



## Compact 250W DMX+ Illuminator

Models Covered by this manual:

UFO 250 CDMX+G-A

UFO 250 CDMX+P-A

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## **INTRODUCTION**

Thank you for purchasing this UFO illuminator.

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

A high performance 250W metal halide illuminator for ultimate brightness which can be fitted with three wheels for decorative lighting effects.

## **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



**Do not operate without complete lamp enclosure in place or if lens is damaged.**

**KEEP HARNESS IN PLACE WHEN IN OPERATION.**

**CAUTION: Hot surface. Keep away from curtains and other combustible materials.**

**WARNING: RISK OF FIRE/INJURY TO PERSONS. Keep away from combustibles. Unplug to change lamp. Do not touch lamp.**

**WARNING: RISK OF FIRE. Do not place lamp where the overhead surface is closer than 0.3m to the illuminator.**

## **IMPORTANT SAFETY INFORMATION**

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS

### **IMPORTANT SAFETY INSTRUCTIONS**

Lighted Lamp is HOT:

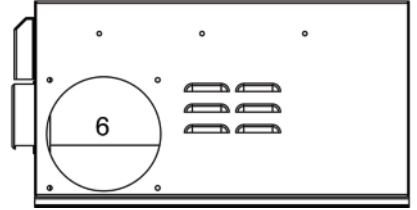
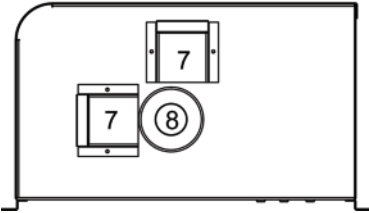
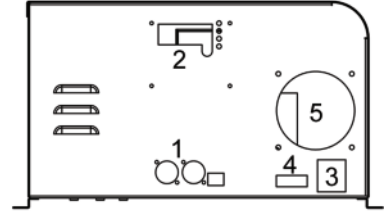
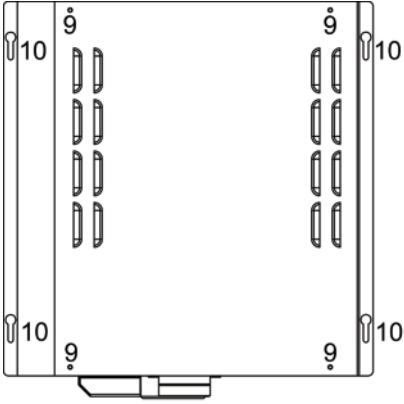
**WARNING – To reduce the risk of FIRE, ELECTRIC SHOCK OR INJURY TO PERSONS:**

1. Unplug and allow to cool before replacing lamp.
2. Lamp gets HOT quickly! Only contact plug when turning on.
3. Do not touch hot lens, guard, or enclosure.
4. Do not remain in light if skin feels warm.
5. Do not look directly at lighted lamp.
6. Keep lamp away from materials that may burn.
7. Use only with an approved 250W lamp.
8. Do not touch the lamp at any time. Use a soft cloth. Oil from skin may damage lamp.
9. Do not operate product with missing or damaged guard, lamp containment barrier, lens or fiber optic harness.

### **SAVE THESE INSTRUCTIONS**

- Always disconnect the unit from the power supply before opening or attempting to perform any work on it.
- UNIT MAY GET HOT - always allow unit to cool down before handling or moving it.
- Do not touch or attempt to remove the lamp while it is hot.
- Ensure that the power supply is correct for the unit before powering it up.
- Always ensure that the unit is properly EARTHED.
- Do not expose the unit to rain or moisture.
- Keep away from all combustible materials.
- Never attempt to tamper with the wiring or other internal components.
- Keep the unit away from gas, oil and any other flammable or explosive materials.

# ILLUMINATOR LAYOUT



Item	Description
1	DMX connection Sockets
2	LED display and control buttons
3	Mains power input
4	Power LED
5	Cooling fan
6	Cooling fan
7	Motor Covers
8	Fiber port
9	4 x Access screws
10	4 x Mounting holes

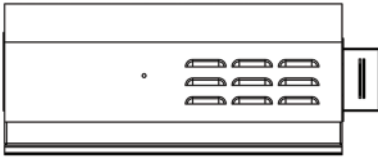
## INSTALLATION GUIDE

In order for the DMX+ illuminator to function safely and efficiently it must be installed according to this user manual. Please read all sections thoroughly before switching on the illuminator.

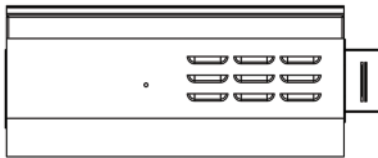
### POWER SUPPLY REQUIREMENTS

Before plugging in the unit, please make sure that the supply is correct. Failure to do so could cause the unit to malfunction. The unit requires a 120VAC 60Hz supply and it **MUST BE EARTHED**. The illuminator units are provided with a cordset fitted with a standard plug. **UNIT MUST NOT BE DIMMED**.

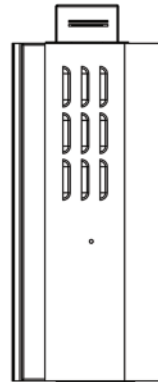
### POSITIONING THE UNIT



Standard horizontal mounting  
(on shelf / table)



Upside down mounting  
(fixed to underside of shelf)



Vertical mounting  
(fixed to wall)

The illuminator can be mounted horizontally, vertically or upside-down on any flat surface. Keyhole slots are provided on the base of the unit to allow for securing to a surface. The illuminator is only suitable for use in a dry area.

If the unit is being mounted at a higher than the ground level, block access below the work area before installing.

Verify that any screws or bolts can safely bear the weight of the illuminator.

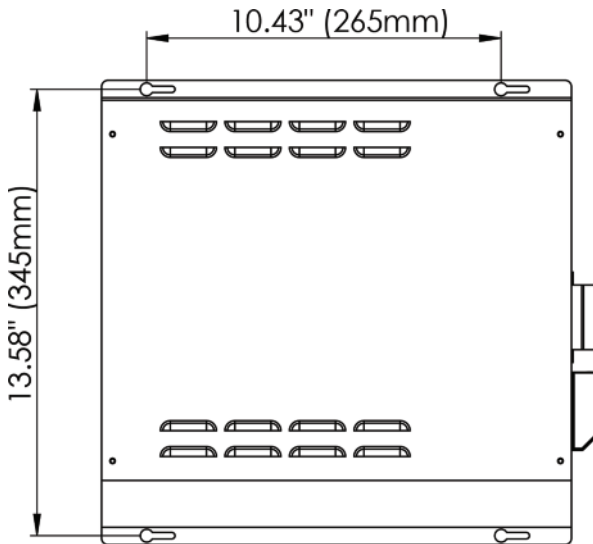
## INSTALLATION GUIDE (Continued)

Verify that the supporting structure can safely bear the weight of all installed units, cables and any other equipment.

For horizontal mounting, it is recommended that the illuminator is secured to a solid surface using 4 x M4 or M5 screws or bolts and the keyhole slots. This is particularly important if the illuminator location is not at ground floor level.

To mount the illuminator vertically, first securely install 4 x M4 or M5 screws or bolts at the required distances so that they will line up with the keyhole slots. The illuminator can then be mounted onto them and slid into position. The bolts or screws **MUST** then be fully tightened.

To mount the illuminator under a surface, first securely install 4 x M4 or M5 screws or bolts at the required distances so that they will line up with the keyhole slots. The illuminator can then be mounted onto them and slid into position. The bolts or screws **MUST** then be fully tightened.



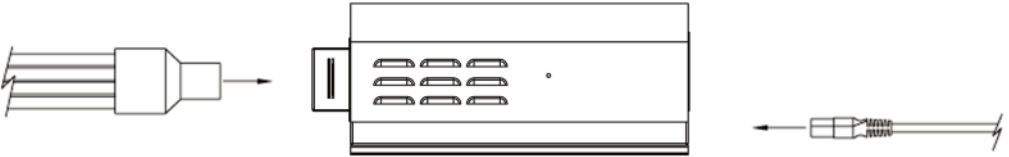
### CLEARANCE / VENTILATION

It is recommended that a gap of 300mm or more is left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation.

## INSTALLATION GUIDE (Continued)

### CONNECTION

There are 2 main connections required - the fiber port and the mains power supply. Connect and secure the fiber optic connector to the fiber port before connecting the electrical supply. Never run the illuminator with the fiber connector unplugged. For separate feed units, there will be additional power connections required.



### OPERATION

After installing and connecting the illuminator as described above, all you have to do is turn the power on. The lamp will take 3-4 minutes to reach full brightness. This is normal for this type of illuminator.

If no light is produced, please consult the TROUBLESHOOTING section in this manual

## OPERATION (Continued)

### REAR PANEL CONTROLS



#### Button Functions

Menu

Enter

Up

Down

### MENU FUNCTIONS

Repeatedly pressing the MENU button cycles through the following modes:

Mode	Display	Description
Address	ADDR	Manually select the DMX address using up & down buttons. Press enter when selected
Mode	MODE	Select either DMX or MASTER using up & down buttons. Press enter when selected. In MASTER the unit will control another unit set to DMX
Program	PROG	Manually select from a range of standalone programs. Press enter when selected.
Time	TIME	Select the length of time between color changes. Press enter when selected.
Dimmer	DIM	Manually control the dimmer from fully open to fully closed. Press enter when selected.
Reset	RST	Forces the unit into an initialise or reset condition. Press enter when selected.

Notes:

1. The left hand display module shows a rotating 'X' when DMX data is present.
2. The microphone (under the display) for sound to light applications is a fully functional device, but is not implemented in the software. This application is a special feature on request.



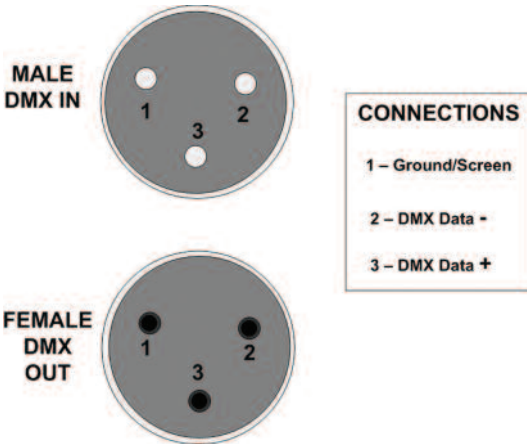
# OPERATION (Continued)

## REAR PANEL CONNECTIONS

1. DMX OUT - standard 3-pin DMX output connector
2. DMX IN - standard 3-pin DMX input connector
3. AC IN - standard fused IEC power connector
4. DATA OUT - RJ45 connection to UFO RIU (remote indicator unit)



The DMX wiring connections are detailed below:



Like all data networks the DMX cable should be terminated on the DMX out of the last illuminator using a terminator plug.

## **OPERATION (Continued)**

The DMX+ illuminator has two modes of operation.

### **STANDALONE MODE**

In standalone mode, the Compact DMX+ can be used in two ways - either as a single independent illuminator or in master/slave configuration with several illuminators connected together using DMX cables.

In master/slave configuration all addresses are set the same and whatever program is selected on the master unit will also be executed on the slave units.

### **DMX MODE**

Illuminators set in DMX mode can either be controlled by another Compact DMX+ in master mode, or by a standalone DMX controller.

### **PROGRAMMING THE DMX+**

The DMX+ can be programmed for various functions and modes from the rear panel controls as shown on the following pages.

# OPERATION (Continued)

## PROGRAMMING THE DMX+

### PROGRAMME DMX ADDRESS



OR

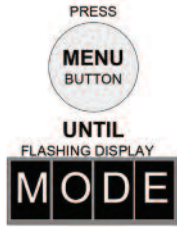


UNTIL CORRECT  
ADDRESS



DONE

### PROGRAMME MASTER

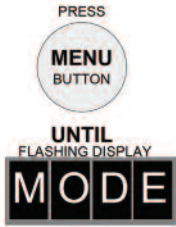


UNTIL CORRECT  
SETTING DISPLAYED



DONE

### PROGRAMME SLAVE/DMX



UNTIL CORRECT  
SETTING DISPLAYED



DONE

### STANDALONE PROGRAMMES



UNTIL REQUIRED  
PROGRAMME IS  
DISPLAYED



DONE

# OPERATION (Continued)

## PROGRAMMING THE DMX+

### SELECT LENGTH OF TIME BETWEEN COLOUR CHANGES

PRESS

**MENU**  
BUTTON

UNTIL

FLASHING DISPLAY

**T I M E**

PRESS

**UP**  
BUTTON

OR  
PRESS

**DOWN**  
BUTTON

UNTIL CORRECT VALUE IN SECONDS

STEADY DISPLAY

**1 5 C**

PRESS

**ENTER**  
BUTTON

FLASHING DISPLAY

**T I M E**

PRESS

**ENTER**  
BUTTON

**DONE**

### MANUAL DIMMING

PRESS

**MENU**  
BUTTON

UNTIL

FLASHING DISPLAY

**- D I M**

PRESS

**UP**  
BUTTON

OR  
PRESS

**DOWN**  
BUTTON

UNTIL CORRECT DIMMING VALUE SET

STEADY DISPLAY

**1 0 0**

PRESS

**ENTER**  
BUTTON

FLASHING DISPLAY

**- D I M**

PRESS

**ENTER**  
BUTTON

**DONE**

### TO RESET/ INITIALISE

PRESS

**MENU**  
BUTTON

UNTIL

FLASHING DISPLAY

**R S T**

PRESS

**UP**  
BUTTON

OR  
PRESS

**DOWN**  
BUTTON

UNTIL

FLASHING DISPLAY

**Y E S**

OR

FLASHING DISPLAY

**N O**

PRESS

**ENTER**  
BUTTON

MOMENTARY FLASHING DISPLAY

**O K**

THEN

MOMENTARY FLASHING DISPLAY

**I N I T**

**DONE – LIGHT SOURCE  
RESETTING**

PRESS

**ENTER**  
BUTTON

**DONE – RESET  
CANCELLED**

# OPERATION (Continued)

## DMX CHANNEL INFORMATION

Channel	Function	Fun no.	Value	Effect
01	Dimmer wheel control	01	0-255	0=fully closed / 255=fully open
02	Color wheel variable 0-90	01	0	Clear/white
02	Color wheel variable 0-90	02	10	Color 1 (blue)
02	Color wheel variable 0-90	03	20	Color 2 (green)
02	Color wheel variable 0-90	04	30	Color 3 (yellow)
02	Color wheel variable 0-90	05	40	Color 4 (red)
02	Color wheel variable 0-90	06	50	Color 5 (pink)
02	Color wheel variable 0-90	07	60	Color 6 (orange)
02	Color wheel variable 0-90	08	70	Color 7 (violet)
02	Color wheel variable 0-90	09	80	Color 8 (magenta)
02	Color wheel variable 0-90	10	90	Color 9 (apricot)
02	Color wheel snap 91-170	11	91-98	Color 9
02	Color wheel snap 91-170	12	99-106	Color 8
02	Color wheel control snap to color 91-170	13	107-114	Color 7
02	Color wheel control snap to color 91-170	14	115-122	Color 6
02	Color wheel control snap to color 91-170	15	123-130	Color 5
02	Color wheel control snap to color 91-170	16	131-138	Color 4
02	Color wheel control snap to color 91-170	17	139-146	Color 3
02	Color wheel control snap to color 91-170	18	147-154	Color 2
02	Color wheel control snap to color 91-170	19	155-162	Color 1
02	Color wheel control snap to color 91-170	20	163-170	Clear/white
02	Color wheel speed clockwise	21	171-212	Fast to slow
02	Color wheel speed counter-clockwise	22	213-255	Slow to fast
03	Twinkle wheel control	01	0-15	Stop/open
03	Twinkle wheel control clockwise	02	16-127	Slow to fast
03	Twinkle wheel control	03	128-143	Stop/open
03	Twinkle wheel control counter-clockwise	04	144-255	Fast to slow
04	Color wheel display duration	01	0-255	Short to long duration
05	Reset and lamp/fans power	01	0-127	Normal and lamp on
05	Reset and lamp/fans power	02	128-191	Reset if held for 5 seconds
05	Reset and lamp/fans power	03	192-250	Normal and lamp on
05	Reset and lamp/fans power	04	251-255	Lamp off if held for 10 seconds

## OPERATION (Continued)

### STANDALONE/MASTER PROGRAMMABLE FUNCTIONS

Prog	Function	Prog	Function
PA01	Color 9, no twinkle	PC01	Snap color change 0-9, no twinkle
PA02	Color 8, no twinkle	PC02	Snap color change 1-9, no twinkle
PA03	Color 7, no twinkle	PC03	Snap color change 2-9, no twinkle
PA04	Color 6, no twinkle	PC04	Snap color change 3-9, no twinkle
PA05	Color 5, no twinkle	PC05	Snap color change 4-9, no twinkle
PA06	Color 4, no twinkle	PC06	Snap color change 5-9, no twinkle
PA07	Color 3, no twinkle	PC07	Snap color change 6-9, no twinkle
PA08	Color 2, no twinkle	PC08	Snap color change 7-9, no twinkle
PA09	Color 1, no twinkle	PC09	Snap color change 8-9, no twinkle
PA10	Color 0, no twinkle	PC10	Snap color change 2-6, no twinkle
SA01	Color 9, twinkle	SC01	Snap color change 0-9, slow twinkle
SA02	Color 8, twinkle	SC02	Snap color change 1-9, slow twinkle
SA03	Color 7, twinkle	SC03	Snap color change 2-9, faster twinkle
SA04	Color 6, twinkle	SC04	Snap color change 3-9, faster twinkle
SA05	Color 5, twinkle	SC05	Snap color change 4-9, fastest twinkle
SA06	Color 4, twinkle	SC06	Snap color change 5-9, fastest twinkle
SA07	Color 3, twinkle	SC07	Snap color change 6-9, faster twinkle
SA08	Color 2, twinkle	SC08	Snap color change 7-9, slower twinkle
SA09	Color 1, twinkle	SC09	Snap color change 8-9, slower twinkle
SA10	Color 0, twinkle	SC10	Snap color change 2-6, slowest twinkle
PB01	Color change 0-9, no twinkle	PD01	Color rotate twinkle 1
PB02	Color change 1-9, no twinkle	PD02	Color rotate twinkle 2
PB03	Color change 2-9, no twinkle	PD03	Color rotate twinkle 3
PB04	Color change 3-9, no twinkle	PD04	Color rotate twinkle 4
PB05	Color change 4-9, no twinkle	PD05	Color rotate twinkle 5
PB06	Color change 5-9, no twinkle	PD06	Color rotate twinkle 6
PB07	Color change 6-9, no twinkle	PD07	Color rotate twinkle 7
PB08	Color change 7-9, no twinkle	PD08	Color rotate twinkle 8
PB09	Color change 8-9, no twinkle	PD09	Color rotate twinkle 9
PB10	Color change 2-6, no twinkle	PD10	Color rotate twinkle 10
SB01	Color change 0-9, slow twinkle	SD01	Color rotate twinkle speed 1 ccw
SB02	Color change 1-9, slow twinkle	SD02	Color rotate twinkle speed 2 ccw
SB03	Color change 2-9, faster twinkle	SD03	Color rotate twinkle speed 3 ccw
SB04	Color change 3-9, faster twinkle	SD04	Color rotate twinkle speed 4 ccw
SB05	Color change 4-9, fastest twinkle	SD05	Color rotate twinkle speed 5 ccw
SB06	Color change 5-9, fastest twinkle	SD06	Color rotate twinkle speed 5 cw
SB07	Color change 6-9, fastest twinkle	SD07	Color rotate twinkle speed 4 cw
SB08	Color change 7-9, slower twinkle	SD08	Color rotate twinkle speed 3 cw
SB09	Color change 8-9, slower twinkle	SD09	Color rotate twinkle speed 2 cw
SB10	Color change 2-6, slowest twinkle	SD10	Color rotate twinkle speed 5 cw

## **MAINTENANCE**

### **CLEANING THE UNIT**

Disconnect unit from power supply and allow to cool before attempting any cleaning of the unit.

The body of the unit can be cleaned with a soft, damp cloth - do not use any abrasives on the unit.

The fans and vents should be kept clear by periodically blowing them out with compressed air.

Non-abrasive glass cleaner can be used to clean the glass lens inside the unit.

**Please note that a record of all maintenance MUST be kept in the table below, indicating what maintenance was undertaken and when.**

Date	Maintenance Undertaken

# MAINTENANCE

## LAMP REPLACEMENT



1) Disconnect the illuminator from the power supply and allow to cool for 10 to 15 minutes.

2) Remove the cover from the illuminator.

### MSD LAMPS ONLY (GLASS HARNESS)

3) The lamp is located near the rear of the illuminator. To free the lamp from its holder, gently pull the lamp forwards (B). DO NOT unscrew the brass holder (C) as this will impair the light output.

4) Dispose of the old lamp carefully.

5) Fit the new lamp (D). DO NOT touch the lamp glass as this may cause it to EXPLODE. If you do, carefully clean it with a lint-free cloth and alcohol.

6) Replace the lid, and reconnect to the power supply.

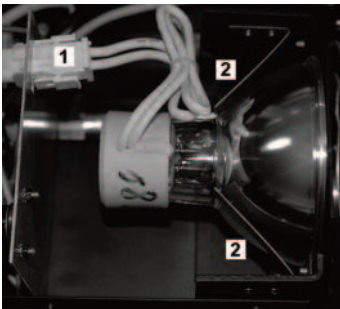
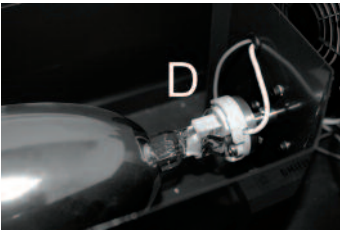
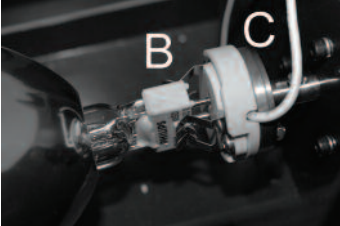
### MHR LAMPS ONLY (PMMA HARNESS)

3) Disconnect the lamp connector (1)

4) Pull the lamp free from its holder (2)

5) Insert new lamp into holder, plug into connector

6) Replace the lid, and reconnect to the power supply.





## MAINTENANCE (continued)

### FUSE REPLACEMENT



- 1) Unplug unit from electrical supply and allow to cool.
- 2) The fuse is located in a drawer under the mains input connector.
- 3) Open the fuse drawer.
- 4) Withdraw fuse from its holder
- 5) Replace with identically specified fuse - see specification table in this manual.
- 6) Close the fuse drawer and power up the illuminator.

## TROUBLESHOOTING

Problem	Probable cause(s)	Remedy
Unit is completely dead - Lamp and LED power indicator are not illuminated	Main fuse blown	Check and replace fuse.
	No power to unit	Check that power is switched on and power supply is plugged in.
LED power indicator & fan are on, but no light is output	Lamp blown	Replace lamp
	Thermal switch activated	Allow unit to cool for 5 to 10 minutes and investigate reason for overheating
	Lamp wires are not connected	Check plug connection - ensure lamp is properly seated in its holder and the pins are fully mated
Poor light output	Lamp needs replacing	Replace lamp
	Unit needs cleaning	Clean reflector and glass lens
	Incorrect power supply	Ensure power supply is 120VAC 60Hz
	Fiber port connector not plugged in correctly	Ensure fiber port connector is plugged in correctly, and that the screw is tightened up properly
Lamp going on & off randomly	Unit is overheating	Allow unit to cool for 5 to 10 minutes and investigate reason for overheating
Unit resets correctly but does not respond to controller	The controller is not connected	Connect the controller
	Reversed data signal polarity	Install a phase reversing cable between the unit and the controller
	Bad data link connection	Check cables and connections. Repair or replace damaged cables.
	Data link not terminated	Insert termination plug into output of the last unit in the link
	Incorrect address setting	Check address setting
	One of the units is transmitting as a master or is faulty	Bypass one fixture at a time until normal operation is regained
Unit does not reset correctly	An effect requires mechanical adjustment	Contact UFO for assistance
No light output	Lamp too hot to strike	Allow lamp to cool
	Faulty lamp	Check and replace lamp
Lamp cuts out intermittently or burns out too quickly	Unit is too hot	Allow unit to cool
	Faulty fan	Contact UFO for assistance

Note:  
The DMX+ display will also show 'lamp error' and 'temperature error' messages which can be used to assist in fault diagnosis.

## TECHNICAL SPECIFICATIONS

Description	Compact 250W DMX+
Port connector size	30mm diameter
Fiber type	Glass & PMMA
Supply voltage	120VAC 60Hz
Lamp power	250W
Input power	360VA @ 120VAC
Start up current	11A @ 120VAC
Running current	5A @ 120VAC
Min. ambient temp.	-20°C
Max. ambient temp.	40°C
Thermal protection	Self reset thermal switch
Ballast type	Magnetic
Fan type	Sunon SP101A & Papst 8800N
Power cord	IEC mains cable
Main fuse	6.3 Amp
Lamp type	Metal halide
Lamp model	Philips MSD250/2 (Glass) BLV MHR 250N (PMMA)
Lamp life	c. 3000h (Glass) c. 4000h (PMMA)
Lamp colour temp.	8500K (Glass) 4200K (PMMA)
Lamp CRI	70 (Glass) 72 (PMMA)
Color wheel	9 colours plus white
Standard wheel colors	Blue, green, yellow, red, pink, orange, violet, magenta , apricot
Acoustic rating	47.5dB(A)
Operating environment	Indoor / dry
Protection rating	IP20
Material	Sheet steel
Color	Black powder coated
Size	L 15.3" (390mm) x W 14.2" (360mm) x H 7.9" (200mm)
Weight	36.77lb (16.68kg)



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[www.fiberopticlighting.com](http://www.fiberopticlighting.com)