STORM

TECHNICAL SERVICES FOR EVENTS, THEATRE, MUSIC, EXHIBITION, FILM & TV
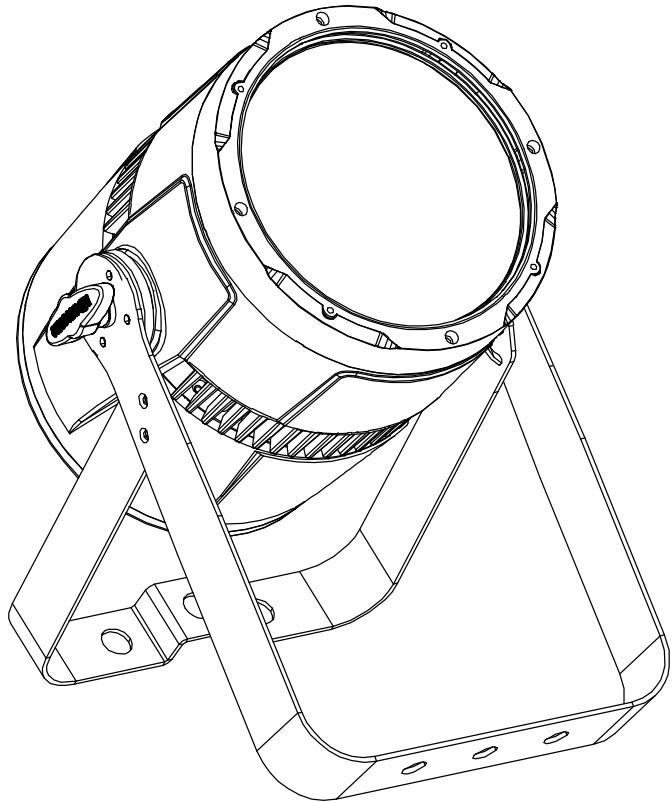
01483 757211
HIRE@STORMLTD.CO.UK
WWW.STORMLTD.CO.UK

PROLIGHTS®
PROFESSIONAL LIGHTS

STUDIOCOBUV
DIFFUSED LIGHT PROJECTOR

MANUALE UTENTE
USER MANUAL

TABLE OF CONTENTS

Packing content   STUDIOCOBUV
- Mount bracket (2 pc.)
- Power cable
- User manual

WARNING! Before carrying out any operations with the unit, carefully read this instruction manual and keep it with cure for future reference. It contains important information about the installation, usage and maintenance of the unit.

SAFETY

General instruction
- The products referred to in this manual conform to the European Community Directives and are therefore marked with $C\epsilon$.
- The unit is supplied with hazardous network voltage (230V~). Leave servicing to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the main frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use, only professional applications.
- Never use the fixture under the following conditions:
  - in places subject to vibrations or bumps;
  - in places with a temperature of over 40 °C.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling plant for a disposal which is not harmful to the environment.

Warnings and installation precautions
- If this device will be operated in any way different to the one described in this manual, it may suffer damage and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the projector, cut off power from the main supply.
- Always additionally secure the projector with the safety rope. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.
- Install the fixture in a well ventilated place.
- Keep any inflammable material at a safe distance from the fixture.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Please note that fast changes in lighting, e. g. flashing light, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.
- Do not touch the product's housing when operating because it may be very hot.

GENERAL INFORMATION

Shipments and claims

The goods are sold "ex works" and always travel at the risk and danger of the distributor. Eventual damage will have to be claimed to the freight forwarder. Any claim for broken packs will have to be forwarded within 8 days from the reception of the goods.

Warranty and returns

The guarantee covers the fixture in compliance with existing regulations. You can find the full version of the "General Guarantee Conditions" on our web site www.musiclights.it. Please remember to register the piece of equipment soon after you purchase it, logging on www.musiclights.it. The product can be also registered filling in and sending the form available on your guarantee certificate. For all purposes, the validity of the guarantee is endorsed solely on presentation of the guarantee certificate. Music & Lights will verify the validity of the claim through examination of the defect in relation to proper use and the actual validity of the guarantee. Music & Lights will eventually provide replacement or repair of the products declining, however, any obligation of compensation for direct or indirect damage resulting from faultiness.

- 1 - INTRODUCTION

1.1 DESCRIPTION

STUDIOCOB is designed to establish a new standard in the field of diffused light projectors, emerging from the interaction between Chip On Board technology and a new optical solution to maximize efficiency and ensure unprecedented performance in its category.

STUDIOCOBUV employs a 100W COB LED source UV (405 nm), combined with a special parabolic reflector built in aluminium which develops an extremely bright and homogeneous 60° output, becoming one of the most powerful UV cannon in the market. STUDIOCOB is a project developed for professional venues by offering a new dimmer technology with super-linear and anti-flickering ramp for any camera, with frequency adjustment from the user interface. The absolute noiseless STUDIOCOB operation makes it suitable even in noise sensitive environments or in applications with a large quantity of projectors.

The range of accessories for STUDIOCOB consists of barndoors, filter holders, and optical filters to achieve tighter projection angles like 30°. STUDIOCOB is a multipurpose projector and can be used in any application such as concerts, exhibitions, theater, film & TV, photographic studios, museums, churches.

1.2 TECHNICAL SPECIFICATIONS

Light source and optics
- 1x100W high-efficiency UV COB LED
- Lux @ 3 m: 3 lux
- Wavelenght: 405nm
- Energy-saving LEDs employed, with more vivid colours and lower power consumption than traditional lamps
- Beam Angle: 60°
- Field angle: 80°
- Dichroic parabolic reflector
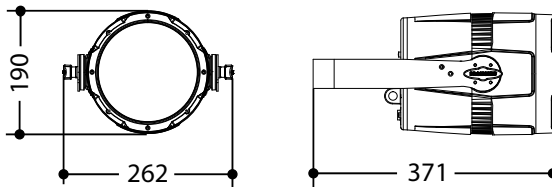- LEDs average life span: >50'000h

Electronics and features
- Several DMX selectable configurations (1, 2, 5 channels) for advanced or basic controlling
  - 1 channel: Dimmer
  - 2 channels: Dimmer, Strobe
  - 5 channels: Dimmer, Strobe, Auto Programs, Auto Speed, Dimmer Speed
- Black OLED display user interface for auto programs execution, static colour mode, creation of custom shows, colour calibration presets
- 4 different dimming curves available
- New HD-dimming technology with super-linear and anti-flickering ramp, frequency adjustment from the user interface
- Auto mode: built-in programs with execution speed adjustment
- Manual mode: manual adjustment of dimmer and strobe
- Master/Slave mode for stand-alone operations
- Linear and "stepless" transition between DMX values
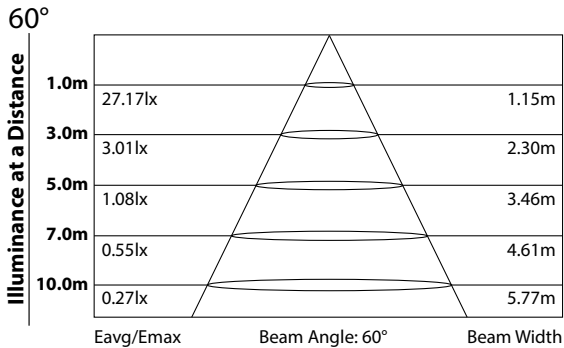- Flicker-free operations (>400Hz)

Structure and Power supply
- Cooling: forced ventilation with low-noise fans, no heat generation
- Sturdy die-cast aluminium body conceived for long-time durability and demanding applications
- Frontal tempered glass panel

- Internal protection: IP20
- Power connections Input/Output: Neutrik NAC3MPA/NAC3MPB
- Signal connections Input/Output: XLR 3p/5p
- Compatible with multiple accessories: 30° optic filter, filter frame holder, barndoors
- Double hanging bracket suitable for safe hanging and for floor positioning
- Power unit: 100-240V 50/60Hz
- Working temperature: -10/45 °C
- Power output to link more units in a chain: up to 10 fixtures at 230V
- Max power consumption: 120W
- Weight: 4,5 kg
- Dimensions (WxHxD): 262x190x371 mm

190

262

371

Technical drawing

60°

Illuminance at a Distance

Distance	Eavg/Emax	Beam Width
1.0m	27.17lx	1.15m
3.0m	3.01lx	2.30m
5.0m	1.08lx	3.46m
7.0m	0.55lx	4.61m
10.0m	0.27lx	5.77m

Eavg/Emax   Beam Angle: 60°   Beam Width
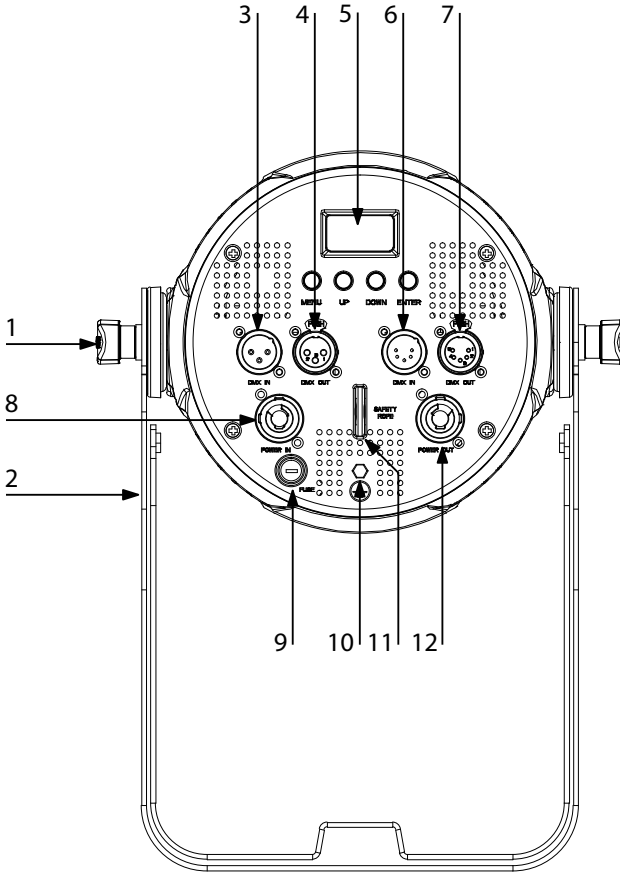
Photometric data

Fig.1

1.3 OPERATING ELEMENTS AND CONNECTIONS

Rear panel　　　　　　　　　　　　　　　　　　　　　　　　　　*Fig.2*

1. LOCKING KNOB for the mounting bracket
2. MOUNTING BRACKET
3. DMX IN (3-pole XLR):
   1 = ground, 2 = DMX -, 3 = DMX +
4. DMX OUT (3-pole XLR):
   1= ground, 2 = DMX -, 3 = DMX +
5. CONTROL PANEL with display and 4 button used to access the control panel functions and manage them
6. DMX IN (5-pole XLR):
   1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C

7. DMX OUT (5-pole XLR):
   1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C
8. POWER IN (PowerCON IN): for connection to a socket (100-240V~/50-60Hz) via the supplied mains cable
9. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T2A 250V)
10. GND POINT grounding the fixture to the earth
11. SAFETY RING to attach safety cable
12. POWER OUT: connect to supply power to the next unit

- 2 - INSTALLATION

2.1 MOUNTING
STUDIOCOBUV may be set up on a solid and even surface. The unit can also be mounted upside down to a cross arm. For fixing, stable mounting clips are required. The mounting place must be of sufficient stability and be able to support a weight of 10 times of the unit's weight.

When carrying out any installation, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.

• Install the projector at a suitable location by means of the mounting bracket (2).
• Always additionally secure the projector with the safety rope from falling down. For this purpose, fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm.
• Adjust the projector and use the screw to slightly release or tighten the locking mechanism of the bracket if is necessary (1).
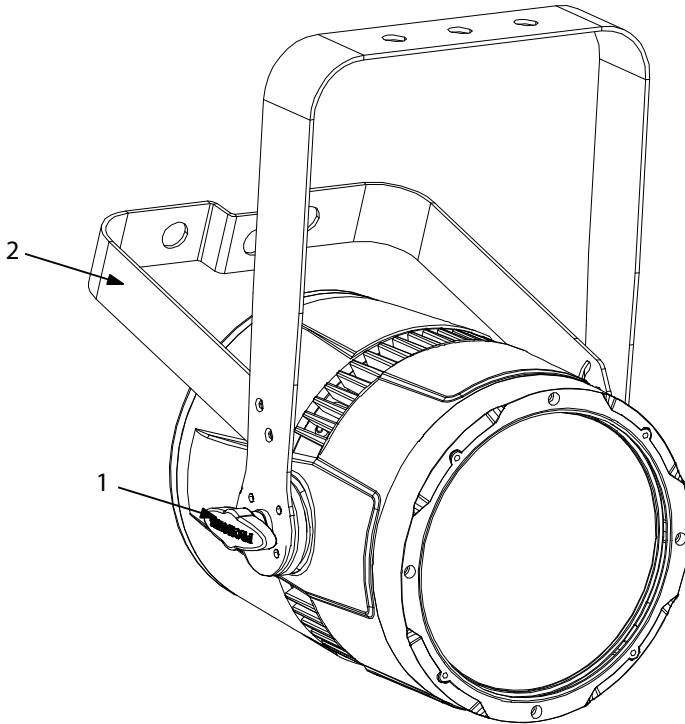

Fig.3

- 3 - FUNCTIONS AND SETTINGS

3.1 OPERATION
Connect the supplied main cable to a socket (100-240V~/50-60Hz). Then the unit is ready for operation and can be operated via a DMX controller or it independently performs its show program in succession. To switch off, disconnect the mains plug from the socket. For a more convenient operation it is recommended to connect the unit to a socket which can be switched on and off via a light switch.

3.2 BASIC
Access control panel functions using the four panel buttons located directly underneath the black OLED display (fig.4).

MENU	UP	DOWN	ENTER
Used to access the menu or to return a previous menu option	Navigates downwards through the menu list and increases the numeric value when in a function	Navigates upwards through the menu list and decreases the numeric value when in a function	Used to select and store the current menu or confirm the current function value or option within a menu

Fig.4 - Functions of the buttons

3.3 MENU STRUCTURE

	MENU				
1	**Auto Show**	⇨	Auto 1	⇨	Speed (0-100)
			Auto 2	⇨	Speed (0-100)
			Auto 3	⇨	Speed (0-100)
2	**Static**	⇨	Dimmer	⇨	0 - 255
			Strobe	⇨	0 - 255
3	**Dimmer Mode**	⇨	Off		
			Dimmer 1		
			Dimmer 2		
			Dimmer 3		
4	**Back Light**	⇨	On		
			10 S		
			20 S		
			30 S		
5	**Information**	⇨	Fixture Hours	⇨	9999
			Version	⇨	V1.0
6	**DMX Address**	⇨	1 - 512		
7	**DMX Channel**	⇨	1 Ch		
			2 Ch		
			5 Ch		
8	**Master/Slave**	⇨	Master		
			Slave		
9	**Temperature**	⇨	40°C		
10	**LED Frequency**	⇨	600 Hz		
			1200 Hz		
			2000 Hz		
			4000 Hz		
			25 kHz		

3.4 AUTO SHOW

If no DMX control signal is present at the DMX INPUT, the unit independently runs through its show programme provided that the blackout mode is switched off:

- Press the button MENU so many times until the display shows **Auto Show**, then press the button ENTER.
- Press the button UP/DOWN to switch between the show **Auto 1 - Auto 3**. The unit will operate in show mode.
- Using the button UP/DOWN to select the desired run speed slow-fast **0-100**.
- Press the button ENTER to save the setting.

IMPORTANT: Programs **Auto 1 - 3** are fully pre-programmed and will not be altered by changes. Instead,

3.5 STATIC MODE

Allows you to create ranges of effects by combining channels **Dimmer - Strobe**.

- Press the button MENU so many times until the display shows **Static**, then press the button ENTER.
- Select **Dimmer - Strobe** through the buttons UP/DOWN.
- Press the button ENTER to confirm.
- Set the value **000 - 255**, through the buttons UP/DOWN.
- Press the MENU button to go back or to meet the waiting time to exit the setup menu.

3.6 MASTER/SLAVE MODE

This mode will allow you to link up the units together without a controller. Choose a unit to function as the Master. The unit must be the first unit in line; other units will work as slave with the same effect.

- Press the button MENU so many times until the display shows **Master/Slave** and press the button ENTER.
- Press UP/DOWN to set the unit as master or slave **(Master/Slave)**.
- Select the desired program (see section 3.4).
- Use standard DMX cables to daisy chain your units together via the DMX connector on the rear of the units. For longer cable runs we suggest a terminator at the last fixture (see page 12).

3.7 LINKING

1. Connect the DMX OUT of the master unit via 3/5-pole XLR cable to the DMX IN of the first slave unit.
2. Connect the DMX OUT of the first slave unit to the DMX IN of the second slave unit, etc. until all units are connected in a chain.

3.8 DMX CONFIGURATION

STUDIOCOBUV is equipped with different DMX configuration.

- Press the button MENU so many times until shows **DMX Channel**, and press the button ENTER to confirm.
- Select the desired DMX configuration (**1CH - 2CH - 5CH**) through the buttons UP/DOWN.

The tables on page 13 indicate the operating mode and DMX value. The STUDIOCOBUV is equipped with 3/5-pole XLR connections.

3.9 DMX ADDRESSING

- Press the button MENU so many times until the display shows **DMX Address**, and press the button ENTER to confirm.
- Press UP/DOWN button to select the desired value (**001-512**). Press and hold to scroll quickly.
- Press ENTER button to store.
- Press the MENU button to go back or to meet the waiting time to exit the setup menu.

To able to operate the STUDIOCOBUV with a light controller, adjust the DMX start address for the first a DMX channel. If e. g. address 33 on the controller is provided for controlling the function of the first DMX channel, adjust the start address 33 on the STUDIOCOBUV.
The other functions of the light effect panel are then automatically assigned to the following addresses.
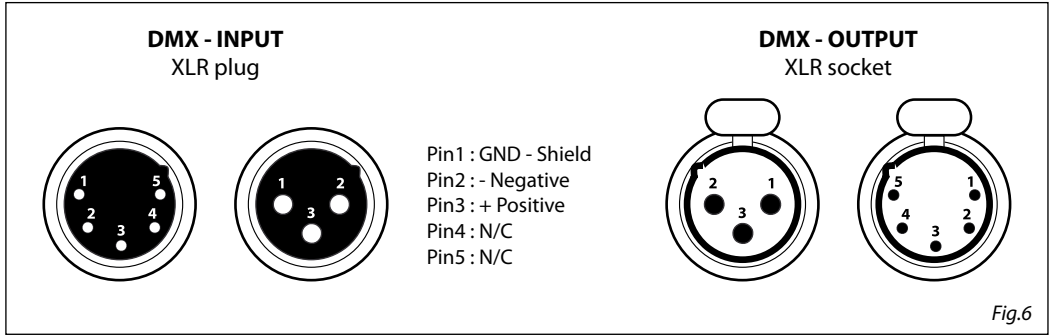An example with the start address 33 is shown below:

Number of DMX channels	Start address (example)	DMX Address occupied	Next possible start address for unit No. 1	Next possible start address for unit No. 2	Next possible start address for unit No. 3
5	33	33-37	38	43	48

Fig.5 - Example 3 DMX channels configuration
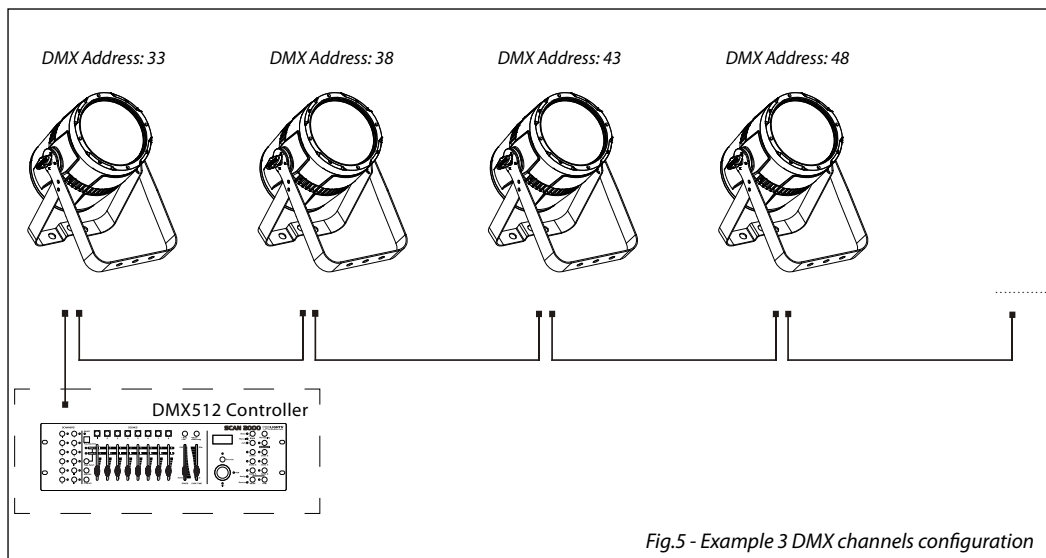
3.10 CONNECTION OF THE DMX LINE

DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.
The following diagram shows the connection mode:

DMX - INPUT
XLR plug

DMX - OUTPUT
XLR socket

Pin1 : GND - Shield
Pin2 : - Negative
Pin3 : + Positive
Pin4 : N/C
Pin5 : N/C

Fig.6

ATTENTION
The screened parts of the cable (sleeve) must never be connected to the system's earth, as this would cause faulty fixture and controller operation.
Over long runs can be necessary to insert a DMX level matching amplifier.
For those connections the use of balanced microphone cable is not recommended because it cannot transmit control DMX data reliably.
• Connect the controller DMX input to the DMX output of the first unit.
• Connect the DMX output to the DMX input of the following unit. Connect again the output to the input of the following unit until all the units are connected in chain.
• When the signal cable has to run longer distance is recommended to insert a DMX termination on the last unit.

3.11 CONSTRUCTION OF THE DMX TERMINATION

The termination avoids the risk of DMX 512 signals being reflected back along the cable when they reaches the end of the line: under certain conditions and with certain cable lengths, this could cause them to cancel the original signals.
The termination is prepared by soldering a 120Ω 1/4 W resistor between pins 2 and 3 of the 5-pin male XLR connector, as shown in figure.

120 Ω

120 Ω

Example:
3 pin XLR connector

Fig.7
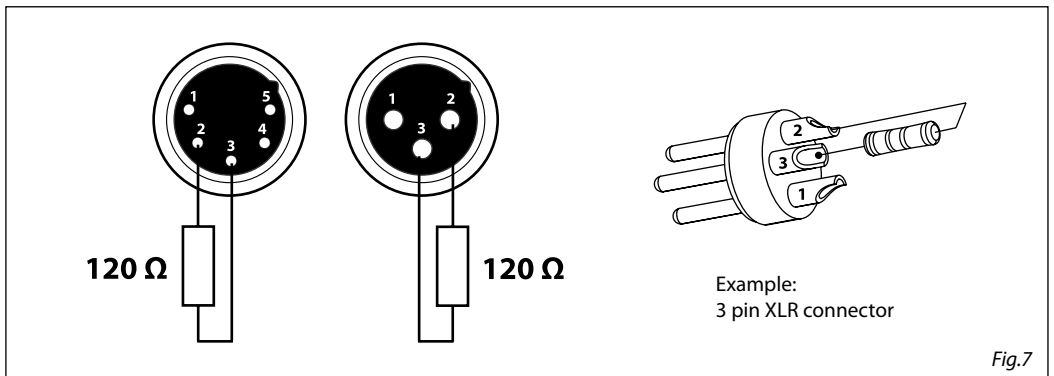
3.12 DMX CONTROL

1 CHANNEL

MODE 1 Ch	FUNCTION	DMX Value
1	**DIMMER** 0~100%	000 - 255

2 CHANNELS

MODE 2 Ch	FUNCTION	DMX Value
1	**DIMMER** 0~100%	000 - 255
2	**STROBE** No function Strobe Slow to Fast	000 - 010 011 - 255

5 CHANNELS

MODE 5 Ch	FUNCTION	DMX Value
1	**DIMMER** 0~100%	000 - 255
2	**STROBE** No Function Slow to fast	000 - 010 011 - 255
3	**AUTO PROGRAMS** No Function Auto Program 1 Auto Program 2 Auto Program 3	000-010 011-090 091-170 171-255
4	**AUTO SPEED** Slow to fast	000 - 255
5	**DIMMER SPEED** Preset dimmer speed from display menu No Function Linear dimmer Nonlinear dimming curve1(fastest) Nonlinear dimming curve2 Nonlinear dimming curve1(slowest)	000-010 031-051 052-101 102-152 153-203 204-255

3.13 FIXTURE SETTINGS
It is possible to change the parameter value in the following way:

Dimmer
- Enter in Dimmer mode to select specific dimming curve, press the button MENU so many times until shows **Dimmer Mode**, and press the button ENTER to confirm.
- Press the button UP/DOWN to select **Off - Dimmer 1 - Dimmer 2 - Dimmer 3.**
- Press ENTER button to store.
- Press the MENU button to go back or to meet the waiting time to exit the setup menu.

BackLite
- To activate Backlight display press the button MENU so many times until shows **Back Light**, and press the button ENTER to confirm.
- Press the button UP/DOWN to select **On - 10S - 20S - 30S.**
- Press ENTER button to confirm the selection.
- Press the MENU button to go back or to meet the waiting time to exit from the setup menu automatically.

LED Frequency
- To adjust the frequency of the LEDs, press the MENU button repeatedly until the display shows **LED Frequency**, and then press the ENTER button.
- Select the frequency (**600 Hz - 1200 Hz - 2000 Hz - 4000 Hz - 25 kHz)** using the UP/DOWN buttons.
- To confirm, press the ENTER key.
- Press the MENU button to go back or wait a few seconds to exit the setup menu.

3.14 FIXTURE INFORMATION

Fixture Hours
Show the fixture working hours.
- Press the button MENU so many times until shows **Information.** Press the button ENTER to confirm
- Using the button UP/DOWN to select **Fixture Hours,** then press the button ENTER to confirm
- Then the display will show the working hours.
- Press the MENU button to go back or to meet the waiting time to exit from the setup menu automatically

Version
Show the fixture firmware version.
- Press the button MENU so many times until shows **Information**
- Select through the button UP/DOWN the **Version** menu voice.
- The display will show the firmware data.
- Press the MENU button to go back or to meet the waiting time to exit from the setup menu automatically.

Temperature
- To read the value of the internal temperature of the device, press the MENU button repeatedly until the display shows **Temperature**, and then press the ENTER button to read the value.
- Press the MENU button to go back or wait a few seconds to exit the setup menu.

- 4 - MAINTENANCE

4.1 MAINTENANCE AND CLEANING THE UNIT

- Make sure the area below the installation place is free from unwanted persons during setup.
- Switch off the unit, unplug the main cable and wait until the unit has cooled down.
- All screws used for installing the device and any of its parts should be tightly fastened and should not be corroded.
- Housings, fixations and installation spots (ceiling, trusses, suspensions) should be totally free from any deformation.
- The main cables must be in impeccable condition and should be replaced immediately even when a small problem is detected.
- It is recommended to clean the front at regular intervals, from impurities caused by dust, smoke, or other particles to ensure that the light is radiated at maximum brightness. For cleaning, disconnect the main plug from the socket. Use a soft, clean cloth moistened with a mild detergent. Then carefully wipe the part dry. For cleaning other housing parts use only a soft, clean cloth. Never use a liquid, it might penetrate the unit and cause damage to it.

4.2 FUSE REPLACEMENT

1. Disconnect this product from the power outlet.
2. Using a screwdriver, unscrew the fuse holder cap from the housing.
3. Remove the blown fuse and replace with a good fuse of the same type and rating (250V/T2A).
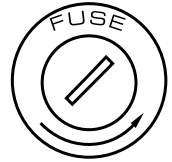4. Screw the fuse holder cap back in place and reconnect power.

Fig.8

4.3 TROUBLESHOOTING

Problems	Possible causes	Checks and remedies
Fixture does not light up	• No mains supply • Dimmer fader set to 0 • All color faders set to 0 • Faulty LED • Faulty LED board	• Check the power supply voltage • Increase the value of the dimmer channels • Increase the value of the color channels • Replace the LED board • Replace the LED board
General low light intensity	• Dirty lens assembly • Misaligned lens assembly	• Clean the fixture regularly • Install lens assembly properly
Fixture does not power up	• No power • Loose or damaged power cord • Faulty internal power supply	• Check for power on power outlet • Check power cord • Replace internal power supply
Fixture does not respond to DMX	• Wrong DMX addressing • Damaged DMX cables • Bouncing signals	• Check control panel and unit addressing • Check DMX cables • Install terminator as suggested

Contact an authorized service center in case of technical problems or not reported in the table can not be resolved by the procedure given in the table.

MUSIC & LIGHTS S.r.l.

Via Appia, km 136,200 - 04020 Itri (LT) - ITALY
Phone +39 0771 72190 - Fax +39 0771 721955

www.musiclights.it - email: info@musiclights.it

ISO 9001:2008 Certified Company