



User Guide

UFO NEBULA ANIMATED EFFECT LED ILLUMINATOR

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

Thank you for purchasing this UFO illuminator.

This is the ultimate illuminator for illuminating and controlling active display fiber optic effect lighting with either spectacular color change or bright white light.

To ensure that the illuminator is set up optimally and gives a long service life, please read this user guide before installing, operating or performing any maintenance on the unit. Please retain this user guide for future reference.

Features

The Nebula is available in 2 models - RGB and white light only.

Both versions have a 60 LED fiber multi-port connector and an inbuilt LCD display for ease of use.

The RGB Nebula's color change and dimming can be controlled by DMX or by manual operation.

The white light version offers DMX or manual control over dimming only.

Each of the 60 fiber ports are individually controllable via DMX.

Both models offer 8 in-built demo programs to show off some of the effects that are possible.

Important Safety Information

- This product must be installed in accordance with the applicable installation code, by a person familiar with the construction and operation of the product, and the hazards involved.
- These illuminators are not mains dimmable.
- The multiport LED array and heatsink in this illuminator can be replaced when it reaches end of life. Contact UFO for details
- Type Y Attachment: If the external flexible cable or cord of this luminaire or associated PSU/driver is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person to avoid a hazard.
- Location: Do not locate this illuminator closer than 200mm from any flammable surface.
- Clearance / Ventilation: It is imperative that a gap of 200mm is left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation and must not have an ambient temperature higher than that specified for the unit.
- Mounting: This luminaire comes with integral mounting feet for securing the unit to a vertical or horizontal surface.
- Warning: Always connect the fiber ferrules to the 60 LED array before power is applied to the illuminator. Never look directly at the luminaire through the fiber multi-port of the illuminator.
- Warning: The luminaire should be positioned so that staring into the luminaire at a distance closer than 2.7 metres is not expected.

UFO will accept no liability for damage, or associated claims, caused by not following the installation and safety instructions contained within this user guide.

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Model Overview- RGB Version

The Nebula RGB LED illuminator (UFO NEB-RGB) incorporates a multiport array of sixty, three color LEDs (Red/Green/Blue) to provide optimum display flexibility and illumination within the following optical range.

| Product Code | LED Color | Watts | Lumen Output |
|--------------|-----------|-------|--------------|
| UFO NEB-RGB | Red | 61mW | 5.1lm |
| | Green | 82mW | 11.7lm |
| | Blue | 84mW | 2.7lm |

The RGB Nebula is a 30W LED illuminator with all the control functionality fitted as standard. The following control functionality and configurations are available via rear panel connections, push buttons and LCD display.

1. Manual Control

using top panel push button controls with status display.

2. DMX Control

180 channels (dimming plus individual red, green, and blue control).

3. Demo Mode

8 standalone showcase programmes.

4. Primary / Secondary Functionality

One Nebula acting as primary controlling one or more secondary Nebula illuminators via DMX links.

Model Overview- White Light Version

The NEBULA White Light LED illuminator incorporates a multiport array of sixty, white light LEDs to provide optimum display flexibility and illumination within the following optical range.

| Product Code | Individual LED Power | CCT | Individual LED Lumen Output | CRI |
|---------------------|----------------------|-------|-----------------------------|----------|
| UFO NEB-WL27 | 96mW | 2700K | 9.6lm | 70 (min) |
| UFO NEB-WL30 | 96mW | 3000K | 9.6lm | 70 (min) |
| UFO NEB-WL40 | 96mW | 4000K | 9.6lm | 70 (min) |
| UFO NEB-WL57 | 96mW | 5000K | 9.6lm | 70 (min) |
| UFO NEB-WL65 | 96mW | 6500K | 9.6lm | 70 (min) |

The white light Nebula is a 30W illuminator with all control functionality fitted as standard. The following control functionality and configurations are available via rear panel connections, push buttons and LCD display.

1. Manual Control

using top panel push button controls with status display.

2. DMX Control

60 channels (dimming, individual control).

3. Demo Mode

8 standalone showcase programmes.

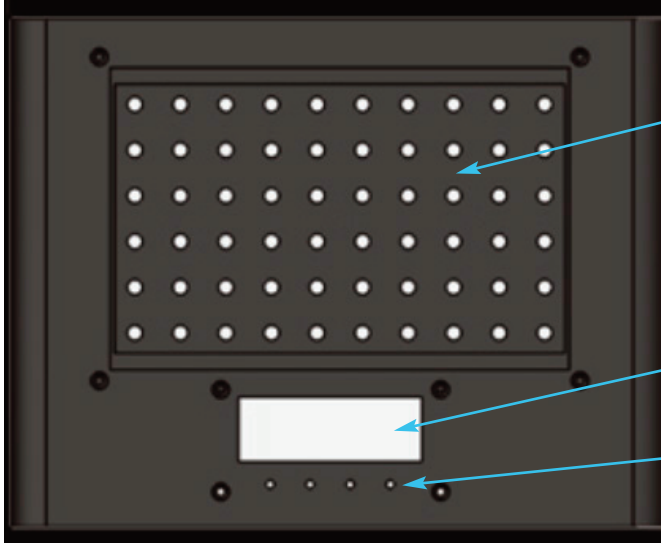
4. Primary / Secondary Functionality

One Nebula acting as primary controlling one or more secondary Nebula illuminators via DMX links.

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Connections & Controls

Top Panel Overview

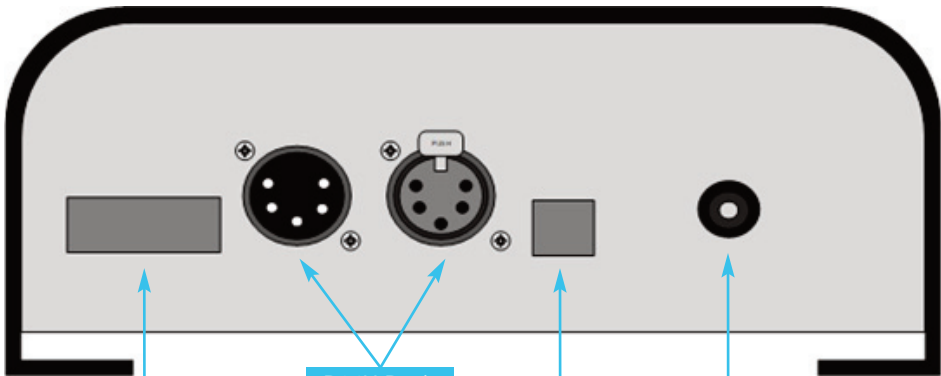


Fiber Multi Port Connector

LCD Display Screen

4 x Control Buttons

Rear Panel Overview



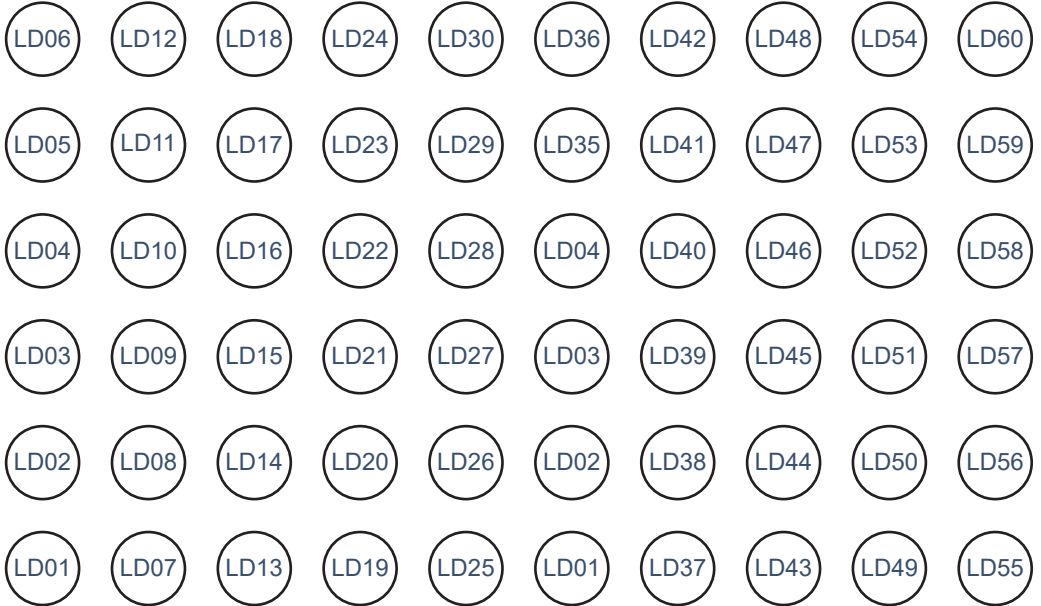
Not Connected

DMX Ports

Not Connected

12V DC Power Input

LED Port Numbering



The 60 LEDs in the fiber multi-port array as displayed above are numbered as detailed above.

These numbers relate to DMX channels for control purposes. On white light models, 60 DMX addresses are taken up to control each of the LED's individually.

On RGB models, each LED has 3 color components - red, green and blue so these take up 180 DMX addresses so that each color in each port can be individually controlled. For example, port LD01 will use addresses 1, 2 and 3. Port LD02 will use addresses 4, 5 and 6 and so on.

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Connection

Manual Control Connection

- Ensure the illuminator is powered off.
- Take each fiber optic ferrule connector in turn and plug it into the correct port in the multi-port connector on the top of the illuminator. Ensure each connector is pushed fully into its aperture. In some instances the fiber optic tails will be numbered to correspond with a particular port on the connector. Refer to the preceding page for details of port numbering.
- Plug the IEC cable into the power supply unit and then connect the power supply 12V DC output jack plug to the port on the rear of the illuminator.
- Switch on power at the mains and the fiber should illuminate. The illuminator is now ready for use.
- If, after using the control and program buttons and display as detailed in the operation section of this manual, no light is produced consult the troubleshooting section later in this manual.

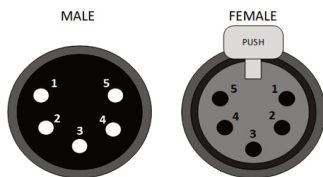
Never run the illuminator with the fiber optic ferrule connectors out of the multi-port apertures.

DMX Control Connection

- Ensure the illuminator is powered off.
- Take each fiber optic ferrule connector in turn and plug it into the correct port in the multi-port connector on the top of the illuminator. Ensure each connector is pushed fully into its aperture. In some instances the fiber optic tails will be numbered to correspond with a particular port on the connector. Refer to the preceding page for details of port numbering.
- Plug the necessary DMX cables into the ports on the rear of the illuminator.
- Plug the ICE cable into the power supply unit and then connect the power supply 12V DC output jack plug to the port on the rear of the illuminator.
- Switch on power at the mains and the fiber should illuminate. The illuminator is now ready for use.
- If, after using the control and program buttons and display as detailed in the operation section of this manual, no light is produced consult the troubleshooting section later in this manual.

Never run the illuminator with the fiber optic ferrule connectors out of the multi-port apertures.

DMX Notes



Pin 1: Ground / Shield
Pin 2: Data - (cold)
Pin 3: Data + (hot)
Pins 4 & 5: Not used

- Always use an approved DMX cable
- Always “daisy chain” a DMX cable or universe
- Never use a T joint on a DMX cable or universe, unless using an approved interface or splitter
- Never connect more than 30 Nebula Master/Slave units on a single DMX universe.
- Always terminate the last device on a DMX universe by connecting a 120 ohm resistor across DMX+ and DMX- across the last output connector
- Always ensure sufficient channels are available after the first address for each address the illuminator requires.

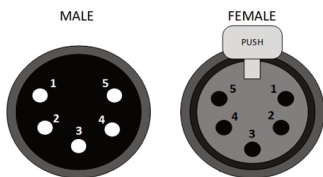
10 Connection

Primary / Secondary Connection

- Ensure the illuminator is powered off.
- Take each fiber optic ferrule connector in turn and plug it into the correct port in the multi-port connector on the top of the illuminator. Ensure each connector is pushed fully into its aperture. In some instances the fiber optic tails will be numbered to correspond with a particular port on the connector. Refer to the preceding page for details of port numbering.
- Plug a DMX cable from the controller into the Primary illuminator and then, from it to the first of the Secondary units. Continue chaining the illuminators together until all are connected.
- Plug the IEC cable into the power supply unit and then connect the power supply 12V DC output jack plug to the port on the rear of the illuminator.
- Switch on power at the mains and the fiber should illuminate. The illuminator is now ready for use.
- If, after using the control and program buttons and display as detailed in the operation section of this manual, no light is produced consult the troubleshooting section later in this manual.

Never run the illuminator with the fiber optic ferrule connectors out of the multi-port apertures.

DMX Notes

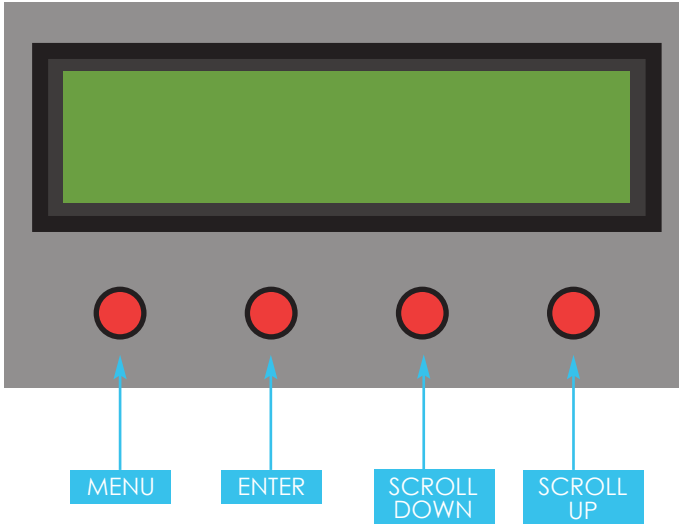


Pin 1: Ground / Shield
Pin 2: Data - (cold)
Pin 3: Data + (hot)
Pins 4 & 5: Not used

- Always use an approved DMX cable
- Always “daisy chain” a DMX cable or universe
- Never use a T joint on a DMX cable or universe, unless using an approved interface or splitter
- Never connect more than 30 Nebula Master/Slave units on a single DMX universe.
- Always terminate the last device on a DMX universe by connecting a 120 ohm resistor across DMX+ and DMX- across the last output connector
- Always ensure sufficient channels are available after the first address for each address the illuminator requires.

User Controls

Operation of the Nebula RGB model is carried out via the top panel display and the 4 push button controls as detailed below.



On power up the display will momentarily display the model name, then the firmware version, before going into initialisation whilst it checks the unit before finally displaying the current status.



Once the unit is powered up, user controlled manual functions and all programming features are available via the four top panel push buttons as detailed in the figure above the table overleaf.

IMPORTANT NOTE: Once programmed the illuminator will always revert to the programmed settings when power is recycled.

However, if manual reset is selected, via the 'Default Settings' menu option then the illuminator will be reset to factory default.

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RGB Models - Functions

| Main Menu | Sub Menu | Description | Instructions |
|------------------------|--------------------------------|--|---|
| Control Mode MASTER | - | Allows manual control of the illuminator | Press Menu button to locate. Press Enter button to select. Press Menu button to scroll through sub menus |
| Control Mode MASTER | Master Program 1> Strips X | Demo program 1 | Press Scroll up/down buttons to locate press Enter button to select. |
| Control Mode MASTER | Master Program 2> Strips Y | Demo program 2 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 3> Strips Fd | Demo program 3 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 4> Random 1 | Demo program 4 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 5> Random 2 | Demo program 5 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 6> Random 3 | Demo program 6 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 7> Worms | Demo program 7 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 8> Square | Demo program 8 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Set Step Speed 1 Seconds | Control the time a program stays on the current step | Press Scroll up/down buttons to select the speed (between 1 and 60 seconds) press Enter to select |
| Control Mode MASTER | Master Dimmer 100% | Control the light output | Press Scroll up/down buttons to select the light output required (1% to 100%) press Enter button to select |
| Control Mode MASTER | Default Settings NO | Reset illuminator to factory defaults | Press Scroll up/Scroll down buttons to select either YES or NO press Enter button to select |
| Control Mode DMX | - | Allows DMX control of the illuminator | Press Menu button to locate press Enter button to select. Press Menu button to scroll through sub menus |
| Control Mode DMX | Set DMX Address 1 | Sets the DMX address | Press Scroll up/Scroll down buttons to select the address (between 1 and 512) press Enter button to select |
| Control Mode DMX | DMX Channel Mode: 3 Channel | Allows DMX control of either a single DMX channel for each of the three LED colors 3 DMX addresses or a single LED channel for each of the 180 LED colors – 180 DMX addresses. | Press Scroll up/Scroll down buttons to select the number of channels (either 3 or 180) press Enter button to select |
| Control Mode DMX | Master Dimmer 100% | Control the light output | Press Scroll up/down buttons to select the light output required (1% to 100%) press Enter button to select |
| Control Mode DMX | Default Settings NO | Reset illuminator to factory defaults | Press Scroll up/Scroll down buttons to select either YES or NO press Enter button to select |

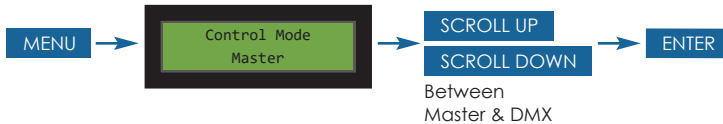
| Main Menu | Sub Menu | Description | Instructions |
|---------------------|-----------------------------|---|---|
| Control Mode MASTER | - | Allows manual control of the illuminator | Press Menu button to locate. Press Enter button to select. Press Menu button to scroll through sub menus |
| Control Mode MASTER | Master Program 1> Strips X | Demo program 1 | Press Scroll up/down buttons to locate press Enter button to select. |
| Control Mode MASTER | Master Program 2> Strips Y | Demo program 2 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 3> Strips Fd | Demo program 3 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 4> Random 1 | Demo program 4 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 5> Random 2 | Demo program 5 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 6> Random 3 | Demo program 6 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 7> Worms | Demo program 7 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Master Program 8> Square | Demo program 8 | Press Scroll up/down buttons to locate press Enter button to select |
| Control Mode MASTER | Set Step Speed 1 Seconds | Control the time a program stays on the current step | Press Scroll up/down buttons to select the speed (between 1 and 60 seconds) press Enter to select |
| Control Mode MASTER | Master Dimmer 100% | Control the light output | Press Scroll up/down buttons to select the light output required (1% to 100%) press Enter button to select |
| Control Mode MASTER | Default Settings NO | Reset illuminator to factory defaults | Press Scroll up/Scroll down buttons to select either YES or NO press Enter button to select |
| Control Mode DMX | - | Allows DMX control of the illuminator | Press Menu button to locate press Enter button to select. Press Menu button to scroll through sub menus |
| Control Mode DMX | Set DMX Address 1 | Sets the DMX address | Press Scroll up/Scroll down buttons to select the address (between 1 and 512) press Enter button to select |
| Control Mode DMX | DMX Channel Mode: 1 Channel | Allows DMX control of a single LED channel for each DMX address when set to 60, or all 60 channels for a single DMX address when set to 1 | Press Scroll up/Scroll down buttons to select the number of channels (either 3 or 180) press Enter button to select |
| Control Mode DMX | Master Dimmer 100% | Control the light output | Press Scroll up/down buttons to select the light output required (1% to 100%) press Enter button to select |
| Control Mode DMX | Default Settings NO | Reset illuminator to factory defaults | Press Scroll up/Scroll down buttons to select either YES or NO press Enter button to select |

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Manual Operation

All Nebula models in the range can be manually controlled via the Menu, Enter, Scroll up and Scroll down buttons, in a variety of ways as detailed in the function table in the preceding section and in the following sections.

- For all manual operation modes the luminaire must be set to master
- Repeated pressing of Menu button accesses sub menus
- Refer to the function table for menu and sub-menu availability for each model

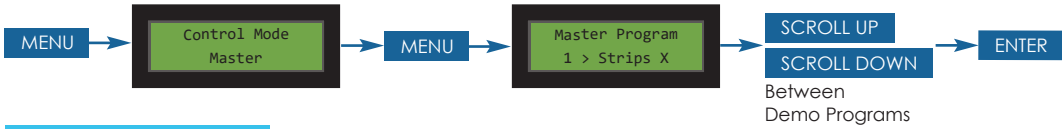


Demo Programs

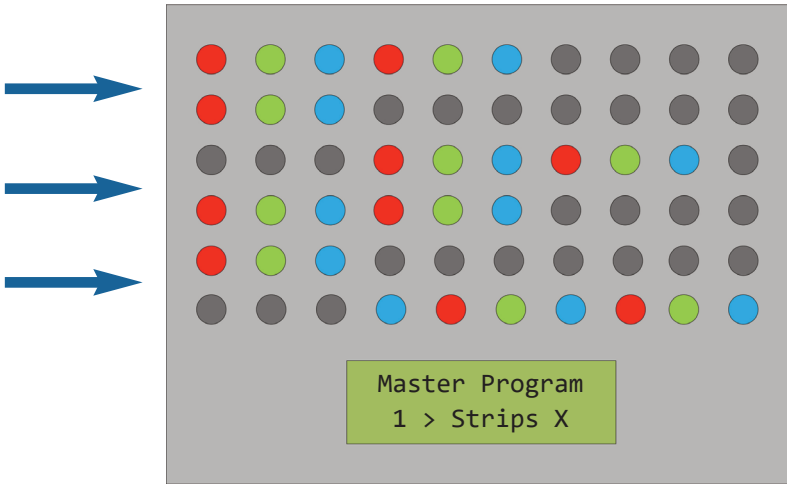
With the luminaire in Master Control Mode, one of eight programs as detailed on the next pages can be selected.

Operation 15

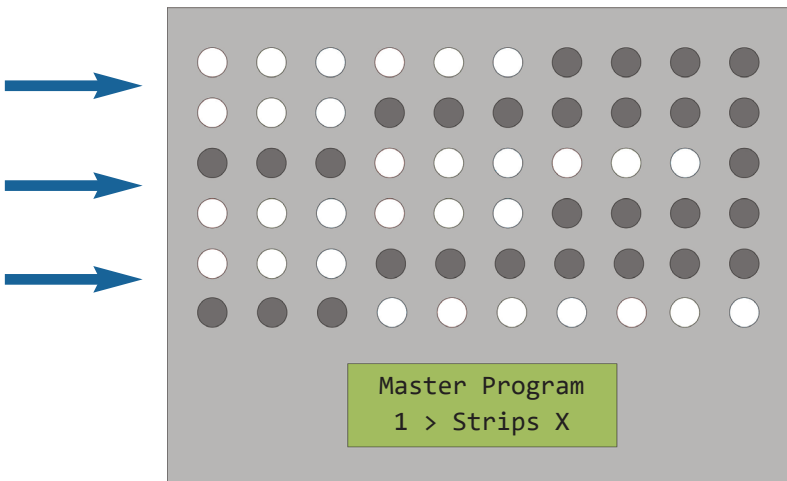
Program 1 - Strips X



RGB Version

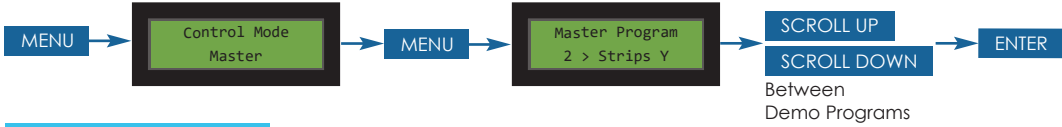


White Light Version

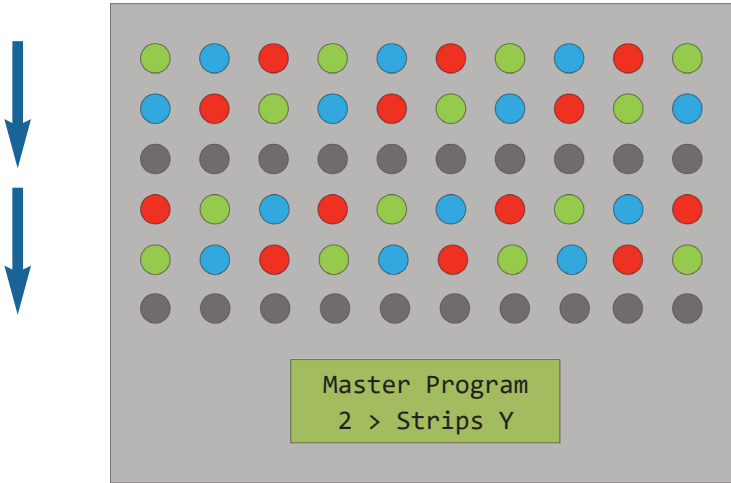


16 Operation

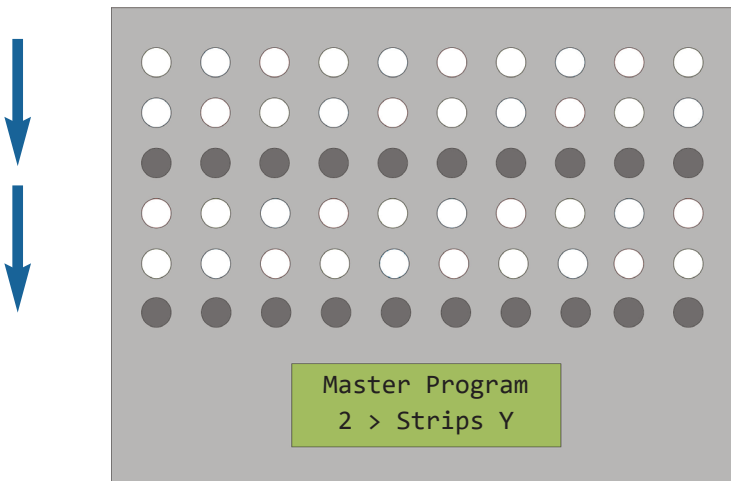
Program 2 - Strips Y



RGB Version

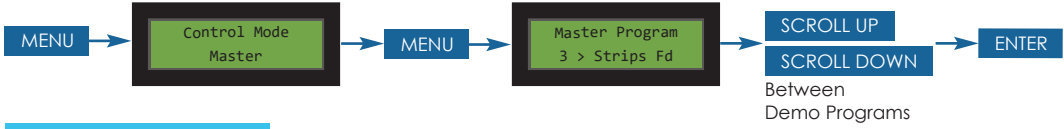


White Light Version

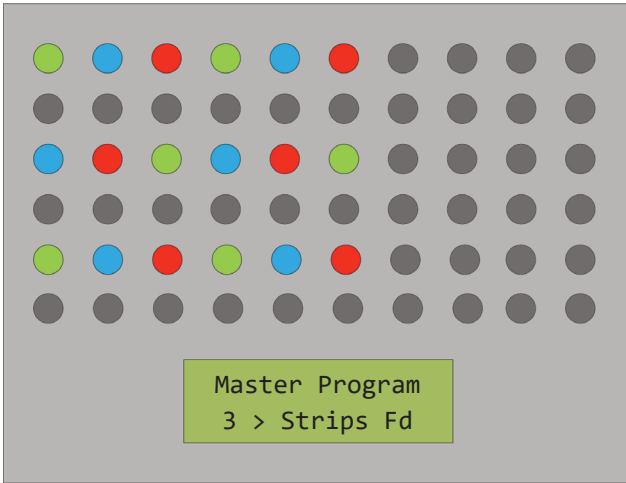


Operation 17

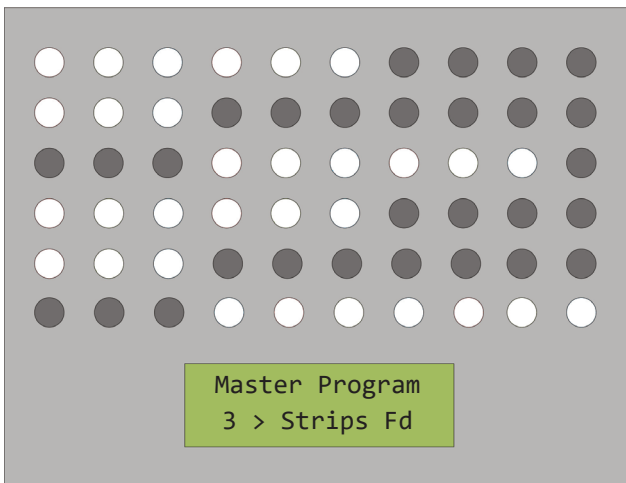
Program 3 - Strips Fd



RGB Version

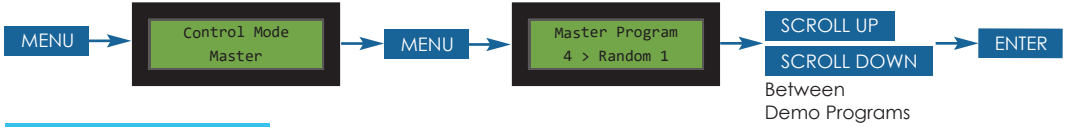


White Light Version

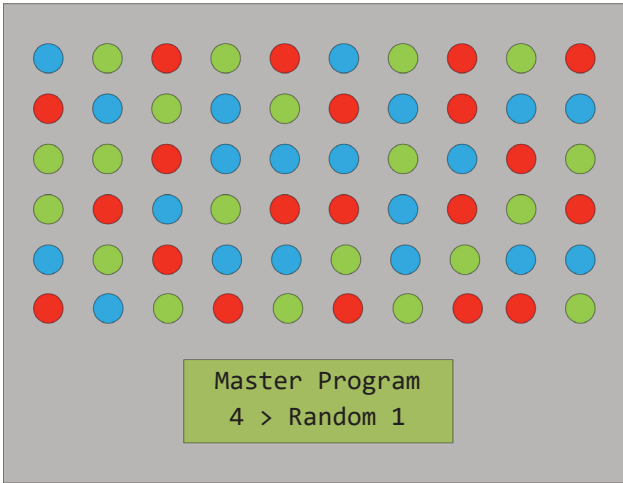


18 Operation

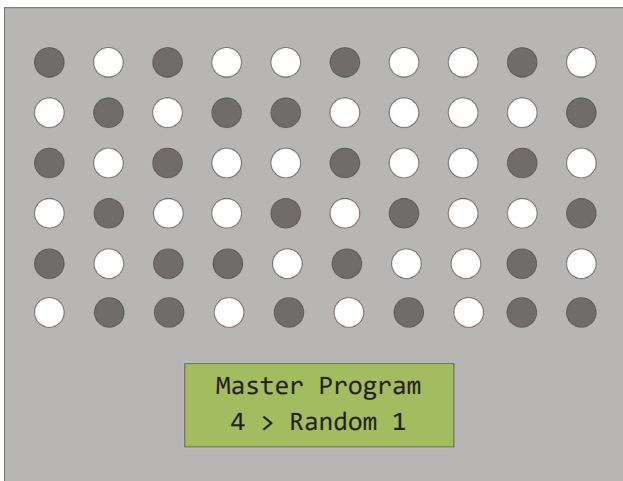
Program 4 - Random 1



RGB Version

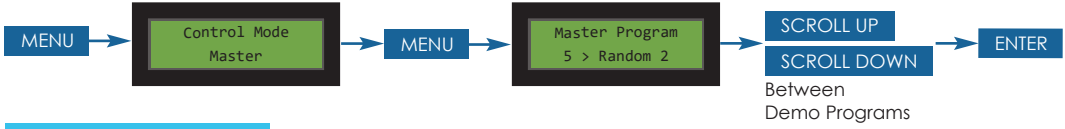


White Light Version

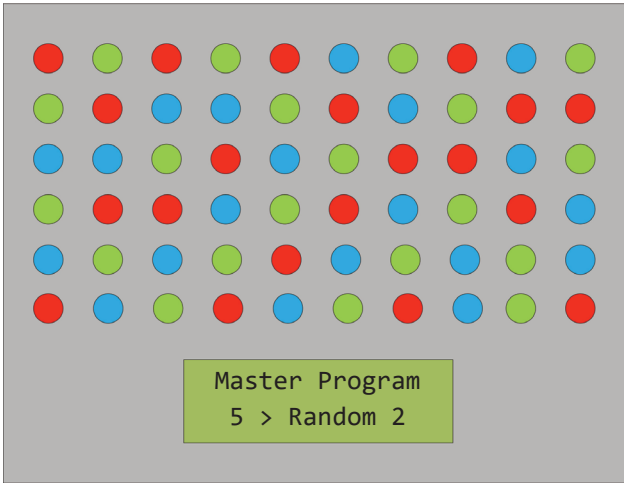


Operation 19

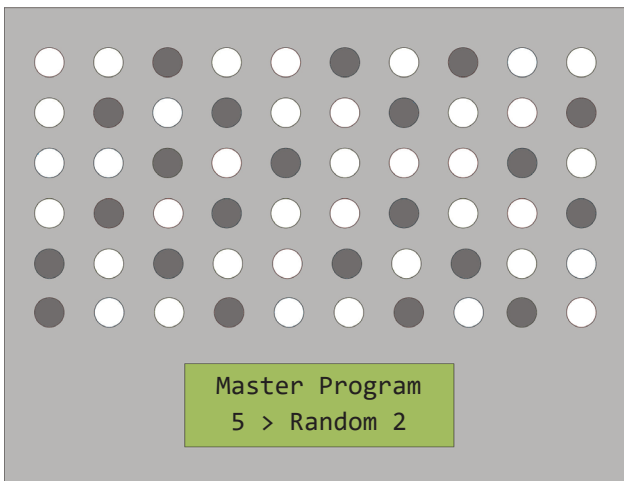
Program 5 - Random 2



RGB Version

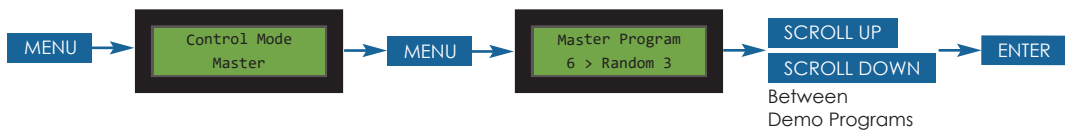


White Light Version

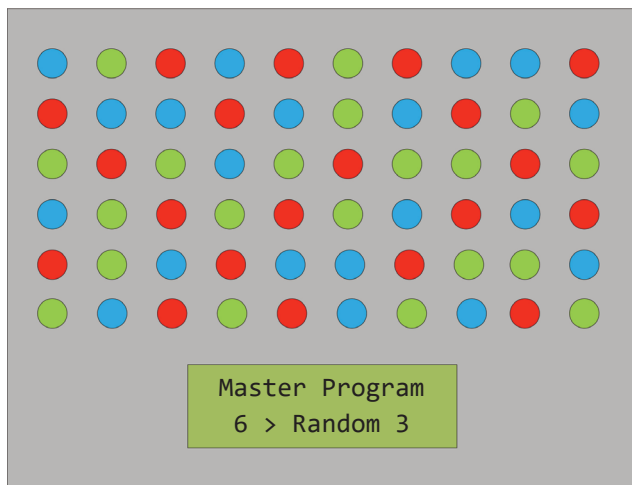


20 Operation

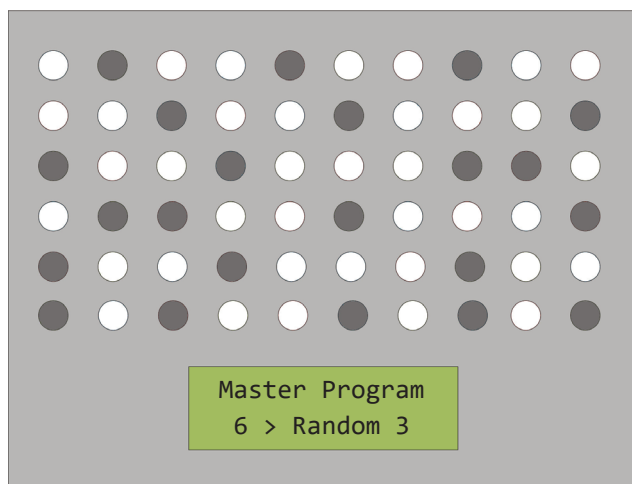
Program 6 - Random 3



RGB Version

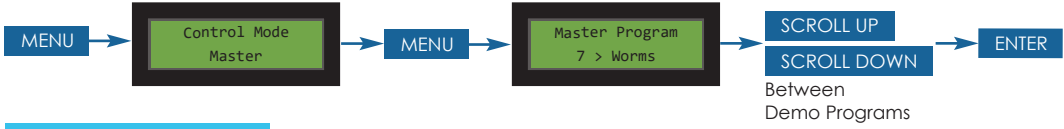


White Light Version

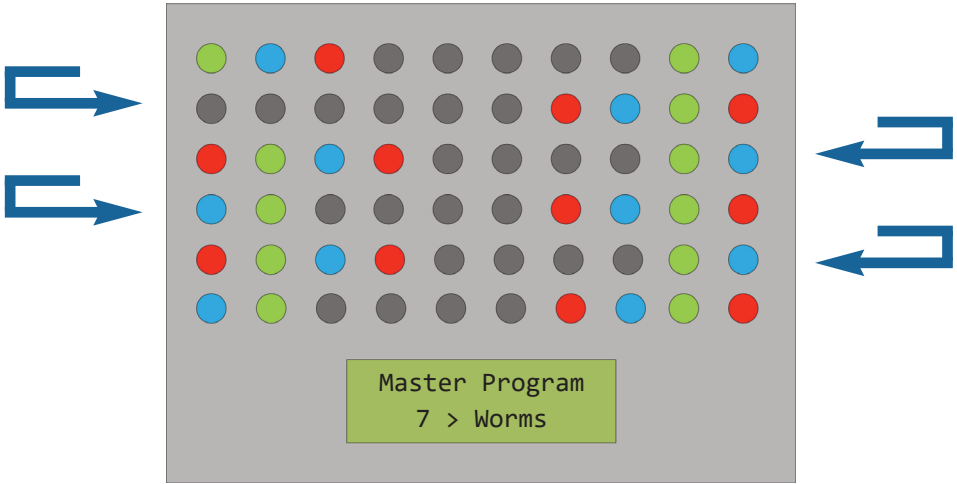


Operation 21

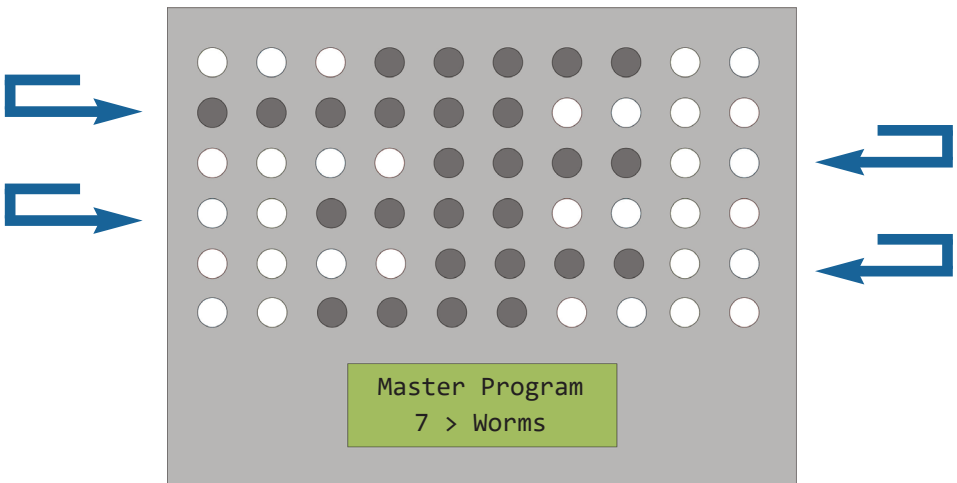
Program 7 - Worms



RGB Version

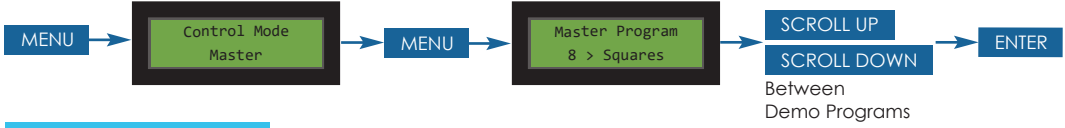


White Light Version

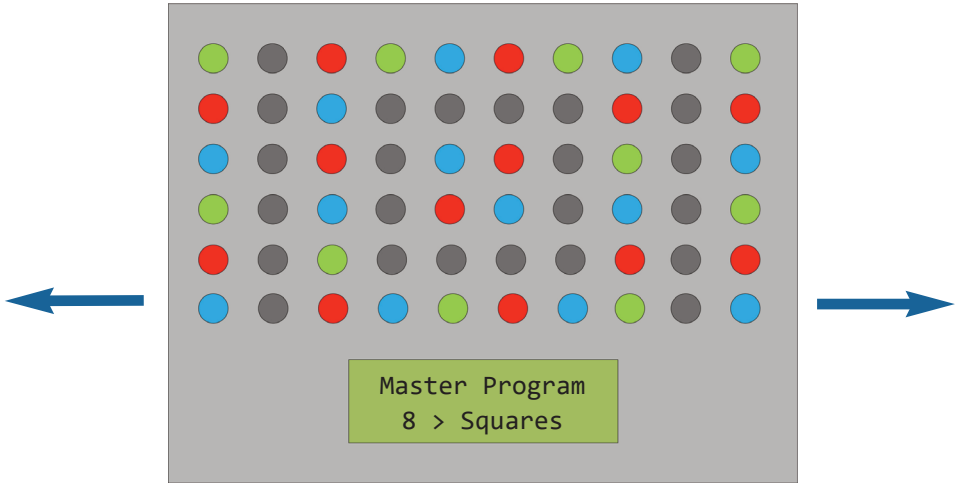


22 Operation

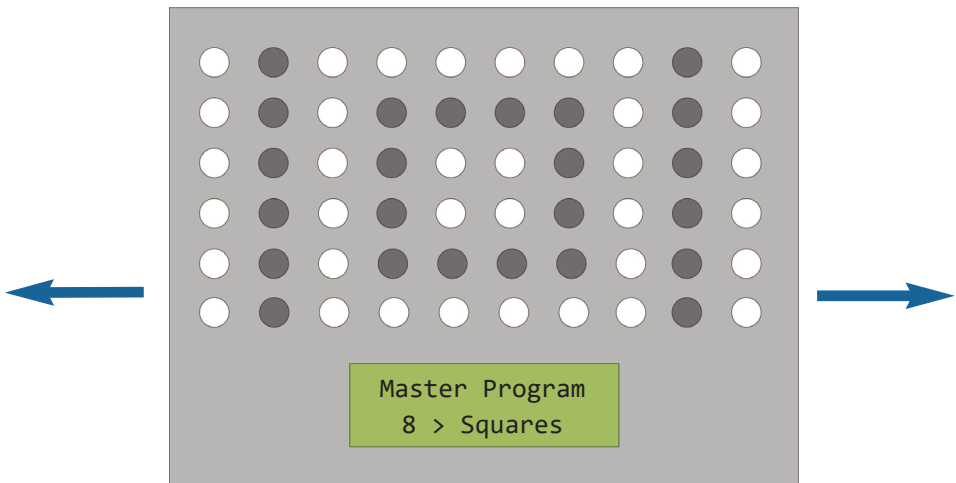
Program 8 - Squares



RGB Version

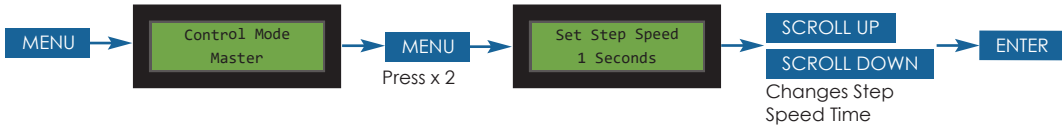


White Light Version



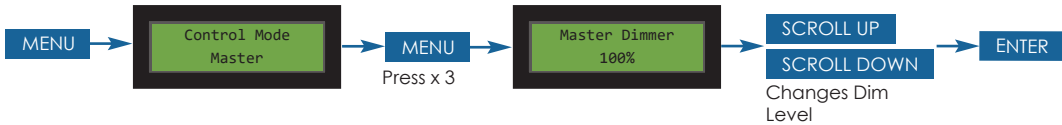
Set Step Speed

With the luminaire in Master Control Mode, the time a program stays on the current step before moving on can be adjusted from 1 second to 60 seconds.



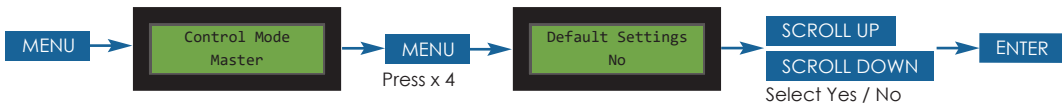
Dimming

With the illuminator in Master Control Mode, the light output of all LEDs can be dimmed using rear panel controls from 1% (minimum light output) to 100% (maximum light output).



Reset to Factory Defaults

With the luminaire in Master Control Mode, the illuminator can be reset to default factory settings.



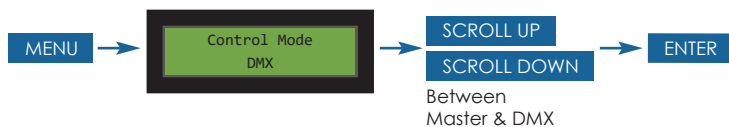
Default factory settings will reset the DMX address to 001, dimming to 100% and DMX channel setting to 60 for white light versions and 180 for RGB version of the illuminator.

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DMX Operation

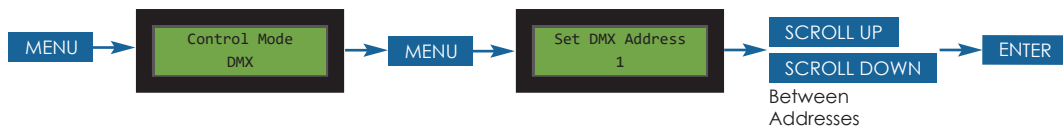
All Nebula models in the range can be DMX controlled as detailed in the following sections.

- For all DMX operation modes, the luminaire must be set to DMX
- Repeated pressing of Menu button accesses sub menus
- Refer to the function table for menu and sub-menu availability for each model



Setting the DMX Address

With the luminaire in DMX Control Mode, the base DMX address can be set between 001 and 511.



Note that for primary/secondary operation to work correctly, all secondary illuminators must be set to address 001.

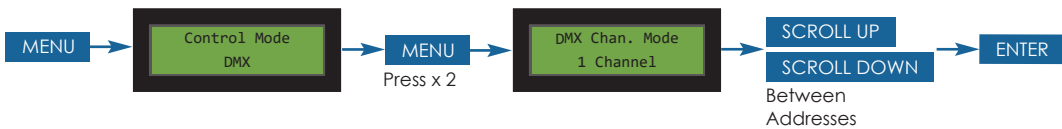
The white light models of the Nebula take up 60 channels and the RGB model takes up 180 channels. Always ensure sufficient channels are available after the base address that is set.

DMX Channel Setting

With the luminaire in DMX Control Mode, the number of DMX controlled channels available can be set.

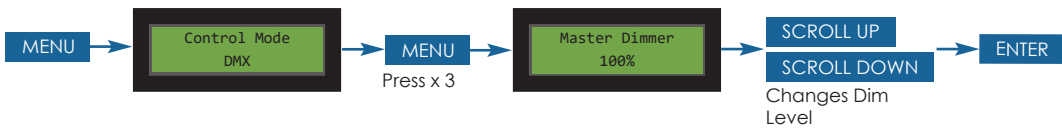
On white light models, the setting is either 1 (single address controlling all channels) or 60 (60 addresses controlling individual channels).

On rgb models, the setting is either 3 (single address controlling individual colors on all channels) or 180 (180 addresses controlling individual channels).



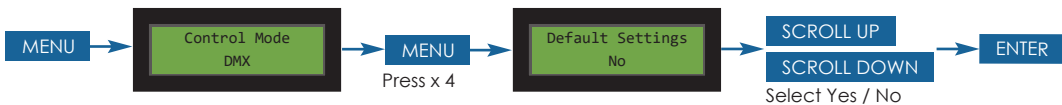
Dimming

With the illuminator in DMX Control Mode, the light output of all LEDs can be dimmed using rear panel controls from 1% (minimum light output) to 100% (maximum light output).



Reset to Factory Defaults

With the luminaire in DMX Control Mode, the illuminator can be reset to default factory settings.



Default factory settings will reset the DMX address to 001, dimming to 100% and DMX channel setting to 60 for white light versions and 180 for RGB version of the illuminator.

26 Operation

DMX Operation - RGB (180 Channel) Models

| Cha No. | LED No. | LED Color | DMX Value | Effect |
|---------|---------|-----------|-----------|-------------------|
| 01 | LD1 | Red | 0-255 | Min to Max Output |
| 02 | LD1 | Green | 0-255 | Min to Max Output |
| 03 | LD1 | Blue | 0-255 | Min to Max Output |
| 04 | LD2 | Red | 0-255 | Min to Max Output |
| 05 | LD2 | Green | 0-255 | Min to Max Output |
| 06 | LD2 | Blue | 0-255 | Min to Max Output |
| 07 | LD3 | Red | 0-255 | Min to Max Output |
| 08 | LD3 | Green | 0-255 | Min to Max Output |
| 09 | LD3 | Blue | 0-255 | Min to Max Output |
| 10 | LD4 | Red | 0-255 | Min to Max Output |
| 11 | LD4 | Green | 0-255 | Min to Max Output |
| 12 | LD4 | Blue | 0-255 | Min to Max Output |
| 13 | LD5 | Red | 0-255 | Min to Max Output |
| 14 | LD5 | Green | 0-255 | Min to Max Output |
| 15 | LD5 | Blue | 0-255 | Min to Max Output |
| 16 | LD6 | Red | 0-255 | Min to Max Output |
| 17 | LD6 | Green | 0-255 | Min to Max Output |
| 18 | LD6 | Blue | 0-255 | Min to Max Output |
| 19 | LD7 | Red | 0-255 | Min to Max Output |
| 20 | LD7 | Green | 0-255 | Min to Max Output |
| 21 | LD7 | Blue | 0-255 | Min to Max Output |
| 22 | LD8 | Red | 0-255 | Min to Max Output |
| 23 | LD8 | Green | 0-255 | Min to Max Output |
| 24 | LD8 | Blue | 0-255 | Min to Max Output |
| 25 | LD9 | Red | 0-255 | Min to Max Output |
| 26 | LD9 | Green | 0-255 | Min to Max Output |
| 27 | LD9 | Blue | 0-255 | Min to Max Output |
| 28 | LD10 | Red | 0-255 | Min to Max Output |
| 29 | LD10 | Green | 0-255 | Min to Max Output |
| 30 | LD10 | Blue | 0-255 | Min to Max Output |
| 31 | LD11 | Red | 0-255 | Min to Max Output |
| 32 | LD11 | Green | 0-255 | Min to Max Output |
| 33 | LD11 | Blue | 0-255 | Min to Max Output |
| 34 | LD12 | Red | 0-255 | Min to Max Output |
| 35 | LD12 | Green | 0-255 | Min to Max Output |
| 36 | LD12 | Blue | 0-255 | Min to Max Output |
| 37 | LD13 | Red | 0-255 | Min to Max Output |
| 38 | LD13 | Green | 0-255 | Min to Max Output |
| 39 | LD13 | Blue | 0-255 | Min to Max Output |
| 40 | LD14 | Red | 0-255 | Min to Max Output |
| 41 | LD14 | Green | 0-255 | Min to Max Output |
| 42 | LD14 | Blue | 0-255 | Min to Max Output |
| 43 | LD15 | Red | 0-255 | Min to Max Output |
| 44 | LD15 | Green | 0-255 | Min to Max Output |
| 45 | LD15 | Blue | 0-255 | Min to Max Output |

| Cha No. | LED No. | LED Color | DMX Value | Effect |
|---------|---------|-----------|-----------|-------------------|
| 46 | LD16 | Red | 0-255 | Min to Max Output |
| 47 | LD16 | Green | 0-255 | Min to Max Output |
| 48 | LD16 | Blue | 0-255 | Min to Max Output |
| 49 | LD17 | Red | 0-255 | Min to Max Output |
| 50 | LD17 | Green | 0-255 | Min to Max Output |
| 51 | LD17 | Blue | 0-255 | Min to Max Output |
| 52 | LD18 | Red | 0-255 | Min to Max Output |
| 53 | LD18 | Green | 0-255 | Min to Max Output |
| 54 | LD18 | Blue | 0-255 | Min to Max Output |
| 55 | LD19 | Red | 0-255 | Min to Max Output |
| 56 | LD19 | Green | 0-255 | Min to Max Output |
| 57 | LD19 | Blue | 0-255 | Min to Max Output |
| 58 | LD20 | Red | 0-255 | Min to Max Output |
| 59 | LD20 | Green | 0-255 | Min to Max Output |
| 60 | LD20 | Blue | 0-255 | Min to Max Output |
| 61 | LD21 | Red | 0-255 | Min to Max Output |
| 62 | LD21 | Green | 0-255 | Min to Max Output |
| 63 | LD21 | Blue | 0-255 | Min to Max Output |
| 64 | LD22 | Red | 0-255 | Min to Max Output |
| 65 | LD22 | Green | 0-255 | Min to Max Output |
| 66 | LD22 | Blue | 0-255 | Min to Max Output |
| 67 | LD23 | Red | 0-255 | Min to Max Output |
| 68 | LD23 | Green | 0-255 | Min to Max Output |
| 69 | LD23 | Blue | 0-255 | Min to Max Output |
| 70 | LD24 | Red | 0-255 | Min to Max Output |
| 71 | LD24 | Green | 0-255 | Min to Max Output |
| 72 | LD24 | Blue | 0-255 | Min to Max Output |
| 73 | LD25 | Red | 0-255 | Min to Max Output |
| 74 | LD25 | Green | 0-255 | Min to Max Output |
| 75 | LD25 | Blue | 0-255 | Min to Max Output |
| 76 | LD26 | Red | 0-255 | Min to Max Output |
| 77 | LD26 | Green | 0-255 | Min to Max Output |
| 78 | LD26 | Blue | 0-255 | Min to Max Output |
| 79 | LD27 | Red | 0-255 | Min to Max Output |
| 80 | LD27 | Green | 0-255 | Min to Max Output |
| 81 | LD27 | Blue | 0-255 | Min to Max Output |
| 82 | LD28 | Red | 0-255 | Min to Max Output |
| 83 | LD28 | Green | 0-255 | Min to Max Output |
| 84 | LD28 | Blue | 0-255 | Min to Max Output |
| 85 | LD29 | Red | 0-255 | Min to Max Output |
| 86 | LD29 | Green | 0-255 | Min to Max Output |
| 87 | LD29 | Blue | 0-255 | Min to Max Output |
| 88 | LD30 | Red | 0-255 | Min to Max Output |
| 89 | LD30 | Green | 0-255 | Min to Max Output |
| 90 | LD30 | Blue | 0-255 | Min to Max Output |

| Cha No. | LED No. | LED Color | DMX Value | Effect |
|---------|---------|-----------|-----------|-------------------|
| 91 | LD31 | Red | 0-255 | Min to Max Output |
| 92 | LD31 | Green | 0-255 | Min to Max Output |
| 93 | LD31 | Blue | 0-255 | Min to Max Output |
| 94 | LD32 | Red | 0-255 | Min to Max Output |
| 95 | LD32 | Green | 0-255 | Min to Max Output |
| 96 | LD32 | Blue | 0-255 | Min to Max Output |
| 97 | LD33 | Red | 0-255 | Min to Max Output |
| 98 | LD33 | Green | 0-255 | Min to Max Output |
| 99 | LD33 | Blue | 0-255 | Min to Max Output |
| 100 | LD34 | Red | 0-255 | Min to Max Output |
| 101 | LD34 | Green | 0-255 | Min to Max Output |
| 102 | LD34 | Blue | 0-255 | Min to Max Output |
| 103 | LD35 | Red | 0-255 | Min to Max Output |
| 104 | LD35 | Green | 0-255 | Min to Max Output |
| 105 | LD35 | Blue | 0-255 | Min to Max Output |
| 106 | LD36 | Red | 0-255 | Min to Max Output |
| 107 | LD36 | Green | 0-255 | Min to Max Output |
| 108 | LD36 | Blue | 0-255 | Min to Max Output |
| 109 | LD37 | Red | 0-255 | Min to Max Output |
| 110 | LD37 | Green | 0-255 | Min to Max Output |
| 111 | LD37 | Blue | 0-255 | Min to Max Output |
| 112 | LD38 | Red | 0-255 | Min to Max Output |
| 113 | LD38 | Green | 0-255 | Min to Max Output |
| 114 | LD38 | Blue | 0-255 | Min to Max Output |
| 115 | LD39 | Red | 0-255 | Min to Max Output |
| 116 | LD39 | Green | 0-255 | Min to Max Output |
| 117 | LD39 | Blue | 0-255 | Min to Max Output |
| 118 | LD40 | Red | 0-255 | Min to Max Output |
| 119 | LD40 | Green | 0-255 | Min to Max Output |
| 120 | LD40 | Blue | 0-255 | Min to Max Output |
| 121 | LD41 | Red | 0-255 | Min to Max Output |
| 122 | LD41 | Green | 0-255 | Min to Max Output |
| 123 | LD41 | Blue | 0-255 | Min to Max Output |
| 124 | LD42 | Red | 0-255 | Min to Max Output |
| 135 | LD42 | Green | 0-255 | Min to Max Output |
| 126 | LD42 | Blue | 0-255 | Min to Max Output |
| 127 | LD43 | Red | 0-255 | Min to Max Output |
| 128 | LD43 | Green | 0-255 | Min to Max Output |
| 129 | LD43 | Blue | 0-255 | Min to Max Output |
| 130 | LD44 | Red | 0-255 | Min to Max Output |
| 131 | LD44 | Green | 0-255 | Min to Max Output |
| 132 | LD44 | Blue | 0-255 | Min to Max Output |
| 133 | LD45 | Red | 0-255 | Min to Max Output |
| 134 | LD45 | Green | 0-255 | Min to Max Output |
| 135 | LD45 | Blue | 0-255 | Min to Max Output |

| Cha No. | LED No. | LED Color | DMX Value | Effect |
|---------|---------|-----------|-----------|-------------------|
| 136 | LD46 | Red | 0-255 | Min to Max Output |
| 137 | LD46 | Green | 0-255 | Min to Max Output |
| 138 | LD46 | Blue | 0-255 | Min to Max Output |
| 139 | LD47 | Red | 0-255 | Min to Max Output |
| 140 | LD47 | Green | 0-255 | Min to Max Output |
| 141 | LD47 | Blue | 0-255 | Min to Max Output |
| 142 | LD48 | Red | 0-255 | Min to Max Output |
| 143 | LD48 | Green | 0-255 | Min to Max Output |
| 144 | LD48 | Blue | 0-255 | Min to Max Output |
| 145 | LD49 | Red | 0-255 | Min to Max Output |
| 145 | LD49 | Green | 0-255 | Min to Max Output |
| 147 | LD49 | Blue | 0-255 | Min to Max Output |
| 148 | LD50 | Red | 0-255 | Min to Max Output |
| 149 | LD50 | Green | 0-255 | Min to Max Output |
| 150 | LD50 | Blue | 0-255 | Min to Max Output |
| 151 | LD51 | Red | 0-255 | Min to Max Output |
| 152 | LD51 | Green | 0-255 | Min to Max Output |
| 153 | LD51 | Blue | 0-255 | Min to Max Output |
| 154 | LD52 | Red | 0-255 | Min to Max Output |
| 155 | LD52 | Green | 0-255 | Min to Max Output |
| 156 | LD52 | Blue | 0-255 | Min to Max Output |
| 157 | LD53 | Red | 0-255 | Min to Max Output |
| 158 | LD53 | Green | 0-255 | Min to Max Output |
| 159 | LD53 | Blue | 0-255 | Min to Max Output |
| 160 | LD54 | Red | 0-255 | Min to Max Output |
| 161 | LD54 | Green | 0-255 | Min to Max Output |
| 162 | LD54 | Blue | 0-255 | Min to Max Output |
| 163 | LD55 | Red | 0-255 | Min to Max Output |
| 164 | LD55 | Green | 0-255 | Min to Max Output |
| 165 | LD55 | Blue | 0-255 | Min to Max Output |
| 166 | LD56 | Red | 0-255 | Min to Max Output |
| 167 | LD56 | Green | 0-255 | Min to Max Output |
| 168 | LD56 | Blue | 0-255 | Min to Max Output |
| 169 | LD57 | Red | 0-255 | Min to Max Output |
| 170 | LD57 | Green | 0-255 | Min to Max Output |
| 171 | LD57 | Blue | 0-255 | Min to Max Output |
| 172 | LD58 | Red | 0-255 | Min to Max Output |
| 173 | LD58 | Green | 0-255 | Min to Max Output |
| 174 | LD58 | Blue | 0-255 | Min to Max Output |
| 175 | LD59 | Red | 0-255 | Min to Max Output |
| 176 | LD59 | Green | 0-255 | Min to Max Output |
| 177 | LD59 | Blue | 0-255 | Min to Max Output |
| 178 | LD60 | Red | 0-255 | Min to Max Output |
| 179 | LD60 | Green | 0-255 | Min to Max Output |
| 180 | LD60 | Blue | 0-255 | Min to Max Output |

28 Operation

DMX Operation - White Light (60 Channel) Models

| Cha No. | LED No. | DMX Value | Effect |
|---------|---------|-----------|-------------------|
| 01 | LD1 | 0-255 | Min to Max Output |
| 02 | LD2 | 0-255 | Min to Max Output |
| 03 | LD3 | 0-255 | Min to Max Output |
| 04 | LD4 | 0-255 | Min to Max Output |
| 05 | LD5 | 0-255 | Min to Max Output |
| 06 | LD6 | 0-255 | Min to Max Output |
| 07 | LD7 | 0-255 | Min to Max Output |
| 08 | LD8 | 0-255 | Min to Max Output |
| 09 | LD9 | 0-255 | Min to Max Output |
| 10 | L10 | 0-255 | Min to Max Output |
| 11 | LD11 | 0-255 | Min to Max Output |
| 12 | LD12 | 0-255 | Min to Max Output |
| 13 | LD13 | 0-255 | Min to Max Output |
| 14 | LD14 | 0-255 | Min to Max Output |
| 15 | LD15 | 0-255 | Min to Max Output |
| 16 | LD16 | 0-255 | Min to Max Output |
| 17 | LD17 | 0-255 | Min to Max Output |
| 18 | LD18 | 0-255 | Min to Max Output |
| 19 | LD19 | 0-255 | Min to Max Output |
| 20 | LD20 | 0-255 | Min to Max Output |
| 21 | LD21 | 0-255 | Min to Max Output |
| 22 | LD22 | 0-255 | Min to Max Output |
| 23 | LD23 | 0-255 | Min to Max Output |
| 24 | LD24 | 0-255 | Min to Max Output |
| 25 | LD25 | 0-255 | Min to Max Output |
| 26 | LD26 | 0-255 | Min to Max Output |
| 27 | LD27 | 0-255 | Min to Max Output |
| 28 | LD28 | 0-255 | Min to Max Output |
| 29 | LD29 | 0-255 | Min to Max Output |
| 30 | LD30 | 0-255 | Min to Max Output |

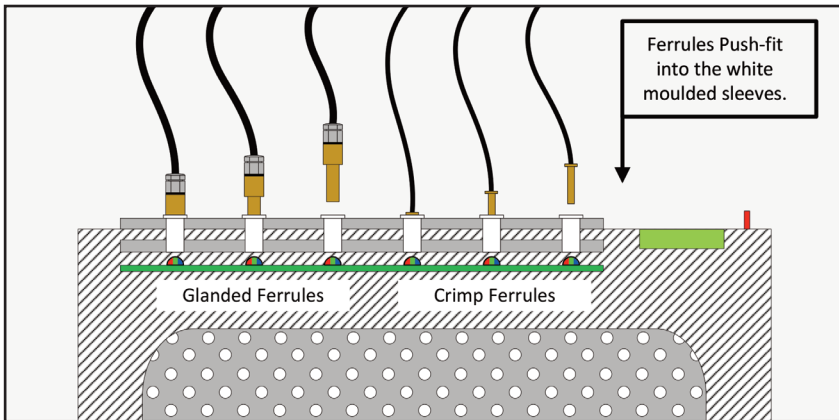
| Cha No. | LED No. | DMX Value | Effect |
|---------|---------|-----------|-------------------|
| 31 | LD31 | 0-255 | Min to Max Output |
| 32 | LD32 | 0-255 | Min to Max Output |
| 33 | LD33 | 0-255 | Min to Max Output |
| 34 | LD34 | 0-255 | Min to Max Output |
| 35 | LD35 | 0-255 | Min to Max Output |
| 36 | LD36 | 0-255 | Min to Max Output |
| 37 | LD37 | 0-255 | Min to Max Output |
| 38 | LD38 | 0-255 | Min to Max Output |
| 39 | LD39 | 0-255 | Min to Max Output |
| 40 | LD40 | 0-255 | Min to Max Output |
| 41 | LD41 | 0-255 | Min to Max Output |
| 42 | LD42 | 0-255 | Min to Max Output |
| 43 | LD43 | 0-255 | Min to Max Output |
| 44 | LD44 | 0-255 | Min to Max Output |
| 45 | LD45 | 0-255 | Min to Max Output |
| 46 | LD46 | 0-255 | Min to Max Output |
| 47 | LD47 | 0-255 | Min to Max Output |
| 48 | LD48 | 0-255 | Min to Max Output |
| 49 | LD49 | 0-255 | Min to Max Output |
| 50 | LD50 | 0-255 | Min to Max Output |
| 51 | LD51 | 0-255 | Min to Max Output |
| 52 | LD52 | 0-255 | Min to Max Output |
| 53 | LD53 | 0-255 | Min to Max Output |
| 54 | LD54 | 0-255 | Min to Max Output |
| 55 | LD55 | 0-255 | Min to Max Output |
| 56 | LD56 | 0-255 | Min to Max Output |
| 57 | LD57 | 0-255 | Min to Max Output |
| 58 | LD58 | 0-255 | Min to Max Output |
| 59 | LD59 | 0-255 | Min to Max Output |
| 60 | LD60 | 0-255 | Min to Max Output |

Fiber Installation & Ferrule Types

The Nebula is compatible with 2 types of ferrules - crimp and glanded.

Crimp ferrules are supplied factory terminated on the fiber harness and are simply pushed into the white moulded sleeves on the top of the illuminator.

Glanded ferrules are suitable for termination on site either by UFO installers or by third parties. The fiber is pushed through the gland, the gland is tightened and then the fiber is trimmed flush at the bottom of the ferrule. The ferrules are then pushed fully into the moulded sleeves. Each ferrule sits directly above an LED which illuminates each fiber individually.



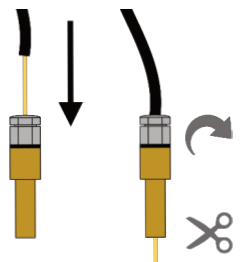
Glanded Ferrule Fiber Fitment

Ensure fiber sheathing is trimmed back so that at least 38mm of bare fiber is visible.

Feed the fiber through the gland and out the base of the ferrule.

Tighten the gland to secure the fiber sheathing and then trim the bare fiber so it is flush with the base of the ferrule.

The ferrule is now ready to be plugged into the illuminator.



30 Maintenance

Maintenance Procedures

To ensure a long working life and the safe, reliable operation of the illuminator, it is very important to maintain it properly and ensure it is installed in an appropriate and safe location.

Before performing any maintenance on the illuminator it should be disconnected from the power supply and allowed to cool down.

- The illuminator fans and vents should be blown out with compressed air at least every 12 months, or more often if located in a dusty environment.
- Do not allow dust to build up on internal pcb's & components as this will increase heat within the illuminator and lead to failure. Units should be checked regularly and all dust must be vacuumed off. Failure caused by excessive dust will not be covered under warranty.
- After the illuminator has been installed, check the fans and vents to ensure they are clear of dust and debris. Blow out with compressed air if required.
- The body of the illuminator can be cleaned using a soft damp cloth. Do not use any abrasives on the unit.

Note that a record of all maintenance MUST be kept in the table on the next page, indicating what maintenance was undertaken. This must be dated and is required for warranty purposes.

Safety Guidance

- A gap of 200mm (8") MUST be left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation and must not have an ambient temperature higher than that specified for the luminaire.
- The outer body of the illuminator may become hot - keep away from all combustible materials and DO NOT locate this illuminator within 200mm (8") of any flammable surface.
- The illuminator must not be run without the fiber optic harness fitted.

32 Troubleshooting

| Fault | Probable Cause | Possible Solution |
|--|---|---|
| Unit is dead - no light output; mains power indicator & LCD display is out | Mains supply off | Check supply and reinstate |
| | Loose connector(s) | Check plugs & sockets are fully mated |
| | Blown fuse or circuit tripped | Check fuse/trip & replace/reset if necessary. If problem persists, isolate mains supply and contact UFO |
| | Mains supply cable faulty | Get replacement cable from UFO |
| Unit is dead - no light output from any port, power indicator on PSU & display are lit | Unit in DMX control mode but all channel values set 0 on DMX controller | Increase DMX controller value |
| | Failed internal component | Contact UFO |
| In DMX mode, no light output from some of the LED ports. | The channels in question have DMX channel values set to 0 | Increase channel values on DMX controller to >0 |
| | Failed internal component | Contact UFO |
| | Not sufficient DMX addresses available for required channels | Check DMX address and channel availability on controller and reprogram |
| In DMX or Manual mode, no light output from all the LED ports dim. | Master Dimmer control set too low | Set Master Dimmer to a higher level |
| No DMX control over dimming and other DMX functions | Unit is not receiving a DMX signal from controller or primary Nebula | Check DMX controller or primary Nebula settings |
| | Faulty DMX cable | Check DMX cabling and repair/replace |
| No DMX control over dimming | Unit not in DMX control mode | Set to DMX in the Control Mode sub menu |

| | |
|------------------------------|--|
| Product Codes | UFO-NEB-WLXX / UFO-NEB-RGB |
| Material / Finish | Aluminium, powdercoated grey |
| Dimensions (LxWxH) | 200mm x 260mm x 88mm |
| Operating Environment | Indoor use only |
| Min. Ambient Temp. | -10°C |
| Max. Ambient Temp. | 45°C |
| Control Modes | Manual or DMX |
| DMX Connection | 2 x XLR sockets |
| DMX Channels | 60 (white light) or 180 (rgb) |
| Individual LED Power | 96mW |
| Individual LED Lumens | 9.6lm |
| Mains Supply Voltage | 100 - 240VAC, 50-60Hz |
| PSU Type | Desktop, class II lister with IEC cord |
| PSU Output | 12VDC, 30W (max.) |

If you are unable to sort or diagnose an issue with the illuminator please contact your local UFO technical department using the contact details on the back page of this guide.

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Notes



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.fiberopticalighting.com

UFO Licht GmbH

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



DESIGN



SPECIFY



BUILD



INSTALL

