If only one driver is being used then switch 10 must be set to **on** on that unit. Failure to set this switch may result in unpredictable dimming behaviour.

DMX Addressing

Dip switches 1 to 9 are used to set the driver's DMX address to any value between 1 and 512. The switches use the standard binary numbering system to set the address.



Example Addressing

The values for each switch are shown on the diagram to the left. Each value is additive.

To set the unit to DMX address 1, only switch 1 needs to be **on**

To set the unit to DMX address 12, switches 3 and 4 would be **on** as their values 4 + 8 = 12.

To set the unit to DMX address 70, switches 2, 3 and 7 would be **on** as their values 64 + 4 +2 = 70.

06 Wiring Specifications

Input DC Wiring Specifications

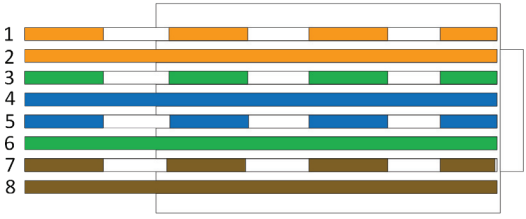
Connector type	Screw terminals
Wire type	Solid or stranded copper
Wire cross section	0.5 - 1.5mm² /AWG 20 -16
Wire strip length	9.0mm (11/32 in)

Output DC Wiring Specifications

Connector type	Screw terminals
Wire type	Solid or stranded copper
Wire cross section	0.5 - 1.5mm² /AWG 20 -16
Wire strip length	9.0mm (11/32 in)

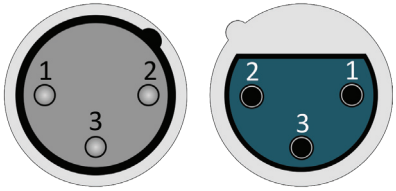
DMX Wiring Specifications

RJ45 Connector - Tab Down (T-568B)



Pin 1	WHITE / ORANGE – DMX DATA +
Pin 2	ORANGE – DMX DATA -
Pin 3	WHITE / GREEN – AUX DMX DATA +
Pin 4	BLUE – NOT USED
Pin 5	WHITE / BLUE – NOT USED
Pin 6	GREEN – AUX DMX DATA -
Pin 7	WHITE / BROWN – GND
Pin 8	BROWN – AUX GND

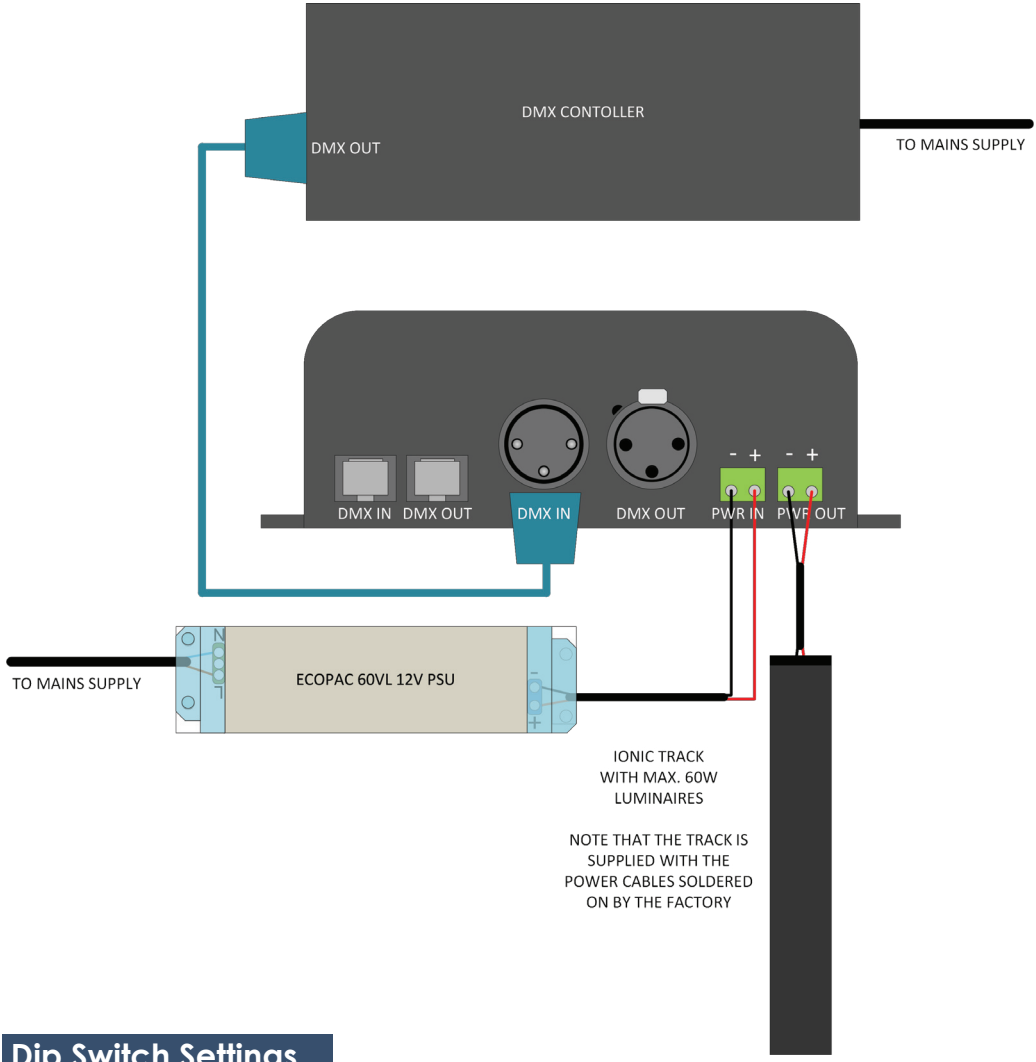
XLR Connector Pins



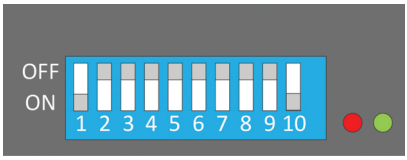
DMX IN DMX OUT

Pin 1	GND
Pin 2	DMX DATA -
Pin 3	DMX DATA +

Driver Wiring Guide - One Ionic Track



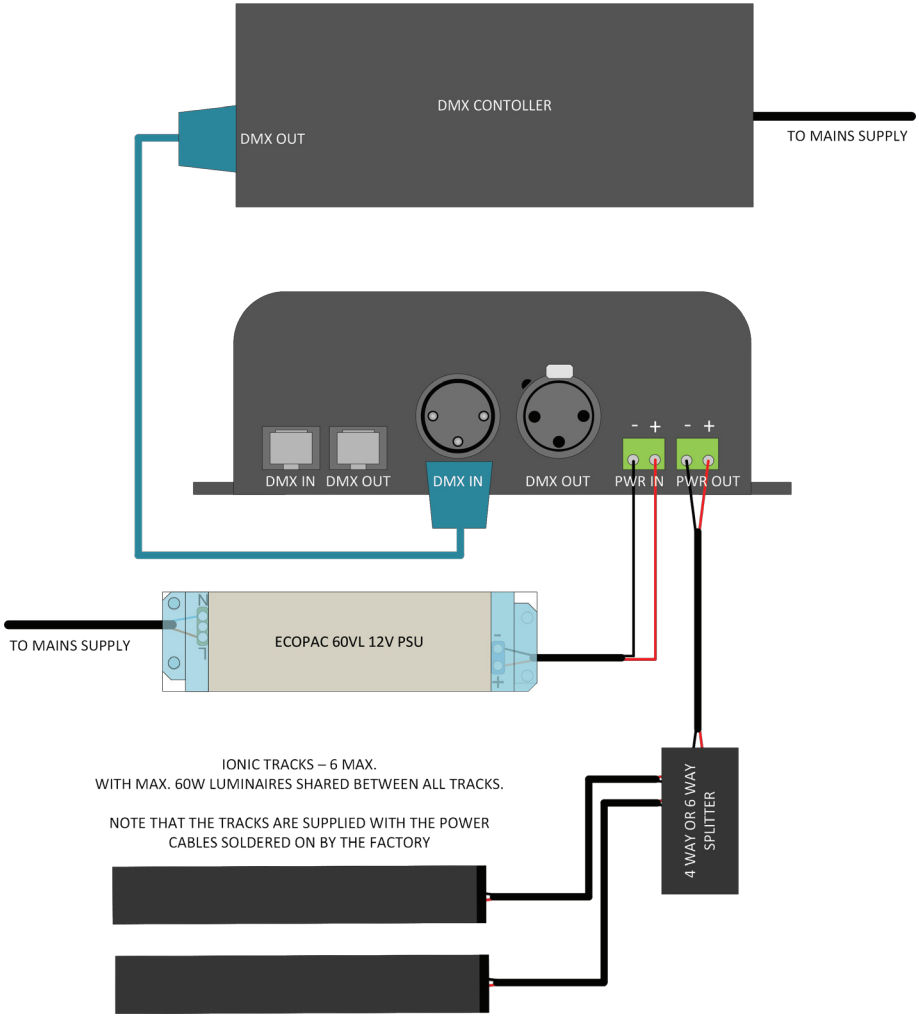
Dip Switch Settings



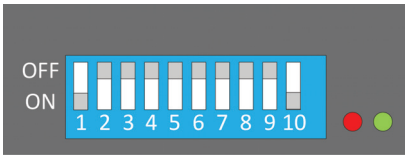
When only one Global DMX Driver is being used, switch 10 must be set to the **on** position. See page 5 for details of other switches.

08 Connections & Wiring

Driver Wiring Guide - Multiple Ionic Tracks / 1 DMX Controller

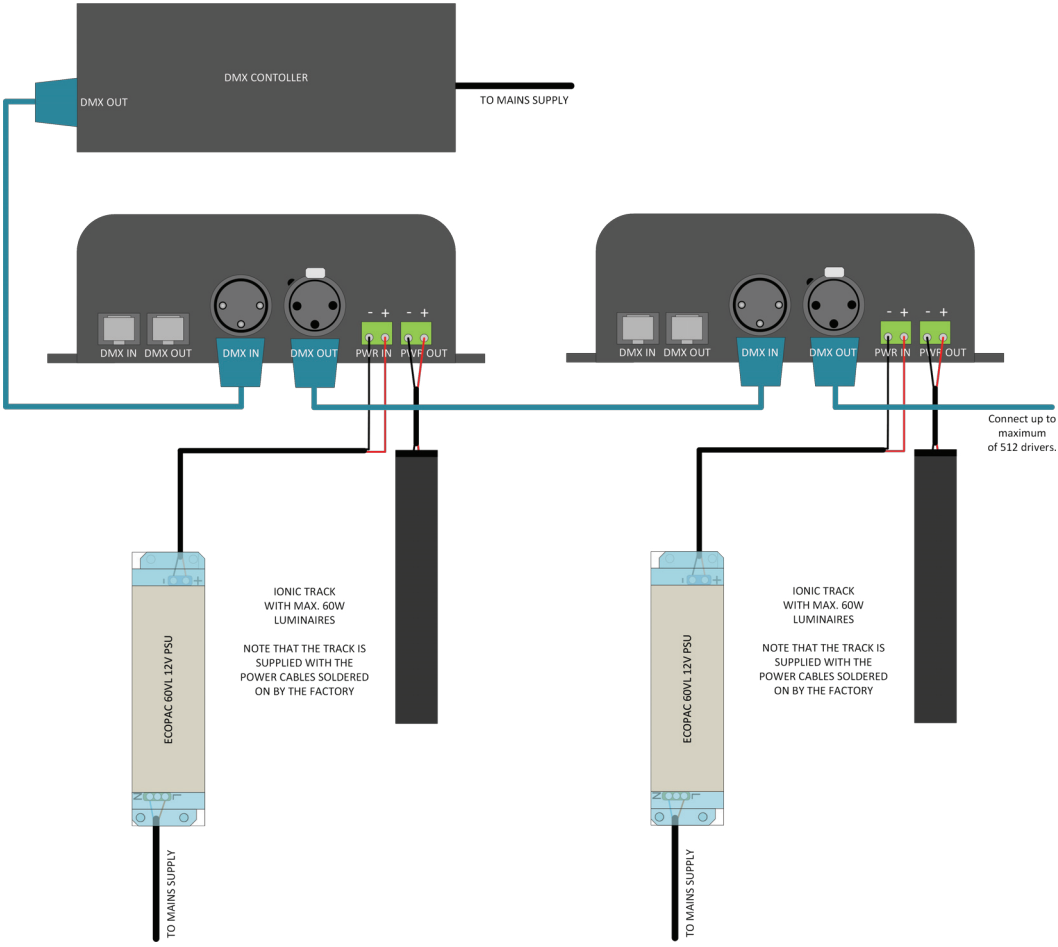


Dip Switch Settings

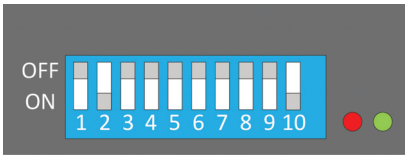


When only one Global DMX Driver is being used, switch 10 must be set to the **on** position. See page 5 for details of other switches.

Driver Wiring Guide - Multiple Ionic Tracks / Multiple Controllers A



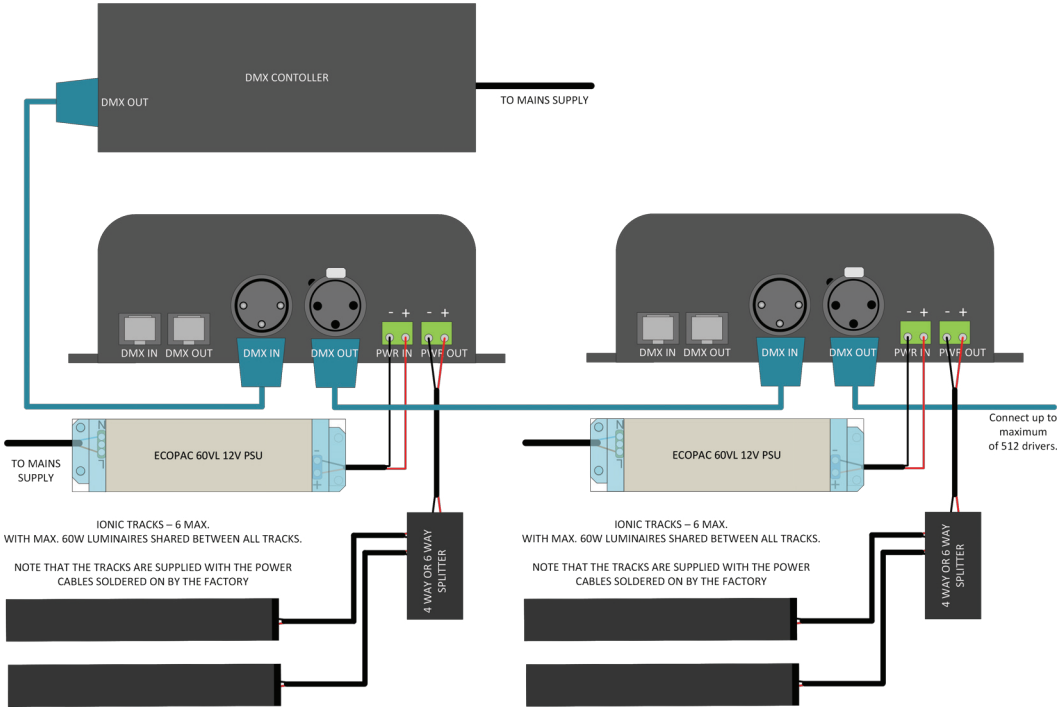
Dip Switch Settings



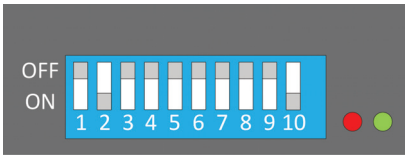
When multiple Global DMX Drivers are being used, switch 10 must be set to the **on** position on the last driver in the chain. It should be **off** on all other drivers. See page 5 for details of other switches.

10 Technical Information

Driver Wiring Guide - Multiple Ionic Tracks / Multiple Controllers B



Dip Switch Settings



When multiple Global DMX Drivers are being used, switch 10 must be set to the **on** position on the last driver in the chain. It should be **off** on all other drivers. See page 5 for details of other switches.

Technical Information 11

Product Name	UFO Ionic Global DMX Driver
UFO Product Code	UFO IONDR-DMX-CV-DC-12-60-D
Description	Constant voltage DMX dimmable driver
Input Voltage	12V DC, Class 3 / SELV power supply unit
Rated Power	60W
Output Current	5A
Output Voltage	12V DC
DMX Addressing	Dip switches to address up to 512 DMX channels
Functionality	DMX dimming
Protection	SCP, OCP, OTP
Connections	Screw terminals for power in and out 3 pin XLR and RJ45 for DMX control
IP Rating	IP20 - for internal use only
Dimensions	153mm x 58mm x 37mm 6" x 2.67" x 1.45"

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

DESIGN SPECIFY BUILD INSTALL

MADE IN U.K. PREMIUM QUALITY