Astra Profile600IP

IP65 LED Moving Profile, with a 600W White source



USER MANUAL

REV.03-12/23

English version

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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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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 21

12 - RDM FUNCTIONS 22

13 - DMX CHARTS 24
RDM Personality ID List 24
RDM Model ID 24
DMX Chart Summary 25

14 - ROTATING GOBOS WHEEL 33

15 - COLOR WHEEL 34

16 - ANIMATION WHEEL 35

17 - ERROR MESSAGES 36

18 - PERIODICAL CLEANING 39

19 - GOBOS REPLACEMENT 40

20 - BLADE AND CMY MODULES REMOVAL 41

21 - MAINTENANCE 42

22 - TEST OF IP65 RATING 44

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 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 (Ta)

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

T_a -15°C

Minimum operating ambient temperature (Ta)

- Do not operate the fixture if the ambient temperature (Ta) is below -15 °C (5 °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.

IP65

Outdoor (temporary) use

- This product is rated with an IP (Ingress protection) for temporary 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.



Light collimation optical system

- This product contains internal light collimation opticsl system. Avoid to expose the optical system to any intense source of light (including sunlight) from any angle.

T_c 59°C

Temperature of the external surface

- The surface of the fixture can reach up to 59 °C (138,2 °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

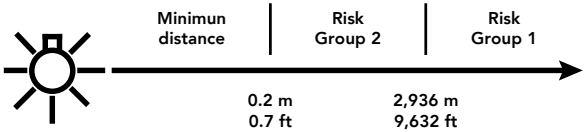
- Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling.
- Only technicians who are authorized by PROLIGHTS or Authorised service partners are permitted to open the fixture.
- Users may carry out external cleaning, following the warnings and instructions 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 adistance closer than 2,936 m (9,632 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

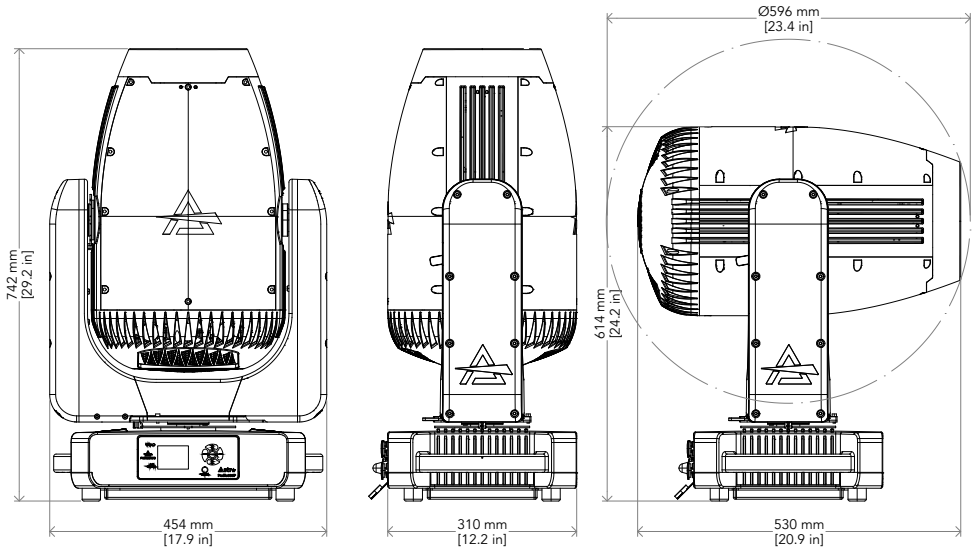
PACKAGE CONTENT

- 1x ASTRAPROFILE600IP.
- 1x 1,5 meters power cable (BARE END - SEETRONIC IP65 power connector).
- 2x OSIP: IP65 quick-lock omega bracket compatible with IP65 moving heads, M10 hole.
- 1x Antenna.
- User Manual.

OPTIONAL ACCESSORIES

- FCLASTRAH420IP: flight case for 2 pcs of ASTRAHYB420 / ASTRAHYB420IP / ASTRAPROFILE600IP.
- IPTESTBOX: portable vacuum and pressure tester for ProLights IP fixtures.
- C6002A/B: slim aluminium clamp, 200 kg loading, 48-51 mm tubes, M10 bolt, aluminium / black.
- RSR0670A/B: steel security cable for hanging bodies, inox steel shackle, aluminium / black.
- WSBBF1G5: blackBox F-1 G5 transmitter, 2,45GHz & 5.2/5,8 GHz, DMX/RDM, 512Ch.
- WSBBF1G6: blackBox F-1 G6 transrec, 512ch, 2.45GHz, DMX&RDM,Bluetooth,G3,G4,G4S, G5, CRMX.
- WSBBR512G5: blackBox R-512 G5 receiver 512Ch, 2.45GHz & 5.8GHz, DMX/RDM optional.
- WSBBR512G6: blackBox R-512 G6 receiver 512Ch, 2.45GHz,DMX&RDM,Bluetooth,G3,G4,G4S,G5,CRMX.
- UPBOX2P5: firmware uploader kit, USB IN, 5-pin XLR DMX OUT.

2 - TECHNICAL DRAWING

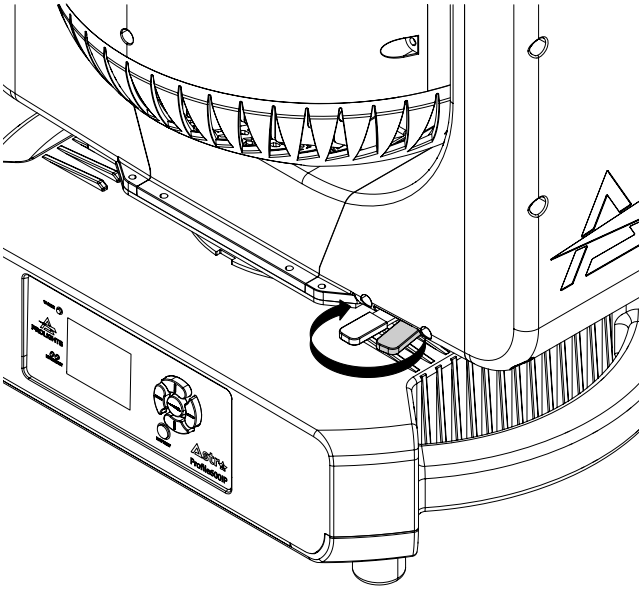


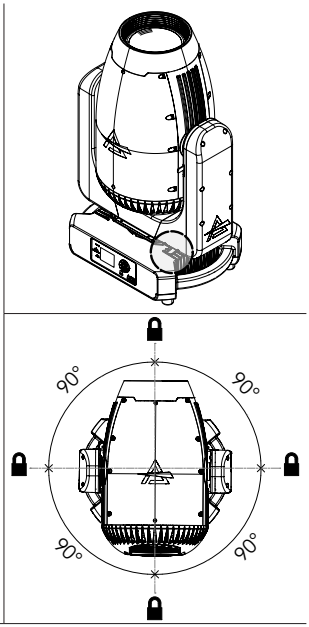
Weight: 45,6 kg - 100,53 lbs

Fig. 01

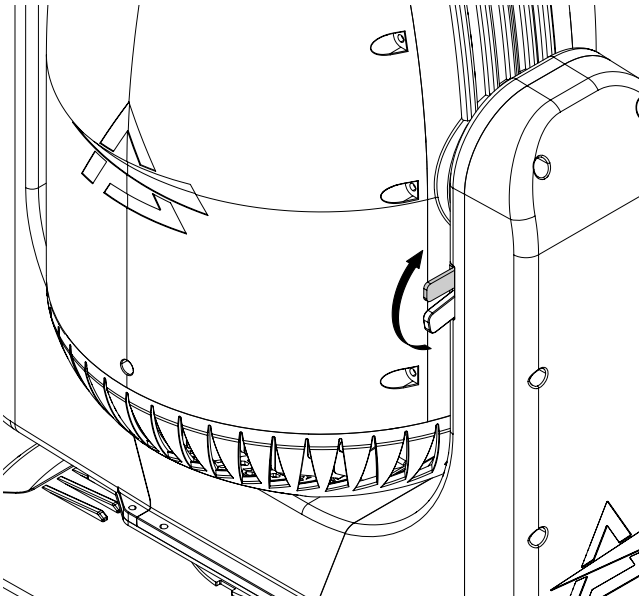
3 - PAN AND TILT LOCK

PAN Mechanism lock and release





TILT Mechanism lock and release



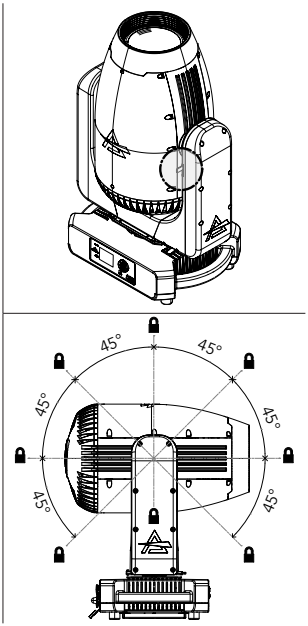


Fig. 02

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.

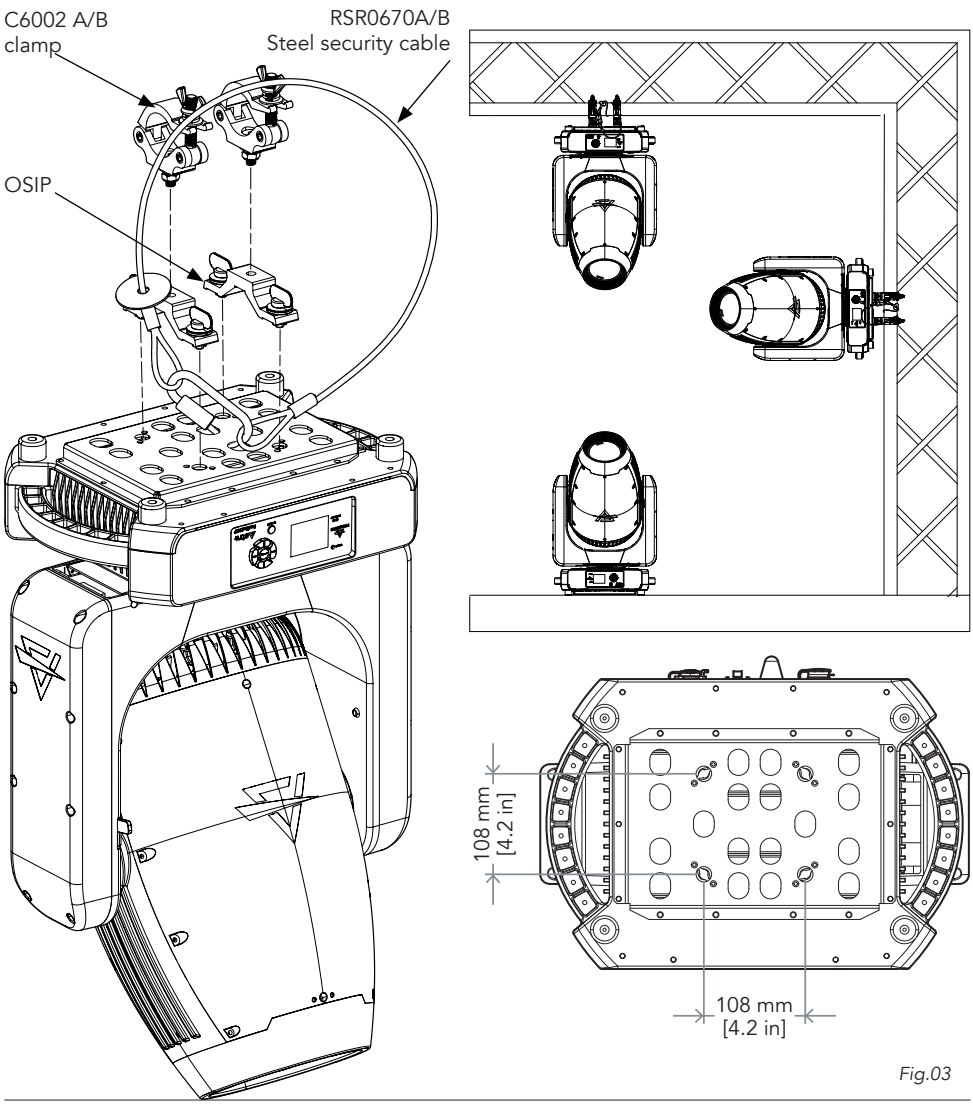


Fig.03

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 800W.

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. USER INTERFACE with display and buttons for access to the control panel functions.
2. SAFETY EYELETS to attach safety cable.
3. PAN Mechanism lock and release.
4. TILT Mechanism lock and release.
5. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
6. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
7. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
8. ANTENNA of Wireless DMX Receiver internal module.
9. ETHERCON CONNECTORS IN / OUT signal.
10. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T10AL 250V).
11. GORE VALVE.

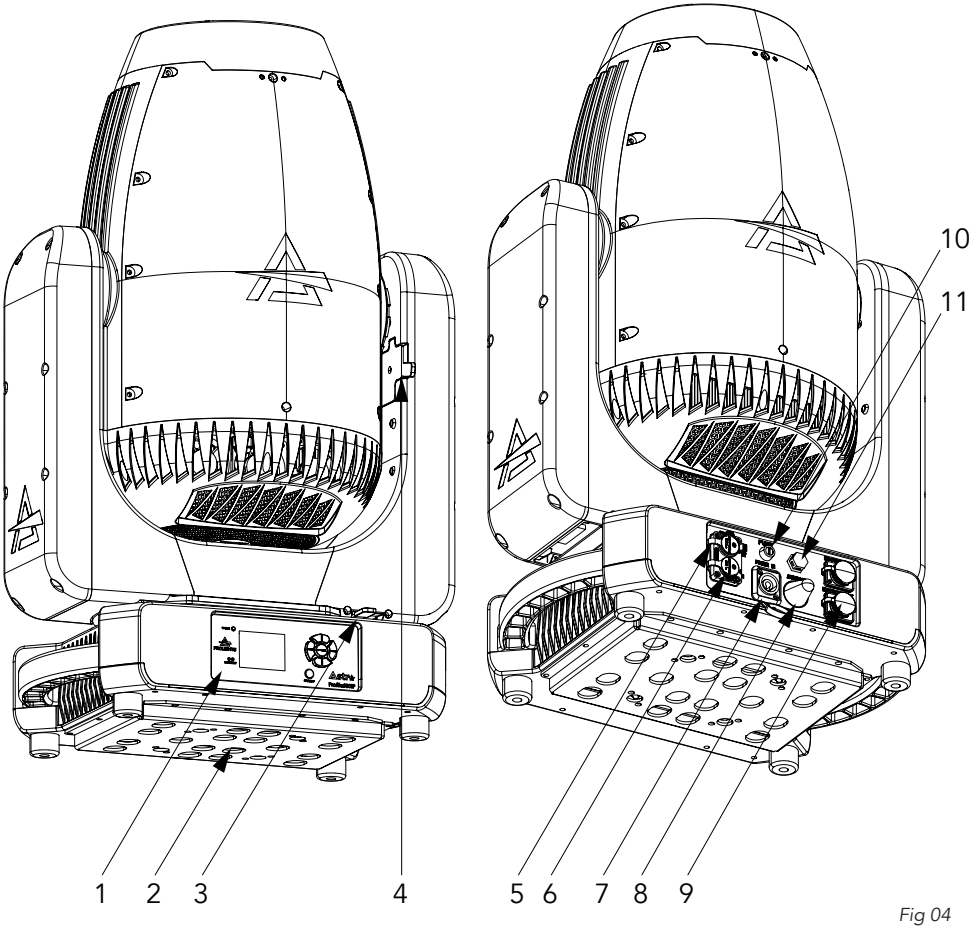


Fig 04

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

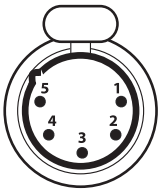


Fig. 05

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:

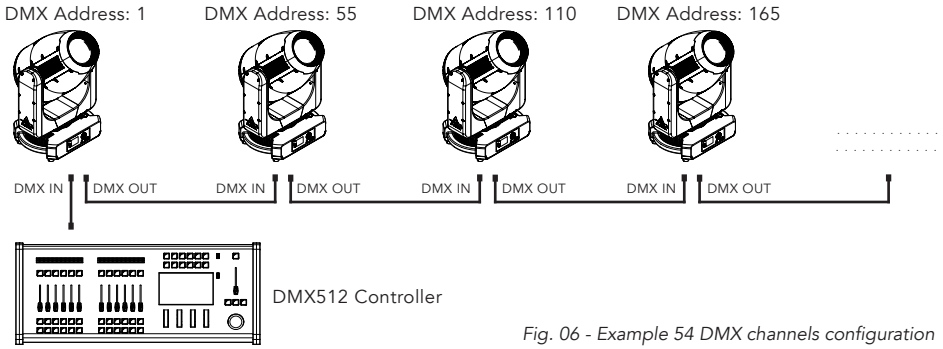
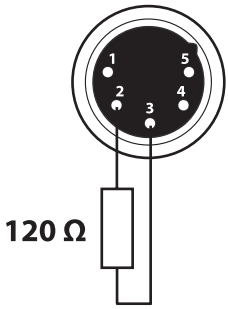
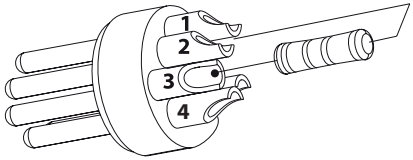


Fig. 06 - Example 54 DMX channels configuration

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.





Example:
5 pin XLR connector

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 allow 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 comunication.**
- 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

ASTRAPROFILE600IP can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use ASTRAPROFILE600IP as wireless transmitter, please follow the procedure below:

1. Push ENTER button untill 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 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 untill 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 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 enable or disable the transmission throught wireless of the DMX signal from the transmitter side to the receiver.
Any incoming signal (ArtNet, sACN or DMX) is retransmitted throught wireless. It's possible to choose retransmission of Main Fixture or Pixel Engine.
If the ASTRAPROFILE600IP protocol selected is ArtNet / sACN, the WDMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the ASTRAPROFILE600IP.

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

ASTRAPROFILE600IP can be used as wireless receiver connected to a wireless transmitter.
To use ASTRAPROFILE600IP as wireless receiver, please follow the procedure below:

1. Push ENTER button untill 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 the display on the receiver unit will shows the DMX address. If DMX signal is not available, the display will shows "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 untill 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 throught the DMX port on the receiver side.

9 - CONTROL PANEL

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

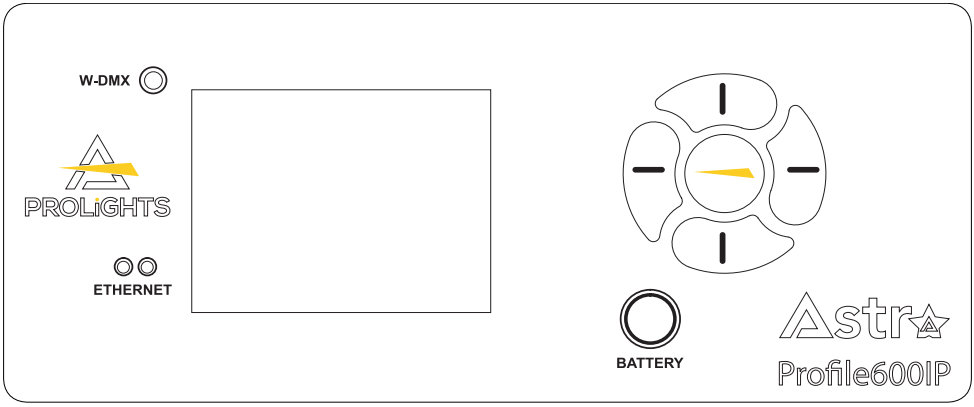
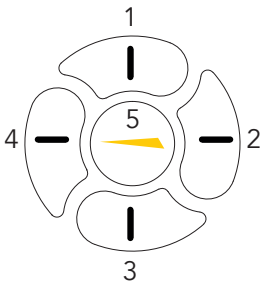


Fig. 08

DISPLAY AND BUTTONS LAYOUT

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



1		• Browse upwards through the menu list and increases the numeric value displayed.
2		• Return to the top level.
3		• Browse downwards through the menu list and decreases the numeric value displayed.
4		• Commute from units, tens, hundred in the menu.
5		• Used to access the menu tree or to return a previous menu window.

 BATTERY	• 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.
W-DMX 	• LED indicator for Wireless dmx (color red and green).
 ETHERNET	• LED indicator for Ethernet network.(color orange).

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 / WDMX	VALUE (**1**-512)	*Set address used for Fixture.*
			sACN		
			ARTNET		
		DMX MODE	BASIC		*Set DMX chart for Main Fixture.*
			STANDARD		
			EXTENDED		
		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.*
			DMX TO WDMX (TX)	**ON**/OFF	*Enable/Disable the transmission of the DMX values via wdmx. Main Fixture to WDMX: transmitt main fixture DMX values Pixel Engine to WDMX: transmitt pixel engine dmx values*
			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 1)*
				MERGE MODE	*Set Merge Mode for sACN protocol. (Default OFF)*
			ETHERNET TO DMX	**ON**	*Enable / Disable DMX retrasmission 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.*
			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.*
MOVEMENT	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.*
	PAN/TILT MODE	SLOW/MEDIUM/**FAST**	*To choose the horizontal/ vertical movement speed. SYNC mode will sync movement speed with the whole ASTRAWASH familiy fixtures.*
	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**/ HIGH/SILENT/ SUPER SILENT	*Select Fan behaviour.*
	DMX FAULT	**HOLD**/BLACKOUT	*To choose the behaviour of fixture in case of dmx signal lost.*
	STATUS LED	**ON**/OFF	*To turn the status LEDs on the front panel on or off.*
	DIMMER CURVE	LINEAR/S-CURVE/ SQUARE LAW/ INVERSE **SQUARE LAW**	*Select different curve behaviour of dimmer.*
	DIMMER SPEED	**AUTO**/FAST/ MEDIUM/SLOW	*Linear dimmer behaviour. Dimmer curve adding long fade. Dimmer curve adding medium fade. Dimmer curve adding little fade.*
	LED FREQUENCY	600HZ/**1200HZ**/ 2000 HZ/ 4000 HZ/ 6000HZ/25KHZ/50KHz	*Select PWM frequency.*

			INVERT ZOOM	ON/**OFF**	*Invert zoom values.*
			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.*
			GOBO WHEEL MODE	**STEP**	*To set Gobo Wheel Movement scrolling mode.*
				COUNTINUOUS	
			TRANSFER CONFIGURATION	WITHOUT DMX ADDRESS	*To transfer the same menu settings of one fixtures to all the other in the daisy chain, including or not the dmx address.*
				WITH DMX ADDRESS	
3	AD-VANCED	RESET FUNC-TIONS	ALL		*To reset these functions.*
			PAN		
			TILT		
			PAN & TILT		
			CYAN		
			MAGENTA		
			YELLOW		
			CTO		
			COLOR WHEEL		
			GOBO WHEEL		
			GOBO ROTATION		
			ANIMATION		
			ANIMATION ROTATION		
			PRISM		
			PRISM ROTATION		
			FROST		
			IRIS		
			ZOOM		
			FOCUS		
			FRAME ROT		
			BLADE 1 POSITON		
			BLADE 1 ROT		
			…		
			BLADE 4 POSITON		
			BLADE 4 ROT		
		CALIBRA-TION	PASSWORD		*For the calibration of these functions. 050 password for user reset.*

PASSWORD	
PAN (16 BIT)	
TILT (16 BIT)	
DIMMER (16 BIT)	
CYAN	
MAGENTA	
YELLOW	
CTO	
COLOR WHEEL	
ROT GOBO	
PRISM	
PRISM ROTATION	
ANIMATION ROTA-TION	
FROST	
GOBO 1 FOCUS	
...	
GOBO 7 FOCUS	
GOBO1 INDEX	
...	
GOBO 7 INDEX	FOCUS
IRIS	
ZOOM	FOCUS
FOCUS	INDEX
ANIMATION INS	
ANIMATION FOCUS	INDEX
ANIMATION ROTA-TION	
BLADE 1 POSITION	
BLADE 1 ROT	
BLADE 2 POSITION	
BLADE 2 ROT	
BLADE 3 POSITION	
BLADE 3 ROT	
BLADE 4 POSITON	
BLADE 4 ROT	
ENCODER RESET	
FRAME ROT	
PAN ANGLE	

	TILT ANGLE		
	IRIS FOCUS		
	BLADE FOCUS		
	ENCODER RESET	YES / NO	
MANUAL CONTROL	CONTROL		*For manual control of the unit.*
	PAN		
	PAN FINE		
	TILT		
	TILT FINE		
	DIMMER		
	DIMMER FINE		
	SHUTTER		
	CYAN		
	CYAN FINE		
	MAGENTA		
	MAGENTA FINE		
	YELLOW		
	YELLOW FINE		
	CTO		
	CTO FINE		
	COLOR WHEEL		
	ROT GOBO		
	ROT GOBO FINE		
	4F PRISM 4F PRISM ROT		
	4F PRISM ROT FINE		
	FROST		
	FROSTO FINE		
	IRIS		
	IRIS FINE		
	ZOOM		
	ZOOM FINE		
	FOCUS		
	FOCUS FINE		
	ANIMATION INS		
	ANIMATION ROTA-TION		
	ANIMATION ROT FINE		

			BLADE 1 POSITON		
			BLADE 1 POSITON FINE		
			BLADE 1 ROT		
			BLADE 1 ROT FINE		
			BLADE 2 POSITION		
			BLADE 2 POSITION FINE		
			BLADE 2 ROT		
			BLADE 2 ROT FINE		
			…		
			BLADE 4 ROT FINE		
			FRAME ROT		
			FRAME ROT FINE		
			FRAME MACROS		
			FRAME MACROS SPEED		
		RELOAD DEFAULT	BASIC RELOAD	YES/NO	*050 password for user reset.*
			FACTORY RELOAD	Password 050 then YES/NO	
4	INFORMA-TIONS	FIXTURE TIME	FIXTURE HOURS	TOTAL	*To check the total working hours of the unit.*
				PARTIAL	
			CURRENT HOURS	TOTAL	*To check the current working hours of the unit.*
				PARTIAL	
			SOURCE HOURS	TOTAL	*To see the total operating hours of the LED source.*
				PARTIAL	
			POWER ON CYCLE	TOTAL	*To see the power cycles of the machine.*
				PARTIAL	
			MAINTENANCE TIME	ELAPSED TIME	*To choose and reset unit maintenance warning hours.*
				ALERT PERIOD	
		POWER CONSUMP-TION	…		
		POWER LED	…		
		TEMPERA-TURE	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,…	°C AND °F	*To see the unit temperature.*
		FAN SPEED	NEAR SOURCE FAN, BASE FAN,…	RPM AND %	*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			*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.

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	Parameter	PID	GET	SET
Product Information	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	
	BOOT_SOFTWARE_VERSION_LABEL	0x00C2	x	
DMX512 Setup	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 (Support required if device uses aDMX512 Slot)	0x0140	x	x
	DMX_FAIL_MODE	0x0141	x	x
	DMX_STARTUP_MODE	0x0142	x	x
Dimmer Settings	DIMMER_INFO	0x0340	x	
	MINIMUM_LEVEL	0x0341	x	x
	MAXIMUM_LEVEL	0x0342	x	x
	CURVE	0x0343	x	x
	CURVE_DESCRIPTION (Support required only if CURVE is supported)	0x0344	x	x
	OUTPUT_RESPONSE_TIME	0x0345	x	x
	OUTPUT_RESPONSE_TIME_ DESCRIPTION (Support required only if OUTPUT_RESPONSE_ TIME is supported)	0x0346	x	
	MODULATION_FREQUENCY	0x0347	x	x
	MODULATION_FREQUENCY_ DESCRIPTION (Support required only if MODULATION_ FREQUENCY is supported)	0x0348	x	

Category	Parameter	PID	GET	SET
Sensors	SENSOR_DEFINITION	0x0200	x	
	SENSOR_VALUE	0x0201	x	x
	RECORD_SENSORS	0x0202		x
	BURN_IN	0x0440	x	x
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
	POWER_ON_SELF_TEST	0x1044	x	x
IP & DNS Configuration	IPV4_CURRENT_ADDRESS	0x0705	x	
	IPV4_STATIC_ADDRESS	0x0706	x	x

13 - DMX CHARTS

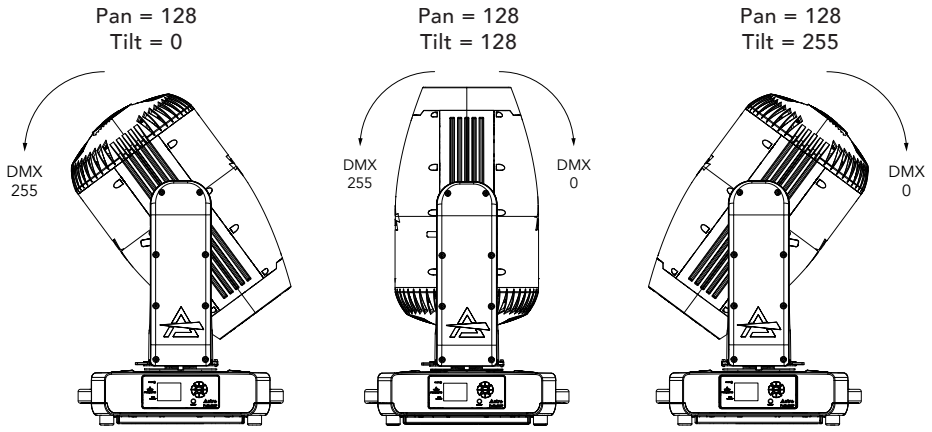
RDM Personality ID List

ID	Mode	DMX Footprint
1	BASIC	29
2	STANDARD	39
3	EXTENDED	54

RDM Model ID

0xA018

PAN/TILT VALUES



Tilt movement range: 270°
Pan movement range: 540

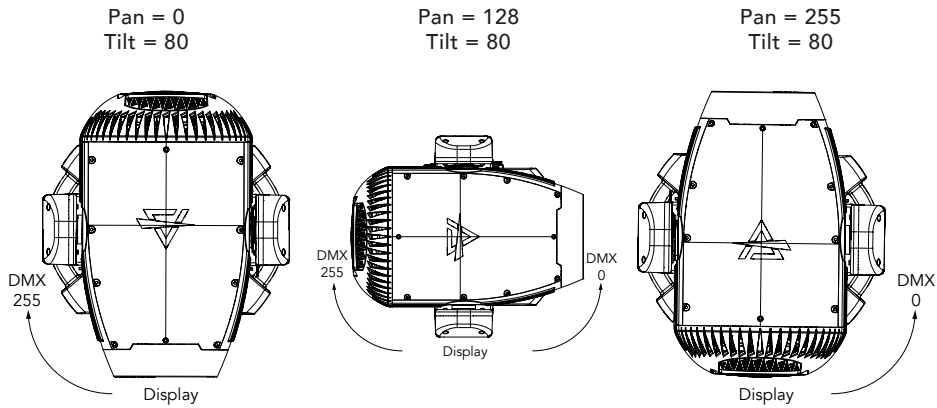


Fig. 09

DMX Chart Summary

Channel	Basic	Standard	Extended
1	Pan	Pan	Pan
2	Tilt	Pan fine	Pan fine
3	Dimmer	Tilt	Tilt
4	Shutter	Tilt fine	Tilt fine
5	Cyan	Dimmer	Dimmer
6	Magenta	Dimmer Fine	Dimmer Fine
7	Yellow	Shutter	Shutter
8	CTO	Cyan	Cyan
9	Color Wheel	Magenta	Cyan Fine
10	Rot Gobo	Yellow	Magenta
11	Gobo Rot	CTO	Magenta Fine
12	4f Prism	Color Wheel	Yellow
13	4f Prism Rotation	Rot Gobo	Yellow Fine
14	Frost	Gobo Rot	CTO
15	Iris	Gobo Rot Fine	CTO Fine
16	Zoom	4f Prism	Color Wheel
17	Focus	4f Prism Rotation	Rot Gobo
18	Animation Insertion	4f Prism Rot. Fine	Gobo Rot
19	Animation Rotation	Frost	Gobo Rot Fine
20	Blade 1 position	Iris	4f Prism
21	Blade 1 rotation	Zoom	4f Prism Rotation
22	Blade 2 position	Zoom Fine	4f Prism Rot. Fine
23	Blade 2 rotation	Focus	Frost
24	Blade 3 position	Focus Fine	Frost Fine
25	Blade 3 rotation	Animation Insertion	Iris
26	Blade 4 position	Animation Rotation	Iris Fine
27	Blade 4 rotation	Animation Rot. Fine	Zoom
28	Frame Rotation	Blade 1 position	Zoom Fine
29	Control	Blade 1 rotation	Focus
30		Blade 2 position	Focus Fine
31		Blade 2 rotation	Animation Insertion
32		Blade 3 position	Animation Rotation
33		Blade 3 rotation	Animation Rot. Fine
34		Blade 4 position	Blade 1 position
35		Blade 4 rotation	Blade 1 position fine

DMX Chart Summary

Channel	Basic	Standard	Extended
36		Frame rotation	Blade 1 rotation
37		Frame macros	Blade 1 rotation fine
38		Frame macros speed	Blade 2 position
39		Control	Blade 2 position fine
40			Blade 2 rotation
41			Blade 2 rotation fine
42			Blade 3 position
43			Blade 3 position fine
44			Blade 3 rotation
45			Blade 3 rotation fine
46			Blade 4 position
47			Blade 4 position fine
48			Blade 4 rotation
49			Blade 4 rotation fine
50			Frame rotation
51			Frame rotation fine
52			Frame macros
53			Frame macros speed
54			Control

CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
1	1	1	Pan	Lineary from 0% to 100%	0	255	128
-	2	2	Pan fine	Lineary from 0% to 100%	0	255	128
2	3	3	Tilt	Lineary from 0% to 100%	0	255	128
-	4	4	Tilt fine	Lineary from 0% to 100%	0	255	128
3	5	5	Dimmer	Lineary from close to open	0	255	000
-	6	6	Dimmer Fine	Lineary from close to open	0	255	000
4	7	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	
5	8	8	Cyan	Lineary from 0% to 100%	0	255	000
-	-	9	Cyan Fine	Lineary from 0% to 100%	0	255	000
6	9	10	Magenta	Lineary from 0% to 100%	0	255	000
-	-	11	Magenta Fine	Lineary from 0% to 100%	0	255	000
7	10	12	Yellow	Lineary from 0% to 100%	0	255	000
-	-	13	Yellow Fine	Lineary from 0% to 100%	0	255	000
8	11	14	CTO	Lineary from 0% to 100%	0	255	000
-	-	15	CTO Fine	Lineary from 0% to 100%	0	255	000
9	12	16	Color Wheel	Indexed			0
				Open	0	8	
				Open + CTC 5600K	9	15	
				CTC 5600K	16	22	
				CTC 5600K + BRIGHT RED	23	29	
				BRIGHT RED	30	36	
				BRIGHT RED + DEEPER BLUE	37	43	
				DEEPER BLUE	44	50	
				DEEPER BLUE + FOREST GREEN	51	57	
				FOREST GREEN	58	64	
				FOREST GREEN + DEEP ORANGE	65	71	
				DEEP ORANGE	72	78	
				DEEP ORANGE + MAGENTA	79	85	
				MAGENTA	86	92	
				MAGENTA + CONGO BLUE	93	99	
				CONGO BLUE	100	106	
				CONGO BLUE + OPEN	107	113	
				Reserved	114	120	
				Reserved	121	127	
				Forward Spin			
				From fast to slow	128	190	
				Stop			
				Stop	191	192	
				Reverse Spin			
				From slow to fast	193	255	

CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
10	13	17	Rot Gobo	Indexed			000
				Open	0	7	
				GOBO 1	8	15	
				GOBO 2	16	23	
				GOBO 3	24	31	
				GOBO 4	32	39	
				GOBO 5	40	47	
				GOBO 6	48	55	
				GOBO 7	56	63	
				Forward Spin			
				From fast to slow	64	130	
				Stop			
				Stop	131	132	
				Reverse Spin			
				From slow to fast	133	199	
				Shake			
				GOBO 1 from slow to fast	200	207	
				GOBO 2 from slow to fast	208	215	
				GOBO 3 from slow to fast	216	223	
				GOBO 4 from slow to fast	224	231	
				GOBO 5 from slow to fast	232	239	
				GOBO 6 from slow to fast	240	247	
				GOBO 7 from slow to fast	248	255	
11	14	18	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			
				From slow to fast	193	255	
-	15	19	Gobo Rot Fine	Lineary from 0° to 360° (Indexed)	0	255	000
12	16	20	4f Prism	Open	0	127	000
				Prism insert	128	255	
13	17	21	4f Prism Rotation	Indexed			000
				Lineary from 0° to 360°	0	127	
				Forward Spin			
				From fast to slow	128	190	
				Stop			
				Stop	191	192	
				Reverse Spin			
				From slow to fast	193	255	
-	18	22	4f Prism Rot. Fine	Lineary from 0° to 360° (Indexed)	0	255	000
14	19	23	Frost	Continuous			000
				Lineary from 0% to 100%	0	255	
-	-	24	Frost Fine	Lineary from 0% to 100%	0	255	000
15	20	25	Iris	Indexed			
				Lineary from Large to Small	0	63	
				Effect 1			
				Close from fast to slow	64	127	
				Effect 2			
				Open from slow to fast	128	191	
				Effect 3			
				Open and close from slow to fast	192	255	
-	-	26	Iris Fine	Lineary from 0% to 100% (Indexed)	0	255	000
16	21	27	Zoom	Lineary from in to out	0	255	000
-	22	28	Zoom Fine	Lineary from in to out	0	255	000
17	23	29	Focus	Lineary from in to out	0	255	000

CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
-	24	30	Focus Fine	Lineary from in to out	0	255	000
18	25	31	Animation Insertion	Continuous			000
				Lineary from 0% to 100%	0	255	
19	26	32	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			
				From slow to fast	193	255	
-	27	33	Animation Rot. Fine	Lineary from 0° to 360° (Indexed)	0	255	000
20	28	34	Blade 1 position	Movement from outward to inward	0	255	000
-	-	35	Blade 1 position fine	Movement from outward to inward	0	255	000
21	29	36	Blade 1 rotation	Swivelling from -30 degrees towards 0 degrees	0	127	128
				0 degrees	128	128	
				Swivelling from 0 degrees to +30 degrees	129	255	
-	-	37	Blade 1 rotation fine	Lineary from 0 to 100%	0	255	000
22	30	38	Blade 2 position	Movement from outward to inward	0	255	000
-	-	39	Blade 2 position fine	Movement from outward to inward	0	255	000
23	31	40	Blade 2 rotation	Swivelling from -30 degrees towards 0 degrees	0	127	128
				0 degrees	128	128	
				Swivelling from 0 degrees to +30 degrees	129	255	
-	-	41	Blade 2 rotation fine	Lineary from 0 to 100%	0	255	000
24	32	42	Blade 3 position	Movement from outward to inward	0	255	000
-	-	43	Blade 3 position fine	Movement from outward to inward	0	255	000
25	33	44	Blade 3 rotation	Swivelling from -30 degrees towards 0 degrees	0	127	128
				0 degrees	128	128	
				Swivelling from 0 degrees to +30 degrees	129	255	
-	-	45	Blade 3 rotation fine	Lineary from 0 to 100%	0	255	000
26	34	46	Blade 4 position	Movement from outward to inward	0	255	000
-	-	47	Blade 4 position fine	Movement from outward to inward	0	255	000
27	35	48	Blade 4 rotation	Swivelling from -30 degrees towards 0 degrees	0	127	128
				0 degrees	128	128	
				Swivelling from 0 degrees to +30 degrees	129	255	
-	-	49	Blade 4 rotation fine	Lineary from 0 to 100%	0	255	000
28	36	50	Frame rotation	Swivelling from -45 degrees towards 0 degrees	0	127	128
				0 degrees	128	128	
				Swivelling from 0 degrees to +45 degrees	129	255	
-	-	51	Frame rotation fine	Lineary from 0 to 100%	0	255	000

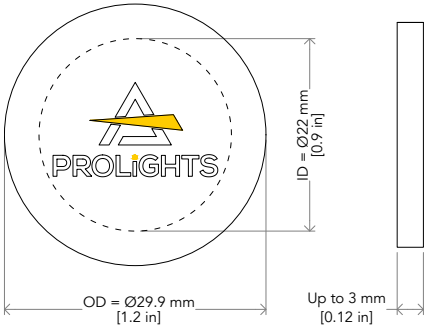
CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
				No Function	0	3	000
				Macro 1	4	10	
				Macro 2	11	17	
				Macro 3	18	24	
				Macro 4	25	31	
				Macro 5	32	38	
				Macro 6	39	45	
				Macro 7	46	52	
				Macro 8	53	59	
				Macro 9	60	66	
				Macro 10	67	73	
				Macro 11	74	80	
				Macro 12	81	87	
				Macro 13	88	94	
				Macro 14	95	101	
				Macro 15	102	108	
				Macro 16	109	115	
				Macro 17	116	122	
-	37	52	Frame macros	Macro 18	123	129	
				Macro 19	130	136	
				Macro 20	137	143	
				Macro 21	144	150	
				Macro 22	151	157	
				Macro 23	158	164	
				Macro 24	165	171	
				Macro 25	172	178	
				Macro 26	179	185	
				Macro 27	186	192	
				Macro 28	193	199	
				Macro 29	200	206	
				Macro 30	207	213	
				Macro 31	214	220	
				Macro 32	221	227	
				Macro 33	228	234	
				Macro 34	235	241	
				Macro 35	242	248	
				Macro 36	249	255	
-	38	53	Frame macros speed	Lineary from 0 to 100%	0	255	000
29	39	54	Control	No Function/Safe	0	1	000
				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	
				HOME MODE STANDARD	16	17	
				HOME MODE CUSTOM	18	19	
				MOVEMENT IN BLACKOUT ON	20	21	
				MOVEMENT IN BLACKOUT OFF	22	23	
				COLOR WHEEL BLACKOUT ON (index)	24	25	
				COLOR WHEEL BLACKOUT OFF (index)	26	27	
				COLOR WHEEL CONTINUOUS MOVEMENT (index)	28	29	
				COLOR WHEEL STEP MOVEMENT (index)	30	31	
				ROTATING GOBO WHEEL BLACKOUT ON (index)	32	33	
				ROTATING GOBO WHEEL BLACKOUT OFF (index)	34	35	

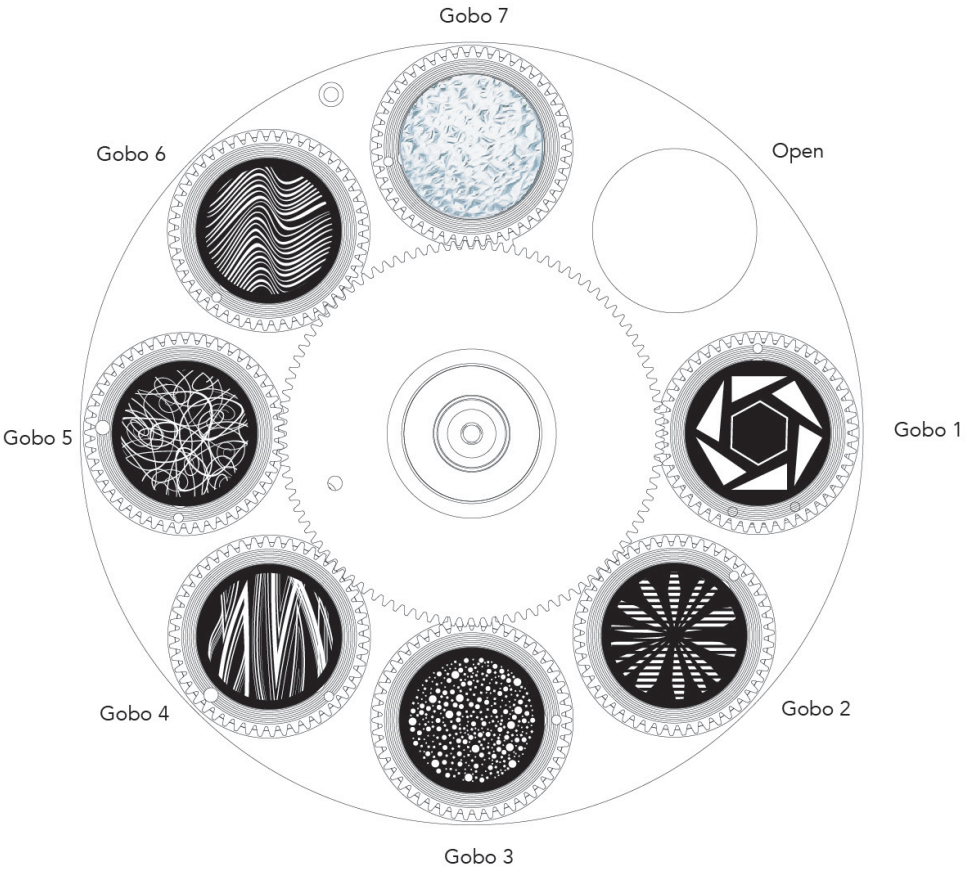
CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
				ROTATING GOBO WHEEL CONTINUOUS MOVEMENT (index)	36	37	
				ROTATING GOBO WHEEL STEP MOVEMENT (index)	38	39	
				DISPLAY ON	40	41	
				DISPLAY 10S	42	43	
				DISPLAY 20S	44	45	
				DISPLAY 30S	46	47	
				FLIP DISPLAY ON	48	49	
				FLIP DISPLAY OFF	50	51	
				FLIP DISPLAY AUTO	52	53	
				KEY LOCK ON	54	55	
				KEY LOCK OFF	56	57	
				FAN MODE AUTO	58	59	
				FAN MODE SILENT	60	61	
				FAN MODE HIGH	62	63	
				NO SIGNAL HOLD	64	65	
				NO SIGNAL BLACKOUT	66	67	
				STATUS LED ON	68	69	
				STATUS LED OFF	70	71	
				DIMMER CURVE LINEAR	72	73	
				DIMMER CURVE S-CURVE	74	75	
				DIMMER CURVE SQUARE LAW	76	77	
				DIMMER CURVE INVERSE SQUARE LAW	78	79	
				DIMMER SPEED AUTO	80	81	
				DIMMER SPEED FAST	82	83	
				DIMMER SPEED MEDIUM	84	85	
				DIMMER SPEED SLOW	86	87	
				LED FREQUENCY 600HZ	88	89	
				LED FREQUENCY 1200HZ	90	91	
				LED FREQUENCY 2000HZ	92	93	
				LED FREQUENCY 4000HZ	94	95	
				LED FREQUENCY 6000HZ	96	97	
				LED FREQUENCY 25KHZ	98	99	
				LED FREQUENCY 50KHZ	100	101	
				INVERT ZOOM OFF	102	103	
				INVERT ZOOM ON	104	105	
				RESET ALL	106	107	
				RESET PAN	108	109	
				RESET TILT	110	111	
				RESET PAN & TILT	112	113	
				RESET CYAN	114	115	
				RESET MAGENTA	116	117	
				RESET YELLOW	118	119	
				RESET CTO	120	121	
				RESET COLOR WHEEL	122	123	
				RESET GOBO WHEEL	124	125	
				RESET GOBO ROTATION	126	127	
				RESET ANIMATION	128	129	
				RESET ANIMATION ROTATION	130	131	
				RESET PRISM	132	133	
				RESET PRISM ROTATION	134	135	
				RESET FROST	136	137	
				RESET IRIS	138	139	
				RESET ZOOM	140	141	
				RESET FOCUS	142	143	
				RESET FRAME ROT	144	145	
				RESET BLADE 1 POSITON	146	147	
				RESET BLADE 1 ROT	148	149	

CHANNEL			Name	Function	Min DMX	Max DMX	Default
BAS	STD	EXT					
				RESET BLADE 2 POSITON	150	151	
				RESET BLADE 2 ROT	152	153	
				RESET BLADE 3 POSITON	154	155	
				RESET BLADE 3 ROT	156	157	
				RESET BLADE 4 POSITON	158	159	
				RESET BLADE 4 ROT	160	161	
				FAN MODE SUPER SILENT	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	
				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 - ROTATING GOBOS WHEEL

Gobo dimensions:
- Type B
- Ø external (OD)= 29,9 mm.
- Ø of image (ID)= 22 mm.
- Thickness= up to 3 mm.





ATTENTION! Load with mirror surface toward the light source.

Fig. 10

15 - COLOR WHEEL

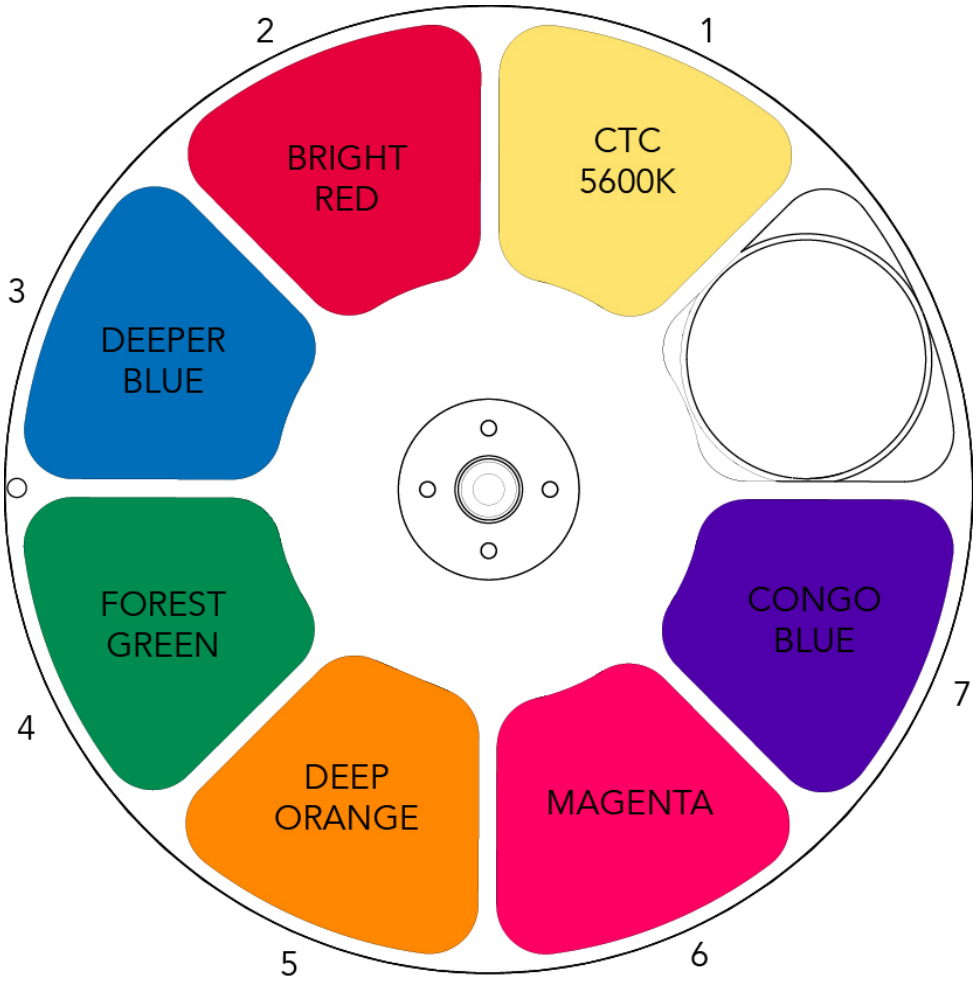


Fig. 11

16 - ANIMATION WHEEL

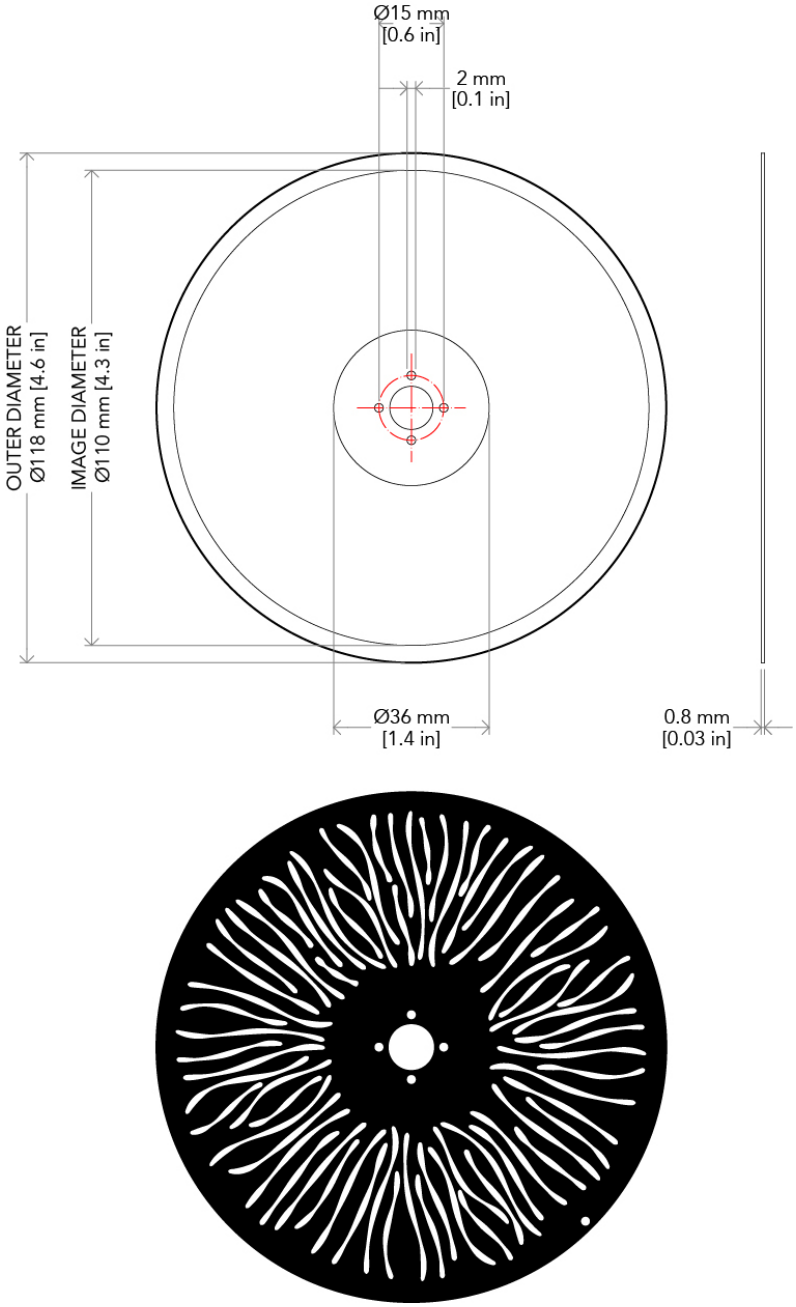


Fig. 12

17 - 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
[PAN/TILT PCB ERROR]	Pan tilt pcb not detected.	2U
[PAN MOTOR ERROR]	**This message will appear after the reset of the product if**:	2U
	the PAN 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.	
[TILT MOTOR ERROR]	**This message will appear after the reset of the product if**:	2U
	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.	
[PAN SENSOR ERROR]	Pan sensor not detecteld.	2U
[TILT SENSOR ERROR]	Tilt sensor not detecteld.	2U
[FAN PCB ERROR]	Fan PCB not detected.	3U
[LED TEMP. SENSOR ERROR]	LAMP sensor damaged (open or in short circuit).	3U
[LED AIR IN (LOW) FAN 1 ERR.]	Air in blower 1 for cooling the lamp failed, the lamp has been switched OFF.	3U
[LED AIR IN (LOW) FAN 2 ERR.]	Air in blower 2 for cooling the lamp failed, the lamp has been switched OFF.	3U
[LED AIR IN (LOW) FAN 3 ERR.]	Air in blower 3 for cooling the lamp failed, the lamp has been switched OFF.	3U
[MOTOR PCB 2 ERROR]	Motor pcb 3U not detected.	2U - 3U
[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

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[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 FAN ERROR]	Blower for cooling the CMY module failed.	4U
[CTO ERROR]	Failure detected during the reset of the CTO flag, if the CTO flag is not located in its default position.	4U
[MOTOR PCB 3 ERROR]	Motor pcb 4U not detected.	3U - 4U
[GOBO WHEEL ERROR]	Failure detected during the reset of the 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
[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
[GOBO FAN ERROR]	Blower for cooling the GOBO wheel failed.	5U
[COLOR WHEEL ERROR]	Failure detected during the reset of the color wheel, if this wheel is not located in the default position.	5U
[MOTOR PCB 4 ERROR]	Motor pcb 5U not detected.	4U - 5U
[BLADE ROTATION ERROR]	Failure detected during the reset of the BLADE ROTATION, if the focus lens is not located in its default position.	6U
[BLADE FAN ERROR]	Blower for cooling the BLADE wheel failed.	6U
[MOTOR PCB 6 ERROR]	Motor pcb 6U not detected.	5U - 6U
[FOCUS ERROR]	Failure detected during the reset of the FOCUS, if the focus lens is not located in its default position.	7U
[FROST ERROR]	Failure detected during the reset of the effect FROST, if this effect is not located in the default position.	7U
[ZOOM ERROR]	Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position.	7U
[PRISM ERROR]	Failure detected during the reset of the PRISM, if the focus lens is not located in its default position.	7U
[PRISM ROTATION ERROR]	Failure detected during the reset of the PRISM ROTATION, if the focus lens is not located in its default position.	7U
[DEFOGGING FAN ERROR]	Blower for DEFOG failed.	5U

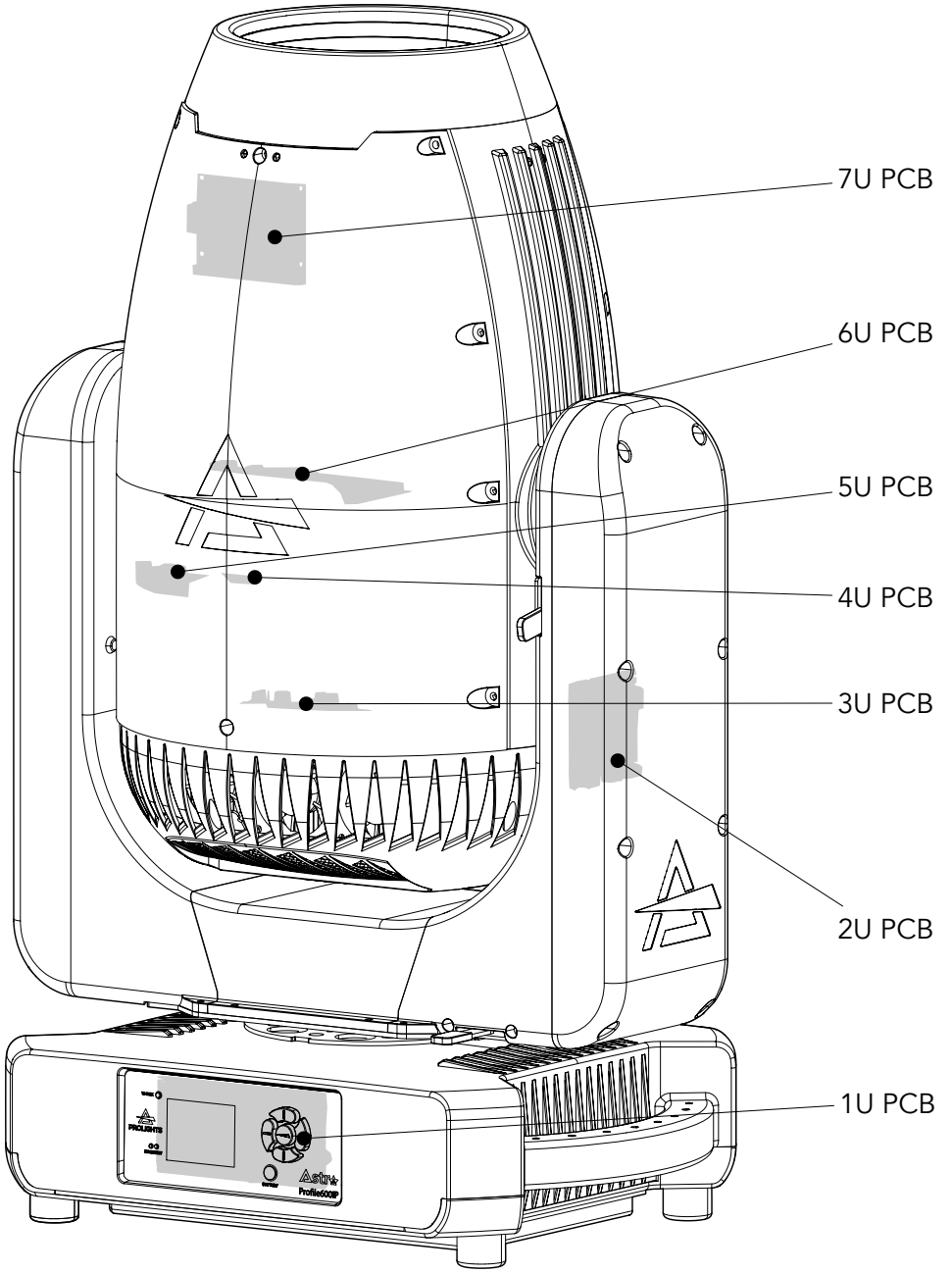
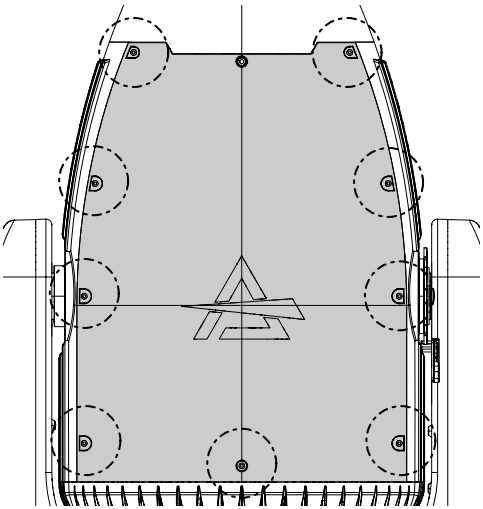


Fig. 13

18 - PERIODICAL CLEANING

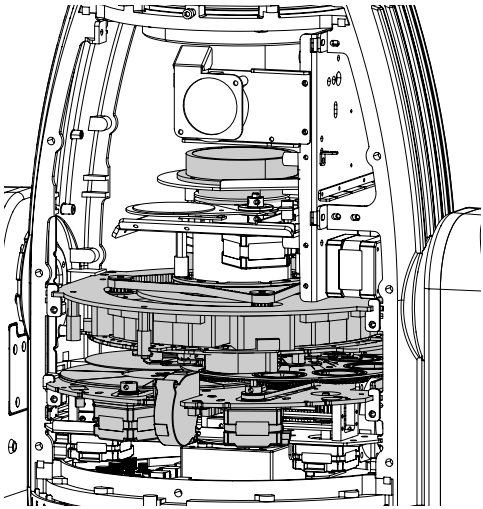
WARNING! Turn OFF power and allow approximately 20 minutes for the fixture to cool down.

1



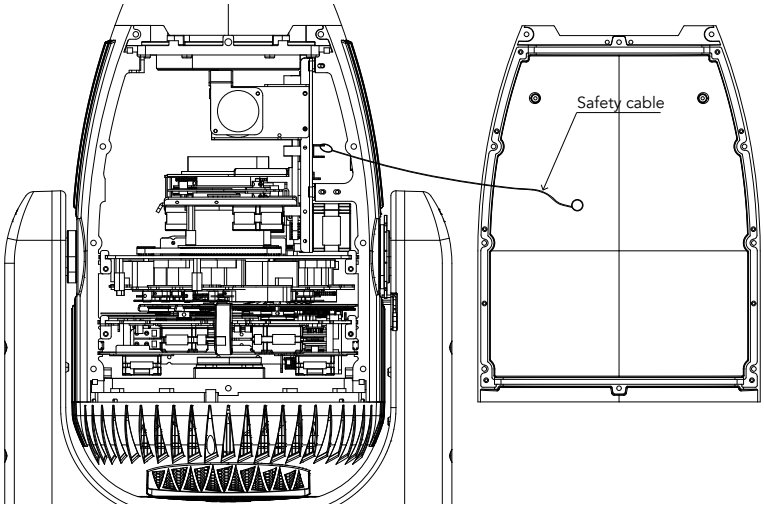
Before removing rear cover, place the head in a horizontal position and engage both the PAN and TILT locks for added stability. See the "PAN AND TILT LOCK" paragrap (pag. 6).
Loosen and remove the marked screws and opening the head covers (1) from both sides.

3



Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors, lenses, filters and modules.

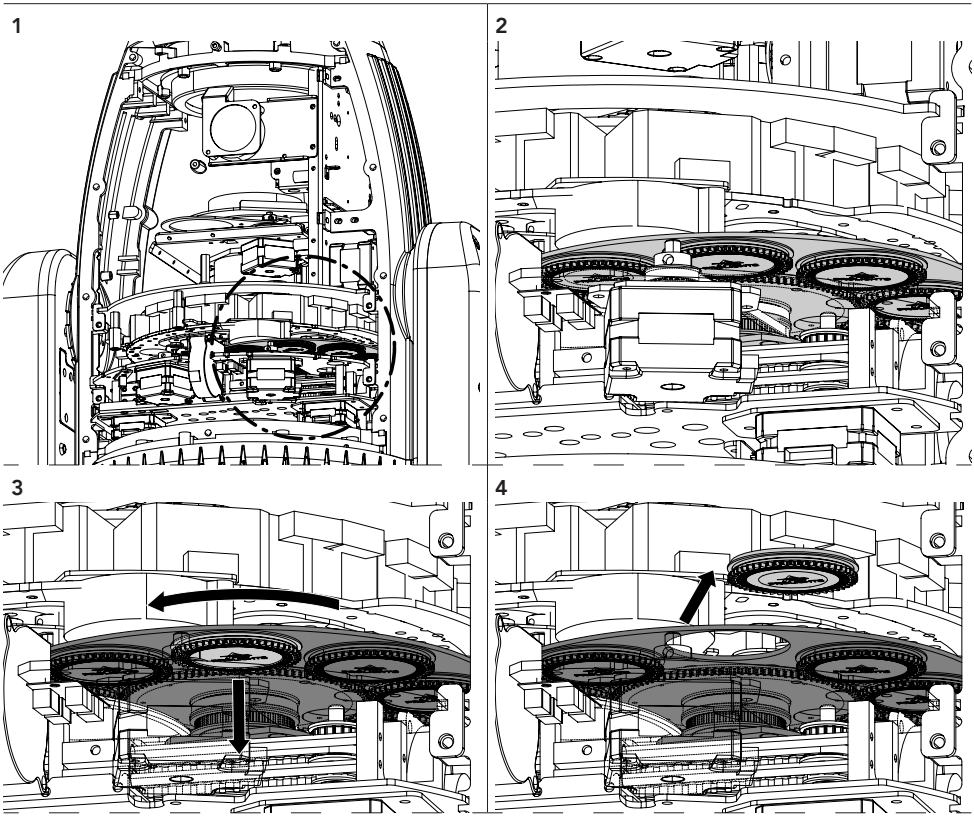
2



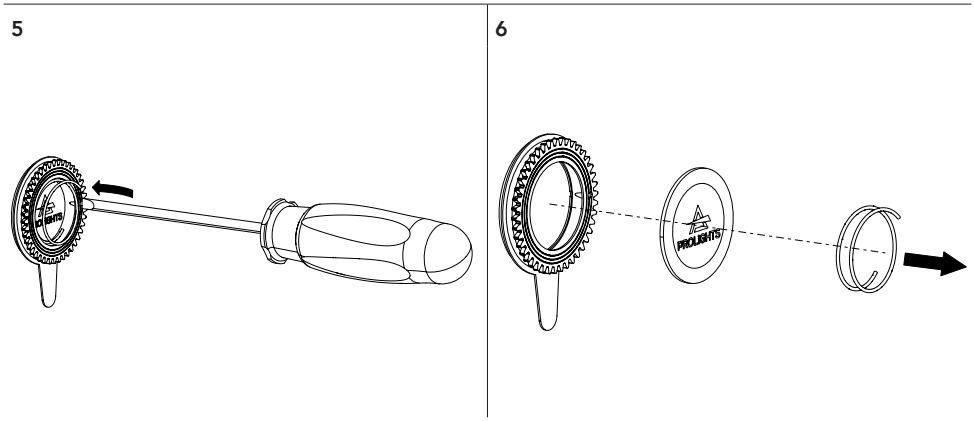
Unclip the safety cable on both sides (2).

Fig. 14

19 - GOBOS REPLACEMENT



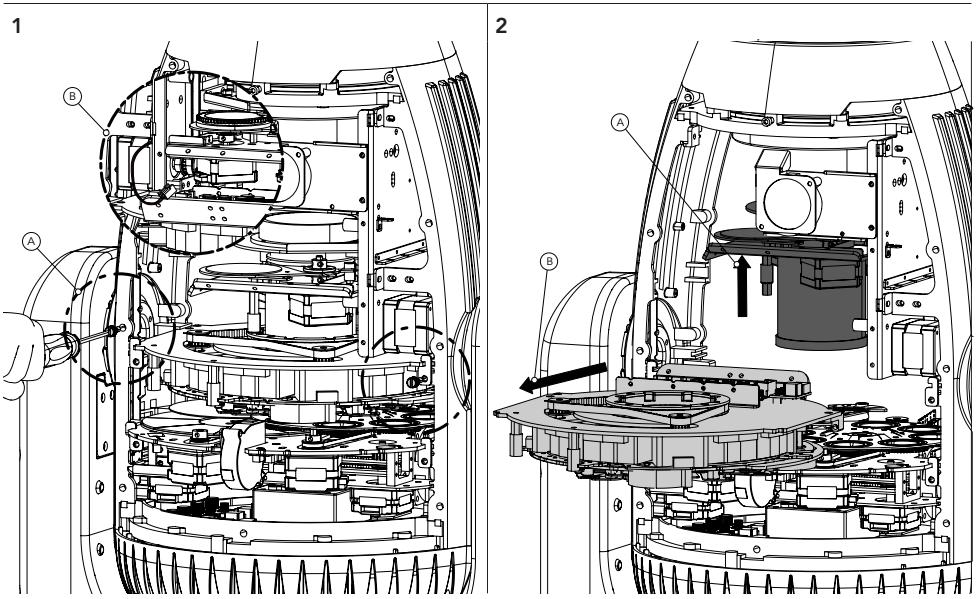
Open the head covers (see the "PERIODICAL CLEANING" paragraph, points 1 and 2).
Gently remove the gobo holder from the gobo wheel (3, 4).



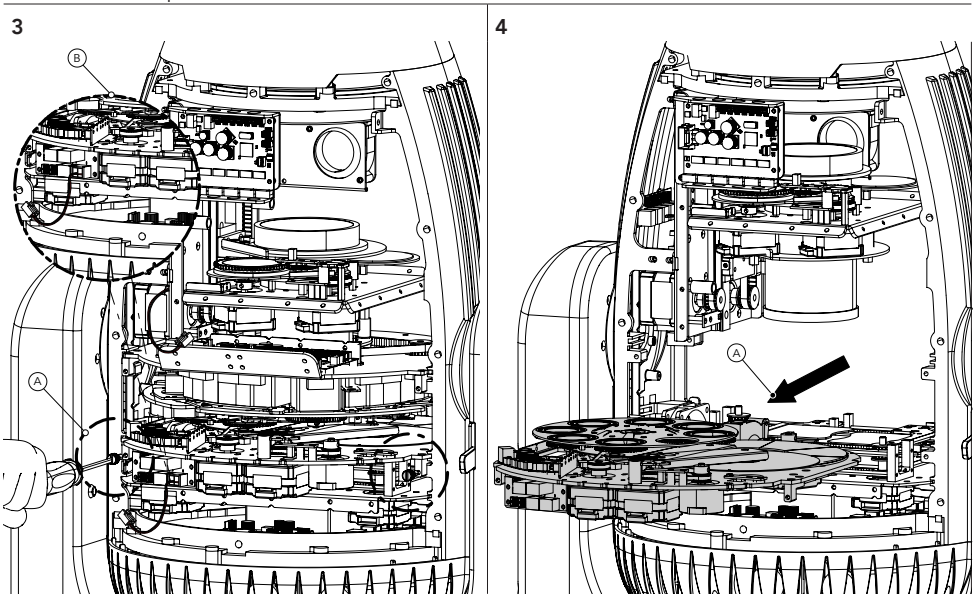
Remove the spring and the gobo (5, 6).

Fig. 15

20 - BLADE AND CMY MODULES REMOVAL



Open the head covers (see the "PERIODICAL CLEANING" paragraph, points 1 and 2).
Unscrew the two screws marked on the front view (1-A) and disconnect the two connectors on the other side (1-B). Push up the focus lens (2-A) and then remove the Blade module (2-B).



Unscrew the two marked screws on the other side(3-A) and disconnect the two connectors (3-B).
Then remove the CMY module (4-A).

Fig. 16

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.

- **Only for IP65/IP66 projectors**: It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance, this tool helps to double check the correct assembling of the covers with a check of the IP grade of the fixture.
- 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.

RESETTING THE MAINTENANCE TIME MESSAGE

When the machine shows the message "MAINTENANCE TIME" it means that the fixture needs an overall check. once you have checked and cleaned the whole machine to reset the message follow the steps below:

- enter the menu, go to INFORMATIONS and press Enter
- go to FIXTURE TIME and press Enter
- finally go to MAINTENANCE TIME and press Enter
- Press enter again and enter the password 050 to reset the message.

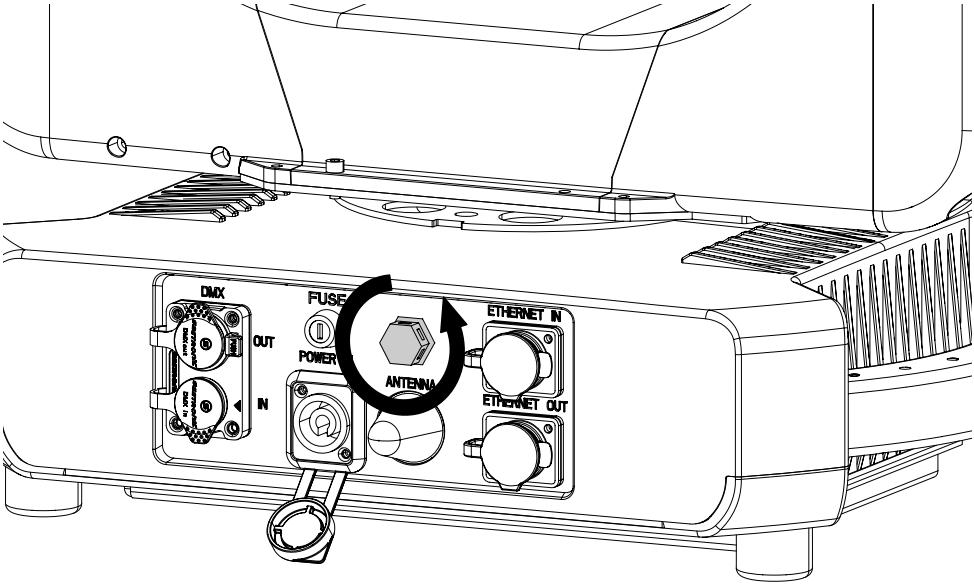
Problems	Possible causes	Checks and remedies
Product doesn't power ON	• No power to the product	• Check that power is switched ON and cables are plugged in.
	• Fuse blown or internal fault	• Check if the Fuse is intact and eventually replace it if necessary. • Contact the PROLIGHTS Service or authorized 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 to the contoller.	• Bad signal connection	• Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables.
	• 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 corrupting the signal transmission 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, adjustment 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 (temperature 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.

22 - TEST OF IP65 RATING

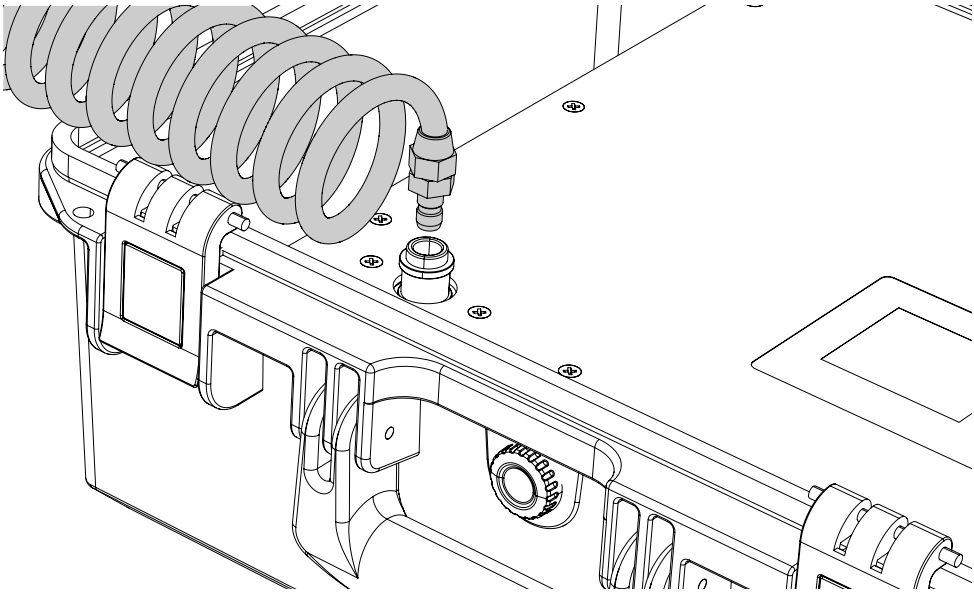
It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance.

1



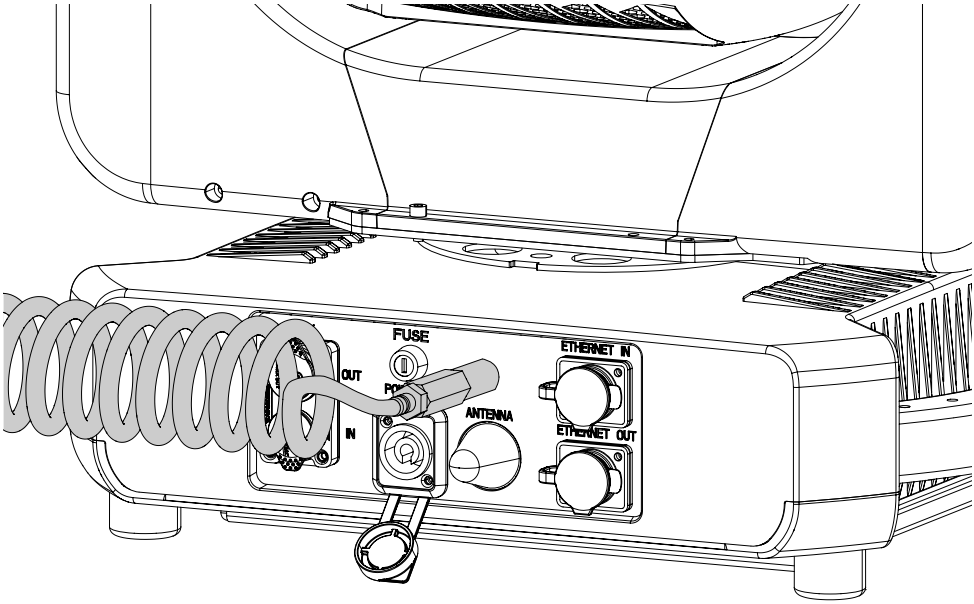
Remove the gore valve from the connections panel.

2



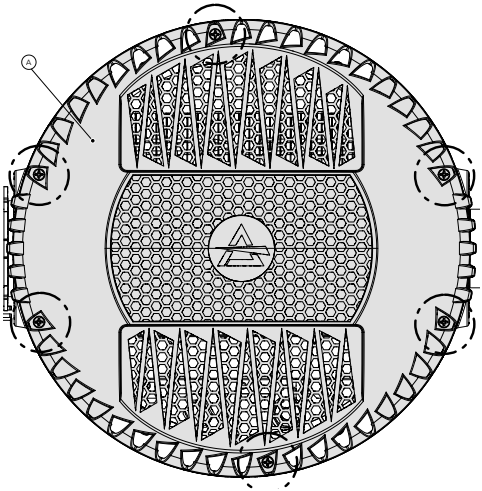
Connect the air hose to the IPTESTBOX by inserting the quick-connect fitting into the coupler.

3

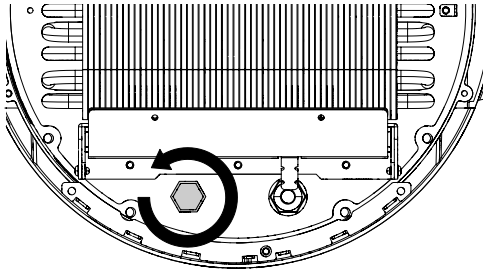


Insert the threaded end into the threaded valve hole socket.

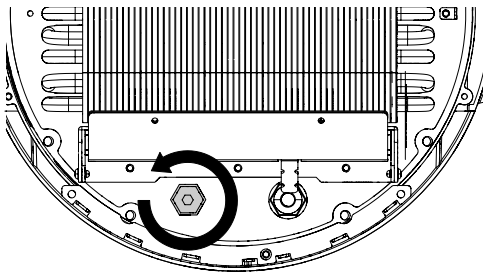
4



5



6



Remove the rear cover by unscrewing the six screws (4). Then remove the gore valve on the rear connection heatsilk module (5) and insert the hex socket cap head included in the IPTESTBOX box (6). For the operating procedure using the instrument, refer to the IPTESTBOX user manual.

Fig. 17

Note

Note

Note

PROLIGHTS is a trademark of
MUSIC & LIGHTS S.r.l.
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