

User Manual

CONTENTS

| 01/ | / Safety Instructions | 2 |
|-----|---------------------------------------|----|
| 02/ | / Technical Specifications | 4 |
| 03/ | / Control Panel | 6 |
| 04/ | / Fixture Installation | 7 |
| 05/ | / Effect Wheels & Lamp | 9 |
| | 5.1 Effect Wheels | 9 |
| | 5.2 Light Source | 9 |
| | 5.3 Lamp Replacement | 10 |
| | 5.4 Lamp Replacement Warning | 12 |
| 06/ | / How To Set The Unit | 12 |
| | 6.1 Main Functions | 12 |
| | 6.2 Home Position Adjustment | 24 |
| 07/ | / Control By Universal DMX Controller | 27 |
| | 7.1 DMX512 Connection | 27 |
| | 7.2 Address Setting | 28 |
| | 7.3 DMX512 Configuration | 28 |
| 08/ | / Error Information | 35 |
| 09/ | / Troubleshooting | 42 |
| 10/ | / Fixture Cleaning | 43 |

01/ Safety Instructions



Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

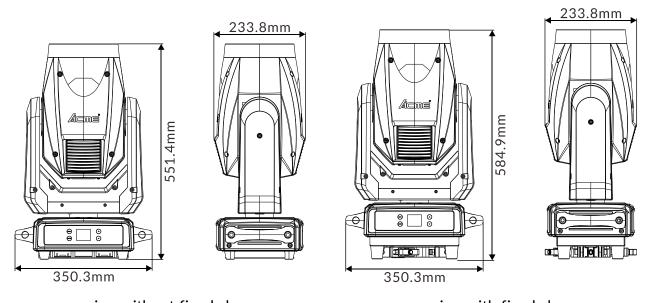
- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- During initial start-up some smoke or smell may arise. This is a normal process and does
 not necessarily mean that the device is defective, and it will decrease gradually within 15
 minutes.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.

- Unit's surface temperature may reach up to 70 °C. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut
 off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 12 meters.
- Disconnect mains power before fuse/lamp replacement or servicing.
- Replace fuse/lamp only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any
 repairs yourself. Repairs carried out by unskilled people can lead to damage or
 malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Hot lamp explosion hazard. DO NOT open the unit within 15 minutes after switching off.
- DO replace the bulb once it is damaged, deformed or life-expired.
- Avoid direct eye exposure to the light source while the product is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

02/ Technical Specifications

| Power Voltage | 100-240V~ 50/60Hz | | |
|-------------------|---|--|--|
| Power Consumption | 490W | | |
| Light Source | PHILIPS MSD Platinum 18 R LL | | |
| Color Temperature | 6800K | | |
| Beam Angle | 2° | | |
| Dimmer/Strobe | 0-100% smooth dimm speed | ing; outstanding strobe effect with variable | |
| Color Wheel | 14 colors plus open wit | th rainbow effect | |
| Gobo Wheel | Static Gobo Wheel | 13 gobos plus open | |
| | Pan | 540° | |
| Movement | Tilt | 260° | |
| Movement | Pan/Tilt Resolution | 16 bit | |
| | Automatic pan/tilt posi | tion correction | |
| | DMX Channel | 19/17 Channels | |
| Cantral | Control Mode | DMX512 | |
| Control | | RDM | |
| | Firmware Upgrade | via DMX link or USB disk | |
| | Display | LCD display | |
| | Battery backup for user setup without mains connection | | |
| Construction | Data In/Out | 3-pin/5-pin XLR | |
| | Power In/Out | Power Connector in/out | |
| | Protection Rating | IP20 | |
| | Motorized focus | | |
| | Independent frost effect | | |
| Features | 2 x prisms: 8-facet prism+24-facet prism, capable of bidirectional rotation and superposition | | |
| | 2 x soft filters provide soft and even light beam | | |
| | 2 x fixed clamps for 50 | mm truss (version with fixed clamps) | |
| | | | |
| | | | |

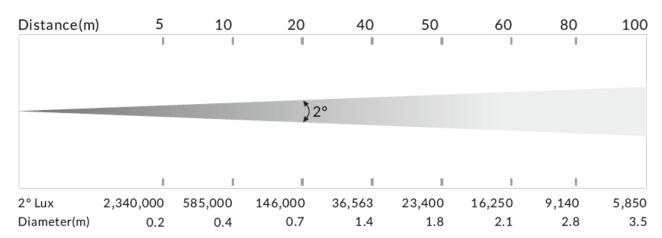
| Dimensions (version without fixed clamps) | 350.3x233.8x551.4mm | 13.8"x9.2"x21.7"in |
|--|---------------------|--------------------|
| Dimensions (version with fixed clamps) | 350.3x233.8x584.9mm | 13.8"x9.2"x23"in |
| Weight (version without fixed clamps) | 21kgs | 46.3lbs |
| Weight (version with fixed clamps) | 21.5kgs | 47.4lbs |



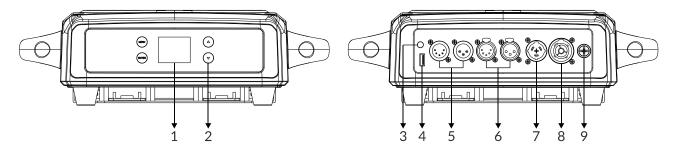
version without fixed clamps

version with fixed clamps

Photometric Diagram:



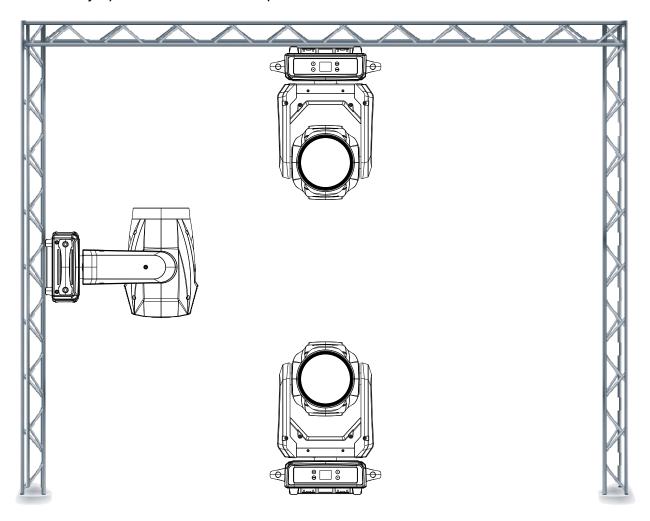
03/ Control Panel



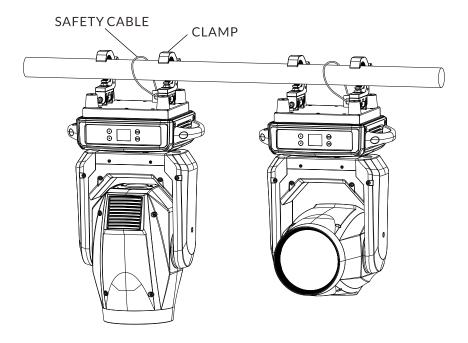
| 1. Display | To show the various menus and the selected function | | | |
|---------------------|--|---|--|--|
| | MENU | To enter into move backward or leave the menu | | |
| 2. Buttons | ▲ UP | To go backward to move up in the menu | | |
| Z. Buttons | → DOWN | To go forward to move down in the menu | | |
| | ENTER | To perform the desired functions | | |
| 3. BATTERY DISPLAY | | | | |
| 4. FIRMWARE UPGRADE | Used to upgrade the fixture's firmware | | | |
| 5. DMX IN | For DMX512 link, use 3/5-pin XLR cable to link the unit and DMX controller to input DMX signal | | | |
| 6. DMX OUT | For DMX512 link, use 3/5-pin XLR cable to link the next units to output DMX signal | | | |
| 7. POWER IN | To connect to supply power | | | |
| 8. POWER OUT | To connect to the next fixture | | | |
| 9. FUSE(T 10A) | Protects the unit from damage of over-voltage or short circuit | | | |

04/ Fixture Installation

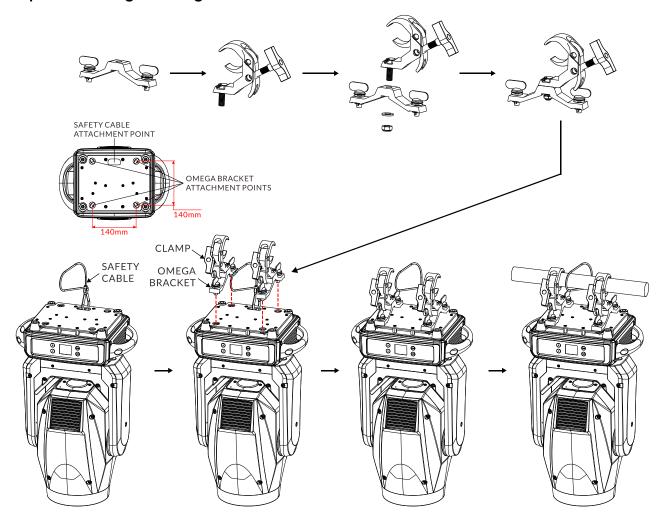
- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in three different mounting positions: hanging upside-down, mounted sideways on trussing, or set on a flat level surface. Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



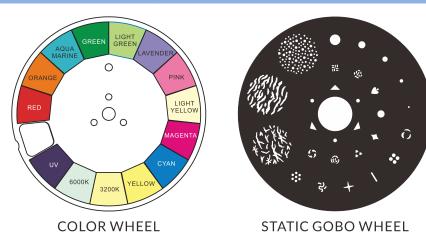
Hanging the fixture:



Steps for installing the omega brackets to the fixture:



5.1 Effect Wheels



DANGER!

Install the color wheel / gobo wheel with the device switched off only.

Unplug from mains before changing the color wheel / gobo wheel!

5.2 Light Source

PHILIPS MSD Platinum 18 R LL

Because of its high internal pressure, there might be a risk that the discharge lamp would explode during operation. The lamp emits intense UV radiation which is harmful to the eyes and skin. The high luminance of the arc can cause severe damage to the retina if you take a close look at the lamp.

- ▶ To protect the lamp, always turn off the lamp first (via control panel or DMX controller) and let the unit run at least five minutes to cool down before switching off the mains supply. Never handle the lamp or luminary when it is hot.
- ▶ Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation.
- ▶ The lamp generates UV radiation. Never operate the lamp without appropriate shielding.
- When lighting up, the lamp operates at high pressure and there is a slight risk of arc tube rupture. The risk increases with age, temperature and improper handling of the lamp. Do not use the lamp longer than its lifespan.
- Make sure the lamp is located in the center of the reflector for the best projection.

5.3 Lamp Replacement

ATTENTION

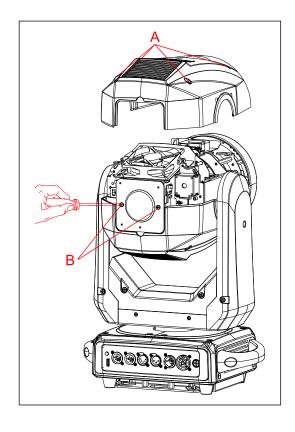
The entire light path and lens of the luminaire must be thoroughly cleaned before replacing the lamp.

In the Work Mode, the lamp life is 1500 hours; when the Work Mode and the Sleep Mode are used alternately, the lamp life is between 1500 and 6000 hours according to the ratio of lamp use time; in the Sleep Mode, the lamp life is 6000 hours. Do not use the lamp beyond its lifetime, using the lamp any longer than its set life could seriously damage the fixture. Periodically checking the lamp running time, when the lamp replacement warning appears, we strongly suggest you switch the lamp out. Reset the lamp time after you have replaced the lamp.

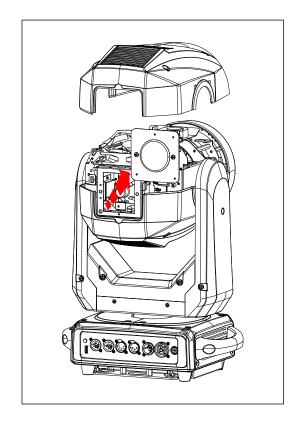
To replace the lamp:

Ensure that the fixture is detached from power and has cooled down completely. It is a good idea to allow the fixture to run for 15 minutes after the lamp has been turned off, so that the cooling fans have time to works.

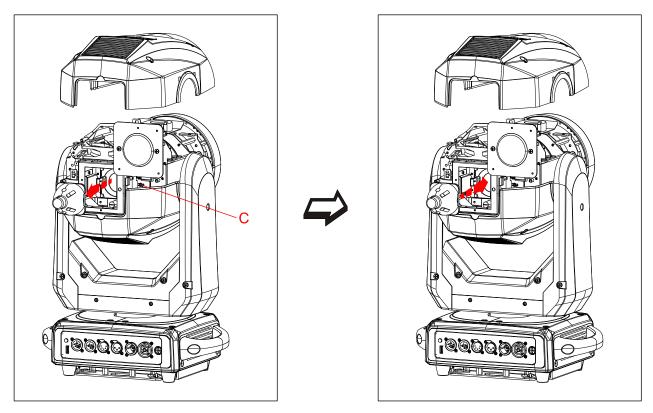
Loosen the screws on the head of the fixture and open the fixture head covers.



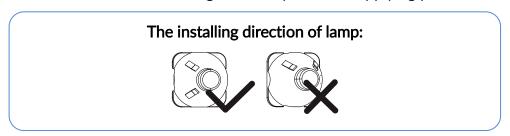




Loosen the screw that holds the lamp in place. Unplug the leads of the lamp and lift the lamp out of its recess, disconnect the lamp and connect a new lamp that must be the same type with the old one. And then place the new lamp into the lamp recess.



Finally reinstall the head cover, fastening it securely before reapplying power.



5.4 Lamp Replacement Warning

- When the lamp reaches 300 hours before its service time, the display will flash the message "Replace Lamp Soon" for up to 5 minutes. During this period, the fixture will still work normally.
- ▶ When the lamp reaches its service time, the display will flash the message "Replace Lamp Now" for up to 10 minutes. After 10 minutes, the fixture will return to normal operation.
- ▶ When the lamp is continuously used overtime, the display will flash the message "Lamp Timeout Use, Replace Lamp Now" for up to 10 minutes. After 10 minutes, the fixture will return to normal operation.

ATTENTION

Damages caused by the failure to replace the bulb in time are not subject to warranty.

06/ How To Set The Unit

6.1 Main Functions

- ▶ To access the control menus, press the [MENU] button.
- Navigate the menu structure, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- ▶ To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

The main functions are shown below:

| MENU | SUBMENU | | OPTIONS | |
|------------------|---------------------|---------------|--------------|--|
| | DMX Address | 1-494 (19 CH) | (Default=1) | |
| | | 1-496 (17 CH) | (Derault-1) | |
| | DMX Channel Mode | Mode 1 (19) | | |
| DMX Settings | DIVIX Charmer Mode | Mode 2 (17) | | |
| DIVIX Settings | | Blackout | | |
| | No DMX Status | Hold | | |
| | | Manual | | |
| | View DMX Value | _ | | |
| | Pan Invert | No | | |
| | | Yes | | |
| | Tilt Invert | No | | |
| | | Yes | | |
| Fixture Settings | P/T Feedback | No | | |
| | | Yes | | |
| | Gobo Short Cut | Enable | | |
| | | Disable | | |
| | Color Short Cut | Enable | | |
| | Lamp On/Off | Disable | | |
| | | Off On | | |
| | | Off | | |
| | Lamp ON with Power | On | | |
| Lamp Settings | | Off | | |
| | Lamp ON via DMX | On | | |
| | Lamp OFF via DMX | Off | | |
| | | On | | |
| | | No | | |
| | Display Invert | Yes | | |
| | Backlight Intensity | 1-10 | (Default=10) | |
| Display Settings | | °C | | |
| | Temperature Unit | °F | | |
| | Language | English | | |
| | Language | Chinese | | |
| | Auto Test | | | |
| Fixture Test | | Clear | No/Yes | |
| I IALUIC ICSL | Manual Test | Pan | 0-255 | |
| | | Tilt | 0-255 | |

| MENU | SUBMENU | | OPTIONS | |
|---------------------|------------------|------------------|------------------|--|
| | | Color | 0-255 | |
| | | Gobo | 0-255 | |
| | | Soften | 0-255 | |
| | | 8 Prism | 0-255 | |
| | | 8 R-Prism | 0-255 | |
| | | 24 Prism | 0-255 | |
| | | 24 R-Prism | 0-255 | |
| | | Frost | 0-255 | |
| | | Focus | 0-255 | |
| | | Strobe | 0-255 | |
| | | Dimmer | 0-255 | |
| | Fixture Use Hour | | | |
| | | | Work Mode | |
| | Lamp Use Time | Password=050 | Sleep Mode | |
| | | | Sleep Ratio | |
| | Lamp Time Reset | Password=050 | | |
| | | Driver State | | |
| | Lamp State | Lamp Voltage | | |
| | | Fault Mode | | |
| Fixture Information | Tomporaturo | | Current Max temp | |
| Fixture information | Temperature | Head | | |
| | Fan State | Head Fan 1-5 | | |
| | Fan State | Base Fan 1-2 | | |
| | Upgrade File | | | |
| | Firmware Version | | | |
| | RDM UID | | | |
| | | Fixture Errors | | |
| | Error Logs | Reset Error Logs | No | |
| | | | Yes Password=050 | |
| | Pan/Tilt Reset | No | | |
| | Tan/ The Neset | Yes | | |
| Reset Function | Effect Reset | No | | |
| Reset Fulletion | | Yes | | |
| | All Reset | No | | |
| | / III NOSCE | Yes | | |
| Special Function | Factory Settings | No | | |
| Special Fullction | Factory Settings | Yes | | |

DMX Settings

Enter the control menu and select **DMX Settings**, press ENTER. Use the UP/DOWN button to select **DMX Address**, **DMX Channel Mode**, **No DMX Status** or **View DMX Value**.

DMX Address

Select **DMX Address**, press ENTER.

Use UP/DOWN button to select an address, confirm your selection with ENTER.

| CHANNEL MODE | DMX ADDRESS |
|--------------|-------------|
| Mode 1 (19) | 1-494 |
| Mode 2 (17) | 1-496 |

To exit the menu, press MENU, or wait 30 seconds.

DMX Channel Mode

Select **DMX Channel Mode**, press ENTER.

Use UP/DOWN button to select between **Mode 1 (19)** and **Mode 2 (17)**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

No DMX Status

Select **No DMX Status**, press ENTER.

Use UP/DOWN button to select one of the following status:

Blackout (Fixture blacks out if DMX signal stops)

Hold (The device continues to operate in the current mode with the last active DMX values until the signal returns)

Manual (The device accepts the DMX value stored in the 'Manual Test' menu)

Confirm your selection with ENTER.

View DMX Value

Select View DMX Value, press ENTER.

Use UP/DOWN button to select the desired DMX channel, for which the value is to be displayed.

To exit the menu, press MENU, or wait 30 seconds.

Fixture Settings

Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Pan Invert, Tilt Invert, P/T Feedback, Gobo Short Cut** or **Color Short Cut**.

Pan Invert

Select **Pan Invert**, press ENTER.

Use UP/DOWN button to select **No** (pan invert deactivated) or **Yes** (pan invert activated), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Tilt Invert

Select **Tilt Invert**, press ENTER.

Use UP/DOWN button to select **No** (tilt invert deactivated) or **Yes** (tilt invert activated), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

P/T Feedback

Select **P/T Feedback**, press ENTER.

Use UP/DOWN button to select **No** (pan/tilt feedback deactivated) or **Yes** (pan/tilt feedback activated), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Gobo Short Cut

Select Gobo Short Cut, press ENTER.

Use UP/DOWN button to select **Enable** or **Disable**, confirm your selection with ENTER.

Color Short Cut

Select Color Short Cut, press ENTER.

Use UP/DOWN button to select **Enable** or **Disable**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Lamp Settings

Enter the control menu and select **Lamp Settings**, press ENTER. Use the UP/DOWN button to select **Lamp On/Off, Lamp ON with Power, Lamp ON via DMX** or **Lamp OFF via DMX**.

Lamp On/Off

Select Lamp On/Off, press ENTER.

Use UP/DOWN button to select **Off** (lamp off) or **On** (lamp on), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Lamp ON with Power

Select Lamp ON with Power, press ENTER.

Use UP/DOWN button to select **Off** (lamp off while power on) or **On** (lamp on while power on), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Lamp ON via DMX

Select Lamp ON via DMX, press ENTER.

Use UP/DOWN button to select **Off** or **On**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Lamp OFF via DMX

Select Lamp OFF via DMX, press ENTER.

Use UP/DOWN button to select **Off** or **On**, confirm your selection with ENTER.

Display Settings

Enter the control menu and select **Display Settings**, press ENTER. Use the UP/DOWN button to select **Display Invert**, **Backlight Intensity**, **Temperature Unit** or **Language**.

Display Invert

Select **Display Invert**, press ENTER.

Use UP/DOWN button to select **No** (display normal) or **Yes** (display inverted), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Backlight Intensity

Select Backlight Intensity, press ENTER.

Use UP/DOWN button to select a value between **1** (dark) and **10** (bright), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Temperature Unit

Select **Temperature Unit**, press ENTER.

Use UP/DOWN button to select **°C** or **°F**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Language

Select Language, press ENTER.

Use UP/DOWN button to select **English** or **Chinese**, confirm your selection with ENTER.

Fixture Test

Enter the control menu and select **Fixture Test**, press ENTER. Use the UP/DOWN button to select **Auto Test** or **Manual Test**.

Auto Test

Select Auto Test, press ENTER.

The device immediately performs an automatic self-test.

To end the automatic self-test and exit the menu, press MENU, or wait 30 seconds.

Manual Test

Select Manual Test, press ENTER.

Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.

Use UP/DOWN button to select a value, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

(The device returns to its original DMX state after the manual test. The test values are saved automatically when the device is switched off.)

Fixture Information

Enter the control menu and select **Fixture Information**, press ENTER. Use the UP/DOWN button to select **Fixture Use Hour**, **Lamp Use Time**, **Lamp Time Reset**, **Lamp State**, **Temperature**, **Fan State**, **Upgrade File**, **Firmware Version**, **RDM UID** or **Error Logs**.

Fixture Use Hour

Select Fixture Use Hour, press ENTER.

The operating hours is displayed.

Lamp Use Time

Select Lamp Use Time, press ENTER.

The lamp operating hours is displayed.

Long press ENTER, use UP/DOWN button to set the password 050, press ENTER. The lamp operating hours of work mode, sleep mode and sleep ratio is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Lamp Time Reset

Select Lamp Time Reset, press ENTER.

Use UP/DOWN button to set the password 050, confirm your selection with ENTER. The lamp operating hours is reset.

To exit the menu, press MENU, or wait 30 seconds.

Lamp State

Select Lamp State, press ENTER.

The lamp status is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Temperature

Select **Temperature**, press ENTER.

The device temperature is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Fan State

Select **Fan State**, press ENTER.

The fan status is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Upgrade File

Select **Upgrade File**, press ENTER.

The device upgrade file is displayed.

Firmware Version

Select Firmware Version, press ENTER.

The firmware version is displayed.

To exit the menu, press MENU, or wait 30 seconds.

RDM UID

Select RDM UID, press ENTER.

The RDM UID is displayed.

To exit the menu, press MENU, or wait 30 seconds.

Error Logs

Select **Error Logs**, press ENTER.

Use UP/DOWN button to select **Fixture Errors**, confirm your selection with ENTER.

The error list is displayed.

Use UP/DOWN button to select **Reset Error Logs**, confirm your selection with ENTER.

If you wish to reset the relevant error logs, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The relevant error logs are reset.

To exit the menu, press MENU, or wait 30 seconds.

Reset Function

Enter the control menu and select **Reset Function**, press ENTER. Use the UP/DOWN button to select **Pan/Tilt Reset**, **Effect Reset** or **All Reset**.

Pan/Tilt Reset

Select Pan/Tilt Reset, press ENTER.

Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset pan/tilt to their home positions), confirm your selection with ENTER.

Effect Reset

Select **Effect Reset**, press ENTER.

Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset effect to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

All Reset

Select All Reset, press ENTER.

Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset all to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Special Function

Enter the control menu and select **Special Function**, press ENTER. Use the UP/DOWN button to select **Factory Settings**.

Factory Settings

Select Factory Settings, press ENTER.

If you wish to reset the device to the factory settings, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

| Parameter ID | Command 'Discovery' | Command 'Set' | Command 'Get' |
|-----------------------------|---------------------|------------------|------------------|
| DISC_UNIQUE_BRANCH | √ | | |
| DISC_MUTE | √ | | |
| DISC_UN_MUTE | √ | | |
| DEVICE_INFO | | | √ |
| SUPPORTED_PARAMETERS | | | √ |
| SOFTWARE_VERSION_LABEL | | | ✓ |
| DMX_START_ADDRESS | | √ | ✓ |
| IDENTIFY_DEVICE | | √ | ✓ |
| DEVICE_MODEL_DESCRIPTION | | | √ |
| PARAMETER_DESCRIPTION | | | ✓ |
| MANUFACTURER_LABEL | | | √ |
| DEVICE_LABEL | | √ | ✓ |
| FACTORY_DEFAULTS | | √ | √ |
| BOOT_SOFTWARE_VERSION_ID | | | ✓ |
| BOOT_SOFTWARE_VERSION_LABEL | | | √ |
| DMX_PERSONALITY | | √ | √ |
| DMX_PERSONALITY_DESCRIPTION | | | √ |
| SLOT_INFO | | | √ |
| SLOT_DESCRIPTION | | | √ |
| SENSOR_DEFINITION | | | √ |
| SENSOR_VALUE | | | √ |
| DEVICE_HOURS | | | √ |
| LAMP_HOURS | | | √ |
| LAMP_STATE | | √ | √ |
| PAN_INVERT | | √ | √ |
| TILT_INVERT | | √ | √ |
| RESET_DEVICE | | √ | |

 \checkmark -Command implemented for the respective parameter ID

6.2 Home Position Adjustment

- ▶ To access the control menus, press the [MENU] button.
- ▶ To access the offset menus, long-press the [ENTER] button.
- Navigate the offset menus, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- ▶ To select a menu option or to confirm a selection, press the [ENTER] button.
- ► To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

| OFFSET MENU | VALUES |
|-------------|----------|
| Pan | -128~127 |
| Tilt | -128~127 |
| Strobe | -128~127 |
| Color | -128~127 |
| Gobo | -128~127 |
| 8 Prism | -128~127 |
| 8 R-Prism | -128~127 |
| 24 Prism | -128~127 |
| 24 R-Prism | -128~127 |
| Frost | -128~127 |
| Focus | -128~127 |
| Soften | -128~127 |

Pan

Select Pan, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Tilt

Select **Tilt**, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

Strobe

Select Strobe, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Color

Select Color, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Gobo

Select Gobo, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

8 Prism

Select 8 Prism, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

8 R-Prism

Select 8 R-Prism, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

24 Prism

Select 24 Prism, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

24 R-Prism

Select 24 R-Prism, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Frost

Select Frost, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Focus

Select **Focus**, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

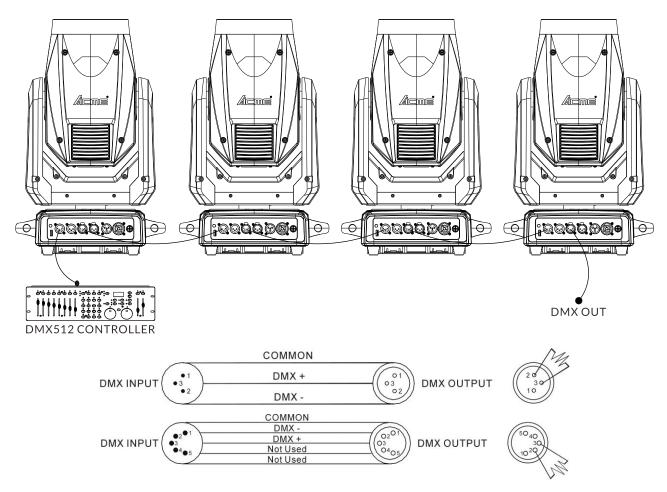
To exit the offset menu, press MENU, or wait 30 seconds.

Soften

Select **Soften**, press ENTER.

Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

7.1 DMX512 Connection



- 1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
- 2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable can only be used in series and cannot be connected in parallel. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
- 3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
- 4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

- 5. The end of the DMX 512 system should be terminated to reduce signal errors.
- 6. 3 pin XLR connectors are more popular than 5 pins XLR.
 - 3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
- 5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

7.2 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address between 1 and 512 so that the units can receive DMX signal.

Press the MENU button to access the control menus, select DMX Settings, press the ENTER button to confirm. Use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will show on the display. Use the UP/DOWN button to adjust the address between 001 and 512, press the ENTER button to store. To exit the menu, press MENU, or wait 30 seconds.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

| Channel Mode | Unit 1 Address | Unit 2 Address | Unit 3 Address | Unit 4 Address |
|--------------|-------------------|-------------------|-------------------|-------------------|
| 19 channels | 1 | 20 | 39 | 58 |
| 17 channels | 1 | 18 | 35 | 52 |

7.3 DMX512 Configuration

Please control the fixture by referring to the configurations below.

Attentions:

- ▶ The unit will maintain the last condition until reset if you cut-off the DMX signal.
- ▶ For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

19 Channels (Mode 1):

| CHANNEL | VALUE | FUNCTION |
|---------|---|---|
| 1 | | PAN |
| - | 000-255 | 0°→540° |
| 2 | 000-255 | PAN FINE |
| 3 | 000-255 | TILT 0°→260° |
| 4 | 000-255 | TILT FINE |
| 5 | 000-255 | PAN/TILT SPEED Fast to Slow |
| 6 | 000-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-063 064 065 066 067 068 069 070 071 072 073 074 075 076 077 078 079 080 081 | COLOR Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 White White+Color 1 Color 1 Color 1 Color 2 Color 2 Color 2 Color 2 Color 3 Color 3 Color 3 Color 3 Color 3 Color 4 Color 4 Color 4 Color 5 Color 5 Color 5 Color 6 Color 6 Color 7 Color 7 Color 7 Color 7 Color 8 Color 8 Color 9 Color 9 |

| | 083 | Color 9+Color 10 |
|---|---------|--|
| | 084 | Color 10 |
| | 085 | Color 10+Color 11 |
| | | |
| | 086 | Color 11 |
| | 087 | Color 11+Color 12 |
| | 088 | Color 12 |
| | 089 | Color 12+Color 13 |
| | 090 | Color 13 |
| | | |
| | 091 | Color 13+Color 14 |
| | 092 | Color 14 |
| | 093 | Color 14+White |
| | 094-127 | White |
| | 128-189 | Counter-Clockwise Rotation, Fast to Slow |
| | 190-193 | · |
| | | Stop |
| | 194-255 | Clockwise Rotation, Slow to Fast |
| | | GOBO |
| | 000-007 | Open |
| | 008-011 | Gobo1 |
| | 012-014 | Gobo2 |
| | | |
| | 015-018 | Gobo3 |
| | 019-021 | Gobo4 |
| | 022-025 | Gobo5 |
| | 026-028 | Gobo6 |
| | 029-032 | Gobo7 |
| | 033-035 | Gobo8 |
| | | |
| | 036-039 | Gobo9 |
| | 040-042 | Gobo10 |
| | 043-049 | Gobo11 |
| | 050-056 | Gobo12 |
| | 057-063 | Gobo13 |
| 7 | | |
| 7 | 064-067 | Gobo1 Shaking, Slow to Fast |
| | 068-071 | Gobo2 Shaking, Slow to Fast |
| | 072-075 | Gobo3 Shaking, Slow to Fast |
| | 076-079 | Gobo4 Shaking, Slow to Fast |
| | 080-083 | Gobo5 Shaking, Slow to Fast |
| | 084-087 | Gobo6 Shaking, Slow to Fast |
| | 088-091 | Gobo7 Shaking, Slow to Fast |
| | | —————————————————————————————————————— |
| | 092-095 | Gobo8 Shaking, Slow to Fast |
| | 096-099 | Gobo9 Shaking, Slow to Fast |
| | 100-103 | Gobo10 Shaking, Slow to Fast |
| | 104-111 | Gobo11 Shaking, Slow to Fast |
| | 112-119 | Gobo12 Shaking, Slow to Fast |
| | 120-127 | Gobo 12 Shaking, Slow to Fast |
| | | |
| | 128-189 | Clockwise Rotation, Fast to Slow |
| | 190-193 | Stop |
| | 194-255 | Counter-Clockwise Rotation, Slow to Fast |
| 8 | | SOFT FILTER |
| 9 | | JOH HILILIN |

| | 000-007 008-131 | Open Soft Filter 1 |
|----|--------------------|--|
| | 132-255 | Soft Filter 2 |
| | | 8-FACET PRISMS |
| 9 | 000-007 | Close |
| | 008-255 | Open |
| | 000 407 | 8-FACET PRISMS ROTATION |
| 40 | 000-127 | Prism Index |
| 10 | 128-189 190-193 | Clockwise Rotation, Fast to Slow Stop |
| | 194-255 | Counter-Clockwise Rotation, Slow to Fast |
| | 171233 | 24-FACET PRISMS |
| 11 | 000-007 | Close |
| | 008-255 | Open |
| | | 24-FACET PRISMS ROTATION |
| | 000-127 | Prism Index |
| 12 | 128-189 | Clockwise Rotation, Fast to Slow |
| | 190-193 | Stop |
| | 194-255 | Counter-Clockwise Rotation, Slow to Fast |
| | | FROST |
| 13 | 000-007 | Close |
| | 008-255 | Open |
| 14 | 000 055 | FOCUS |
| | 000-255 | 0%→100% |
| 15 | 000-255 | FOCUS FINE |
| | | STROBE |
| | 000-007 | Close |
| | 008-015 | Open |
| | 016-131 | Strobe from Slow to Fast |
| 16 | 132-139 140-181 | Open |
| 10 | 182-189 | Slow Open Fast Close from Slow to Fast Open |
| | 190-231 | Fast Open Slow Close from Slow to Fast |
| | 232-239 | Open |
| | 240-247 | Random Strobe from Slow to Fast |
| | 248-255 | Open |
| 17 | | DIMMER |
| 1/ | 000-255 | 0%→100% |
| 18 | 000-255 | DIMMER FINE |
| | | SPECIAL FUNCTION |
| | 000-129 | Null |
| 19 | 130-139 | Lamp On |
| 1/ | 140-149 | Pan/Tilt Reset |
| | 150-159 | Effect Reset |
| | 160-199 | Null |

| 200-209 | Reset All |
|---------|--------------------------|
| 210-211 | Gobo Short Cut: Enable |
| 212-213 | Gobo Short Cut: Disable |
| 214-215 | Color Short Cut: Enable |
| 216-217 | Color Short Cut: Disable |
| 218-229 | Null |
| 230-239 | Lamp Off |
| 240-255 | Null |

17 Channels (Mode 2):

| CHANNEL | VALUE | FUNCTION |
|---------|---|--|
| 1 | 000-255 | PAN 0°→540° |
| 2 | 000-255 | PAN FINE |
| 3 | 000-255 | TILT 0°→260° |
| 4 | 000-255 | TILT FINE |
| 5 | 000-255 | PAN/TILT SPEED Fast to Slow |
| 6 | 000-003 004-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-127 128-189 190-193 194-255 | COLOR Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Color 14 Color Wheel Indexing Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast |
| 7 | 000-007 008-010 011-013 014-016 | GOBO Open Gobo1 Gobo2 Gobo3 |

| | 017-019 | Gobo4 |
|-----|----------|--|
| | 020-022 | Gobo5 |
| | 023-025 | Gobo6 |
| | | |
| | 026-028 | Gobo7 |
| | 029-031 | Gobo8 |
| | 032-034 | Gobo9 |
| | 035-037 | Gobo10 |
| | 038-040 | Gobo11 |
| | 041-043 | Gobo12 |
| | | |
| | 044-046 | Gobo13 |
| | 047-049 | Gobo14 |
| | 050-052 | Gobo15 |
| | 053-055 | Gobo16 |
| | 056-059 | White Shaking, Slow to Fast |
| | 060-063 | Gobo1 Shaking, Slow to Fast |
| | 064-067 | S. |
| | | Gobo 2 Shaking, Slow to Fast |
| | 068-071 | Gobo3 Shaking, Slow to Fast |
| | 072-075 | Gobo4 Shaking, Slow to Fast |
| | 076-079 | Gobo5 Shaking, Slow to Fast |
| | 080-083 | Gobo6 Shaking, Slow to Fast |
| | 084-087 | Gobo7 Shaking, Slow to Fast |
| | 088-091 | Gobo8 Shaking, Slow to Fast |
| | 092-095 | |
| | | Gobo 9 Shaking, Slow to Fast |
| | 096-099 | Gobo 10 Shaking, Slow to Fast |
| | 100-103 | Gobo11 Shaking, Slow to Fast |
| | 104-107 | Gobo12 Shaking, Slow to Fast |
| | 108-111 | Gobo13 Shaking, Slow to Fast |
| | 112-115 | Gobo14 Shaking, Slow to Fast |
| | 116-119 | Gobo15 Shaking, Slow to Fast |
| | 120-127 | G. |
| | | Gobo16 Shaking, Slow to Fast |
| | 128-189 | Clockwise Rotation, Fast to Slow |
| | 190-193 | Stop |
| | 194-255 | Counter-Clockwise Rotation, Slow to Fast |
| | | 8-FACET PRISMS |
| 8 | 000-007 | Close |
| | 008-255 | Open |
| | 006-255 | |
| | | 8-FACET PRISMS ROTATION |
| | 000-127 | Prism Index |
| 9 | 128-189 | Clockwise Rotation, Fast to Slow |
| | 190-193 | Stop |
| | 194-255 | Counter-Clockwise Rotation, Slow to Fast |
| | 17 1 233 | · |
| 4.0 | 000 00= | 24-FACET PRISMS |
| 10 | 000-007 | Close |
| | 008-255 | Open |
| | | 24-FACET PRISMS ROTATION |
| 11 | 000-127 | Prism Index |
| | 128-189 | Clockwise Rotation, Fast to Slow |
| | 170-103 | CIOCKWISE ROLATION, FAST 10 SIOW |

| | 400 400 | 0.1 |
|----|---|--|
| | 190-193 194-255 | Stop Counter-Clockwise Rotation, Slow to Fast |
| | 174-233 | |
| 12 | 000-007 008-015 016-131 132-167 168-203 204-239 240-247 248-255 | Close Open Strobe from Slow to Fast Slow Open Fast Close from Slow to Fast Fast Open Slow Close from Slow to Fast Pulsation from Slow to Fast Random Strobe from Slow to Fast Open |
| 13 | 000-255 | DIMMER 0%→100% |
| 14 | 000-255 | FOCUS 0%→100% |
| 15 | 000-255 | FOCUS FINE |
| 16 | 000-007 008-255 | FROST Close Open |
| 17 | 000-129 130-139 140-149 150-159 160-169 170-179 180-199 200-209 210-211 212-213 214-215 216-217 218-229 230-239 240-255 | SPECIAL FUNCTION Null Lamp On Pan/Tilt Reset Effect Reset Soft Filter Out Soft Filter 1 Soft Filter 2 Reset All Gobo Short Cut: Enable Gobo Short Cut: Disable Color Short Cut: Disable Null Lamp Off Null |

Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

CPU- B/C/D Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

Pan Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.

Check whether the related circuit of the motor drive board on the pan is damage.

Pan Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode Not Find

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Pan Encode Disable

Check whether the encoder on the pan is damaged.

Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.

Check whether the related circuit of the motor drive board on the tilt is damage.

Tilt Encode Error

Check whether the encoder on the tilt is damaged.

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode Not Find

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Tilt Encode Disable

Check whether the encoder on the tilt is damaged.

Color Reset Fail

Check whether the position of the color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the color wheel operating range.

Check whether the Hall element on the color wheel is damaged.

Check whether the lead connecting the Hall element on the color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the color wheel is damaged.

Check whether the related circuit of the motor drive board on the color wheel is damage.

Gobo Reset Fail

Check whether the position of the gobo wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel operating range.

Check whether the Hall element on the gobo wheel is damaged.

Check whether the lead connecting the Hall element on the gobo wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel is damage.

Focus Reset Fail

Check whether the position of the focus where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the focus operating range.

Check whether the Hall element on the focus is damaged.

Check whether the lead connecting the Hall element on the focus and the PCB board is in poor contact or disconnected.

Check whether the motor on the focus is damaged.

Check whether the related circuit of the motor drive board on the focus is damage.

8/24 Prism Reset Fail

Check whether the position of the prism where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

Check whether the lead connecting the Hall element on the prism and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism is damaged.

Check whether the related circuit of the motor drive board on the prism is damage.

8/24 R-Prism Reset Fail

Check whether the position of the prism where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

Check whether the lead connecting the Hall element on the prism and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism is damaged.

Check whether the related circuit of the motor drive board on the prism is damage.

Frost Reset Fail

Check whether the position of the frost where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the frost operating range.

Check whether the Hall element on the frost is damaged.

Check whether the lead connecting the Hall element on the frost and the PCB board is in poor contact or disconnected.

Check whether the motor on the frost is damaged.

Check whether the related circuit of the motor drive board on the frost is damage.

Head Fan 1/2/3/4/5 Start Error

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

HeadFan1/2/3/4/5 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

HeadFan1/2/3/4/5 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

BaseFan1/2 Start Error

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

BaseFan1/2 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

BaseFan1/2 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

NTC-A Error

Check whether the lead connecting the temperature sensor is installed in place or disconnected.

G Sensor Error

Check whether the gravity sensor on board E is damaged.

Lamp. thermal switch Err

Check whether the temperature switch of the lamp is off.

Check whether the fans are still running properly.

Ballast Comm Err

Check whether the output voltage of the ballast reaches 380V.

Check whether the ballast is damaged.

Check whether the telecommunication lines are installed in place or disconnected.

Ballast Temp. high

Check whether the ambient temperature exceeds 45°C.

Check if the ballast fan speed is too slow.

Check if the ballast is damaged.

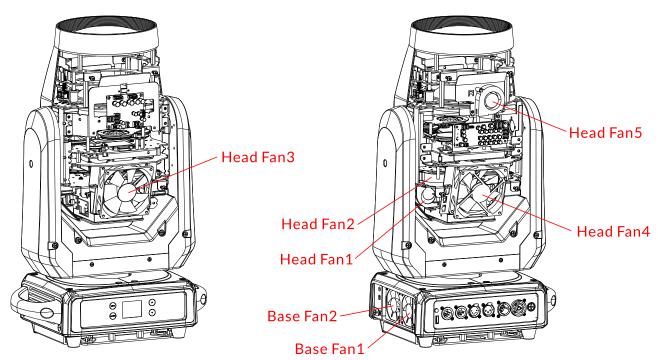
Lamp On Error

Check whether the bulb or ballast is faulty.

Lamp temp. sensor Err

Check whether the lead connecting the temperature sensor is installed in place or disconnected.

The position of each fan of the fixture:



09/ Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for troubleshooting:

A. The unit does not work, no light and the fan does not work

- ▶ Check the connected power and main fuse.
- Measure the voltage.
- Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

- ▶ Check whether the DMX connectors and the DMX cables are connected correctly.
- ▶ Check whether the DMX address is correctly set.
- ▶ If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- Try it with another DMX controller.
- Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

- ▶ The stepper motor might be damaged or the cable connected to the PCB might be broken.
- ▶ The motor's drive IC on the PCB might be out of condition.

D. The lamp is cutting out intermittently

- ▶ The lamp is not working well. Check whether the voltage is too high or too low.
- ▶ The internal temperature may be too high. Replace the cooling fan if necessary.

10/ Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- ► Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

