

outdoor IP66 LED wash light for exterior installations



USER MANUAL

Thank you for choosing ARCHWORK.

Please note that every ARCHWORK product has been designed in Italy to meet quality and performance requirements for professionals and designed and manufactured for the use and application as shown in this document.

Any other use, if not expressly indicated, could compromise the good condition/operation of the product and/or be a source of danger.

This product is meant for professional use. Therefore, commercial use of this equipment is subject to the respectively applicable national accident prevention rules and regulations.

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Product user manual can be downloaded from the website www.musiclights.it , or can be inquired to the official ARCHWORK distributors of your territory (https://www.musiclights.it/sales_network.html).

Scanning the below **QR Code**, you will access the download area of the product page, where you can find a broad set of always updated technical documentation: specifications, user manual, technical drawings, photometrics, personalities, fixture firmware updates.





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SAFETY INFORMATION

WARNING!

Please read carefully the instruction reported in this section before installing, powering, operating or servicing the product and observe the indications also for its future handling.



This unit is not for household use, only professional applications.

Installation

- Make sure that all visible parts of the product are in good visible condition before its use or installation.
- Make sure the point of anchorage is stable before positioning the projector.
- When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety cable that is approved as a safety attachment for the weight of the fixture to the attachment point on the main frame of the product. In case the safety cable, enter in action, it needs to be replaced with a new one.
- Install the product only in well ventilated places.
- For non temporary installations, ensure that the fixture is securely fastened to a loadbearing surface with suitable corrosionresistant hardware.
- For a temporary installation with clamps, ensure that the fixing screws are turned fully, and secured with a suitable safety cable.

Minimum distance of illuminated objects

• The projector needs to be positioned so that the objects hit by the beam of light are at least 0,5 meters (1.64 ft) from the lens of the projector.

T_a45°C Max operating ambient temperature (Ta)

• Do not operate the fixture if the ambient temperature (Ta) exceeds 45 °C (122 °F).



(] 0,5 m

Protection from burns and fire

- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials.
- Ensure that there is free and unobstructed airflow around the fixture.
- Keep flammable materials well away from the fixture.
- Do not attempt to bypass thermostatic switches or fuses.

IP66 Permanent Outdoor use

- This product is rated with an IP (Ingress protection) for permanent outdoor use when used and serviced according to the instruction contained in this document.
- Never use the fixture in places subject to vibrations or bumps.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture.
- Damages caused by inadequate cleaning or maintenance are not covered by the product warranty.



Protection and Warning against electrical shock

- Do not remove any cover from the product and disconnect the product from AC power before servicing.
- Ensure that the fixture is electrically connected to ground (earth). And use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable,

or other component is damaged, defective, deformed or showing signs of overheating. Do not reapply power until repairs have been completed.

• Refer any service operation not described in this manual to MUSIC & LIGHTS Service team or an authorized MUSIC & LIGHTS service center.



Connection to mains supply

- The Connection to the mains supply must be carried out by a qualified electrical installer.
- Use only AC supplies 100-240V 50-60Hz, the fixture must be electrically connected to ground (earth).
- Select the cable cross section in according with the maximum current draw of the product and the possible number of products connected at the same power line.
- The AC mains power distribution circuit must be equipped with magnetic+residual current circuit breaker protection.
- Do not connect it to a dimmer system; doing so may damage the product.

Temperature of the external surface

- The surface of the fixture can reach up to 65 $^\circ \rm C$ (158 $^\circ \rm F)$ during operation. Avoid contact with people and materials.



T_c65°C

Maintenance

- Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling.
- Only technicians who are authorized by MUSIC & LIGHTS or Authorised service partners are permitted to open the fixture.
- Users may carry out external cleaning, following the warnings and instructions provided, but any service operation not described in this manual must be referred to a qualified service technician.
- Important! Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture. Damages caused by inadequate cleaning or maintenance is not covered by the product warranty.



Photobiological safety

• This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 1 according to EN 62471.



Do not stare at the operating light source

- Do not look directly at the LED source during operation. It can be harmful to the eyes and skin.
- During Installation, operation and maintenance, be prepared for the fixture to light when connected to power.



Disposal

• This product is supplied in compliance with European Directive 2012/19/EU - Waste Electrical and Electronic Equipment (WEEE). To preserve the environment please dispose/recycle this product at the end of its life according to the local regulation.



The products to which this manual refers comply with the European Directives pursuant to:

- 2014/35/EU Safety of electrical equipment supplied at low voltage (LVD).
- 2014/30/EU Electromagnetic Compatibility (EMC).
- 2011/65/EU Restriction of the use of certain hazardous substances (RoHS).

1 - PACKAGING

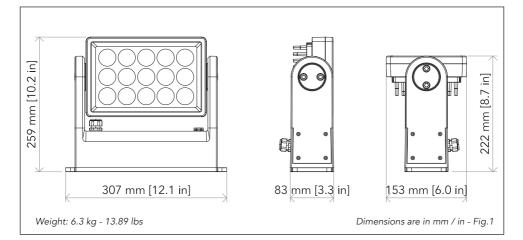
PACKAGE CONTENT

- ARCPOD15Q;
- Power adaptor cable (Schuko plug-IP67 power connector, L=2 m);
- Signal adaptor cables (XLR 5 pin-IP67 signal connector male and female);
- User manual.

OPTIONAL ACCESSORIES

- S27QLENS10: 10° lens for SOLAR27Q, ARCPOD27Q, SOLAR48Q, ARCPOD48Q, ARCPOD15Q and ARCPOD96Q;
- S27QLENS15: 15° lens for SOLAR27Q, ARCPOD27Q, SOLAR48Q, ARCPOD48Q, ARCPOD15Q and ARCPOD96Q;
- S27QLENS25: 25° lens for SOLAR27Q, ARCPOD27Q, SOLAR48Q, ARCPOD48Q, ARCPOD15Q and ARCPOD96Q;
- S27QLENS45: 45° lens for SOLAR27Q, ARCPOD27Q, SOLAR48Q, ARCPOD48Q, ARCPOD15Q and ARCPOD96Q;
- A15QBD: Black barn door 4 directional flaps to adjust the light beam, ARCPOD15Q;
- DATAMASTER: RDM/DMX tool,cable tester, 5p XLR connectors,pouch, charging cable, XLR adapters;
- AWEXAC1L03: IP67 power extension cable for ARCHWORK projectors, L.03 m;
- AWEXAC1L05: IP67 power extension cable for ARCHWORK projectors, L.05 m;
- AWEXAC1L10: IP67 power extension cable for ARCHWORK projectors, L.10 m;
- AWEXAC1L20: IP67 power extension cable for ARCHWORK projectors, L.20m;
- AWEXDC1L03: IP67 DMX extension cable for ARCHWORK projectors, L.03 m;
- AWEXDC1L05: IP67 DMX extension cable for ARCHWORK projectors, L.05 m;
- AWEXDC1L10: IP67 DMX extension cable for ARCHWORK projectors, L.10 m;
- AWEXDC1L20: IP67 DMX extension cable for ARCHWORK projectors, L20 m;
- UPBOX1U: Firmware uploader kit, USB IN, 3p XLR DMX OUT.

2 - TECHNICAL DRAWING



3 - INSTALLATION

MOUNTING

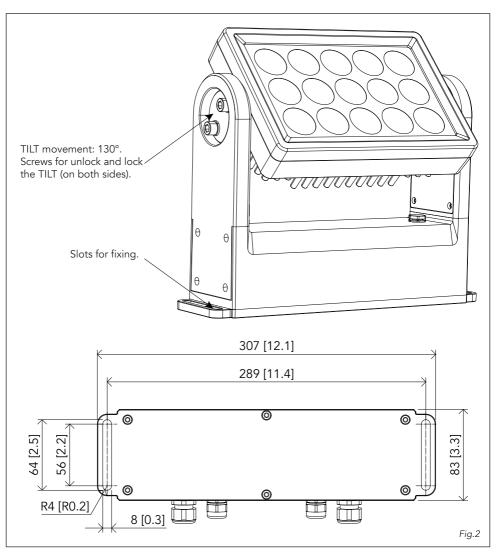
Check that the supporting structure can safely bear the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc. and complies with locally applicable regulations.

For temporary installation when suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety wire that is approved as a safety attachment for the weight of the fixture to an anchor point on the product main frame.

For fixed installation use M8 bolts.

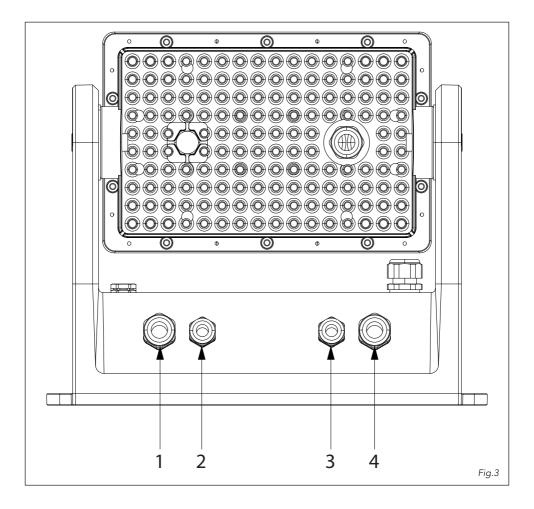
Do not use removable parts or weak anchors for secondary attachment.

Warning! When clamping the fixture to a truss or other structure at any angle, use clamps of half-coupler type. Do not use any type of clamp that does not completely encircle the structure when fastened.



4 - PRODUCT OVERVIEW

- 1. POWER IN: for connection to a mains (100-240V~/50-60Hz). The max power consumption is 120W.
- 2. DMX IN (3-pole): 1 = GND, 2 = sign-, 3 = sign+.
- 3. DMX OUT (3-pole): 1 = GND, 2 = sign-, 3 = sign+.
- 4. POWER OUT: power output for connection of multiple units in series.



5 - CONNECTION TO THE MAINS SUPPLY

WARNING: For protection from electric shock, the fixture must be earthed!

The product is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

If you need to install a power plug on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician.

You can link up tp 7 units at 120 V; 14 at 230 V. Never exceed this number. Power linking cords can be purchased separately.

When connecting the unit to a local power, it may be necessary to use the Schuko to IP67 adapters supplied with this product.

Core (EU)	Core (US)	Connection	Plug terminal marking	
Brown	Black	Live	L	
Blue	White	Neutral	Ν	
Yellow+green	Green	Earth	E	



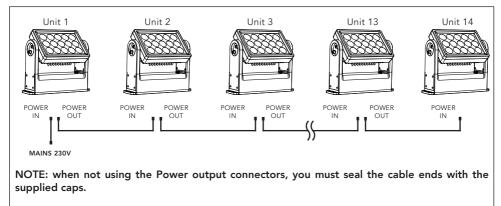
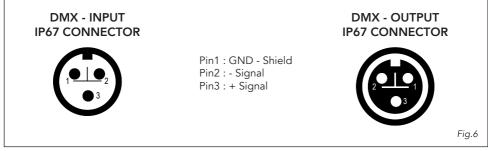


Fig.5 - Example configuration (Output at 230 V)

6 - DMX CONNECTION

CONNECTION OF THE CONTROL SIGNAL: DMX LINE

The product has connectors for DMX input and output. The default pin-out on both connectors is as the following diagram:



INSTRUCTIONS FOR A RELIABLE DMX CONNECTION

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters (1000 ft). Heavier gauge cable and/or an amplifier is recommended for longer runs.

To split the data link into branches, use splitter-amplifiers in the connection line.

Do not overload the link. Up to 32 devices may be connected on a serial link.

NOTE: To connect the unit to your DMX network, it is necessary to use the adapters XLR 5 pin-IP67 signal connector, supplied with this product.

CONNECTION DAISY CHAIN OF THE DMX LINE

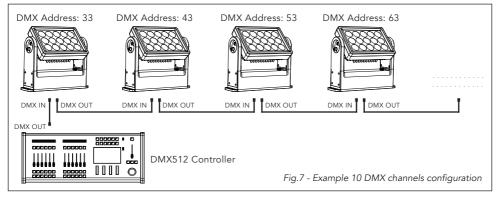
Connect the DMX data output from the DMX source to the product DMX input (male connector). Run the data link from the product DMX output (female connector) connector to the DMX input of the next fixture.

Terminate the data link by connecting a 120 Ohm signal termination.

The termination is prepared by 120Ω 1/4 W resistor between pins 2 and 3 of the male DMX connector. Install a DMX termination plug on the last fixture on the link. If a splitter is used, terminate each branch of the link.

NOTE: when not using the DMX input or DMX output connectors, you must seal the cable ends with the supplied caps.

The following diagram shows the DMX connection:



DMX ADDRESSING

In order to start controlling the product via DMX, the first step is to select a DMX address, also known as the start channel, this is the first channel used to receive instructions from a DMX controller. If you wish to control the product individually, it is necessary to assign a different starting address channel to each fixture.

The number of channels occupied from the product depends on the DMX mode selected, so always verify the DMX Mode before start addressing.

If you assign two fixtures the same address, they will be executing the same behaviour. Selecting the same address to multiple fixtures can be useful for diagnostic purposes and symmetrical control.

DMX addressing is limited to make it impossible to set the DMX address so high that you are left without enough control channels for the product.

Set the fixture's DMX address by RDM with the DATAMASTER.

7 - RDM FUNCTIONS

The product can communicate using RDM (Remote Device Management) protocol over a DMX512 Networks.

RDM is a bi-directional communications protocol for use in DMX512 control systems, it is the open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without affecting existing non-RDM equipment. It allows a console or dedicated RDM controller to send commands to and receive messages from specific fixtures.

The PIDs in the following tables are supported in the product.

Parameter	PID	GET	SET
DMX_PERSONALITY	0x00e0	Х	Х
DMX_PERSONALITY_DESCRIPTION	0x00e1	Х	Х
CURVE	0x0343	Х	Х
MODULATION_FREQUENCY	0x0347	Х	Х
IDENTIFY_DEVICE	0x1000	Х	
FACTORY_DEFAULTS	0x0090	Х	Х
WBANLANCE_R	0x8200	Х	Х
WBANLANCE_G	0x8201	Х	Х
WBANLANCE_B	0x8202	Х	Х
WBANLANCE_W	0x8203	Х	Х
FULL ON_Mode(Full On 0:HB, 1:Studio)	0x8217	Х	Х

8 - OPERATION VIA DATAMASTER

The unit uses a DATAMASTER for configuration purposes. The diagram below sows how to connect the DATAMASTER to this product. This connection will control multiple products at the same time.

To set different Stand Alone mode on different product, you must connect the DATAMASTER to each product, individually.

However, by using the DATAMASTER, you may address each product in the daisy chain to a different DMX address by using the RDM function without the need connect to each individual product. Important: The DATAMASTER must be used to configure this product.

MUSIC & LIGHTS suggests that you connect no more than 20 units in this mode and keep the total distance to less than 60 m (197 ft). Otherwise, you might need to use an RDM optically isolated signal amplifier.

RDM SETTING

To set the RDM functions with the DATAMASTER follow these steps:

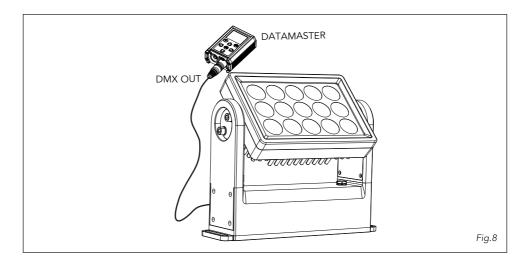
- Turn on the DATAMASTER;
- Select the "RDM" function;
- Wait the discovering of all units;
- Select the desired unit and press ENTER button;
- Change the value of the desired function.

The following chart describes the RDM menu tree of the product, the terms shown in **BOLD** indicates the default settings.

	MENU					
1	START ADDRESS	0 01 -512				
2	PERSONALITY	5 Ch 7 Ch 10 Ch				
3	DIMMER MODE	Off Dimmer1 Dimmer2 Dimmer3				
4	PWM MODULATION	600Hz 1200Hz 2000Hz 4000Hz 6000Hz 25kHz				Select PWM frequency.
5	FACTORY DEFAULT					To reset the unit to factory default settings.
6	SPECIFIC PIDS	8200 8201 8202 8203 8206 8217	White Balance-Red White Balance-Green White Balance- Blue White Balance- White Clean Device Hours Full On mode	125 ÷ 255 125 ÷ 255 125 ÷ 255 125 ÷ 255 0-1 0-1	0: No 1: Yes 0: HB Mode 1: Studio Mode	

STAND ALONE FUNCTION

To set the STAND ALONE you must follow the below steps with DATAMASTER:



- Connect only one projector to the DATAMASTER;
- Select the second function "STAND ALONE";
- Select "Manual Color" or "Effect" function;
- Select "Head 1";
- Select the desired color or effect with speed.

The projector where is setted the STAND ALONE values is a "MASTER" projector.

If there isn't the DMX controller or the DMX missing this projector will send his STAND ALONE value on the DMX line.

On others units that will be connected to the same DMX line must NOT be setted the STAND ALONE, they will be "SLAVE" and they will follow the DMX of the MASTER.

9 - DMX CHARTS

Channel	5 Ch	7 Ch	10 Ch	
1	RED	DIMMER	DIMMER	
2	2 GREEN RED		RED	
3	3 BLUE GREEN		GREEN	
4	WHITE BLUE		BLUE	
5	DIMMER SPEED MODE	WHITE	WHITE	
6		STROBE	STROBE	
7		DIMMER SPEED MODE	COLOR MACRO	
8			EFFECTS	
9			EFFECTS SPEED	
10			DIMMER SPEED MODE	

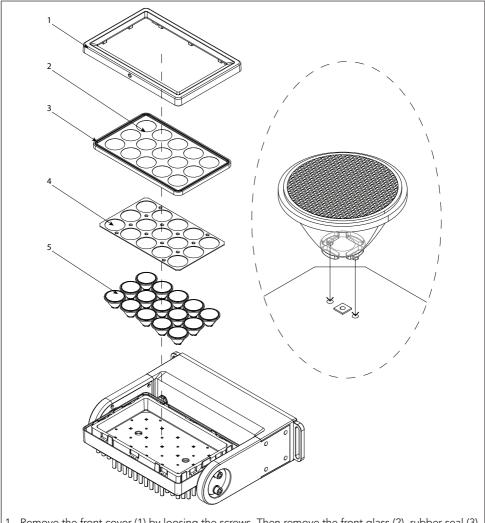
5 Ch	7 Ch	10 Ch	FUNCTION	DMX Value	Default
	1	1	DIMMER 0~100%	000 - 255	000
1	2	2	RED 0~100%	000 - 255	255 000 (for 5 Ch)
2	3	3	GREEN 0~100%	000 - 255	255 000 (for 5 Ch)
3	4	4	BLUE 0~100%	000 - 255	255 000 (for 5 Ch)
4	5	5	WHITE 0~100%	000 - 255	255 000 (for 5 Ch)
	6	6	STROBE No function Strobe Slow to Fast	000 - 010 011 - 255	000
		7	COLOR MACRO No Function R 100%, G 0~100%, B 0% R 100%~0%, G 100%, B 0% R 0%, G 100%, B 0~100% R 0%, G 100%~0% B 100% R 0% G 0% B 100% R 100% G 0% B 100% O% R 100% G 0% C B 100% B 100% R 100% C B 100% B 100% R 100% G 100% B 100% W 100% 2800k 3000k 3200k 4000k 5600k 6000k 6500k 6000k 6000k 8000k 9000k 10000k	$\begin{array}{c} 000 - 010\\ 011 - 030\\ 031 - 050\\ 051 - 070\\ 071 - 090\\ 091 - 110\\ 111 - 130\\ 131 - 150\\ 151 - 170\\ 171 - 200\\ 201 - 205\\ 206 - 210\\ 211 - 215\\ 216 - 220\\ 221 - 225\\ 226 - 230\\ 231 - 235\\ 236 - 240\\ 241 - 245\\ 246 - 250\\ 251 - 255\\ \end{array}$	000
5	7		DIMMER SPEED MODE Preset dimmer speed from display menu Dimmer speed mode off Dimmer speed mode1 (fast speed) Dimmer speed mode2 (middle speed) Dimmer speed mode3 (slow speed)	000 - 051 052 - 101 102 - 152 153 - 203 204 - 255	000
		8	EFFECTS No Function Effect 1 Effect 2 Effect 3 Effect 4 Effect5 (Effects1- 4) Effect 6 Effect 7 Effect 8 Effect 9 (Effects6- 8)	000 - 010 011 - 037 038 - 064 065 - 091 092 - 118 119 - 145 146 - 172 173 - 199 200 - 226 227 - 255	000
		9	EFFECTS SPEED Effects speed slow to fast	000 - 255	000
		10	DIMMER SPEED MODE Preset dimmer speed from display menu Dimmer speed mode off Dimmer speed mode 1 (fast speed) Dimmer speed mode 2 (middle speed) Dimmer speed mode 3 (slow speed)	000 - 051 052 - 101 102 - 152 153 - 203 204 - 255	000

10 - ACCESSORIES INSTALLATION

LENS (CODE S27QLENS10-15-25-45)

The lens are available as accessory and can be mounted from the users, see the following drawing which shows the process for lens replacement.

WARNING: never touch the LEDs.



- 1. Remove the front cover (1) by loosing the screws. Then remove the front glass (2), rubber seal (3), lens holder (4) and the lens (5)
- 2. Replace the lenses by inserting the two pins on the back of the lens with the holes provided on the PCB LED.

NOTE: to reassemble the lenses, the reverse procedure.

NOTE: it is recommended to tighten the front cover screws carefully so as to guarantee the correct IP degree.

BARNDOOR (CODE A15QBD)

The Black barn door with 4 directional leafs to adjust the light beam is available as optional accessory.

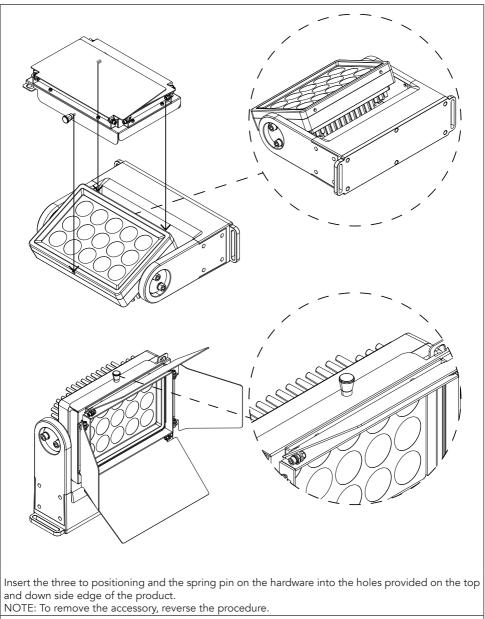


Fig.10

11 - MAINTENANCE

MAINTENANCE AND CLEANING THE PRODUCT

WARNING: Disconnect from the mains before starting any maintenance work

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.
- The user must clean the product periodically to maintain optimum performance and cooling. The user may also upload firmware (product software) to the fixture via the DMX signal input port using firmware and instructions from MUSIC & LIGHTS.
- The frequency of such maintenance operations is to be performed according to various factors, such as the amount of the use and the condition of the installation environment. It is recommended that the product is subject to annual service by a qualified technician for special maintenance involving at least the following procedures:
- General cleaning of internal parts.
- All other service operations on the product must be carried out by MUSIC & LIGHTS, its approved service agents or trained and qualified personnel.
- Use only accessories approved by MUSIC & LIGHTS.

VISUAL CHECK OF PRODUCT HOUSING

- The parts of the product cover/housing and glass must be checked for eventual damages and breaking, do not use the product until the damaged part will be replaced.
- Cracks or another damages of the cover/housing parts can be caused by the product transportation or manipulation and also ageing process may influence materials.
- This checking is necessary for both fixed installations and preparing product for renting. Any free moving parts inside of the product, cracked cover/housing or any part of front glass not sitting properly in place need to be immediately replaced.

TROUBLESHOOTING

Problems Possible causes		Checks and remedies		
Product doesn't power ON	• No power to the prod- uct	 Check that power is switched ON and cables are plugged in. 		
	• Fuse blown or internal fault	 Check if the Fuse is intact and eventually replace it if necessary. Contact the MUSIC & LIGHTS Service or authorized service partner. Do not remove parts and/or covers, or carry out any repairs or service that are not described in this Safety and User Manual unless you have both authorization from MUSIC & LIGHTS and the service documentation. 		
Product reset correctly but does not	Bad signal connection	 Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables. 		
respond correctly to the contoller.	• Signal connection not terminated	 Insert DMX termination plug in signal output socket of the last product on the signal line. 		
	• Incorrect addressing of the product	Check the product address and control settings		
	• One of the product is defective and is corrupt- ing the signal transmis- sion on the signal line	• Unplug the XLR in and out connectors and connect them directly together to bypass one product at a time until normal operation is regained. Once found the error, have that fixture serviced by a qualified technician.		
Timeout error after fixture reset.	 One or more hardware components requires mechanical adjustments 	 Check product stored error messages for more information. Contact MUSIC & LIGHTS Service or an authorized service partner. 		
Mechanical effect loses position	Mechanical hardware require cleaning, adjust- ment or lubrification	 Check product stored error messages for more information. Contact MUSIC & LIGHTS Service or an authorized service partner. 		
Light output turn OFF Intermittently	Fixture is too hot	 Check product stored error messages. Allow product to cool. Clean the product and airflow filters. Reduce ambient temperature. 		
	 Hardware failure (temperature sensor, fans, Light source) 	 Check product stored error messages for more information. Contact. MUSIC & LIGHTS Service or an authorized service partner. 		
General low light intensity	Dirty lens assemblyDirty or damaged filters	Clean the fixture regularlyInstall lens assembly properly		

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.

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