



Astra Hybrid330

Ultra compact hybrid moving beam-spot,
with a 330W LED Source



USER MANUAL

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.

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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**



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INDEX

SAFETY INFORMATION	02
1 - PACKAGING	05
PACKAGE CONTENT	05
OPTIONAL ACCESSORIES	05
2 - TECHNICAL DRAWING	05
3 - PAN AND TILT LOCK	06
4 - INSTALLATION	07
MOUNTING	07
5 - CONNECTION TO THE MAINS SUPPLY	08
6 - START UP	08
CONNECT AND DISCONNECT POWER FROM THE PRODUCT	08
7 - PRODUCT OVERVIEW	09
8 - DMX CONNECTION	10
CONNECTION OF THE CONTROL SIGNAL: DMX LINE	10
INSTRUCTIONS FOR A RELIABLE DMX CONNECTION	10
CONNECTION DAISY CHAIN	10
CONNECTION OF THE DMX LINE	10
CONSTRUCTION OF THE DMX TERMINATION	11
DMX ADDRESSING	11
ETHERNET CONNECTION	11
ETHERNET OPERATION	11
ETHERNET TO DMX OPERATIONS	12
OPERATION AS A WIRELESS TRANSMITTER	12
IN TO WDMX	12
OPERATION AS A WIRELESS RECEIVER	13
WDMX TO DMX (RX)	13
9 - CONTROL PANEL	14
DISPLAY AND BUTTONS LAYOUT	14
10 - MENU STRUCTURE	15
11 - SHORTCUT	19
12 - RDM FUNCTIONS	20
13 - DMX CHARTS	22
RDM Personality ID List	22
RDM Model ID	22
14 - FIXED GOBOS WHEEL	32
15 - ROTATING GOBOS WHEEL	33
16 - COLOR WHEEL	34
17 - ANIMATION WHEEL	35
18 - ERROR MESSAGES	36
18 - PERIODICAL CLEANING	40
19 - GOBOS REPLACEMENT	41
20 - MODULE REMOVAL (ANIMATION, COLOR, GOBOS WHEEL)	42
21 - MAINTENANCE	43
MAINTENANCE AND CLEANING THE PRODUCT	43
REPLACING THE FUSE	43
VISUAL CHECK OF PRODUCT HOUSING	43
TROUBLESHOOTING	44

SAFETY INFORMATION



WARNING!

- See <https://www.prolights.it/product/ASTRAHYB330#download> for installation instructions.
- 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 and residential 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 load-bearing 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 1,5 meters (4,92 ft) from the lens of the projector.

T_a 45°C

Max operating ambient temperature (T_a)

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

T_a -20°C

Minimum operating ambient temperature (T_a)

- Do not operate the fixture if the ambient temperature (T_a) is below -20 °C (-4 °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_c 61°C

Temperature of the external surface

- The surface of the fixture can reach up to 61 °C (142 °F) during operation. Avoid contact with people and materials.



Radio receiver

This product contains a radio receiver and/or transmitter:

- Maximum output power: 17 dBm.
- Frequency band: 2.4 GHz.



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.



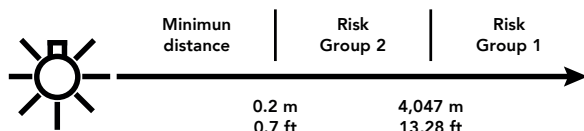
Photobiological safety

- This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 2 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.
- The device should be positioned so that prolonged staring into the luminaire at a distance closer than 4.047 m (13,28 ft) is not expected.



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 product contains a lithium ion battery

- Don't throw the unit into the garbage at the end of its lifetime.
- Make sure to dispose according to your local ordinances and/or regulations, to avoid polluting the environment!
- The packaging is recyclable and can be disposed.



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).
- 2014/53/EU - Radio Equipment Directive (RED).



Other approvals



1 - PACKAGING

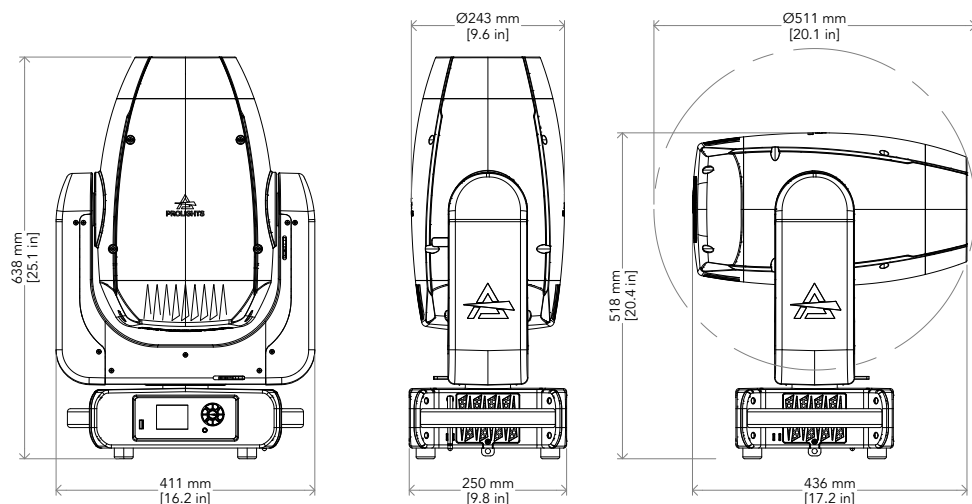
PACKAGE CONTENT

- 1x ASTRAHYB330.
- 1x 1,5 meters power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65).
- 2x OS24, quick-lock omega bracket with M10 hole.
- User Manual.

OPTIONAL ACCESSORIES

- FCLASTRAP400: flight case for 3 pcs of ASTRAHYB330/ASTRAPROFILE400.
- OS24: quick-lock omega bracket, M10 hole.
- C6002A/B: slim aluminum clamp, 200kg loading, 48-51mm tubes, M10 bolt, silver/black.
- RSR1235A/B: steel security cable for hanging bodies, inox steel shackle, L=120 cm, silver/black.
- 9533FXWL03: ass. 3x2.5mm TH07 cable, SHUKO plug, MENAC3FXW socket, L.3m.
- 9513FXWL03: ass. 3x2.5mm TH07 cable, 16A 3p 230V CEE plug, MENAC3FXW socket, L.3 m.
- 958225L03: 3x2.5mm TH07 Cable, 16A 3p PwCon MXW, 16A 3p PwCon FXW, L. 3m.
- TOUR53415L03: dmx cable HC5340. CANC5MX XLR 5p->CANC5FXX XLR (f) 5p, L.3m.
- LRAURORA: single Universe DMX/RDM transceiver with WiFi and Bluetooth.
- LRLUNA: single Universe DMX transceiver with Bluetooth
- UPBOX2P5: firmware uploader kit, USB IN, 5-pin XLR DMX OUT.

2 - TECHNICAL DRAWING

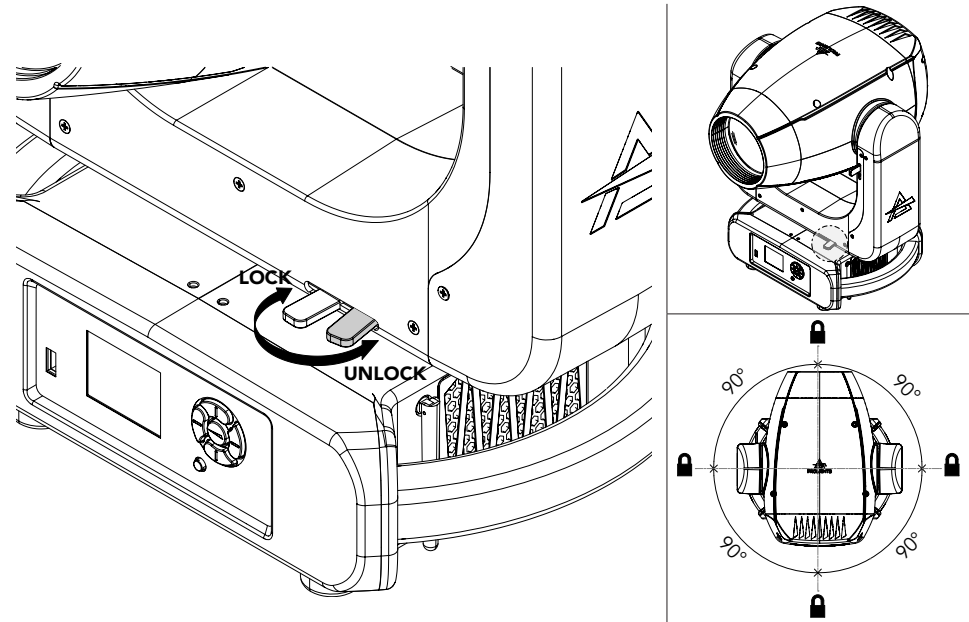


Weight: 22 kg - 48,50 lbs

Fig. 01

3 - PAN AND TILT LOCK

PAN Mechanism lock and release



TILT Mechanism lock and release

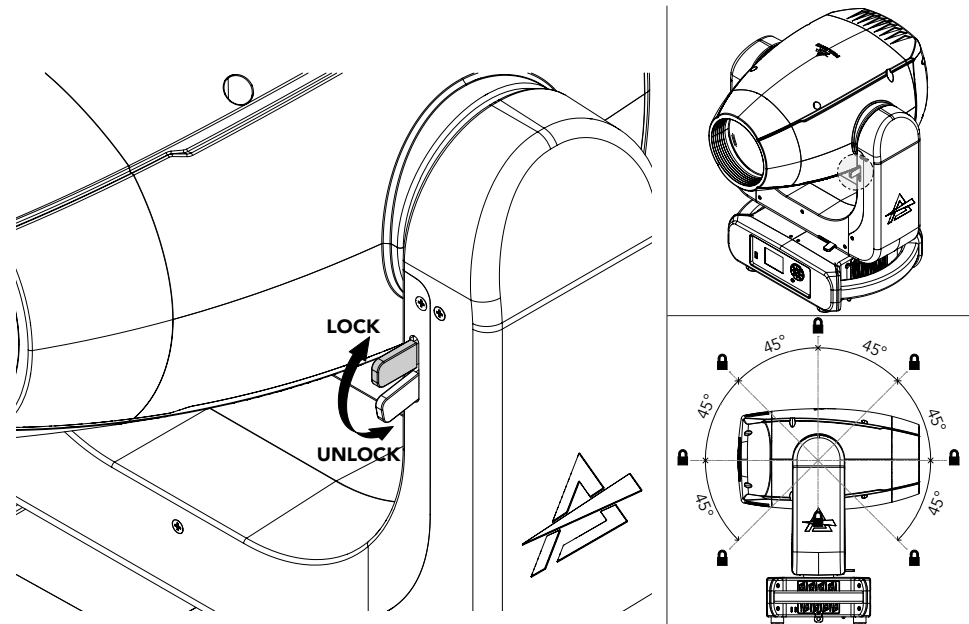


Fig. 02

4 - 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.

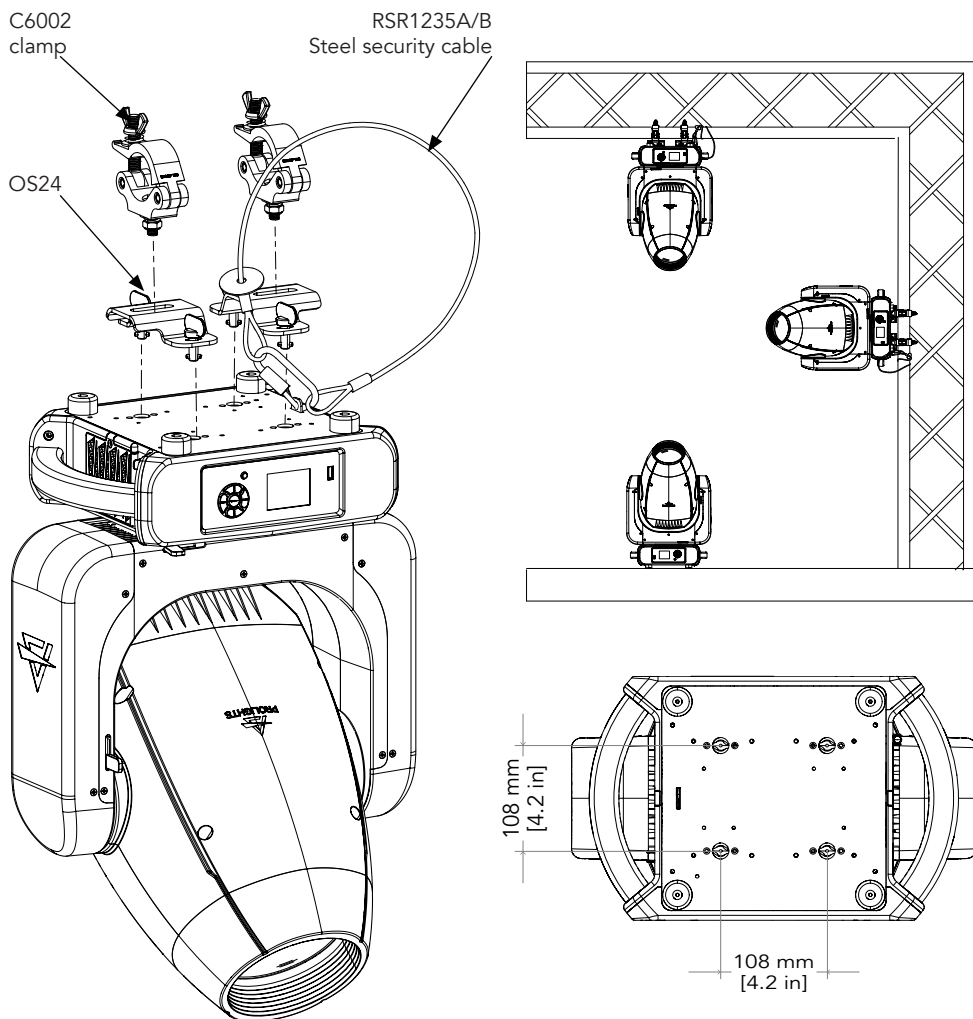



Fig.03

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.
The max power consumption is 517W.

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

6 - 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.

7 - PRODUCT OVERVIEW

1. USB PORT for quick firmware upgrade.
2. USER INTERFACE with display and buttons for access to the control panel functions.
3. PAN Mechanism lock and release.
4. TILT Mechanism lock and release.
5. ANTENNA of Wireless DMX Receiver internal module.
6. ETHERCON CONNECTORS IN / OUT signal.
7. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
8. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
9. SAFETY EYE to attach safety cable.
10. POWER OUT: power output for connection of multiple units in series.
11. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
12. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T8A 250V).

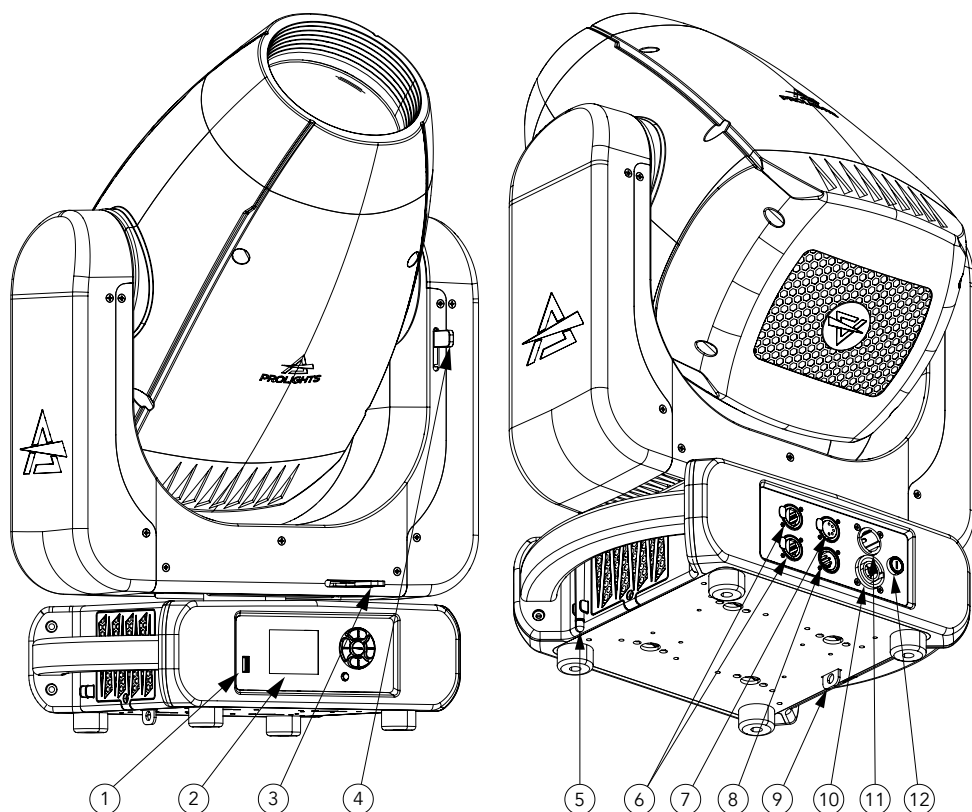


Fig 04

8 - 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
- Pin3 : + Signal
- Pin4 : N/C
- Pin5 : N/C

DMX - OUTPUT XLR socket

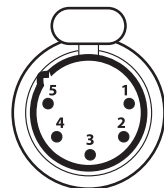


Fig. 05

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:

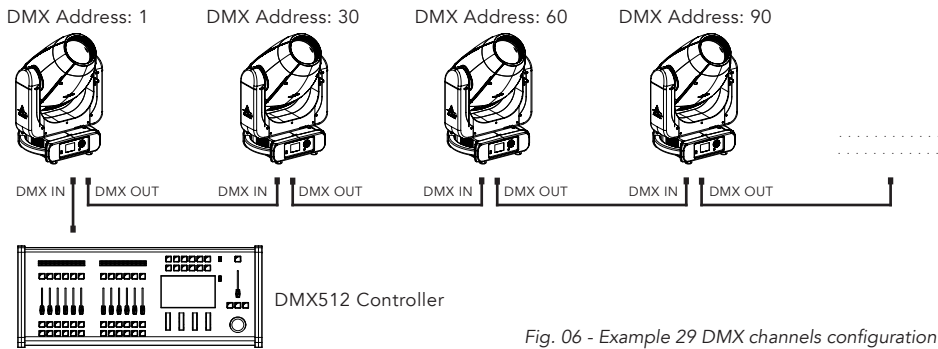


Fig. 06 - Example 29 DMX channels configuration

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.

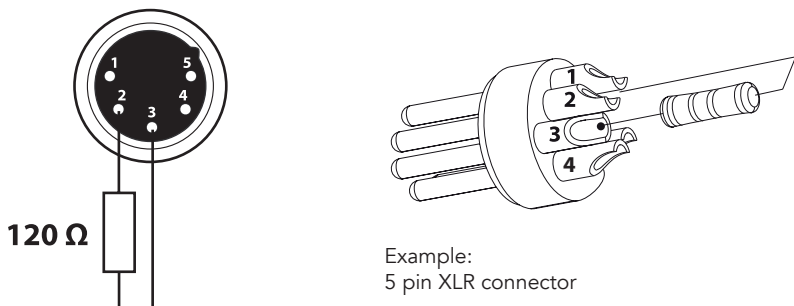


Fig. 07

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 ENTER 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 the navigation arrows/buttons and confirm by pressing ENTER.
4. Press Menu to exit and return to the Home screen.

ETHERNET CONNECTION

The products is provided with two 8-pin RJ-45 sockets for Ethernet input/output for a simple daisy chain connection to the network.

The product can be controlled with ArtNet/sACN/Klingnet communication protocol.

Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs.

ETHERNET OPERATION

Please refer to the section MENU STRUCTURE contained in this document for detailed informations about the parameters of setting on the fixture (Protocol, Net, Subnet, Universe, Start Channel and IP Address, Ethernet to DMX No/Yes).

- IP addresses recommended: 002.xxx.xxx.xxx or 010.xxx.xxx.xxx.
- The submask net is fixed at 255.0.0.0.

ETHERNET TO DMX OPERATIONS

Please refer to the section MENU STRUCTURE contained in this document for detailed informations. This function allows a product receiving an ethernet signal protocol to re-transmit the incoming signal onto a wired DMX line through its onboard XLR-out connector.

- An Ethernet protocol (Artnet, sACN or others available) has to be enabled from Ethernet menu at first fixture. **Please make sure that wireless receiver is switched to OFF if you use Ethernet communication.**
- Enable the option Ethernet To DMX choosing which fixture needs to be retransmitted (Main Fixture or Pixel Engine) from the Ethernet menu at the first product (connected to the Ethernet) in the signal chain, next products have standard DMX setting.
- Connect the Ethernet input of the first product in the data chain with the network. Connect the DMX output of this product with the input of the next product until all products are connected to the DMX chain.
- Caution: At the last product, the DMX chain has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (-) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last product.

OPERATION AS A WIRELESS TRANSMITTER

ASTRAHYB330 can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use ASTRAHYB330 as wireless transmitter, please follow the procedure below:

1. Push ENTER button until you show CONNECT on display, then press ENTER button to confirm.
 2. Use UP/DOWN buttons to select WIRELESS, then press ENTER to confirm.
 3. Push ENTER button on WDMX ON/OFF function and enable it to ON.
 4. Select WDMX mode and set it on Transmitter (please note that WDMX mode will be available only if WDMX ON/OFF is set to ON).
 5. Ensure that the receiver units are not connected to any other transmitter. Please refer to "Reset the receiver" paragraph.
 6. Enable TX LINK to ON to link transmitter to receivers (please note that TX LINK will be available only if WDMX mode is set to Transmitter).
- The transmitter scans for all unlinked receivers for a period of about 5 seconds.
 - If the connection fails, check the position of the receiver.
 - The wireless icon on the receiver display indicates the received signal strength.

Unlinking the transmitter

Follow the procedure below to unlink the transmitter from all receivers connected with the unit.

1. Push ENTER button until you show CONNECT on display, then press ENTER button to confirm.
 2. Use UP/DOWN buttons to select Wireless, then press ENTER to confirm.
 3. Enable TX UNLINK to ON 8 (please note that TX UNLINK will be available only if WDMX mode is set to Transmitter).
- All connected receivers will be unlinked.

IN TO WDMX

This function enables or disables the transmission through wireless of the DMX signal from the transmitter side to the receiver.

Any incoming signal (ArtNet, sACN or DMX) is retransmitted through wireless. It's possible to choose retransmission of Main Fixture or Pixel Engine.

If the ASTRAHYB330 protocol selected is ArtNet / sACN, the WDMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the ASTRAHYB330.

NOTE: Artnet and sACN have higher priority on DMX if they are connected to transmitter.

NOTE: Do not use IN TO WDMX and ETH TO DMX simultaneously, this will cause data conflict on DMX output signal.

OPERATION AS A WIRELESS RECEIVER

ASTRAHYB330 can be used as wireless receiver connected to a wireless transmitter.

To use ASTRAHYB330 as wireless receiver, please follow the procedure below:

1. Push ENTER button until you show CONNECT on display, then press ENTER button to confirm.
2. Use UP/DOWN buttons for select Wireless, then press ENTER to confirm.
3. Push ENTER button on WDMX ON/OFF function and enable it to ON.
4. Select WDMX mode and set it on Receiver (please note that WDMX mode will be available only if WDMX ON/OFF is set to ON).
5. Enable RX RESET to ON to reset the receiver (please note that RX RESET will be available only if WDMX mode is set to Receiver).
6. On the transmitter, enable TX LINK to ON to link transmitter to the receivers.
7. If the connection is successful and DMX input is available the display on the receiver unit will show the DMX address. If DMX signal is not available, the display will show "No signal" but keeps the transmitter linked.
8. If the connection fails, check the position of the receiver.
9. The wireless icon on the receiver display indicates the received signal strength.

Reset the receiver

Follow the procedure below to reset the receiver.

1. Push MENU button until you show CONNECT on display, then press ENTER button to confirm.
 2. Use UP/DOWN buttons for select Wireless, then press ENTER to confirm.
 3. Enable RX RESET to ON.
- The wireless icon on the receiver display indicates the received signal strength.

WDMX TO DMX (RX)

This function enable or disable the retransmission of the wireless DMX signal received through the DMX port on the receiver side.

9 - CONTROL PANEL

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

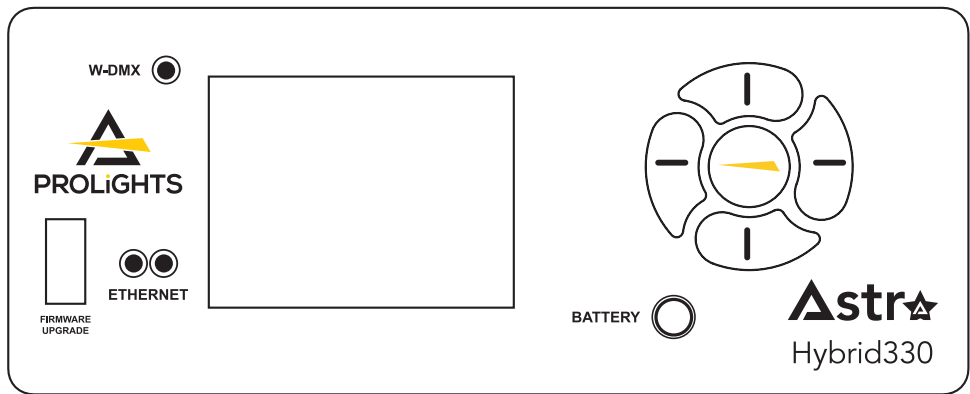
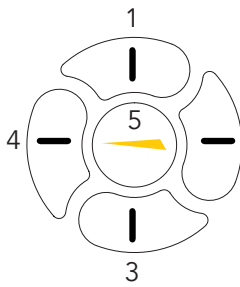











Fig. 08

DISPLAY AND BUTTONS LAYOUT

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

	1		<ul style="list-style-type: none">Browse upwards through the menu list and increases the numeric value displayed.
	2		<ul style="list-style-type: none">Scroll from left to right when entering numerical values, switching between hundreds, tens and units
	3		<ul style="list-style-type: none">Browse downwards through the menu list and decreases the numeric value displayed.
	4		<ul style="list-style-type: none">Return to the top level, or scroll from right to left when entering numerical values, switching between units, tens and hundreds
	5		<ul style="list-style-type: none">Used to confirm the displayed value, or activate the displayed function or to access the menu tree or to return a previous menu window.
		<ul style="list-style-type: none">Switch on the display using backup battery. Hold for 5s.Switch off display by pressing button 4 for 5s while on being on Home screen.	
		<ul style="list-style-type: none">LED indicator for Wireless dmx (color red and green).	
		<ul style="list-style-type: none">LED indicator for Ethernet network.(color orange).	
		<ul style="list-style-type: none">USB port for Firmware Upgrade.	

10 - MENU STRUCTURE

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

1	CONNECT	ADDRESS	DMX	VALUE (1-512)		Set address used for Fixture and for Pixel patch.
			W-DMX			
			sACN			
			ARTNET			
		DMX MODE	STANDARD			Set DMX chart for Main Fixture.
		WIRELESS	WDMX ON/OFF	ON/OFF		Enable/Disable the wireless card.
			WDMX MODE	TRANSMITTER/ RECEIVER		Allows to choose whether to set the wireless on the Transmitter or Receiver. WDMX mode is unlocked only if WDMX ON / OFF is ON.
			TX LINK	ON/OFF		TX link unlock when the unit is set as a transmitter.
			TX UNLINK	ON/OFF		Disconnect the transmitter from all receivers. TX unlink unlocks only if WDMX mode is on transmitter.
			RX RESET	ON/OFF		Total reset of the receiver. RX reset unlocks only if WDMX mode is receiver.
			IN TO WDMX (TX)	ON/OFF		Enable/Disable the transmission of the DMX values via wdmx.
			WDMX TO DMX (RX)	ON/OFF		Enable/Disable the retransmission of the DMX from the receiver to the other units connected by cable to the receiver itself.
		ETHERNET SETTING	ARTNET SETTINGS	IP ADDRESS		Set IP address of the fixture.
				NET		Set Net for ArtNet protocol (Default 0).
				SUBNET		Set Subnet for ArtNet protocol (Default 0).
				UNIVERSE		Set Universe for ArtNet protocol (Default 0).
			sACN SETTINGS	IP ADDRESS		Set IP address of the fixture.
				UNIVERSE		Set Universe for sACN protocol (Default 0).
				MERGE MODE	OFF/ HTTP/LTP	Set Merge Mode for sACN protocol.
			ETHERNET TO DMX	ON		Enable / Disable DMX retransmission from sACN/ArtNet signal to DMX out port.
				OFF		
2	SET UP	SCREEN	BACKLIGHT	ON/ 10S /20S/30S		Allows you to select the timing after that display will switch automatically off when unactive.

MOVEMENT	FLIP DISPLAY	ON/OFF/ AUTO		Allows you to rotate the display by 180°.
	KEY LOCK	ON/ OFF		Allows you lock the buttons on the control panel by a password. Press following combinations (password) in order to access to the user menu : UP, DOWN, UP, DOWN.
	PAN REVERSE	ON/ OFF		Allows you to reverse Pan movement.
	TILT REVERSE	ON/ OFF		Allows you to reverse Tilt movement.
	PAN/TILT FEEDBACK	ON /OFF		To activate / deactivate the reading of the feedbacks given by the encoders.
	MOVEMENT BLACKOUT	ON/ OFF		Make fixture goes blackout OFF while moving.
	HOME POSITION	STANDARD		To choose the home position.
		CUSTOM		
	CUSTOM P DEGREE	0°		To choose pan values in case of Custom position.
		45°		
		90°		
		135°		
		180°		
		225°		
		270°		
		315°		
	CUSTOM T DEGREE	0%		To choose tilt values in case of Custom position.
		12.5%		
		25%		
		50%		
		75%		
		87.5%		
		100%		
FIXTURE SETTINGS	FAN MODE	AUTO /SILENT/HIGH		Select Fan behaviour.
	COLOR WHEEL BLACKOUT	ON/ OFF		To set Gobo Wheel Movement in blackout mode.
	COLOR WHEEL MODE	STEP		To set Color Wheel Movement scrolling mode.
		COUNTINUOUS		
	GOBO WHEEL BLACKOUT	ON/ OFF		To set Gobo Wheel Movement scrolling mode.

3	AD- VANCED		GOBO WHEEL MODE	STEP		<i>To set Gobo Wheel Movement scrolling mode.</i>
				COUNTINUOUS		
			DMX FAULT	HOLD/BLACKOUT		<i>To choose the behaviour of fixture in case of dmx signal lost.</i>
			STATUS LED	ON/OFF		<i>To turn the status LEDs on the front panel on or off.</i>
			DIMMER CURVE	LINEAR/S-CURVE/ SQUARE LAW/ IN- VERSE SQUARE LAW		<i>Select different curve behaviour of dimmer.</i>
			DIMMER SPEED	AUTO/FAST/MEDIUM/ SLOW		<i>Linear dimmer behaviour. Dimmer curve adding long fade. Dimmer curve adding medium fade. Dimmer curve adding little fade.</i>
			LED FREQUENCY	600HZ/ 1200 HZ/2000 HZ/4000 HZ/6000HZ/25KHZ/ 50KHz		<i>Select PWM frequency.</i>
			INVERT ZOOM	ON/OFF		<i>Invert zoom values.</i>
			TRANSFER CONFIGURATION	WITHOUT DMX ADDRESS		<i>To transfer the same menu settings of one fixtures to all the other in the daisy chain, including or not the dmx address.</i>
				WITH DMX ADDRESS		
		RESET	ALL			<i>To reset these functions.</i>
			PAN & TILT			
			...			
		CALIBRA- TION	PASSWORD			
			PAN			
			...			
			ZOOM			
			FOCUS			
			GOBO 1	FOCUS		
			...			
			GOBO 8	FOCUS		
			GOBO 1	INDEX		
			...			
			GOBO 8	INDEX		
			...			
			ENCODER RESET	Clean values in encod- er pcb		
		MANUAL CONTROL	PAN			<i>For manual control of the unit.</i>
			...			

		RELOAD DEFAULT	BASIC RELOAD	YES/NO		Default of all parameters excepted Calibration (both User and Factory)
			FACTORY RELOAD	YES/NO		Default of all parameters. User Calibration parameters need to be overwritten by Factory calibration. Factory reload password: 050.
4	INFORMATION	FIXTURE TIME	FIXTURE HOURS	TOTAL	(READ)	To check the total working hours of the unit. Reset password: 050.
				PARTIAL	(READ AND RESET)	
		CURRENT HOURS	TOTAL	(READ AND RESET)		To check the current working hours of the unit. Reset password: 050.
				PARTIAL	(READ AND RESET)	
		SOURCE HOURS	TOTAL	(READ)		To see the total operating hours of the LED source. Reset password: 050.
				PARTIAL	(READ AND RESET)	
		POWER ON CYCLE	TOTAL	(READ)		To see the power cycles of the machine. Reset password: 050.
				PARTIAL	(READ AND RESET)	
		MAINTENANCE TIME	ELAPSED TIME	(READ AND RESET)		To choose and reset unit maintenance warning hours (Default: 500). Default: 500.
				ALERT PERIOD	10 – 750	
		TEMPERATURE	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,...			To see the unit temperature.
		FAN SPEED	NEAR SOURCE FAN, BASE FAN,...			To see the speed of the fans.
		WIRELESS QUALITY				To check the wireless quality.
		CHANNEL VALUE	PAN...			To see the dmx value of those channels.
		ERROR MESSAGE	PAN, TILT...			To see any error messages.
		FIXTURE MODEL	XXXXXXXXXX			View informations about fixture model.
		RDM UID	(READ)			View ID for the RDM control.
		SOFTWARE VERSION	1U01 V1.0.00...			View informations about software version.

11 - SHORTCUT

Keys	Mode	Description
UP + DOWN after power on	Flip Display	Directly flip display without enter inside menu
DOWN then power on	Reset without pan/tilt movements	Fixture will be powered on without reset on pan/tilt movements
ENTER + UP then power on	Bootloader	Force firmware upgrade
RIGHT + ENTER inside RDM menu	EDIT RDM number	EDIT RDM number

12 - 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.

RDM is also available on Wireless. WDMX Tiny's Downstream must be enabled in its custom PIDs to work.

Category	RDM Parameter ID's	Value	GET Allowed	SET Allowed
<i>Product Information</i>	DEVICE_INFO	0x0060	x	
	PRODUCT_DETAIL_ID_LIST	0x0070	x	
	DEVICE_MODEL_DESCRIPTION	0x0080	x	
	MANUFACTURER_LABEL	0x0081	x	
	DEVICE_LABEL	0x0082	x	x
	FACTORY_DEFAULTS	0x0090	x	x
	SOFTWARE_VERSION_LABEL	0x00C0	x	
	BOOT_SOFTWARE_VERSION_ID	0x00C1	x	
<i>DMX512 Setup</i>	BOOT_SOFTWARE_VERSION_LABEL	0x00C2	x	
	DMX_PERSONALITY	0x00E0	x	x
	DMX_PERSONALITY_DESCRIPTION	0x00E1	x	
	DMX_START_ADDRESS	0x00F0	x	x
	SLOT_INFO	0x0120	x	
	SLOT_DESCRIPTION	0x0121	x	
	DEFAULT_SLOT_VALUE	0x0122	x	
	DMX_BLOCK_ADDRESS	0x0140	x	x
<i>Dimmer Settings</i>	DMX_FAIL_MODE	0x0141	x	x
	DMX_STARTUP_MODE	0x0142	x	x
	DIMMER_INFO	0x0340	x	
	MINIMUM_LEVEL	0x0341	x	x
	MAXIMUM_LEVEL	0x0342	x	x
	CURVE	0x0343	x	x
	CURVE_DESCRIPTION	0x0344	x	x
	OUTPUT_RESPONSE_TIME	0x0345	x	x
<i>Sensors</i>	OUTPUT_RESPONSE_TIME_DESCRIPTION	0x0346	x	
	MODULATION_FREQUENCY	0x0347	x	x
	MODULATION_FREQUENCY_DESCRIPTION	0x0348	x	
	SENSOR_DEFINITION	0x0200	x	
	SENSOR_VALUE	0x0201	x	x
	RECORD_SENSORS	0x0202		x
	BURN_IN	0x0440	x	x

Category	RDM Parameter ID's	Value	GET Allowed	SET Allowed
Power/Lamp Settings	DEVICE_HOURS	0x0400	x	x
	LAMP_HOURS	0x0401	x	x
	LAMP_STRIKES	0x0402	x	x
	LAMP_STATE	0x0403	x	x
	LAMP_ON_MODE	0x0404	x	x
	DEVICE_POWER_CYCLES	0x0405	x	x
Display Settings	DISPLAY_INVERT	0x0500	x	x
	DISPLAY_LEVEL	0x0501	x	x
Configuration	PAN_INVERT	0x0600	x	x
	TILT_INVERT	0x0601	x	x
	PAN_TILT_SWAP	0x0602	x	x
	REAL_TIME_CLOCK	0x0603	x	x
	LOCK_PIN	0x0640	x	x
	LOCK_STATE	0x0641	x	x
	LOCK_STATE_DESCRIPTION	0x0642	x	
Control	IDENTIFY_DEVICE	0x1000	x	x
	RESET_DEVICE	0x1001		x
	POWER_STATE	0x1010	x	x
	PERFORM_SELFTEST	0x1020	x	x
	SELF_TEST_DESCRIPTION	0x1021	x	
	CAPTURE_PRESET	0x1030	x	x
	PRESET_PLAYBACK	0x1031	x	x
	IDENTIFY_MODE	0x1040	x	x
	PRESET_INFO	0x1041	x	
	PRESET_STATUS	0x1042	x	x
	PRESET_MERGEMODE	0x1043	x	x
IP & DNS Configuration	POWER_ON_SELF_TEST	0x1044	x	x
	IPV4_CURRENT_ADDRESS	0x0705	x	
	IPV4_STATIC_ADDRESS	0x0706	x	x

13 - DMX CHARTS

RDM Personality ID List		
ID	Mode	DMX Footprint
1	STANDARD	29

RDM Model ID
0xA024

PAN/TILT VALUES

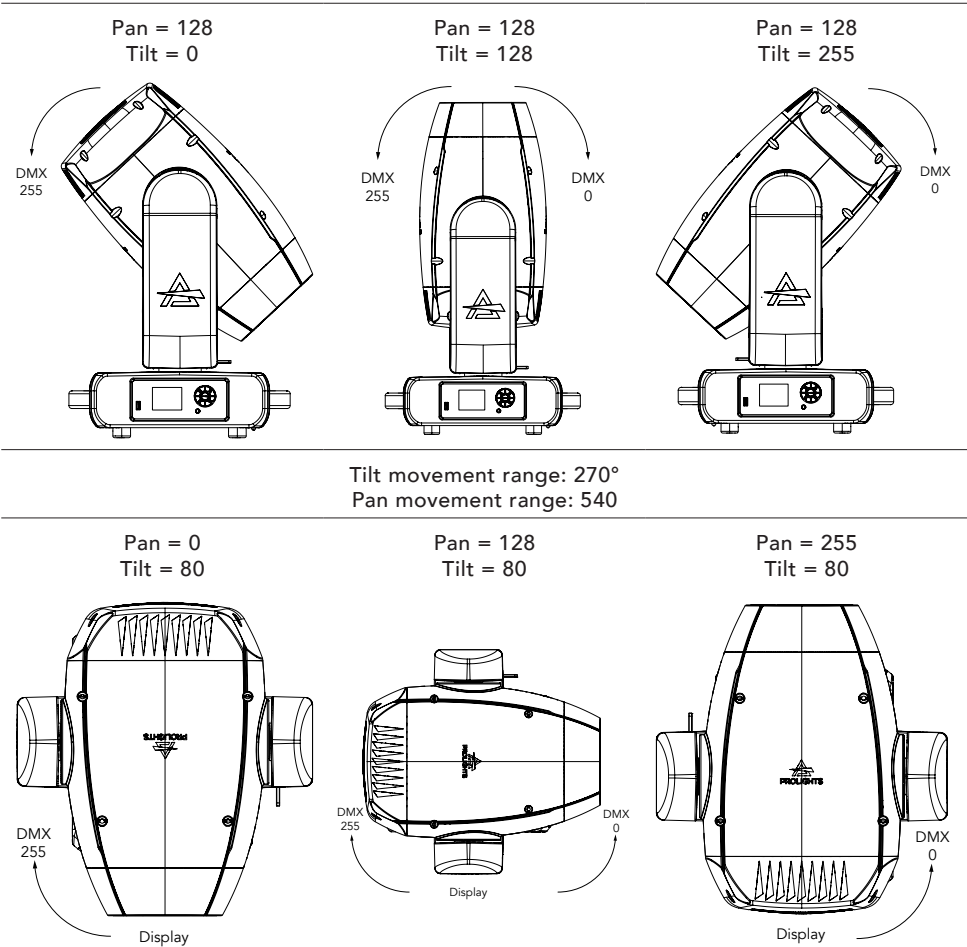


Fig. 09

DMX Chart Summary	
Channel	STANDARD
1	Pan
2	Pan fine
3	Tilt
4	Tilt fine
5	Dimmer
6	Dimmer Fine
7	Shutter
8	Cyan
9	Magenta
10	Yellow
11	Color Wheel 1
12	Color Wheel 2
13	Color Wheel 3
14	Rot Gobo
15	Gobo Rot
16	Gobo Rot Fine
17	Fixed Gobo
18	Prism 1
19	Prism 1 Rotation
20	Prism 2
21	Prism 2 Rotation
22	Frost
23	Zoom
24	Zoom Fine
25	Focus
26	Focus Fine
27	Animation Insertion
28	Animation Rotation
29	Control

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
1	Pan	Lineary from 0% to 100%	0	255	128
2	Pan fine	Lineary from 0% to 100%	0	255	128
3	Tilt	Lineary from 0% to 100%	0	255	128
4	Tilt fine	Lineary from 0% to 100%	0	255	128
5	Dimmer	Lineary from close to open	0	255	000
6	Dimmer Fine	Lineary from close to open	0	255	000
7	Shutter	Close	0	1	255
		Strobe from slow to fast	2	62	
		Open	63	64	
		Pulse in from slow to fast	65	125	
		Open	126	127	
		Pulse out from slow to fast	128	188	
		Open	189	190	
		Randon from slow to fast	191	251	
		Open	252	255	
8	Cyan	Lineary from 0% to 100%	0	255	000
9	Magenta	Lineary from 0% to 100%	0	255	000
10	Yellow	Lineary from 0% to 100%	0	255	000
11	Color Wheel 1	Indexed			000
		Open	0	20	
		Open + HIGH CRI >90	21	41	
		HIGH CRI >90	42	62	
		HIGH CRI >90 + CTO 3200K	63	83	
		CTO 3200K	84	104	
		CTO 3200K + CTO 2400K	105	125	
		CTO 2400K	126	146	
		CTO 2400K + CYAN	147	167	
		Forward Spin			
		From fast to slow	168	210	
		Stop			
		Stop	211	212	
		Reverse Spin			
		From slow to fast	213	255	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
12	Color Wheel 2	Indexed			000
		Open	0	20	
		Open + LAVANDER	21	41	
		LAVANDER	42	62	
		LAVANDER + DARK BLUE	63	83	
		DARK BLUE	84	104	
		DARK BLUE + DARK RED	105	125	
		DARK RED	126	146	
		DARK RED + MAGENTA	147	167	
		Forward Spin			
		From fast to slow	168	210	
		Stop			
		Stop	211	212	
		Reverse Spin			
		From slow to fast	213	255	
13	Color Wheel 3	Indexed			000
		Open	0	20	
		Open + LIGHT GREEN	21	41	
		LIGHT GREEN	42	62	
		LIGHT GREEN + PINK	63	83	
		PINK	84	104	
		PINK + LIGHT ORANGE	105	125	
		LIGHT ORANGE	126	146	
		LIGHT ORANGE + YELLOW	147	167	
		Forward Spin			
		From fast to slow	168	210	
		Stop			
		Stop	211	212	
		Reverse Spin			
		From slow to fast	213	255	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
14	Rot Gobo	Indexed			000
		Open	0	9	
		GOBO 1	10	19	
		GOBO 2	20	29	
		GOBO 3	30	39	
		GOBO 4	40	49	
		GOBO 5	50	59	
		GOBO 6	60	69	
		GOBO 7	70	79	
		GOBO 8	80	89	
		Forward Spin			
		From fast to slow	90	131	
		Stop			
		Stop	132	132	
		Reverse Spin			
		From slow to fast	133	174	
		Shake			
		GOBO 1 from slow to fast	175	184	
		GOBO 2 from slow to fast	185	194	
		GOBO 3 from slow to fast	195	204	
		GOBO 4 from slow to fast	205	214	
		GOBO 5 from slow to fast	215	224	
		GOBO 6 from slow to fast	225	234	
		GOBO 7 from slow to fast	235	244	
		GOBO 8 from slow to fast	245	255	
15	Gobo Rot	Indexed			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
16	Gobo Rot Fine	From slow to fast	193	255	000
		Lineary from 0° to 360° (Indexed)	0	255	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
17	Fixed Gobo	Indexed			000
		Open	0	5	
		GOBO 1	6	11	
		GOBO 2	12	17	
		GOBO 3	18	23	
		GOBO 4	24	29	
		GOBO 5	30	35	
		GOBO 6	36	41	
		GOBO 7	42	47	
		GOBO 8	48	53	
		GOBO 9	54	59	
		GOBO 10	60	65	
		GOBO 11	66	75	
		Forward Spin			
		From fast to slow	76	127	
		Stop			
		Stop	128	129	
		Reverse Spin			
		From slow to fast	130	181	
		Shake			
		GOBO 1 from slow to fast	182	187	
		GOBO 2 from slow to fast	188	193	
		GOBO 3 from slow to fast	194	199	
		GOBO 4 from slow to fast	200	205	
		GOBO 5 from slow to fast	206	211	
		GOBO 6 from slow to fast	212	217	
		GOBO 7 from slow to fast	218	223	
		GOBO 8 from slow to fast	224	229	
		GOBO 9 from slow to fast	230	235	
		GOBO 10 from slow to fast	236	241	
		GOBO 11 from slow to fast	242	255	
18	Prism 1	Open	0	127	000
		Prism insert	128	255	
19	Prism 1 Rotation	Indexed			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
20	Prism 2	From slow to fast	193	255	000
		Open	0	127	
		Prism insert	128	255	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
21	Prism 2 Rotation	Indexed			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
22	Frost	From slow to fast	193	255	000
		Continuous			
23	Zoom	Lineary from 0% to 100%	0	255	000
24	Zoom Fine	Lineary from in to out	0	255	000
25	Focus	Lineary from in to out	0	255	000
26	Focus Fine	Lineary from in to out	0	255	000
27	Animation Insertion	Continuous			000
		Lineary from 0% to 100%	0	255	
28	Animation Rotation	Indexed			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
29	Control	From slow to fast	193	255	000
		No Function/Safe	0	1	
		PAN REVERSE ON	2	3	
		PAN REVERSE OFF	4	5	
		TILT REVERSE ON	6	7	
		TILT REVERSE OFF	8	9	
		PAN/TILT MODE FAST	10	11	
		PAN/TILT MODE MEDIUM	12	13	
		PAN/TILT MODE SLOW	14	15	
		MOVEMENT IN BLACKOUT ON	16	17	
		MOVEMENT IN BLACKOUT OFF	18	19	
		COLOR WHEEL 1 BLACKOUT ON (index)	20	21	
		COLOR WHEEL 1 BLACKOUT OFF (index)	22	23	
		COLOR WHEEL 2 BLACKOUT ON (index)	24	25	
		COLOR WHEEL 2 BLACKOUT OFF (index)	26	27	
		COLOR WHEEL 3 BLACKOUT ON (index)	28	29	
		COLOR WHEEL 3 BLACKOUT OFF (index)	30	31	
		ROTATING GOBO WHEEL BLACKOUT ON (index)	32	33	
		ROTATING GOBO WHEEL BLACKOUT OFF (index)	34	35	
		FIXED GOBO WHEEL BLACKOUT ON (index)	36	37	
		FIXED GOBO WHEEL BLACKOUT OFF (index)	38	39	
		COLOR WHEEL 1 CONTINUOUS MOVEMENT (index)	40	41	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		COLOR WHEEL 1 STEP MOVEMENT (index)	42	43	
		COLOR WHEEL 2 CONTINUOUS MOVEMENT (index)	44	45	
		COLOR WHEEL 2 STEP MOVEMENT (index)	46	47	
		COLOR WHEEL 3 CONTINUOUS MOVEMENT (index)	48	49	
		COLOR WHEEL 3 STEP MOVEMENT (index)	50	51	
		ROTATING GOBO WHEEL CONTINUOUS MOVEMENT (index)	52	53	
		ROTATING GOBO WHEEL STEP MOVEMENT (index)	54	55	
		FIXED GOBO WHEEL CONTINUOUS MOVEMENT (index)	56	57	
		FIXED GOBO WHEEL STEP MOVEMENT (index)	58	59	
		HOME MODE STANDARD	60	61	
		HOME MODE CUSTOM	62	63	
		DISPLAY ON	64	65	
		DISPLAY 10S	66	67	
		DISPLAY 20S	68	69	
		DISPLAY 30S	70	71	
		FLIP DISPLAY ON	72	73	
		FLIP DISPLAY OFF	74	75	
		FLIP DISPLAY AUTO	76	77	
		KEY LOCK ON	78	79	
		KEY LOCK OFF	80	81	
		FAN MODE AUTO	82	83	
		FAN MODE SILENT	84	85	
		FAN MODE HIGH	86	87	
		NO SIGNAL HOLD	88	89	
		NO SIGNAL BLACKOUT	90	91	
		STATUS LED ON	92	93	
		STATUS LED OFF	94	95	
		DIMMER CURVE LINEAR	96	97	
		DIMMER CURVE S-CURVE	98	99	
		DIMMER CURVE SQUARE LAW	100	101	
		DIMMER CURVE INVERSE SQUARE LAW	102	103	
		DIMMER SPEED AUTO	104	105	
		DIMMER SPEED FAST	106	107	
		DIMMER SPEED MEDIUM	108	109	
		DIMMER SPEED SLOW	110	111	
		LED FREQUENCY 600HZ	112	113	
		LED FREQUENCY 1200HZ	114	115	
		LED FREQUENCY 2000HZ	116	117	
		LED FREQUENCY 4000HZ	118	119	
		LED FREQUENCY 6000HZ	120	121	
		LED FREQUENCY 25KHZ	122	123	
		LED FREQUENCY 50KHZ	124	125	
		INVERT ZOOM OFF	126	127	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		INVERT ZOOM ON	128	129	
		RESET ALL	130	131	
		RESET PAN/TILT	132	133	
		RESET PAN	134	135	
		RESET TILT	136	137	
		RESET COLOR 1	138	139	
		RESET COLOR 2	140	141	
		RESET COLOR 3	142	143	
		RESET ROTATING GOBO	144	145	
		RESET GOBO ROTATION	146	147	
		RESET FIXED GOBO	148	149	
		RESET ZOOM	150	151	
		RESET FOCUS	152	153	
		RESET ANIMATION	154	155	
		RESET 6F PRISM	156	157	
		RESET 8F PRISM	158	159	
		RESET FROST	160	161	
		RESET OTHER	162	163	
		Reserved	164	165	
		Reserved	166	167	
		Reserved	168	169	
		Reserved	170	171	
		Reserved	172	173	
		Reserved	174	175	
		Reserved	176	177	
		Reserved	178	179	
		Reserved	180	181	
		Reserved	182	183	
		Reserved	184	185	
		Reserved	186	187	
		Reserved	188	189	
		Reserved	190	191	
		Reserved	192	193	
		Reserved	194	195	
		Reserved	196	197	
		Reserved	198	199	
		Reserved	200	201	
		Reserved	202	203	
		Reserved	204	205	
		Reserved	206	207	
		Reserved	208	209	
		Reserved	210	211	
		Reserved	212	213	
		Reserved	214	215	
		Reserved	216	217	
		Reserved	218	219	
		Reserved	220	221	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		Reserved	222	223	
		Reserved	224	225	
		Reserved	226	227	
		Reserved	228	229	
		Reserved	230	231	
		Reserved	232	233	
		Reserved	234	235	
		Reserved	236	237	
		Reserved	238	239	
		Reserved	240	241	
		Reserved	242	243	
		Reserved	244	245	
		Reserved	246	247	
		Reserved	248	249	
		Reserved	250	251	
		Reserved	252	253	
		FACTORY DEFAULT OF CONTROL FUNCTIONS	254	255	

14 - FIXED GOBOS WHEEL

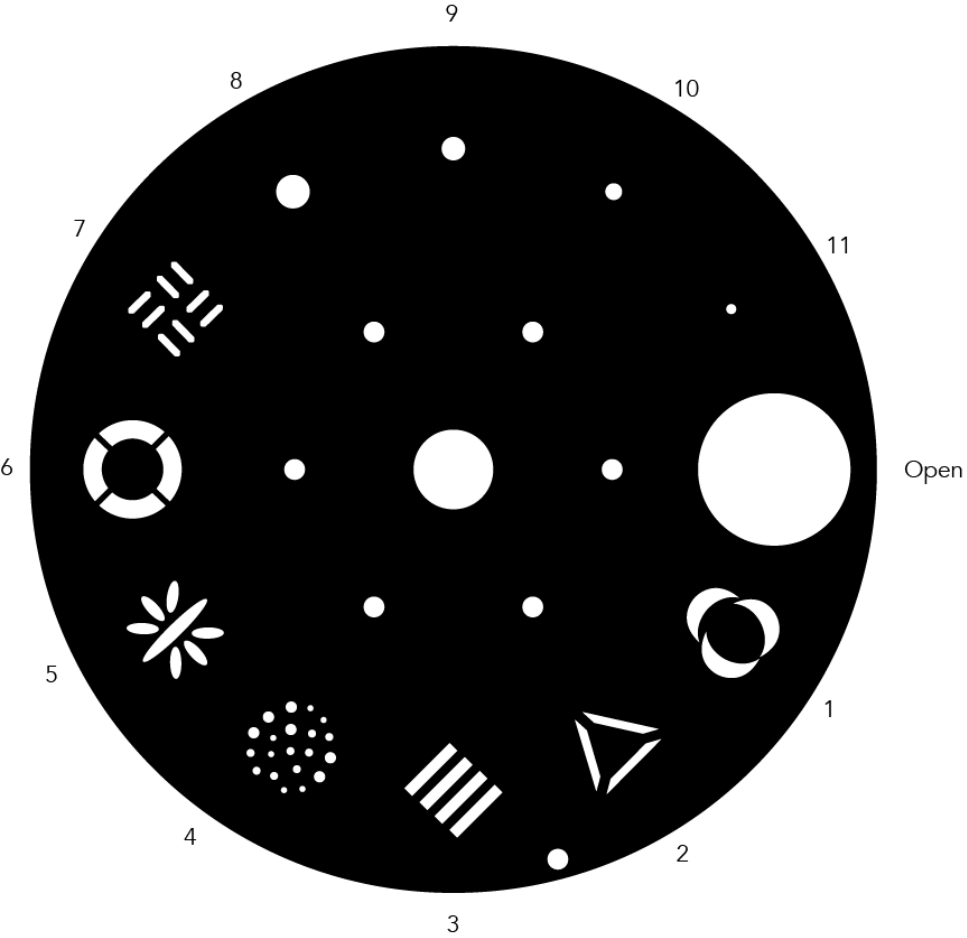
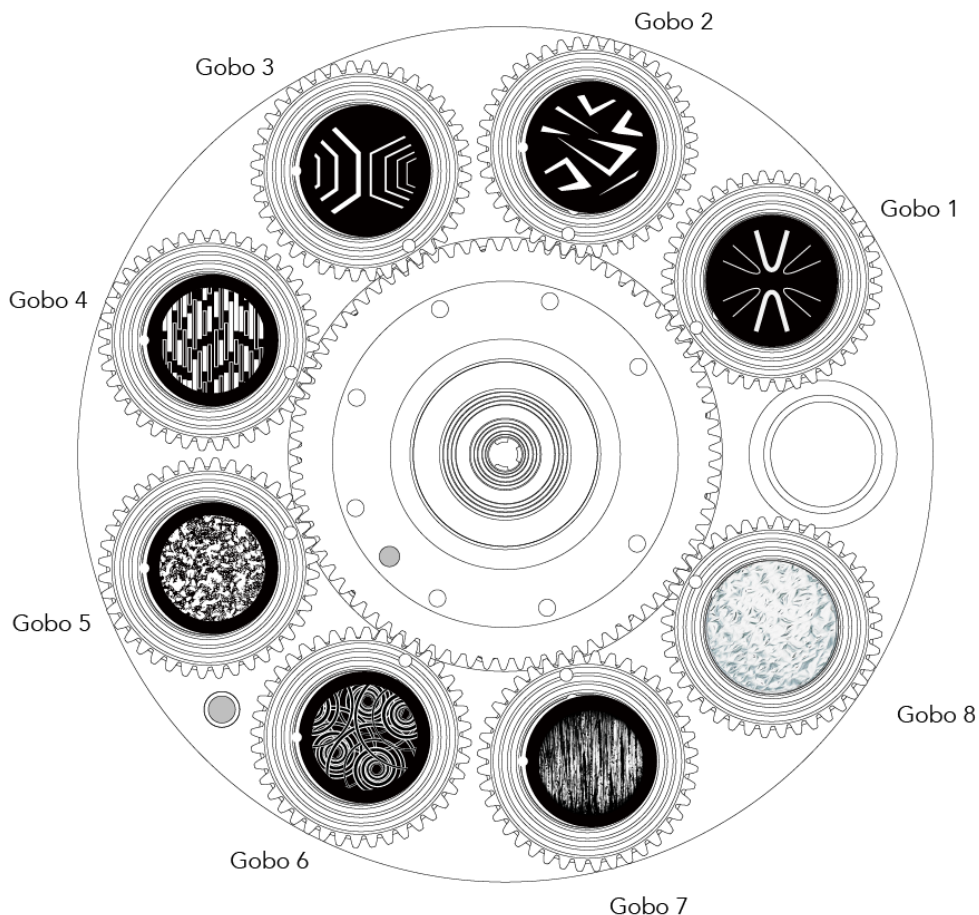
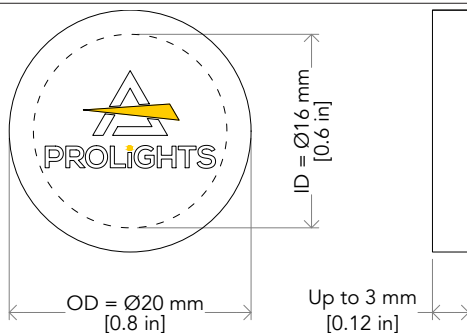


Fig. 10

15 - ROTATING GOBOS WHEEL

Gobo dimensions:

- Type B
- \varnothing external (OD)= 20 mm
- \varnothing of image (ID)= 16 mm
- Thickness= up to 3 mm

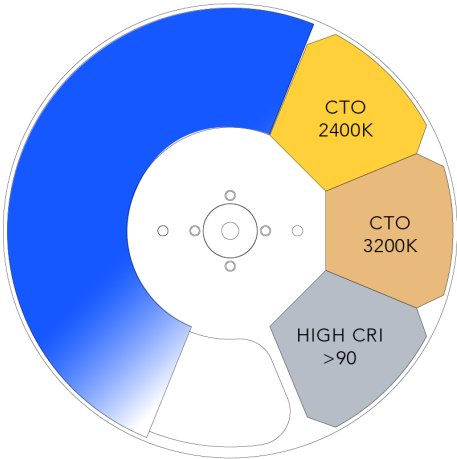


ATTENTION! Load with mirror surface toward the light source.

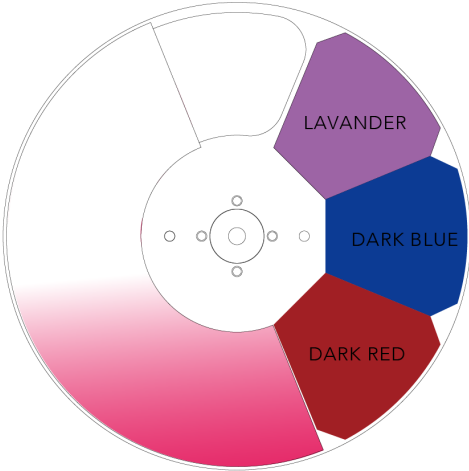
Fig. 10

16 - COLOR WHEEL

CYAN - COLOR WHEEL 1



MAGENTA - COLOR WHEEL 2



YELLOW - COLOR WHEEL 3

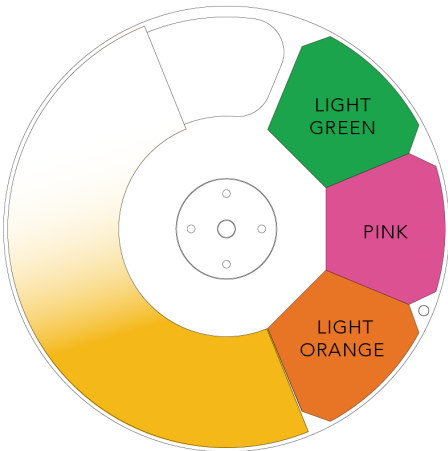
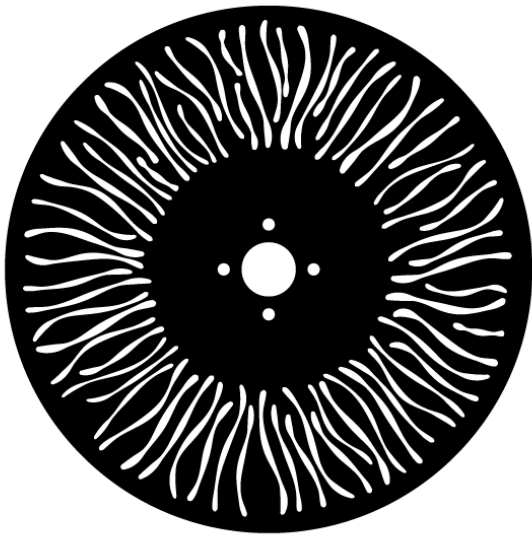


Fig. 11

17 - ANIMATION WHEEL

IMAGE



METAL

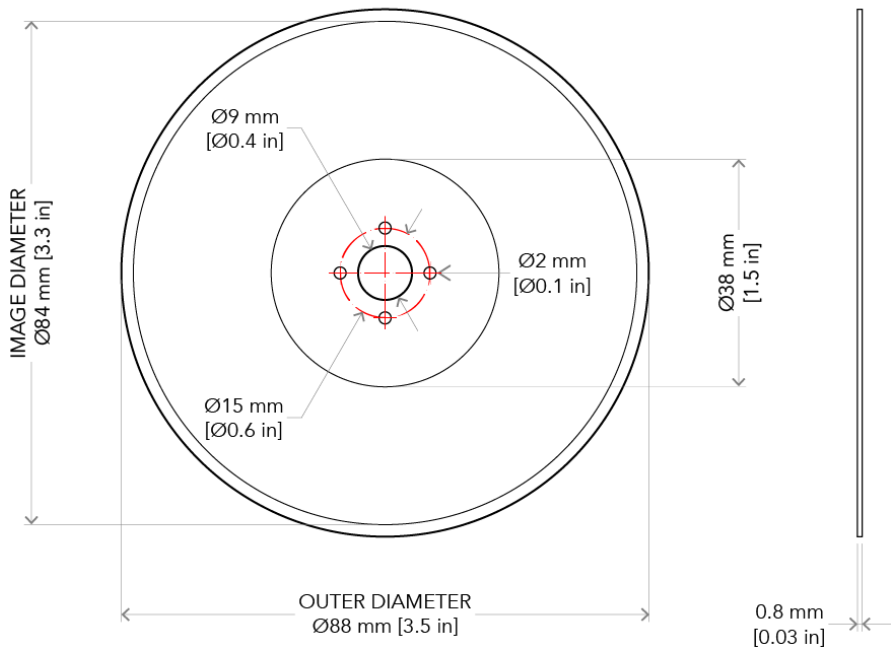


Fig. 12

18 - ERROR MESSAGES

The error is shown on the unit display. In the table below, the "ERROR SHOWED ON SCREEN" column lists the possible errors, accompanied by a possible cause ("POSSIBLE" CAUSES "column). The color of the error messages (listed in the "COLOR MESSAGES" column) is different for each board it refers to ("PCB" column).
On page 39 you can see the location of the various pcb boards.

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[DISPLAY BATTERY ERROR]	Recharge The battery on the display board, keeping the product ON for some hours.	1U
	If the error still occurs, the battery is faulty. Replace the battery on the display board.	1U
[LAMP ERROR]	This error message is displayed when the lamp is switched OFF without a command from the product control system.	1U
DMX ACTIVE		1U
MANTENAINNE TIME		1U
[IGNITOR FAN ERROR]	Blower for cooling the ignitor failed.	1U
[POWER SUPPLY FAN ERROR]	Blower for cooling the power supply failed.	1U
[PAN/TILT PCB ERROR]	Pan tilt pcb not detected.	2U
[PAN MOTOR ERROR]	This message will appear after the reset of the product if: <ul style="list-style-type: none">the PAN magnetic-indexing circuit. detect a failure (sensor failed or magnet is missing) .or the stepping motor is defectiveor its driving IC on the PCB is defective.or the product is not located in the default position after the reset of the fixture.	2U
		2U
		2U
		2U
		2U
[PAN LOCKED]	Pan is locked.	2U
[TILT MOTOR ERROR]	This message will appear after the reset of the product if: <ul style="list-style-type: none">the TILT magnetic-indexing circuit detect a failure (sensor failed or magnet is missing).or the stepping motor is defective.or its driving IC on the PCB is defective.or the product is not located in the default position after the reset of the fixture.	2U
		2U
		2U
		2U
		2U
[TILT LOCKED]	Tilt is locked.	2U
[PAN SENSOR ERROR]	Pan sensor not detecteld.	2U
[TILT SENSOR ERROR]	Tilt sensor not detecteld.	2U
[PAN ENCODER ERROR]	Pan encoder not detecteld.	2U
[TILT ENCODER ERROR]	Tilt encoder not detecteld.	2U
[FAN PCB ERROR]	Fan PCB not detected.	3U
[LAMP RIGHT FAN ERROR]	Right blower for cooling the lamp failed, the lamp has been switched OFF.	3U
[LAMP LEFT FAN ERROR]	Left blower for cooling the lamp failed, the lamp has been switched OFF.	3U

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[LAMP TEMPERATURE ERROR]	This error message indicates that an overheating on the lamp has occurred and the lamp has been switched OFF by the product protection system.	3U
[IGNITOR TEMPERATURE ERROR]	This error message indicates that an overheating on the ignitor has occurred and the lamp has been switched OFF by the product protection system.	3U
[LAMP TEMP. SENSOR ERROR]	LAMP sensor damaged (open or in short circuit).	3U
[MOTOR PCB 2 ERROR]	Motor pcb 4U not detected.	4U
[CMY FAN ERROR]	Blower for cooling the CMY module failed.	4U
[MAGENTA ERROR]	Failure detected during the reset of the Magenta flag, if the Magenta flag of the CMY module is not located in its default position.	4U
[YELLOW ERROR]	Failure detected during the reset of the Yellow flag, if the Yellow flag of the CMY module is not located in its default position.	4U
[CYAN ERROR]	Failure detected during the reset of the Cyan flag, if the Cyan flag of the CMY module is not located in its default position.	4U
[STATIC GOBO WHEEL ERROR]	Failure detected during the reset of the static gobo wheel, if this wheel is not located in the default position.	4U
[MOTOR PCB 3 ERROR]	Motor pcb 5U not detected.	5U
[ROTATING GOBO WHEEL ERROR]	Failure detected during the reset of the rotating gobo wheel, if this wheel is not located in the default position.	5U
[GOBO ROTATION ERROR]	Failure detected during the reset of the rotation of the rotating gobo, if the rotating gobos are not located in the default positions.	5U
[GOBO FAN ERROR]	Blower for cooling the GOBO wheel failed.	5U
[ANIMATION WHEEL ERROR]	Failure detected during the reset of the animation wheel, if this wheel is not located in the default position.	5U
[ANIMATION WHEEL ROT. ERROR]	Failure detected during the reset of the rotation of the animation wheel, if this wheel is not located in the default position.	5U
[MOTOR PCB 4 ERROR]	Motor pcb 4U not detected.	6U
[FROST ERROR]	Failure detected during the reset of the effect FROST, if this effect is not located in the default position.	6U
[4F PRISM ERROR]	Failure detected during the reset of the 4F effect prism, if this effect is not located in the default position.	6U
[8F PRISM ERROR]	Failure detected during the reset of the 8F effect prism, if this effect is not located in the default position.	6U

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[4F PRISM ROTATION ERROR]	Failure detected during the reset of the 4F effect prism rotation, if this effect is not located in the default position.	6U
[8F PRISM ROTATION ERROR]	Failure detected during the reset of the 8F effect prism rotation, if this effect is not located in the default position.	6U
[FOCUS ERROR]	Failure detected during the reset of the FOCUS, if the focus lens is not located in its default position.	6U
[ZOOM ERROR]	Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position.	6U
[LAMP AIR IN (LOW) FAN ERR.]	Air in blower for cooling the lamp failed, the lamp has been switched OFF.	6U
[LAMP AIR OUT (UP) FAN ERR.]	Air out blower for cooling the lamp failed, the lamp has been switched OFF.	6U
[SHUTTER 1 ERROR]	Failure detected during the reset of the effect SHUTTER, if this effect is not located in the default position.	6U
[SHUTTER 2 ERROR]	Failure detected during the reset of the effect SHUTTER, if this effect is not located in the default position.	6U
[SPOT FILTER ERROR]	Failure detected during the reset of spot filter, if the rotating gobos are not located in the default positions.	6U

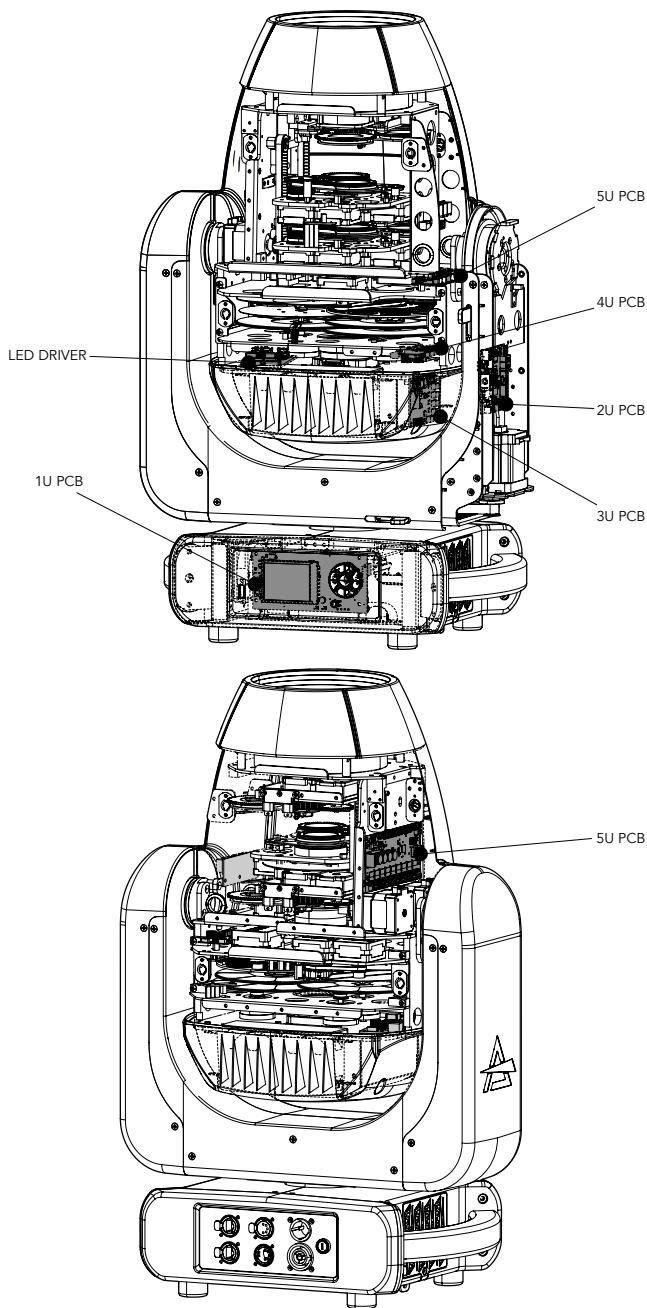


Fig. 13

18 - PERIODICAL CLEANING

WARNING! Turn OFF power and allow approximately 20 minutes for the fixture to cool down.

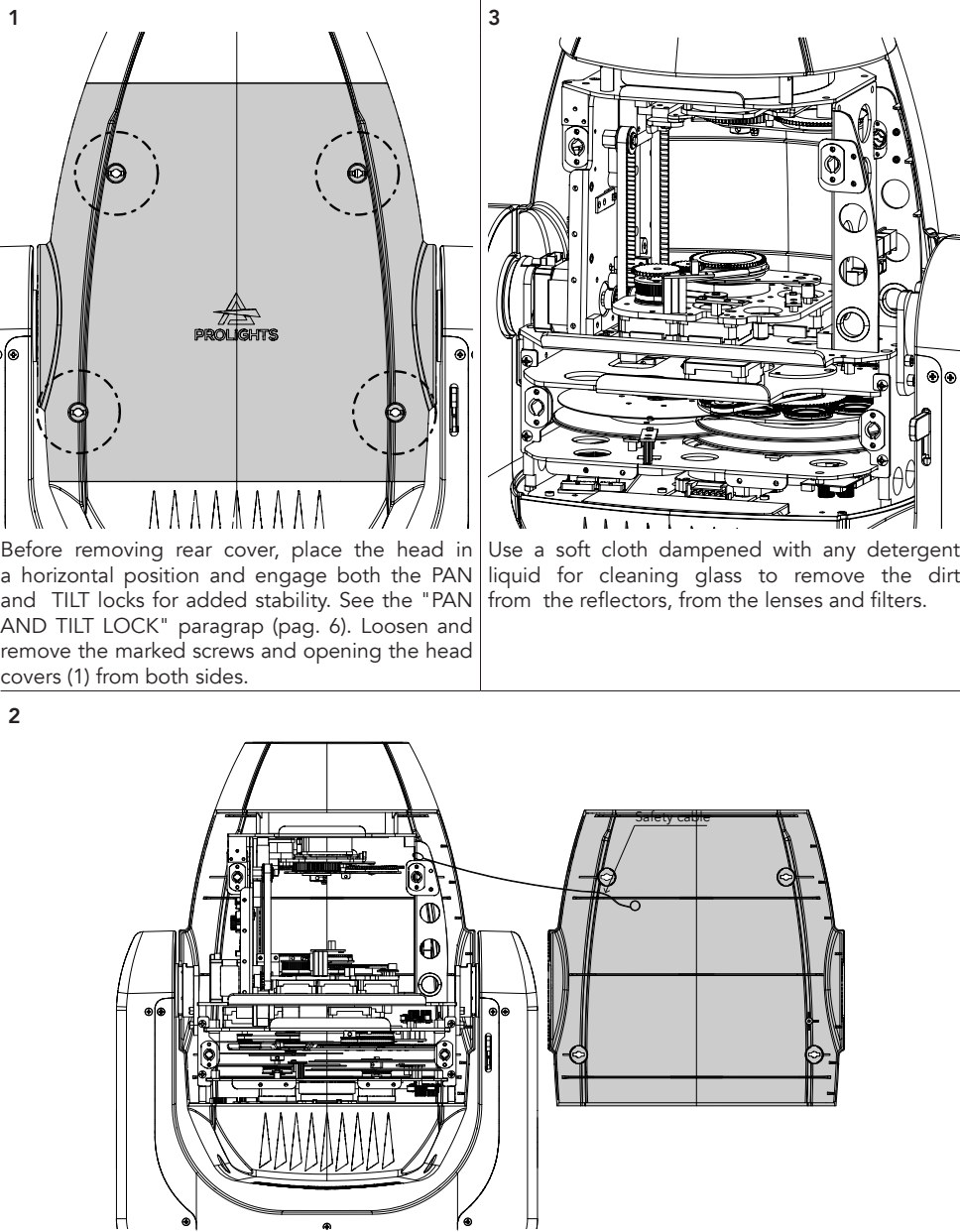


Fig. 14

19 - GOBOS REPLACEMENT

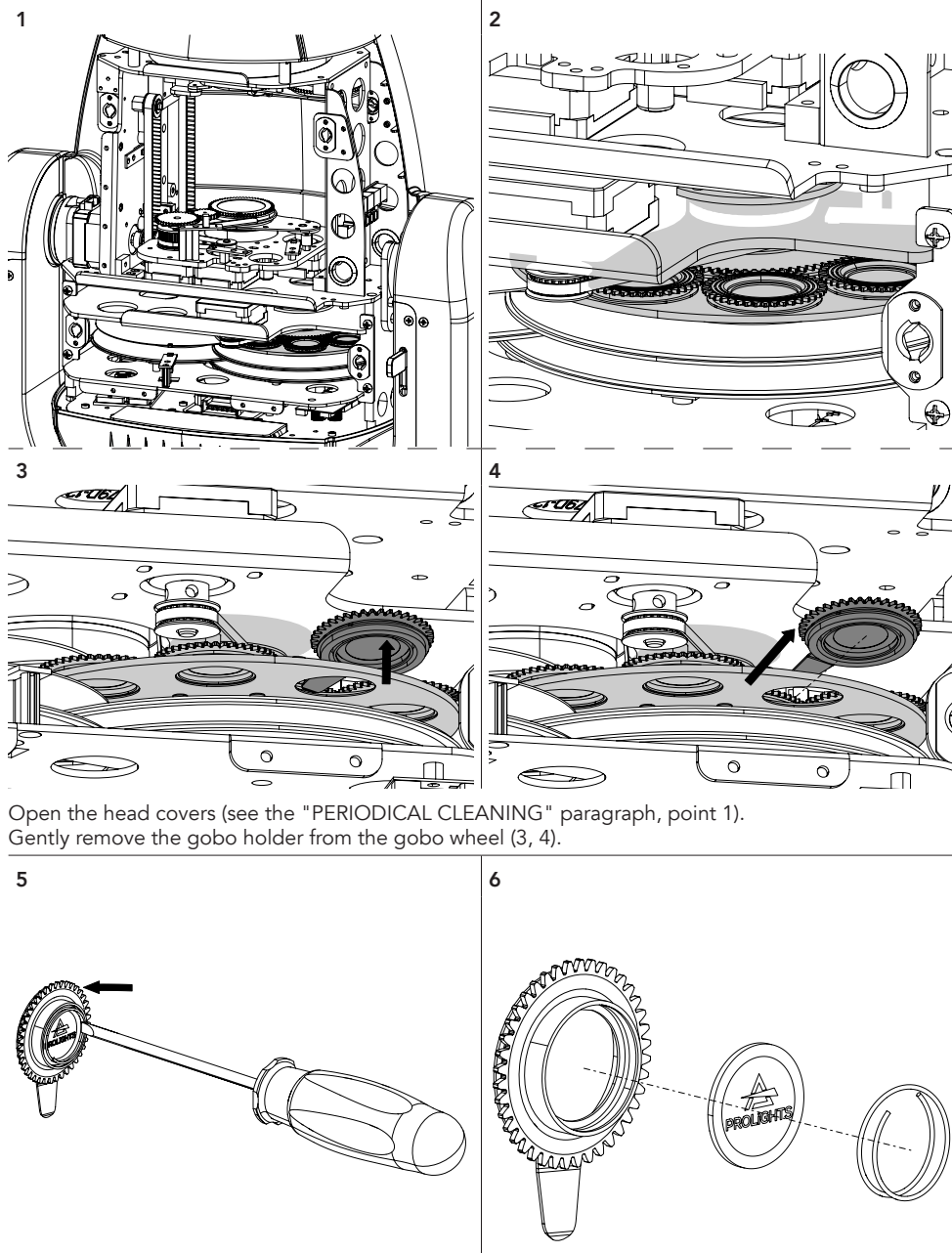
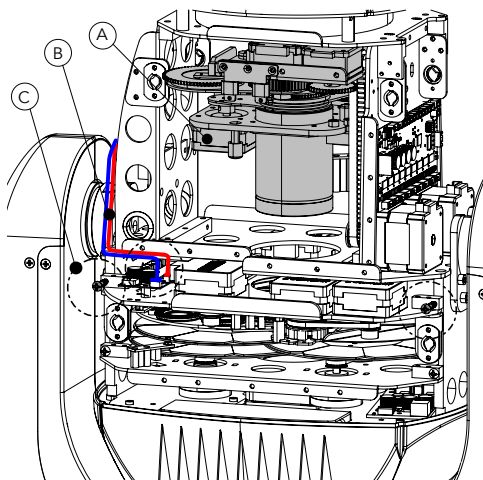


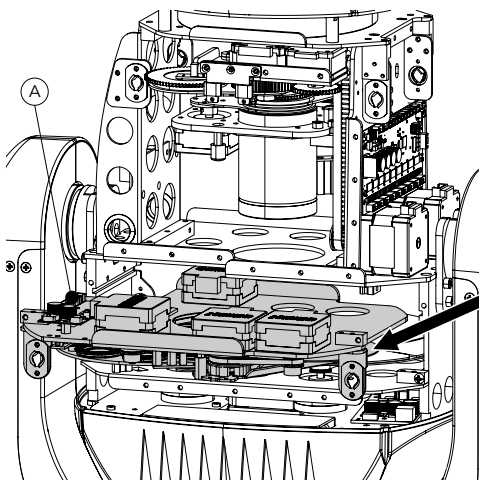
Fig. 15

20 - MODULE REMOVAL (ANIMATION, COLOR, GOBOS WHEEL)

1



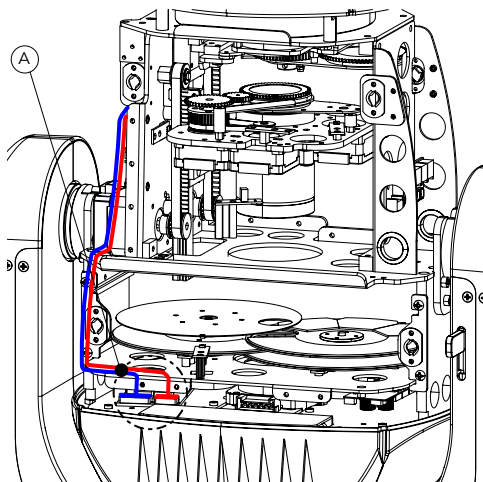
2



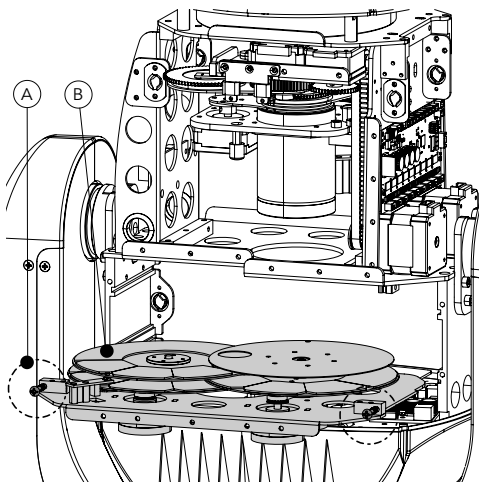
To remove the Animation and Gobo wheels module, open the head covers (see section "PERIODIC CLEANING") and proceed as follows:

- Raise the zoom and focus plates (marked A in drawing 1);
- Disconnect the two connectors, power and serial bus plugs (marked B in drawing 1);
- Unscrew the two screws marked in the front view (marked C in drawing 1);
- Pull out the plate with animation wheel and rotating gobo (marked A in drawing 2);

3



4



To remove the Colors and Fixed Gobo wheels module:

- Disconnect the two connectors, power and serial bus plugs (marked A in drawing 3);
- Unscrew the two screws marked in the front view (marked A in drawing 2);
- Pull out the plate with colors wheels and rotating gobo (marked B in drawing 2).

21 - 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 (T8A 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	<ul style="list-style-type: none"> No power to the product 	<ul style="list-style-type: none"> Check that power is switched ON and cables are plugged in.
	<ul style="list-style-type: none"> Fuse blown or internal fault 	<ul style="list-style-type: none"> 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 to the controller.	<ul style="list-style-type: none"> Bad signal connection 	<ul style="list-style-type: none"> Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
	<ul style="list-style-type: none"> Signal connection not terminated 	<ul style="list-style-type: none"> Insert DMX termination plug in signal output socket of the last product on the signal line.
	<ul style="list-style-type: none"> Incorrect addressing of the product 	<ul style="list-style-type: none"> Check the product address and control settings
	<ul style="list-style-type: none"> One of the product is defective and is corrupting the signal transmission on the signal line 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> One or more hardware components requires mechanical adjustments 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Mechanical effect loses position	<ul style="list-style-type: none"> Mechanical hardware require cleaning, adjustment or lubrication 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
Light output turn OFF Intermittently	<ul style="list-style-type: none"> Fixture is too hot 	<ul style="list-style-type: none"> Check product stored error messages. Allow product to cool. Clean the product and airflow filters. Reduce ambient temperature.
	<ul style="list-style-type: none"> Hardware failure (temperature sensor, fans, Light source...) 	<ul style="list-style-type: none"> Check product stored error messages for more information. Contact PROLIGHTS Service or an authorized service partner.
General low light intensity	<ul style="list-style-type: none"> Dirty lens assembly 	<ul style="list-style-type: none"> Clean the fixture regularly.
	<ul style="list-style-type: none"> Dirty or damaged filters 	<ul style="list-style-type: none"> 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.

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