ACME®

LIBRA

User Manual

Please read the instruction carefully before use

CONTENTS

1. 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℃. Maximum ambient temperature TA: 40℃. 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 90℃. 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.

Installation:

The fixture should be fixed on the clamp. 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 install a safety cable that can hold at least 12 times the weight of the fixture when installing.

DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

555W

Light Source:

PHILIPS MSD Platinum 18 R LL

Color Temperature:

7800K

Zoom Range:

Beam Mode: 3°~7°

Spot Mode: 5°~32°

Wash Mode: 18°~23°

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16bit

Dimmer/Shutter:

Smooth dimming from 0-100%; outstanding strobe effect with variable speed

Color wheel:

1 x color wheel with 14 colors plus white, and rainbow effect

Gobo wheel:

1 x static gobo wheel with 17 gobos plus open

1 x rotating gobo wheel with 12 gobos plus open

Control:

DMX Channel: 19/21 Channels

Control Mode: DMX512, RDM

Firmware Upgrade via DMX link or USB disk

Construction:

Display: LCD display

Date In/Out: 3-pin and 5-pin XLR

Power In/Out: Power Cord; Power Connector in; Power Connector in/out

Protection Rating: IP20

Features:

Motorized Focus

2 x prisms: 8-facet prism+ 6-facet linear prism, rotatable in both directions and overlayable

Outstanding color macro effect

Independent frost effect

Integrated three features: beam, spot, and wash

2 x fixed clamps for 50mm truss, and 2 x screw holes for removable clamps for 70mm truss

Dimension/Weight:

435x344x607mm, 22.5kgs

17.1"x13.5"x23.9"in, 49.6lbs

Photometric Diagram:

Distance(m)	5	10	15	20
3° Lux	848,000	235,000	104,000	49,500
Diameter(m)	0.25	0.52	0.78	1
32° Lux	11,600	3,200	1,480	950
Diameter(m)	3.2	6.5	9.7	13
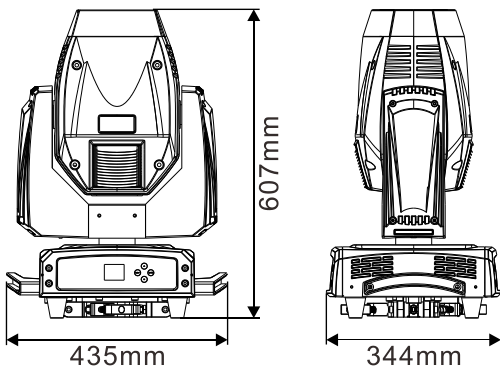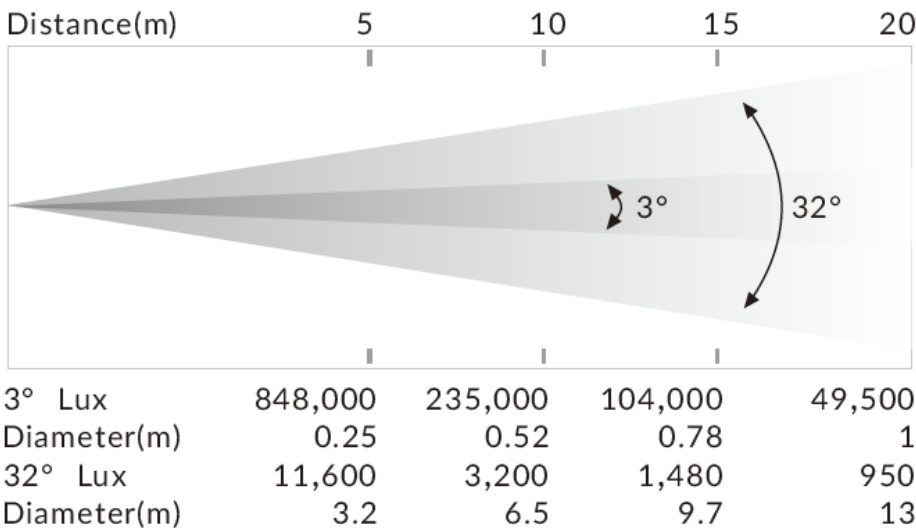
3. Control Panel

Power Cord Version:
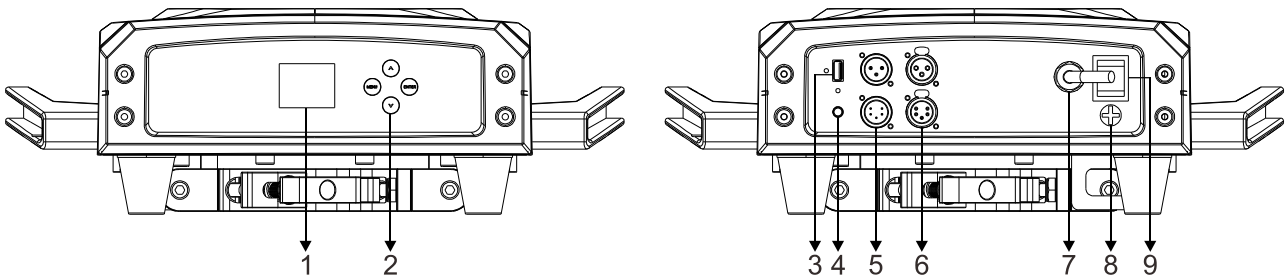
PowerCon Version 1:
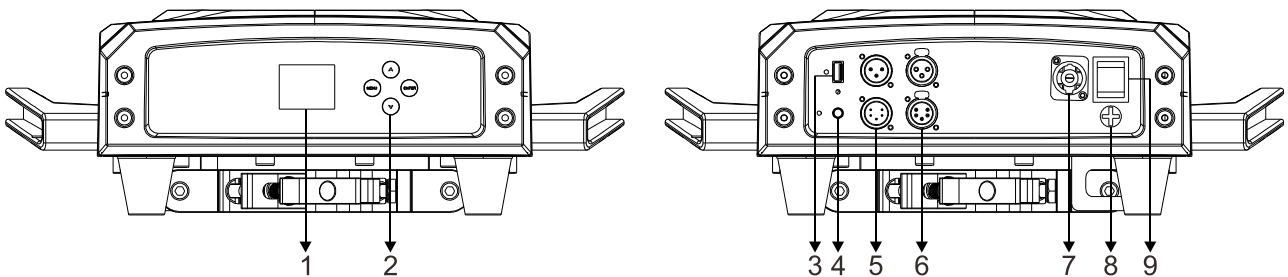
PowerCon Version 2:
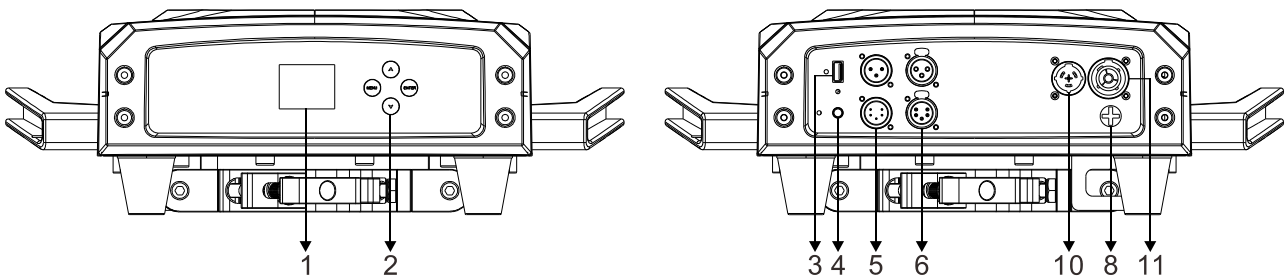
1. Display: To show the various menus and the selected function

2. Button:

MENU	To enter into move backward or leave the menu
▲ UP	To go backward to move up in the menu
▼ DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

3. FIRMWARE UPGRADE: Used to upgrade fixture's firmware

4. BATTERY DISPLAY

5. DMX IN: For DMX512 operation, use 3/5 XLR cable to link the unit and DMX controller

6. DMX OUT: For DMX512 operation, use 3/5 XLR cable to link the next units

7. POWER: To connect to supply power

8. FUSE(T 10A): Protects the unit from damage of over current or short circuit

9. POWER SWITCH: Turn on/off the power

10. POWER IN(PowerCon Version2): To connect to supply power

10. POWER OUT(PowerCon Version2): To connect to the next fixture

4. Effect Wheels and Lamp

4.1 Effect Wheels
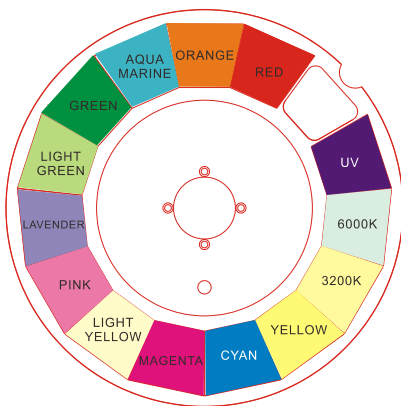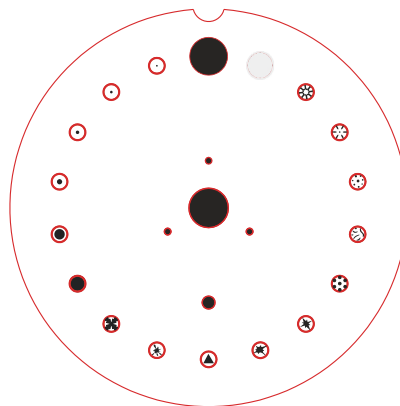
| Color Wheel | Static Gobo Wheel | Rotating Gobo Wheel |
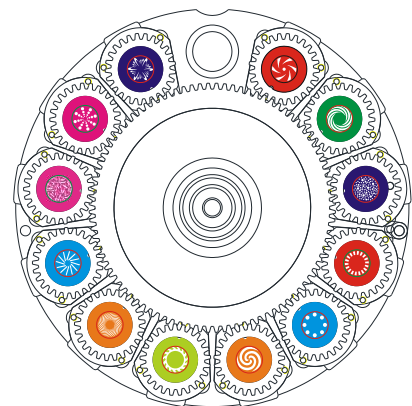
DANGER!
Install the rotating gobo with the device switched off only.
Unplug from mains before changing the rotating gobo!

CAUTION: Never unscrew the screws of the rotating gobo as the ball bearing will otherwise be opened!

4.2 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.

4.3 Change The Lamp

Attention: The entire light path and lens of the luminaire must be thoroughly cleaned before changing the bulb.

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 bulb beyond its lifetime, otherwise it may damage the luminaire. Check the Lamp Use Time regularly. When the lamp replacement warning appears, we strongly recommend that you replace the bulb. After replacing the bulb, the use hours of the bulb must be cleared and reset.

To replace the lamp:

1. 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 10 minutes after the lamp has been turned off, so that the cooling fans have time to works.

2. Loosen the screws on the head of the fixture and open the fixture head covers.
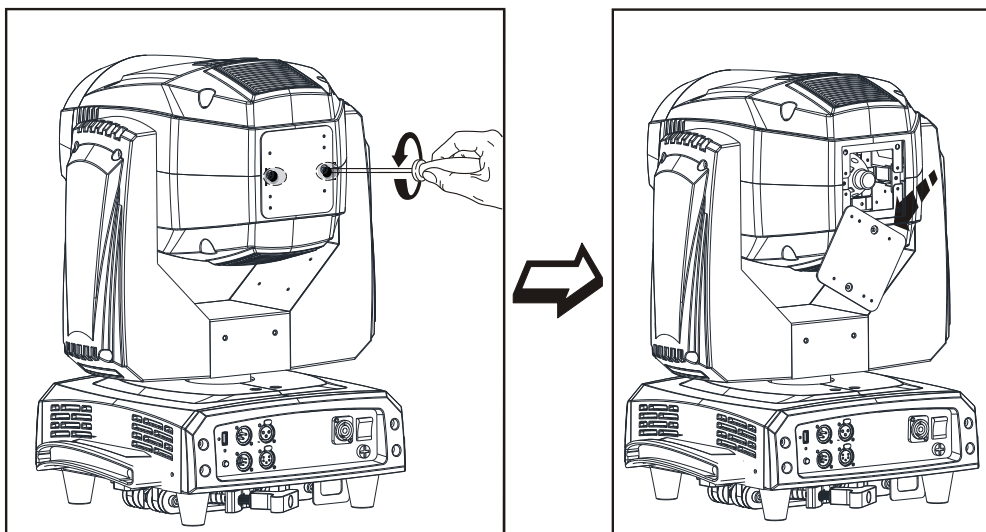
3. Loosen the screw that holds the lamp in place. Unplug the leads of the lamp and lift the lamp out of its recess, disconnect the lamp and connect a new lamp that must be the same type with the old one. And then place the new lamp into the lamp recess.
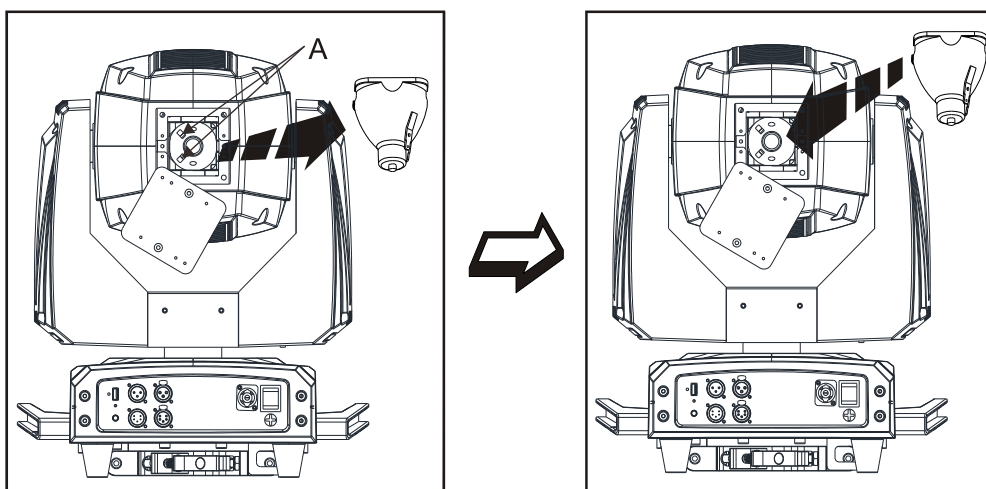
Finally reinstall the head cover, fastening it securely before reapplying power.

Warning:

The installing direction of lamp:
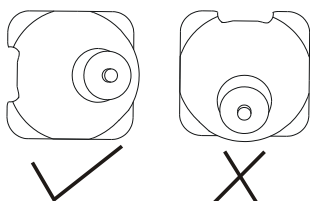
4.4 Lamp Replacement Warning

- 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.

5. How To Set The Unit

5.1 Main Function

Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press the MENU button or let the unit idle 30 seconds to exit menu mode.

The main functions are shown below:

```
                                                                    ┌─────────┐
                                                                    │    1    │
                                                        ┌───────────┤   ...   │
                                          ┌──────────────────┐      │   494   │
                                          │   DMX Address    ├──────┤   492   │
                                          └──────────────────┘      └─────────┘
                                                                    ┌──────────┐
                                          ┌──────────────────┐      │ Mode1(19)│
            ┌──────────────────┐          │ DMX Channel Mode ├──────┤          │
            │   DMX Settings   ├──────────┤                  │      │ Mode2(21)│
            └──────────────────┘          └──────────────────┘      └──────────┘
                                          ┌──────────────────┐      ┌──────────┐
                                          │  No DMX Status   ├──────┤ Blackout │
                                          └──────────────────┘      │   Hold   │
                                          ┌──────────────────┐      └──────────┘
                                          │  View DMX Value  │
                                          └──────────────────┘

                                          ┌──────────────────┐
                                          │    Pan Invert    │
                                          └──────────────────┘
            ┌──────────────────┐          ┌──────────────────┐      ┌──────────┐
            │ Fixture Settings ├──────────┤    Tilt Invert   │      │    No    │
            └──────────────────┘          └──────────────────┤──────┤   Yes    │
                                          │   Color Invert   │      └──────────┘
                                          └──────────────────┘
                                          ┌──────────────────┐
                                          │   P/T Feedback   │
                                          └──────────────────┘

            ┌──────────────────┐          ┌──────────────────┐      ┌──────────┐
            │  Lamp Settings   ├──────────┤   Lamp On/Off    │      │   Off    │
            └──────────────────┘          └──────────────────┤──────┤   On     │
                                          │  State/Power On  │      └──────────┘
                                          └──────────────────┘

                                          ┌──────────────────┐      ┌──────────┐
                                          │  Display Invert  │      │    No    │
            ┌──────────────────┐          └──────────────────┤──────┤   Yes    │
            │ Display Settings ├──────────┤Backlight Intensity│     └──────────┘
            └──────────────────┘          └──────────────────┤── 001-010
                                          │ Temperature Unit │      ┌──────────┐
                                          └──────────────────┘      │    ℃     │
                                                                    │    ℉     │
                                                                    └──────────┘
  ┌────────┐
  │  MENU  ├───
  └────────┘   ┌──────────────────┐          ┌──────────────────┐
               │   Fixture Test   ├──────────┤    Auto Test     │
               └──────────────────┘          └──────────────────┘
                                             │   Manual Test    │
                                             └──────────────────┘

                                          ┌──────────────────┐
                                          │ Fixture Use Time │
                                          └──────────────────┘                    ┌──────────┐
                                          ┌──────────────────┐                    │Work Mode │
                                          │  Lamp Use Hour   ├── Password=050 ─────┤Sleep Mode│
                                          └──────────────────┘                    │Sleep Ratio│
                                          ┌──────────────────┐                    └──────────┘
                                          │ Lamp Time Reset  ├── Password=050
                                          └──────────────────┘                    ┌──────────┐
                                                                                  │Base Fan1 │
                                          ┌──────────────────┐                    │Base Fan2 │
            ┌──────────────────┐          │   Temperature    │                    │Lamp Fan1 │
            │Fixture Information├─────────┤                  │                    │Lamp Fan2 │
            └──────────────────┘          └──────────────────┘                    │Lamp Fan3 │
                                          ┌──────────────────┐                    │Head Fan1 │
                                          │    Fan State     ├────────────────────┤Head Fan2 │
                                          └──────────────────┘                    │Head Fan3 │
                                          ┌──────────────────┐                    └──────────┘
                                          │ USB Upgrade File │
                                          └──────────────────┘
                                          ┌──────────────────┐
                                          │ Firmware Version │
                                          └──────────────────┘
                                          ┌──────────────────┐
                                          │     RDM UID      │
                                          └──────────────────┘
                                          ┌──────────────────┐   ┌──────────────┐   ┌────┐
                                          │    Error Logs    ├───┤Fixture Errors│   │ No │
                                          └──────────────────┘   │Reset Error Log├──┤ Yes├── Password=050
                                                                 └──────────────┘   └────┘

                                          ┌──────────────────┐
                                          │  Pan/Tilt Reset  │      ┌──────────┐
            ┌──────────────────┐          └──────────────────┤      │    No    │
            │ Reset Functions  ├──────────┤   Effect Reset   ├──────┤   Yes    │
            └──────────────────┘          └──────────────────┘      └──────────┘
                                          │    All Reset     │
                                          └──────────────────┘
            ┌──────────────────┐          ┌──────────────────┐      ┌──────────┐
            │ Special Functions├──────────┤ Factory Restore  ├──────┤    No    │
            └──────────────────┘          └──────────────────┘      │   Yes    │
                                                                    └──────────┘
```

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DMX Settings

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address**, **DMX Channel Mode, No DMX Status** or **View DMX Value.**

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **1** to **494/492**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

DMX Channel Mode

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (19)** or **Mode2 (21)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

No DMX Status

To select **No DMX Status,** press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Blackout** (fixture blacks out if DMX signal stops) or **Hold** (fixture continues to obey the last command it received Via DMX if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

View DMX Value

To select **View DMX Value**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to view the DMX channel value. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Invert, Tilt Invert, Color Invert** or **P/T Feedback**.

Pan Invert

To select **Pan Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Invert

To select **Tilt Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (tilt invert), press the **ENTER** button to store. Press the **MENU** button back to the

last menu or let the unit idle 30 seconds to exit menu mode.

Color Invert

To select **Color Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (color invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

P/T Feedback

To select **P/T Feedback**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (Pan or tilt's position will not feedback while out of step) or **Yes** (Feedback while pan/tilt out of step), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Lamp Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Lamp On/Off** or **State/Power on**.

Lamp On/Off

To select **Lamp On/Off**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off** (lamp off) or **On** (lamp on), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

State/Power On

To select **State/Power On**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off** (Lamp off while power on) or **On** (Lamp on while power on), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Settings

Enter menu mode, select **Display Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Display Invert, Backlight Intensity** or **Temperature Unit**.

Display Invert

Select **Display Invert**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **No** (normal display) or **Yes** (invert display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Backlight Intensity

Select **Backlight Intensity**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust backlight intensity from **001** (dark) to **010** (bright), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Temperature Unit

Select **Temperature Unit**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select ℃ or ℉, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Test

Enter menu mode, select **Fixture Test**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Auto Test** or **Manual Test**

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, color, gobo, gobo rotation, prism, prism rotation, dimmer, shutter, zoom, focus, frost, and etc. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP/DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP** and **DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

(All channels value will become 0 after exiting Manual Test menu)

Fixture Information

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

Fixture Use Time

Select **Fixture Use Time**, press the **ENTER** button to confirm, fixture use time will show on the display, press the **MENU** button to exit.

Lamp Use Hour

Select **Lamp Use Hour**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to confirm and lamp use time in **Work Mode, Sleep Mode** or **Sleep Ratio** can be viewed, press the **ENTER** button to confirm. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Lamp Time Reset

Select **Lamp Time Reset**, press the **ENTER** button to set the passcode **050** to reset lamp time, press the **MENU** button to exit.

Temperature

Select **Temperature**, press the **ENTER** button to confirm, fixture temperature will show on the display, press the **MENU** button to exit.

Fan State

Select **Fan State**, press the **ENTER** button to confirm, fan state will show on the display, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Base Fan1, Base Fan2, Lamp Fan1, Lamp Fan2, Lamp Fan3, Head Fan1, Head Fan2** or **Head Fan3**, press the **ENTER** button to confirm. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

USB Upgrade File

Select **USB Upgrade File**, press the **ENTER** button to confirm, USB upgrade file will show on the display, press the **MENU** button back to exit.

Firmware Version

Select **Firmware Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

RDM UID

Select **RDM UID**, press the **ENTER** button to confirm, RDM UID will show on the display, press the **MENU** button back to exit.

Error Logs

Select **Error Logs**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Fixture Errors** or **Reset Error Log**, press the **ENTER** button to confirm. Select **Reset Error Log**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to confirm. Select **Yes**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050** to reset error log. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

Reset Functions

Enter menu mode, select **Reset Functions**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan/Tilt Reset, Effect Reset** or **All Reset.**

Pan/Tilt Reset

Select **Pan/Tilt Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Press the **MENU** button to exit.

Effect Reset

Select **Effect Reset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Press the **MENU** button to exit.

All Reset

Select **All Reset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes**, press **ENTER** button to store. Press the **MENU** button to exit.

Special Functions

Factory Restore

Select **Factory Restore,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** (normal) or **Yes** (the fixture will reset to factory settings), press **ENTER** button to store. Press the **MENU** button to exit.

RDM FUNCTIONS

Select the MANUFACTURER menu to display the manufacturer of the fixture.

Select the SOFTWARE VERSION menu and the program version number of the fixture will be displayed.

Select the DMX START ADDRESS menu to change the DMX 512 address (001-512).

Select the DEVICE MODEL DESCRIPTION menu to display the model of the fixture.

Select the DEVICE LABEL menu to change the model of the fixture.

Select the DMX PERSONALITY menu to set the channel mode of the fixture (19/21 channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

Select the DEVICE HOURS menu to display the running time of the fixture.

Select the LAMP HOURS menu to display the running time of the lamp.

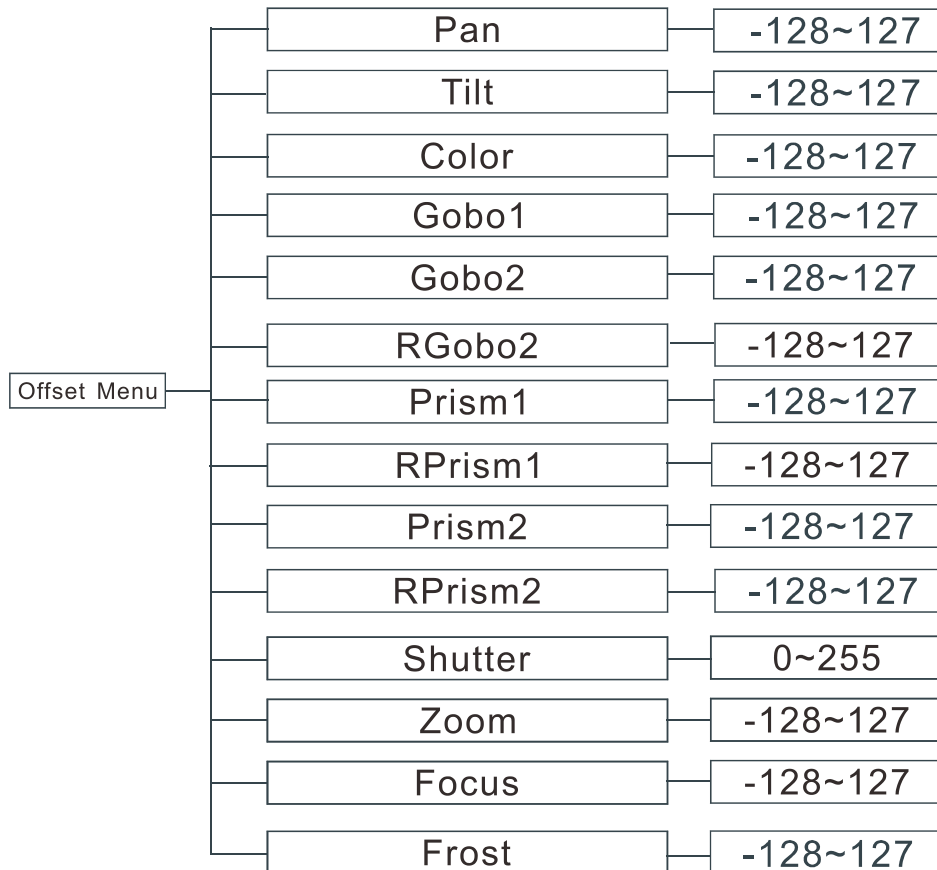Select the LAMP STATE menu to turn on/off the lamp.

Select the PAN INVERT menu and the fixture will run the pan invert mode.

Select the TILT INVERT menu and the fixture will run the tilt invert mode.

Select the RESET DEVICE menu, the WARM RESET/COLD RESET option will be displayed. When WARM RESET is selected, the fixture will start a warm reset, and exit when COLD RESET is selected.

5.2 Home Position Adjustment

Press the MENU button into menu mode, then press the ENTER button for about 3 seconds into offset mode to adjust the home position. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press MENU button to exit.

```
                        ┌──────────────────┐        ┌──────────────┐
                  ┌─────┤       Pan        ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤       Tilt       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Color       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Gobo1       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Gobo2       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      RGobo2      ├────────┤   -128~127   │
 ┌────────────┐   │     └──────────────────┘        └──────────────┘
 │ Offset Menu ├──┤     ┌──────────────────┐        ┌──────────────┐
 └────────────┘   ├─────┤      Prism1      ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      RPrism1     ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Prism2      ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      RPrism2     ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Shutter     ├────────┤    0~255     │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤       Zoom       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  ├─────┤      Focus       ├────────┤   -128~127   │
                  │     └──────────────────┘        └──────────────┘
                  │     ┌──────────────────┐        ┌──────────────┐
                  └─────┤      Frost       ├────────┤   -128~127   │
                        └──────────────────┘        └──────────────┘
```

Pan—pan home position adjustment

Enter offset mode, Select **Pan**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Tilt—Tilt home position adjustment

Enter offset mode, Select **Tilt**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Color—Color home position adjustment

Enter offset mode, Select **Color**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo —Gobo home position adjustment

Enter offset mode, Select **Gobo**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo2 —Gobo2 home position adjustment

Enter offset mode, Select **Gobo2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

RGobo2 —RGobo2 home position adjustment

Enter offset mode, Select **RGobo2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism1—Prism1 home position adjustment

Enter offset mode, Select **Prism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

RPrism1—RPrism1 rotation home position adjustment

Enter offset mode, Select **RPrism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism 2—Prism2 home position adjustment

Enter offset mode, Select **Prism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

RPrism2—RPrism2 rotation home position adjustment

Enter offset mode, Select **RPrism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Shutter—Shutter home position adjustment

Enter offset mode, Select **Shutter**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

Zoom—Zoom home position adjustment

Enter offset mode, Select **Zoom**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Focus—Focus home position adjustment

Enter offset mode, Select **Focus**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Frost—Frost home position adjustment

Enter offset mode, Select **Frost**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

6. Control By Universal DMX Controller

6.1 DMX512 Connection
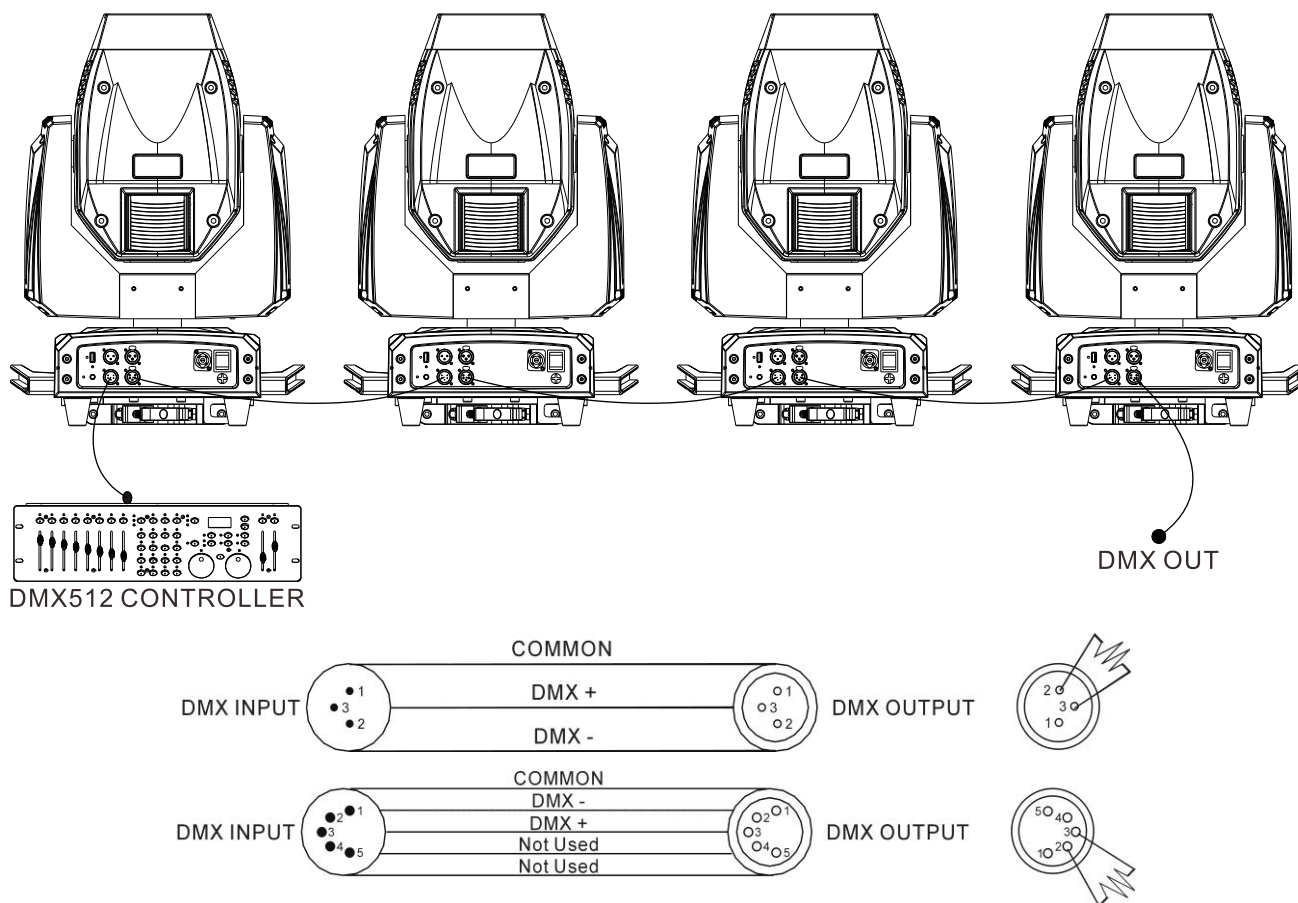
1.   At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm ¼W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

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.

6.2 Address Setting

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

Press the MENU button to enter menu mode, 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 blink on the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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
21 channels	1	22	43	64

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.

2. 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	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT Speed** 0%→100%
6		**Function**
	000-049	Null
	050-059	Enable Auto Color Frost
	060-069	Disable Auto Color Frost
	070-129	Null
	130-139	Lamp On
	140-149	Reset XY
	150-159	Reset Effect
	160-199	Null
	200-209	Reset All
	210-229	Null
	230-239	Lamp Off
	240-255	Null
7		**COLOR**
	000-002	White
	003-004	Color 1
	005-006	Color 2
	007-008	Color 3
	009-010	Color 4
	011-012	Color 5
	013-014	Color 6
	015-016	Color 7
	017-018	Color 8
	019-021	Color 9
	022-023	Color 10

	024-025	Color 11
	026-027	Color 12
	028-029	Color 13
	030-031	Color 14
	032-033	Color 15
	034-035	Color 16
	036-037	Color 17
	038-039	Color 18
	040-042	Color 19
	043-044	Color 20
	045-046	Color 21
	047-048	Color 22
	049-050	Color 23
	051-052	Color 24
	053-054	Color 25
	055-056	Color 26
	057-058	Color 27
	059-060	Color 28
	061-063	Color 29
	064-127	Color wheel indexing
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
8		**GOBO1**
	000-003	Open
	004-006	Gobo 1
	007-009	Gobo 2
	010-012	Gobo 3
	013-015	Gobo 4
	016-018	Gobo 5
	019-021	Gobo 6
	022-024	Gobo 7
	025-027	Gobo 8
	028-030	Gobo 9
	031-033	Gobo 10
	034-036	Gobo 11
	037-039	Gobo 12
	040-042	Gobo 13
	043-045	Gobo 14
	046-048	Gobo 15
	049-055	Gobo 16
	056-059	Soft
	060-063	Gobo1 shaking
	064-067	Gobo2 shaking
	068-071	Gobo3 shaking
	072-075	Gobo4 shaking
	076-079	Gobo5 shaking

	080-083	Gobo6 shaking
	084-087	Gobo7 shaking
	088-091	Gobo8 shaking
	092-095	Gobo9 shaking
	096-099	Gobo10 shaking
	100-103	Gobo11 shaking
	104-107	Gobo12 shaking
	108-111	Gobo13 shaking
	112-115	Gobo14 shaking
	116-119	Gobo15 shaking
	120-127	Gobo16 shaking
	128-189	Counter-Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Gobo shaking slow to fast
9		**GOBO2**
	000-005	Open
	006-010	Gobo 1
	011-015	Gobo 2
	016-020	Gobo 3
	021-025	Gobo 4
	026-030	Gobo 5
	031-036	Gobo 6
	037-041	Gobo 7
	042-046	Gobo 8
	047-051	Gobo 9
	052-056	Gobo 10
	057-061	Gobo 11
	062-067	Gobo 12
	068-072	Gobo1 shaking
	073-077	Gobo2 shaking
	078-082	Gobo3 shaking
	083-087	Gobo4 shaking
	088-092	Gobo5 shaking
	093-097	Gobo6 shaking
	098-102	Gobo7 shaking
	103-107	Gobo8 shaking
	108-112	Gobo9 shaking
	113-117	Gobo10 shaking
	118-122	Gobo11 shaking
	123-127	Gobo12 shaking
	128-189	Counter-Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Clockwise Rotation slow to fast
10		**R-GOBO2**
	000-127	Index
	128-190	Clockwise rotation, fast to slow
	191-192	Stop

	193-255	Counter-Clockwise rotation, slow to fast
11		**PRISM 1**
	000-007	No prism1 effect
	008-255	Prism1 effect
12		**R-PRISM 1**
	000-127	Index rotation
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
13		**PRISM 2**
	000-007	No prism2 effect
	008-255	Prism2 effect
14		**R-PRISM 2**
	000-127	Index rotation
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
15		**ZOOM**
	000-255	0%→100%
16		**FOCUS**
	000-255	0%→100%
17		**Frost**
	000-007	Off
	008-255	On
18		**SHUTTER**
	000-007	Shutter Off
	008-015	Open
	016-131	Strobe slow to fast
	132-167	Slow open, fast close
	168-203	Fast open, slow close
	204-239	Slow open, fast close
	240-247	Random strobe
	248-255	Open
19		**DIMMER**
	000-255	0%→100%

21 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT Speed** 0%→100%
6		**Function**
	000-049	Null
	050-059	Enable Auto Color Frost
	060-069	Disable Auto Color Frost
	070-129	Null
	130-139	Lamp On
	140-149	Reset XY
	150-159	Reset Effect
	160-199	Null
	200-209	Reset All
	210-229	Null
	230-239	Lamp Off
	240-255	Null
7		**COLOR**
	000-002	White
	003-004	Color 1
	005-006	Color 2
	007-008	Color 3
	009-010	Color 4
	011-012	Color 5
	013-014	Color 6
	015-016	Color 7
	017-018	Color 8
	019-021	Color 9
	022-023	Color 10
	024-025	Color 11
	026-027	Color 12
	028-029	Color 13
	030-031	Color 14
	032-033	Color 15
	034-035	Color 16
	036-037	Color 17
	038-039	Color 18
	040-042	Color 19

	043-044	Color 20
	045-046	Color 21
	047-048	Color 22
	049-050	Color 23
	051-052	Color 24
	053-054	Color 25
	055-056	Color 26
	057-058	Color 27
	059-060	Color 28
	061-063	Color 29
	064-127	Color wheel indexing
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
8		**GOBO1**
	000-003	Open
	004-006	Gobo 1
	007-009	Gobo 2
	010-012	Gobo 3
	013-015	Gobo 4
	016-018	Gobo 5
	019-021	Gobo 6
	022-024	Gobo 7
	025-027	Gobo 8
	028-030	Gobo 9
	031-033	Gobo 10
	034-036	Gobo 11
	037-039	Gobo 12
	040-042	Gobo 13
	043-045	Gobo 14
	046-048	Gobo 15
	049-055	Gobo 16
	056-059	Soft
	060-063	Gobo1 shaking
	064-067	Gobo2 shaking
	068-071	Gobo3 shaking
	072-075	Gobo4 shaking
	076-079	Gobo5 shaking
	080-083	Gobo6 shaking
	084-087	Gobo7 shaking
	088-091	Gobo8 shaking
	092-095	Gobo9 shaking
	096-099	Gobo10 shaking
	100-103	Gobo11 shaking
	104-107	Gobo12 shaking
	108-111	Gobo13 shaking
	112-115	Gobo14 shaking

	116-119	Gobo15 shaking
	120-127	Gobo16 shaking
	128-189	Counter-Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Gobo shaking slow to fast
9		**GOBO2**
	000-005	Open
	006-010	Gobo 1
	011-015	Gobo 2
	016-020	Gobo 3
	021-025	Gobo 4
	026-030	Gobo 5
	031-036	Gobo 6
	037-041	Gobo 7
	042-046	Gobo 8
	047-051	Gobo 9
	052-056	Gobo 10
	057-061	Gobo 11
	062-067	Gobo 12
	068-072	Gobo1 shaking
	073-077	Gobo2 shaking
	078-082	Gobo3 shaking
	083-087	Gobo4 shaking
	088-092	Gobo5 shaking
	093-097	Gobo6 shaking
	098-102	Gobo7 shaking
	103-107	Gobo8 shaking
	108-112	Gobo9 shaking
	113-117	Gobo10 shaking
	118-122	Gobo11 shaking
	123-127	Gobo12 shaking
	128-189	Counter-Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Clockwise Rotation slow to fast
10		**R-GOBO2**
	000-127	Index
	128-190	Clockwise rotation, fast to slow
	191-192	Stop
	193-255	Counter-Clockwise rotation, slow to fast
11		**PRISM 1**
	000-007	No prism1 effect
	008-255	Prism1 effect
12		**R-PRISM 1**
	000-127	Index rotation
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop

	194-255	Clockwise rotation, slow to fast
13		**PRISM 2**
	000-007	No prism2 effect
	008-255	Prism2 effect
14		**R-PRISM 2**
	000-127	Index rotation
	128-189	Counter-Clockwise rotation, fast to slow
	190-193	Stop
	194-255	Clockwise rotation, slow to fast
15		**ZOOM**
	000-255	0%→100%
16	000-255	**ZOOM FINE**
17		**FOCUS**
	000-255	0%→100%
18	000-255	**FOCUS FINE**
19		**Frost**
	000-007	Off
	008-255	On
20		**SHUTTER**
	000-007	Shutter Off
	008-015	Open
	016-131	Strobe slow to fast
	132-167	Slow open, fast close
	168-203	Fast open, slow close
	204-239	Slow open, fast close
	240-247	Random strobe
	248-255	Open
21		**DIMMER**
	000-255	0%→100%

7. Error Information

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

1. CPU-B/C/D/E Error

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

Check whether the 485 (DATA) lead is disconnected.

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

2. Pan Reset Error

Check if the position of the pan mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the pan operating range.

Check if the pan Hall elements is damaged.

Check if the pan Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the pan motor is damaged.

Check if there is any damage to the circuit of the pan motor drive board.

3. Pan Encoder Error

Check if the pan encoder is damaged.

Check if the pan encoder is in poor contact with the lead of the PCB board or disconnected.

4. Tilt Reset Error

Check if the position of the tilt mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the tilt operating range.

Check if the tilt Hall elements is damaged.

Check if the tilt Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the tilt motor is damaged.

Check if there is any damage to the circuit of the tilt motor drive board.

5. Tilt Encoder Error

Check if the tilt encoder is damaged.

Check if the tilt encoder is in poor contact with the lead of the PCB board or disconnected.

6. Shutter Reset Fail

Check if the position of the shutter mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the shutter operating range.

Check if the shutter Hall elements is damaged.

Check if the shutter Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the shutter motor is damaged.

Check if there is any damage to the circuit of the shutter motor drive board.

7. Color Reset Fail

Check if the position of the color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the color wheel operating range.

Check if the color wheel Hall elements is damaged.

Check if the color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the color wheel motor is damaged.

Check if there is any damage to the circuit of the color wheel motor drive board.

8. Gobo1/RGobo1 Reset Fail

Check if the position of the gobo wheel1 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the gobo wheel1 operating range.

Check if the gobo wheel1 Hall elements is damaged.

Check if the gobo wheel1 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the gobo wheel1 motor is damaged.

Check if there is any damage to the circuit of the gobo wheel1 motor drive board.

9. Gobo2 Reset Fail

Check if the position of the gobo wheel2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the gobo wheel2 operating range.

Check if the gobo wheel2 Hall elements is damaged.

Check if the gobo wheel2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the gobo wheel2 motor is damaged.

Check if there is any damage to the circuit of the gobo wheel2 motor drive board.

10. Prism1/RPrism1 Reset Fail

Check if the position of the Prism1 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the Prism1 operating range.

Check if the Prism1 Hall elements is damaged.

Check if the Prism1 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the Prism1 motor is damaged.

Check if there is any damage to the circuit of the Prism1 motor drive board.

11. Prism2/RPrism2 Reset Fail

Check if the position of the Prism2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the Prism2 operating range.

Check if the Prism2 Hall elements is damaged.

Check if the Prism2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the Prism2 motor is damaged.

Check if there is any damage to the circuit of the Prism2 motor drive board.

12. Focus Reset Fail

Check if the position of the focus mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the focus operating range.

Check if the focus Hall elements is damaged.

Check if the focus Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the focus motor is damaged.

Check if there is any damage to the circuit of the focus motor drive board.

13. Zoom Reset Fail

Check if the position of the zoom mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the zoom operating range.

Check if the zoom Hall elements is damaged.

Check if the zoom Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the zoom motor is damaged.

Check if there is any damage to the circuit of the zoom motor drive board.

14. Lamp Fan1/2/3 Error

Check if the lamp fan is not running or measure whether the voltage of the lamp fan is correct.

Check if the fan lead is installed or disconnected.

Check the PCB board to see if the fan circuit is abnormal.

15. Base Fan1/2 Error

Check if the lamp fan is not running or measure whether the voltage of the lamp fan is correct.

Check if the fan lead is installed or disconnected.

Check the PCB board to see if the fan circuit is abnormal.

16. Head Fan1/2/3 Error

Check if the lamp fan is not running or measure whether the voltage of the lamp fan is correct.

Check if the fan lead is installed or disconnected.

Check the PCB board to see if the fan circuit is abnormal.

17. Head Temperature Error

Check if the temperature detecting board is normal.

Check if the components of the temperature detecting board are damaged.

Check if the lead of the temperature detecting board is disconnected.

8. 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

1. Check the connected power and main fuse.

2. Measure the voltage.

3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

1. Check whether the DMX connectors and the DMX cables are connected correctly.

2. Check whether the DMX address is correctly set.

3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.

4. Try it with another DMX controller.

5. 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

1. The stepper motor might be damaged or the cable connected to the PCB might be broken.

2. The motor's drive IC on the PCB might be out of condition.

D. The lamp is cutting out intermittently

1. The lamp is not working well. Check whether the voltage is too high or too low.

2. The internal temperature may be too high. Replace the cooling fan if necessary.

9. 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.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

EN 55032: 2015; EN 61000-3-2: 2014;
EN 61000-3-3: 2013; EN 55035: 2017.

&
Harmonized Standard

EN 60598-1: 2015 + A1: 2018; EN 60598-2-17: 2018;
EN 62493: 2015
Safety of household and similar electrical appliances
Part 1: General requirements
Part 2: Particular requirements

Innovation, Quality, Performance