PROLiGHTS

Astra Profile400

Indoor LED Moving Profile, with a 400W White source

USER MANUAL

English version

Thank you for choosing PROLIGHTS

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

Any other use, if not expressly indicated, could compromise the good condition/operation of the product and/or be a source of danger.
This product is meant for professional use. Therefore, commercial use of this equipment is subject to the respectively applicable national accident prevention rules and regulations.

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

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

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

**Visit the download area
of the product page**

INDEX

SAFETY INFORMATION

WARNING!
- See https://www.prolights.it/product/ASTRAPROFILE400#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 meters (3,28 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$_a$-10°C   **Minimum operating ambient temperature (Ta)**
- Do not operate the fixture if the ambient temperature (Ta) is below -10 °C (14 °F).

Protection from burns and fire
- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials.
- Ensure that there is free and unobstructed airflow around the fixture.
- Keep flammable materials well away from the fixture.
- Do not expose the front glass to sunlight or any other strong light source from any angle. Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.
- Do not attempt to bypass thermostatic switches or fuses.

Indoor use
- This product is designed for indoor and dry environments.
- Do not use in wet location and do not expose the fixture to rain or moisture.
- Never use the fixture in places subject to vibrations or bumps.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture.
- Damages caused by inadequate cleaning or maintenance are not covered by the product warranty.

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$70°C   **Temperature of the external surface**
- The surface of the fixture can reach up to 70 °C (158 °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 1,509 m (4,95 ft) is not expected.

	Minimun distance	Risk Group 2	Risk Group 1
	0.2 m / 0.7 ft	1,509 m / 4,95 ft	
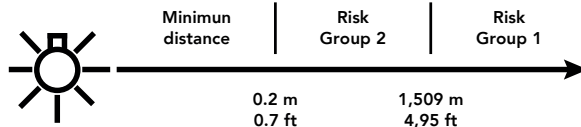
Disposal
- This product is supplied in compliance with European Directive 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE). To preserve the environment please dispose/ recycle this product at the end of its life according to the local regulation.

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).

The products to which this manual refers comply with:
- UL 1573 + CSA C22.2 No. 166 - Stage and Studio Luminaires and Connector Strips.
- UL 1012 + CSA C22.2 No. 107.1 - Standard for power units other than class 2.

FCC Compliance:
- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

Other approvals

1 - PACKAGING

PACKAGE CONTENT
- 1x ASTRAPROFILE400.
- 1x 1,5 meters power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65).
- 2x OS24.
- User Manual.

OPTIONAL ACCESSORIES
- WSBBR512G6: blackBox R-512 G6 receiver 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.
- WSBBF1G6: blackBox F-1 G6 transrec, 512ch, 2.45GHz, DMX&RDM,Bluetooth,G3,G4,G4S, G5, CRMX.
- WSBBF1G5: blackBox F-1 G5 transmitter, 2,45GHz & 5.2/5,8 GHz, DMX/RDM, 512Ch.
- TOUR53415L03BK: dmx cable HC5340. CANC5MXX XLR 5p->CANC5FXX XLR (f) 5p, L.3m.
- 938225L03: 3x2.5mm TH07 Cable, 16A SETSAC3MX, 16A SETSAC3FX, L. 3m.
- 9313FXWL03: ass. 3x2.5mm TH07 cable, 16A 3p 230V CEE plug, SETSAC3FX socket, L.3 m.
- 9333FXWL03: ass. 3x2.5mm TH07 cable, SHUKO plug, SETSAC3FX socket, L.3m.
- RSR0670A/B: steel security cable for hanging bodies, inox steel shackle, L=60 cm, silver/black.
- C6002A/B: slim aluminium clamp, 200 kg loading, 48-51 mm tubes, M10 bolt, silver/black.
- FCLASTRAP400: flight case for 3 pcs of ASTRAPROFILE400.
- OS24: quick-lock omega bracket.
- UPBOX2P5: firmware uploader kit, USB IN, 5-pin XLR DMX OUT.

2 - TECHNICAL DRAWING
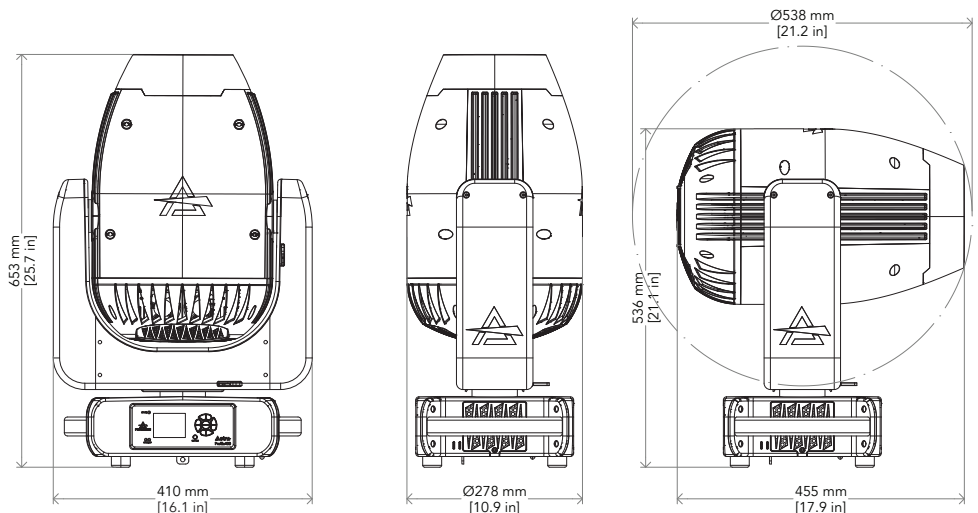
Weight: 27,6 kg - 60,84 lbs

Fig. 01

3 - PAN AND TILT LOCK

PAN Mechanism lock and release
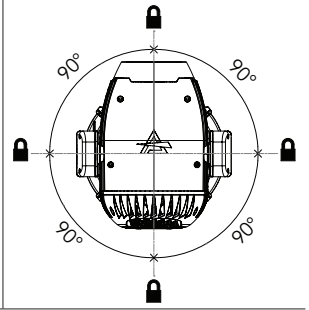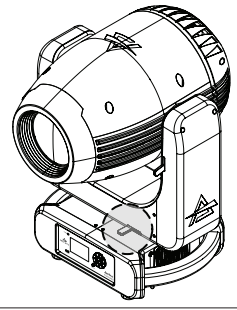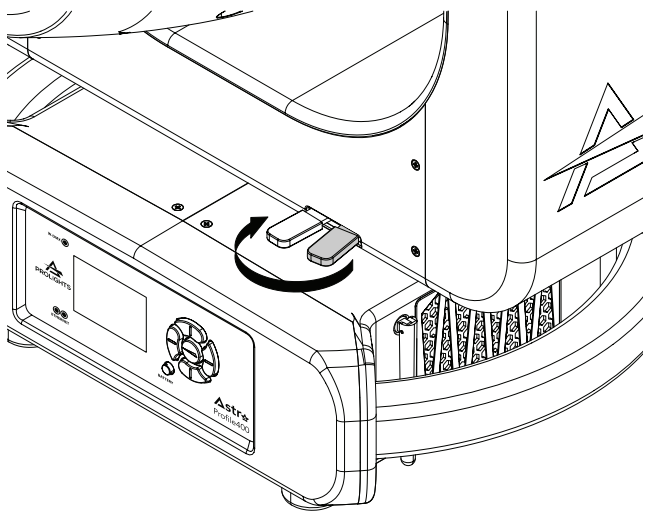
TILT Mechanism lock and release
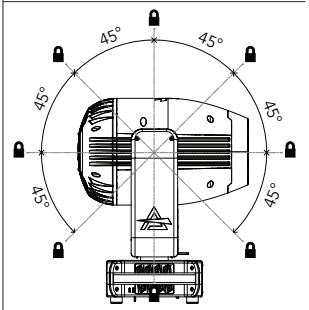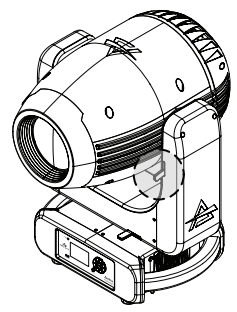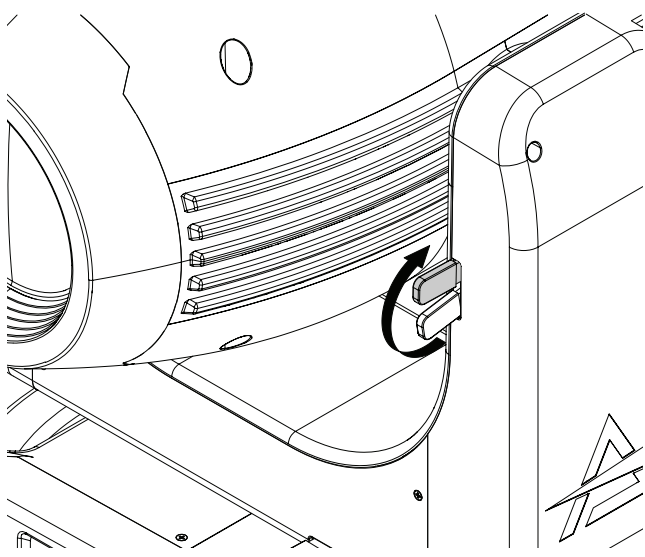
Fig. 02

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.

C6002 clamp

RSR0670A/B Steel security cable

OS24

108 mm [4.3 in]

108 mm [4.3 in]

Fig.03
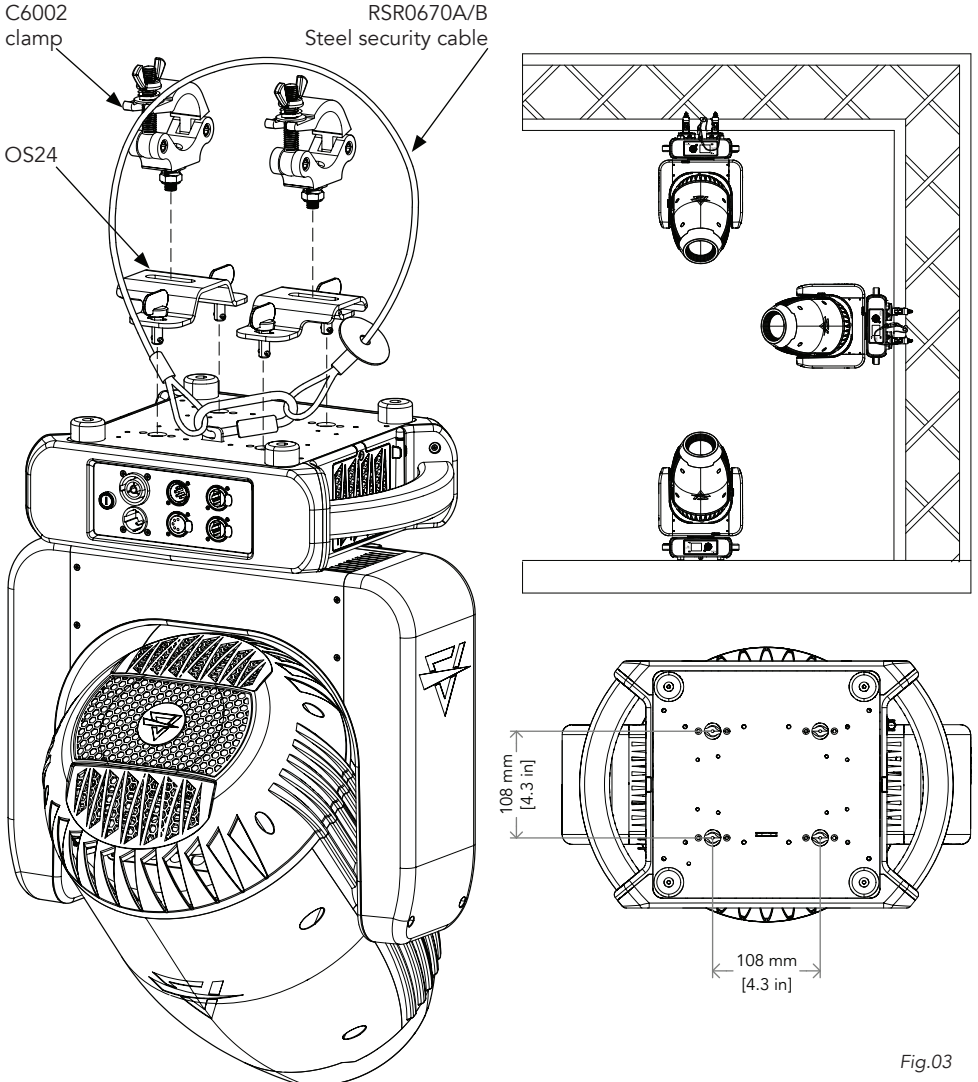
5 - CONNECTION TO THE MAINS SUPPLY

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 620W.

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. SAFETY EYE to attach safety cable.
2. PAN Mechanism lock and release.
3. USER INTERFACE with display and buttons for access to the control panel functions.
4. TILT Mechanism lock and release.
5. ANTENNA of Wireless DMX Receiver internal module.
6. ETHERCON CONNECTORS IN / OUT signal.
7. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
8. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
9. POWER OUT: power output for connection of multiple units in series.
10. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
11. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T8A 250V).
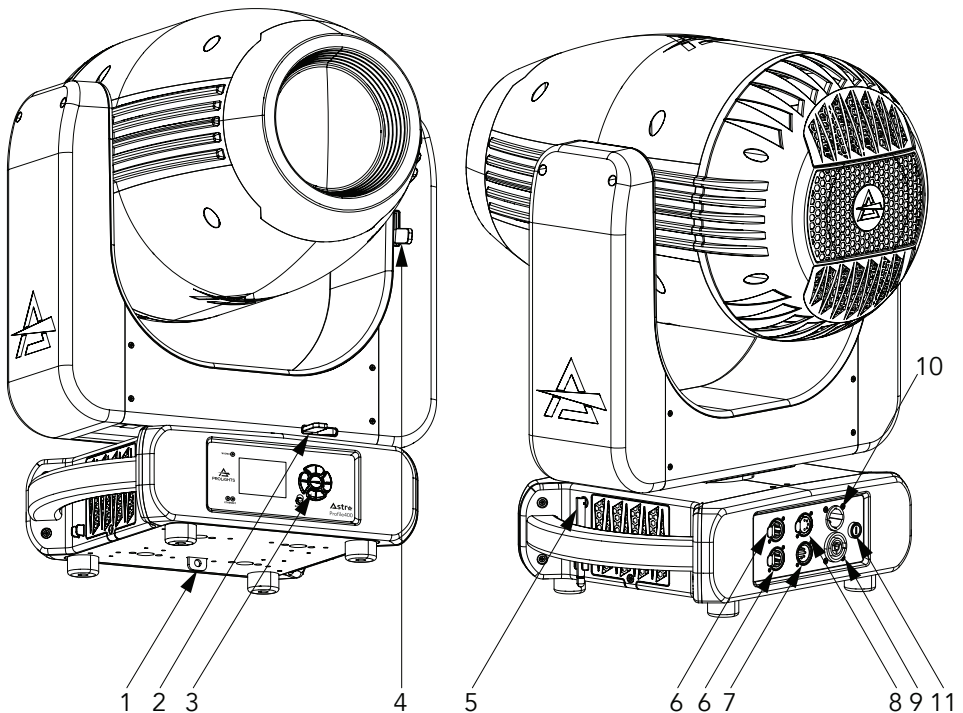
Fig 04

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
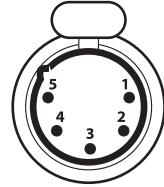
Fig. 05

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:

DMX Address: 1   DMX Address: 55   DMX Address: 110   DMX Address: 165

DMX IN   DMX OUT   DMX IN   DMX OUT   DMX IN   DMX OUT   DMX IN   DMX OUT

DMX512 Controller
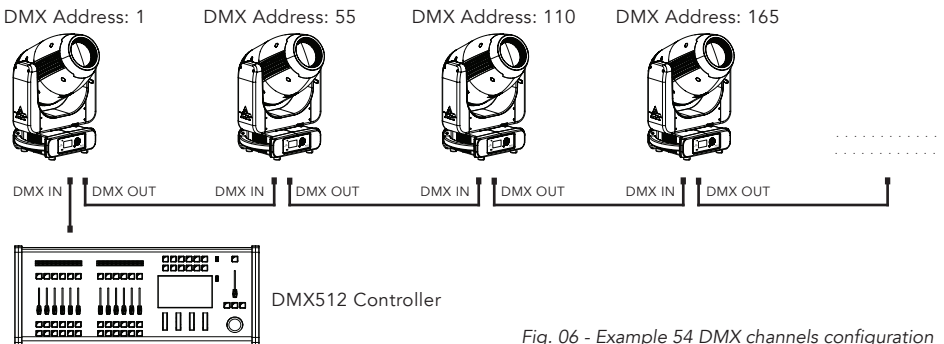
Fig. 06 - Example 54 DMX channels configuration

PROLIGHTS - Astra Profile400

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.

120 Ω

Example:
5 pin XLR connector
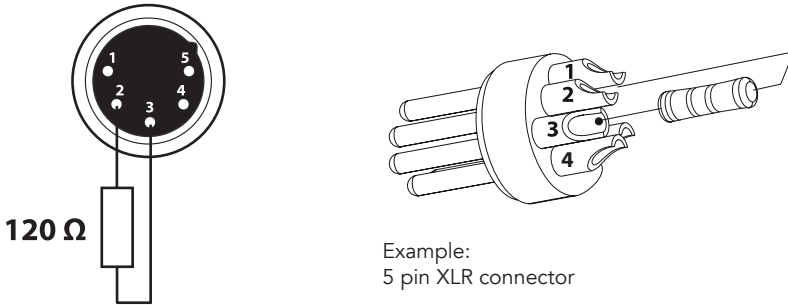
Fig. 07

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

ASTRAPROFILE400 can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use ASTRAPROFILE400 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 ASTRAPROFILE400 protocol selected is ArtNet / sACN, the WDMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the ASTRAPROFILE400.

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

ASTRAPROFILE400 can be used as wireless receiver connected to a wireless transmitter.
To use ASTRAPROFILE400 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.
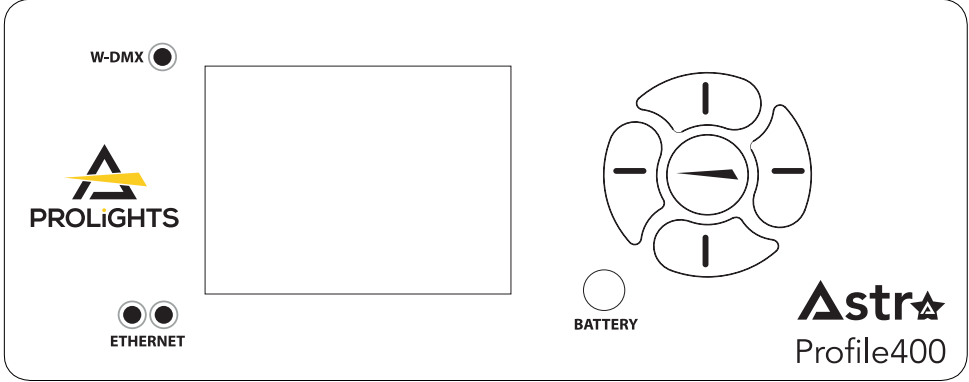
DISPLAY AND BUTTONS LAYOUT
The product has a display and buttons for access to the control panel functions:

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.*
	MOVE-MENT	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/ IN-VERSE **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.*

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			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.*

			PAN (16 BIT)		
			TILT (16 BIT)		
			DIMMER (16 BIT)		
			CYAN		
			MAGENTA		
			YELLOW		
			CTO		
			COLOR WHEEL		
			ROT GOBO		
			PRISM		
			PRISM ROTATION		
			FROST		
			GOBO 1 FOCUS		
			...		
			GOBO 7 FOCUS		
			GOBO 1 INDEX		
			...		
			GOBO 7 INDEX		
			IRIS		
			ZOOM		
			FOCUS		
			ANIMATION INS		
			ANIMATION FOCUS		
			BLADE 1 POSITION		
			BLADE 1 ROT		
			...		
			BLADE 4 POSITON		
			BLADE 4 ROT		
			FRAME ROT		
			PAN ANGLE		
			TILT ANGLE		
			IRIS FOCUS		
			BLADE FOCUS		
			ENCODER RESET	YES / NO	
		MANUAL CONTROL	PAN		*For manual control of the unit.*
			PAN (16 BIT)		
			TILT (16 BIT)		
			DIMMER (16 BIT)		

			CYAN		
			MAGENTA		
			YELLOW		
			CTO		
			COLOR WHEEL		
			GOBO WHEEL		
			GOBO ROTATION		
			ANIMATION		
			ANIMATION ROTA-TION		
			PRISM		
			PRISM ROTATION		
			FROST		
			IRIS		
			ZOOM ON OPEN		
			FOCUS ON OPEN		
			GOBO 1		
			…		
			GOBO 8		
			GOBO 1		
			…		
			GOBO 8		
			…		
			FRAME ROT		
			BLADE 1 POSITON		
			BLADE 1 ROT		
			…		
			BLADE 4 POSITON		
			BLADE 4 ROT		
		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_ FRE-QUENCY 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

0xA017

PAN/TILT VALUES

Pan = 128 Tilt = 0	Pan = 128 Tilt = 128	Pan = 128 Tilt = 255

Tilt movement range: 270°
Pan movement range: 540

Pan = 0 Tilt = 80	Pan = 128 Tilt = 80	Pan = 255 Tilt = 80
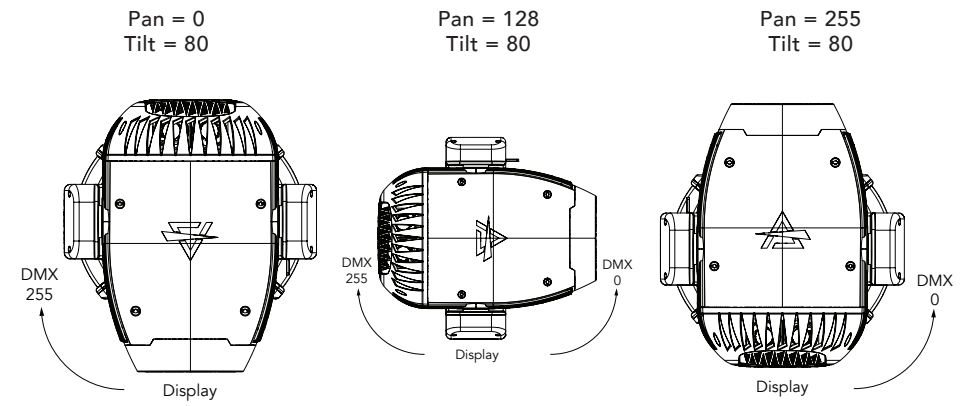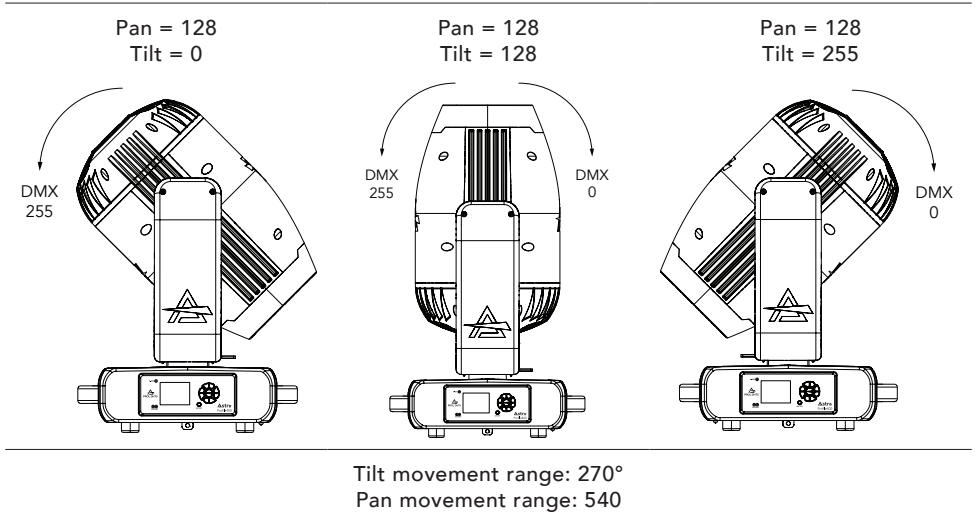
Fig. 09

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

BAS	STD	EXT	Function	DMX Value	Default
1	1	1	**PAN** Linary from 0% to 100%	000 ÷ 255	128
	2	2	**PAN FINE**	000 ÷ 255	128
2	3	3	**TILT** Linary from 0% to 100%	000 ÷ 255	128
	4	4	**TILT FINE**	000 ÷ 255	128
3	5	5	**DIMMER** Linary from 0% to 100%	000 ÷ 255	000
	6	6	**DIMMER FINE**	000 ÷ 255	000
4	7	7	**SHUTTER** Close Strobe from slow to fast Open Pulse in from slow to fast Open Pulse out from slow to fast Open Random from slow to fast Open	000 ÷ 001 002 ÷ 062 063 ÷ 064 065 ÷ 125 126 ÷ 127 128 ÷ 188 189 ÷ 190 191 ÷ 251 252 ÷ 255	255
5	8	8	**CYAN** Linear insertion from 0% to 100%	000 ÷ 255	000
		9	**CYAN FINE**	000 ÷ 255	000
6	9	10	**MAGENTA** Linear insertion from 0% to 100%	000 ÷ 255	000
		11	**MAGENTA FINE**	000 ÷ 255	000
7	10	12	**YELLOW** Linear insertion from 0% to 100%	000 ÷ 255	000
		13	**YELLOW FINE**	000 ÷ 255	000
8	11	14	**CTO** Linear insertion from 0% to 100%	000 ÷ 255	000
		15	**CTO FINE**	000 ÷ 255	000
9	12	16	**COLOR WHEEL 1** **Indexed** Open Open + 5600K High CRI 5600K High CRI 5600K High CRI + Bright Red Bright Red Bright Red + Deeper Blue Deeper Blue Deeper Blue + Forest Green Forest Green Forest Green + Deep Orange Deep Orange Deep Orange + Magenta Magenta Magenta + Congo Blue Congo Blue Congo Blue + Medium Blue Green Medium Blue Green Medium Blue Green + Open **Forward Spin** From fast to slow **Stop** Stop **Reverse Spin** From slow to fast	0 ÷ 8 9 ÷ 15 16 ÷ 22 23 ÷ 29 30 ÷ 36 37 ÷ 43 44 ÷ 50 51 ÷ 57 58 ÷ 64 65 ÷ 71 72 ÷ 78 79 ÷ 85 86 ÷ 92 93 ÷ 99 100 ÷ 106 107 ÷ 113 114 ÷ 120 121 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	0

BAS	STD	EXT	Function	DMX Value	Default
10	13	17	**ROT GOBO** **Indexed** Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 **Forward Spin** From fast to slow **Stop** Stop **Reverse Spin** From slow to fast **Shake** Gobo 1 from slow to fast Gobo 2 from slow to fast Gobo 3 from slow to fast Gobo 4 from slow to fast Gobo 5 from slow to fast Gobo 6 from slow to fast Gobo 7 from slow to fast	 0 ÷ 7 8 ÷ 15 16 ÷ 23 24 ÷ 31 32 ÷ 39 40 ÷ 47 48 ÷ 55 56 ÷ 63 64 ÷ 130 131 ÷ 132 133 ÷ 199 200 ÷ 207 208 ÷ 215 216 ÷ 223 224 ÷ 231 232 ÷ 239 240 ÷ 247 248 ÷ 255	000
11	14	18	**R. GOBO ROTATION** **Indexed** Lineary from 0° to 360° **Forward Spin** From fast to slow **Stop** Stop **Reverse Spin** From slow to fast	 000 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	000
	15	19	**R. GOBO ROTATION FINE**	000 ÷ 255	000
12	16	20	**4F CIRCULAR PRISM** Open Prism insert	 000 ÷ 127 128 ÷ 255	000
13	17	21	**4F CIRCULAR PRISM ROTATION** **Indexed** Lineary from 0° to 360° **Forward Spin** From fast to slow **Stop** Stop **Reverse Spin** From slow to fast	 000 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	000
	18	22	**4F CIRCULAR PRISM ROTATION FINE**	000 ÷ 255	000
14	19	23	**FROST** Linear insertion from 0% to 100%	 000 ÷ 255	000
		24	**FROST FINE**	000 ÷ 255	000
15	20	25	**IRIS** **Indexed** Lineary from Large to Small **Forward Spin** Close from fast to slow **Stop** Open from slow to fast **Reverse Spin** Open and close from slow to fast	 0 ÷ 63 64 ÷ 127 128 ÷ 191 192 ÷ 255	 000
		26	**IRIS FINE**	000 ÷ 255	000
16	21	27	**ZOOM** Linear from narrow to wide	 000 ÷ 255	000
	22	28	**ZOOM FINE**	000 ÷ 255	000
17	23	29	**FOCUS** Linear from far to near	 000 ÷ 255	000
	24	30	**FOCUS FINE**	000 ÷ 255	000
18	25	31	**ANIMATION INSERTION** Linear insertion from 0% to 100%	 000 ÷ 255	000

BAS	STD	EXT	Function	DMX Value	Default
19	26	32	**ANIMATION ROTATION** **Indexed** Lineary from 0° to 360° **Forward Spin** From fast to slow **Stop** Stop **Reverse Spin** From slow to fast	 000 ÷ 127 128 ÷ 190 191 ÷ 192 193 ÷ 255	000
	27	33	**ANIMATION ROTATION FINE**	000 ÷ 255	000
20	28	34	**BLADE 1 POSITION** Movement from outward to inward	 000 ÷ 255	000
		35	**BLADE 1 POSITION FINE**	000 ÷ 255	000
21	29	36	**BLADE 1 ROTATION** Swivelling from -30 degrees towards 0 degrees 0 degrees Swivelling from 0 degrees to +30 degrees	 0 ÷ 127 128 ÷ 128 129 ÷ 255	128
		37	**BLADE 1 ROTATION FINE**	000 ÷ 255	000
22	30	38	**BLADE 2 POSITION** Movement from outward to inward	 000 ÷ 255	000
		39	**BLADE 2 POSITION FINE**	000 ÷ 255	000
23	31	40	**BLADE 2 ROTATION** Swivelling from -30 degrees towards 0 degrees 0 degrees Swivelling from 0 degrees to +30 degrees	 0 ÷ 127 128 ÷ 128 129 ÷ 255	128
		41	**BLADE 2 ROTATION FINE**	000 ÷ 255	000
24	32	42	**BLADE 3 POSITION** Movement from outward to inward	 000 ÷ 255	000
		43	**BLADE 3 POSITION FINE**	000 ÷ 255	000
25	33	44	**BLADE 3 ROTATION** Swivelling from -30 degrees towards 0 degrees 0 degrees Swivelling from 0 degrees to +30 degrees	 0 ÷ 127 128 ÷ 128 129 ÷ 255	128
		45	**BLADE 3 ROTATION FINE**	000 ÷ 255	000
26	34	46	**BLADE 4 POSITION** Movement from outward to inward	 000 ÷ 255	000
		47	**BLADE 4 POSITION FINE**	000 ÷ 255	000
27	35	48	**BLADE 4 ROTATION** Swivelling from -30 degrees towards 0 degrees 0 degrees Swivelling from 0 degrees to +30 degrees	 0 ÷ 127 128 ÷ 128 129 ÷ 255	128
		49	**BLADE 4 ROTATION FINE**	000 ÷ 255	000
28	36	50	**FRAME ROTATION** Swivelling from -30 degrees towards 0 degrees 0 degrees Swivelling from 0 degrees to +30 degrees	 0 ÷ 127 128 ÷ 128 129 ÷ 255	128
		51	**FRAME ROTATION FINE**	000 ÷ 255	000

BAS	STD	EXT	Function	DMX Value	Default
	37	52	**FRAME MACROS** No Function Macro 1 Macro 2 Macro 3 Macro 4 Macro 5 Macro 6 Macro 7 Macro 8 Macro 9 Macro 10 Macro 11 Macro 12 Macro 13 Macro 14 Macro 15 Macro 16 Macro 17 Macro 18 Macro 19 Macro 20 Macro 21 Macro 22 Macro 23 Macro 24 Macro 25 Macro 26 Macro 27 Macro 28 Macro 29 Macro 30 Macro 31 Macro 32 Macro 33 Macro 34 Macro 35 Macro 36	 0 ÷ 3 4 ÷ 10 11 ÷ 17 18 ÷ 24 25 ÷ 31 32 ÷ 38 39 ÷ 45 46 ÷ 52 53 ÷ 59 60 ÷ 66 67 ÷ 73 74 ÷ 80 81 ÷ 87 88 ÷ 94 95 ÷ 101 102 ÷ 108 109 ÷ 115 116 ÷ 122 123 ÷ 129 130 ÷ 136 137 ÷ 143 144 ÷ 150 151 ÷ 157 158 ÷ 164 165 ÷ 171 172 ÷ 178 179 ÷ 185 186 ÷ 192 193 ÷ 199 200 ÷ 206 207 ÷ 213 214 ÷ 220 221 ÷ 227 228 ÷ 234 235 ÷ 241 242 ÷ 248 249 ÷ 255	
	38	53	**FRAME MACROS SPEED** Slow to fast	 000 ÷ 255	000

BAS	STD	EXT	Function	DMX Value	Default
29	39	54	**CONTROL**		000
			No Function/Safe	000 ÷ 001	
			PAN REVERSE ON	002 ÷ 003	
			PAN REVERSE OFF	004 ÷ 005	
			TILT REVERSE ON	006 ÷ 007	
			TILT REVERSE OFF	008 ÷ 009	
			PAN/TILT MODE FAST	010 ÷ 011	
			PAN/TILT MODE MEDIUM	012 ÷ 013	
			PAN/TILT MODE SLOW	014 ÷ 015	
			HOME MODE STANDARD	016 ÷ 017	
			HOME MODE CUSTOM	018 ÷ 019	
			MOVEMENT IN BLACKOUT ON	020 ÷ 021	
			MOVEMENT IN BLACKOUT OFF	022 ÷ 023	
			COLOR WHEEL BLACKOUT ON (index)	024 ÷ 025	
			COLOR WHEEL BLACKOUT OFF (index)	026 ÷ 027	
			COLOR WHEEL CONTINUOUS MOVEMENT (index)	028 ÷ 029	
			COLOR WHEEL STEP MOVEMENT (index)	030 ÷ 031	
			ROTATING GOBO WHEEL BLACKOUT ON (index)	032 ÷ 033	
			ROTATING GOBO WHEEL BLACKOUT OFF (index)	034 ÷ 035	
			ROTATING GOBO WHEEL CONTINUOUS MOVEMENT (index)	036 ÷ 037	
			ROTATING GOBO WHEEL STEP MOVEMENT (index)	038 ÷ 039	
			DISPLAY ON	040 ÷ 041	
			DISPLAY 10S	042 ÷ 043	
			DISPLAY 20S	044 ÷ 045	
			DISPLAY 30S	046 ÷ 047	
			FLIP DISPLAY ON	048 ÷ 049	
			FLIP DISPLAY OFF	050 ÷ 051	
			FLIP DISPLAY AUTO	052 ÷ 053	
			KEY LOCK ON	054 ÷ 055	
			KEY LOCK OFF	056 ÷ 057	
			FAN MODE AUTO	058 ÷ 059	
			FAN MODE SILENT	060 ÷ 061	
			FAN MODE HIGH	062 ÷ 063	
			NO SIGNAL HOLD	064 ÷ 065	
			NO SIGNAL BLACKOUT	066 ÷ 067	
			STATUS LED ON	068 ÷ 069	
			STATUS LED OFF	070 ÷ 071	
			DIMMER CURVE LINEAR	072 ÷ 073	
			DIMMER CURVE S-CURVE	074 ÷ 075	
			DIMMER CURVE SQUARE LAW	076 ÷ 077	
			DIMMER CURVE INVERSE SQUARE LAW	078 ÷ 079	
			DIMMER SPEED AUTO	080 ÷ 081	
			DIMMER SPEED FAST	082 ÷ 083	
			DIMMER SPEED MEDIUM	084 ÷ 085	
			DIMMER SPEED SLOW	086 ÷ 087	
			LED FREQUENCY 600HZ	088 ÷ 089	
			LED FREQUENCY 1200HZ	090 ÷ 091	
			LED FREQUENCY 2000HZ	092 ÷ 093	
			LED FREQUENCY 4000HZ	094 ÷ 095	
			LED FREQUENCY 6000HZ	096 ÷ 097	
			LED FREQUENCY 25KHZ	098 ÷ 099	
			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	

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BAS	STD	EXT	Function	DMX Value	Default
29	39	54	**CONTROL** RESET BLADE 1 POSITON RESET BLADE 1 ROT RESET BLADE 2 POSITON RESET BLADE 2 ROT RESET BLADE 3 POSITON RESET BLADE 3 ROT RESET BLADE 4 POSITON RESET BLADE 4 ROT FAN MODE SUPER SILENT 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	146 ÷ 147 148 ÷ 149 150 ÷ 151 152 ÷ 153 154 ÷ 155 156 ÷ 157 158 ÷ 159 160 ÷ 161 162 ÷ 163 164 ÷ 165 166 ÷ 167 168 ÷ 169 170 ÷ 171 172 ÷ 173 174 ÷ 175 176 ÷ 177 178 ÷ 179 180 ÷ 181 182 ÷ 183 184 ÷ 185 186 ÷ 187 188 ÷ 189 190 ÷ 191 192 ÷ 193 194 ÷ 195 196 ÷ 197 198 ÷ 199 200 ÷ 201 202 ÷ 203 204 ÷ 205 206 ÷ 207 208 ÷ 209 210 ÷ 211 212 ÷ 213 214 ÷ 215 216 ÷ 217 218 ÷ 219 220 ÷ 221 222 ÷ 223 224 ÷ 225 226 ÷ 227 228 ÷ 229 230 ÷ 231 232 ÷ 233 234 ÷ 235 236 ÷ 237 238 ÷ 239 240 ÷ 241 242 ÷ 243 244 ÷ 245 246 ÷ 247 248 ÷ 249 250 ÷ 251 252 ÷ 253 254 ÷ 255	000

14 - ROTATING GOBOS WHEEL

Gobo dimensions:
• Type B
• Ø external (OD)= 25.7 mm
• Ø of image (ID)= 19 mm
• Thinckness= 1.1 mm

ID = Ø19 mm
[0.7 in]

OD = Ø25.7 mm
[1.0 in]

1.1 mm
[0.04 in]

Open

Gobo 7

Gobo 1

Gobo 6

Gobo 2

Gobo 5

Gobo 3

Gobo 4
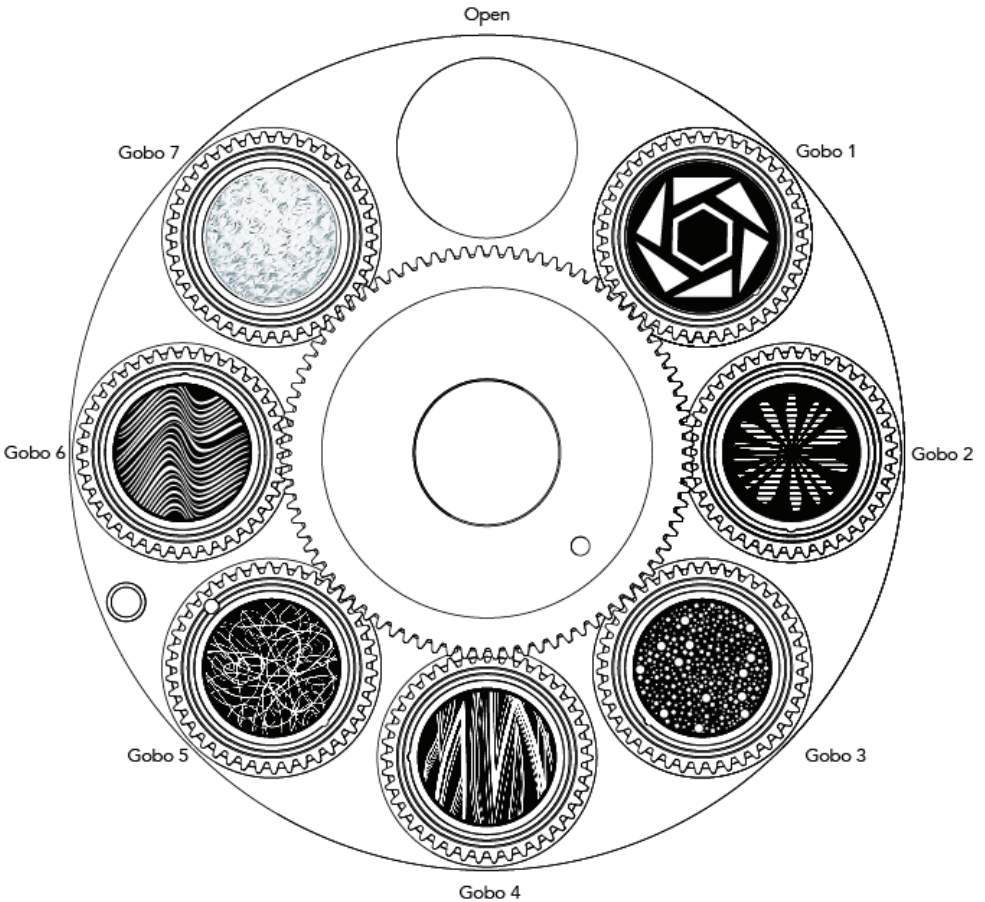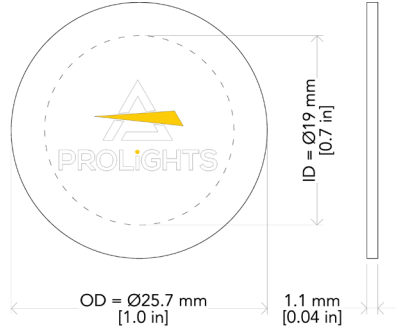
ATTENTION! Load with mirror surface toward the light source.

Fig. 10

15 - COLOR WHEEL

CTC 5600K

BRIGHT RED

DEEPER BLUE

FOREST GREEN

DEEP ORANGE

MAGENTA

CONGO BLUE

MEDIUM BLUE-GREEN

1
2
3
4
5
6
7
8
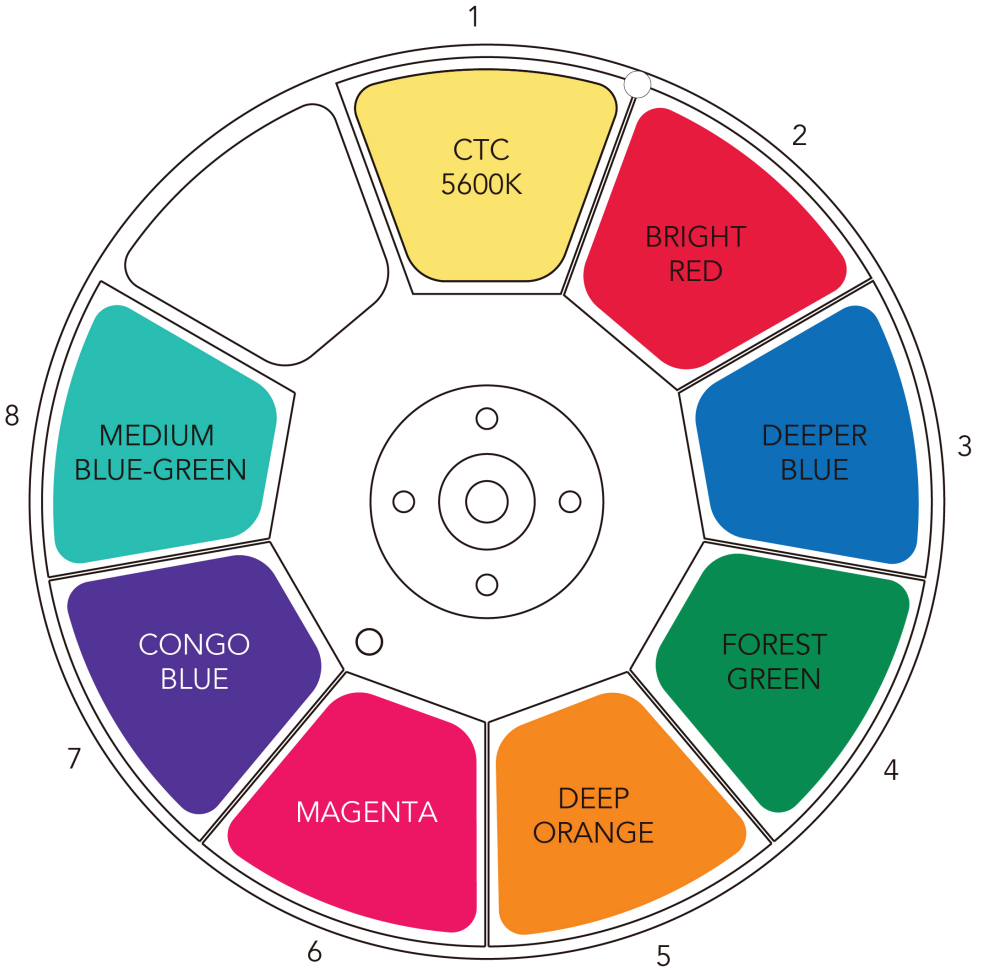
Fig. 11

16 - ANIMATION WHEEL

Ø15 mm
[0.6 in]

2 mm
[0.1 in]

OUTER DIAMETER
Ø118 mm [4.6 in]

IMAGE DIAMETER
Ø110 mm [4.3 in]

Ø36 mm
[1.4 in]

0.8 mm
[0.03 in]

Fig. 12

34   **PROLIGHTS - Astra** Profile400
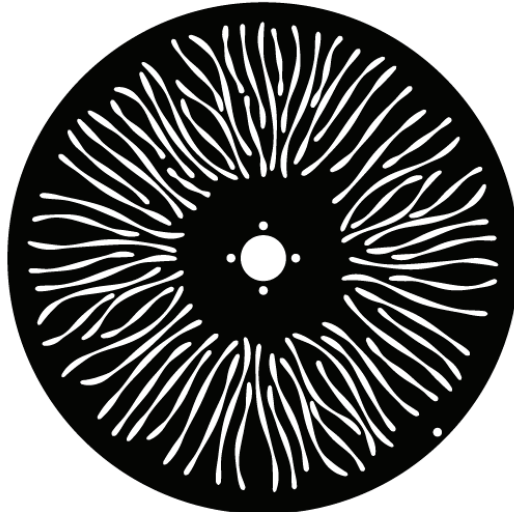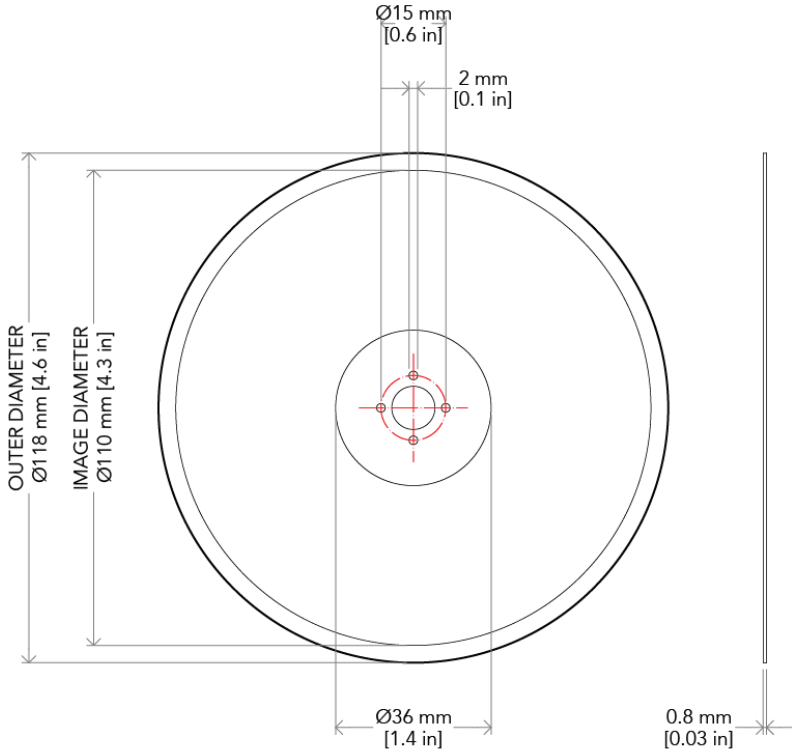
17 - ERROR MESSAGES

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 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).	2U
	or the stepping motor is defective.	2U
	or its driving IC on the PCB is defective.	2U
	or the product is not located in the default position after the reset of the fixture.	2U
[PAN LOCKED]	Pan is locked.	2U
[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) .	2U
	or the stepping motor is defective.	2U
	or its driving IC on the PCB is defective.	2U
	or the product is not located in the default position after the reset of the fixture.	2U
[TILT LOCKED]	Tilt is locked.	2U
[PAN ENCODER ERROR]	Pan encoder not detecteld.	2U
[TILT ENCODER ERROR]	Tilt encoder not detecteld.	2U
[PAN ERROR]	Pan sensor not detecteld.	2U
[TILT ERROR]	Tilt sensor not detecteld.	2U
[DISPLAY BATTERY ERROR]	Recharge The battery on the display board, keeping the product ON for some hours.	1U
	If the error still occurrs, the battery is faulty . Replace the battery on the display board.	1U
[LED ERROR]	This error message is displayed when the lamp is switched OFF without a command from the product control system.	3U
[LED 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
[LED TEMP. SENSOR ERROR]	LAMP sensor damaged (open or in short circuit).	3U

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[LED AIR IN (LOW) FAN ERR.]	Air in blower for cooling the lamp failed, the lamp has been switched OFF.	3U
[LED AIR OUT (UP) FAN ERR.]	Air out blower for cooling the lamp failed, the lamp has been switched OFF.	3U
[POWER SUPPLY FAN ERROR]	Blower for cooling the power supply failed.	1U
[BASE FAN 1 ERROR]	First of the blowers for cooling the base failed.	1U
[BASE FAN 2 ERROR]	Second of the blowers for cooling the base failed.	1U
[PAN/TILT PCB ERROR]	Pan tilt pcb not detected.	2U
[MOTOR PCB 2 ERROR]	Motor pcb 3U not detected.	4U
[MOTOR PCB 3 ERROR]	Motor pcb 4U not detected.	5U
[MOTOR PCB 4 ERROR]	Motor pcb 5U not detected.	6U
[MOTOR PCB 5 ERROR]	Motor pcb 6U not detected.	7U
[FAN PCB ERROR]	Fan PCB not detected.	3U
[FOCUS ERROR]	Failure detected during the reset of the FOCUS, if the focus lens is not located in its default position.	7U
[GOBO WHEEL ERROR]	Failure detected during the reset of the gobo wheel, if this wheel is not located in the default position.	5U
[4F PRISM ERROR]	Failure detected during the reset of the 4F effect prism, if this effect is not located in the default position.	7U
[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.	7U
[FROST ERROR]	Failure detected during the reset of the effect FROST, if this effect is not located in the default position.	7U
[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
[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
[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
[ZOOM ERROR]	Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position.	7U
[ANIMATION WHEEL ERROR]	Failure detected during the reset of the animation wheel, if this wheel is not located in the default position.	5U

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ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[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
[CMY FAN ERROR]	Blower for cooling the CMY module failed.	4U
[GOBO FAN ERROR]	Blower for cooling the GOBO wheel failed.	5U
[CTO ERROR]	Failure detected during the reset of the CTO flag, if the CTO flag is not located in its default position.	4U
[COLOR WHEEL ERROR]	Failure detected during the reset of the color wheel, if this wheel is not located in the default position.	5U
[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
[FROST ERROR]	Failure detected during the reset of the FROST, if the focus lens is not located in its default position.	7U
[IRIS ERROR]	Failure detected during the reset of the IRIS, if the focus lens is not located in its default position.	7U
[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 1 MOVEMENT ERROR]	Failure detected during the reset of the BLADE 1 MOVEMENT, if the focus lens is not located in its default position.	6U
[BLADE 1 ROTATION ERROR]	Failure detected during the reset of the BLADE 1 ROTATION, if the focus lens is not located in its default position.	6U
[BLADE 2 MOVEMENT ERROR]	Failure detected during the reset of the BLADE 2 MOVEMENT, if the focus lens is not located in its default position.	6U
[BLADE 2 ROTATION ERROR]	Failure detected during the reset of the BLADE 2 ROTATION, if the focus lens is not located in its default position.	6U
[BLADE 3 MOVEMENT ERROR]	Failure detected during the reset of the BLADE 3 MOVEMENT, if the focus lens is not located in its default position.	6U
[BLADE 3 ROTATION ERROR]	Failure detected during the reset of the BLADE31 ROTATION, if the focus lens is not located in its default position.	6U
[BLADE 4 MOVEMENT ERROR]	Failure detected during the reset of the BLADE 4 MOVEMENT, if the focus lens is not located in its default position.	6U
[BLADE 4 ROTATION ERROR]	Failure detected during the reset of the BLADE 4 ROTATION, if the focus lens is not located in its default position.	6U

6U PCB

5U PCB
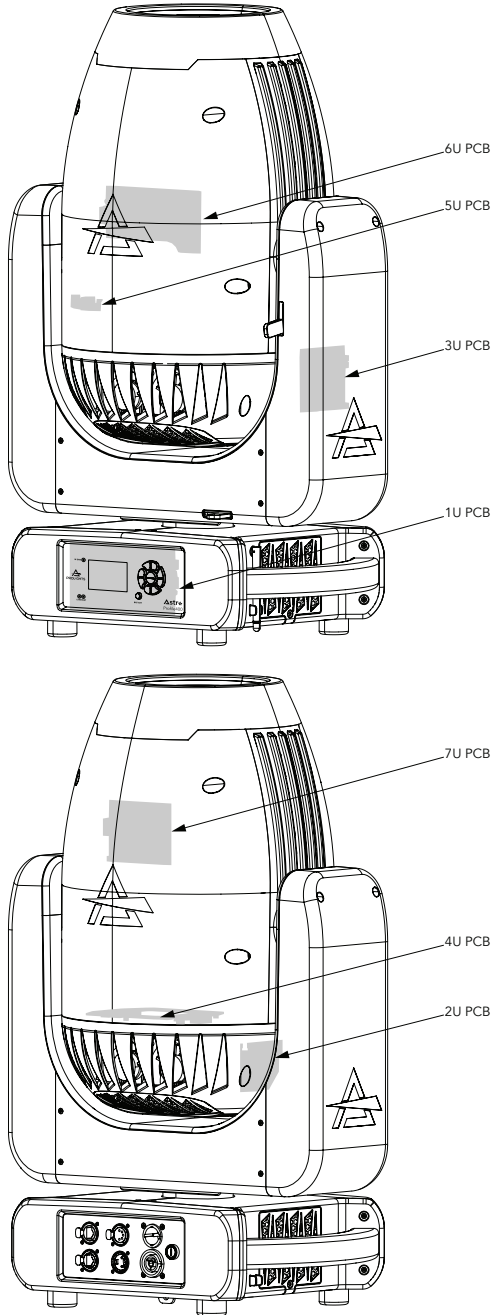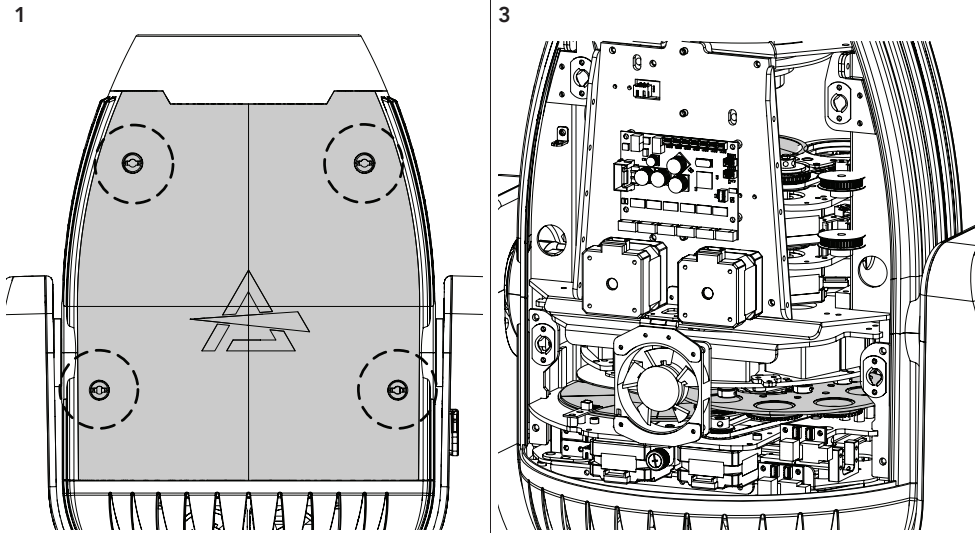
3U PCB

1U PCB

7U PCB

4U PCB

2U PCB

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, from the lenses and filters.

2
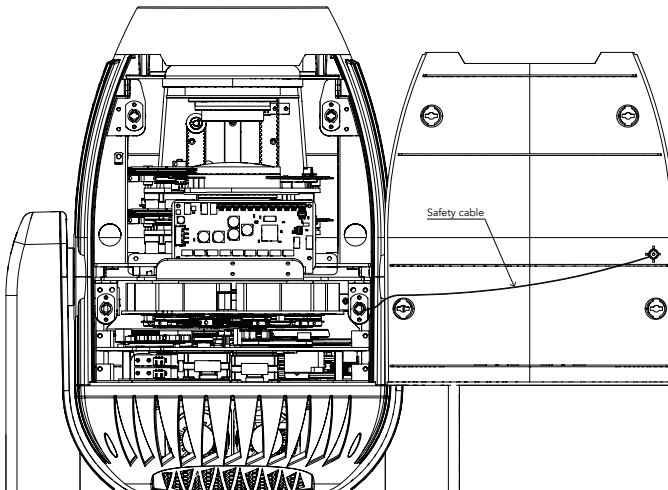
Safety cable

Unclip the safety cable on both sides (2).

Fig. 14

19 - GOBOS REPLACEMENT
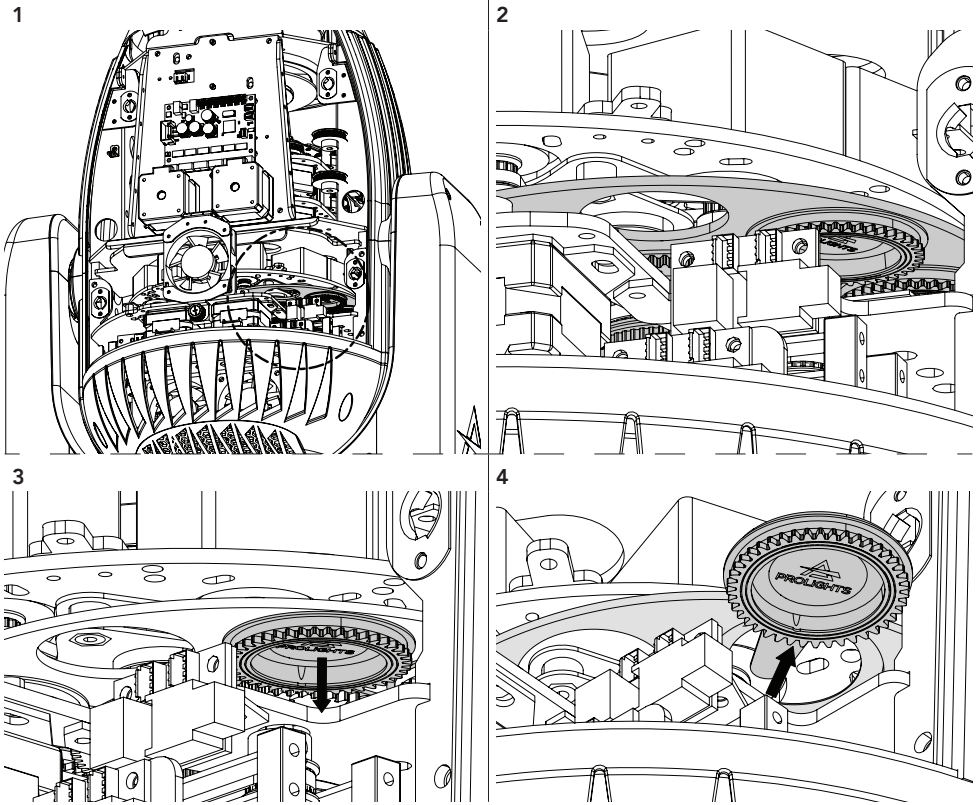
Open the head covers (see the "PERIODICAL CLEANING" paragraph, point 1).
Gently remove the gobo holder from the gobo wheel (3, 4).
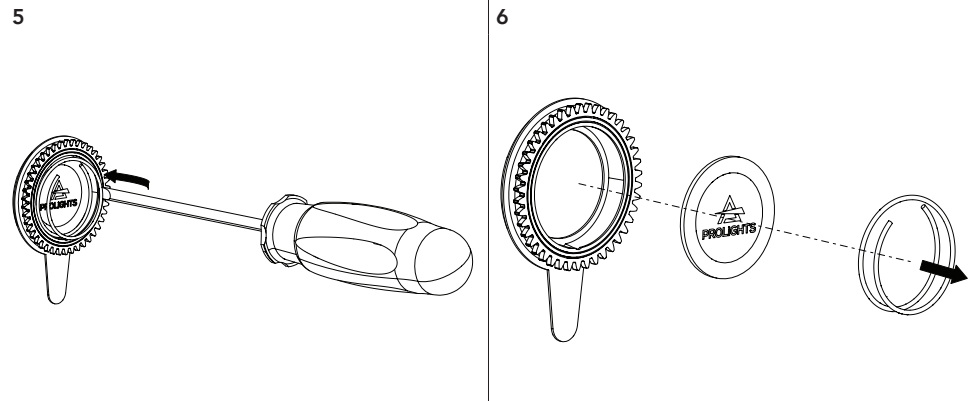
Remove the spring and the gobo (5, 6).

Fig. 15

20 - MODULE REMOVAL (ANIMATION, COLOR, GOOS WHEEL)
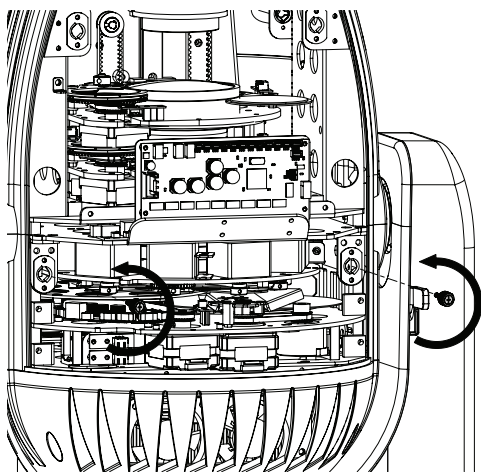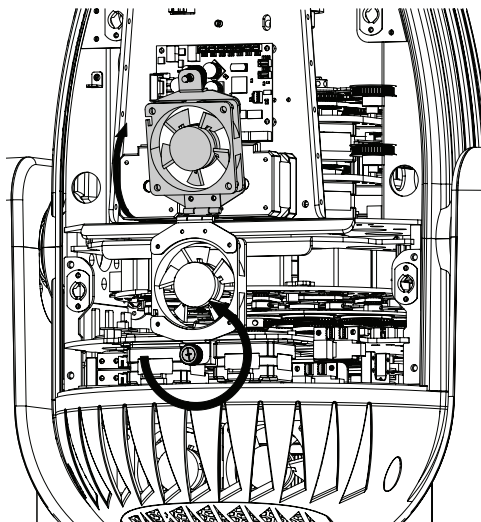
Open the head covers (see the "PERIODICAL CLEANING" paragraph, point 1).
Unscrew the two screws marked on the front view (1).
Unscrew the screw and raise the fan, on the rear side (2).
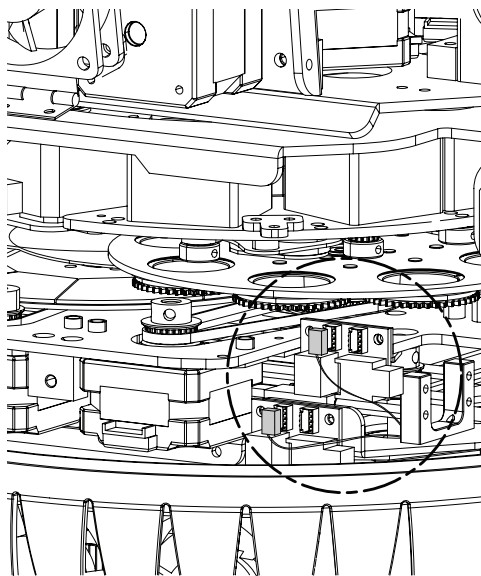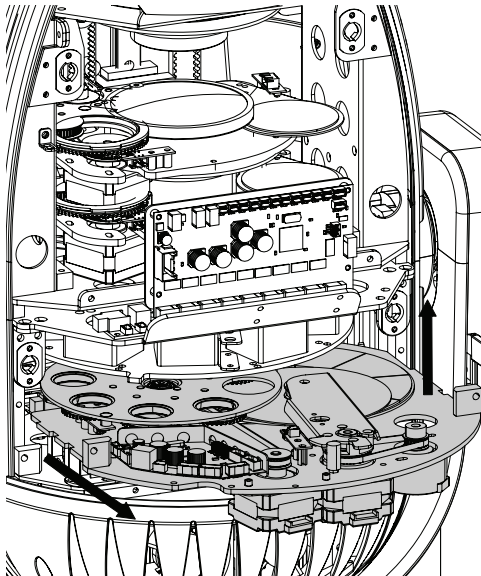
Disconnect the two connectors (3). Then lift the module and remove it (4).

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	• 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.

Note