

EclMiniFresnel TU-DY

LED fresnel with HB white source, to replace 300W lamp



USER MANUAL

REV.03-01/23 English version

Thank you for choosing PROLIGHTS

Please note that every PROLIGHTS 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.

Features, specifications and appearance are subject to change without notice. Music & Lights S.r.l. and all affiliated companies disclaim liability for any injury, damage, direct or indirect loss, consequential or economic loss or any other loss occasioned by the use of, inability to use or reliance on the information contained in this document.

Product user manual can be downloaded from the website www.prolights.it, or can be inquired to the official PROLIGHTS distributors of your territory (https://www.prolights.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.



Visit the download area of the product page



The PROLIGHTS Logo, PROLIGHTS names and all other trademark in this document pertaining to PROLIGHTS services or PROLIGHTS product are trademarks OWNED or licensed by Music & Lights S.r.l., its affiliates, and subsidiaries. PROLIGHTS is a registered trademark by Music & Lights S.r.l. All right reserved. Music & Lights – Via A. Olivetti, snc - 04026 - Minturno (LT) ITALY.

INDEX

SAFETY INFORMATION	02
1 - PACKAGING	05
PACKAGE CONTENT	
OPTIONAL ACCESSORIES	05
2 - TECHNICAL DRAWING	05
3 - INSTALLATION MOUNTING	06
4 - CONNECTION TO THE MAINS SUPPLY	07
5 - START UP	07
CONNECT AND DISCONNECT POWER FROM THE PRODUCT	07
6 - PRODUCT OVERVIEW	08
7 - DMX CONNECTION	09
CONNECTION OF THE CONTROL SIGNAL: DMX LINE	09
INSTRUCTIONS FOR A RELIABLE DMX CONNECTION	09
CONNECTION DAISY CHAIN	09
CONNECTION OF THE DMX LINE	09
CONSTRUCTION OF THE DMX TERMINATION	10
DMX ADDRESSING	10
8 - CONTROL PANEL	11
USER INTERFACE LAYOUT	11
9 - MENU STRUCTURE	12
10 - RDM FUNCTIONS	13
11 - DMX CHARTS	14
12 - ACCESSORIES INSTALLATION	15
FILTER FRAME (CODE MINIECLFRTPG - OPTIONAL)	15
BARN DOOR (CODE MINIECLFRBD - OPTIONAL)	16
13 - MAINTENANCE	17
MAINTENANCE AND CLEANING THE PRODUCT	17
REPLACING THE FUSE	17
VISUAL CHECK OF PRODUCT HOUSING	17
TROUBLESHOOTING	18

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.



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 50-60 Hz, 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.



Protection and Warning against electrical shock

- Do not remove any cover from the product, always 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 components are 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 PROLIGHTS Service team or an authorized PROLIGHTS service center.



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 quarter-turn fastener and/or 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.

Ta45°C

Max operating ambient temperature (Ta)

• Do not operate the fixture if the ambient temperature (Ta) exceeds 45 °C (113 °F).

Ta-10°C

Minimum operating ambient temperature (Ta)

Do not operate the fixture if the ambient temperature (Ta) is below -10 °C (14 °F).



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 expose the front glass to sunlight or any other strong light source from any angle. Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.
- Do not attempt to bypass thermostatic switches or fuses.



Indoor use

- This product is designed for indoor and dry environments.
- Do not use in wet location and do not expose the fixture to rain or moisture.
- 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.

T_C60°C

Temperature of the external surface

 The surface of the fixture can reach up to 60 °C (140 °F) during operation. Avoid contact with people and materials.



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 PROLIGHTS 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 0 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 and move suddenly 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:

- 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).



Other approvals

1 - PACKAGING

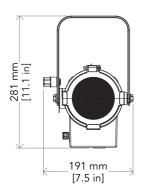
PACKAGE CONTENT

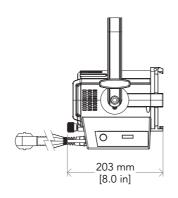
- 1x MINIECLFRTU / DY;
- 1x MINIECLFRBD: black barn door 4 directional flaps to adjust the light beam;
- 1x MINIECLFRTPG: filter frame for MINIECLFR series:
- User Manual.

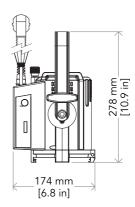
OPTIONAL ACCESSORIES

- TOUR53415L03: dmx cable HC5340. CANC5MXX XLR 5p->CANC5FXX XLR (f) 5p, L.3m;
- ECLFRSPG: spigot for PROLIGHTS Fresnel series;
- C6002: slim aluminium clamp, 200 kg loading, 48-51 mm tubes, M10 bolt;
- C6040: heavy-load aluminum clamp, 200kg load, 48-51mm tubes, M10 bolt inc.;
- UPBOX1U: firmware uploader kit, USB IN, 3p XLR DMX OUT;
- RSR0630A/B: steel security cable for hanging bodies, inox steel shackle, L=60 cm, silver/black.

2 - TECHNICAL DRAWING







MINIECLFRTU, DY - Weight: 2.38 kg / 5.24 lbs

Fig. 01

3 - INSTALLATION

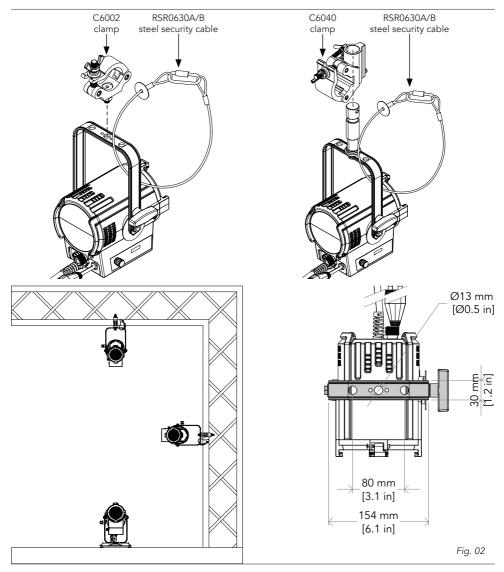
MOUNTING

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.

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.

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 - 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.

The max power consumption is 35W.

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

5 - START UP

CONNECT AND DISCONNECT POWER FROM THE PRODUCT

To apply and disconnect power to the product:

- Check that the product is installed and secured as indicated in the Safety Informations, and that personal safety will not be put at risk when the fixture lights up.
- Connect the power connector into the Mains input socket (100-240 VAC-50/60 Hz).
- The product is then ready for its operations and can be controlled through the available input signals on board.
- To disconnect power from the product, disconnect the Mains from the socket.

6 - PRODUCT OVERVIEW

- 1. BRACKET:
- 2. KNOB for bracket;
- 3. USER INTERFACE with display and ROTATORY KNOB for access to the control panel functions;
- 4. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T1A 250V);
- 5. Cable flexible with 16A Shuko plug for connection to a socket (100-240V~/50-60Hz);
- 6. Cable flexible composed of a DMX IN (5-pole XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C and DMX OUT (5-pole XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C;
- 7. KNOB for manual focus.

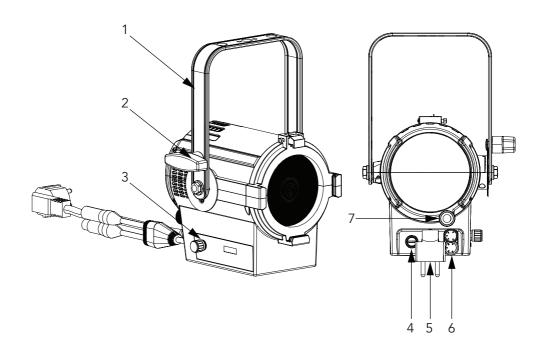


Fig. 03

7 - DMX CONNECTION

CONNECTION OF THE CONTROL SIGNAL: DMX LINE

The product has XLR sockets for DMX input and output.

The default pin-out on both socket is as the following diagram:

DMX - INPUT XLR plug



Pin1 : GND - Shield Pin2 : - Signal

Pin2 : - Signal Pin3 : + Signal Pin4 : N/C Pin5 : N/C

DMX - OUTPUT XLR socket



Fig. 04

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.

CONNECTION DAISY CHAIN

Connect the DMX data output from the DMX source to the product DMX input (male connector XLR) socket.

Run the data link from the product XLR output (female connector XLR) socket to the DMX input of the next fixture.

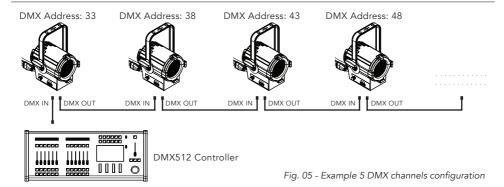
Terminate the data link by connecting a 120 Ohm signal termination. If a splitter is used, terminate each branch of the link.

Install a DMX termination plug on the last fixture on the link.

CONNECTION OF THE DMX LINE

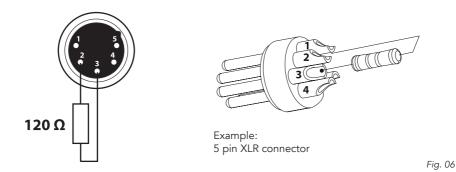
DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.

The following diagram shows the connection mode:



CONSTRUCTION OF THE DMX TERMINATION

The termination is prepared by soldering a 120Ω 1/4 W resistor between pins 2 and 3 of the male XLR connector, as shown in figure.



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 in the MENU 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.

To set the fixture's DMX address:

- 1. Press KNOB ROTATORY to open the main menu.
- 2. Reach the addressing menu, then select the DMX ADDRESS settings.
- 3. Select the address from 1 to 512 using KNOB ROTATORY by pressing it.
- 4. Press KNOB ROTATORY to exit and return to the Home screen.

8 - CONTROL PANEL

The product has a display and buttons for access to the control panel functions.

ROTARY KNOB

Fig. 07

USER INTERFACE LAYOUT

The product has a display and a rotatory knob for access to the control panel functions.

9 - MENU STRUCTURE

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

	MENU				
1	CONNECT	DMX ADDRESS	001 -512		
		DMX MODE	EASY 1CH		
			BASIC 2CH 1		
			BASIC 2CH 2		
			BASIC 3CH		
			STANDARD 5CH		
2	SETUP	SCREEN	BACKLIGHT	ON	Allows you to select the timing
				10 s	after that display will switch automatically off when unactive.
				20 s	- matically on when unactive.
				30 s	
			FLIP DISPLAY	NO	Allows you to rotate the display
				YES	by 180°.
3	ADVANCED	DIMMER MODE	OFF		To choose the dimmer curve.
			DIMMER 1		
			DIMMER 2		
			DIMMER 3		
		LED FREQUENCY	600Hz		Select PWM frequency.
			1200Hz		
			2000Hz		
			4000Hz		
			6000Hz		
			25KHz		
		FAN MODE	Auto		Select the product Fan mode.
			On		
		FACTORY RELOAD	NO		To reset the unit to factory default settings.
			YES		
4	INFORMATION	FIXTURE HOURS	0 -9999		To view the operarion time.
		TEMPERATURE	C°		
		VERSION	V1.0		To view the firmware version.
		UID	15D00217****		To view the UID version.
5	STAND ALONE	MASTER/SLAVE	MASTER		Allow you to link and operating in
			SLAVE		synk multiple units without a DMX console. Choose a unit to perform as the Master. This unit must be the first unit in line; Set the successive units to be slave.
		EFFECTS	EFFECT 1	1 ÷ 100	To select the desired effect and
			EFFECT 2	1 ÷ 100	speed.
			EFFECT 3	1 ÷ 100	
			EFFECT 4	1 ÷ 100	
		STATIC	DIMMER	000 ÷ 255	To choose the desidered level of
			STROBE	000 ÷ 255	each color in static mode.

10 - 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.

Category	Parameter	PID	GET	SET
Product	DEVICE_INFO	0x0060	х	
Information	DEVICE_MODEL_DESCRIPTION	0x0080	х	
	MANUFACTURER_LABEL	0x0081	х	
	DEVICE_LABEL	0x0082	х	х
	FACTORY_DEFAULTS	0x0090	х	х
	SOFTWARE_VERSION_LABEL	0x00C0	х	
DMX512	DMX_PERSONALITY	0x00E0	х	х
Setup	DMX_PERSONALITY_DESCRIPTION	0x00E1	х	
	DMX_START_ADDRESS	0x00F0	х	х
Dimmer	CURVE	0x0343	х	х
Settings	CURVE_DESCRIPTION	0x0344	х	х
	MODULATION_FREQUENCY	0x0347	х	х
	MODULATION_FREQUENCY_ DESCRIPTION	0x0348	х	
Sensors	SENSOR_DEFINITION	0x0200	х	
	SENSOR_VALUE	0x0201	х	х
Display Settings	DISPLAY_INVERT	0x0500	х	х
Control	IDENTIFY_DEVICE	0x1000	х	х

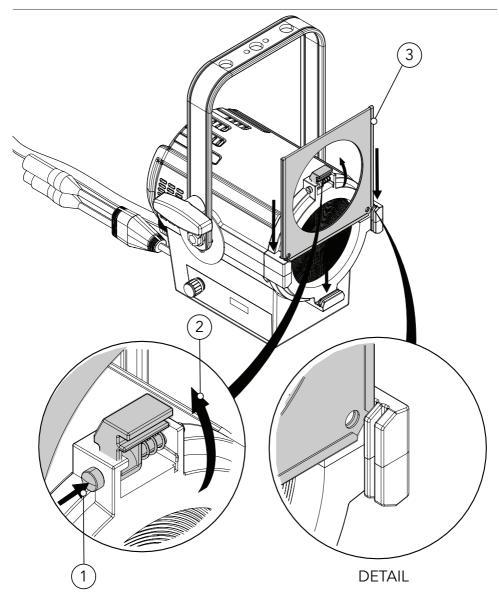
11 - DMX CHARTS

Channel	EASY 1CH	BASIC 2CH 1	BASIC 2CH 2	BASIC 3CH	STANDARD 5CH
1	DIMMER	DIMMER	DIMMER	DIMMER	DIMMER
2		DIMMER FINE	STROBE	DIMMER FINE	STROBE
3				STROBE	AUTO PROGRAMS
4					AUTO SPEED
5					DIMMER SPEED MODE

EASY 1CH	BASIC 2CH 1	BASIC 2CH 2	BASIC 3CH	STANDARD 5CH	Function	DMX Value	Default
1	1	1	1	1	DIMMER 0~100%	000 ÷ 255	000
	2		2		DIMMER FINE 0~100%	000 ÷ 255	000
		2	3	2	STROBE No Function Strobe Slow to Fast	000 ÷ 010 011 ÷ 255	255
				3	AUTO PROGRAMS No Function Auto Program 1 Auto Program 2 Auto Program 3 Auto Program 4	000 ÷ 010 011 ÷ 070 071 ÷ 130 131 ÷ 190 191 ÷ 255	000
				4	AUTO SPEED Auto speed slow to fast	000 ÷ 255	000
				6	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	255

12 - ACCESSORIES INSTALLATION

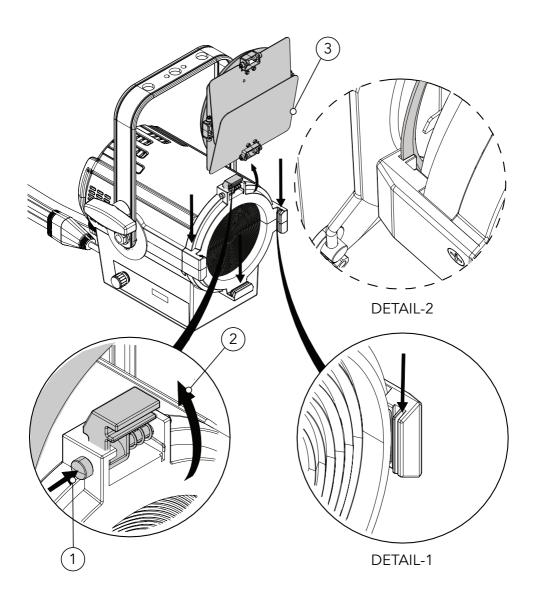
FILTER FRAME (CODE MINIECLFRTPG - OPTIONAL)



Press the pin (1) and the snap will automatically open upwards (2). Insert the gel filter frame (3) into the gel frame lock (DETAIL) and close down the snap.

NOTE: To remove the accessory, reverse the procedure.

Fig. 08



Press the pin (1) and the snap will automatically open upwards (2). Insert the barn door (3) into the gel frame lock (DETAIL-1) throught the holder assembly of the barn door (DETAIL-2). Then close down the snap. NOTE: To remove the accessory, reverse the procedure.

Fig.09

13 - 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 or USB
 port using firmware and instructions from PROLIGHTS.
- 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 (air humidity, presence
 of dust, salinity, etc.). 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.
- For all the parts subject to friction, using lubricants specifically supplied by PROLIGHTS.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.
- Cleaning the lenses. Only use neutral soap and water to clean the lenses, then dry it carefully with a soft, non-abrasive cloth.

WARNING: the use of alcohol or any other detergent could damage the lenses.

- All other service operations on the product must be carried out by PROLIGHTS, its approved service
 agents or trained and qualified personnel.
- It is PROLIGHTS policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components are subject to wear and tear over the life of the product, resulting in gradual changes in colours over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent performance will be affected. However, you may eventually need to replace optical components if their characteristics are affected by wear and tear after an extended period of use and if you require fixtures to perform within very precise optical and colour parameters.
- Do not apply filters, lenses or other materials on lenses or other optical components. Use only accessories approved by PROLIGHTS.

REPLACING THE FUSE

WARNING: Before replacing the fuse, unplug the product from the mains.

• Remove the old fuse from the housing with a suitable screwdriver (anticlockwise) and replace it with one of the same type and of the same classification (T1A 250V).

VISUAL CHECK OF PRODUCT HOUSING

- The parts of the product cover/housing should be checked for eventual damages and breaking start at least every two months. In addition, especially the parts of the front lens holder have to be checked mechanically (by means of movement by the part) if it is firmly fastened to the fixture. If hint of a crack is found on some plastic part, 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 lens 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 product.	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 PROLIGHTS 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 PROLIGHTS and the service documentation.
Product reset correctly but does not respond correctly	Bad signal connection.	Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
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 PROLIGHTS 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 PROLIGHTS 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 (tem- perature sensor, fans, Light source).	Check product stored error messages for more information. Contact. PROLIGHTS Service or an authorized service partner.
General low light intensity	Dirty lens assembly.Dirty or damaged filters.	Clean the fixture regularly.Install 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.

Note	

Note	

