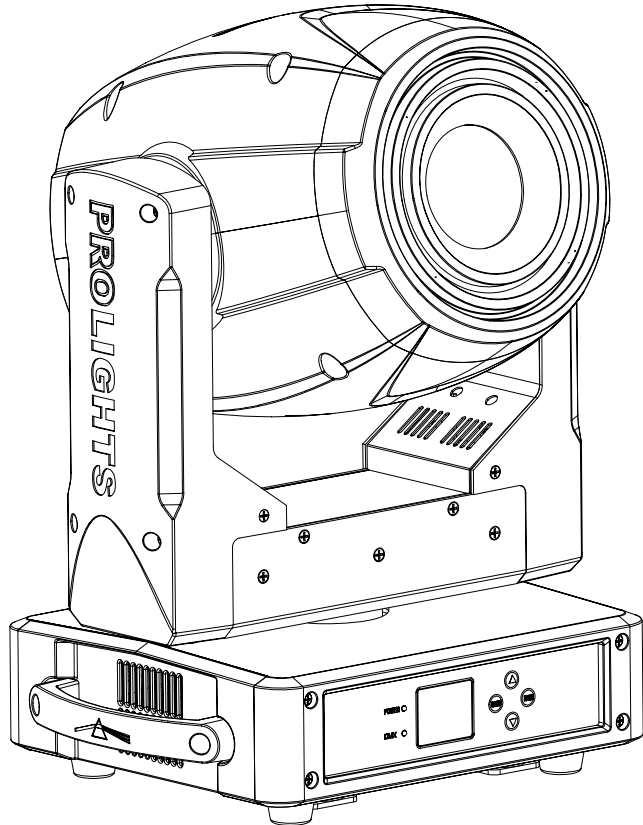


# JETSPOT-3

MOVING HEAD



USER MANUAL

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**TABLE OF CONTENTS****Safety**

|   |   |
|---|---|
| General instructions .....                  | 2 |
| Warnings and installation precautions ..... | 2 |

**1 Introduction**

|  |   |
|--|---|
| 1.1 Description .....                        | 3 |
| 1.2 Technical specifications .....           | 3 |
| 1.3 Operating elements and connections ..... | 5 |

**2 Installation**

|                    |   |
|--------------------|---|
| 2.1 Mounting ..... | 6 |
|--------------------|---|

**3 Functions and settings**

|  |    |
|--|----|
| 3.1 Operation .....                            | 7  |
| 3.2 Basic .....                                | 7  |
| 3.3 Using the menu .....                       | 8  |
| 3.4 Menu structure .....                       | 8  |
| 3.5 Linking .....                              | 10 |
| 3.6 DMX address .....                          | 10 |
| 3.7 DMX mode .....                             | 10 |
| 3.8 DMX addressing .....                       | 10 |
| 3.9 Fixture settings .....                     | 11 |
| 3.10 Advanced .....                            | 13 |
| 3.11 Fixture information .....                 | 13 |
| 3.12 Operation in automatic mode .....         | 14 |
| 3.13 Automatic mode speed .....                | 14 |
| 3.14 Connection of the DMX line .....          | 15 |
| 3.15 Construction of the DMX termination ..... | 15 |
| 3.16 DMX control .....                         | 16 |
| 3.17 Colors and gobos .....                    | 20 |

**4 Maintenance**

|   |    |
|---|----|
| 4.1 Maintenance and cleaning the unit ..... | 21 |
| 4.2 Fuse replacement .....                  | 21 |
| 4.3 Trouble shooting .....                  | 22 |

**Packing content**

- JETSPOT-3
- Mount bracket
- User manual




**WARNING!** Before carrying out any operations with the unit, carefully read this instruction manual and keep it with care for future reference. It contains important information about the installation, usage and maintenance of the unit.



## SAFETY

### General instruction

- The products referred to in this manual conform to the European Community Directives and are therefore marked with **CE**.
- The unit is supplied with hazardous network voltage (230V~). Leave servicing to skilled personnel only. Never make any modifications on the unit not described in this instruction manual, otherwise you will risk an electric shock.
- Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the units from indirect contact and/or shorting to earth by using appropriately sized residual current devices.
- The connection to the main network of electric distribution must be carried out by a qualified electrical installer. Check that the main frequency and voltage correspond to those for which the unit is designed as given on the electrical data label.
- This unit is not for home use, only professional applications.
- Never use the fixture under the following conditions:
  - in places wet;
  - in places subject to vibrations or bumps;
  - in places with an ambient temperature of over 45°C.
- Make certain that no inflammable liquids, water or metal objects enter the fixture.
- Do not dismantle or modify the fixture.
- All work must always be carried out by qualified technical personnel. Contact the nearest sales point for an inspection or contact the manufacturer directly.
- If the unit is to be put out of operation definitively, take it to a local recycling  plant for a disposal which is not harmful to the environment.

### Warnings and installation precautions

- If this device will be operated in any way different to the one described in this manual, it may suffer damage and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short circuit, burns, electric shock, etc.
- Before starting any maintenance work or cleaning the projector, cut off power from the main supply.
- Always additionally secure the projector with the safety rope. When carrying out any work, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used.
- For inside use only. Not designed for outside use.
- The minimum distance between the fixture and surrounding walls must be more than 50 cm and the air vents at the housing must not be covered in any case.
- Install the fixture in a well ventilated place.
- Keep any inflammable material at a safe distance from the fixture.
- The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is high. After power off, please cool down over 15 minutes.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is impaired.
- The lamp (LED) shall be changed if it has become damaged or thermally deformed.
- Never look directly at the light beam. Please note that fast changes in lighting, e. g. flashing light, may trigger epileptic seizures in photosensitive persons or persons with epilepsy.

## - 1 - INTRODUCTION

### 1.1 DESCRIPTION

JET series projectors are moving head based on a special LED optical system with a white LED source. Despite the very compact sizes, are the most efficient luminaires in its range.

The compact-size structure, the rapid movements and silent operations grant this projectors to be a valuable solution for lighting projects in limited-space environments like live stages and clubs.

### 1.2 TECHNICAL SPECIFICATIONS

#### LIGHT SOURCE

- Source: 240w High Power White LED
- CT:7500 K
- CRI:78 Ra
- Luminous Flux: 10799lm
- Lux: 8099 lux @3m
- Lux: 729 lux @10m
- Source Life Expectancy: >30.000 h

#### OPTICS

- Beam Angle: 20°
- Lens Diameter: 74mm
- Lens Type: HQ glass lens optics
- Focus: Motorised

#### COLOR SYSTEM

- Color Wheel: 2x7 dichroic filters+Open

#### DYNAMIC EFFECTS

- Rotating Gobos: 7 Rotating gobos+Open, Interchangeable, Indexing
- Gobo Size: gobo Ø 26.9 mm - img vØ 23 mm - 0.3 mm
- Fixed gobos: 8 Fixed gobos+Open, Interchangeable
- Gobo Size: gobo Ø 29.8 mm - img vØ 23 mm - 0.3 mm
- Circular Prism: 3f with bi-directional rotation, Indexing
- Frost: Linear 0-100% frost filter
- Iris: 5~100% motorized linear iris
- Auto Mode: Built-in programs with execution speed adjustment

#### BODY

- Pan Angle: 540°
- Tilt Angle: 260°
- Pan/Tilt Resolution: 16 bit
- Feedback: Automatic repositioning after accidental movement
- Body: Aluminium structure with hi-resistance polycarbonate cover
- Body Color: Black

#### CONTROL

- Protocols: DMX512, RDM
- Dmx Channels: 17/19ch

- RDM: RDM ready for fixture remote monitor and settings
- Display: Black OLED high resolution display
- Firmware Upgrade: Yes, via USB-DMX interface (UPBOX1) not included
- Master/Slave: for synchronized operation of more units linked in a chain

## ELECTRONICS

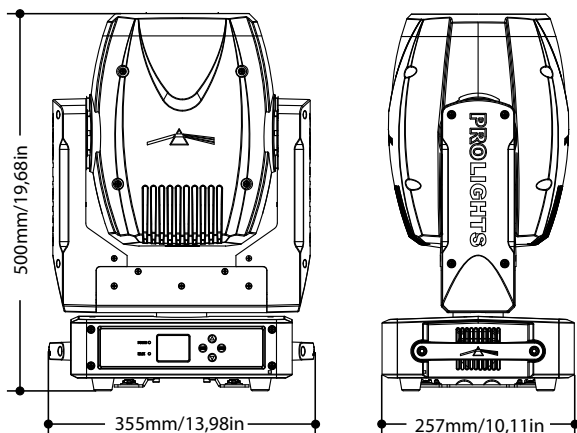
- Dimmer: Linear 0~100% electronic dimmer
- Strobe/Shutter: 0~30 Hz, electronic
- Battery Backup: Battery backup for user operation without connecting to the main power
- Operating Temperature:  $-10^{\circ} \sim +45^{\circ}$
- Flicker: Flicker free operation

## ELECTRICAL

- Power Supply: 100-240V – 50/60Hz
- Power Consumption (at 230V): 316W
- Power Consumption (at 120V): 322W
- Output (at 230V): 11 units on a single power line
- Output (at 120V): 6 units on a single power line

## PHYSICAL

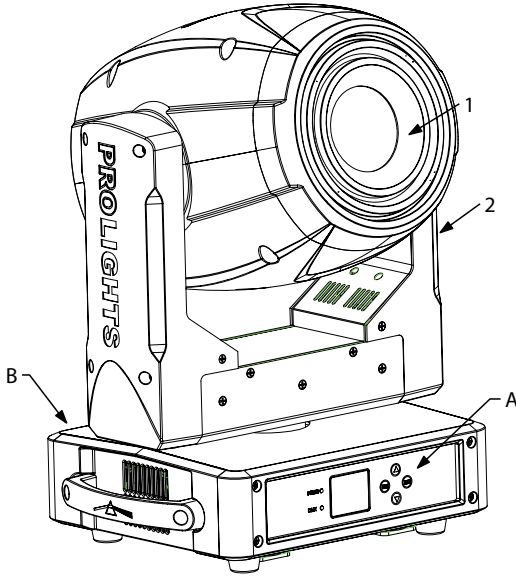
- Signal Connection: DMX 3p+5p IN/OUT
- Power Connection: IN/OUT Neutrik Truecon
- IP:20
- Cooling: Forced air with low noise fan
- Suspension And Fixing: Any position with “quick-lock” omega brackets
- Dimensions (WxHxD):344x500x257 mm
- Weight:17.3 kg



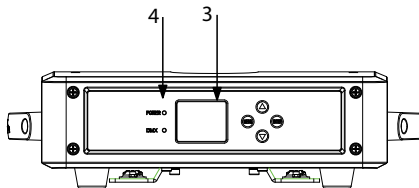
Technical drawing

Fig.1

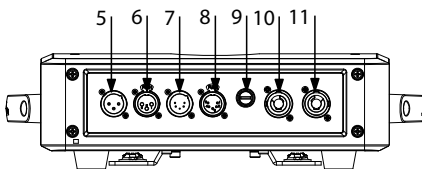
## 1.3 OPERATING ELEMENTS AND CONNECTIONS



1. MOVING HEAD
2. ROTARY ARM
3. CONTROL PANEL with LCD display and 5 button used to access the control panel functions and manage them.
4. LED INDICATOR
5. DMX IN (3-pole XLR): 1 = ground, 2 = DMX -, 3 = DMX +
6. DMX OUT ( 3-pole XLR): 1 = ground, 2 = DMX -, 3 = DMX +
7. DMX IN (5-pole XLR): 1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C
8. DMX OUT (5-pole XLR): 1 = ground, 2 = DMX-, 3 = DMX+, 4 N/C, 5 N/C
9. MAIN FUSE HOLDER: replace a burnt-out fuse by one of the same type only.
10. POWER IN (PowerCON IN): for connection to a socket (100-240V~/50-60Hz) via the supplied mains cable.
11. POWER OUT: (PowerCON OUT) to connect multiple units in series.

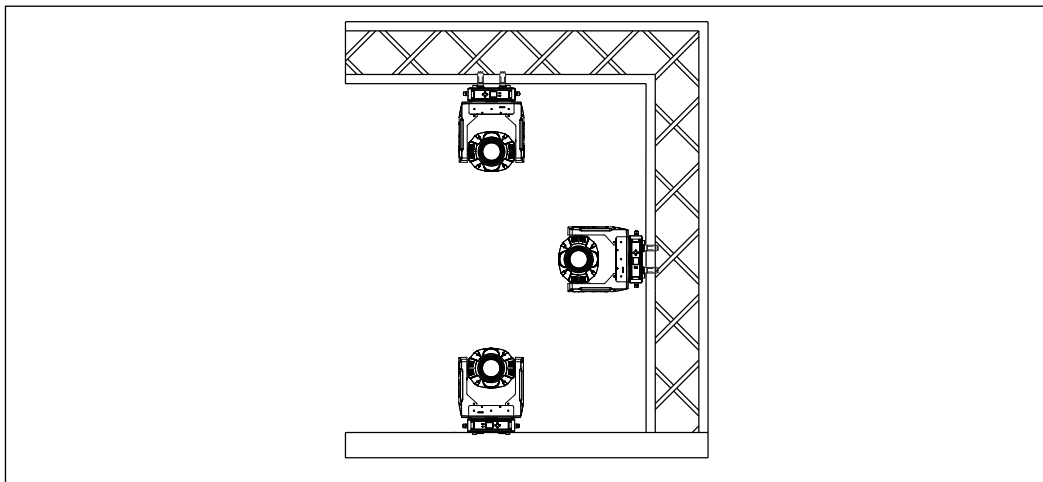


View A



View B

## - 2 - INSTALLATION



### 2.1 MOUNTING

The JET SPOT-3 may be set up on a solid and even surface. By means of the fixing facilities of the baseplate, the unit can also be mounted upside down to a cross arm. The base plate is shown in fig.3. For fixing, stable mounting clips are required. According to the figure, the bolts of the brackets are placed into the openings provided in the base plate and turned clockwise until they lock (to the stop). Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. The mounting place must be of sufficient stability and be able to support a weight of 10 times of the unit's weight. When carrying out any installation, always comply scrupulously with all the regulations (particularly regarding safety) currently in force in the country in which the fixture's being used. Always additionally secure the projector with the safety rope from falling down. For this purpose, fasten the safety rope at a suitable position so that the maximum fall of the projector will be 20 cm.

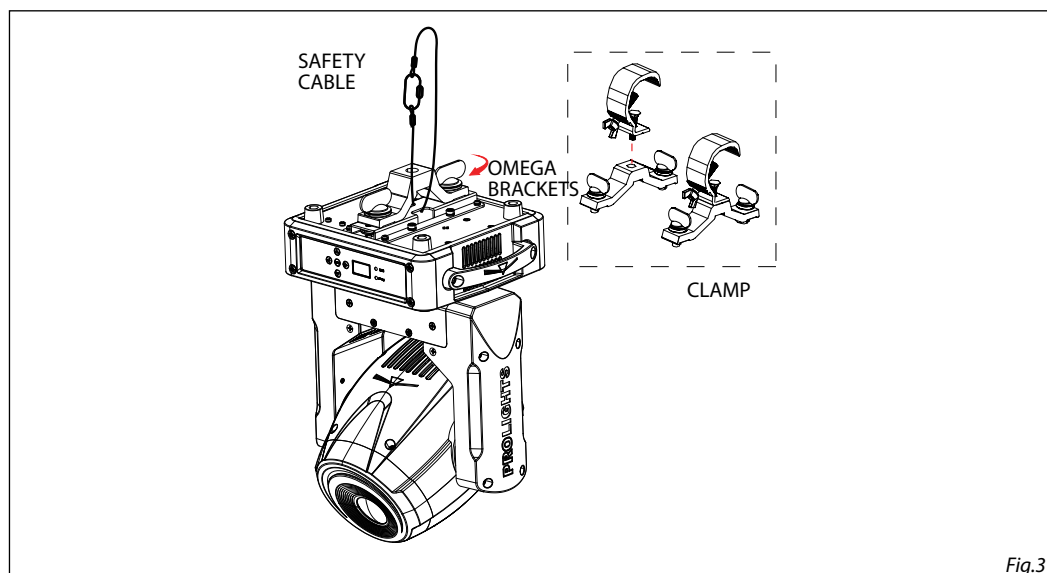


Fig.3



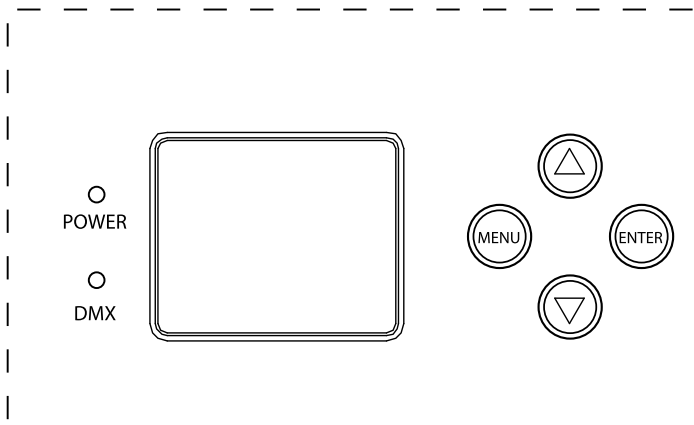
## - 3 - FUNCTIONS AND SETTINGS

### 3.1 OPERATION

Connect the supplied main cable to a socket (100-240V~/50-60Hz). The unit will run built-in program to reset all motors to their home position. Shortly after that the JETSPOT-3 is ready for operation. To switch off, disconnect the mains plug from the socket. For a more convenient operation it is recommended to connect the unit to a socket which can be switched on and off via light switch.

### 3.2 BASIC

The control panel of JETSPOT-3 has a display and 5 buttons for the complete programming and management of the projector menu (fig.4).



| UP   | DOWN   | MENU  | ENTER  |
|--|--|---|--|
| Increases the value displayed or passes to the previous item in a menu | Decreases the value displayed or passes to the next item in the menu | To enter in the main menu or to return to the top level | Confirms the displayed value, or activates the displayed function, or enters the successive menu |

#### Reversal of the display

To activate this function, hold simultaneously for 3 seconds UP and DOWN buttons while the display is in the rest mode. This status will be memorised and maintained even for the next time it will be switched on.

To return to the initial state, repeat the operation all over again.

Fig.4 - Functions of the buttons



|   |                    |   |  |   |
|---|--------------------|---|--|---|
|   |                    |   | Gobo1<br>R-Gobo1<br>Gobo2<br>Prism Rot<br>Focus<br>Frost<br>Iris   | ⇒ Value (000-255) for each function                       |
| 3 | <b>ADVANCED</b>    | ⇒ Reset   | ⇒ All  | ⇒ YES/NO  |
|   |                    |   | Pan<br>Tilt<br>Color1<br>Color2<br>Gobo1<br>Gobo2<br>Prism<br>Focus<br>Frost<br>Iris   |   |
|   |                    | Adjust  | ⇒ Pan Offset<br>Tilt Offset<br>Color1 Offset<br>Color2 Offset<br>Gobo1 Offset<br>R-Gobo1 Offset<br>Gobo2 Offset<br>Prism Offset<br>Focus Offset<br>Frost Offset<br>Iris Offset | ⇒ Value (000-255) for each function                       |
|   |                    | Factory Reload  | ⇒ YES/NO   |   |
| 4 | <b>INFORMATION</b> | ⇒ Fixture Time<br>Temperature<br>Fans Speed<br>Software Ver.<br>UID |  |   |
| 5 | <b>STAND ALONE</b> | ⇒ Play  | ⇒ Master/Slave<br>Sequence   | ⇒ Master<br>Slave<br>Show 1<br>Show 2<br>Show 3<br>Show 4 |

Speed

⇌ Value (00-100%)

### 3.5 LINKING

Several units may be interconnected in order to control all further slave units to the same effect of the master unit.

1. Connect the DMX OUT of the master unit via 3/5-pole XLR cable to the DMX IN of the first slave unit.
2. Connect the DMX OUT of the first slave unit to the DMX IN of the second slave unit, etc. until all units are connected in a chain.

### 3.6 DMX ADDRESS

To enter the DMX mode, follow these steps:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Connect** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select the **Address** and press the ENTER key.
- Press the arrow keys to select the desired value (**001-512**).
- Press the ENTER key to confirm the setting.
- Press the MENU button repeatedly to exit the menu and save changes.

### 3.7 DMX MODE

The JETSPOT-3 has more DMX channel configurations which can be accessed from the control panel.

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Connect** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **DMX Mode** and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select the mode and press ENTER to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes.

The unit is equipped with 3/5-pole XLR connections.

### 3.8 DMX ADDRESSING

For operation via light control unit with DMX512 protocol, is sufficient connect the controller to JETSPOT-3. To able to operate the JETSPOT-3 with a light controller, adjust the DMX start address for the first a DMX channel. If e. g. address 33 on the controller is provided for controlling the function of the first DMX channel, adjust the start address 33 on the JETSPOT-3. The other functions of the light effect panel are then automatically assigned to the following addresses.

An example with the start address 33 is shown below:

| Number of DMX channels | Start address (example) | DMX Address occupied | Next possible start address for unit No. 1 | Next possible start address for unit No. 2 | Next possible start address for unit No. 3 |
|------------------------|-------------------------|----------------------|--|--|--|
| 19                     | 33                      | 33-52                | 53   | 72   | 91   |

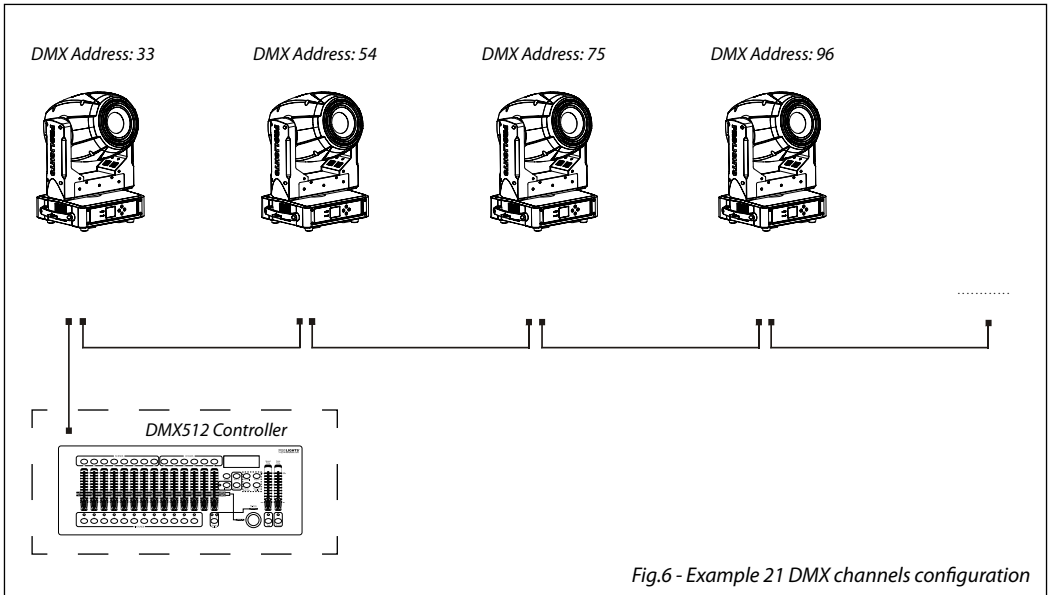


Fig.6 - Example 21 DMX channels configuration

### 3.9 FIXTURE SETTINGS

You can change the parameters for the device by following these steps:

#### MOVEMENT

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Set Up** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select **Movement** and press the ENTER button to enter the next menu.
- Use the UP/DOWN button to select the option proposed and press the ENTER button to confirm the setting.
  - **Pan Reverse** - Pan rotation in the opposite direction. Select **NO** to deactivate the function (normal setting); **YES** to activate the function (Pan Reverse).
  - **Tilt Reverse** - Used for reversing tilt movement. Select **NO** to deactivate the function (normal setting); **YES** to activate the function (Tilt Reverse).
  - **Pan/Tilt Feedbacks** - Reorganization Pan/Tilt position after rolling away. Select **NO** to deactivate or **YES** to activate the function.
- Press the ENTER button to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes.

#### SCREEN

You can change the following parameters related to the display, following the same procedure:

- Press the ENTER button to access the main menu.
- Press the UP / DOWN keys to scroll the menu, select the **Set Up** icon, then press the ENTER button to enter the next menu.
- Press UP / DOWN to scroll through the menu, then select **Screen**, and press the ENTER button to enter the next menu.

- Press UP / DOWN to scroll through the menu, and then select one of the following settings for the display and press the ENTER key to display it.
  - **Back Light** - Backlight display Auto Off. This feature allows you to automatically turn off the backlight after a specified time that you can set using the arrow buttons. To have the display always on select **Always On** or choose another value to turn off the display after the amount of time you choose.
  - **Flip Display** - Orientation of the display. This function allows you to rotate the display 180° to get a better view of the display when the unit is hanging upside down. Select **YES** to activate or **NO** to disable this function.
  - **Key Lock** - Lock keys. With this function, you can lock the buttons on the control panel. If this function is activated, the keys are automatically locked. To disable or temporarily disable the key lock function, press the buttons in the following order to regain access to menu commands: UP, DOWN, LEFT, RIGHT, ENTER. Select **YES** to activate or **NO** to disable.
- Press the ENTER button to confirm your choice.
- Press the LEFT button repeatedly to exit the menu and save changes.

### FIXTURE

**Fans Mode** - Select this function to set the fans operation mode:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select UI Set, and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, and then select Fans Mode and press ENTER to confirm.
- Press the UP/DOWN button to select Auto Speed/High Speed, press the ENTER button to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes

**Temperature** - Select this function to set the temperature unit measurement shown on the display:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN to scroll through the menu, select the Set icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN to scroll through the menu, select UI Set, and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select Temperature C/F and press ENTER to confirm.
- Press the UP/DOWN button to select the unit of measure Celsius/Fahrenheit and press the ENTER button to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes.

**Auto and Manual test:** with this menu, you can test all functions; with auto the moving head will start an auto test, with manual you can choose each channel/function to test.

### 3.10 ADVANCED

#### Reset Functions

You can start a preset program to restore the selected function:

- Press the ENTER button to access the main menu.

- Press the UP/DOWN button to scroll the menu, select the **Advanced** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Reset** and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select the function you wish to reset between **All, Pan, Tilt, Color1, Color2, Gobo1, Gobo2, Prism, Focus, Frost, Iris**.
- Press the ENTER button to confirm your choice and wait for the recovery of the selected function.

### Adjust

Adjusts the lamp. This function allows you to modify all the parameters of the lamp: **Pan Offset, Tilt Offset, Color1 Offset, Color2 Offset, Gobo1 Offset, R-Gobo1 Offset, Gobo2 Offset, Prism Offset, Focus Offset, Frost Offset, Iris Offset**.

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Advanced** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Adjust** and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to select one of the parameters and press ENTER to edit the value (000-255) through the UP/DOWN button.
- Press the ENTER button to confirm your choice and then press the MENU button repeatedly to exit the menu and save changes.

### Factory Reload

Select this function to reset the unit to factory settings:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Advanced** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Factory Reload** and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to select **YES** or **NO**, then press the ENTER button to confirm.

### 3.11 FIXTURE INFORMATION

To view all the information on the device, proceed as follows:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the icon **Information**, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select one of the following information and press the ENTER button to display it.
  - **Fixture Time** - Through the **Fixture Time** function you can display the operating time of the projector.
  - **Temperature** - Through the **Temperature** function can be displayed the temperature inside the fixture, near the lamp. The temperature can be displayed in degrees Celsius or Fahrenheit.
  - **Fans Speed** - Through the **Fans Speed** function you can show on display the fan speed present near the lamp. Velocity is expressed in RPM (revolutions per minute).
  - **Software Version** - Through **Software Version** function you can display the currently installed software version.
  - **UID** - This option shows the RDM identification number.
- Press the MENU button repeatedly to exit the menu.

**RDM** - With this function you can call up various submenus via RDM. This device is RDM ready. RDM stands for "Remote Device Management" and makes remote control of devices connected to the DMX-bus possible.

Manual settings like adjusting the DMX starting address are no longer needed. RDM is integrated in DMX without influencing the connections. The RDM-data is transmitted via the standard XLR-poles 1 and 2 so new DMX-cables are not necessary. RDM ready and conventional DMX devices can be operated in one DMX line. If DMX splitters are used and RDM control is to be used, these splitters must support RDM.

### 3.12 OPERATIONS IN AUTOMATIC MODE

The unit independently runs through its show. Before you send an automatic program you need to set the drive as Master/Alone:

- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Stand Alone** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Play** and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Sequence** and press ENTER to confirm your choice.
- Press the UP/DOWN button to select the mode of operation:
  - **Master**, if the unit is connected in series with other units and it acts as the Master;
  - **Slave**, if the unit is connected in series with other units and it acts as the Slave;
- Press the ENTER button to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes.

The unit will go into automatic mode by executing the program automatically.

### 3.13 AUTOMATIC MODE SPEED

Select this function to set the value of the speed of the internal auto-shows:

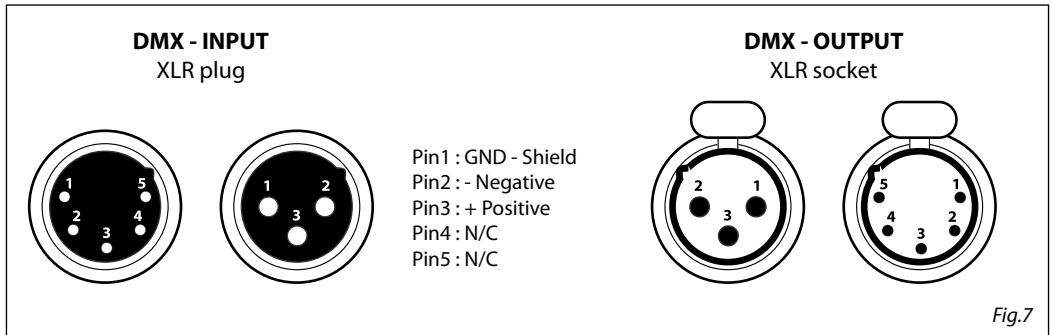
- Press the ENTER button to access the main menu.
- Press the UP/DOWN button to scroll the menu, select the **Stand Alone** icon, then press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, select **Play**, and press the ENTER button to enter the next menu.
- Press the UP/DOWN button to scroll through the menu, then select **Speed**. and press ENTER to confirm.
- Press the UP/DOWN button to adjust the speed, and then press the ENTER button to confirm your choice.
- Press the MENU button repeatedly to exit the menu and save changes.



### 3.14 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:



#### ATTENTION

The screened parts of the cable (sleeve) must never be connected to the system's earth, as this would cause faulty fixture and controller operation.

Over long runs can be necessary to insert a DMX level matching amplifier.

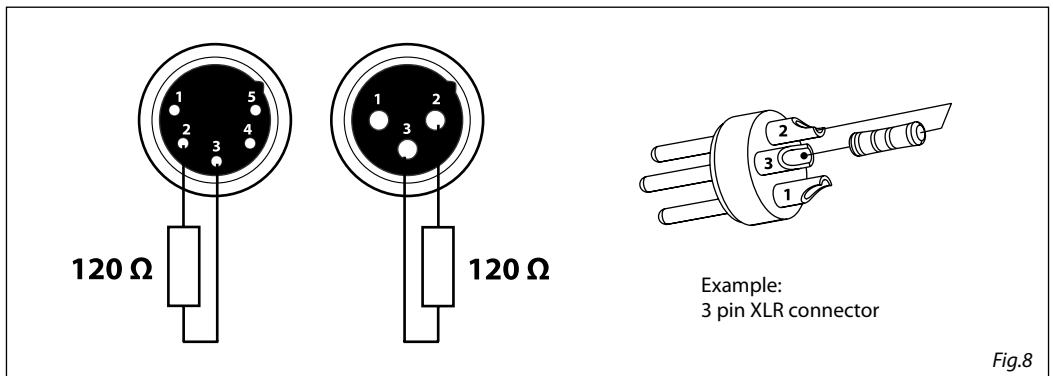
For those connections the use of balanced microphone cable is not recommended because it cannot transmit control DMX data reliably.

- Connect the controller DMX input to the DMX output of the first unit.
- Connect the DMX output to the DMX input of the following unit. Connect again the output to the input of the following unit until all the units are connected in chain.
- When the signal cable has to run longer distance is recommended to insert a DMX termination on the last unit.

### 3.15 CONSTRUCTION OF THE DMX TERMINATION

The termination avoids the risk of DMX 512 signals being reflected back along the cable when they reach the end of the line: under certain conditions and with certain cable lengths, this could cause them to cancel the original signals.

The termination is prepared by soldering a 120Ω 1/4 W resistor between pins 2 and 3 of the 5-pin male XLR connector, as shown in figure.



## 3.16 DMX CONTROL

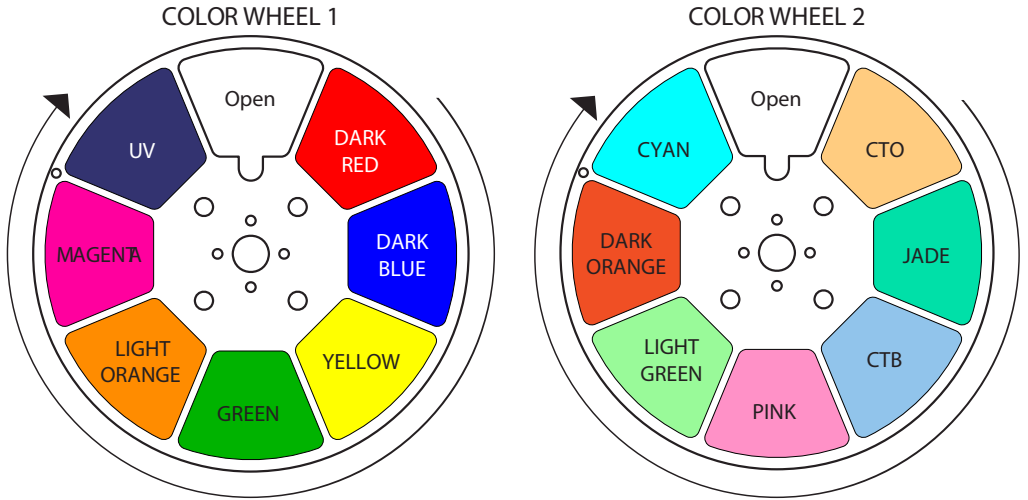
| STANDARD<br>17 ch | EXTENDED<br>19 ch | FUNCTION  | DMX<br>Value  |
|-------------------|-------------------|---|---|
| 1                 | 1                 | <b>PAN 8 bit</b>  | 000 - 255   |
| 2                 | 2                 | <b>PAN 16 bit</b>   | 000 - 255   |
| 3                 | 3                 | <b>TILT8 bit</b>  | 000 - 255   |
| 4                 | 4                 | <b>TILT 16 bit</b>  | 000 - 255   |
| 5                 | 5                 | <b>MOVEMENT SPEED</b><br>Fastest to slowest   | 000 - 255   |
| 6                 | 6                 | <b>SHUTTER</b><br>Shutter closed<br>No function (shutter open)<br>Strobe effect slow to fast<br>No function (shutter open)<br>Pulse-effect in sequences<br>No function (shutter open)<br>Random strobe effect slow to fast<br>No function (shutter open)  | 000 - 031<br>032 - 063<br>064 - 095<br>096 - 127<br>128 - 159<br>160 - 191<br>192 - 223<br>224 - 255  |
| 7                 | 7                 | <b>DIMMER</b><br>Dimmer (close to open)   | 000 - 255   |
| 8                 | 8                 | <b>COLOR WHEEL 1</b><br><b>Indexed</b><br>Open<br>Open+DARK RED<br>DARK RED<br>DARK RED + DARK BLUE<br>DARK BLUE<br>DARK BLUE + YELLOW<br>YELLOW<br>YELLOW + GREEN<br>GREEN<br>GREEN + LIGHT ORANGE<br>LIGHT ORANGE<br>LIGHT ORANGE + MAGENTA<br>MAGENTA<br>MAGENTA + UV<br>UV<br>UV+Open<br><b>Forward Spin</b><br>Stop to fast<br><b>Reverse Spin</b><br>Fast to Stop<br><b>Continuous</b><br>Positioning from OPEN to UV | 000 - 003<br>004 - 007<br>008 - 011<br>012 - 015<br>016 - 019<br>020 - 023<br>024 - 027<br>028 - 031<br>032 - 035<br>036 - 039<br>040 - 043<br>044 - 047<br>048 - 051<br>052 - 055<br>056 - 059<br>060 - 063<br>064 - 095<br>096 - 127<br>128 - 255 |
| 9                 | 9                 | <b>COLOR WHEEL 2</b><br><b>Indexed</b><br>Open<br>Open+CTO<br>CTO   | 000 - 003<br>004 - 007<br>008 - 011   |

| STANDARD<br>17 ch | EXTENDED<br>19 ch | FUNCTION  | DMX<br>Value   |
|-------------------|-------------------|---|--|
| 9                 | 9                 | CTO + JADE<br>JADE<br>JADE + CTB<br>CTB<br>CTB + PINK<br>PINK<br>PINK + LIGHT GREEN<br>LIGHT GREEN<br>LIGHT GREEN + DARK ORANGE<br>DARK ORANGE<br>DARK ORANGE + CYAN<br>CYAN<br>CYAN+Open<br><b>Forward Spin</b><br>Stop to fast<br><b>Reverse Spin</b><br>Fast to Stop<br><b>Continuous</b><br>Positioning from OPEN to CYAN | 012 - 015<br>016 - 019<br>020 - 023<br>024 - 027<br>028 - 031<br>032 - 035<br>036 - 039<br>040 - 043<br>044 - 047<br>048 - 051<br>052 - 055<br>056 - 059<br>060 - 063<br><br>064 - 095<br><br>096 - 127<br><br>128 - 255 |
|                   | 10                | <b>ROTATING GOBO MODE</b><br><b>Indexed</b><br><b>Forward Spin</b><br><b>Reverse Spin</b><br><b>Continuous</b><br><b>Shake (speed on each gobo)</b><br><b>TBD</b>   | 000 - 015<br>032 - 047<br>048 - 063<br>064 - 079<br>080 - 095<br>096 - 255   |
|                   | 11                | <b>ROTATING GOBO SELECTION</b><br><b>Index &amp; Shake (shake from slow to fast)</b><br>Open<br>Gobo 1<br>Gobo 2<br>Gobo 3<br>Gobo 4<br>Gobo 5<br>Gobo 6<br>Gobo 7<br><b>Forward Spin</b><br>Stop to fast<br><b>Reverse Spin</b><br>Fast to stop<br><b>Continuous</b><br>Positioning from OPEN to CYAN                        | 000 - 031<br>032 - 063<br>064 - 095<br>096 - 127<br>128 - 159<br>160 - 191<br>192 - 223<br>224 - 255<br><br>000 - 255<br><br>000 - 255<br><br>000 - 255  |
| 10                |                   | <b>ROTATING GOBO WHEEL</b><br><b>Indexed</b><br>Open<br>Gobo 1<br>Gobo 2<br>Gobo 3<br>Gobo 4  | 000 - 005<br>006 - 010<br>011 - 015<br>016 - 020<br>021 - 025  |

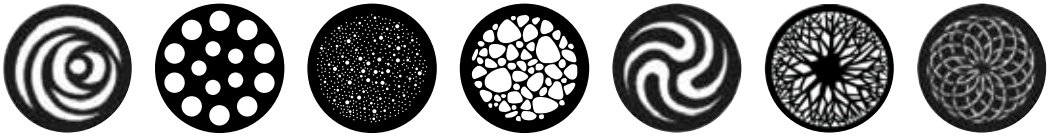
| STANDARD<br>17 ch | EXTENDED<br>19 ch | FUNCTION   | DMX<br>Value  |
|-------------------|-------------------|--|---|
| 10                |                   | Gobo 5<br>Gobo 6<br>Gobo 7<br><b>Shake</b><br>Gobo 1 (shake from slow to fast)<br>Gobo 2 (shake from slow to fast)<br>Gobo 3 (shake from slow to fast)<br>Gobo 4 (shake from slow to fast)<br>Gobo 5 (shake from slow to fast)<br>Gobo 6 (shake from slow to fast)<br>Gobo 7 (shake from slow to fast)<br><b>Forward Spin</b><br>Stop to fast<br><b>Reverse Spin</b><br>Stop to fast   | 026 - 030<br>031 - 035<br>036 - 040<br><br>041 - 055<br>056 - 070<br>071 - 085<br>086 - 100<br>101 - 115<br>116 - 130<br>131 - 145<br><br>146 - 200<br><br>201 - 255  |
| 11                | 12                | <b>GOBO ROTATION</b><br><b>Indexing</b><br>Gobo 7 (shake from slow to fast)<br><b>Forward Spin</b><br>Stop to fast<br><b>Stop</b><br><b>Reverse Spin</b><br>Stop to fast   | 000 - 191<br><br>192 - 221<br>222 - 225<br><br>226 - 255  |
| 12                | 13                | <b>FIXED GOBOS</b><br><b>Indexed</b><br>Open<br>Gobo 1<br>Gobo 2<br>Gobo 3<br>Gobo 4<br>Gobo 5<br>Gobo 6<br>Gobo 7<br>Gobo 8<br><b>Shake</b><br>Gobo 1 (shake from slow to fast)<br>Gobo 2 (shake from slow to fast)<br>Gobo 3 (shake from slow to fast)<br>Gobo 4 (shake from slow to fast)<br>Gobo 5 (shake from slow to fast)<br>Gobo 6 (shake from slow to fast)<br>Gobo 7 (shake from slow to fast)<br>Gobo 8 (shake from slow to fast)<br><b>Forward Spin</b><br>Stop to fast<br><b>Reverse Spin</b><br>Fast to stop | 000 - 005<br>006 - 009<br>010 - 013<br>014 - 017<br>018 - 021<br>022 - 025<br>026 - 029<br>030 - 033<br>034 - 037<br><br>038 - 051<br>052 - 065<br>066 - 079<br>080 - 093<br>094 - 107<br>108 - 121<br>122 - 135<br>136 - 149<br><br>150 - 202<br><br>203 - 255 |

| STANDARD<br>17 ch         | EXTENDED<br>19 ch | FUNCTION   | DMX<br>Value |
|---------------------------|-------------------|--|--------------|
| 13                        | 14                | <b>PRISM</b><br>Open   | 000 - 005    |
|                           |                   | <b>Indexing</b><br>Positioning from 0° to 360°                       | 006 - 191    |
|                           |                   | <b>Forward Spin</b><br>Stop to fast                                  | 192 - 223    |
|                           |                   | <b>Reverse Spin</b><br>Fast to Stop                                  | 224 - 255    |
| 14                        | 15                | <b>FROST</b><br>0% to 100%   | 000 - 255    |
| 15                        | 16                | <b>FOCUS 8 bit</b>   | 000 - 255    |
|                           | 17                | <b>FOCUS 16 bit</b>  | 000 - 255    |
| 16                        | 18                | <b>IRIS</b><br><b>Indexed</b><br>From large to small                 | 000 - 063    |
|                           |                   | <b>Effects (with speed)</b><br>Open and close by arrive slow to fast | 064 - 127    |
|                           |                   | Open from slow to fast   | 128 - 191    |
|                           |                   | Close from slow to fast  | 192 - 255    |
| 17                        | 19                | <b>CONTROL</b><br>No function  | 000 - 039    |
|                           |                   | Enable blackout while Pan/Tilt move (Hold 3 Second)                  | 040 - 049    |
|                           |                   | Disable blackout while Pan/Tilt move (Hold 3 Second)                 | 050 - 059    |
|                           |                   | Enable blackout while color change (Hold 3 Second)                   | 060 - 069    |
|                           |                   | Disable blackout while color change (Hold 3 Second)                  | 070 - 079    |
|                           |                   | Enable blackout while gobo change (Hold 3 Second)                    | 080 - 089    |
|                           |                   | Disable blackout while gobo change (Hold 3 Second)                   | 090 - 099    |
|                           |                   | Pan Reset (Hold 3 Second)  | 100 - 109    |
|                           |                   | Tilt Reset (Hold 3 Second)   | 110 - 119    |
|                           |                   | Color1 Reset (Hold 3 Second)   | 120 - 129    |
|                           |                   | Color2 Reset (Hold 3 Second)   | 130 - 139    |
|                           |                   | Gobo1 Reset (Hold 3 Second)  | 140 - 149    |
|                           |                   | Gobo2 Reset (Hold 3 Second)  | 150 - 159    |
|                           |                   | Prism Reset (Hold 3 Second)  | 160 - 169    |
|                           |                   | Focus Reset(Hold 3 Second)   | 170 - 179    |
|                           |                   | Frost Reset(Hold 3 Second)   | 180 - 189    |
|                           |                   | Iris Reset(Hold 3 Second)  | 190 - 199    |
| No function               | 200 - 209         |  |              |
| Reset all (Hold 3 Second) | 210 - 219         |  |              |
| No function               | 220 - 255         |  |              |

3.17 COLOR AND GOBO WHEELS



**ROTATING GOBO**



**FIXED GOBO**



## - 4 - MAINTENANCE

### 4.1 MAINTENANCE AND CLEANING THE UNIT

- Make sure the area below the installation place is free from unwanted persons during setup.
- Switch off the unit, unplug the main cable and wait until the unit has cooled down.
- All screws used for installing the device and any of its parts should be tightly fastened and should not be corroded.
- Housings, fixations and installation spots (ceiling, trusses, suspensions) should be totally free from any deformation.
- When the lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The main cables must be in impeccable condition and should be replaced immediately even when a small problem is detected.
- In order to protect the device from overheating the cooling fans (if any), and ventilation openings should be cleaned monthly.

To ensure optimal operation and performance for a long time it is essential to periodically clean the parts subject to dust and grease deposits. The frequency with which the following operations are to be carried out depends on various factors, such as the amount of the effects and the quality of the working environment (air humidity, presence of dust, salinity, etc.). Use a soft cloth dampened with any detergent liquid for cleaning glass to remove the dirt from the reflectors, from the lenses and filters.

It is recommended that the projector undergoes an annual service by a qualified technician for special maintenance involving at least the following operations:

- General cleaning of internal parts..
- Restoring lubrication of all parts subject to friction, using lubricants specifically.
- General visual check of the internal components, cabling, mechanical parts, etc.
- Electrical, photometric and functional checks; eventual repairs.

Warning: we strongly recommend internal cleaning to be carried out by qualified personnel!

### 4.2 FUSE REPLACEMENT

1. Disconnect this product from the power outlet.
2. Using a screwdriver, unscrew the fuse holder cap from the housing.
3. Remove the blown fuse and replace with a good fuse of the same type and rating.
4. Screw the fuse holder cap back in place and reconnect power.

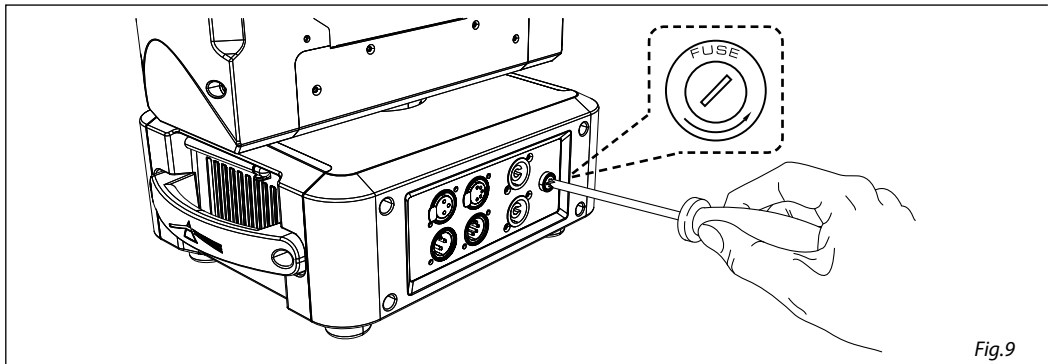


Fig.9

### 4.3 TROUBLESHOOTING

| Problems                        | Possible causes   | Checks and remedies   |
|---------------------------------|---|---|
| Fixture does not light up       | <ul style="list-style-type: none"> <li>• No mains supply</li> <li>• Dimmer fader set to 0</li> <li>• All color faders set to 0</li> <li>• Faulty LED</li> <li>• Faulty LED board</li> </ul> | <ul style="list-style-type: none"> <li>• Check the power supply voltage</li> <li>• Increase the value of the dimmer channels</li> <li>• Increase the value of the color channels</li> <li>• Replace the LED board</li> <li>• Replace the LED board</li> </ul> |
| General low light intensity     | <ul style="list-style-type: none"> <li>• Dirty lens assembly</li> <li>• Misaligned lens assembly</li> </ul>   | <ul style="list-style-type: none"> <li>• Clean the fixture regularly</li> <li>• Install lens assembly properly</li> </ul>   |
| Fixture does not power up       | <ul style="list-style-type: none"> <li>• No power</li> <li>• Loose or damaged power cord</li> <li>• Faulty internal power supply</li> </ul>   | <ul style="list-style-type: none"> <li>• Check for power on power outlet</li> <li>• Check power cord</li> <li>• Replace internal power supply</li> </ul>  |
| Fixture does not respond to DMX | <ul style="list-style-type: none"> <li>• Wrong DMX addressing</li> <li>• Damaged DMX cables</li> <li>• Bouncing signals</li> </ul>  | <ul style="list-style-type: none"> <li>• Check control panel and unit addressing</li> <li>• Check DMX cables</li> <li>• Install terminator as suggested</li> </ul>  |

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.









