Astra Hybrid330IP

IP65 Ultra compact hybrid moving beam-spot, with a 330W LED 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/ASTRAHYB330IP#download for installation instructions.
- Please read carefully the instruction reported in this section before installing, powering, operating or servicing the product and observe the indications also for its future handling.

This unit is not for household and residential use, only professional applications.

Connection to mains supply
- The Connection to the mains supply must be carried out by a qualified electrical installer.
- Use only AC supplies 100-240V 50-60 Hz, the fixture must be electrically connected to ground (earth).
- Select the cable cross section in according with the maximum current draw of the product and the possible number of products connected at the same power line.
- The AC mains power distribution circuit must be equipped with magnetic+residual current circuit breaker protection.
- Do not connect it to a dimmer system; doing so may damage the product.

Protection and Warning against electrical shock
- Do not remove any cover from the product, always disconnect the product from AC power before servicing.
- Ensure that the fixture is electrically connected to ground (earth). And use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other components are damaged, defective, deformed or showing signs of overheating.
- Do not reapply power until repairs have been completed.
- Refer any service operation not described in this manual to PROLIGHTS Service team or an authorized PROLIGHTS service center.

Installation
- Make sure that all visible parts of the product are in good visible condition before its use or installation.
- Make sure the point of anchorage is stable before positioning the projector.
- When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety cable that is approved as a safety attachment for the weight of the fixture to the attachment point on the main frame of the product. In case the safety cable, enter in action, it needs to be replaced with a new one.
- Install the product only in well ventilated places.
- For non temporary installations, ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosionresistant hardware.
- For a temporary installation with clamps, ensure that the quarter-turn fastener and/or screws are turned fully, and secured with a suitable safety cable.

Minimum distance of illuminated objects
- The projector needs to be positioned so that the objects hit by the beam of light are at least 1,5 meters (4,92 ft) from the lens of the projector.

T$_a$ 45°C   **Max operating ambient temperature (Ta)**
- Do not operate the fixture if the ambient temperature (Ta) exceeds 45 °C (113 °F).

T$_a$ -15°C   **Minimum operating ambient temperature (Ta)**
- Do not operate the fixture if the ambient temperature (Ta) is below -15 °C (5 °F).

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

IP65   **Permanent Outdoor use**
- This product is rated with an IP (Ingress protection) for permanent outdoor use when used and serviced according to the instruction contained in this document.
- Never use the fixture in places subject to vibrations or bumps.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Excessive dust, smoke fluid, and particle build up degrades performance, causes overheating and will damage the fixture.
- Damages caused by inadequate cleaning or maintenance are not covered by the product warranty.

T$_C$ 63°C   **Temperature of the external surface**
- The surface of the fixture can reach up to 62,6 °C (144,7 °F) during operation. Avoid contact with people and materials.

Radio receiver
This product contains a radio receiver and/or transmitter:
- Maximum output power: 17 dBm.
- Frequency band: 2.4 GHz.

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

Photobiological safety
- This device emits potentially dangerous optical radiation and is identified in the category of Risk Group 2 according to EN 62471.

Do not stare at the operating light source
- Do not look directly at the LED source during operation. It can be harmful to the eyes and skin.
- During Installation, operation and maintenance, be prepared for the fixture to light and move suddenly when connected to power.
- The device should be positioned so that prolonged staring into the luminaire at a distance closer than 4.101 m (13,45 ft) is not expected.

	Minimun distance	Risk Group 2	Risk Group 1

0.2 m
0.7 ft

4,101 m
13,45 ft
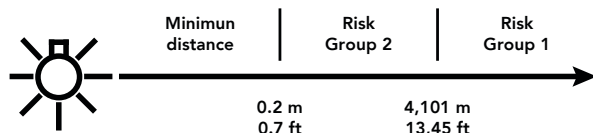
Disposal
- This product is supplied in compliance with European Directive 2012/19/EU – Waste Electrical and Electronic Equipment (WEEE). To preserve the environment please dispose/ recycle this product at the end of its life according to the local regulation.

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).

Other approvals

1 - PACKAGING

PACKAGE CONTENT
- 1x ASTRAHYB330IP.
- 1x 1,5 meters power cable (BARE END - SEETRONIC IP65 power connector).
- 2x OSIPPLUS: IP65 quick-lock omega bracket compatible with IP65 moving heads, 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/ASTRAHYB330IP#accessories

2 - TECHNICAL DRAWING
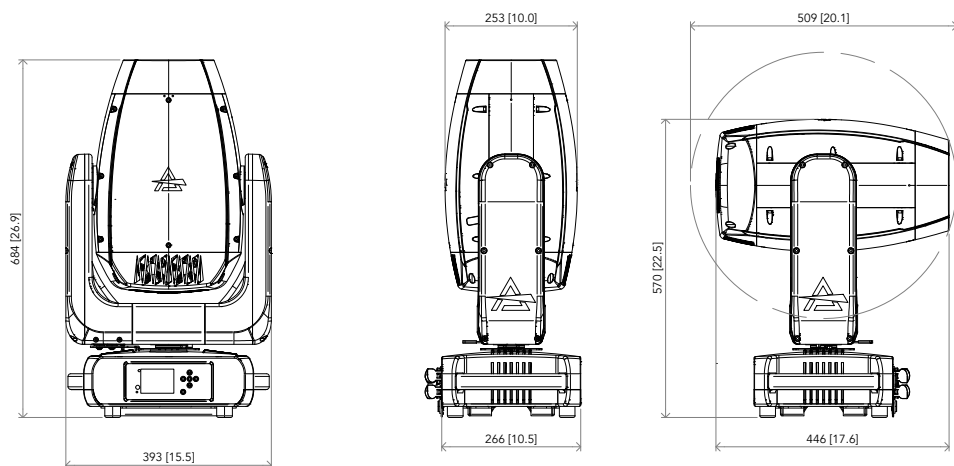
Weight: 25 kg - 55,11 lbs

Fig. 01

PROLIGHTS - Astra Hybrid330IP

3 - PAN AND TILT LOCK

PAN Mechanism lock and release

LOCK

UNLOCK

TILT Mechanism lock and release

LOCK

UNLOCK
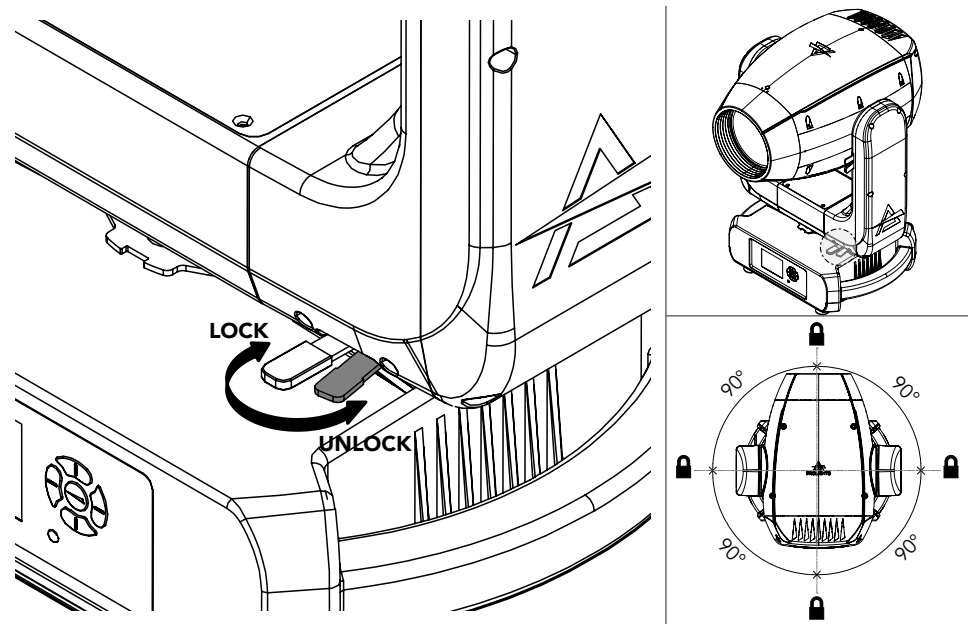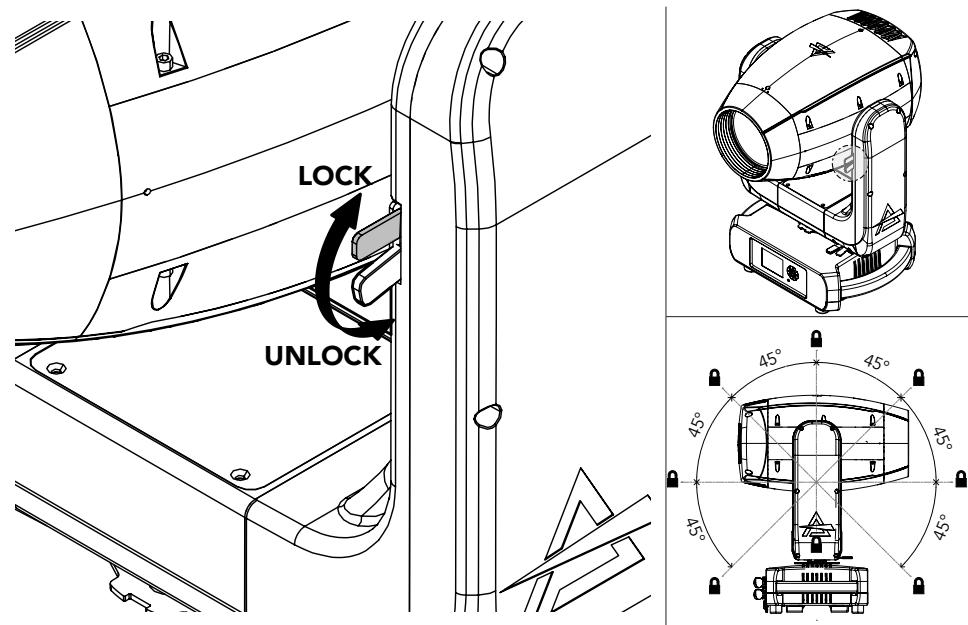
Fig. 02

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.

C6002B clamp

RSR0670B Steel security cable

OSIPPLUS

108 [4.2]

108 [4.2]
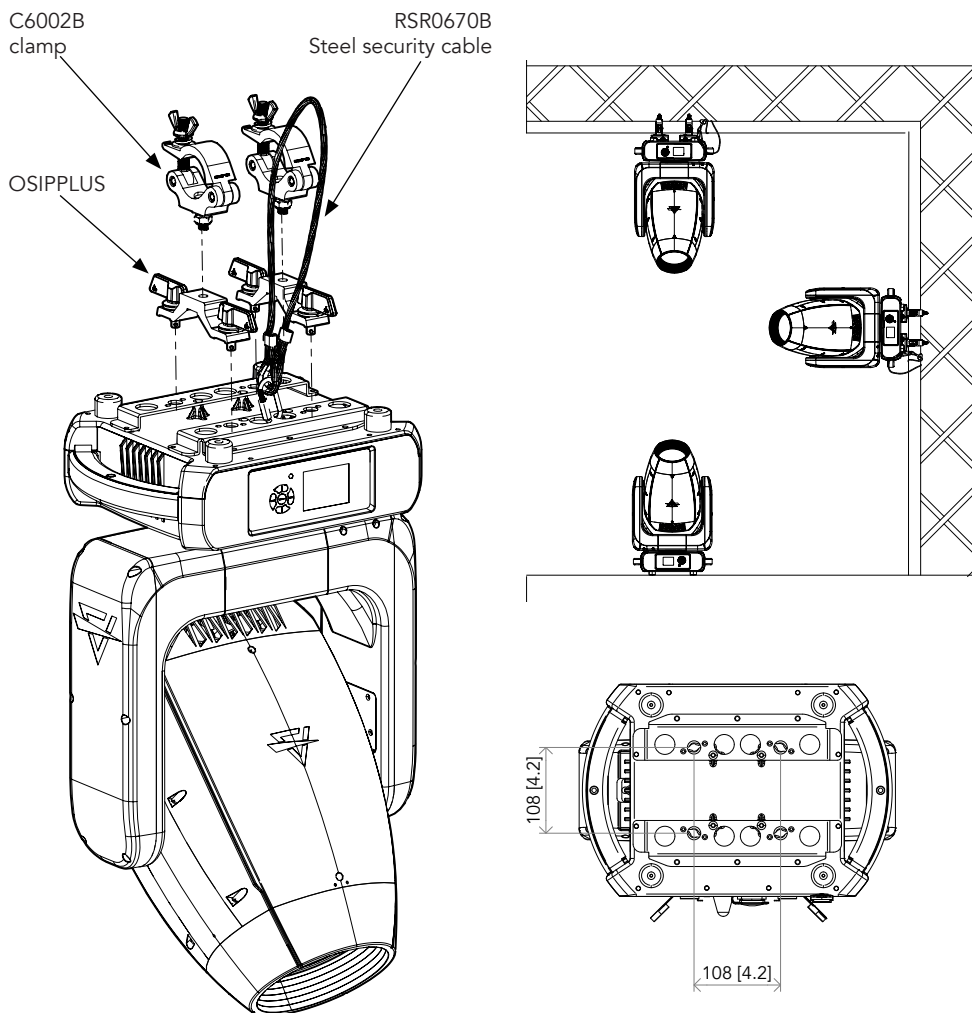
Fig.03

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 517W.

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

6 - START UP

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

7 - PRODUCT OVERVIEW

1. USER INTERFACE with display and buttons for access to the control panel functions.
2. PAN Mechanism lock and release.
3. TILT Mechanism lock and release.
4. SAFETY EYES to attach safety cable.
5. USB PORT for quick firmware upgrade.
6. ETHERCON CONNECTORS IN / OUT signal.
7. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
8. POWER OUT: power output for connection of multiple units in series.
9. ANTENNA of Wireless DMX Receiver internal module.
10. GORE VALVE
11. DMX IN/OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
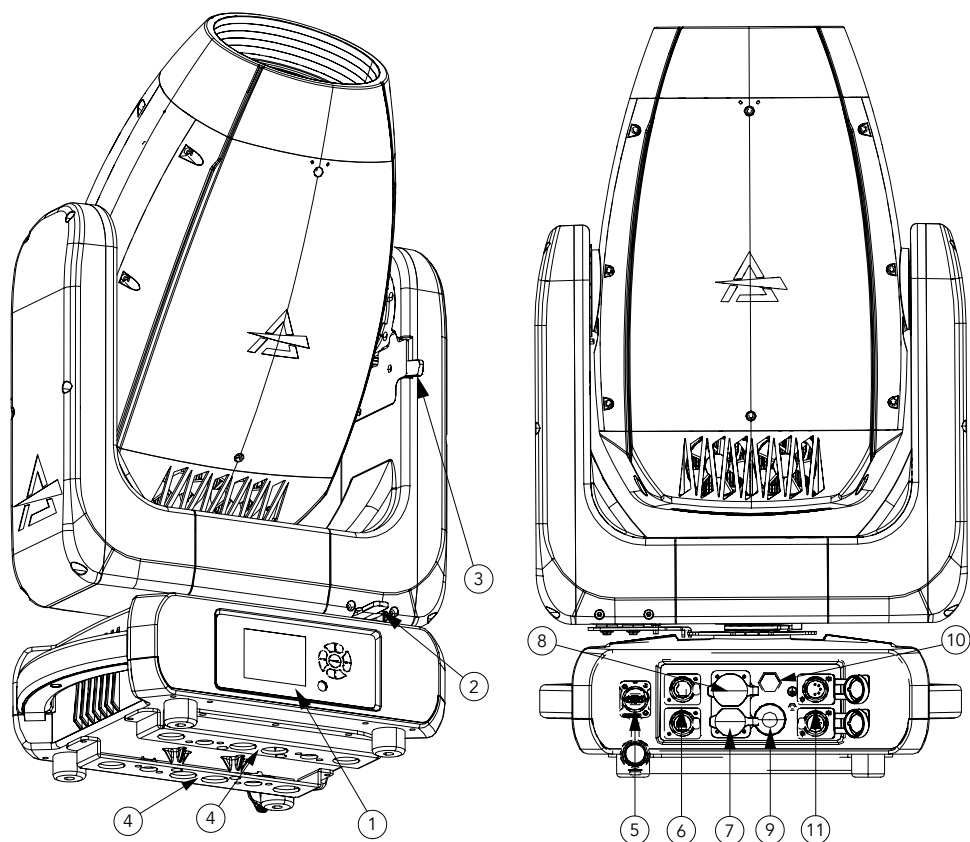
Fig 04

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
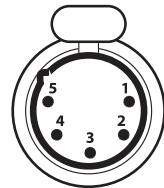
Fig. 05

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: 30   DMX Address: 59   DMX Address: 88

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

DMX512 Controller
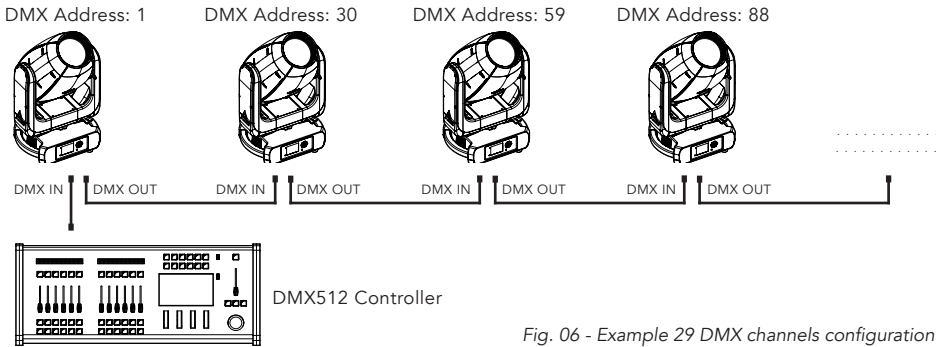
Fig. 06 - Example 29 DMX channels configuration

CONSTRUCTION OF THE DMX TERMINATION

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

Example:
5 pin XLR connector
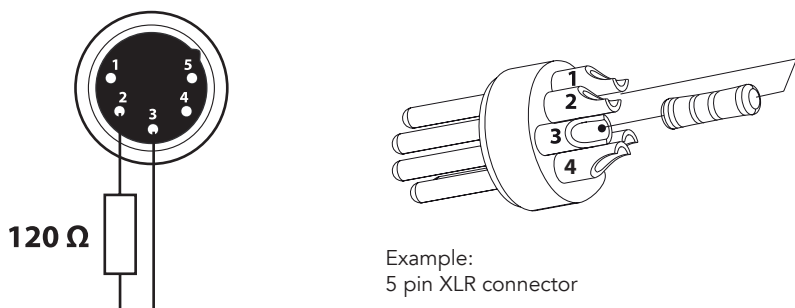
Fig. 07

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

ASTRAHYB330IP can be used as wireless transmitter to transmit DMX signal to different wireless receivers. To use ASTRAHYB330IP 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 CRMX ON/OFF function and enable it to ON.
4. Select CRMX mode and set it on Transmitter (please note that CRMX mode will be available only if CRMX 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 CRMX 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 CRMX mode is set to Transmitter).
- All connected receivers will be unlinked.

CHANGING TX PROTOCOL

To change TX protocol, use the following procedure:
1. Perform "TX Unlink" on ASTRAHYB330IP.
2. Perform an "RX Unlink" on the device you want to connect as a receiver.
3. Set the TX protocol you want to use (G3,G4S,CRMX) on ASTRAHYB330IP.
4. Power Cycle ASTRAHYB330IP and restart it
5. Perform a "TX Link" on ASTRAHYB330IP to link to the receiver

IN TO CRMX

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 ASTRAHYB330IP protocol selected is ArtNet / sACN, the CRMX module will retransmit the DMX values contained in the ArtNet / sACN signal received from the ASTRAHYB330IP.

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

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

OPERATION AS A WIRELESS RECEIVER

ASTRAHYB330IP can be used as wireless receiver connected to a wireless transmitter.

To use ASTRAHYB330IP 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 CRMX ON/OFF function and enable it to ON.
4. Select CRMX mode and set it on Receiver (please note that CRMX mode will be available only if CRMX 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 CRMX 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.

CRMX TO DMX (RX)

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

9 - CONTROL PANEL

The product has a display and buttons for access to the control panel functions.
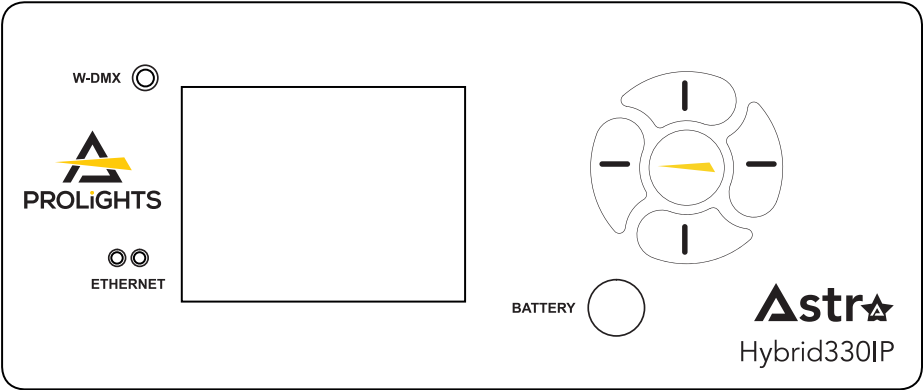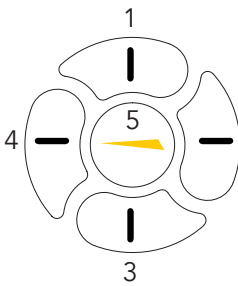
Fig. 08

DISPLAY AND BUTTONS LAYOUT
The product has a display and buttons for access to the control panel functions:

1		• Browse upwards through the menu list and increases the numeric value displayed.
2		• 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.
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.

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	DESCRIPTION
1	CONNECT	ADDRESS	DMX		*Set address used for Fixture and for Pixel patch.*
			W-DMX	VALUE (**1**-512)	
			sACN		
			ARTNET		
		DMX MODE	**STANDARD**		*Set DMX chart for Main Fixture.*
		WIRELESS	CRMX ON/OFF	ON	*Enable/Disable the wireless card.*
				OFF	
			CRMX MODE	TX CRMX	*Allows to choose whether to set the wireless on the Transmitter or Receiver.*
				TX G4S	*CRMX mode is unlocked only if CRMX ON / OFF is ON.*
				TX G3	
				RX	
			TX LINK	ON	*TX link unlock when the unit is set as a transmitter.*
				OFF	
			TX UNLINK	ON	*Disconnect the transmitter from all receivers.*
				OFF	*TX unlink unlocks only if CRMX mode is on transmitter.*
			RX RESET	ON	*Total reset of the receiver.*
				OFF	*RX reset unlocks only if CRMX mode is receiver.*
			IN TO CRMX (TX)	**ON**	*Enable/Disable the transmission of the DMX values 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		When In RX Mode: 1. Insert 8 digit code 2. Ask for mode (CRMX or CRMX²) 3. Ask for universe (CRMX: A,C,E,G | CRMX²: A,B,C,D,E,F,G,H) When in TX CRMX Mode: 1. Insert 8 digit code
			UNIVERSE METADATA		In RX Mode: 1. RGB Color code received from TX 2. Universe name received from TX In TX CRMX Mode: 1.RGB Color code set from R,G,B combo list 2. Universe name by default takes first 16 characters of Model Name. (DEVICELABEL-Last 4 digit of RDM UID)

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3		DESCRIPTION
1	CONNECT	ETHERNET SETTING	ARTNET SETTINGS	IP ADDRESS		*Set IP address of the fixture.*
				NET		*Set Net for ArtNet protocol (Default 0).*
				SUBNET		*Set Subnet for ArtNet protocol (Default 0).*
				UNIVERSE		*Set Universe for ArtNet protocol (Default 0).*
			sACN SETTINGS	IP ADDRESS		*Set IP address of the fixture.*
				UNIVERSE		*Set Universe for sACN protocol (Default 0).*
				MERGE MODE	**OFF**/ HTP/ LTP	*Set Merge Mode for sACN protocol.*
			ETHERNET TO DMX	**ON**		*Enable / Disable DMX retrasmission from sACN/ArtNet signal to DMX out port.*
				OFF		
2	SETUP	SCREEN	BACKLIGHT	ON		*Allows you to select the timing after that display will switch automatically off when unactive.*
				10s		
				20s		
				30s		
			FLIP DISPLAY	ON/OFF/**AUTO**		*Allows you to rotate the display by 180°.*
				OFF		
				AUTO		
			KEY LOCK	ON/**OFF**		*Allows you lock the buttons on the control panel by a password. Press following combinations (password) in order to access to the user menu : UP, DOWN, UP, DOWN.*
		MOVEMENT	PAN REVERSE	ON		*Allows you to reverse Pan movement.*
				OFF		
			TILT REVERSE	ON		*Allows you to reverse Tilt movement.*
				OFF		
			PAN/TILT FEEDBACK	**ON**		*To activate / deactivate the reading of the feedbacks given by the encoders.*
				OFF		
			MOVEMENT BLACKOUT	ON		*Make fixture goes blackout OFF while moving.*
				OFF		
			PAN/TILT MODE	SLOW		*To choose the horizontal/ vertical movement speed. SYNC mode will sync movement speed with the whole ASTRAWASH familiy fixtures.*
				MEDIUM		
				FAST		
			HOME POSITION	**STANDARD**		*Standard: Pan is at 90° to the display when Pan@128dmx value like all Prolights fixtures. Custom: Pan is at 0° to the display when Pan@128dmx value.*
				CUSTOM		

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	DESCRIPTION
2	SETUP		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**	*Select Fan behaviour.*
				SILENT	
				HIGH	
			COLOR WHEEL BLACK-OUT	ON	*To set Gobo Wheel Movement in black-out mode.*
				OFF	
			COLOR WHEEL BLACK-OUT	ON	*To set Gobo Wheel Movement in black-out mode.*
				OFF	
			COLOR WHEEL MODE	**STEP**	*To set Color Wheel Movement scrolling mode.*
				COUNTINUOUS	
			GOBO WHEEL BLACK-OUT	ON	*To set Gobo Wheel Movement scrolling mode.*
				OFF	
			GOBO WHEEL MODE	**STEP**	*To set Gobo Wheel Movement scrolling mode.*
				COUNTINUOUS	
			DMX FAULT	**HOLD**	*To choose the behaviour of fixture in case of dmx signal lost.*
				BLACKOUT	
			STATUS LED	**ON**	*To turn the status LEDs on the front panel on or off.*
				OFF	
			DIMMER CURVE	LINEAR/	*Select different curve behaviour of dimmer.*
				S-CURVE	
				SQUARE LAW	
				INVERSE SQUARE LAW	

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3		DESCRIPTION
2	SETUP		DIMMER SPEED	**AUTO**		*Linear dimmer behaviour.*
				FAST		*Dimmer curve adding long fade.*
				MEDIUM		*Dimmer curve adding medium fade.*
				SLOW		*Dimmer curve adding little fade.*
			LED FREQUENCY	600 HZ	4000 HZ	*Select PWM frequency.*
				1200 HZ	6000 HZ	
				2000 HZ	25 KHZ	
				50 KHZ		
			INVERT ZOOM	ON		*Invert zoom values.*
				OFF		
			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	ADVANCED	RESET	ALL			*To reset these functions.*
			PAN & TILT			
			PAN			
			TILT			
			COLOR1			
			COLOR2			
			COLOR3			
			ROT GOBO			
			GOBO ROT			
			FIXED GOBO			
			ZOOM			
			FOCUS			
			ANIMATION			
			8F PRISM			
			6F PRISM			
			FROST			
			OTHERS			
		CALIBRATION	PASSWORD			*To calibrate these functions.*
			PAN			
			TILT			
			DIMMER			
			COLOR1			
			COLOR2			
			COLOR3			

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	DESCRIPTION
3	ADVANCED		ROT GOBO		
			FIXED GOBO		
			8F PRISM		
			6F PRISM		
			8F PRISM ROT		
			6F PRISM ROT		
			FROST		
			FOCUS		
			ZOOM		
			ANIMATION		
			ANIMATION ROT		
			GOBO 1	FOCUS	
			…		
			GOBO 8	FOCUS	
			FIXGOBO 1	FOCUS	
			...		
			FIXGOBO 11	FOCUS	
			ANIMATION FOCUS		
			GOBO 1	INDEX	
			…		
			GOBO 8	INDEX	
			CYAN		
			MAGENTA		
			YELLOW		
		MANUAL CONTROL	CONTROL		*For manual control of the unit.*
			PAN		
			PAN FINE		
			TILT		
			TILT FINE		
			DIMMER		
			DIMMER FINE		
			SHUTTER		
			CYAN		
			MAGENTA		
			YELLOW		
			COLOR1		
			COLOR2		
			COLOR3		
			ROT GOBO		
			GOBO ROT		
			GOBO ROT FINE		

N°	MENU	LEVEL 1	LEVEL 2	LEVEL 3	DESCRIPTION
3	ADVANCED		FIXED GOBO		
			8F PRISM		
			8F PRISM ROT		
			6F PRISM		
			6F PRISM ROT		
			FROST		
			ZOOM		
			ZOOM FINE		
			FOCUS		
			FOCUS FINE		
			ANIMATION		
			ANIMATION ROT		
		RELOAD DEFAULT	BASIC RELOAD	YES/NO	*Default of all parameters excepted Calibration (both User and Factory)*
			FACTORY RELOAD	YES/NO	*Default of all parameters. User Calibration parameters need to be overwritten by Factory calibration.* *Factory reload password: 050.*
4	INFORMATION	FIXTURE TIME	FIXTURE HOURS	TOTAL	*To check the total working hours of the unit.* *Reset password: 050.*
				PARTIAL	
			CURRENT HOURS	TOTAL	*To check the current working hours of the unit.* *Reset password: 050.*
				PARTIAL	
			SOURCE HOURS	TOTAL	*To see the total operating hours of the LED source.* *Reset password: 050.*
				PARTIAL	
			POWER ON CYCLE	TOTAL	*To see the power cycles of the machine.* *Reset password: 050.*
				PARTIAL	
			MAINTENANCE TIME	ELAPSED TIME	*To choose and reset unit maintenance warning hours (Default: 500).* *Deafult: 500.* *Reset password: 050.*
				ALERT PERIOD	
		TEMPERATURE	NEAR SOURCE TEMP, DRIVER PCB TEMP, LED PCB TEMP,…		*To see the unit temperature.*
		FAN SPEED	NEAR SOURCE FAN, BASE FAN,…		*To see the speed of the fans.*
		WIRELESS QUALITY			*To check the wireless quality.*
		CHANNEL VALUE	PAN...		*To see the dmx value of those channels.*
		ERROR MESSAGE	PAN, TILT...		*To see any error messages.*
		FIXTURE MODEL	XXXXXXXXXX		*View informations about fixture model.*
		RDM UID	(READ)		*View ID for the RDM control.*
		SOFTWARE VERSION	1U01 V1.0.00...		*View informations about software version.*
		CRMX MODULE VERSION	TimoFX: Vx.x.xx		

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. CRMX Tiny's Downstream must be enabled in its custom PIDs to work.

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
	BURN_IN	0x0440	x	x

Category	Parameter	Value	GET	SET
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	
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	
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

13 - DMX CHARTS

RDM Personality ID List		
ID	DMX Mode	Footprint
1	STANDARD	29

RDM Model ID

0xA025

PAN/TILT POSITION RELATED TO DMX VALUES
Home position set to STANDARD

Pan = 128
Tilt = 0

DMX 255

Pan = 128
Tilt = 128

DMX 255   DMX 0

Pan = 128
Tilt = 255

DMX 0

Tilt movement range: 270°
Pan movement range: 540

Pan = 0
Tilt = 80

DMX 255

Display

Pan = 128
Tilt = 80

DMX 255   DMX 0

Display

Pan = 255
Tilt = 80

DMX 0

Display

Fig. 09

PROLIGHTS - Astra Hybrid330IP
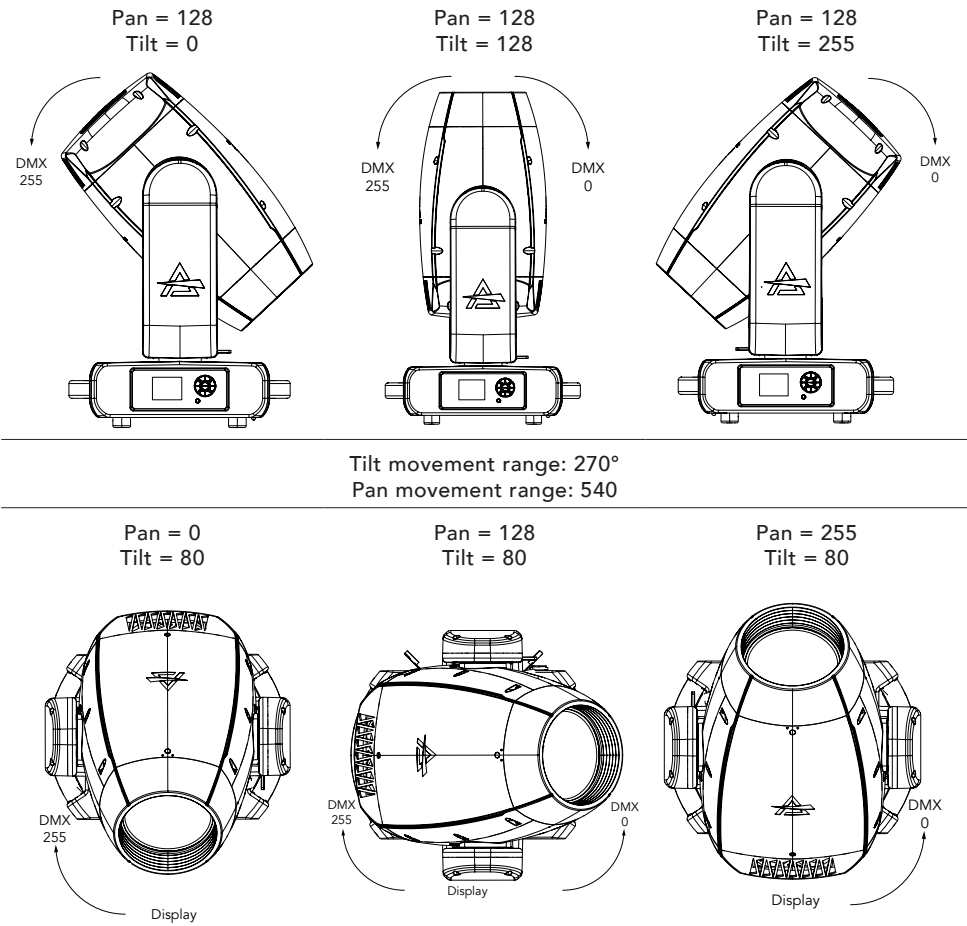
DMX Chart Summary

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

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
1	Pan	Lineary from 0% to 100%	0	255	128
2	Pan fine	Lineary from 0% to 100%	0	255	128
3	Tilt	Lineary from 0% to 100%	0	255	128
4	Tilt fine	Lineary from 0% to 100%	0	255	128
5	Dimmer	Lineary from close to open	0	255	000
6	Dimmer Fine	Lineary from close to open	0	255	000
7	Shutter	Close	0	1	255
		Strobe from slow to fast	2	62	
		Open	63	64	
		Pulse in from slow to fast	65	125	
		Open	126	127	
		Pulse out from slow to fast	128	188	
		Open	189	190	
		Randon from slow to fast	191	251	
		Open	252	255	
8	Cyan	Lineary from 0% to 100%	0	255	000
9	Magenta	Lineary from 0% to 100%	0	255	000
10	Yellow	Lineary from 0% to 100%	0	255	000
11	Color Wheel 1	**Indexed**			000
		Open	0	18	
		Open + HIGH CRI >90	19	37	
		HIGH CRI >90	38	56	
		HIGH CRI >90 + CTO 3200K	57	75	
		CTO 3200K	76	94	
		CTO 3200K + CTO 2400K	95	113	
		CTO 2400K	114	132	
		CTO 2400K + CYAN	133	151	
		CYAN	152	170	
		Forward Spin			
		From fast to slow	171	211	
		Stop			
		Stop	212	214	
		Reverse Spin			
		From slow to fast	215	255	

PROLIGHTS - Astra Hybrid330IP

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
12	Color Wheel 2	**Indexed**			000
		Open	0	18	
		Open + LAVANDER	19	37	
		LAVANDER	38	56	
		LAVANDER + DARK BLUE	57	75	
		DARK BLUE	76	94	
		DARK BLUE + DARK RED	95	113	
		DARK RED	114	132	
		DARK RED + MAGENTA	133	151	
		MAGENTA	152	170	
		Forward Spin			
		From fast to slow	171	211	
		Stop			
		Stop	212	214	
		Reverse Spin			
		From slow to fast	215	255	
13	Color Wheel 3	**Indexed**			000
		Open	0	18	
		Open + LIGHT GREEN	19	37	
		LIGHT GREEN	38	56	
		LIGHT GREEN + PINK	57	75	
		PINK	76	94	
		PINK + LIGHT ORANGE	95	113	
		LIGHT ORANGE	114	132	
		LIGHT ORANGE + YELLOW	133	151	
		YELLOW	152	170	
		Forward Spin			
		From fast to slow	171	211	
		Stop			
		Stop	212	214	
		Reverse Spin			
		From slow to fast	215	255	

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

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

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
21	Prism 2 Rotation	**Indexed**			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
		From slow to fast	193	255	
22	Frost	**Continuous**			000
		Lineary from 0% to 100%	0	255	
23	Zoom	Lineary from in to out	0	255	000
24	Zoom Fine	Lineary from in to out	0	255	000
25	Focus	Lineary from in to out	0	255	000
26	Focus Fine	Lineary from in to out	0	255	000
27	Animation Insertion	**Continuous**			000
		Lineary from 0% to 100%	0	255	
28	Animation Rotation	**Indexed**			000
		Lineary from 0° to 360°	0	127	
		Forward Spin			
		From fast to slow	128	190	
		Stop			
		Stop	191	192	
		Reverse Spin			
		From slow to fast	193	255	
29	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	
		MOVEMENT IN BLACKOUT ON	16	17	
		MOVEMENT IN BLACKOUT OFF	18	19	
		COLOR WHEEL 1 BLACKOUT ON (index)	20	21	
		COLOR WHEEL 1 BLACKOUT OFF (index)	22	23	
		COLOR WHEEL 2 BLACKOUT ON (index)	24	25	
		COLOR WHEEL 2 BLACKOUT OFF (index)	26	27	
		COLOR WHEEL 3 BLACKOUT ON (index)	28	29	
		COLOR WHEEL 3 BLACKOUT OFF (index)	30	31	
		ROTATING GOBO WHEEL BLACKOUT ON (index)	32	33	
		ROTATING GOBO WHEEL BLACKOUT OFF (index)	34	35	
		FIXED GOBO WHEEL BLACKOUT ON (index)	36	37	
		FIXED GOBO WHEEL BLACKOUT OFF (index)	38	39	
		COLOR WHEEL 1 CONTINUOUS MOVEMENT (index)	40	41	

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

Channel STANDARD	Name	Function	Min DMX	Max DMX	Default
		INVERT ZOOM ON	128	129	
		RESET ALL	130	131	
		RESET PAN/TILT	132	133	
		RESET PAN	134	135	
		RESET TILT	136	137	
		RESET COLOR 1	138	139	
		RESET COLOR 2	140	141	
		RESET COLOR 3	142	143	
		RESET ROTATING GOBO	144	145	
		RESET GOBO ROTATION	146	147	
		RESET FIXED GOBO	148	149	
		RESET ZOOM	150	151	
		RESET FOCUS	152	153	
		RESET ANIMATION	154	155	
		RESET 6F PRISM	156	157	
		RESET 8F PRISM	158	159	
		RESET FROST	160	161	
		RESET OTHER	162	163	
		Reserved	164	253	
		FACTORY DEFAULT OF CONTROL FUNCTIONS	254	255	

14 - FIXED GOBOS WHEEL

Fig. 10

PROLIGHTS - Astra Hybrid330IP   33
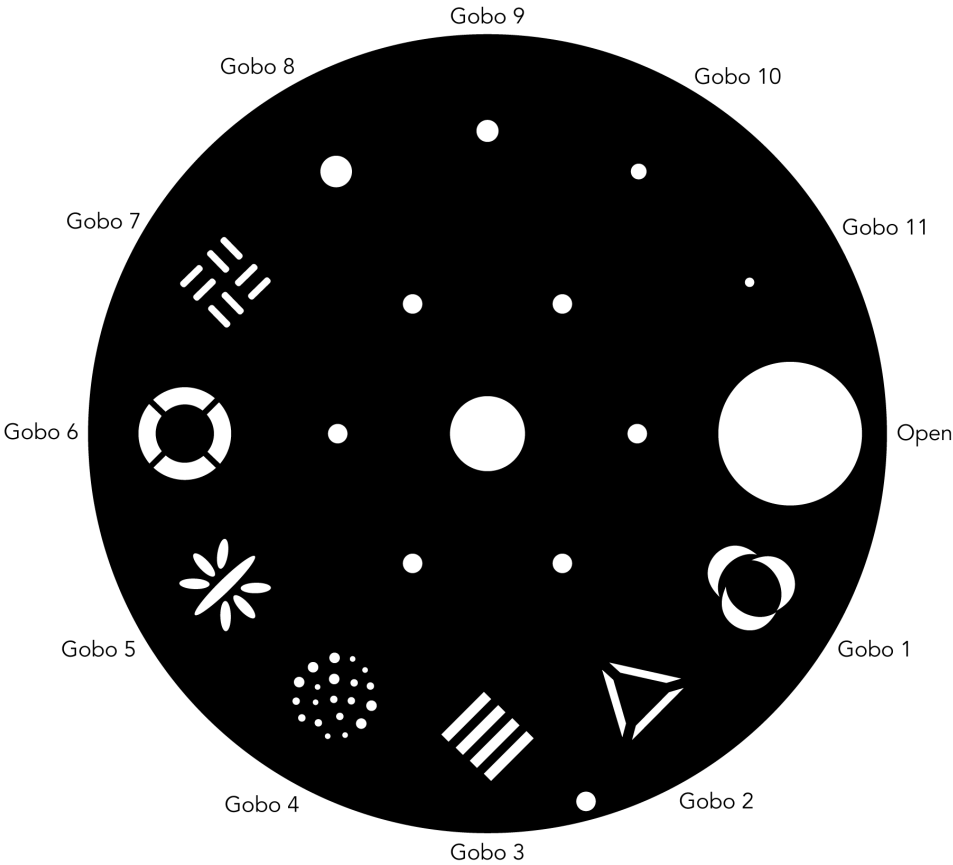
15 - ROTATING GOBOS WHEEL

Gobo dimensions:

- Ø external (OD)= 20 mm
- Ø of image (ID)= 16 mm
- Thinckness= up to 3 mm

ID = Ø16 mm [0.6 in]

OD = Ø20 mm [0.8 in]

Up to 3 mm [0.12 in]

Gobo 1
Gobo 2
Gobo 3
Gobo 4
Gobo 5
Gobo 6
Gobo 7
Gobo 8
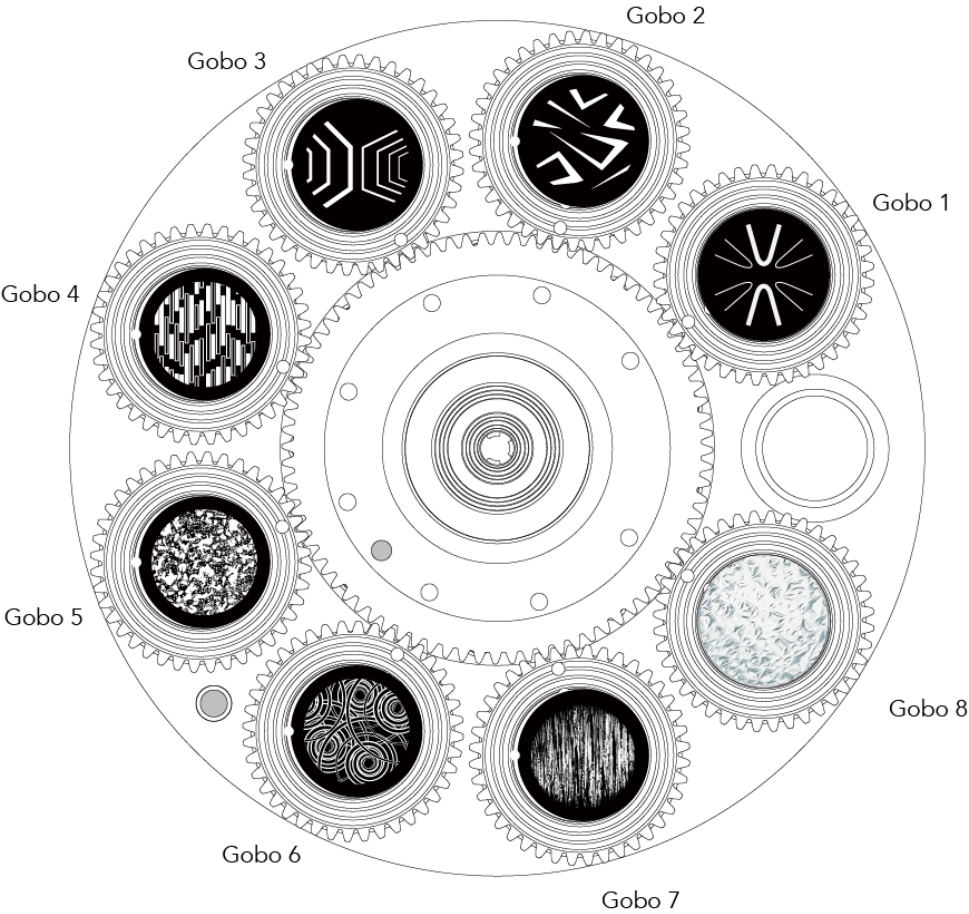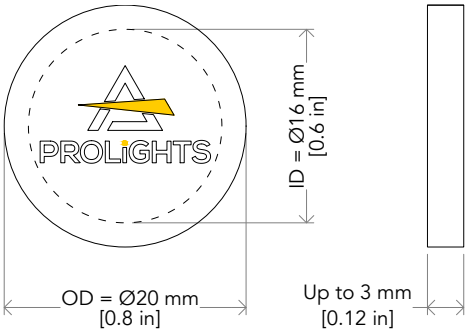
ATTENTION! Load with mirror surface toward the light source.

16 - COLOR WHEEL

CYAN - COLOR WHEEL 1

MAGENTA - COLOR WHEEL 2

CTO
2400K

CTO
3200K

HIGH CRI
>90

LAVANDER

DARK BLUE

DARK RED

YELLOW - COLOR WHEEL 3

LIGHT
GREEN

PINK

LIGHT
ORANGE

Fig. 12

PROLIGHTS - Astra Hybrid330IP   35
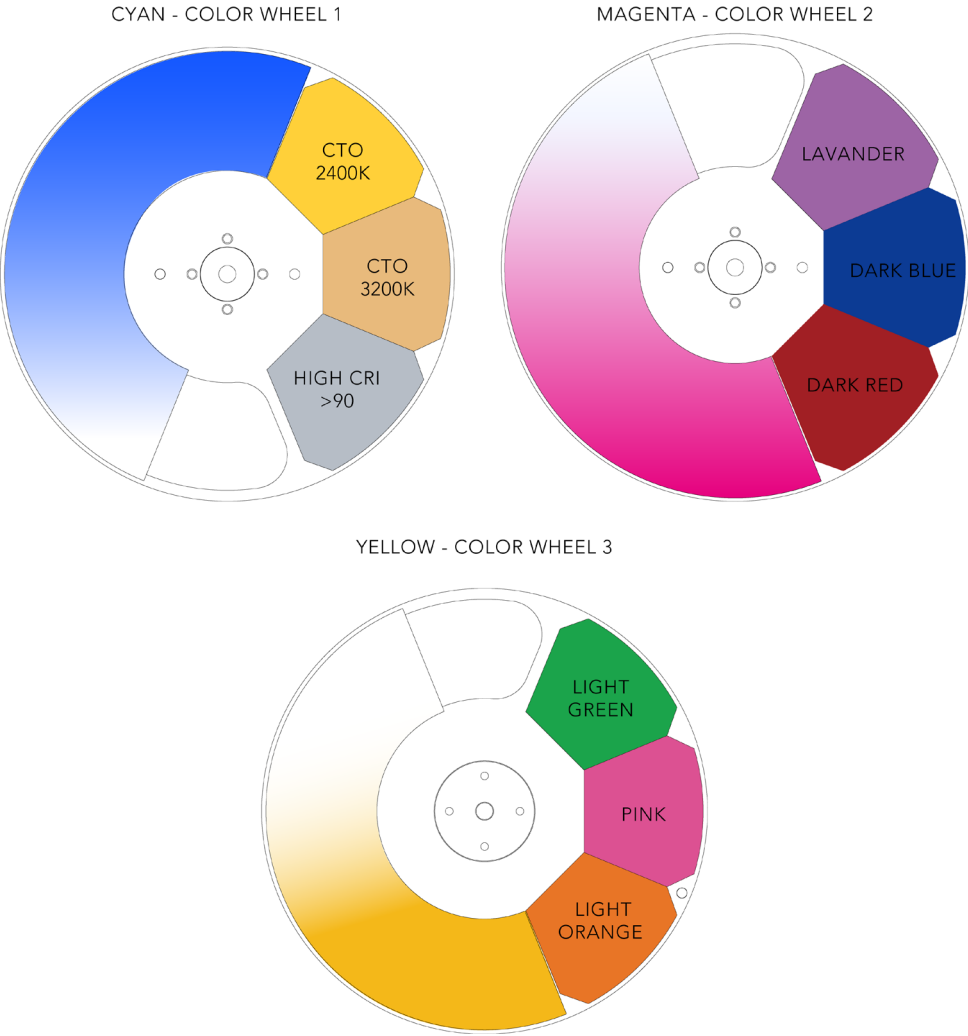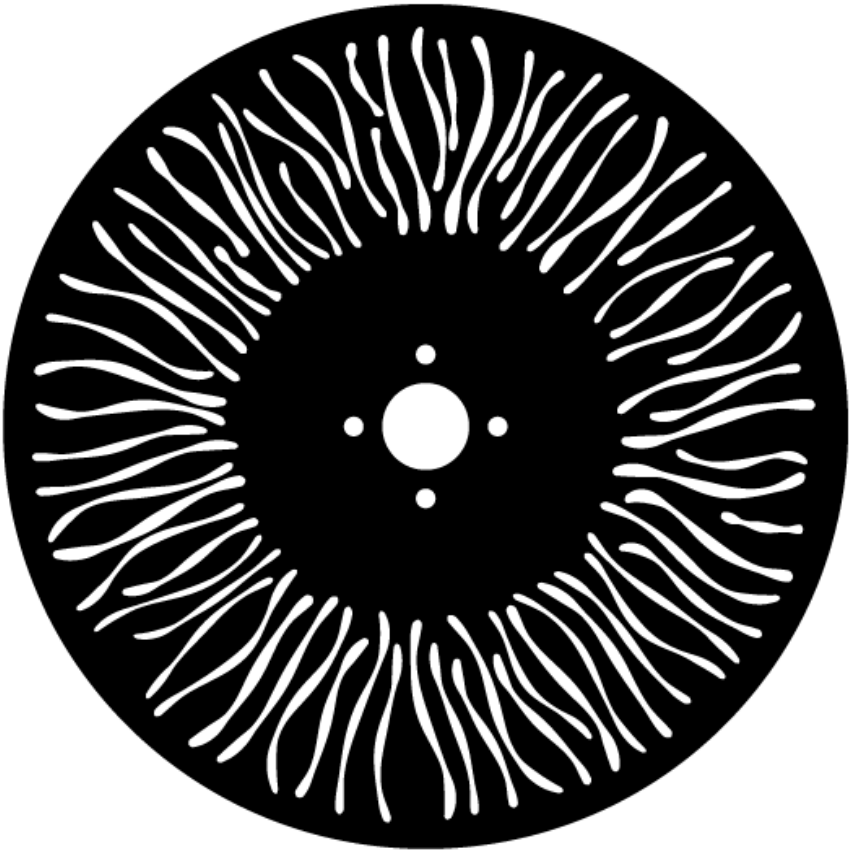
Fig. 13

18 - ERROR MESSAGES

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

ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[POWER SUPPLY FAN ERROR]	Blower for cooling the power supply failed.	1U
[PAN/TILT PCB ERROR]	Pan tilt pcb not detected.	2U
[PAN MOTOR ERROR]	**This message will appear after the reset of the product if**:	2U
	the PAN magnetic-indexing circuit detect a failure (sensor failed or magnet is missing).	
	or the stepping motor is defective.	
	or its driving IC on the PCB is defective.	
	or the product is not located in the default position after the reset of the fixture.	
[TILT MOTOR ERROR]	**This message will appear after the reset of the product if**:	2U
	the TILT magnetic-indexing circuit detect a failure (sensor failed or magnet is missing) .	
	or the stepping motor is defective.	
	or its driving IC on the PCB is defective.	
	or the product is not located in the default position after the reset of the fixture.	
[PAN SENSOR ERROR]	Pan sensor not detecteld.	2U
[TILT SENSOR ERROR]	Tilt sensor not detecteld.	2U
[FAN PCB ERROR]	Fan PCB not detected.	3U
[LED TEMP. SENSOR ERROR]	LAMP sensor damaged (open or in short circuit).	3U
[LEFT AIR IN FAN ERROR]	Air in blower for cooling the lamp failed, the lamp has been switched OFF.	3U
[LEFT AIR OUT FAN ERROR]	Air out blower for cooling the lamp failed, the lamp has been switched OFF.	3U
[HEAD FAN ERROR]	Air blower for cooling the head failed, the lamp has been switched OFF.	3U

| ERROR SHOWED ON SCREEN	POSSIBLE CAUSES	POSSIBLE PCB WITH ANOMALY
[MOTOR PCB 2 ERROR]	Motor pcb 3U not detected.	2U - 3U
[MAGENTA ERROR]	Failure detected during the reset of the Magenta flag, if the Magenta flag of the CMY module is not located in its default position.	4U
[YELLOW ERROR]	Failure detected during the reset of the Yellow flag, if the Yellow flag of the CMY module is not located in its default position.	4U
[CYAN ERROR]	Failure detected during the reset of the Cyan flag, if the Cyan flag of the CMY module is not located in its default position.	4U
[STATIC GOBO WHEEL ERROR]	Failure detected during the reset of the rotating gobo wheel, if this wheel is not located in the default position.	4U
[MOTOR PCB 3 ERROR]	Motor pcb 4U not detected.	3U - 4U
[ROTATING GOBO WHEEL ERROR]	Failure detected during the reset of the rotating gobo wheel, if this wheel is not located in the default position.	5U
[GOBO ROTATION ERROR]	Failure detected during the reset of the rotation of the rotating gobo, if the rotating gobos are not located in the default positions.	5U
[ANIMATION WHEEL ERROR]	Failure detected during the reset of the animation wheel, if this wheel is not located in the default position.	5U
[ANIMATION WHEEL ROT. ERROR]	Failure detected during the reset of the rotation of the animation wheel, if this wheel is not located in the default position.	5U
[MOTOR PCB 4 ERROR]	Motor pcb 5U not detected.	4U - 5U
[FOCUS ERROR]	Failure detected during the reset of the FOCUS, if the focus lens is not located in its default position.	6U
[ZOOM ERROR]	Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position.	6U
[6F PRISM ERROR]	Failure detected during the reset of the 6F effect prism, if this effect is not located in the default position.	6U
[6F PRISM ROTATION ERROR]	Failure detected during the reset of the 6F effect prism rotation, if this effect is not located in the default position.	6U
[8F PRISM ERROR]	Failure detected during the reset of the 8F effect prism, if this effect is not located in the default position.	6U
[8F PRISM ROTATION ERROR]	Failure detected during the reset of the 8F effect prism rotation, if this effect is not located in the default position.	6U
[FROST ERROR]	Failure detected during the reset of the effect FROST, if this effect is not located in the default position.	6U
[FRONT LEN FAN ERROR]	Air blower for cooling the front len failed, the lamp has been switched OFF.	6U

IDENTIFICATION OF ELECTRONIC BOARDS
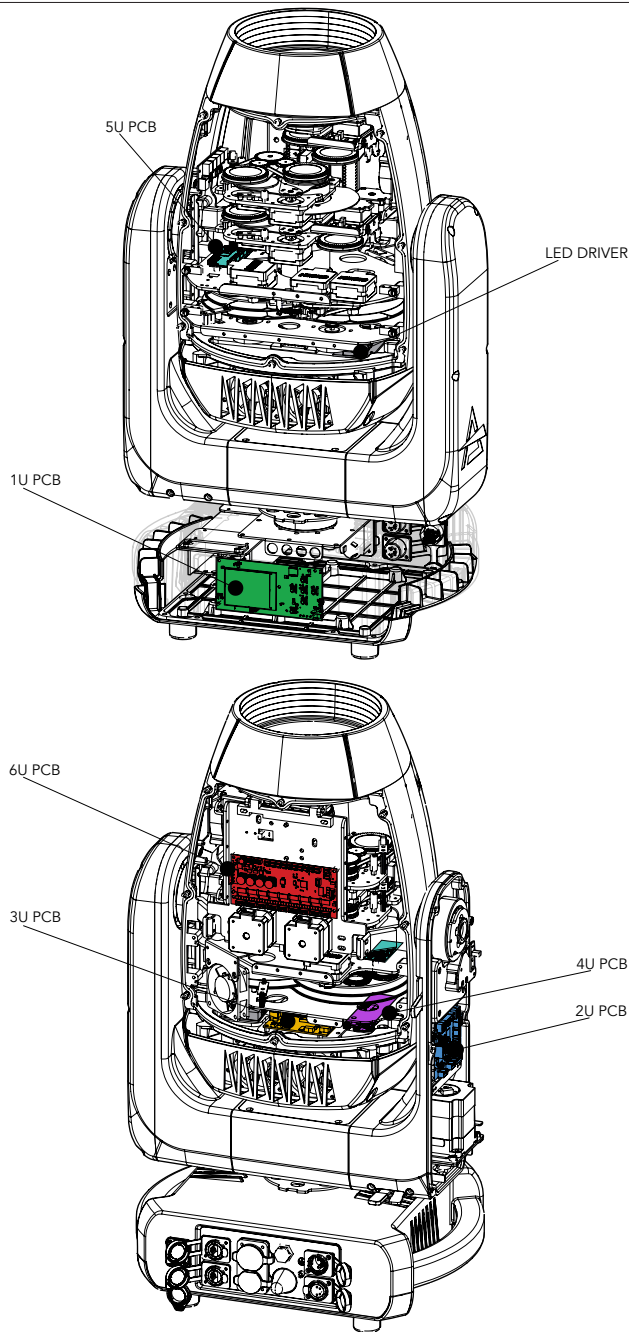

Fig. 14

19 - PERIODICAL CLEANING

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

1
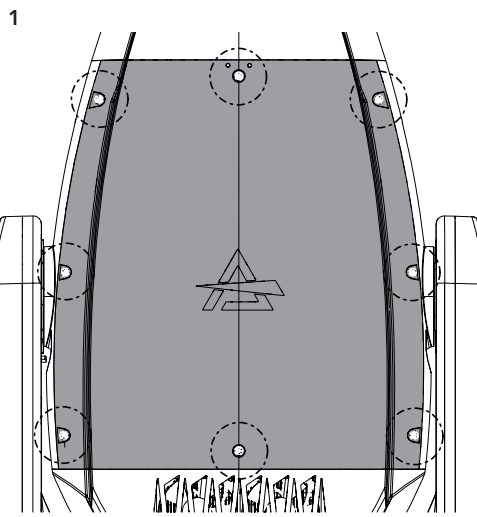
Before removing rear cover, place the head in a horizontal position and engage both the PAN and TILT locks for added stability. See the "PAN AND TILT LOCK" paragrap (pag. 6). Loosen and remove the marked screws and opening the head covers (1) from both sides.
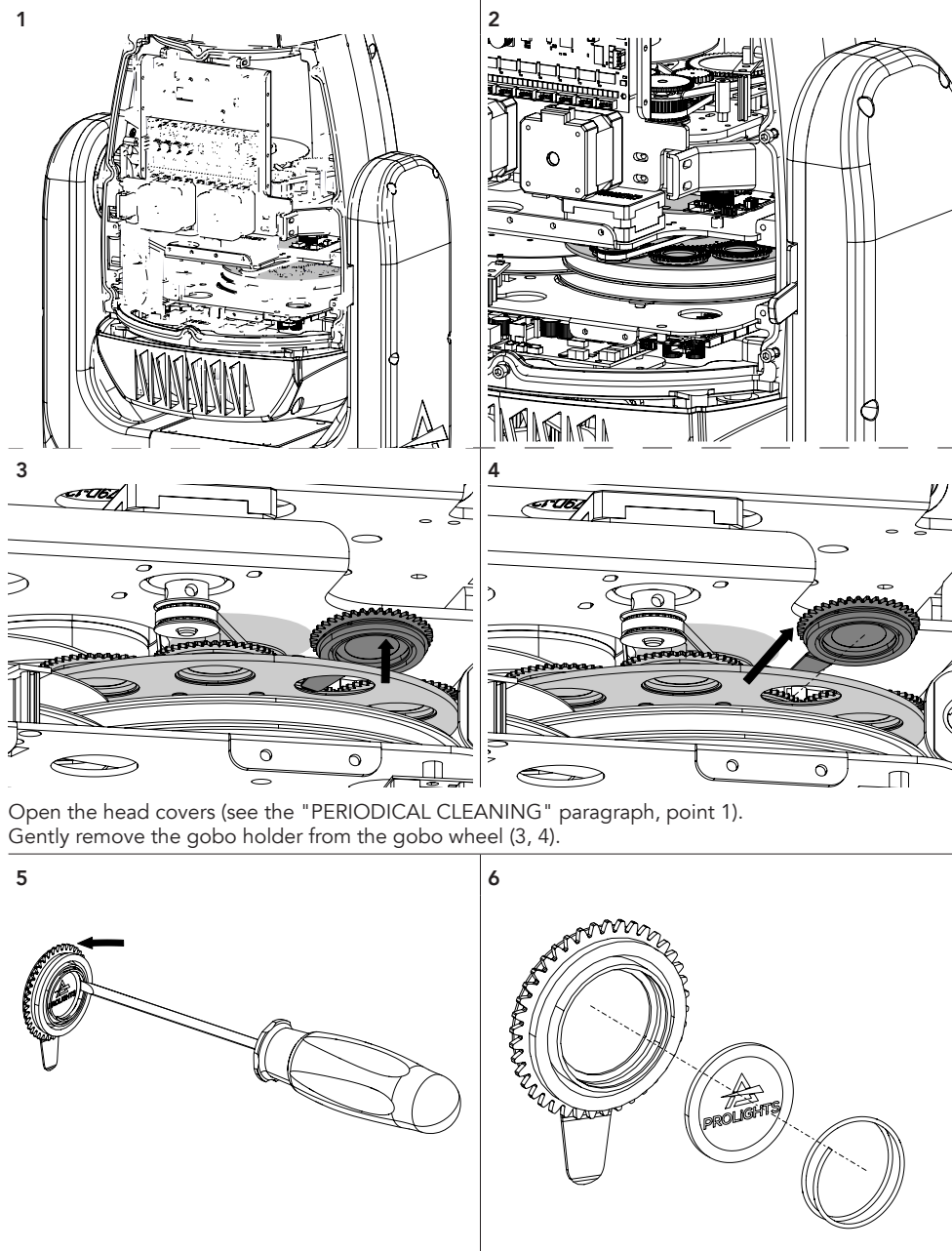
3
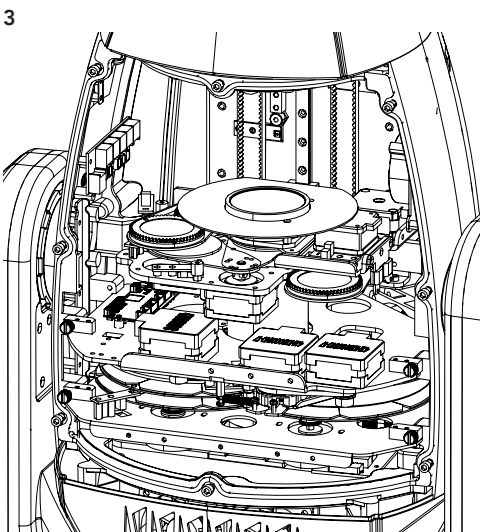
Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors, from the lenses and filters.

2
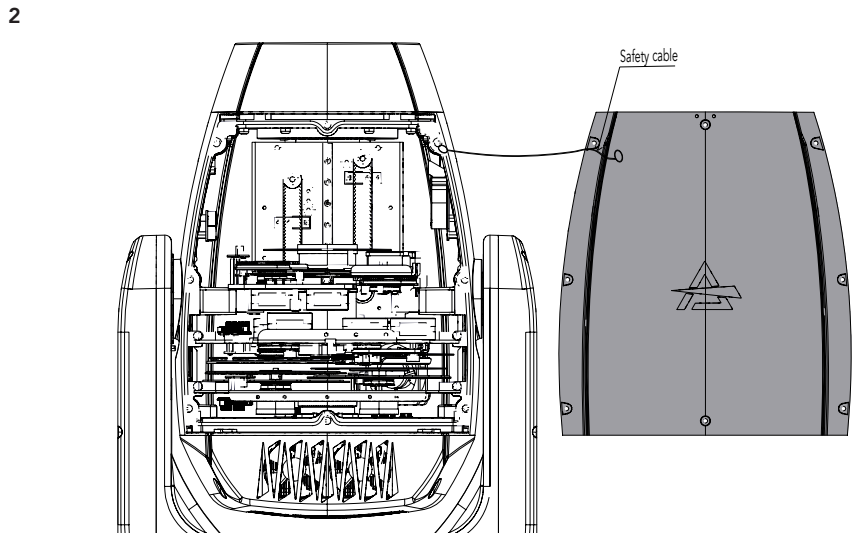
Safety cable

Unclip the safety cable on both sides (2).

Fig. 15

20 - 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).
NOTE: *the mirrored part of the gobo must be placed in the direction of the LED Source*

Fig. 16

21 - MODULE REMOVAL (ANIMATION, COLOR, GOBOS WHEEL)
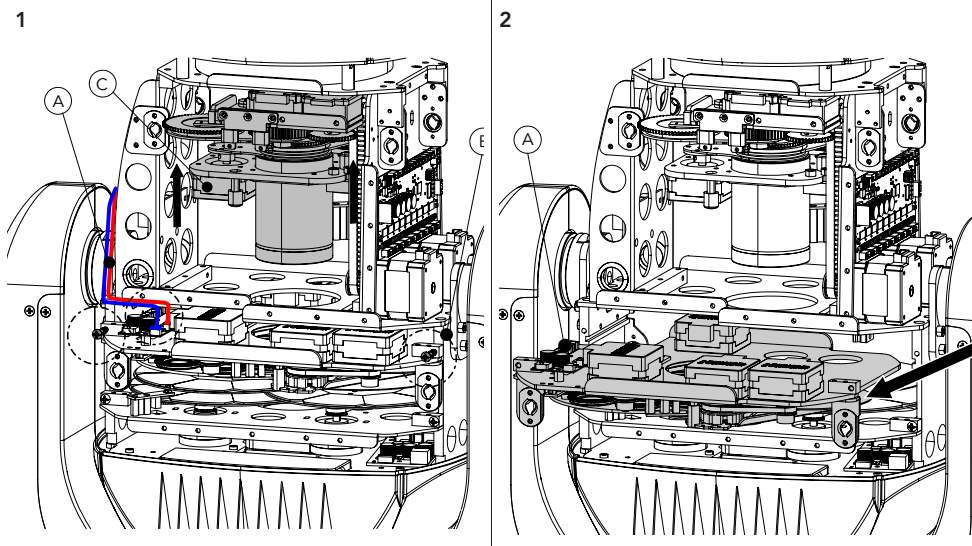
To remove the Animation and Gobo wheels module, open the head covers (see section "PERIODIC CLEANING") and proceed as follows:

• Disconnect the two connectors, power and serial bus plugs (marked A in drawing 1);
• Unscrew the two screws marked in the front view (marked B in drawing 1);
• Raise the zoom and focus plates (marked C in drawing 1);
• Pull out the plate with animation wheel and rotating gobo (marked A in drawing 2);
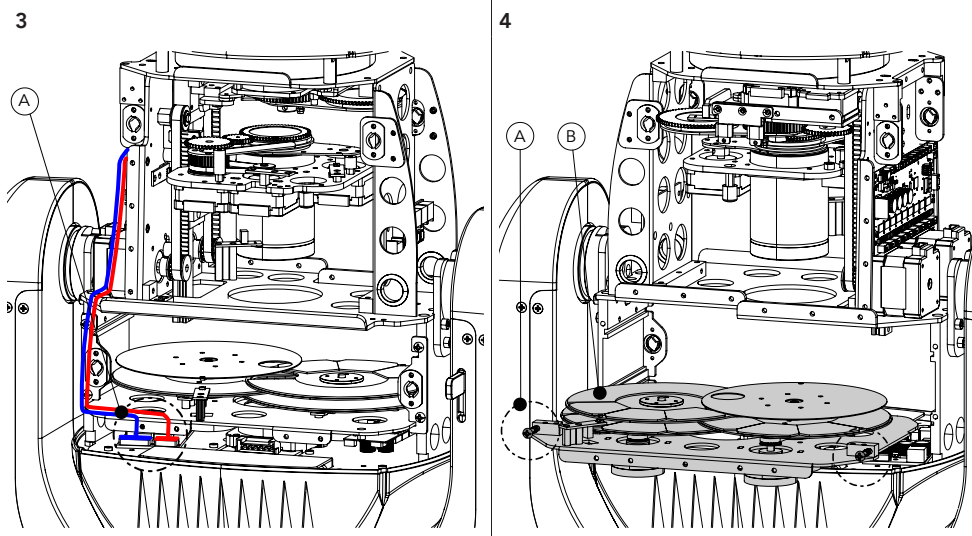
To remove the Colors and Fixed Gobo wheels module:

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

22 - 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.

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

USB Flash Drive (MASTER)
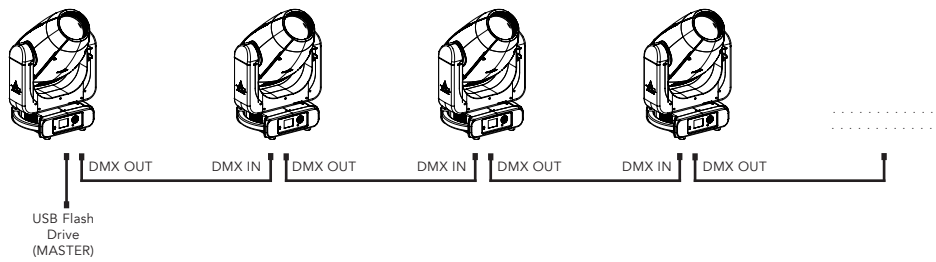
To update the device, proceed as follows:

1	2
SELECT UPDATE FILE Path: \FOLDER 1 \FOLDER 2 \FOLDER 3 BACK NEXT	**SELECT UPDATE FILE** Path: \FOLDER 2 1U1.PRL ■ 2U1.PRL ■ 3U1.PRL ■ 4U1.PRL ■ 5U1.PRL ■ 6U1.PRL ■ BACK NEXT

- 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

SELECT UPDATE

THIS FIXTURE	▦
LINKED FIXTURES	▦
ALL FIXTURES	▦

BACK	START

SOFTWARE UPDATE SYSTEM

not turn off the power!   usb ok

IC:01U01 V.x.x.xx.x ▰▰▰ 59%

- 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
SELECT UPDATE THIS FIXTURE ⬛ LINKED FIXTURES 🟨 ALL FIXTURES ⬛ BACK START	**DO NOT POWER OFF** Path: \FOLDER 2 Progress: 1/x ████████ 100% FINISHED
3	4
SENDING COMPLETED 1U1.PRL 🟩 2U1.PRL 🟩 3U1.PRL 🟩 4U1.PRL 🟩 5U1.PRL 🟩 6U1.PRL 🟩 BACK EXIT	**PLEASE REMOVE USB TO EXIT**

- 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.*

23 - MAINTENANCE

MAINTENANCE AND CLEANING THE PRODUCT

WARNING: Disconnect from the mains before starting any maintenance work

It is recommended to clean the front at regular intervals, from impurities caused by dust, smoke, or other particles to ensure that the light is radiated at maximum brightness.

- For cleaning, disconnect the main plug from the socket. Use a soft, clean cloth moistened with a mild detergent. Then carefully wipe the part dry. For cleaning other housing parts use only a soft, clean cloth. Never use a liquid, it might penetrate the unit and cause damage to it.
- The user must clean the product periodically to maintain optimum performance and cooling. The user may also upload firmware (product software) to the fixture via the DMX signal input port or USB port using firmware and instructions from PROLIGHTS.
- The frequency of such maintenance operations is to be performed according to various factors, such as the amount of the use and the condition of the installation environment (air humidity, presence of dust, salinity, etc.). It is recommended that the product is subject to annual service by a qualified technician for special maintenance involving at least the following procedures:
- General cleaning of internal parts.
- For all the parts subject to friction, using lubricants specifically supplied by PROLIGHTS.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.
- Cleaning the lenses. Only use neutral soap and water to clean the lenses, then dry it carefully with a soft, non-abrasive cloth.

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

- **Only for IP65/IP66 projectors**: It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance, this tool helps to double check the correct assembling of the covers with a check of the IP grade of the fixture.
- All other service operations on the product must be carried out by PROLIGHTS, its approved service agents or trained and qualified personnel.
- It is PROLIGHTS policy to apply the strictest possible calibration procedures and use the best quality materials available to ensure optimum performance and the longest possible component lifetimes. However, optical components are subject to wear and tear over the life of the product, resulting in gradual changes in colours over many thousands of hours of use. The extent of wear and tear depends heavily on operating conditions and environment, so it is impossible to specify precisely whether and to what extent performance will be affected. However, you may eventually need to re-place 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.

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.
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.
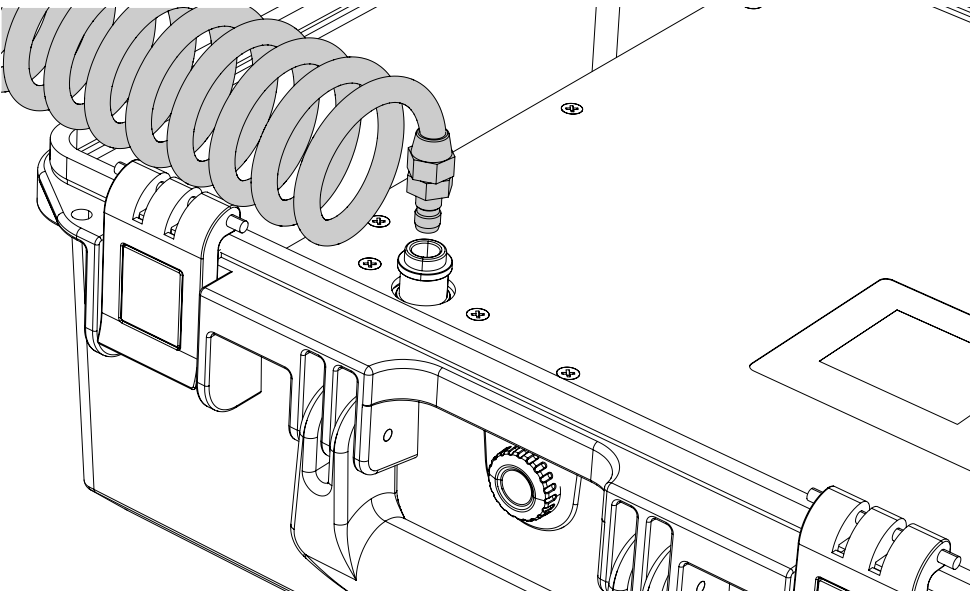
24 - TEST OF IP65 RATING

It is recommended to verify IP grade using IPTESTBOX every time the bodies are removed for maintenance.
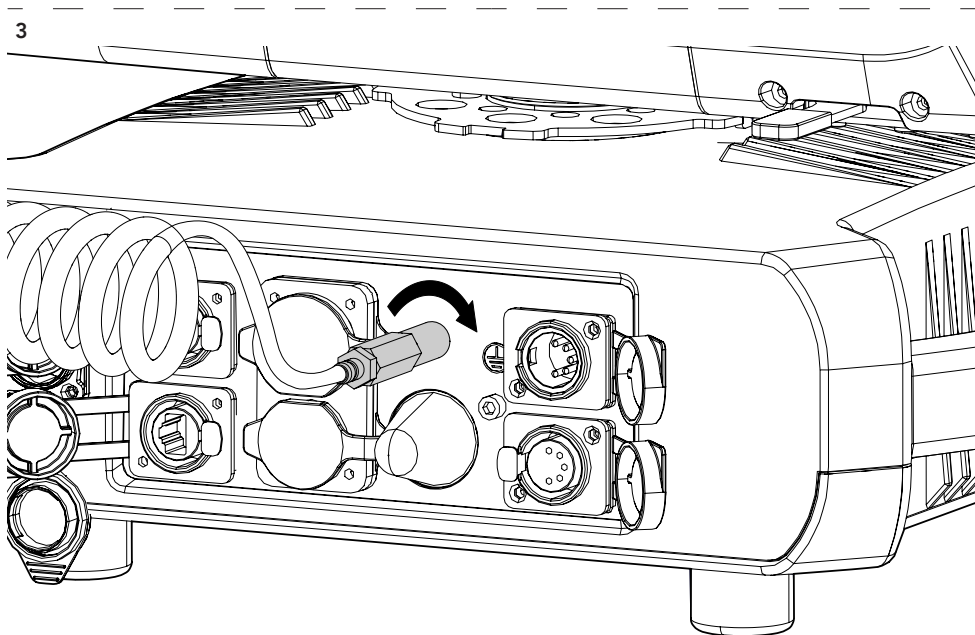
1
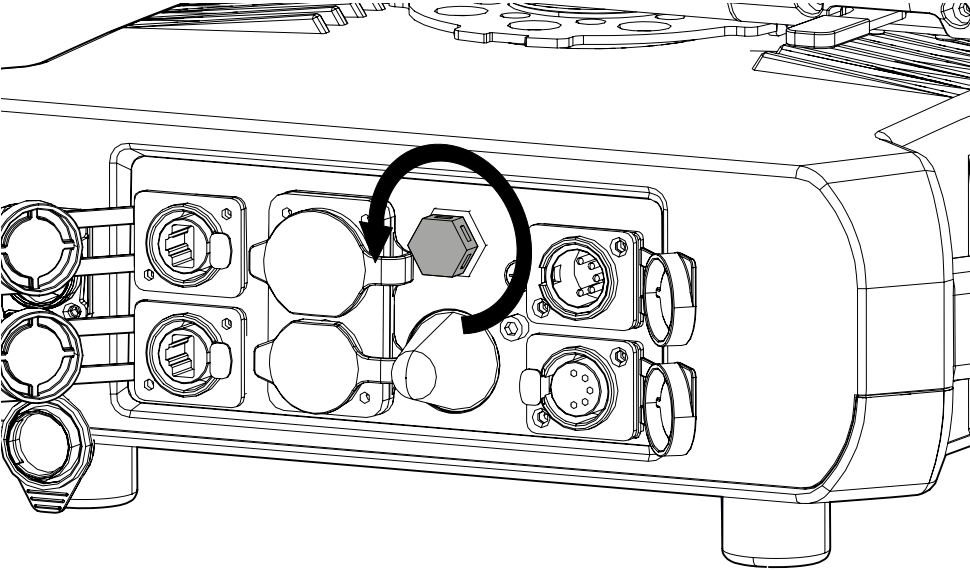
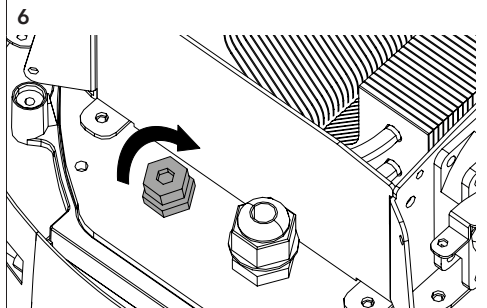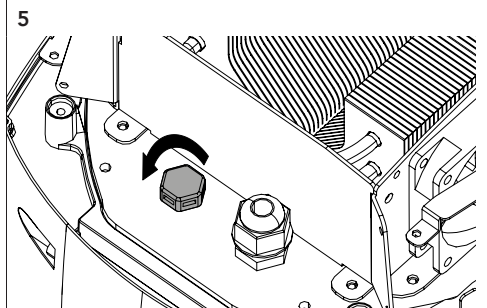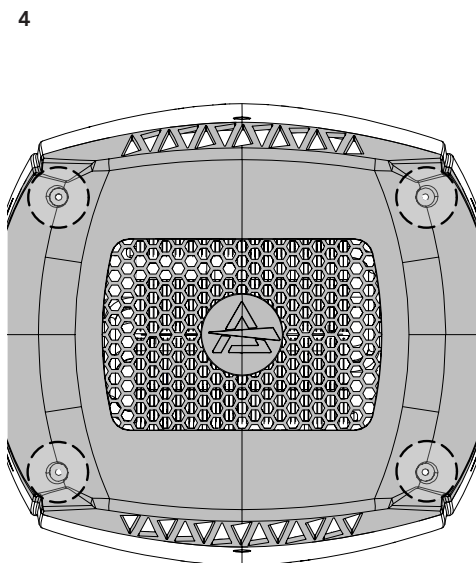Remove the gore valve from the connections panel.

2

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

3

Insert the threaded end into the threaded valve hole socket.

4

5

6

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

Fig. 17

Note

Note

Note