



## Nova Light Source Range

Models covered by this manual:

UFO NOVA DMX  
UFO NOVA DMX-R  
UFO NOVA DMX-T  
UFO NOVA DMX-TR

Please read this manual fully before installing, operating or performing maintenance on the light source unit.

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## **INTRODUCTION**

Thank you for purchasing this UFO Light source.

Please read these instructions fully before connecting your unit to the electrical supply, and keep them for future reference.

The UFO Nova range of light sources are suitable for use with either glass or polymer fibre-optic harness

The Nova is powered by a 100-240 VAC remote desktop power supply unit.

## **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 AND THE HAZARDS INVOLVED.

# INSTALLATION INSTRUCTIONS

## POWER SUPPLY REQUIREMENTS

The LED Light Source is powered from a multifunction, multi-voltage, desk top Power Supply Unit. Remove the 24V Desk Top PSU from its box. This PSU is an IEC input device catering for UK, European and USA mains supplies using the relevant power cord.



# CONNECTIONS

There are 3 connections required – the fibre port, the mains supply cable and the DMX control cable. The fibre port should be connected first. Connect and secure the fibre optic connector into the green collar and secure using the M5 locking screw.

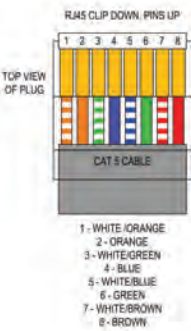
Connect the IEC power cord into the Desk Top PSU and plug the mains plug into the electrical supply socket. Switch on power. The LED Indicator will illuminate and the light source is ready for use. If no light is produced consult the TROUBLESHOOTING section.

For DMX control connect up the DMX control cables to the XLR sockets on the rear of the Light Source. The pin out details for the plugs are shown below.



# RJ45 CONNECTIONS

Pin No	1	2	3	4	5	6	7	8
Colour	White Orange	Orange	White Green	Blue	White Blue	Green	White Brown	Brown
Function	DMX+ (HOT)	DMX- (COLD)	Spare	Spare	Spare	Spare	Ground	Ground
DMX-XLR equivalent	Pin 3	Pin 2					Pin 1	Pin 1



Note:

It is recommended that a 120ohm terminating resistor be connected across DMX+ and DMX- on the last light source on the DMX universe or cable run

# OPERATION

## Rear Panel Controls



The left hand display shows a rotating line when DMX data is received.

## Standalone Master Mode

In this mode the light source (set to Master) can be used in two ways – either as a single independent light source or in a Master/Slave configuration with several light sources connected together using DMX cables. The Slave (set to DMX) will mimic whatever standalone programme the Master Light Source is set to. All menu functions are available in Master mode.

## Standalone Remote Mode

Again in this mode the light source (set to Remote) can be used in two ways – either as a single independent light source or in a Master/Slave configuration with several light sources connected together using DMX cables. The Master colour sequences are controlled by a RF remote control and again the Slave will mimic the Master Light Source

# OPERATION

## DMX Mode

In this mode the Light Source (set to DMX) can be controlled either by another NOVA in Master mode or by a DMX controller.

## Nova Remote Controller

Description	Details	Comments
Power	2 X AAA batteries	
Range	30 metres	Measured in free space, may be attenuated by obstructions or other RF devices
Frequency	2.4GHz	Approved for use in UK, Europe and USA

**Batteries** – With The LED Light Source powered up as described above, remove the rear cover on Remote Controller. **Taking care not to touch any of the front cover buttons,** insert the batteries. If you touch the remote control buttons when inserting the batteries it **WILL** effect the operation of your Remote Control. If you do accidentally touch any of the buttons, remove the batteries and start again.Once the batteries are inserted do not use the Remote Control for 3 seconds.

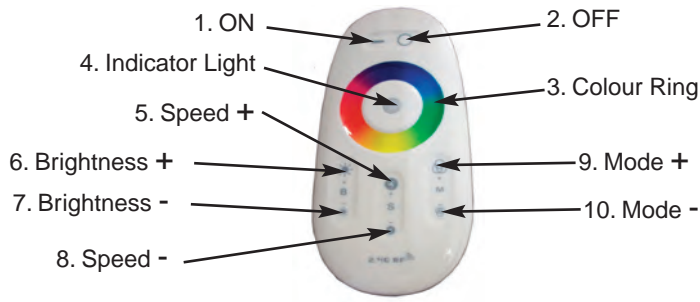


DO NOT TOUCH THE  
BUTTONS WHILST  
INSERTING  
BATTERIES

Test remote control as detailed on the following page. The Remote Controller is “matched” to the Light Source at the factory. If the Remote Controller is not matched or and additional or replacement Remote Controller is required carry out the “Matching Remote to Light Source” instructions in the following text. If a Remote Controller is to be removed from control of a Light Source carry out the “Unmatching Remote to Light Source” instructions in the following text.

# OPERATION

## Remote Operation



No	Description	Function
01	Button	Power ON
02	Button	Power OFF
03	Colour Ring	Touch control all colours (White not available)
04	Indicator	Indicates Controller active when buttons pressed
05	Button	Increase colour cycle speed
06	Button	Increase Brightness
07	Button	Decrease Brightness
08	Button	Decrease Colour cycle speed
09	Button	Mode + Step up through Colour cycle programmes
10	Button	Mode - Step down through Colour cycle programmes

## REMOTE CONTROLLER OPERATION

**Matching Remote to Light Source** – Remove the power plug from the rear of the Light Source, then replace and once the Indicator Light (4.) lights, touch button 5 within 3 seconds, the Light Source will “blink” twice slowly indicating that the Remote Controller is matched to the Light Source.

**Unmatching Remote from Light Source** - Remove the power plug from the rear of the Light Source, then replace and once the Indicator Light (4.) lights, touch and hold button 5 within 3 seconds and the Light Source will “blink” 9 times indicating that the Remote Controller is unmatched from the Light Source.

# OPERATION

## Remote Controller Modes and Functions

No	Mode	Brightness	Speed	Comment
1	Static White	Adjustable	Not Adjustable	To revert to 1 (Static White) at any time touch Colour Ring then Mode+
2	White and Colours mixed	Adjustable	Not Adjustable	Colour Ring control – brightness adjust Colour only, not White. To revert to 2 (Colour Ring) at any time touch colour ring
3	All Colours fade change	Adjustable	Adjustable	No White
4	RGBW fade change	Adjustable	Adjustable	Red, Green, Blue & White
5	RGBW snap change	Adjustable	Adjustable	Red, Green, Blue & White
6	7 Colours snap change	Adjustable	Adjustable	White and Colours mixed
7	2 Colours snap change	Adjustable	Adjustable	Red & White
8	2 Colours snap change	Adjustable	Adjustable	Blue & White
9	2 Colours snap change	Adjustable	Adjustable	Green & White
10	1 Colour Flash	Adjustable	Adjustable	Red
11	1 Colour Flash	Adjustable	Adjustable	Blue
12	1 Colour Flash	Adjustable	Adjustable	Green
13	1 Colour Flash	Adjustable	Adjustable	White
14	All Colours snap & fade	Adjustable	Adjustable	Random

**Mode Buttons** – This is not a loop, i.e. touching the **Mode+** button will not eventually bring you back to Mode 1. To revert to Mode 1, either touch **Mode** – button repeatedly to step back up through the Mode numbers, or touch **Colour Ring** then **Mode+**

**Colour Ring** –The Colour Ring can be used to select individual colours by touching the ring and sliding your finger around the ring,

**Brightness** – brightness can be increased or reduced in any mode using buttons 6 & 7

**Cycle Speed** – speed of colour cycling in Modes 3 to 14 can be adjusted using buttons 5 & 8

# OPERATION

## Remote Range Walk Test

Once the Light Source is fully installed carry out a complete range walk test and record the range in the table below. This information is essential for maintenance purposes to determine if the range/sensitivity is reducing and also to record dead areas within the Remote Controller's range due to RF obstructions and/or RF interference.

**NOTE:** Where a Light Source has more than one Remote Control, reduction in operating range may be experienced when both (or multiple) Remote Controls are used simultaneously.

Description	Date	Max Range	
Controller 1			
Controller 2			
Controller 3			
Dead Areas			

# PROGRAMMING

## PROGRAMME DMX ADDRESS



## PROGRAMME MASTER



## PROGRAMME SLAVE/DMX



## PROGRAMME REMOTE



## PROGRAMMING

### STANDALONE PROGRAMMES



### TWINKLE MOTOR SPEED



### TWINKLE MOTOR OFF



### DISPLAY TIMER



# STANDALONE OPERATION

Prog.	Function	Effect
P01	Display Colour 1	White
P02	Display Colour 2	Red
P03	Display Colour 3	Green
P04	Display Colour 4	Blue
P05	Display Colour 5	Yellow
P06	Display Colour 6	Cyan
P07	Display Colour 7	Magenta
P08	Snap colour change between colours 1,2,3,4,5,6,7	Display colour for adjustable time (display timer) and then snap to next colour
P09	Snap colour change between colours 2,3,4,5,6,7	Display colour for adjustable time (display timer) and then snap to next colour
P10	Snap colour change between colours 1,2,3,4	Display colour for adjustable time (display timer) and then snap to next colour
P11	Fade colour change between colours 1,2,3,4,5,6,7	Display colour for adjustable time (display timer) and then fade slowly to next colour
P12	Fade colour change between colours 2,3,4,5,6,7	Display colour for adjustable time (display timer) and then fade slowly to next colour
P13	Fade colour change between colours 1,2,3,4	Display colour for adjustable time (display timer) and then fade slowly to next colour

- In standalone operation – the twinkle wheel speed can be set using the menu/mode controls. The twinkle wheel has two type options (programmed in the factory)
- 1.Un-segmented random holed wheel rotating continuously in one direction. When stopped the wheel will still obscure the fibre optic common end.
  - 2.Segmented random holed wheel rotating in twinkle mode either side of a clear segment. When stopped the wheel segment will align with the fibre optic common end ensuring maximum light output

# DMX OPERATION

## DMX Channel Operation

The Nova DMX occupies 6 DMX channels as detailed below.

Channel	Function	Values
1	Red	0-5 off / 6-255 min to max
2	Green	0-5 off / 6-255 min to max
3	Blue	0-5 off / 6-255 min to max
4	White	0-5 off / 6-255 min to max
5	Twinkle wheel	0-5 off / 6-255 slow to fast
6	LED and fan	0-250 On, 251-255 Off

Note: the fan is controlled by a temperature circuit on the LED driver PCB – switching the fan ON and OFF to optimise LED Junction temperature.

## 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

# TROUBLESHOOTING

Problem	Probable Causes	Remedy
Light Source dead – LED indicator on desk top PSU not illuminated	Mains supply off	Check supply and reinstate
	Loose mains plug	Check plugs
	PSU faulty	Replace PSU
Light Source dead – LED indicator on desk top PSU illuminated, but LCD display on Light Source not illuminated	Loose DC plug	Check plug
	PSU faulty	Check PSU output – Replace PSU
	Light Source Faulty	Replace Light Source
Light Source no light output – LED, but LCD display on Light Source is illuminated	If programme Mode is set to “REMO”, light source may have been switched off using RF remote control	Switch array on using RF remote control
	LED array/driver faulty	Replace Light Source
RF remote controller range reduced	Remote batteries failing	Replace batteries as per User Guide
	Another RF device causing interference	Check for another RF device in same area
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failing	Replace remote
	Light source receiver failing	Replace Light Source
Light source won't respond to RF remote controller	Light source not in Remote mode	Check mode programming and set to “REMO”
	Remote batteries failed	Replace batteries as per User Guide
	RF remote control needs resetting	Remove and reinsert batteries as per User Guide
	RF remote failed	Replace remote
	Light source receiver failed	Replace Light Source
Not responding to DMX – no rotating symbol on LCD display	Light source not in “DMX” mode	Check mode programming and set to “DMX”
	DMX address incorrectly set	Change address on light source or DMX controller
	No DMX signal from controller	Check DMX controller for correct setting
	Wiring fault on DMX cables/connections	Check cable connections and repair as necessary
	DMX driver failure	Change Light Source
Not fully responding to DMX – some but not all colours controllable, no rotating symbol on LCD display	Light source address out of range – not 5 available channels on DMX controller	Change address on light source or DMX controller to make 6 channels available
Not responding to DMX – no light output, rotating symbol on LCD display	Incorrect address set on light source or controller	Check addresses
	No values set in DMX channel	Check DMX controller channel values
	Channel 6 value high (251-255) switching off the array	Reduce channel 6 value to <251
	LED array/driver failed	Change light source
Unit in Master mode but Twinkle wheel not moving	Twinkle Motor switched off	Check “TWNK” mode setting
	Internal component/motor failure	Replace Light source
Poor light output on fibre	Unit needs cleaning	Carefully clean the LED lens with a dry cloth Clean fibre common end
	Fibre port connector not plugged in correctly	Ensure plugged in correctly and secured with locking screw

# TECHNICAL SPECIFICATIONS

Description	Details
Port connector size	30mm Diameter
Fibre type	Glass/Polymer
Mains Supply Voltage	100-240V AC, 50-60 Hz.1.8A
Input from mains	0.4A max
PSU Output	24V 2.5A
LED Power	46W
Power Connection	2.1 X 5.5 X 12mm
Min Ambient Temperature	-10°C
Max Ambient Temperature	+40°C
Operating Environment	Indoor/Dry
Fan	80mm 12V Crossflow
LED Type/Model	RGBW
LED Life	40,000 hours
White Lumens	1435
Blue Lumens	315
Green Lumens	1160
Red Lumens	700
Control Functionality	Manual, RF Remote & DMX
DMX	User Addressable 6 channels (0-255)
RF Remote Frequency	2.4GHz
RF Remote Range	30m (depending on environment)
RF Remote Power	2 X AAA batteries
Motor Type	Rotalink 25C13/YSOLPSL3E 12V 60:1
PSU Type	Desk top with standard IEC power cord
Material	Aluminium
Colour	Grey
Size	(L) 180mm (W) 180mm (H) 130mm
Weight	1.5kg

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