Astra Profile900

900W Profile Moving head, with 7000K white LED source, 5° - 55° zoom

USER MANUAL

Rev.01 - 01/25

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/ASTRAPROFILE900#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 2.7 meters (8.86 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-20°C

Minimum operating ambient temperature (Ta)

- Do not operate the fixture if the ambient temperature (Ta) is below -20 °C (-4 °F).

Protection from burns and fire

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

Indoor use

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

T_C54°C

Temperature of the external surface

- The surface of the fixture can reach up to 54 °C (129 °F) during operation. Avoid contact with people and materials.

Maintenance

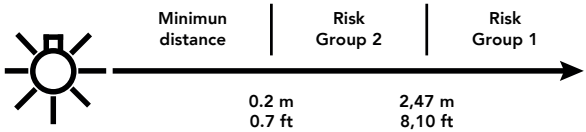
- Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling.
- Only technicians who are authorized by PROLIGHTS or Authorised service partners are permitted to open the fixture.
- Users may carry out external cleaning, following the warnings and instructions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

Photobiological safety

- This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 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 2,47 m (8,10 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 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).

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

- The product meets the safety requirements of the certification procedures of the market in which it is placed and sold.

1 - PACKAGING

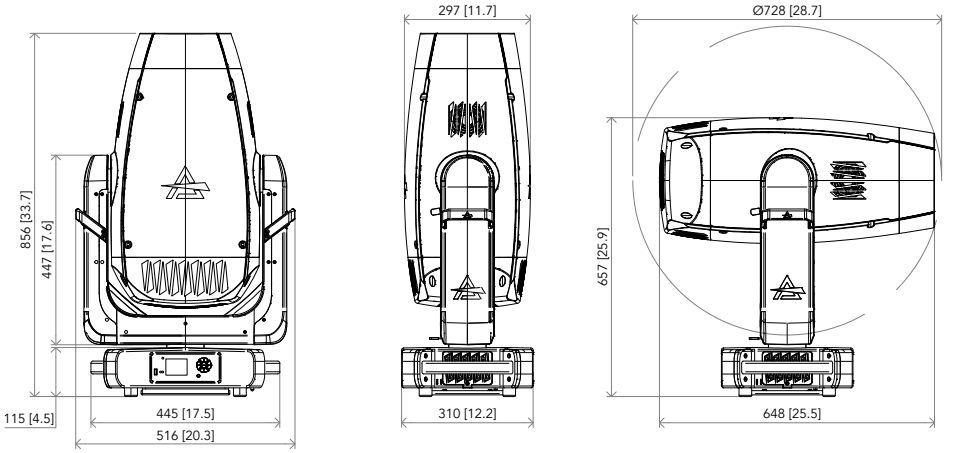
PACKAGE CONTENT

- 1x ASTRAPROFILE900.
- 1x 1,5 meters power cable (BARE END - NEUTRIK POWERCON TRUE1 IP65).
- 1x OS30PLUS, Quick-lock omega bracket, M12 hole.
- User Manual.

OPTIONAL ACCESSORIES

Check the updated accessories list, description and informations of the product at the following link:
https://www.prolights.it/product/ASTRAPROFILE900#accessories

2 - TECHNICAL DRAWING

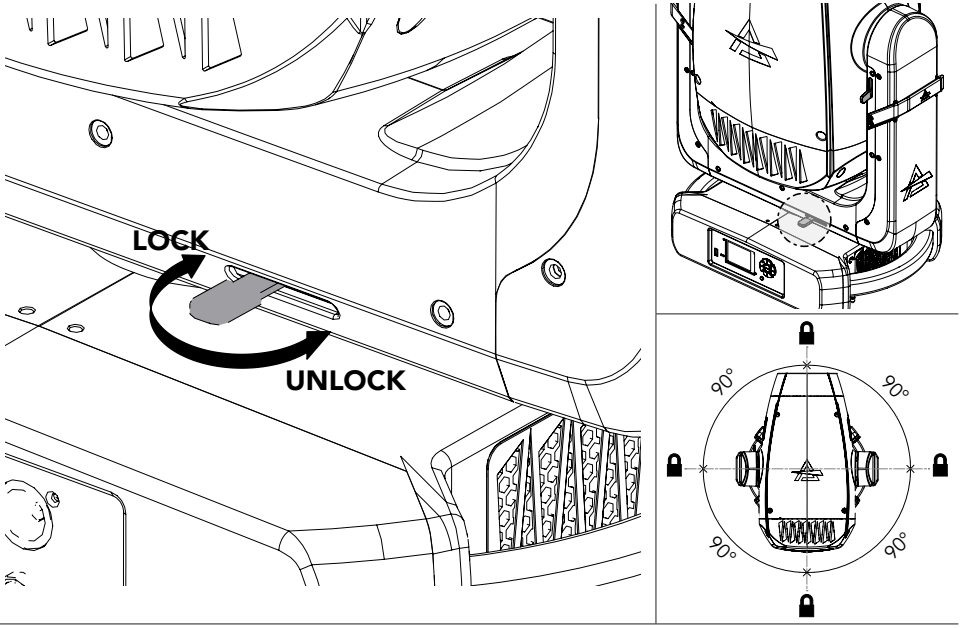


Weight: 44,2 kg - 97,44 lbs

Fig. 01

3 - PAN AND TILT LOCK

PAN Mechanism lock and release



TILT Mechanism lock and release

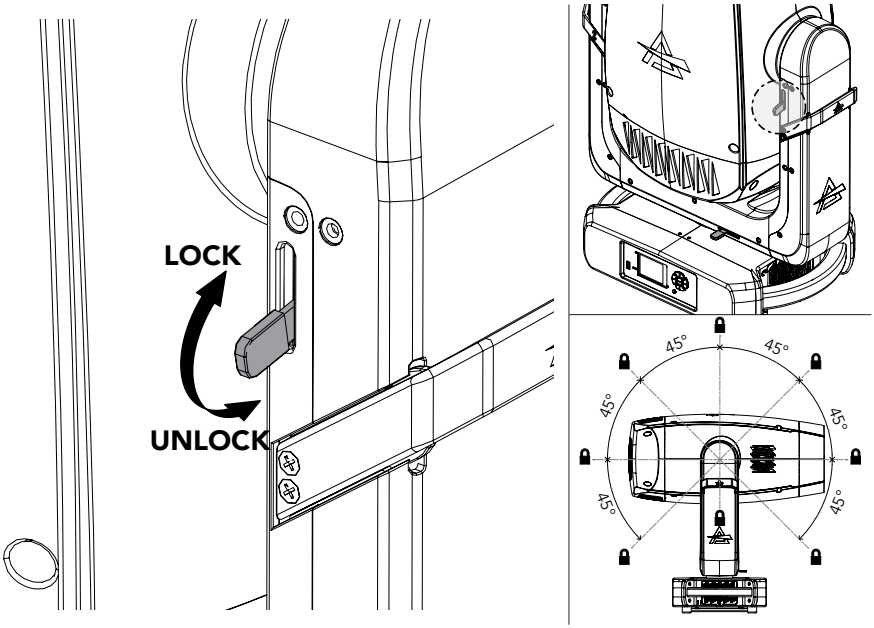


Fig. 02

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.

NOTE: *Bracket-mounting is not allowed for ASTRAPROFILE900.*

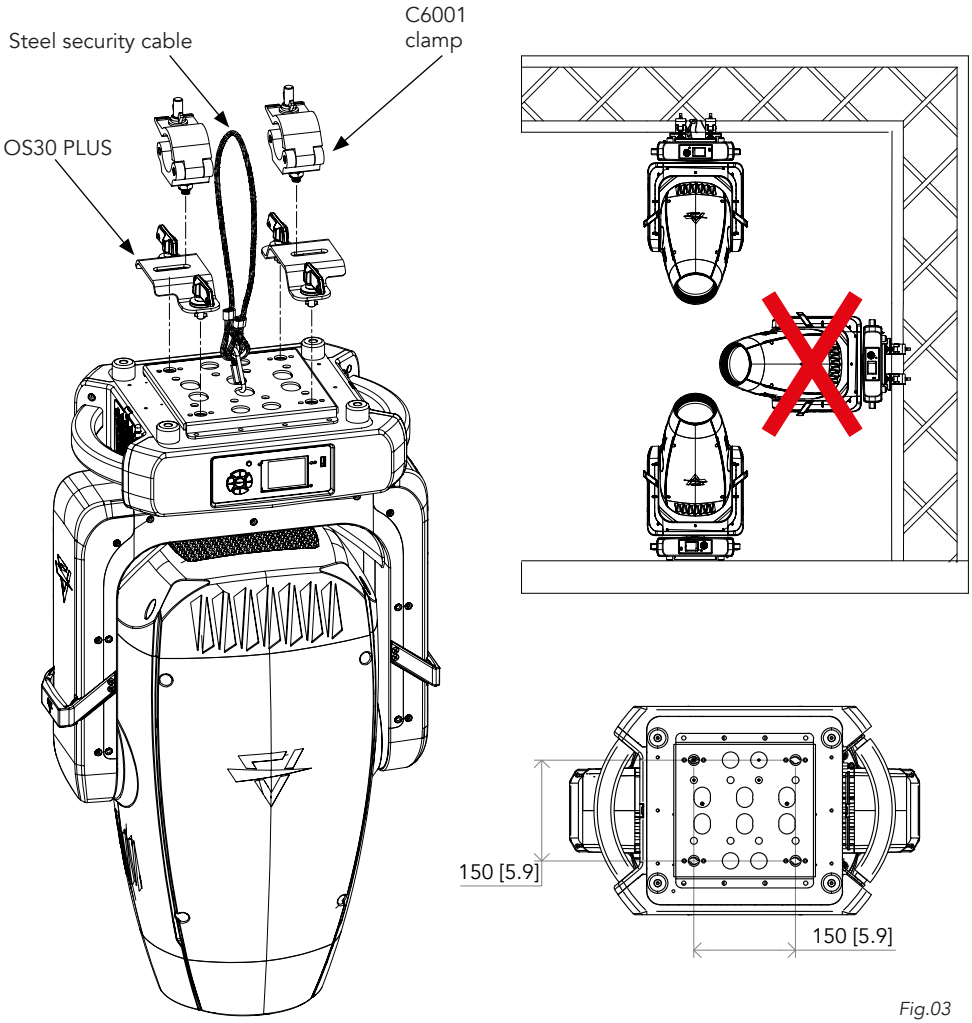


Fig.03

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 (max absolutes range : 90- 264V).
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 1250W.

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

6 - START UP

CONNECT AND DISCONNECT POWER FROM THE PRODUCT
To apply and disconnect power to the product:

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

7 - PRODUCT OVERVIEW

1. USB PORT for quick firmware upgrade.
2. USER INTERFACE with display and buttons for access to the control panel functions.
3. RETRACTABLE HANDLE to move and install the fixture.
4. ETHERCON CONNECTORS IN / OUT signal.
5. DMX IN/OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
6. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
7. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T15A 250V).
8. SAFETY EYES: to attach safety cable.

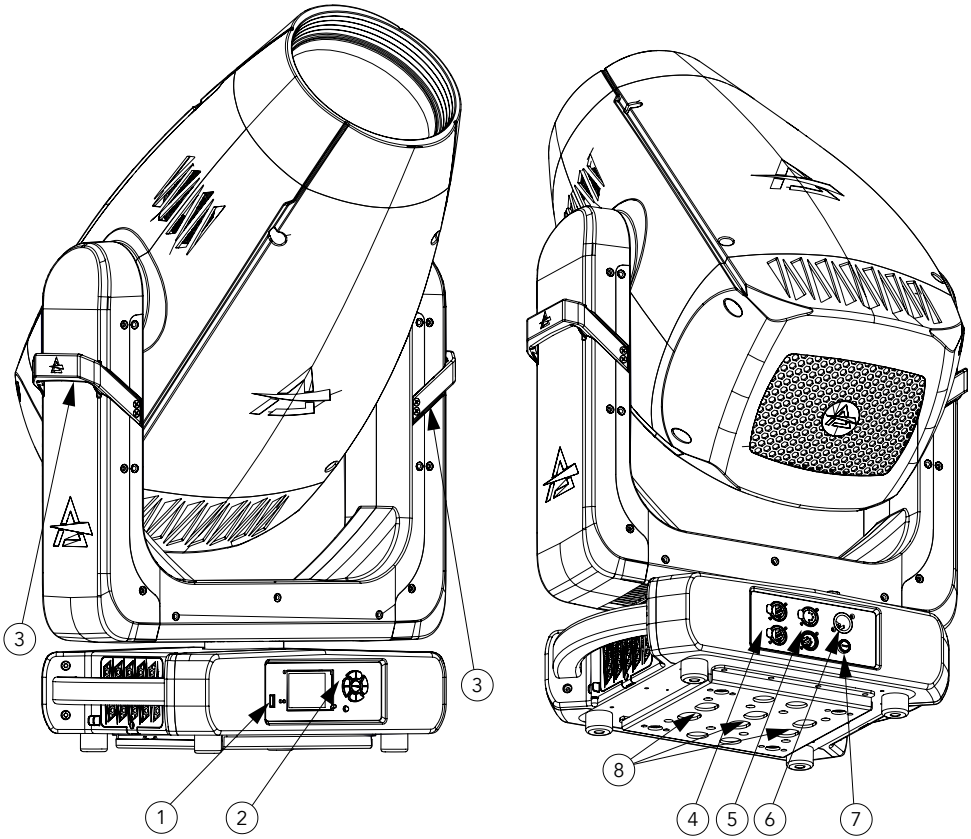


Fig 04

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

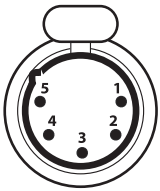


Fig. 05

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:

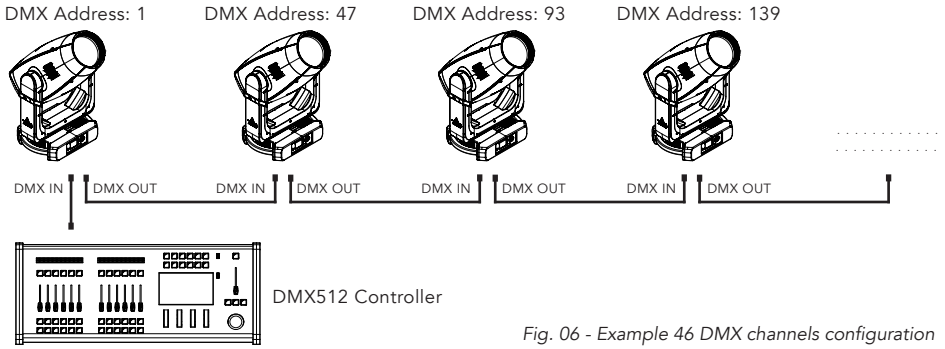
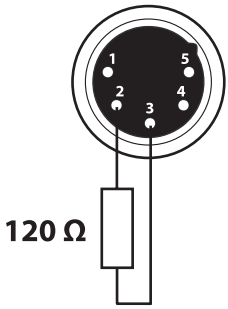
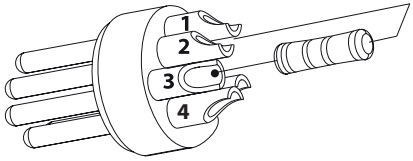


Fig. 06 - Example 46 DMX channels configuration

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.

9 - CONTROL PANEL

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

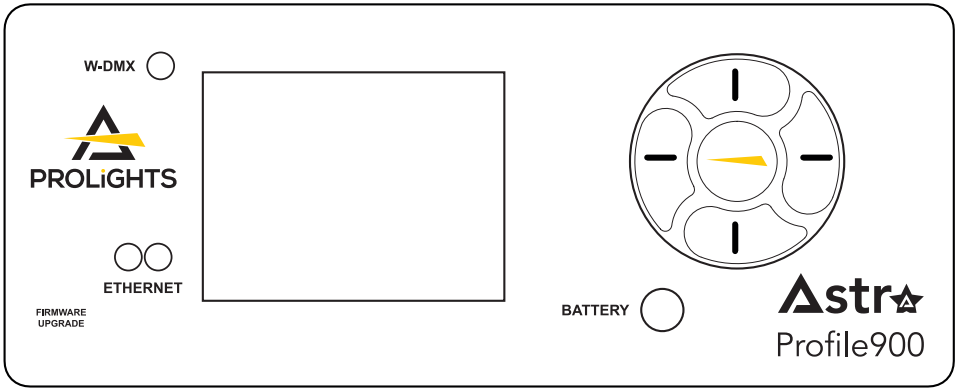
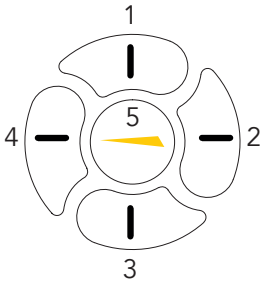


Fig. 08

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	• Scroll from left to right when entering numerical values, switching between hundreds, tens and units
3	• Browse downwards through the menu list and decreases the numeric value displayed.
4	• Return to the top level, or scroll from right to left when entering numerical values, switching between units, tens and hundreds
5	• Used to confirm the displayed value, or activate the displayed function or 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.
FIRMWARE UPGRADE	• USB port for Firmware Upgrade.

10 - MENU STRUCTURE

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

MENU: CONNECT

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
DMX ADDRESS	**DMX**	1-512			Set DMX Address for Main fixture
	ARTNET				
	SACN				
DMX MODE	**STANDARD**				
WIRELESS	CRMX ON/OFF	ON			Enable the wireless card.
		OFF			
	CRMX MODE	TX CRMX			Allows configuration of the wireless card as either a Transmitter or Receiver. G4s and G3 are supported protocols for connection with Wireless Solution products.
		TX G4S			
		TX G3			
		RX			
	TX LINK	ON			Enables the transmission link when the unit is set as a Transmitter.
		OFF			
	TX UNLINK	ON			Disconnects the transmitter from all connected receivers. TX Unlink can only be used when the unit is in Transmitter mode in CRMX settings.
		OFF			
	RX RESET	ON			Disconnects the CRMX card, set as a Receiver, from any connected transmitters.
		OFF			
	IN TO CRMX (TX)	**ON**			Enable/Disable the transmission of the DMX from the transmitter to the receiver via CRMX
		OFF			
	CRMX TO DMX (RX)	**ON**			Enable/Disable the retransmission of the DMX from the receiver to the other units connected by cable to the receiver itself
		OFF			
	LINKING KEY	ON	SET LINKING KEY	8 digit code	RX MODE: Linking key section available only in RX mode. TX MODE: When in TX mode, message on screen: "Linking Key available only in RX Mode"
		OFF			
	UNIVERSE METADATA	UNIVERSE NAME	xxx		RX Mode: received from TX; TX CRMX Mode: default first 16 characters of Model Name: (DEVICELABEL-Last 4 digit of RDM UID)
		UNIVERSE COLOR	RED		Universe Color can be set only if CRMX Mode@TX; If CRMX Mode@RX, Universe Color shows the one set on the TX
			FIRE		
			YELLOW		
			GREEN		
			EMERALD		
			OCEAN		
			BLUE		
			DEEP PURPLE		
			COOL WHITE		
	LINK STRENGTH	** %			Show Wireless quality by percentage
	CRMX SOFTWARE VERSION	TimoFX: Vx.x.xx			Show firmware version of TimoFX module

MENU: CONNECT

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
ETHERNET SETTINGS	ARTNET SETTINGS	IP ADDRESS	xxx.xxx.xxx.x		Set IP Address for ArtNet usage.
		NET	255.xxx.xxx.x		Set SubNet Mask for ArtNet usage.
		SUBNET	0-127		Set Net used for ArtNet, value from 0 to 127
		UNIVERSE	0-15		Set SubNet used for ArtNet, value from 0 to 15
		PORT-ADDRESS	0-15		Set Universe used for ArtNet, value from 0 to 15
	sACN SETTINGS	IP ADDRESS	xxx.xxx.xxx.x		Set IP Address for ArtNet usage.
		UNIVERSE	1-16		
		MERGE MODE	**OFF**		Toggle and Set Merge mode for sACN.
			HTP		
			LTP		
	ETHERNET TO DMX	**ON**			Enables retransmission of the Ethernet signal over a standard DMX cable. A slight time delay may occur on the DMX line.
		OFF			

MENU: SETUP

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
SCREEN	BACKLIGHT	ALWAYS ON			Sets the time after which the display will automatically turn off when inactive.
		10S			
		20S			
		30S			
	FLIP DISPLAY	**AUTO**			Enables the display to be rotated by 180°.
		ON			
		OFF			
	KEY LOCK	ON			Lock the buttons on the control panel with a password. To access the user menu, enter the following button sequence (password): UP, DOWN, UP, DOWN, ENTER.
		OFF			
	TEMP. UNIT	**°C**			
		°F			
MOVEMENT	PAN REVERSE	YES			*Allows you to reverse Pan movement.*
		NO			
	TILT REVERSE	YES			*Allows you to reverse Tilt movement.*
		NO			
	PAN/TILT FEEDBACK	**YES**			*To activate / deactivate the reading of the feedbacks given by the encoders.*
		NO			
	MOVEMENT BLACKOUT	YES			*Make fixture goes blackout OFF while moving.*
		NO			
	PAN/TILT MODE	**FAST**			*To choose the horizontal/ vertical movement speed. SYNC mode will sync movement speed with the whole ASTRAWASH f miliy fixtures.*
		MEDIUM			
		SLOW			
	HOME POSITION	STANDARD			
		CUSTOM			

MENU: SETUP

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
DIMMER	DIMMER CURVE	LINEAR			Check pag.20 for further details
		S-CURVE			
		SQUARE LAW			
		INVERSE SQUARE LAW			
	DIMMER SPEED	**AUTO**			Check pag.21 for further details
		FAST			
		MEDIUM			
		SLOW			
FIXTURE	FAN MODE	**AUTO**			*Select Fan behaviour.*
		SILENT			
		HIGH			
	DMX FAULT	**HOLD**			Defines fixture behavior on DMX signal loss: HOLD (keep last state), BLACKOUT (turn off), STAND ALONE (run internal program), or EMERGENCY (activate emergency mode with white output).
		BLACKOUT			
	INVERT ZOOM	ON			
		OFF			
	INVERT BLADES	ON			
		OFF			
WHEELS	COLOR WHEEL BLACKOUT	ON			
		OFF			
	CTO WHEEL BLACKOUT	YES			
		NO			
	R GOBO 1 WHEEL BLACKOUT	YES			
		NO			
	R GOBO 1 WHEEL MODE	**STEP**			
		CONTINUOUS			
	R GOBO 2 WHEEL BLACKOUT	YES			
		NO			
	R GOBO 2 WHEEL MODE	**STEP**			
		CONTINUOUS			
TRANSFER SETTINGS	WITHOUT DMX ADDRESS				Transfer settings from the current fixture to another fixture of the same model using the DMX protocol. If a signal from another source is present, the Transfer Configuration function will not be available.
	WITH DMX ADDRESS				

MENU: ADVANCED

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
LED FREQUENCY	600 Hz				Select PWM frequency. NOTE: Using higher LED Frequency color accuracy may be slightly compromised at low level of dimmer.
	1200Hz				
	2000 Hz				
	4000 Hz				
	6000 Hz				
	25 kHz				
	50 kHz				
RESET	ALL				*To reset these functions.*
	PAN				
	TILT				
	PAN & TILT				
	CYAN				
	MAGENTA				
	YELLOW				
	CTO				
	COLOR WHEEL				
	GOBO WHEEL 1				
	GOBO ROTATION 1				
	GOBO WHEEL 2				
	GOBO ROTATION 2				
	PRISM 1				
	PRISM 1 ROTATION				
	PRISM 2				
	PRISM 2 ROTATION				
	FROST 1				
	FROST 2				
	IRIS				
	ZOOM				
	FOCUS				
	ANIMATION				
	ANIMATION ROTATION				
	BLADE 1 POSITON				
	BLADE 1 ROT				
	…				
	BLADE 4 POSITON				
	BLADE 4 ROT				
	FRAME ROT				
	PLATE 1				
	PLATE 1				
	PLATE 1+2				
	BEAM				
	ALL				

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
MANUAL CONTROL	PAN				*Manual Control of each functionality via display.* *If this function is accessed with a valid DMX signal present, values are taken from last DMX frame received.* *Signal is ignored while fixture stays in this menu.* *Timeout for screen is inhibited. No Auto-leave function.*
	PAN FINE				
	TILT				
	TILT FINE				
	DIMMER				
	DIMMER FINE				
	SHUTTER				
	CYAN				
	MAGENTA				
	YELLOW				
	CTO				
	COLOR WHEEL				
	GOBO WHEEL 1				
	GOBO ROTATION 1				
	GOBO ROT FINE 1				
	GOBO WHEEL 2				
	GOBO ROTATION 2				
	GOBO ROT FINE 2				
	PRISM 1				
	PRISM 1 ROTATION				
	PRISM 2				
	PRISM 2 ROTATION				
	FROST 1				
	FROST 2				
	IRIS				
	ZOOM				
	ZOOM FINE				
	FOCUS				
	FOCUS FINE				
	ANIMATION				
	ANIMATION ROTATION				
	BLADE 1 POSITON				
	BLADE 1 ROT				
	…				
	BLADE 4 POSITON				
	BLADE 4 ROT				
	FRAME ROT				
	CONTROL				
FACTORY RELOAD	BASIC RELOAD	YES			Default of all parameters excepted Calibration
		NO			
	FACTORY RELOAD	YES			Delete all USER PRESETS stored
		NO			

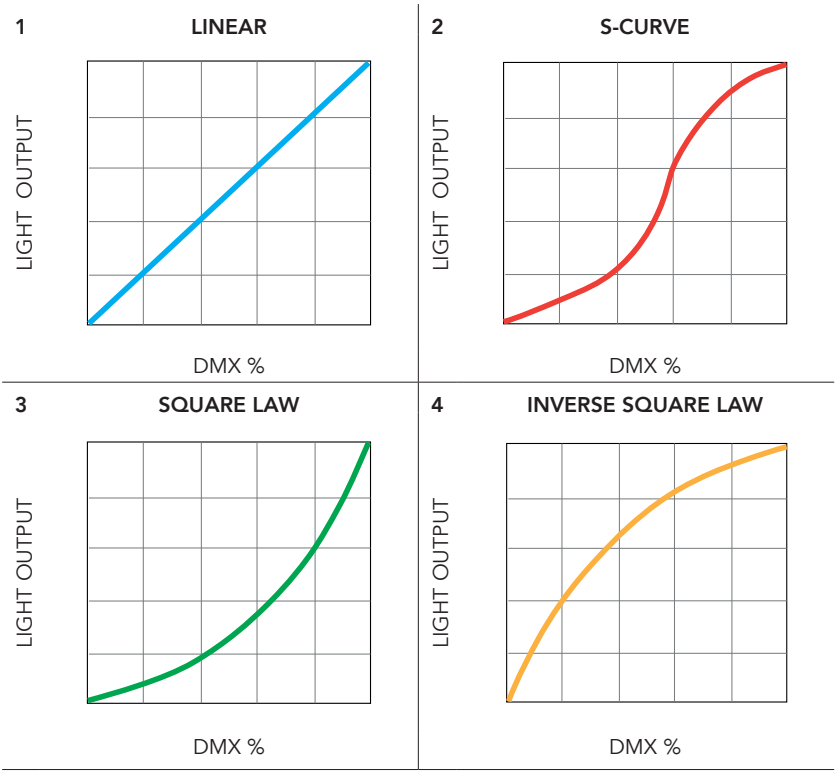
MENU: INFORMATIONS

LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	DESCRIPTION
FIXTURE TIME	FIXTURE HOURS	TOTAL	<65535H>		View informations about product operating lifetime. Fixture Hours is countered based on general operation time. Hours are countered since Power is plugged in. Source Hours is countered based on LED Activity time
		PARTIAL	<65535H>		
	CURRENT HOURS	TOTAL	<65535H>		
		PARTIAL	<65535H>		
	SOURCE HOURS	TOTAL	<65535H>		
		PARTIAL	<65535H>		
	AC POWER ON CYCLE	TOTAL	<65535H>		
		PARTIAL	<65535H>		
	MAINTENANCE TIME	ELAPSED TIME			
		ALERT PERIOD	10 - 1000		
POWER LED	** W				Show estimated power consumption
TEMP.	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,…				
FAN SPEED	NEAR SOURCE FAN, BASE FAN,…				Show all FAN speeds.
CHANNEL VALUE					Show all Channel values as a list, value shown depends on DMX Mode
ERROR MESSAGE					Show error message
DEVICE LABEL	ASTRAPROFILE900				Show RDM Label.
DEVICE MODEL	ASTRAPROFILE900				Show RDM fixture model
RDM UID					Show RDM UID of the fixture.
SOFTWARE VERSION	1U01 V1.0.00...				Show firmware version of the fixture

DIMMER CURVES

Five dimming modes are available:

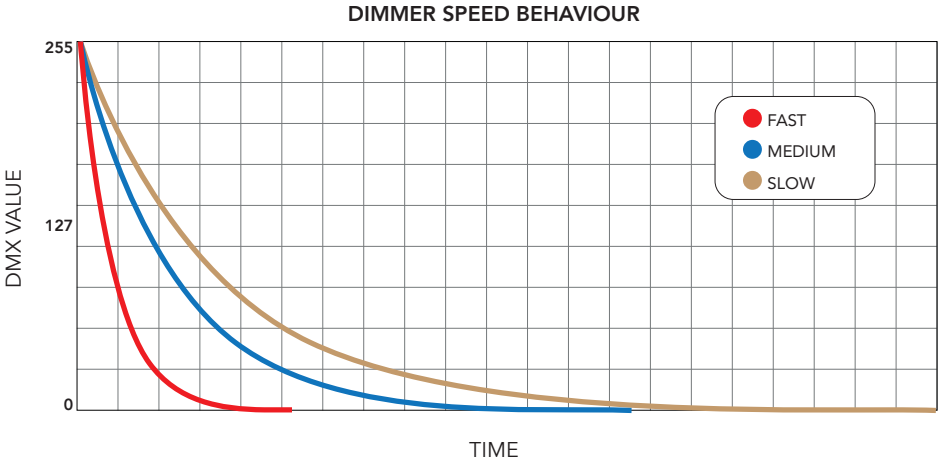
1. **LINEAR** - Light intensity increases proportionally to the DMX value, creating a linear perception.
2. **S-CURVE** - Light intensity is finer at low and high levels, with coarser control at mid-levels.
3. **SQUARE LAW** - Light intensity is finer at low levels and becomes coarser at higher levels.
4. **INVERSE SQUARE LAW** - Light intensity is coarser at low levels and finer at higher levels.



DIMMER SPEEDS

Five dimming speeds are available:

1. **AUTO** - When the DMX value changes by more than 50 DMX values, the intensity will instantly adjust to the new value. For changes less than 50 DMX values, the fast dimming curve will be applied.
2. **FAST** - Indicates the fast speed dimming curve. Refer to the diagram for reference.
3. **MEDIUM** - Indicates the medium speed dimming curve. Refer to the diagram for reference.
4. **SLOW** - Indicates the slow dimming curve. Refer to the diagram for reference.



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
CONTROL CHANNEL set to 220 + PAN FINE CHANNEL SET TO 255, within 3s PAN FINE need to be set to 0	Basic Reload	This Reload also reset DMX address and mode. This combination need to be performed while fixture is resetting

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.

Category	Parameter	Value	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	0x0140	x	x
	DMX_FAIL_MODE	0x0141	x	x
	DMX_STARTUP_MODE	0x0142	x	x
Sensors	SENSOR_DEFINITION	0x0200	x	
	SENSOR_VALUE	0x0201	x	x
	RECORD_SENSORS	0x0202		x
Dimmer Settings	DIMMER_INFO	0x0340	x	
	MINIMUM_LEVEL	0x0341	x	x
	MAXIMUM_LEVEL	0x0342	x	x
	CURVE	0x0343	x	x
	CURVE_DESCRIPTION	0x0344	x	x
	OUTPUT_RESPONSE_TIME	0x0345	x	x
	OUTPUT_RESPONSE_TIME_ DESCRIPTION	0x0346	x	
	MODULATION_FREQUENCY	0x0347	x	x
	MODULATION_FREQUENCY_ DESCRIPTION	0x0348	x	

Category	Parameter	Value	GET	SET
Power/Lamp Settings	DEVICE_HOURS	0x0400	x	x
	LAMP_HOURS	0x0401	x	x
	LAMP_STRIKES	0x0402	x	x
	LAMP_STATE	0x0403	x	x
	LAMP_MODE	0x0404	x	x
	DEVICE_POWER_CYCLES	0x0405	x	x
	BURN_IN	0x0440	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	
IP & DNS Configuration	IPV4_CURRENT_ADDRESS	0x0705	x	
	IPV4_STATIC_ADDRESS	0x0706	x	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

Manufacturer Specific PIDs

Parameter	PID	GET	SET	Value	Description
HOME_POSITION	0x8160	x	x	0-1	**0: Standard** 1: Custom
CURRENT_HOURS	0x82C5	x		0-65535	* h
CLEAN_ALL_DATA	0x82C8	x	x	0-1	0: No 1: Yes
DMX_FAULT	0x82DD	x	x	0-1	**0: Hold** 1: Blackout
MAINTENANCE_T_ALERT_PERIOD	0x82DF	x	x		
MAINTENANCE_T_ELAPSED_TIME	0x82E0	x	x		* h
ERROR_MESSAGE	0x82EA	x			
POWER_CONSUMPTION	0x82EF	x			**W
WIRELESS_QUALITY	0x82F4	x			**%

13 - DMX CHARTS

RDM Personality ID List

ID	DMX Mode	Footprint
1	STANDARD	20

RDM Model ID

0xA027

PAN/TILT POSITION RELATED TO DMX VALUES

Home position set to STANDARD

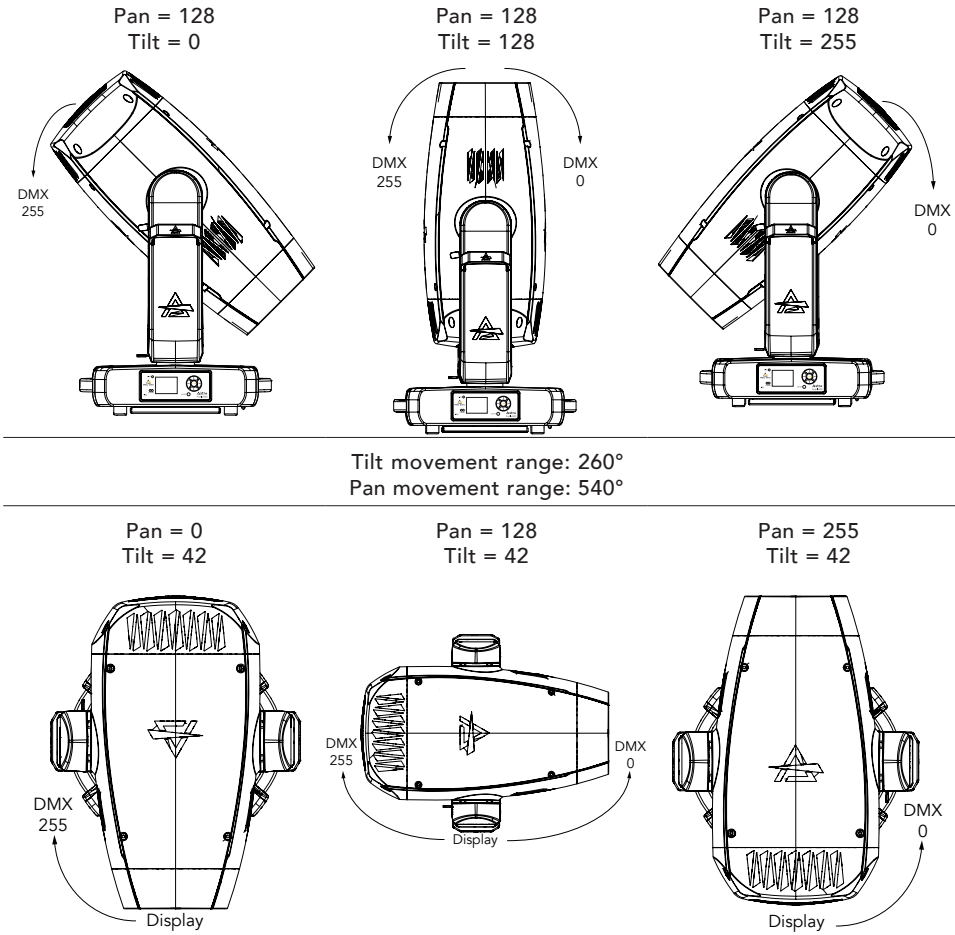
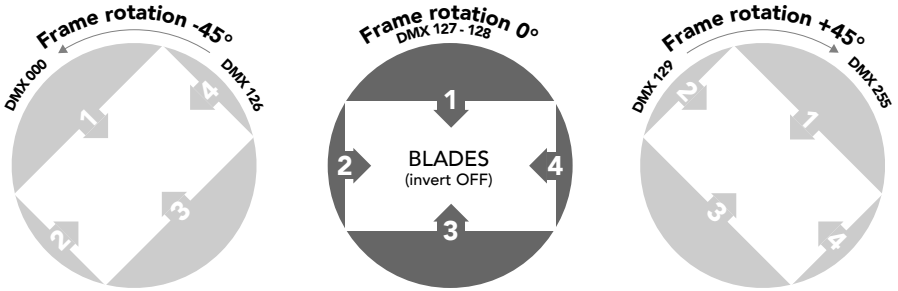
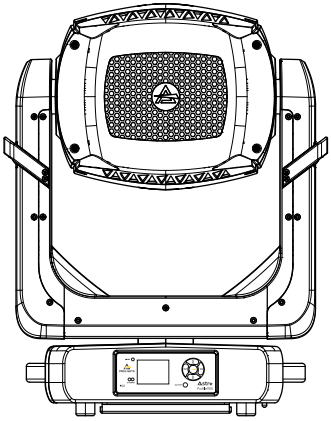


Fig. 09

BLADES BEHAVIOUR
Check Below image for all the informations about the profile module



PROJECTION ON THE WALL



Fixture with
CUSTOM HOME POSITION
and PAN/TILT channels @
PAN @50% - DMX128
TILT @ 84% - DMX 214

Fixture with
STANDARD HOME POSITION
and PAN/TILT channels @
PAN @50% - DMX 172
TILT @ 84% - DMX 214

DMX Chart Summary

Channel	STANDARD
1	Pan
2	Pan fine
3	Tilt
4	Tilt fine
5	Dimmer
6	Dimmer Fine
7	Shutter
8	Cyan
9	Magenta
10	Yellow
11	CTO
12	Color Wheel
13	Color Wheel Fine Pos
14	Rot Gobo Wheel 1
15	Gobo Rot 1
16	Gobo Rot Fine 1
17	Rot Gobo Wheel 2
18	Gobo Rot 2
19	Gobo Rot Fine 2
20	Prism 1
21	Prism 1 Index/Rotation
22	Prism 2
23	Prism 2 Index/Rotation

Channel	STANDARD
24	Light Frost
25	Heavy Frost
26	Iris
27	Iris Fine
28	Zoom
29	Zoom Fine
30	Focus
31	Focus Fine
32	Animation Insertion
33	Animation Rotation
34	Blade 1 position
35	Blade 1 swivelling
36	Blade 2 position
37	Blade 2 swivelling
38	Blade 3 position
39	Blade 3 swivelling
40	Blade 4 position
41	Blade 4 swivelling
42	Frame rotation
43	Frame macros
44	Frame macros speed
45	Autofocus
46	Control

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
1	Pan	Lineary from 0% to 100%	0	255	128
2	Pan fine	Lineary from 0% to 100%	0	255	128
3	Tilt	Lineary from 0% to 100%	0	255	128
4	Tilt fine	Lineary from 0% to 100%	0	255	128
5	Dimmer	Lineary from close to open	0	255	000
6	Dimmer Fine	Lineary from close to open	0	255	000
7	Shutter	Open	0	1	255
		Strobe from slow to fast	2	62	
		Open	63	64	
		Pulse in from slow to fast	65	125	
		Close	126	127	
		Pulse out from slow to fast	128	188	
		Open	189	190	
		Randon from slow to fast	191	251	
		Open	252	255	
8	Cyan	Linear saturation 0 – 100%	0	255	000
9	Magenta	Linear saturation 0 – 100%	0	255	000
10	Yellow	Linear saturation 0 – 100%	0	255	000
11	CTO	Linear saturation 7000K to 2700K	0	255	000
12	Color Wheel	**Color Positioning**			000
		Open	0		
		Open + Red	1	21	
		Red	22		
		Red + 5600K	23	43	
		5600K	44		
		5600K + Magenta	45	65	
		Magenta	66		
		Magenta + Green	67	87	
		Green	88		
		Green + Dark Orange	89	109	
		Dark Orange	110		
		Dark Orange + Dark Blue	111	131	
		Dark Blue	132		
		Dark Blue + Open	133	153	
		Open	154	159	
		Color Slot			
		Open	160	164	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
12	Color Wheel	Red	165	169	000
		5600K	170	174	
		Magenta	175	179	
		Green	180	184	
		Dark Orange	185	189	
		Dark Blue	190	199	
		Color Wheel Rotation			
		Forward rainbow - Fast to slow	200	224	
		No rotation	225	230	
		Backwards rainbow - Slow to fast	231	255	
13	Color Wheel Fine Positioning	Fine positioning	0	255	0
14	Rot Gobo Wheel 1	Open	0	11	000
		Gobo Indexing (set next ch)			
		GOBO 1	12	19	
		GOBO 2	20	27	
		GOBO 3	28	35	
		GOBO 4	36	43	
		GOBO 5	44	51	
		GOBO 6	52	59	
		GOBO 7	60	67	
		Gobo Rotation (set next ch)			
		GOBO 1	68	75	
		GOBO 2	76	83	
		GOBO 3	84	91	
		GOBO 4	92	99	
		GOBO 5	100	107	
		GOBO 6	108	115	
		GOBO 7	116	123	
		Gobo shaking - Slow to fast (Index on next channel)			
		GOBO 1	124	133	
		GOBO 2	134	143	
		GOBO 3	144	153	
		GOBO 4	154	163	
		GOBO 5	164	173	
		GOBO 6	174	183	
		GOBO 7	184	193	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
14	Rot Gobo Wheel 1	**Gobo Wheel Rotation**			000
		Forward wheel rotation - Fast to slow	194	223	
		No rotation	224	225	
		Backwards wheel rotation - Slow to fast	226	255	
15	Gobo Rot 1	**Gobo Indexing**			000
		Gobo index 0° - 360°	0	255	
		Gobo Rotation			000
		No rotation	0	0	
		Forward gobo rotation - Fast to slow	1	127	
		No rotation	128	128	
		Backwards gobo rotation - Slow to fast	129	255	
16	Gobo Rot Fine 1	Fine indexing/rotation	0	255	0
17	Rot Gobo Wheel 2	Open	0	11	000
		Gobo Indexing (set next ch)			
		GOBO 1	12	19	
		GOBO 2	20	27	
		GOBO 3	28	35	
		GOBO 4	36	43	
		GOBO 5	44	51	
		GOBO 6	52	59	
		GOBO 7	60	67	
		Gobo Rotation (set next ch)			
		GOBO 1	68	75	
		GOBO 2	76	83	
		GOBO 3	84	91	
		GOBO 4	92	99	
		GOBO 5	100	107	
		GOBO 6	108	115	
		GOBO 7	116	123	
		Gobo shaking - Slow to fast (Index on next channel)			
		GOBO 1	124	133	
		GOBO 2	134	143	
		GOBO 3	144	153	
		GOBO 4	154	163	
		GOBO 5	164	173	
		GOBO 6	174	183	
		GOBO 7	184	193	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
17	Rot Gobo Wheel 2	**Gobo Wheel Rotation**			000
		Forward wheel rotation - Fast to slow	194	223	
		No rotation	224	225	
		Backwards wheel rotation - Slow to fast	226	255	
18	Gobo Rot 2	**Gobo Indexing**			000
		Gobo index 0° - 360°	0	255	
		Gobo Rotation			000
		No rotation	0	0	
		Forward gobo rotation - Fast to slow	1	127	
		No rotation	128	128	
		Backwards gobo rotation - Slow to fast	129	255	
19	Gobo Rot Fine 2	Fine indexing/rotation	0	255	0
20	Prism 1	Open	0	29	000
		Prism Indexing (set next ch)	30	59	
		Prism Rotation (set next ch)	60	89	
		Reserved	90	255	
21	Prism 1 Index/ Rotation	**Prism Indexing**			000
		Prism Indexing	0	255	
		Prism Rotation			
		Prism No Rotation	0	0	
		Prism forward rotation fast to slow	1	127	
		Prism No Rotation	128	128	
		Prism backwards rotation slow to fast	129	255	
22	Prism 2	Open	0	29	000
		Prism Indexing (set next ch)	30	59	
		Prism Rotation (set next ch)	60	89	
		Reserved	90	255	
23	Prism 2 Index/ Rotation	**Prism Indexing**			000
		Prism Indexing	0	255	
		Prism Rotation			
		Prism No Rotation	0	0	
		Prism forward rotation fast to slow	1	127	
		Prism No Rotation	128	128	
		Prism backwards rotation slow to fast	1	127	
24	Light Frost	Linear insertion 0 – 100%	0	255	000
25	Heavy Frost	Linear insertion 0 – 100%	0	255	000

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
26	Iris	Open	0	0	000
		Max to min diameter	1	127	
		Closed	128	129	
		Pulse close slow to fast	130	154	
		Pulse open slow to fast	155	179	
		Random pulse closing slow to fast	180	204	
		Random pulse opening slow to fast	205	229	
		Reserved	230	255	
27	Iris Fine	Iris fine movement	0	255	000
28	Zoom	Zoom from min to max beam angle	0	255	128
29	Zoom Fine	Fine zooming	0	255	000
30	Focus	Focus adjustment	0	255	128
31	Focus Fine	Fine focusing	0	255	000
32	Animation Insertion	Linear insertion from 0% to 100%	0	255	000
33	Animation Rotation	Indexing	0	127	000
		Forward rotation - Fast to slow	128	190	
		Stop	191	192	
		Backwards rotation - Slow to fast	193	255	
34	Blade 1 position	Movement from outward to inward	0	255	000
35	Blade 1 swivelling	Swivelling from -30° towards 0°	0	127	128
		0 degrees	128	128	
		Swivelling from 0° towards +30°	129	255	
36	Blade 2 position	Movement from outward to inward	0	255	000
37	Blade 2 swivelling	Swivelling from -30° towards 0°	0	127	128
		0 degrees	128	128	
		Swivelling from 0° towards +30°	129	255	
38	Blade 3 position	Movement from outward to inward	0	255	000
39	Blade 3 swivelling	Swivelling from -30° towards 0°	0	127	128
		0 degrees	128	128	
		Swivelling from 0° towards +30°	129	255	
40	Blade 4 position	Movement from outward to inward	0	255	000
41	Blade 4 swivelling	Swivelling from -30° towards 0°	0	127	128
		0 degrees	128	128	
		Swivelling from 0° towards +30°	129	255	
42	Frame rotation	-45 degrees to 0 degrees	0	126	128
		0 degrees	127	128	
		0 degrees to +45 degrees	129	255	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		No Function	0	3	
		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	
43	Frame macros	Macro 18	123	129	000
		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	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
44	Frame macros speed	Lineary from 0 to 100%	0	255	000
45	Focus Tracking	OFF	0	49	000
		ON - Priority GOBO WHL 1	50	59	
		ON - Priority GOBO WHL 2	60	69	
		ON - Priority BLADES	70	79	
		ON - Priority IRIS	80	89	
		ON - Priority ANIMATION	90	99	
		ON - Priority OPEN	100	109	
		Reserved	110	255	
46	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	
		ROTATING GOBO WHEEL BLACKOUT ON (index)	28	29	
		ROTATING GOBO WHEEL BLACKOUT OFF (index)	30	31	
		ROTATING GOBO WHEEL CONTINUOUS MOVEMENT (index)	32	33	
		ROTATING GOBO WHEEL STEP MOVEMENT (index)	34	35	
		DISPLAY ON	36	37	
		DISPLAY 10S	38	39	
		DISPLAY 20S	40	41	
		DISPLAY 30S	42	43	
		FLIP DISPLAY ON	44	45	
		FLIP DISPLAY OFF	46	47	
		FLIP DISPLAY AUTO	48	49	

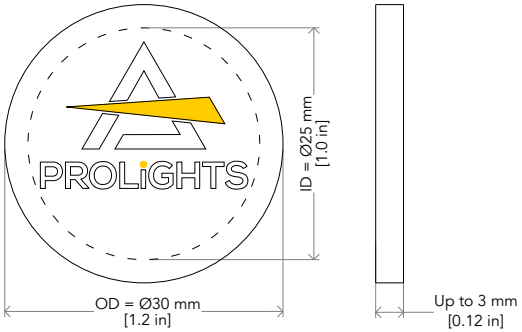
Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		KEY LOCK ON	50	51	
		KEY LOCK OFF	52	53	
		FAN MODE AUTO	54	55	
		FAN MODE SILENT	56	57	
		FAN MODE HIGH	58	59	
		NO SIGNAL HOLD	60	61	
		NO SIGNAL BLACKOUT	62	63	
		STATUS LED ON	64	65	
		STATUS LED OFF	66	67	
		DIMMER CURVE LINEAR	68	69	
		DIMMER CURVE S-CURVE	70	71	
		DIMMER CURVE SQUARE LAW	72	73	
		DIMMER CURVE INVERSE SQUARE LAW	74	75	
		DIMMER SPEED AUTO	76	77	
		DIMMER SPEED FAST	78	79	
		DIMMER SPEED MEDIUM	80	81	
		DIMMER SPEED SLOW	82	83	
		LED FREQUENCY 600HZ	84	85	
46	Control	LED FREQUENCY 1200HZ	86	87	000
		LED FREQUENCY 2000HZ	88	89	
		LED FREQUENCY 4000HZ	90	91	
		LED FREQUENCY 6000HZ	92	93	
		LED FREQUENCY 25KHZ	94	95	
		LED FREQUENCY 50KHZ	96	97	
		INVERT ZOOM OFF	98	99	
		INVERT ZOOM ON	100	101	
		RESET ALL	102	103	
		RESET PAN	104	105	
		RESET TILT	106	107	
		RESET PAN & TILT	108	109	
		RESET CYAN	110	111	
		RESET MAGENTA	112	113	
		RESET YELLOW	114	115	
		RESET CTO	116	117	
		RESET COLOR WHEEL	118	119	
		RESET GOBO WHEEL 1	120	121	
		RESET GOBO ROTATION 1	122	123	

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
46	Control	RESET GOBO WHEEL 2	124	125	000
		RESET GOBO ROTATION 2	126	127	
		RESET PRISM 1	128	129	
		RESET PRISM 1 ROTATION	130	131	
		RESET PRISM 2	132	133	
		RESET PRISM 2 ROTATION	134	135	
		RESET FROST 1	136	137	
		RESET FROST 2	138	139	
		RESET IRIS	140	141	
		RESET ZOOM	142	143	
		RESET FOCUS	144	145	
		RESET ANIMATION	146	147	
		RESET ANIMATION ROTATION	148	149	
		RESET BLADE 1 POSITON	150	151	
		RESET BLADE 1 ROT	152	153	
		RESET BLADE 2 POSITON	154	155	
		RESET BLADE 2 ROT	156	157	
		RESET BLADE 3 POSITON	158	159	
		RESET BLADE 3 ROT	160	161	
		RESET BLADE 4 POSITON	162	163	
		RESET BLADE 4 ROT	164	165	
		RESET FRAME ROT	166	167	
		Reserved	168	251	
		FACTORY DEFAULT OF CONTROL FUNCTIONS	252	253	
		Reserved	254	255	

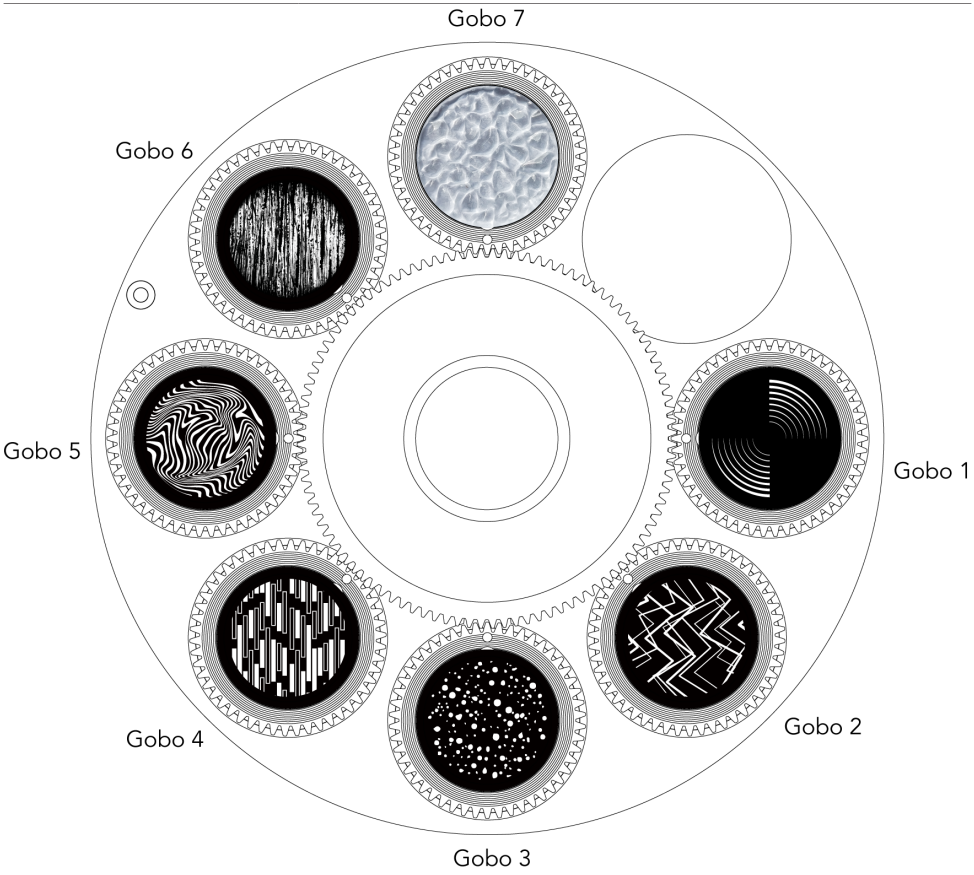
14 - ROTATING GOBOS WHEEL

Gobo dimensions:

- Ø external (OD)= 30,0 mm
- Ø of image (ID)= 25,0 mm
- Thinckness= up to 3 mm



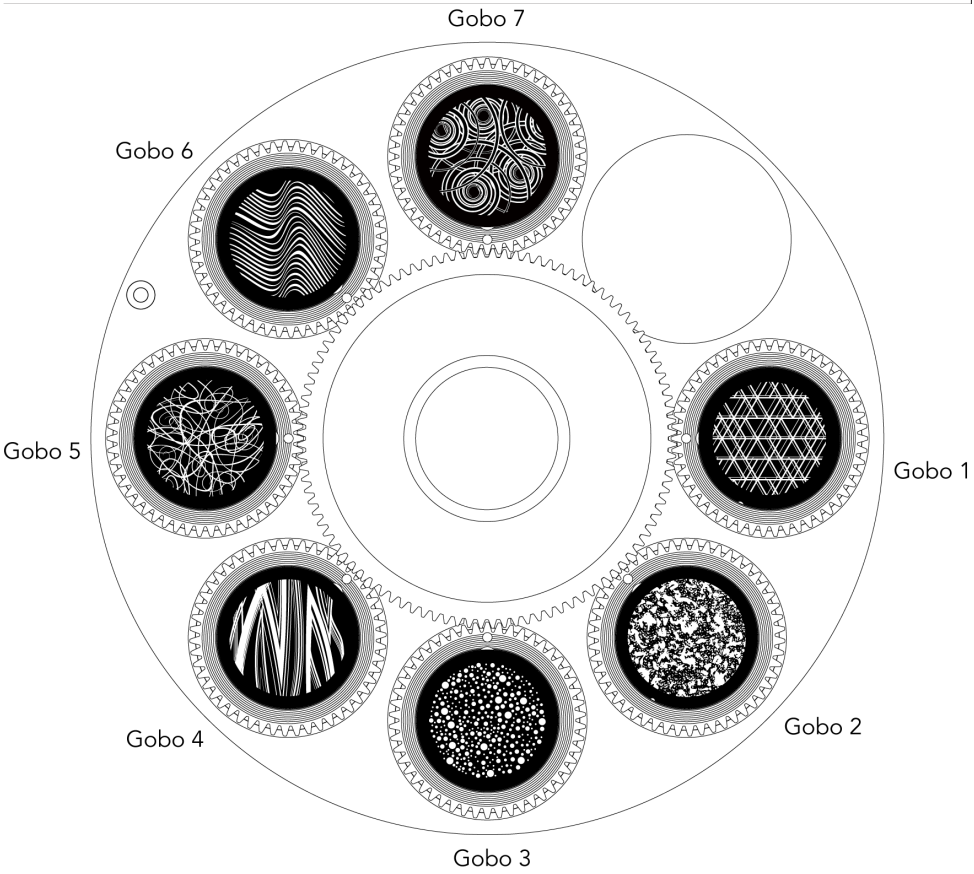
Gobo wheel 1 - Bottom (near the animation wheel)



ATTENTION! Load with mirror surface toward the light source.

Fig. 10

Gobo wheel 2 - Top (near the framing system)



ATTENTION! Load with mirror surface toward the light source.

Fig. 11

15 - COLOR WHEEL

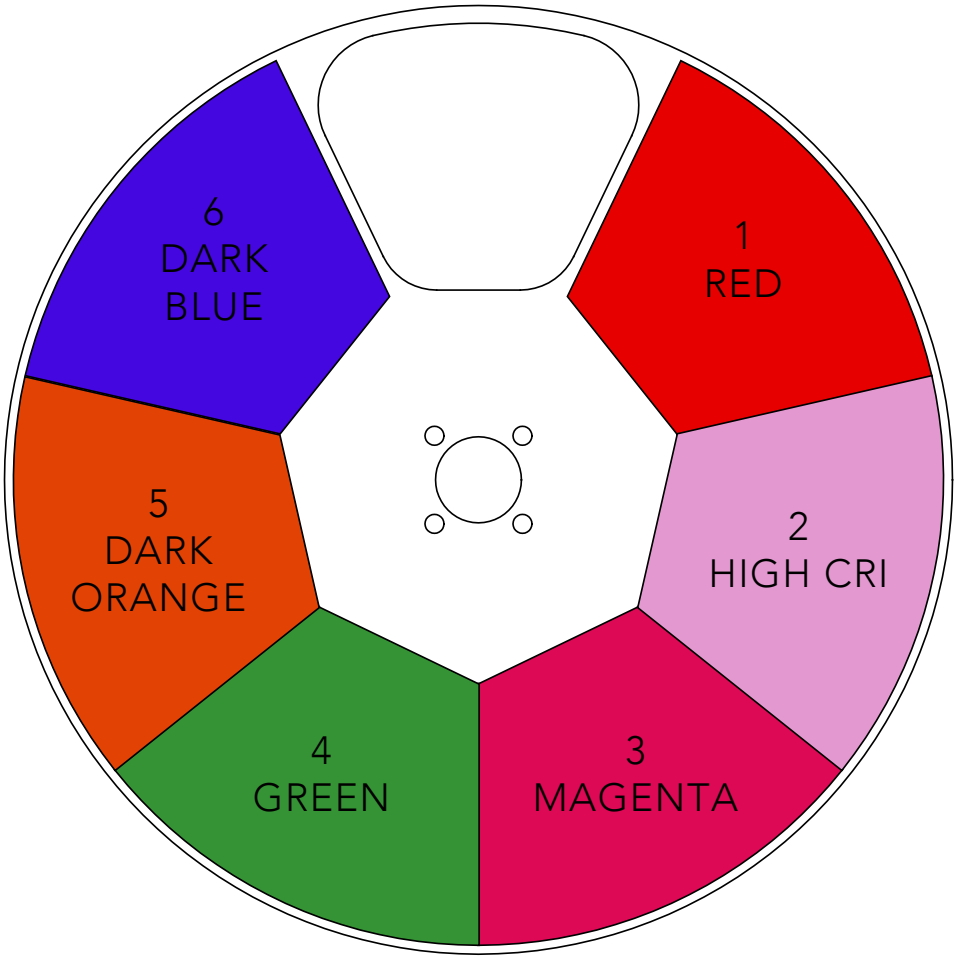


Fig. 12

16 - 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 33 you can see the location of the various pcb boards with their respective error colors.

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[DISPLAY BATTERY ERROR]	Recharge The battery on the display board, keeping the product ON for some hours.	1U
	If the error still occurrs, the battery is faulty . Replace the battery on the display board.	1U
[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 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.	
[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) .	
	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 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
[PAN/TILT PCB ERROR]	Pan sensor not detecteld.	2U

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[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
[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
[FAN PCB ERROR]	Fan PCB not detected	3U
[MOTOR PCB 2 ERROR]	Motor pcb 3U not detected	4U
[CYAN ERROR]	Failure detected during the reset of the Cyan flag, if the Cyan flag of the CMY module is not located in its default position	4U
[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
[CMY 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	5U
[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

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[MOTOR PCB 4 ERROR]	Motor pcb 5U not detected	6U
[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
[MOTOR PCB 5 ERROR]	Motor pcb 6U not detected	7U
[FOCUS ERROR]	Failure detected during the reset of the FOCUS, if the focus lens is not located in its default position.	7U
[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
[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
[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

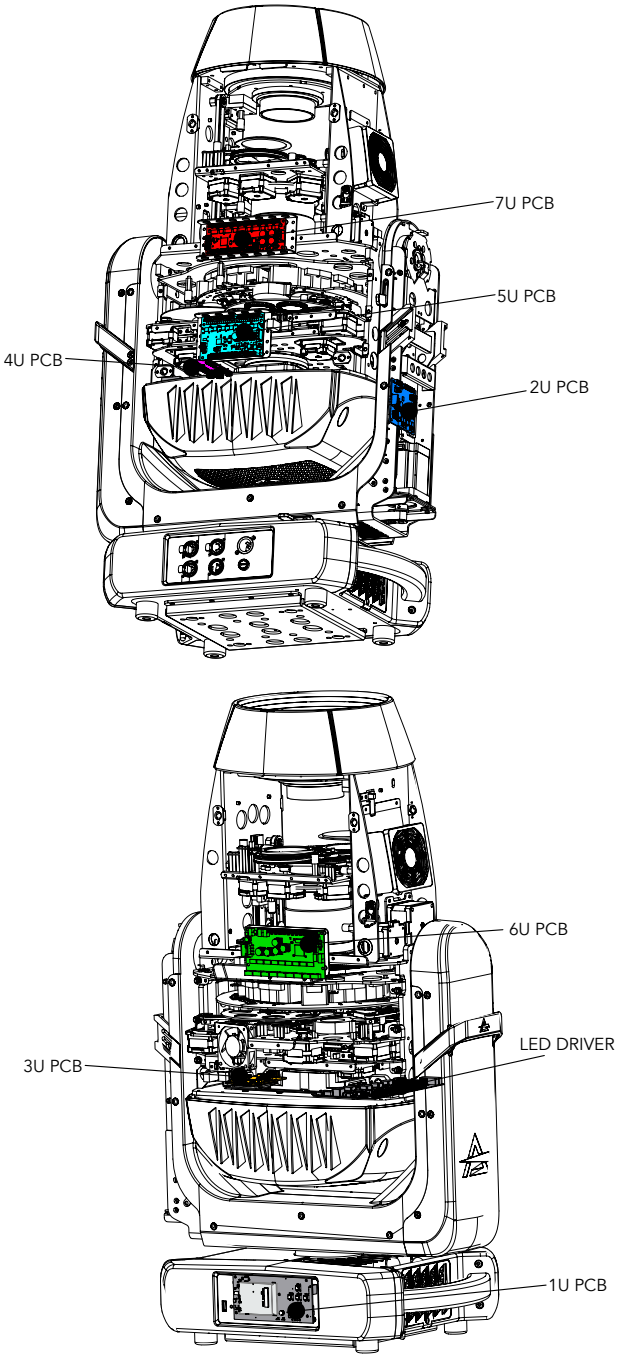
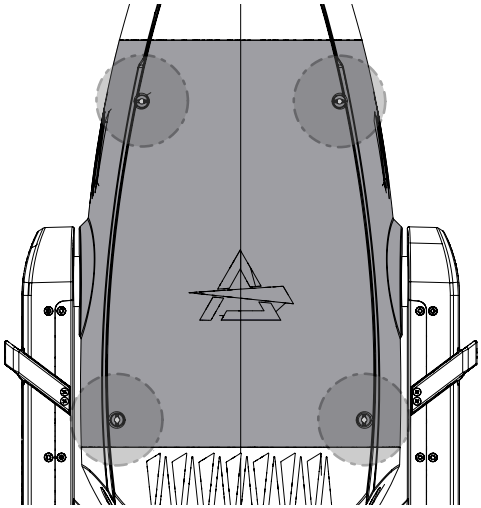


Fig. 13

17 - PERIODICAL CLEANING

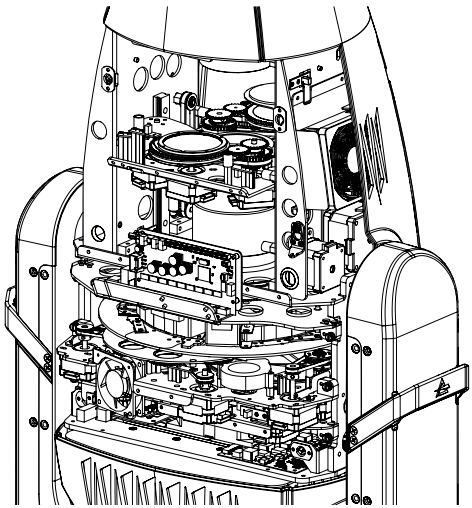
WARNING! Turn OFF power and allow approximately 20 minutes for the fixture to cool down.

1



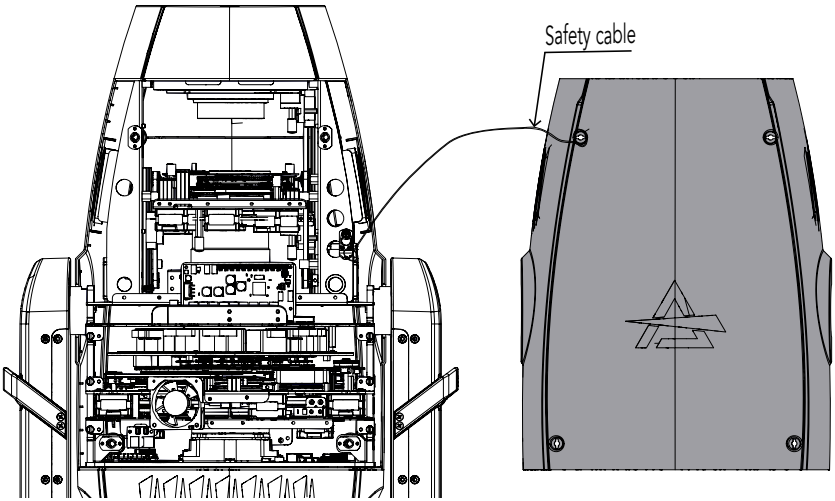
Before removing rear cover, place the head in a horizontal position and engage both the PAN and TILT locks for added stability. See the "PAN AND TILT LOCK" paragraph (pag. 6). Loosen and remove the marked screws and opening the head covers (1) from both sides.

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

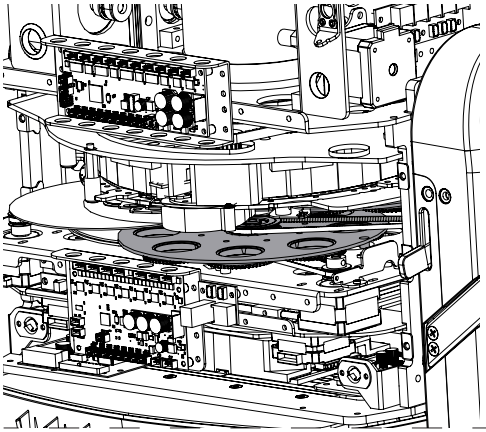


Unclip the safety cable on both sides (2).

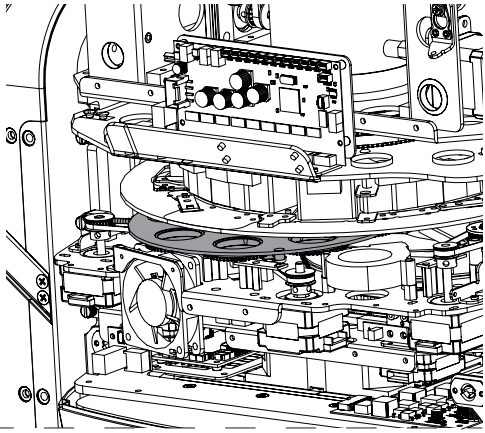
Fig. 14

18 - GOBOS REPLACEMENT

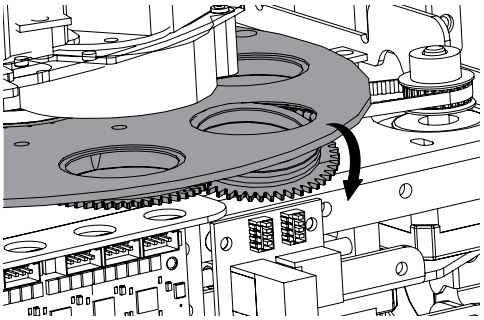
1 (BOTTOM)



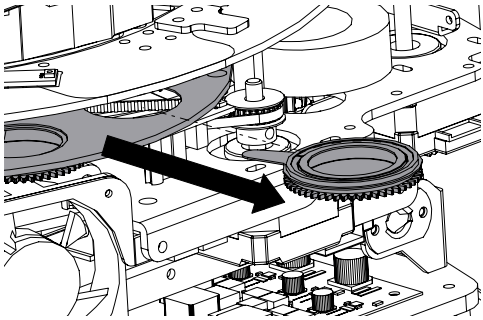
2 (TOP)



3

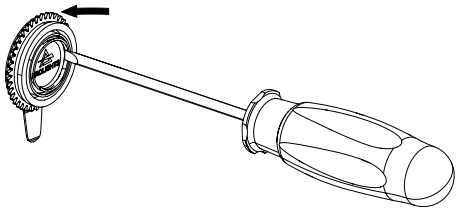


4

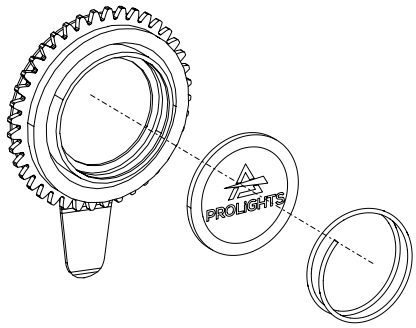


Open the head covers (see the "PERIODICAL CLEANING" paragraph, point 1).
Gently remove the gobo holder from the gobo wheel (3, 4).

5



6

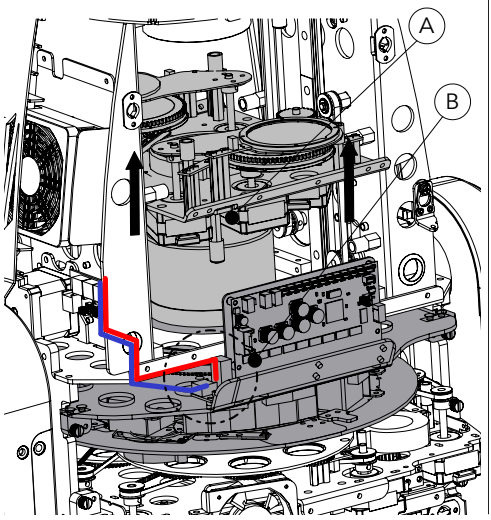


Remove the spring and the gobo (5, 6).
NOTE: *the mirrored part of the gobo must be placed in the direction of the LED Source*

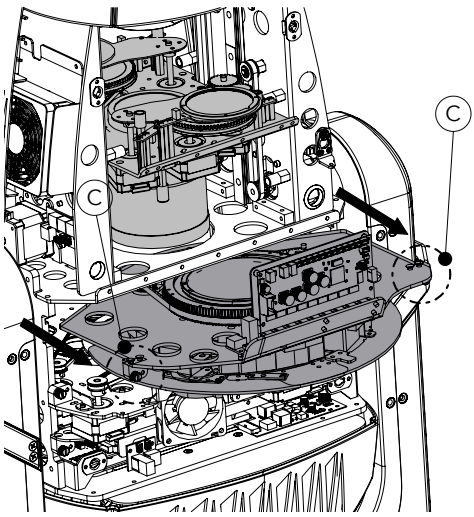
Fig. 15

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

1.1 PROFILE MODULE



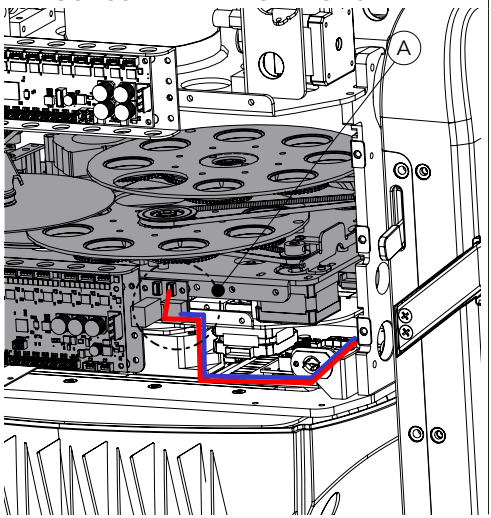
1.2



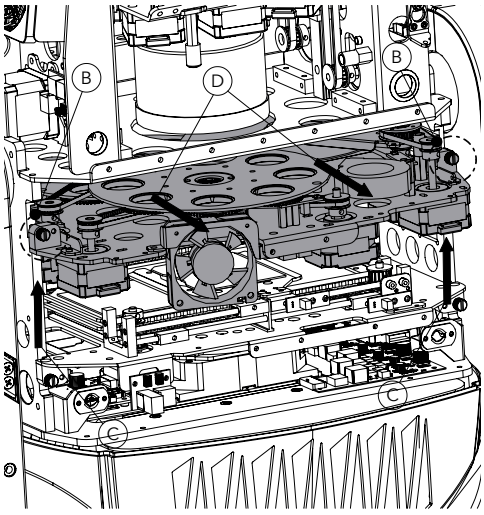
To remove the Profile module, open the head covers (see section "PERIODIC CLEANING") and proceed as follows:

- Raise the zoom and focus plates (marked A in drawing 1.1);
- Disconnect the two connectors, power and serial bus plugs (marked B in drawing 1.1);
- Unscrew the two screws marked in the front view (marked C in drawing 1.2);
- Pull out the plate with Profile module (drawing 1.2);

2.1 GOBOS + ANIMATION MODULE



2.2

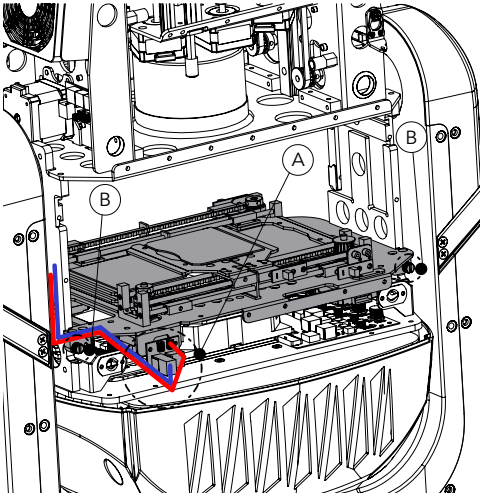


To remove the Gobos + Animation wheel module (The profile module must be already removed):

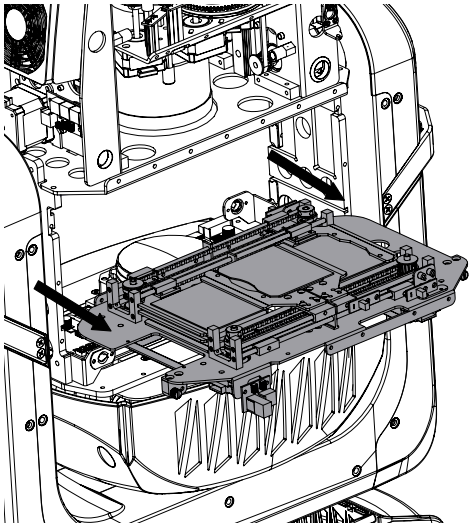
- Disconnect the two connectors, power and serial bus plugs (marked A in drawing 2.1);
- Unscrew the two screws marked in the front view (marked B in drawing 2.2);
- Remove the plate with gobo wheels raising it up (C) and then pulling out (D) (drawing 2.2).

Fig. 16

3.1 CMY MODULE



3.2



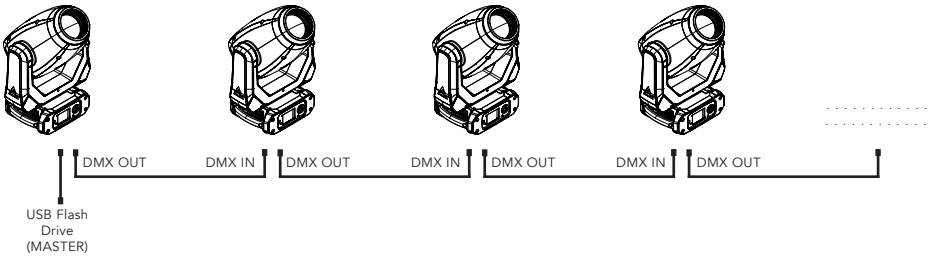
To remove the CMY module (The Gobos + Animation wheel module must be already removed):

- Disconnect the two connectors, power and serial bus plugs (marked A in drawing 3.1);
- Unscrew the two screws marked in the front view (marked B in drawing 3.1);
- Pull out the plate with CMY Module (drawing 3.2);

20 - USB UPDATE MODE

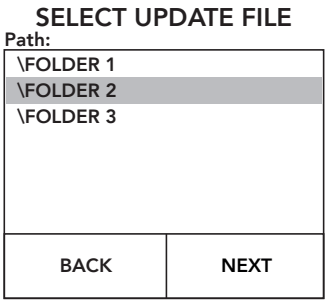
NOTE: It is necessary to prepare a FAT32-formatted flash drive for the update and copy the prl files onto it. It is advisable to use a flash drive that is empty and free of other files to facilitate the update.

Several machines can be upgraded simultaneously on the same DMX line. Necessarily there must be a master machine to which you connect the drive and all other machines must be connected to its output DMX line.

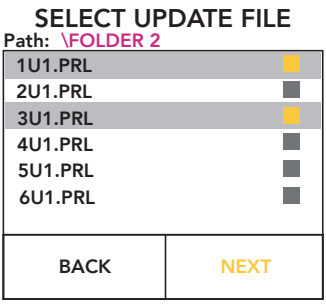


To update the device, proceed as follows:

1

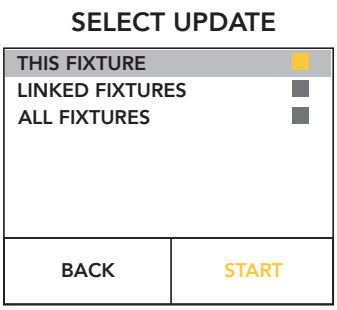


2

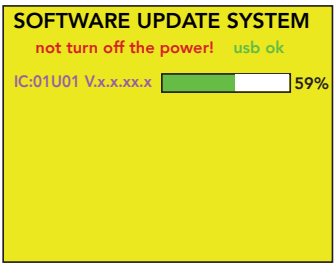


- With the machine turned on, insert the USB drive;
- A screen will appear showing the files and folders on the USB stick, so use the UP and DOWN buttons to go to the directory with the update files and press ENTER (figure 1). To return to the previous path press the LEFT button;
- Select the files to be updated. To select the desired files, move with the UP and DOWN buttons and select the file by pressing ENTER (Figure 2);
- The selected files will be shown with a yellow square, select "NEXT" pressing RIGHT button, then press ENTER to confirm. (Figure 2)

1



2

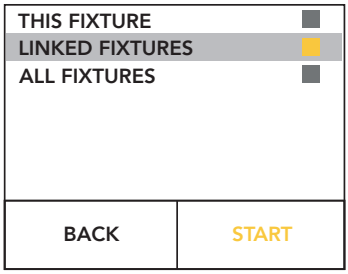


- To update only the Master Fixture, press ENTER on "THIS FIXTURE", a yellow square will be shown, select "START" pressing RIGHT button, then press ENTER to confirm. (Figure 1);
- A screen with the progress of the update will appear (Figure 2), once update is completed the fixture will restart automatically and the update will be completed.

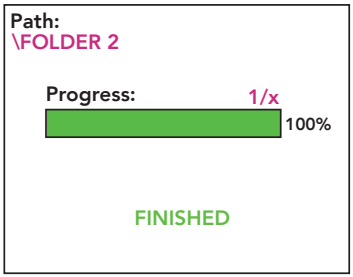
UPDATE LINKED FIXTURES - ALL FIXTURES

It is possible to update several Prolights fixtures from the Astra and Jet series at the same time.

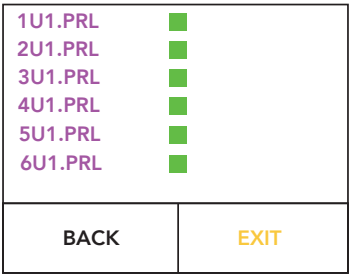
1



2



3



4

- To update only the Linked Fixtures, press ENTER on "LINKED FIXTURES", a yellow square will be shown, select "START" pressing RIGHT button, then press ENTER to confirm. (Figure 1);
- A screen will appear showing the progress of the update (Figure 2), once update is completed press ENTER;
- A screen with the summary of the updates will appear (Figure 3), select "EXIT" pressing RIGHT button to exit from the update menu; Select "BACK" pressing LEFT button to return to the update menu; then press ENTER to confirm your choice;
- Once you have selected EXIT (Figure 3), remove the USB drive as shown in the last screen (Figure 4) and the update menu will close automatically.

NOTE: *To update **all fixtures** (Master and Linked) the procedure is the same of updating linked fixtures, once the progress of the update is completed, press ENTER (Figure 2) and the update of the master fixture will start.*

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 (T15A 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.

Note

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