

Jet Hybrid200

PROLIGHTS Ultra-Compact hybrid Beam-Spot 200W LED moving head



USER MANUAL

Rev.01 - 01/24 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.

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

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



Visit the download area of the product page



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SAFETY INFORMATION



WARNING!

- See https://www.prolights.it/product/JETHYB200#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_a45°C Max operating ambient temperature (Ta)

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

Ta-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.



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_C58°C

Temperature of the external surface

 The surface of the fixture can reach up to 57,5 °C (135,5 °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.



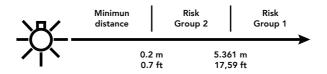
Photobiological safety

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 a distance closer than 5.361 m (17,59 ft) is not expected.





Disposal

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



The product contains a lithium ion battery

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



The products to which this manual refers comply with:

- 2014/35/EU Safety of electrical equipment supplied at low voltage (LVD).
- 2014/30/EU Electromagnetic Compatibility (EMC).
- 2011/65/EU Restriction of the use of certain hazardous substances (RoHS).



Other approvals

1 - PACKAGING

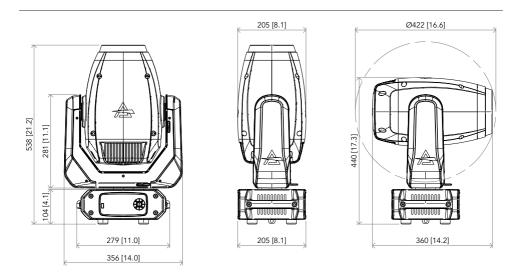
PACKAGE CONTENT

- 1x JETHYB200.
- 1x 1,5 meters power cable (BARE END NEUTRIK POWERCON TRUE1 IP65).
- 1x OS24PLUS, Quick-lock omega bracket, M12 hole.
- User Manual.

OPTIONAL ACCESSORIES

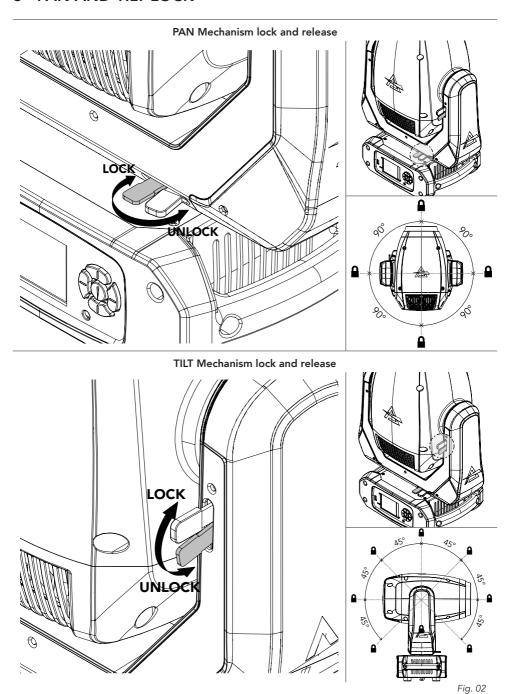
Check the updated accessories list, description and informations of the product at the following link: https://www.prolights.it/product/JETHYB200#accessories

2 - TECHNICAL DRAWING



Weight: 15,3 kg - 33,73 lbs Fig. 01

3 - PAN AND TILT LOCK



4 - INSTALLATION

MOUNTING

Check that the supporting structure can safely bear the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc. and complies with locally applicable regulations.

When suspending the fixture above ground level, secure it against failure of primary attachments by attaching a safety wire that is approved as a safety attachment for the weight of the fixture to an anchor point on the product main frame.

Do not use removable parts or weak anchors for secondary attachment.

Warning! When clamping the fixture to a truss or other structure at any angle, use clamps of half-coupler type. Do not use any type of clamp that does not completely encircle the structure when fastened.

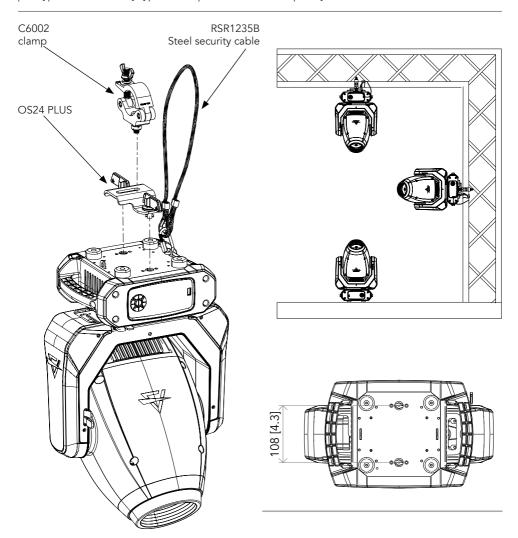


Fig.03

5 - CONNECTION TO THE MAINS SUPPLY

WARNING: For protection from electric shock, the fixture must be earthed!

The product is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts (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 276W.

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

6 - START UP

CONNECT AND DISCONNECT POWER FROM THE PRODUCT

To apply and disconnect power to the product:

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

7 - PRODUCT OVERVIEW

- 1. USB PORT for quick firmware upgrade.
- 2. USER INTERFACE with display and buttons for access to the control panel functions.
- 3. PAN Mechanism lock and release.
- 4. TILT Mechanism lock and release.
- 5. DMX IN (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
- 6. DMX OUT (5-p XLR): 1 = GND, 2 = sign-, 3 = sign+, 4 N/C, 5 N/C.
- 7. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only (T5A 250V).
- 8. POWER IN: for connection to the Mains 100-240V~/50-60Hz.
- 9. POWER OUT: power output for connection of multiple units in series.
- 10.SAFETY EYE to attach safety cable.

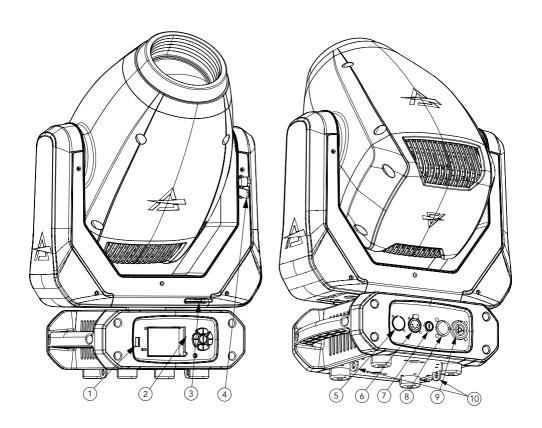


Fig 04

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.

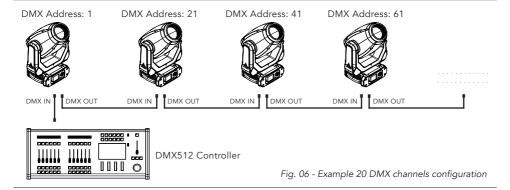
Terminate the data link by connecting a 120 Ohm signal termination. If a splitter is used, terminate each branch of the link.

Install a DMX termination plug on the last fixture on the link.

CONNECTION OF THE DMX LINE

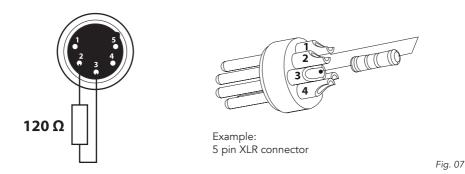
DMX connection employs standard XLR connectors. Use shielded pair-twisted cables with 120Ω impedance and low capacity.

The following diagram shows the connection mode:



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.



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.

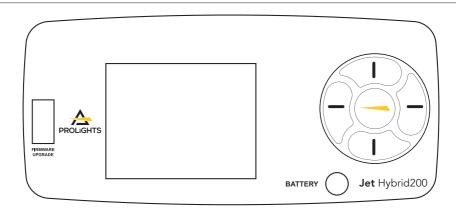
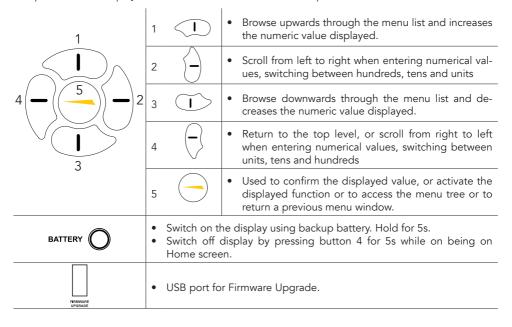


Fig. 08

DISPLAY AND BUTTONS LAYOUT

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



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 | VALUE (1 -512) | Set DMX address. |
| | | DMX MODE | STANDARD | | Set DMX chart for Main Fixture. |
| 2 | 2 SETUP | SCREEN | BACKLIGHT | ON | Allows you to select the timing after that |
| | | | | 105 | display will switch automatically off when unactive. |
| | | | | 20S | |
| | | | | 30S | |
| | | | FLIP DISPLAY | ON | Allows you to rotate the display by 180°. |
| | | | | OFF | |
| | | | | AUTO | |
| | | | KEY LOCK | ON | Allows you lock the buttons on the control panel by a password. Press following com- |
| | | | | OFF | binations (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 |
| | | | | OFF | feedbacks given by the encoders. |
| | | | MOVEMENT BLACKOUT | ON | Make fixture goes blackout OFF while moving. |
| | | | BLACKOUT | OFF | moving. |
| | | | PAN/TILT MODE | SLOW | To choose the horizontal/ vertical movement speed. SYNC mode will sync move- |
| | | | | MEDIUM | ment speed with the whole |
| | | | | FAST | ASTRAWASH f miliy fixtures. |
| | | | HOME POSITION | STANDARD | Standard: Pan is at 90° to the display when |
| | | | | CUSTOM | Pan@128dmx value like all Prolights fixtures. Custom: Pan is at 0° to the display when Pan@128dmx value. |
| | | | CUSTOM P DEGREE | 0° | To choose pan values in case of Custom |
| | | | | 45° | position. |
| | | | | 90° | |
| | | | | 135° | |
| | | | | 180° | |
| | | | | 225° | |
| | | | | 270° | |
| _ | L | <u> </u> | <u> </u> | 315° | |

| N° | MENU | LEVEL 1 | LEVEL 2 | LEVI | EL 3 | DESCRIPTION | | |
|----|-------|----------|---------------------------|------------------------|----------|--|--|---|
| 2 | SETUP | | CUSTOM T DEGREE | 0% | | To choose tilt values in case of Custom | | |
| | | | | 12.5% | | position. | | |
| | | | | 25% | | | | |
| | | | | 50% | | | | |
| | | | | 75% | | | | |
| | | | | 87.5% | | | | |
| | | | | 100% | | | | |
| | | FIXTURE | FAN MODE | AUTO | | Select Fan behaviour. | | |
| | | SETTINGS | | SILENT | | | | |
| | | | | HIGH | | | | |
| | | | COLOR WHEEL | ON | | To set Gobo Wheel Movement in blackout | | |
| | | | BLACKOUT | OFF | | mode. | | |
| | | | COLOR WHEEL | STEP | | To set Color Wheel Movement scrolling | | |
| | | | MODE | COUNTINUO | DUS | mode. | | |
| | | | GOBO WHEEL | ON | | To set Gobo Wheel Movement scrolling | | |
| | | | BLACKOUT | OFF | | mode. | | |
| | | | GOBO WHEEL MODE | STEP | | To set Gobo Wheel Movement scrolling | | |
| | | | | COUNTINUO | DUS | mode. | | |
| | | | DMX FAULT | | | To choose the behaviour of fixture in case | | |
| | | | | BLACKOUT | | of dmx signal lost. | | |
| | | | STATUS LED | ON | | To turn the status LEDs on the front panel | | |
| | | | | OFF | | on or off. | | |
| | | | DIMMER CURVE | LINEAR | | Select different curve behaviour of dim- | | |
| | | | | S-CURVE | | mer. | | |
| | | | | SQUARE LA | w | | | |
| | | | | INVERSE SQ | UARE LAW | | | |
| | | | DIMMER SPEED | AUTO | | Linear dimmer behaviour. | | |
| | | | | FAST | | Dimmer curve adding long fade. Dimmer curve adding medium fade. | | |
| | | | | MEDIUM | | Dimmer curve adding little fade. | | |
| | | | | SLOW | | | | |
| | | | LED FREQUENCY | 600 HZ | 4000 HZ | Select PWM frequency. | | |
| | | | | 1200 HZ | 6000 HZ | | | |
| | | | | 2000 HZ | 25 KHZ | | | |
| | | | | 50 KHZ | | | | |
| | | | INVERT ZOOM | | | Invert zoom values. | | |
| | | | | | , | | | |
| | | | TRANSFER CONFIGURATION | WITHOUT DMX ADDRESS | | | | To transfer the same menu settings of one fixtures to all the other in the daisy chain, |
| | | | | WITH DMX A | ADDRESS | including or not the dmx address. | | |

| N° | MENU | LEVEL 1 | LEVEL 2 | LEVEL 3 | DESCRIPTION |
|----|----------|-------------|--------------|---------|-------------------------------|
| 3 | ADVANCED | RESET | ALL | | To reset these functions. |
| | | | PAN & TILT | | |
| | | | PAN | | |
| | | | TILT | | |
| | | | COLOR | | |
| | | | ROT GOBO | | |
| | | | GOBO ROT | | |
| | | | FIXED GOBO | | |
| | | | ZOOM | | |
| | | | FOCUS | | |
| | | | PRISM | | |
| | | | FROST | | |
| | | CALIBRATION | PASSWORD | | To calibrate these functions. |
| | | | PAN | | |
| | | | TILT | | |
| | | | COLOR | | |
| | | | ROT GOBO | | |
| | | | FIXED GOBO | | |
| | | | PRISM | | |
| | | | PRISM ROT | | |
| | | | FROST | | |
| | | | FOCUS | | |
| | | | ZOOM | | |
| | | | GOBO 1 | FOCUS | |
| | | | GOBO 2 | FOCUS | |
| | | | | | |
| | | | GOBO 7 | FOCUS | |
| | | | GOBO 8 | FOCUS | |
| | | | FIX. GOBO 1 | FOCUS | |
| | | | FIX. GOBO 2 | FOCUS | |
| | | | | | |
| | | | FIX. GOBO 16 | FOCUS | |
| | | | FIX. GOBO 17 | FOCUS | |
| | | | GOBO 1 | INDEX | |
| | | | GOBO 2 | INDEX | |
| | | | | | |
| | | | GOBO 7 | INDEX | |
| | | | GOBO 8 | INDEX | |

| N° | MENU | LEVEL 1 | LEVEL 2 | LEVEL 3 | DESCRIPTION |
|----|----------|-------------------|----------------|---------|---|
| 3 | ADVANCED | MANUAL | CONTROL | | For manual control of the unit. |
| | | CONTROL | PAN | | |
| | | | PAN FINE | | |
| | | | TILT | | |
| | | | TILT FINE | | |
| | | | DIMMER | | |
| | | | DIMMER FINE | | |
| | | | SHUTTER | | |
| | | | COLOR | | |
| | | | ROT GOBO | | |
| | | | GOBO ROT | | |
| | | | GOBO ROT FINE | | |
| | | | FIXED GOBO | | |
| | | | PRISM | | |
| | | | PRISM ROT | | |
| | | | FROST | | |
| | | | ZOOM | | |
| | | | ZOOM FINE | | |
| | | | FOCUS | | |
| | | | FOCUS FINE | | |
| | | 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. |

| MENU | LEVEL 1 | LEVEL 2 | LEV | EL 3 | DESCRIPTION | |
|------------|---------------------|----------------------|-----------------|----------|--|--|
| NFORMATION | FIXTURE TIME | FIXTURE HOURS | TOTAL | READ | To check the total working hours of the | |
| | TIME | | PARTIAL | RESET | unit. Reset password: 050. | |
| | | CURRENT HOURS | TOTAL | RESET | To check the current working hours of the unit. | |
| | | | PARTIAL | RESET | Reset password: 050. | |
| | | SOURCE HOURS | TOTAL | READ | To see the total operating hours of the LED source. | |
| | | | PARTIAL | RESET | Reset password: 050. | |
| | | POWER ON CYCLE | TOTAL | READ | To see the power cycles of the machine. Reset password: 050. | |
| | | | PARTIAL | RESET | , | |
| | | MAINTENANCE TIME | ELAPSED TIME | RESET | To choose and reset unit maintenance warning hours (Default: 500). | |
| | | | ALERT PERIOD | 10 – 750 | Deafult: 500. Reset password: 050. | |
| | TEMPERATURE | PCB1 TEMP | | | To see the unit temperature. | |
| | | PCB2 TEMP | | | | |
| | | PCB3 TEMP | | | | |
| | | LED TEMP | | | | |
| | | DRIVE TEMP PCB4 TEMP | | | | |
| | | | | | | |
| | | PCB5 TEMP | | | | |
| | FAN SPEED | BASE FAN 1 | | | To see the speed of the fans. | |
| | | LEFT AIR IN FAN | | | | |
| | | RIGHT AIR IN FAN | | | | |
| | | LEFT AIR OUT FAN | | | | |
| | | RIGHT AIR OUT FAN | | | | |
| - | | GOBO FAN | | | | |
| | CHANNEL VALUE | PAN | | | To see the dmx value of those channels. | |
| | ERROR MES- SAGE | PAN, TILT | | | To see any error messages. | |
| | FIXTURE MODEL | xxxxxxxxx | | | View informations about fixture model. | |
| | RDM UID | (READ) | | | View ID for the RDM control. | |
| | SOFTWARE VERSION | 1U01 V1.0.00 | | | View informations about software version | |

11 - SHORTCUT

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

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 |
|-----------------|-----------------------------------|--------|-----|-----|
| | SUPPORTED_PARAMETERS | 0x0050 | х | |
| | PARAMETER_DESCRIPTION | 0x0051 | Х | |
| | DEVICE_MODEL_DESCRIPTION | 0x0080 | Х | |
| Product | MANUFACTURER_LABEL | 0x0081 | х | |
| Information | DEVICE_LABEL | 0x0082 | х | х |
| | FACTORY_DEFAULTS | 0x0090 | х | x |
| | BOOT_SOFTWARE_VERSION_ID | 0x00C1 | x | |
| | BOOT_SOFTWARE_VERSION_LABEL | 0x00C2 | х | |
| | DMX_PERSONALITY | 0x00E0 | Х | х |
| | DMX_PERSONALITY_DESCRIPTION | 0x00E1 | Х | |
| | DMX_START_ADDRESS | 0x00F0 | х | х |
| DAAVE40 C . | SLOT_INFO | 0x0120 | Х | |
| DMX512 Setup | SLOT_DESCRIPTION | 0x0121 | Х | |
| | DEFAULT_SLOT_VALUE | 0x0122 | Х | |
| | DMX_FAIL_MODE | 0x0141 | х | х |
| | DMX_STARTUP_MODE | 0x0142 | х | х |
| | SENSOR_DEFINITION | 0x0200 | х | |
| Sensors | SENSOR_VALUE | 0x0201 | Х | х |
| | RECORD_SENSORS | 0x0202 | х | х |
| | DIMMER_INFO | 0x0340 | х | |
| | CURVE | 0x0343 | х | х |
| | CURVE_DESCRIPTION | 0x0344 | х | х |
| Dimmer Settings | OUTPUT_RESPONSE_TIME | 0x0345 | х | х |
| • | OUTPUT_RESPONSE_TIME_ DESCRIPTION | 0x0346 | х | |
| | MODULATION_FREQUENCY | 0x0347 | х | х |
| | MODULATION FREQUENCY DESCRIPTION | 0x0348 | х | |
| | DEVICE_HOURS | 0x0400 | x | х |
| | LAMP_HOURS | 0x0401 | x | х |
| | LAMP_STRIKES | 0x0402 | x | х |
| Power/Lamp | LAMP_STATE | 0x0403 | x | х |
| Settings | LAMP_MODE | 0x0404 | х | х |
| | DEVICE_POWER_CYCLES | 0x0405 | x | х |
| | BURN IN | 0x0440 | X | х |

| Category | Parameter | Value | GET | SET |
|------------------|------------------------|--------|-----|-----|
| Disable Catting | DISPLAY_INVERT | 0x0500 | х | Х |
| Display Settings | DISPLAY_LEVEL | 0x0501 | х | Х |
| | PAN_INVERT | 0x0600 | х | х |
| | TILT_INVERT | 0x0601 | х | х |
| | PAN_TILT_SWAP | 0x0602 | х | х |
| Configuration | REAL_TIME_CLOCK | 0x0603 | х | х |
| | LOCK_PIN | 0x0640 | х | х |
| | LOCK_STATE | 0x0641 | х | х |
| | LOCK_STATE_DESCRIPTION | 0x0642 | х | |
| | RESET_DEVICE | 0x1001 | х | х |
| | POWER_STATE | 0x1010 | х | х |
| | PERFORM_SELFTEST | 0x1020 | х | х |
| | SELF_TEST_DESCRIPTION | 0x1021 | х | |
| Cartal | CAPTURE_PRESET | 0x1030 | х | х |
| Control | PRESET_PLAYBACK | 0x1031 | х | Х |
| | IDENTIFY_MODE | 0x1040 | х | Х |
| | PRESET_INFO | 0x1041 | х | |
| | PRESET_STATUS | 0x1042 | х | Х |
| | POWER_ON_SELF_TEST | 0x1044 | х | х |

Manufacturer Specific PIDs

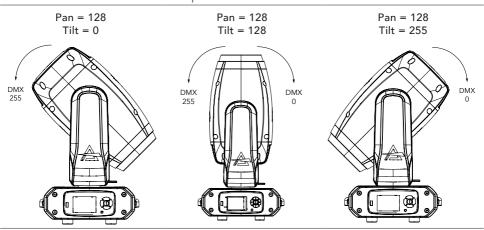
| Parameter | PID | GET | SET | Value | Description |
|---------------|--------|-----|-----|-------|-------------|
| HOME_POSITION | 0x8160 | х | х | 0-1 | 0: Standard |

13 - DMX CHARTS

| RDM Personality ID List | | | | |
|-------------------------|----------|----|--|--|
| ID Mode DMX Footpri | | | | |
| 1 | STANDARD | 20 | | |

| RDM Model ID |
|--------------|
| 0xA032 |

PAN/TILT VALUESHome position set to STANDARD



Tilt movement range: 270° Pan movement range: 540

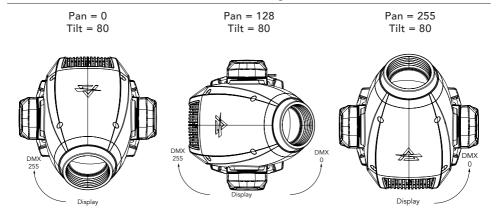


Fig. 09

DMX Chart Summary

| DMX Chart Summary | | | | |
|-------------------|----------------|--|--|--|
| Channel | STANDARD | | | |
| 1 | Pan | | | |
| 2 | Pan fine | | | |
| 3 | Tilt | | | |
| 4 | Tilt fine | | | |
| 5 | Dimmer | | | |
| 6 | Dimmer Fine | | | |
| 7 | Shutter | | | |
| 8 | Color Wheel | | | |
| 9 | Rot Gobo | | | |
| 10 | Gobo Rot | | | |
| 11 | Gobo Rot Fine | | | |
| 12 | Fixed Gobo | | | |
| 13 | Prism | | | |
| 14 | Prism Rotation | | | |
| 15 | Frost | | | |
| 16 | Zoom | | | |
| 17 | Zoom Fine | | | |
| 18 | Focus | | | |
| 19 | Focus Fine | | | |
| 20 | 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 |
| | | Close | 0 | 1 | 255 |
| | | Strobe from slow to fast | 2 | 62 | |
| | | Open | 63 | 64 | |
| | | Pulse in from slow to fast | 65 | 125 | |
| 7 | Shutter | Open | 126 | 127 | |
| | | Pulse out from slow to fast | 128 | 188 | |
| | | Open | 189 | 190 | |
| | | Randon from slow to fast | 191 | 251 | |
| | | Open | 252 | 255 | |
| | | Open | 0 | 8 | 000 |
| | | Open + Dark Red | 9 | 17 | |
| | | Dark Red | 18 | 26 | |
| | | Dark Red + Cyan | 27 | 35 | |
| | | Cyan | 36 | 44 | |
| | | Cyan + Yellow | 45 | 53 | |
| | | Yellow | 54 | 62 | |
| | | Yellow + Magenta | 63 | 71 | |
| | | Magenta | 72 | 80 | |
| | | Magenta + Aquamarine | 81 | 89 | |
| | | Aquamarine | 90 | 98 | |
| | | Aquamarine + Deep Orange | 99 | 107 | |
| | | Deep Orange | 108 | 116 | |
| 8 | Color wheel | Deep Orange + Forest Green | 117 | 125 | |
| | | Forest Green | 126 | 134 | |
| | | Forest Green + CTO 3200K | 135 | 143 | |
| | | CTO 3200K | 144 | 152 | |
| | | CTO 3200K + High CRI 6000K | 153 | 161 | |
| | | High CRI 6000K | 162 | 170 | |
| | | High CRI 6000K + Lavander | 171 | 179 | |
| | | Lavander | 180 | 188 | |
| | | Lavander + Deep Blue | 189 | 197 | |
| | | Deep Blue | 198 | 206 | |
| | | Deep Blue + Open | 207 | 215 | 1 |
| | | Forward Spin: from fast to slow | 216 | 234 |] |
| | | Stop | 235 | 236 |] |
| - | | Reverse Spin: from slow to fast | 237 | 255 | |

| Channel STANDARD | Name | Function | Min DMX | Max DMX | Default |
|------------------|------------------|-----------------------------------|------------|------------|---------|
| | | Open | 0 | 9 | 000 |
| | | 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 | |
| 0 | D . C . | Forward Spin: from fast to slow | 90 | 131 | |
| 9 | Rot Gobo | Stop | 132 | 132 | |
| | | Reverse Spin: from slow to fast | 133 | 174 | |
| | | Shake: GOBO 1 from slow to fast | 175 | 184 | |
| | | Shake: GOBO 2 from slow to fast | 185 | 194 | |
| | | Shake: GOBO 3 from slow to fast | 195 | 204 | |
| | | Shake: GOBO 4 from slow to fast | 205 | 214 | |
| | | Shake: GOBO 5 from slow to fast | 215 | 224 | |
| | | Shake: GOBO 6 from slow to fast | 225 | 234 | |
| | | Shake: GOBO 7 from slow to fast | 235 | 244 | |
| | | Shake: GOBO 8 from slow to fast | 245 | 255 | |
| | | Lineary from 0° to 360° | 0 | 127 | 000 |
| 10 | Gobo Rot | Forward Spin: from fast to slow | 128 | 190 | |
| | | Stop | 191 | 192 | |
| | | Reverse Spin: from slow to fast | 193 | 255 | |
| 11 | Gobo Rot Fine | Lineary from 0° to 360° (Indexed) | 0 | 255 | 000 |

| Channel STANDARD | Name | Function | Min DMX | Max DMX | Default |
|------------------|-----------|----------------------------------|------------|------------|---------|
| | | Open | 0 | 3 | 000 |
| | | GOBO 1 | 4 | 7 | |
| | | GOBO 2 | 8 | 11 | |
| | | GOBO 3 | 12 | 15 | |
| | | GOBO 4 | 16 | 19 | |
| | | GOBO 5 | 20 | 23 | |
| | | GOBO 6 | 24 | 27 | |
| | | GOBO 7 | 28 | 31 | |
| | | GOBO 8 | 32 | 35 | |
| | | GOBO 9 | 36 | 39 | |
| | | GOBO 10 | 40 | 43 | |
| | | GOBO 11 | 44 | 47 | |
| | | GOBO 12 | 48 | 51 | |
| | | GOBO 13 | 52 | 55 | |
| | | GOBO 14 | 56 | 59 | |
| | | GOBO 15 | 60 | 63 | |
| | | GOBO 16 | 64 | 67 | |
| | | GOBO 17 | 68 | 71 | |
| 12 | Fixed | Forward Spin: from fast to slow | 72 | 128 | |
| 12 | Gobo | Stop | 129 | 130 | |
| | | Reverse Spin: from slow to fast | 131 | 187 | |
| | | Shake: GOBO 1 from slow to fast | 188 | 191 | |
| | | Shake: GOBO 2 from slow to fast | 192 | 195 | |
| | | Shake: GOBO 3 from slow to fast | 196 | 199 | |
| | | Shake: GOBO 4 from slow to fast | 200 | 203 | |
| | | Shake: GOBO 5 from slow to fast | 204 | 207 | |
| | | Shake: GOBO 6 from slow to fast | 208 | 211 | |
| | | Shake: GOBO 7 from slow to fast | 212 | 215 | |
| | | Shake: GOBO 8 from slow to fast | 216 | 219 | |
| | | Shake: GOBO 9 from slow to fast | 220 | 223 | |
| | | Shake: GOBO 10 from slow to fast | 224 | 227 | |
| | | Shake: GOBO 11 from slow to fast | 228 | 231 | |
| | | Shake: GOBO 12 from slow to fast | 232 | 235 | |
| | | Shake: GOBO 13 from slow to fast | 236 | 239 | |
| | | Shake: GOBO 14 from slow to fast | 240 | 243 | |
| | | Shake: GOBO 15 from slow to fast | 244 | 247 | |
| | | Shake: GOBO 16 from slow to fast | 248 | 251 | |
| | | Shake: GOBO 17 from slow to fast | 252 | 255 | |
| 13 | Prism | Open | 0 | 127 | 000 |
| 13 | 1 115111 | Prism insert | 128 | 255 | |
| 14 | | Lineary from 0° to 360° | 0 | 127 | 000 |
| | Prism | Forward Spin: from fast to slow | 128 | 190 | |
| | Rotation | Stop | 191 | 192 | |
| | | Reverse Spin: from slow to fast | 193 | 255 | |
| 15 | Frost | Lineary from 0% to 100% | 0 | 255 | 000 |
| 16 | Zoom | Lineary from Narrow to Wide | 0 | 255 | 128 |
| 17 | Zoom Fine | Lineary from Narrow to Wide | 0 | 255 | 128 |

| Channel STANDARD | Name | Function | Min DMX | Max DMX | Default |
|---------------------|------------|---|------------|------------|---------|
| 18 | Focus | Lineary from Far to Near | 0 | 255 | 128 |
| 19 | Focus Fine | Lineary from Far to Near | 0 | 255 | 128 |
| | | 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 BLACKOUT ON (index) | 20 | 21 | |
| | | COLOR WHEEL BLACKOUT OFF (index) | 22 | 23 | |
| | | ROTATING GOBO WHEEL BLACKOUT ON (index) | 24 | 25 | |
| | | ROTATING GOBO WHEEL BLACKOUT OFF (index) | 26 | 27 | |
| | | FIXED GOBO WHEEL BLACKOUT ON (index) | 28 | 29 | 1 |
| | | FIXED GOBO WHEEL BLACKOUT OFF (index) | 30 | 31 | 1 |
| | | COLOR WHEEL CONTINUOUS MOVEMENT (index) | 32 | 33 | |
| | Control | COLOR WHEEL STEP MOVEMENT (index) | 34 | 35 | 1 |
| | | ROTATING GOBO WHEEL CONTINUOUS MOVEMENT (index) | 36 | 37 | 1 |
| 20 | | ROTATING GOBO WHEEL STEP MOVEMENT (index) | 38 | 39 | |
| | | FIXED GOBO WHEEL CONTINUOUS MOVEMENT (index) | 40 | 41 | |
| | | FIXED GOBO WHEEL STEP MOVEMENT (index) | 42 | 43 | |
| | | HOME MODE STANDARD | 44 | 45 | 1 |
| | | HOME MODE CUSTOM | 46 | 47 | 1 |
| | | DISPLAY ON | 48 | 49 | 1 |
| | | DISPLAY 10S | 50 | 51 | |
| | | DISPLAY 20S | 52 | 53 | |
| | | DISPLAY 30S | 54 | 55 | |
| | | FLIP DISPLAY ON | 56 | 57 | |
| | | FLIP DISPLAY OFF | 58 | 59 | 1 |
| | | FLIP DISPLAY AUTO | 60 | 61 | |
| | | KEY LOCK ON | 62 | 63 | |
| | | KEY LOCK OFF | 64 | 65 | |
| | | FAN MODE AUTO | 66 | 67 | |
| | | FAN MODE SILENT | 68 | 69 | |
| | | FAN MODE HIGH | 70 | 71 | |
| | | NO SIGNAL HOLD | 72 | 73 | |
| | | NO SIGNAL BLACKOUT | 74 | 75 | |
| | | Reserved | 76 | 79 | |

| Channel STANDARD | Name | Function | Min DMX | Max DMX | Default |
|---------------------|---------|--------------------------------------|------------|------------|---------|
| | | DIMMER CURVE LINEAR | 80 | 81 | 000 |
| | | DIMMER CURVE S-CURVE | 82 | 83 | |
| | | DIMMER CURVE SQUARE LAW | 84 | 85 | |
| | | DIMMER CURVE INVERSE SQUARE LAW | 86 | 87 | |
| | | DIMMER SPEED AUTO | 88 | 89 | |
| | | DIMMER SPEED FAST | 90 | 91 | |
| | | DIMMER SPEED MEDIUM | 92 | 93 | |
| | | DIMMER SPEED SLOW | 94 | 95 | |
| | | LED FREQUENCY 600HZ | 96 | 97 | |
| | | LED FREQUENCY 1200HZ | 98 | 99 | |
| | | LED FREQUENCY 2000HZ | 100 | 101 | |
| | | LED FREQUENCY 4000HZ | 102 | 103 | |
| | | LED FREQUENCY 6000HZ | 104 | 105 | |
| | Control | LED FREQUENCY 25KHZ | 106 | 107 | |
| | | LED FREQUENCY 50KHZ | 108 | 109 | |
| | | INVERT ZOOM OFF | 110 | 111 | |
| 20 | | INVERT ZOOM ON | 112 | 113 | |
| | | RESET ALL | 114 | 115 | |
| | | RESET PAN/TILT | 116 | 117 | |
| | | RESET PAN | 118 | 119 | |
| | | RESET TILT | 120 | 121 | |
| | | RESET COLOR | 122 | 123 | |
| | | RESET ROTATING GOBO | 124 | 125 | |
| | | Reserved | 126 | 127 | |
| | | RESET FIXED GOBO | 128 | 129 | |
| | | RESET ZOOM | 130 | 131 | |
| | | RESET FOCUS | 132 | 133 | |
| | | RESET PRISM | 134 | 135 | |
| | | RESET FROST | 136 | 137 | |
| | | RESET OTHER | 138 | 139 | |
| | | Reserved | 140 | 253 |] |
| | | FACTORY DEFAULT OF CONTROL FUNCTIONS | 254 | 255 | |

14 - FIXED GOBOS WHEEL

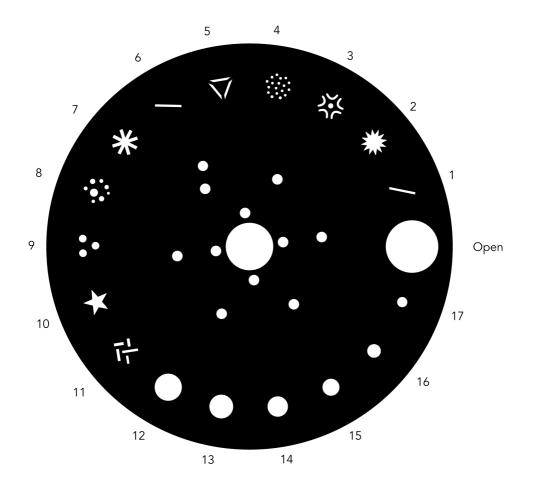


Fig. 10

15 - ROTATING GOBOS WHEEL

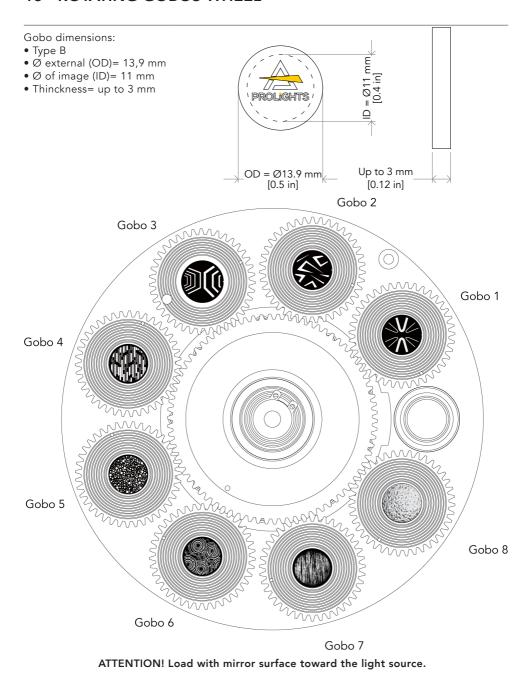


Fig. 11

16 - COLOR WHEEL



Fig. 12

17 - ERROR MESSAGES

The error is shown on the unit display. In the table below, the "ERROR SHOWED ON SCREEN" column lists the possible errors, accompanied by a possible cause ("POSSIBLE" CAUSES "column).

The color of the error messages (listed in the "COLOR MESSAGES" column) is different for each board it refers to ("PCB" column).

On page 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 |
|---|--|------------------------------|
| [PAN/TILT PCB ERROR] | Pan tilt pcb not detected. | 2U |
| | This message will appear after the reset of the product if: | |
| | the PAN magnetic-indexing circuit detect a failure (sensor failed or magnet is missing). | |
| [PAN MOTOR ERROR] | or the stepping motor is defective. | 2U |
| | 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. | |
| | This message will appear after the reset of the product if: | |
| | the TILT magnetic-indexing circuit detect a failure (sensor failed or magnet is missing) . | |
| [TILT MOTOR ERROR] | or the stepping motor is defective. | 2U |
| | 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 ERR.] Air in blower for cooling the lamp failed, the lamp has been switched OFF. | | 3U |
| [RIGHT AIR OUT FAN ERR.] | Air out blower for cooling the lamp failed, the lamp has been switched OFF. | 3U |

| ERROR SHOWED ON SCREEN | POSSIBLE CAUSES | POSSIBLE PCB WITH ANOMALY |
|--------------------------------|---|------------------------------|
| [MOTOR PCB 2 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. | 4U |
| [GOBO ROTATION ERROR] | Failure detected during the reset of the rotation of the rotating gobo, if the rotating gobos are not located in the default positions. | 4U |
| [FIXED GOBO WHEEL ERROR] | Failure detected during the reset of the fixed gobo wheel, if this wheel is not located in the default position. | 4U |
| [COLOR WHEEL ERROR] | Failure detected during the reset of the color wheel, if this wheel is not located in the default position. | 4U |
| [GOBO FAN ERROR] | Blower for cooling the GOBO wheel failed. | 4U |
| [MOTOR PCB 3 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. | 5U |
| [ZOOM ERROR] | Failure detected during the reset of the ZOOM system, if the focus lens is not located in its default position. | 5U |
| [PRISM ERROR] | Failure detected during the reset of the PRISM, if the focus lens is not located in its default position. | 5U |
| [PRISM ROTATION ERROR] | Failure detected during the reset of the PRISM ROTATION, if the focus lens is not located in its default position. | 5U |
| [FROST ERROR] | Failure detected during the reset of the effect FROST, if this effect is not located in the default position. | 5U |

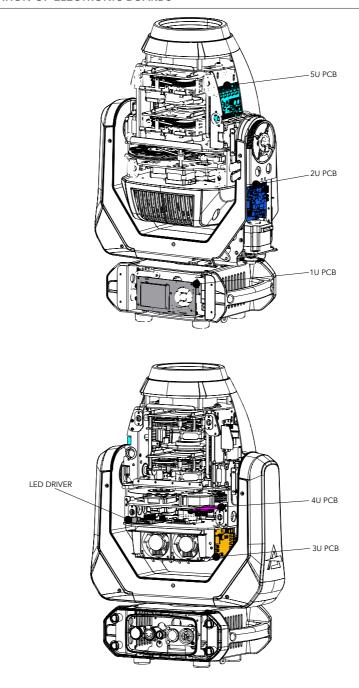
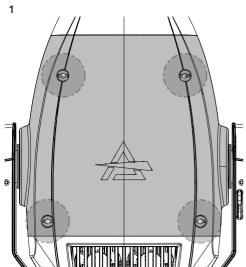
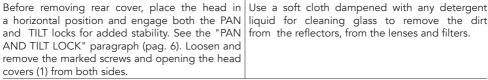


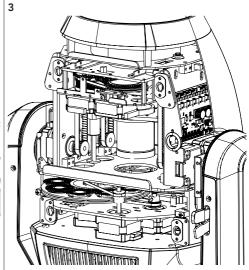
Fig. 13

18 - PERIODICAL CLEANING

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

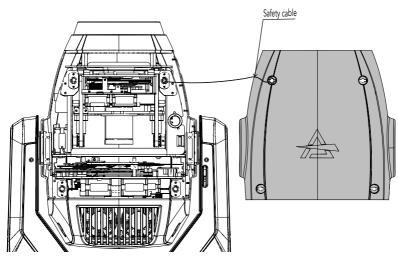






liquid for cleaning glass to remove the dirt

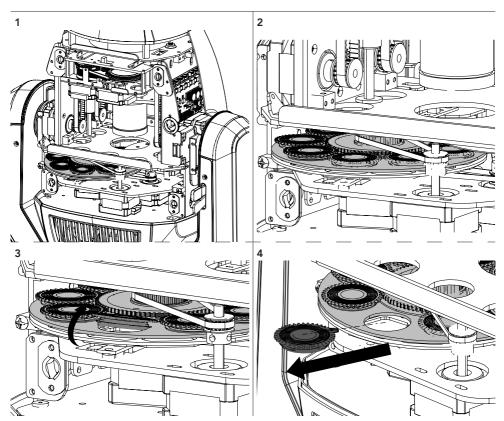
2



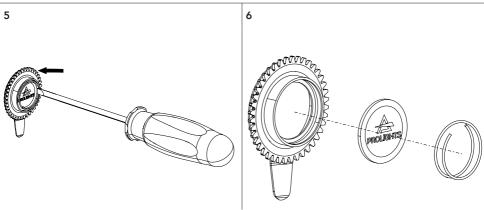
Unclip the safety cable on both sides (2).

Fig. 14

19 - GOBOS REPLACEMENT



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

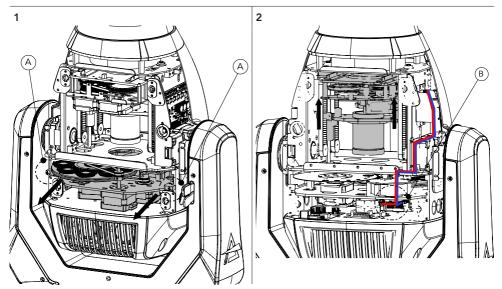


Remove the spring and the gobo (5, 6).

NOTE: the mirrored part of the gobo must be placed in the direction of the LED Source

Fig. 15

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



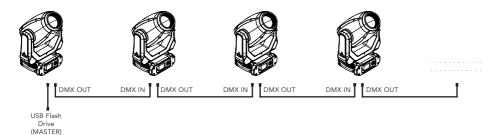
To remove the Animation and Gobo wheels module, open the head covers (see section "PERIODICAL CLEANING") and proceed as follows:

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

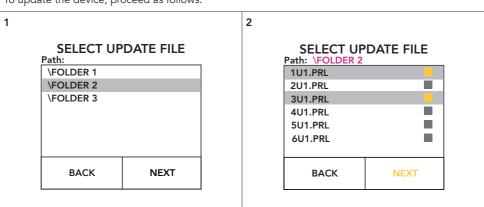
21 - USB UPDATE MODE

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:



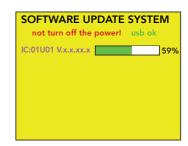
- With the machine turned on, insert the USB drive;
- A screen will appear showing the files and folders on the USB stick, so use the UP and DOWN buttons to go to the directory with the update files and press ENTER (figure 1). To return to the previous path press the LEFT button;
- Select the files to 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

SELECT UPDATE

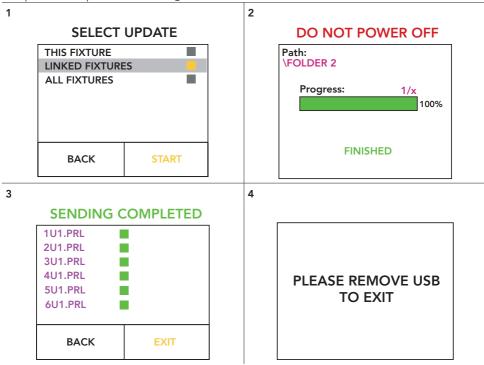


2



- 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.

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



- 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.

22 - 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 (T5A 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 | Bad signal connection | Inspect connections and cables. Fix eventual bad connections. Repair or replace damaged cables. | | |
| to the contoller. | 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 corrupt- ing the signal transmis- sion 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, adjust- ment 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 (tem- perature 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 assemblyDirty 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.

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