ACME®

SABER
PERFORMANCE II

CONTENTS
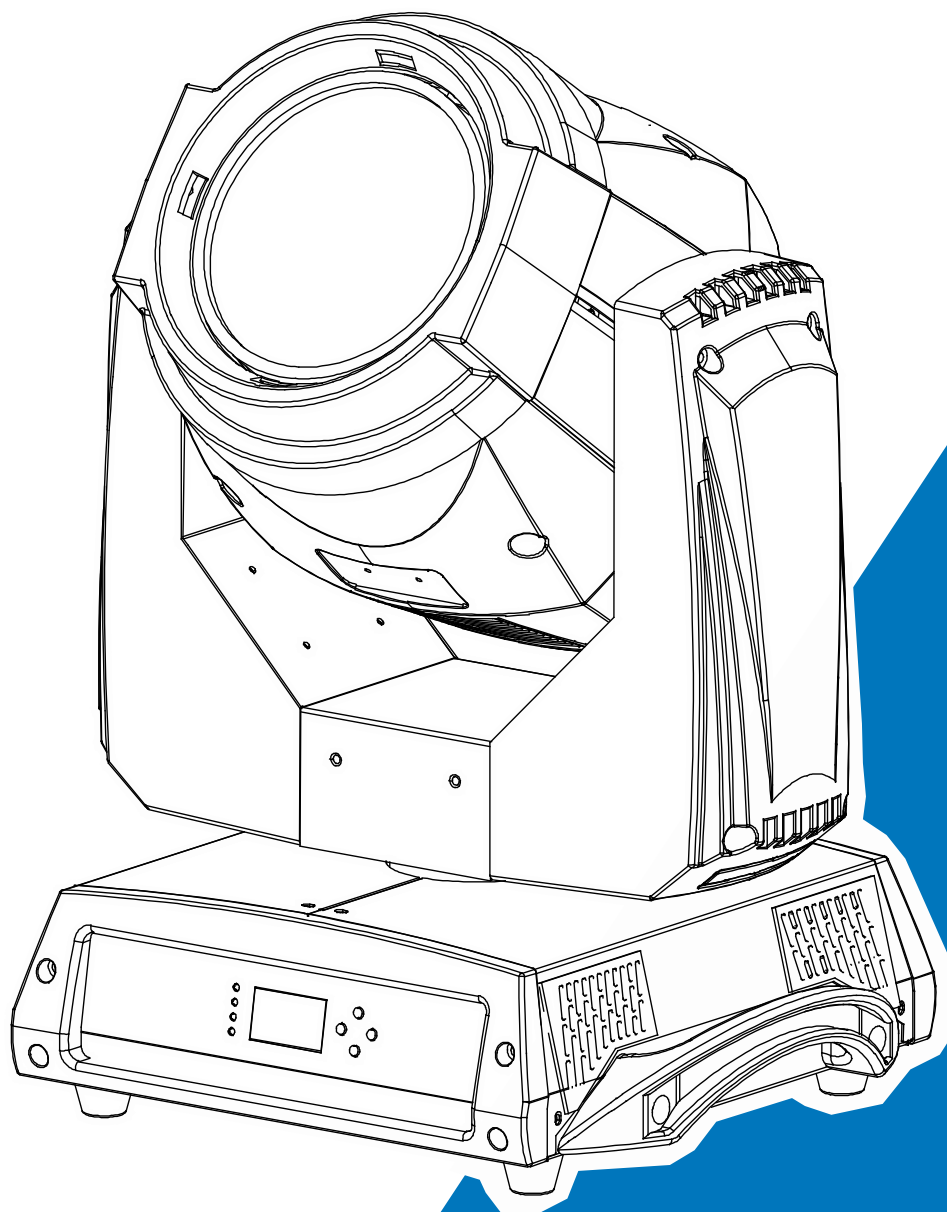
1. Safety Instructions

⚠️ 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 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 are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- 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 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.
- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.
- Examine the power wires carefully; replace them immediately if there is any damage.
- Unit's surface temperature may reach up to 85℃. DO NOT touch the housing bare-handed during its operation.
- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut

off the mains power immediately.

- DO NOT operate in dirty or dusty environment, do clean fixtures regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together twist other cables.
- The minimum distance between light output and the illuminated 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 unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect the mains power if the fixture is has not been used for a long time.
- DO use the original packing materials before transporting it again.
- 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.
- DO NOT look directly at the light while the bulb is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- DO NOT start on the unit without bulb enclosure or when housing is damaged.

Installation:

The fixture should be mounted via its Omega Quick Release Clamp bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating and make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the fixtures weight. Always use a safety cable that can hold 12 times of the weight of the fixture when installing.

The equipment must be installed by professionals. It must be installed in a place where is out of the reach of people and no one can pass by or under it.

2. Technical Specifications

Power Voltage:

AC 100~240V, 50/60Hz

Power Consumption:

480W

Light Source:

PHILIPS MSD Platinum 16 R

Color Temperature:

8000K

Beam Angle:

1°

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Dimmer/Shutter:

Smooth dimming from 0-100%; various strobe speeds

Color Wheel:

12 fixed colors plus open with rainbow effect

Gobo Wheel:

1 Rotating gobo wheel with 12 gobos plus open

Control:

DMX Channel: 15/17 Channels

Control Mode: DMX, RDM

Firmware Upgrade: Update via DMX link

Construction:

Display: LCD display

Date In/Out: 3-pin XLR

Power In/Out: Power Connector in/out

Protection Rating: IP20

Features:

Motorized Focus

8 facet prism+16 facet prism, both of them can rotate in both directions and overlay each other

Independent frost effect

Dimension/Weight:

394x325x517mm, 22.5kgs

15.5"x12.8"x20.4"in, 49.6lbs

Photometrics Diagram

Distance(m)	5	10	15	20
1°Lux	945000	429000	192000	109000
Diameter(m)	2.2	4.4	6.7	8.9
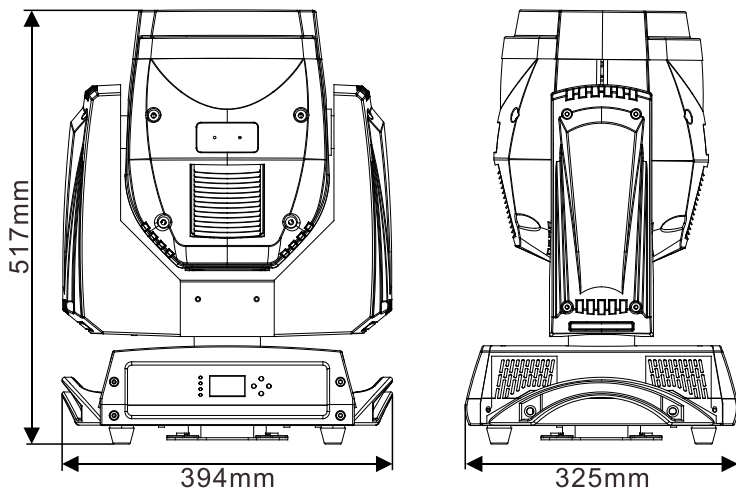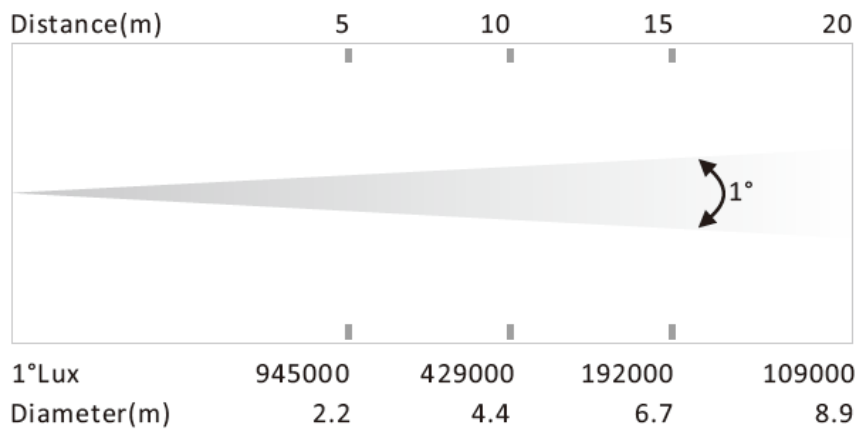
3 Control Panel

Wire Version:
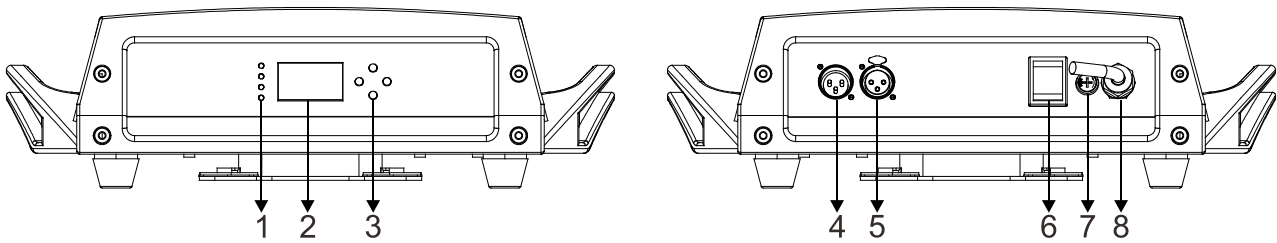
Powercon Version:
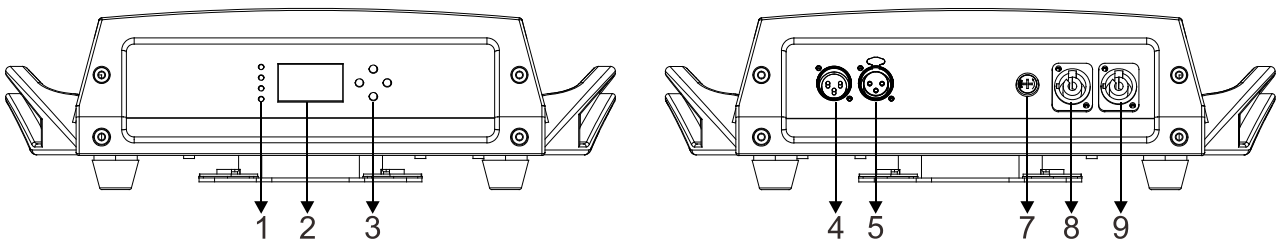
1. LED:

POWER	On	Power On
DMX	On	DMX input present

2. Display: To show the various menus and the selected function

3. 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

4. DMX IN:

    DMX512 link, use 3-pin XLR cable to link the unit and DMX controller

5. DMX OUT:

    DMX512 link, use 3-pin XLR cable to link the next units

6. POWER SWITCH(Wire Version): Turns on/off the power

7. FUSE(T 10A): Protects the unit from over-voltage or short circuit

8. POWER IN: To connect to supply power

9. POWER OUT(Powercon Version): To connect to the next fixture

4. Color/Gobo and Lamp

4.1 Color/Gobo

COLOR WHEEL   GOBO WHEEL
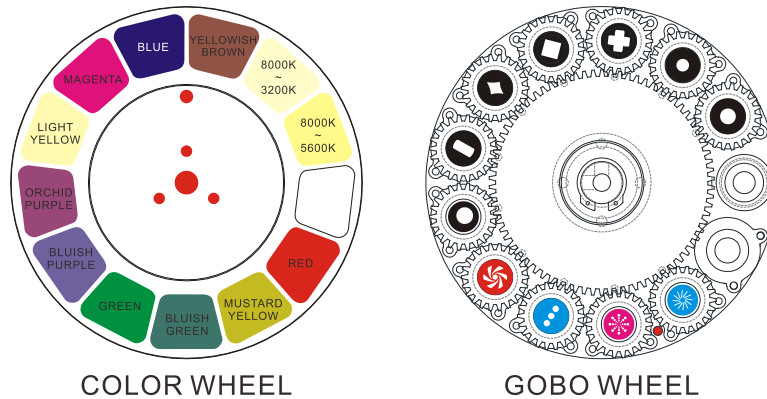
> ***DANGER!***
> ***Install the color wheel/gobo wheels with the device switched off only.***
> ***Unplug from mains before changing the color wheel/gobo wheels!***

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

4.2 Light Source

PHILIPS MSD Platinum 16 R

- 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. 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 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      │
                                    ┌──────────────┐      ┤├─────────────┤
                                    │ DMX Address  ├──────┤│     512     │
                                    └──────────────┘       └─────────────┘
                                                           ┌─────────────┐
                                    ┌──────────────┐      ┤│  Mode1(15)  │
              ┌──────────────┐      │ Channel Mode ├──────┤├─────────────┤
              │ DMX Settings ├──────┤└──────────────┘       │  Mode2(17)  │
              └──────────────┘      │                      └─────────────┘
                                    │                      ┌─────────────┐
                                    │ ┌──────────────┐    ┤│  Blackout   │
                                    ├─│  DMX State   ├─────┤├─────────────┤
                                    │ └──────────────┘      │    Hold     │
                                    │ ┌──────────────┐     └─────────────┘
                                    └─│View DMX Value│
                                      └──────────────┘
                                                           ┌─────────────┐
                                    ┌──────────────┐      ┤│     No      │
                                    │ Pan Inverse  ├──────┤├─────────────┤
                                    └──────────────┘       │     Yes     │
                                                           └─────────────┘
              ┌──────────────┐      ┌──────────────┐       ┌─────────────┐
              │Fixture       ├──────┤ Tilt Inverse ├──────┤│     No      │
              │ Settings     │      └──────────────┘      ┤├─────────────┤
              └──────────────┘                             │     Yes     │
                                    ┌──────────────┐      └─────────────┘
                                    │ P/T Feedback ├──────┐┌─────────────┐
                                    └──────────────┘      ┤│     No      │
                                                          ┤├─────────────┤
                                                           │     Yes     │
                                                           └─────────────┘
                                                           ┌─────────────┐
                                    ┌──────────────┐      ┤│     Off     │
                                    │ Lamp On/Off  ├──────┤├─────────────┤
              ┌──────────────┐      └──────────────┘       │     On      │
              │Lamp Settings ├──────┤                      └─────────────┘
              └──────────────┘      ┌──────────────┐       ┌─────────────┐
                                    │State/Power On├──────┤│     Off     │
                                    └──────────────┘      ┤├─────────────┤
                                                           │     On      │
                                                           └─────────────┘
                                                           ┌─────────────┐
                                    ┌──────────────┐      ┤│     No      │
                                    │Display       ├──────┤├─────────────┤
                                    │ Inverse      │       │     Yes     │
                                    └──────────────┘      └─────────────┘
                                                           ┌─────────────┐
                                    ┌──────────────┐      ┤│      1      │
                                    │Backlight     ├──────┤├─────────────┤
                                    │ Intensity    │       │     10      │
                                    └──────────────┘      └─────────────┘
      ┌────────┐                    ┌──────────────┐       ┌─────────────┐
      │ MENU   ├──┤                 │Contrast Ratio├──────┤│      0      │
      └────────┘  │  ┌──────────────┐└──────────────┘     ┤├─────────────┤
                  │  │Display       ├──┤                   │     30      │
                  ├──│ Settings     │                     └─────────────┘
                     └──────────────┘ ┌──────────────┐     ┌─────────────┐
                                      │Temperature   ├────┤│     ℃       │
                                      │ Unit         │    ┤├─────────────┤
                                      └──────────────┘     │     ℉       │
                                                          └─────────────┘
                                      ┌──────────────┐     ┌─────────────┐
                                      │  Language    ├────┤│   English   │
                                      └──────────────┘    ┤├─────────────┤
                                                           │   Chinese   │
                                                          └─────────────┘
              ┌──────────────┐      ┌──────────────┐
              │Fixture Test  ├──────┤│  Auto Test   │
              └──────────────┘      ├──────────────┤
                                    │ Manual Test  │
                                    └──────────────┘
                                    ┌──────────────┐
                                    │Fixture Use Hour│
                                    ├──────────────┤
              ┌──────────────┐      │Lamp Use Hour │
              │Fixture       ├──────┤├──────────────┤      ┌─────────────┐
              │ Information  │      │Lamp Time Reset├──────┤Password=050 │
              └──────────────┘      ├──────────────┤      └─────────────┘
                                    │ Temperature  │
                                    ├──────────────┤
                                    │Firmware Version│
                                    └──────────────┘
                                    ┌──────────────┐       ┌─────────────┐
                                    │  Pan & Tilt  ├──────┤│     No      │
              ┌──────────────┐      ├──────────────┤      ┤├─────────────┤
              │Reset         ├──────┤   Effect     ├──────┤│     Yes     │
              │ Functions    │      ├──────────────┤      └─────────────┘
              └──────────────┘      │     All      │
                                    └──────────────┘
                                                           ┌─────────────┐
              ┌──────────────┐      ┌──────────────┐      ┤│     No      │
              │Special       ├──────┤Factory Settings├────┤├─────────────┤
              │ Functions    │      └──────────────┘       │     Yes     │
              └──────────────┘                            └─────────────┘
```

DMX Settings

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address**, **Channel Mode, DMX State** 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 **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.

Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (15)** or **Mode2 (17)**, 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 State

To select **DMX State**, 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 Inverse, Tilt Inverse** or **P/T Feedback**.

Pan Inverse

To select **Pan Inverse**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan inverse), 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 Inverse

To select **Tilt Inverse**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (tilt inverse), 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 **Lamp 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 **On**(lamp on) or **Off**(lamp off), 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 **On**(Lamp on while power on) or **Off**(Lamp off 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 Inverse, Backlight Intensity, Contrast Radio, Temperature Unit** or **Language.**

Display Inverse

Select **Display Inverse**, 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** (inverse 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 the backlight intensity from **1** (dark) to **10** (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.

Contrast Ratio

Select **Contrast Ratio**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the contrast ratio from **0** to **30**, 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.

Language

Select **Language**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **English** or **Chinese**, 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, shutter, color, gobo, gobo rotation, prism, prism rotation, frost, and focus. 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 Hour, Lamp Use Hour, Lamp Time Reset, Temperature** or **Firmware Version.**

Fixture Use Hour

Select **Fixture Use Hour,** 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, lamp use time will show on the display, press the **MENU** button to exit.

Lamp Time Reset

Select **Lamp Time Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050**, press the **ENTER** button 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.

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.

Reset Functions

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

Pan & Tilt

Select **Pan & Tilt**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Yes** (the unit will run built-in program to reset pan and tilt to their home positions) or **No**(normal), press the **ENTER** button to store. Press the **MENU** button to exit.

Effect

Select **Effect,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Yes** (the unit will run built-in program to reset effect to their home positions) or **No**, press the **ENTER** button to store. Press the **MENU** button to exit.

All

Select **All,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Yes** (the unit will run built-in program to reset all motors to their home positions) or **No**, press **ENTER** button to store. Press the **MENU** button to exit.

Special Functions

Factory Settings

Select **Factory Settings,** 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 (15/17 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.
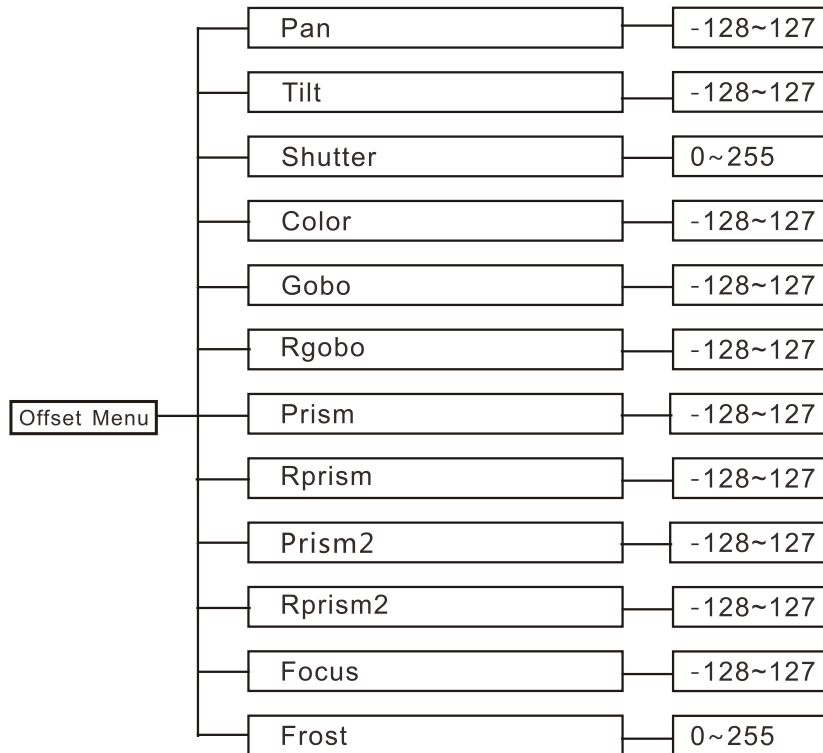
Select the TILT INVERT menu and the fixture will run the tilt invert mode.

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 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    │
                ├──────────────────────┼──────────────┤
                │        Shutter       │   0~255      │
                ├──────────────────────┼──────────────┤
                │         Color        │  -128~127    │
                ├──────────────────────┼──────────────┤
                │         Gobo         │  -128~127    │
                ├──────────────────────┼──────────────┤
                │         Rgobo        │  -128~127    │
┌─────────────┐ ├──────────────────────┼──────────────┤
│ Offset Menu ├─┤         Prism        │  -128~127    │
└─────────────┘ ├──────────────────────┼──────────────┤
                │        Rprism        │  -128~127    │
                ├──────────────────────┼──────────────┤
                │        Prism2        │  -128~127    │
                ├──────────────────────┼──────────────┤
                │        Rprism2       │  -128~127    │
                ├──────────────────────┼──────────────┤
                │         Focus        │  -128~127    │
                ├──────────────────────┼──────────────┤
                │         Frost        │   0~255      │
                └──────────────────────┴──────────────┘
```

Pan

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

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.

Shutter

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.

Color

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

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.

R-Gobo

Enter offset mode, Select **R-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.

Prism

Enter offset mode, Select **Prism**, 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.

R-Prism

Enter offset mode, Select **R-Prism**, 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

Enter offset mode, Select **Prism 2**, 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.

R-Prism 2

Enter offset mode, Select **R-Prism 2**, 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

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

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 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

6. Control By Universal DMX Controller

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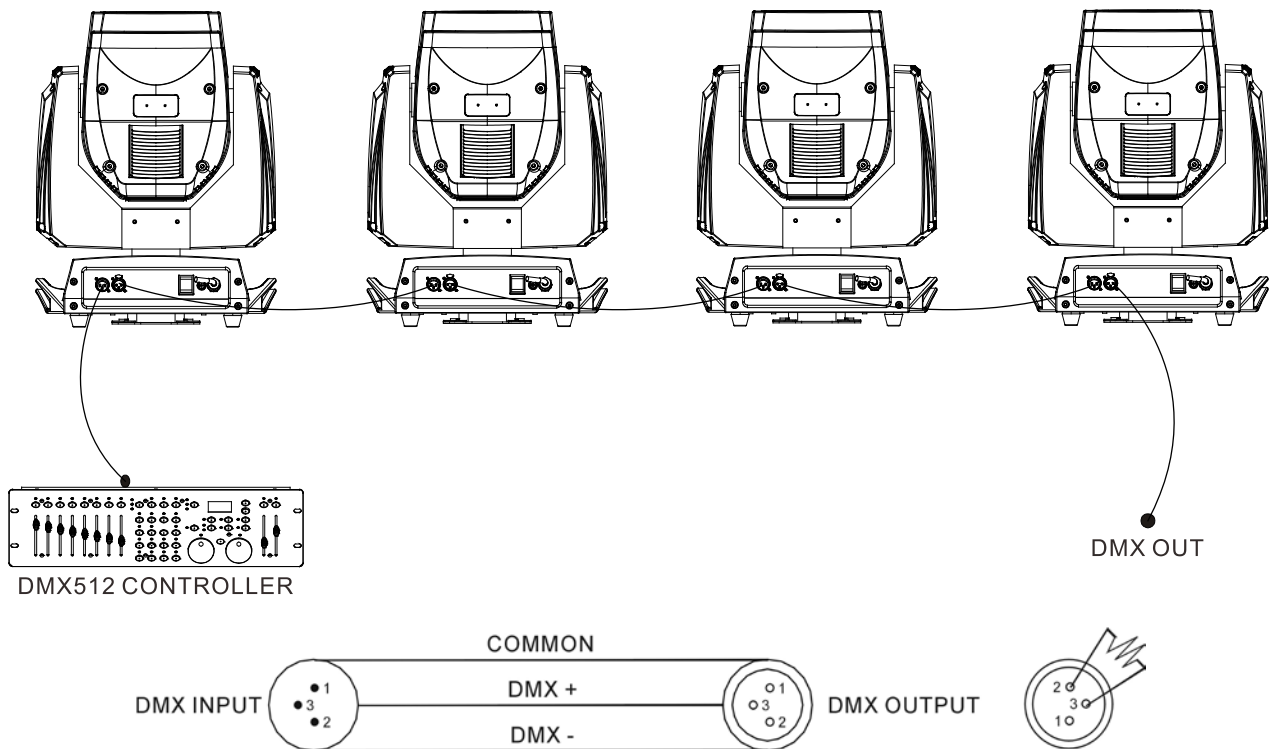
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm ¼W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

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 cannot be branched or split to a "Y" cable. 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 blinking 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
15 channels	1	16	31	46
17 channels	1	18	35	52

6.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

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.

15 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**TILT** 0°→270°
3	000-255	**PAN/TILT SPEED** Fast→Slow
4	000-004 005-009 010-014 015-019	**COLOR** Open Color 1 Color 2 Color 3

	020-024	Color 4
	025-029	Color 5
	030-034	Color 6
	035-039	Color 7
	040-044	Color 8
	045-049	Color 9
	050-054	Color 10
	055-059	Color 11
	060-064	Color 12
	065-127	Index
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Clockwise rotation slow to fast
5		**GOBO**
	000-004	Open
	005-009	Gobo 1
	010-014	Gobo 2
	015-019	Gobo 3
	020-024	Gobo 4
	025-029	Gobo 5
	030-034	Gobo 6
	035-039	Gobo 7
	040-044	Gobo 8
	045-049	Gobo 9
	050-054	Gobo 10
	055-059	Gobo 11
	060-063	Gobo 12
	064-127	Gobo Shaking
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Clockwise rotation slow to fast
6		**R-GOBO**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
7		**PRISM**
	000-007	No Effect
	008-255	Prism Effect
8		**R-PRISM**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
9		**PRISM 2**
	000-007	No effect

	008-255	Prism2 Effect
10		**R-PRISM 2**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
11		**FOCUS**
	000-255	0%→100%
12		**FROST**
	000-007	No effect
	008-255	Frost
13		**STROBE**
	000-007	Light On
	008-015	Strobe at linearly variable frequency From low to high
	016-131	Light On
	132-167	Pulsation at linearly variable speed From slow to fast
	168-203	Light On
	204-239	Random Strobe at low frequency
	240-247	Random Strobe at medium frequency
	248-255	Random Strobe at high frequency
		Light On
14		**DIMMER**
	000-255	0%→100%
15		**FUNCTION**
	000-069	Null
	070-079	Enable blackout while Pan/Tilt moving
	080-089	Disable blackout while Pan/Tilt moving
	090-099	Enable blackout while color changing
	100-109	Disable blackout while color changing
	110-119	Enable blackout while gobo changing
	120-129	Disable blackout while gobo changing
	130-139	Lamp On
	140-149	Pan/Tilt reset
	150-159	Effect reset
	160-199	No function
	200-209	All reset
	210-229	Null
	230-239	Lamp off
	240-255	No function

17 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** Fast→Slow
6		**COLOR**
	000-004	Open
	005-009	Color 1
	010-014	Color 2
	015-019	Color 3
	020-024	Color 4
	025-029	Color 5
	030-034	Color 6
	035-039	Color 7
	040-044	Color 8
	045-049	Color 9
	050-054	Color 10
	055-059	Color 11
	060-064	Color 12
	065-127	Index
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Clockwise rotation slow to fast
7		**GOBO**
	000-004	Open
	005-009	Gobo 1
	010-014	Gobo 2
	015-019	Gobo 3
	020-024	Gobo 4
	025-029	Gobo 5
	030-034	Gobo 6
	035-039	Gobo 7
	040-044	Gobo 8
	045-049	Gobo 9
	050-054	Gobo 10
	055-059	Gobo 11
	060-063	Gobo 12
	064-127	Gobo Shaking
	128-189	Clockwise rotation fast to slow

	190-193	Stop
	194-255	Clockwise rotation slow to fast
8		**R-GOBO**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
9		**PRISM**
	000-007	No Effect
	008-255	Prism Effect
10		**R-PRISM**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
11		**PRISM 2**
	000-007	No effect
	008-255	Prism2 Effect
12		**R-PRISM 2**
	000-127	Index
	128-189	clockwise rotation fast to slow
	190-193	Stop
	194-255	clockwise rotation slow to fast
13		**FOCUS**
	000-255	0%→100%
14		**FROST**
	000-007	No effect
	008-255	Frost
15		**STROBE**
	000-007	Light On
	008-015	Strobe at linearly variable frequency From low to high
	016-131	Light On
	132-167	Pulsation at linearly variable speed From slow to fast
	168-203	Light On
	204-239	Random Strobe at low frequency
	240-247	Random Strobe at medium frequency
	248-255	Random Strobe at high frequency
		Light On
16		**DIMMER**
	000-255	0%→100%
17		**FUNCTION**
	000-069	Null
	070-079	Enable blackout while Pan/Tilt moving
	080-089	Disable blackout while Pan/Tilt moving
	090-099	Enable blackout while color changing

	100-109	Disable blackout while color changing
	110-119	Enable blackout while gobo changing
	120-129	Disable blackout while gobo changing
	130-139	Lamp On
	140-149	Pan/Tilt reset
	150-159	Effect reset
	160-199	No function
	200-209	All reset
	210-229	Null
	230-239	Lamp off
	240-255	No function

7. Troubleshooting

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

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

1. Check the connect power and main fuse.

2. Measure the mains voltage on the main connector.

3. Check the power on LED to see if it can be light up or not.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.

2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.

3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.

4. Try to use another DMX controller.

5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is 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 the mains voltage either too high or too low.

2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

8. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

• Clean with soft cloth and use normal glass to clean liquid.

• Always dry the parts carefully.

• Clean the external optics at least every 20 days. Clean the internal optics at least every 30 days.

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