ACME

SABER
HYBRID PRO

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:

535W

Light Source:

Philips MSD Platinum 16R

Color Temperature:

8000K

Beam Angle:

Beam Mode: 2.3°~8°

Spot Mode: 6°~22°

Wash Mode: 22°~63°

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Dimmer/Shutter:

Smooth dimming from 0-100%; various strobe speeds

Color Wheel:

9 fixed colors plus open with rainbow effect

Gobo Wheel:

1 Static gobo wheel with 15 gobos plus open

1 Rotating gobo wheel with 9 gobos plus open

Control:

DMX Channel: 23/25 Channels

Control Mode: DMX512, RDM

Firmware Upgrade: Update via DMX link & USB

Construction:

Display: LCD display

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

Power In/Out: Power Connector in

Protection Rating: IP20

Features:

Motorized focus

Linear CMY color mixing

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

Outstanding color macro effect

Independent frost effect

Integrated three features: beam, spot, and wash

Dimension/Weight:

435x343x651mm, 23kgs

17.1"x13.5"x25.6"in, 50.7lbs

Photometrics Diagram

Distance(m)	5	10	15	20
6°Lux	440000	100000	46000	26000
Diameter(m)	0.52	1	1.57	2.1
22°Lux	28500	9700	4400	1800
Diameter(m)	1.9	3.9	5.9	7.8

5C
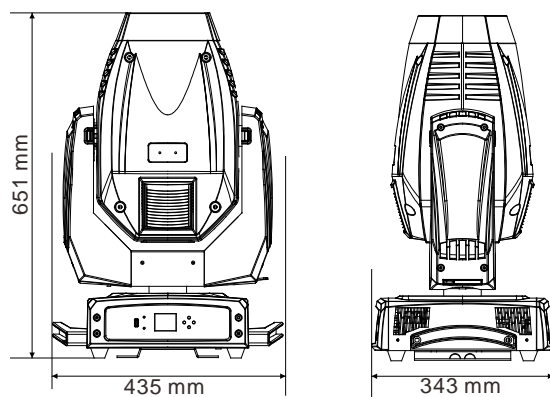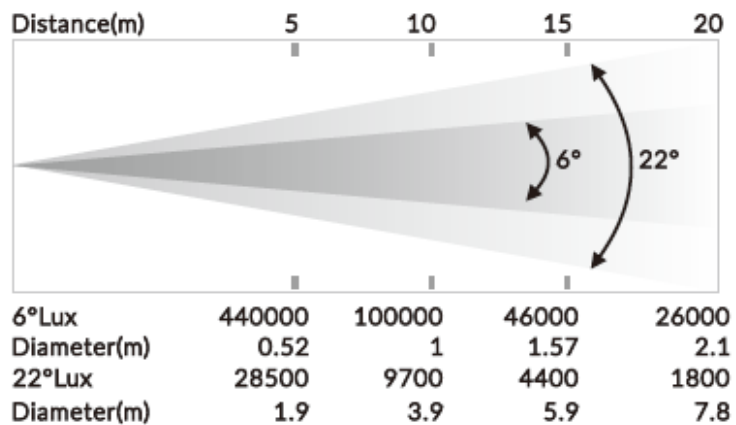
3 Control Panel
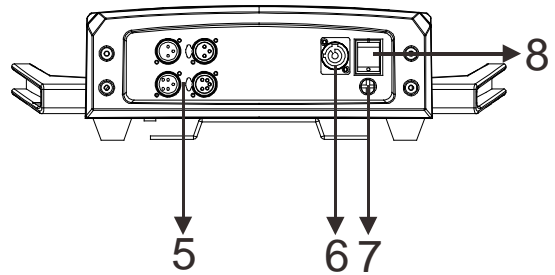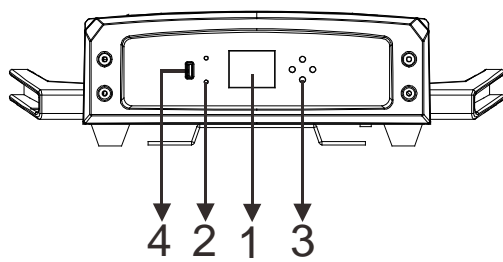
1. Display: To show the various menus and the selected function

2. LED:

POWER	On	Power On
DMX	On	DMX input present

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. FIRMWARE UPGRADE

5. DMX IN/OUT:

DMX 512 link, use 3-pin & 5-pin XLR cable to link the unit and DMX controller to input/output

DMX signal

6. POWER:

To connect to supply power

7. FUSE(T 10A):

Protects the unit from over-voltage or short circuit

8. POWER SWITCH:

Turns on/off the power

4. Color/Gobo and Lamp

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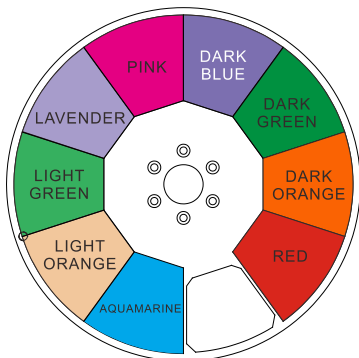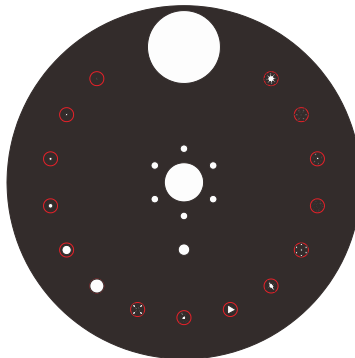
COLOR WHEEL   STATIC GOBO WHEEL   ROTATING GOBO WHEEL
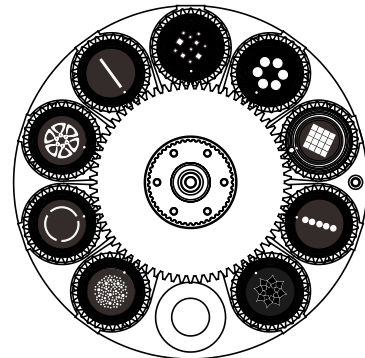
> ***DANGER!***
> ***Install the color wheel/gobo wheels with the device switched off only.***
> ***Unplug from mains before changing the color wheel/gobo wheels!***

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

4.2 Light Source

Philips MSD Platinum 16R

- 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

Do not use this lamp more than 1000 hours, using the lamp any longer than its set life could seriously damage your unit. Periodically checking the lamp running time, when the lamp reaches the 1000 hour mark, or close to it, we strongly suggest you switch the lamp out. Clear the RESET TIME after you have replaced the lamp.

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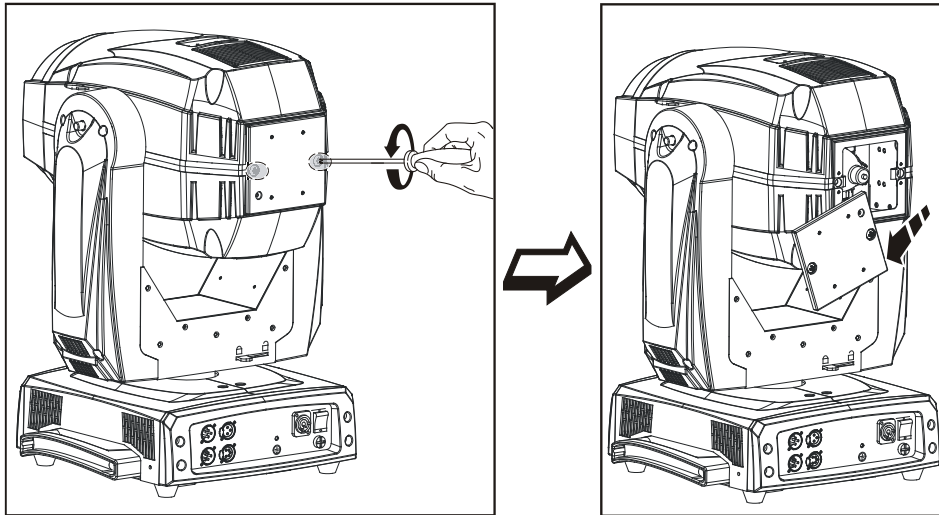
3. Loosen the screw that holds the lamp in place. Unplug the leads of the lamp and lift the lamp out of its recess, disconnect the lamp and connect a new lamp that must be the same type with the old one. And then place the new lamp into the lamp recess.
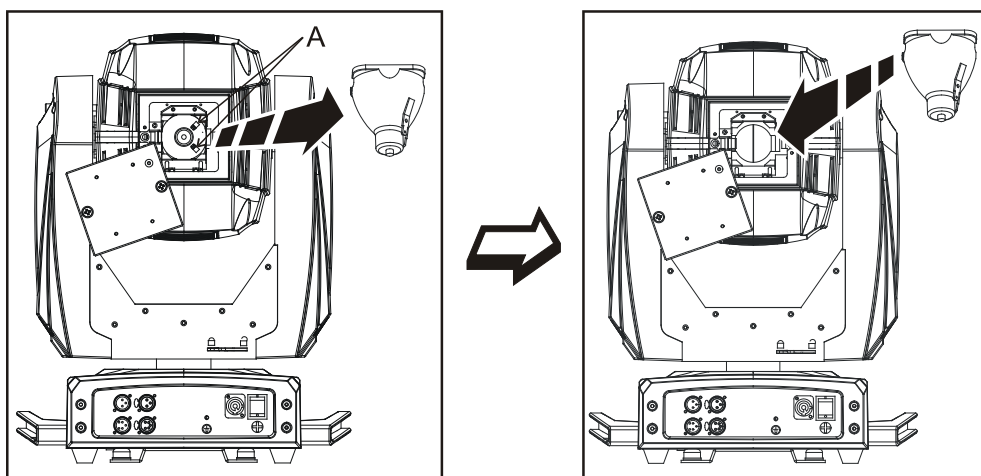
Finally reinstall the head cover, fastening it securely before reapplying power.

Warning:

The installing direction of lamp:
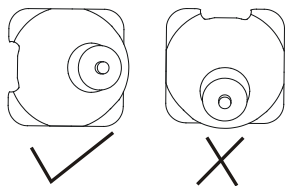
5. How To Set The Unit

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 one minute to exit menu mode. The main functions are shown below:

```
                                                        ┌─────────┐
                                             ┌──────────│   001   │
                                  DMX Address │          ├─────────┤
                                             └──────────│   512   │
                                                        ┌─────────┐
                                  DMX Channel Mode ─────│Mode1(23)│
                                                        ├─────────┤
                                                        │Mode2(25)│
                                                        ┌─────────┐
          DMX Functions           DMX State ───────────│Blackout │
                                                        ├─────────┤
                                                        │  Hold   │
                                  View DMX Value

                                                        ┌─────────┐
                                  Pan Inverse ──────────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
                                                        ┌─────────┐
                                  Tilt Inverse ─────────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
                                                        ┌─────────┐
                                  P/T Feedback ─────────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
          Fixture Settings                              ┌─────────┐
                                  Bl.o. P/T Moving ─────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
                                                        ┌─────────┐
                                  Bl.o. Color Change ───│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
                                                        ┌─────────┐
                                  Bl.o. Gobo Change ────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │

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

                                                        ┌─────────┐
                                  Display Inverse ──────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
          Display Setting         Backlight Intensity ──│  1~10   │
                                                        ┌─────────┐
                                  Temperature Unit ─────│   ℃    │
                                                        ├─────────┤
                                                        │   ℉    │

          Fixture Test            Auto Test
                                  Manual Test

                                  Fixture Use Hour
                                                        ┌──────────┐
                                  Light On Time ────────│   Exit   │
                                                        ├──────────┤
          Fixture Information      Temperature          │Reset Time│
                                  Fan State
                                  USB Upgrade File
                                  Firmware Version

                                  Pan & Tilt            ┌─────────┐
                                                 ───────│   No    │
          Reset Functions         Effect                ├─────────┤
                                                        │   Yes   │
                                  All

                                                        ┌─────────┐
          Special Functions       Factory ─────────────│   No    │
                                                        ├─────────┤
                                                        │   Yes   │
```

10C

DMX Functions

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

DMX Address —DMX512 address setting

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 one minute to exit menu mode.

DMX Channel Mode — DMX channel mode

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Mode1 (23)** channels mode or **Mode2 (25)** channels mode, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

DMX State — fixture state while DMX single stops

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 one minute 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 one minute 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, P/T Feedback, Bl.o. P/T Moving, Bl.o. Color Change** or **Bl.o. Gobo Change**.

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 one minute 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 one minute 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 one minute to exit menu mode.

Bl.o. P/T Moving

To select **Bl.o. P/T Moving**, 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 back to the last menu or let the unit idle one minute to exit menu mode.

Bl.o. Color Change

To select **Bl.o. Color Change**, 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 back to the last menu or let the unit idle one minute to exit menu mode.

Bl.o. Gobo Change

To select **Bl.o. Gobo Change**, 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 back to the last menu or let the unit idle one minute 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 —Turn on/off the lamp

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 one minute to exit menu mode.

State/Power On — Lamp state while 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 one minute to exit menu mode.

Display Setting

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

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 one minute 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 **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 one minute 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 one minute 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 one minute.

(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, Light On Time, Temperature, Fan State, USB Upgrade File** 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.

Light On Time

Select **Light On Time**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **Exit** or **Reset time.** Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

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 **MENU** button to exit.

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 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 —Reset 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 back to the last menu or let the unit idle one minute to exit menu mode.

Effect —Reset 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 back to the last menu or let the unit idle one minute to exit menu mode.

All — Reset 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

Select **Factory,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Yes** (the fixture will reset to factory settings) or **No** (normal), 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 (23/25 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.

Offset Menu		
	Pan	-128~127
	Tilt	-128~127
	Shutter	0~255
	Soften	0~255
	Cyan	-128~127
	Magenta	-128~127
	Yellow	-128~127
	Color	-128~127
	Gobo1	-128~127
	Gobo2	-128~127
	R-Gobo2	-128~127
	Prism	0~255
	R-Prism	-128~127
	Prism2	0~255
	R-Prism2	-128~127
	Frost	0~255
	Focus	0~255
	Zoom	0~255

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.

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.

Soften—Soften home position adjustment

Enter offset mode, Select **Soften**, 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.

Cyan—Cyan home position adjustment

Enter offset mode, Select **Cyan**, 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.

Magenta—Magenta home position adjustment

Enter offset mode, Select **Magenta**, 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.

Yellow—Yellow home position adjustment

Enter offset mode, Select **Yellow**, 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.

Gobo1—Gobo1 home position adjustment

Enter offset mode, Select **Gobo1**, 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.

R-Gobo2—R-Gobo2 home position adjustment

Enter offset mode, Select **R-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.

Prism—Prism home position adjustment

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

R-Prism—Prism rotation home position adjustment

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—Prism 2 home position adjustment

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

R-Prism 2—Prism 2 rotation home position adjustment

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.

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 0 to 255, 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 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 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
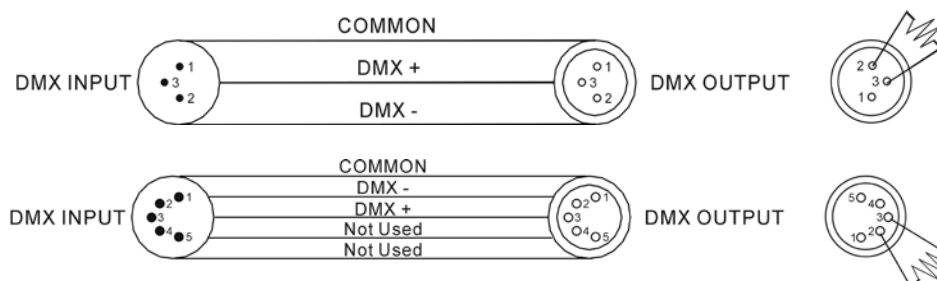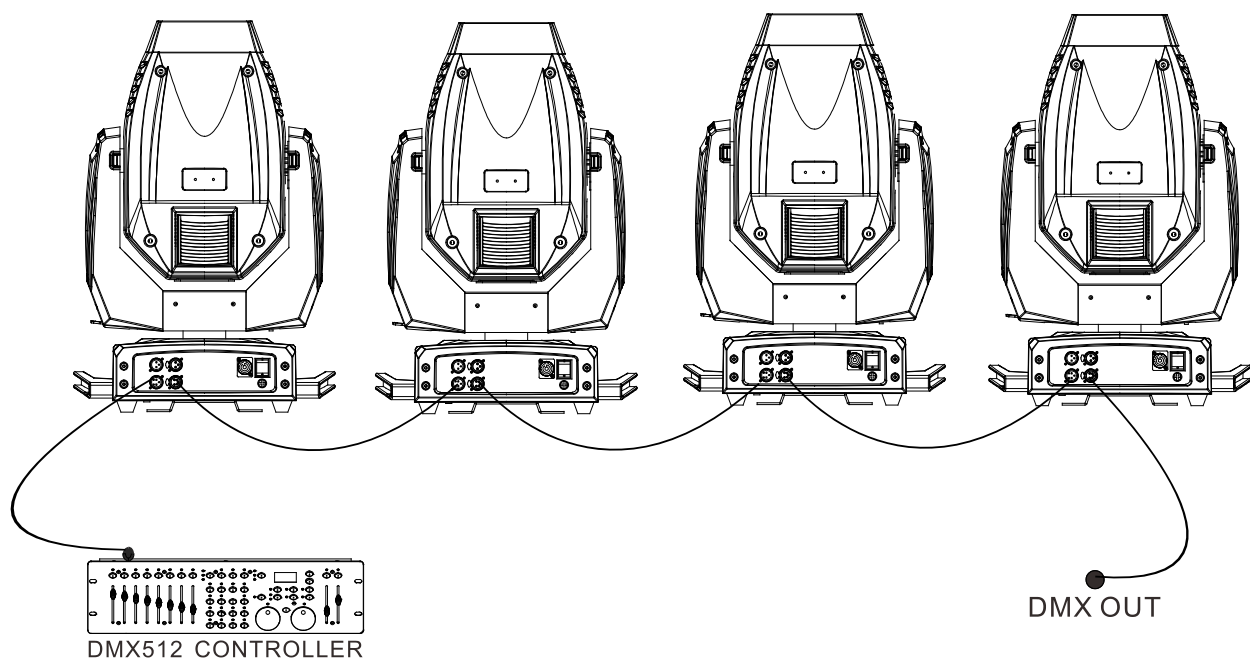
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm ¼W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

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 0-511 (usually 0 & 1 are equal to 1).

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 Functions*, 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 idling let the unit idle one minute 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
23 channels	1	24	47	70
25 channels	1	26	51	76

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 5 seconds, then the corresponding function will take into effect.

23 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** Fast→Slow
6	000-255	**Cyan** 0%→100%
7	000-255	**Magenta** 0%→100%
8	000-255	**Yellow** 0%→100%
9		**COLOR**
	000-005	White
	006-011	Color 1
	012-017	Color 2
	018-023	Color 3
	024-029	Color 4
	030-035	Color 5
	036-041	Color 6
	042-047	Color 7
	048-053	Color 8
	054-059	Color 9
	060-127	White to Color 9
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
10		**GOBO WHEEL 1**
	000-002	White
	003-005	Gobo 1

	006-008	Gobo 2
	009-011	Gobo 3
	012-014	Gobo 4
	015-017	Gobo 5
	018-020	Gobo 6
	021-023	Gobo 7
	024-026	Gobo 8
	027-029	Gobo 9
	030-032	Gobo 10
	033-035	Gobo 11
	036-038	Gobo 12
	039-041	Gobo 13
	042-044	Gobo 14
	044-054	Gobo 15
	055-058	Gobo 1 shaking slow to fast
	059-062	Gobo 2 shaking slow to fast
	063-066	Gobo 3 shaking slow to fast
	067-070	Gobo 4 shaking slow to fast
	071-074	Gobo 5 shaking slow to fast
	075-078	Gobo 6 shaking slow to fast
	079-082	Gobo 7 shaking slow to fast
	083-086	Gobo 8 shaking slow to fast
	087-090	Gobo 9 shaking slow to fast
	091-094	Gobo 10 shaking slow to fast
	095-098	Gobo 11 shaking slow to fast
	099-102	Gobo 12 shaking slow to fast
	103-106	Gobo 13 shaking slow to fast
	107-110	Gobo 14 shaking slow to fast
	111-127	Gobo 15 shaking slow to fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
11		**GOBO WHEEL 2**
	000-006	White
	007-013	Gobo 1
	014-020	Gobo2
	021-027	Gobo 3
	028-034	Gobo4
	035-041	Gobo 5
	042-048	Gobo 6
	049-055	Gobo 7
	056-062	Gobo 8
	063-083	Gobo 9
	084-087	Gobo 1 shaking slow to fast
	088-092	Gobo 2 shaking slow to fast
	093-097	Gobo 3 shaking slow to fast
	098-102	Gobo 4 shaking slow to fast

	103-107	Gobo 5 shaking slow to fast
	108-112	Gobo 6 shaking slow to fast
	113-117	Gobo 7 shaking slow to fast
	118-122	Gobo 8 shaking slow to fast
	123-127	Gobo 9 shaking slow to fast
	127-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
12		**R-GOBO2**
	000-127	0%→100%
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Counter-clockwise rotation slow to fast
13		**PRISM1**
	000-007	Close
	008-255	Open
14		**R-PRISM1**
	000-127	0%→100%
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Counter-clockwise rotation slow to fast
15		**PRISM2**
	000-007	Close
	008-255	Open
16		**R-PRISM2**
	000-127	0%→100%
	128-189	Clockwise rotation fast to slow
	190-193	Stop
	194-255	Counter-clockwise rotation slow to fast
17		**SHUTTER**
	000-003	Light OFF
	004-103	Strobe from slow to fast
	104-107	Light ON
	108-207	Pulsation from slow to fast
	208-212	Light ON
	213-225	Random Strobe at low frequency
	226-238	Random Strobe at medium frequency
	239-251	Random Strobe at high frequency
	252-255	Light ON
18		**DIMMER**
	000-255	0%→100%
19		**FOCUS**
	000-255	0%→100%
20		**ZOOM**
	000-255	100%→0%

CHANNEL	VALUE	FUNCTION
21	000-007	**FROST**
		Close
	008-255	Open
22	000-007	**SOFTEN**
		Close
	008-255	Open
23		**Special Function**
	000-069	No Function
	070-079	Blackout While Pan Tilt Move Enable
	080-089	Blackout While Pan Tilt Move Disable
	090-099	Blackout While Color Move Enable
	100-109	Blackout While Color Move Disable
	110-119	Blackout While Gobo Move Enable
	120-129	Blackout While Gobo Move Disable
	130-139	Lamp On
	140-149	Reset XY
	150-159	Reset Effect
	160-199	No Function
	200-209	Reset All
	210-229	No Function
	230-239	Lamp Off
	240-255	No Function

25 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	000-255	**Cyan**
		0%→100%
7	000-255	**Magenta**
		0%→100%
8	000-255	**Yellow**
		0%→100%
9	000-005	**COLOR**
		White

		006-011	Color 1
		012-017	Color 2
		018-023	Color 3
		024-029	Color 4
		030-035	Color 5
		036-041	Color 6
		042-047	Color 7
		048-053	Color 8
		054-059	Color 9
		060-127	White to Color 9
		128-189	Clockwise Rotation Fast to Slow
		190-193	Stop
		194-255	Counter-Clockwise Rotation Slow to Fast
10			**GOBO WHEEL 1**
		000-002	White
		003-005	Gobo 1
		006-008	Gobo 2
		009-011	Gobo 3
		012-014	Gobo 4
		015-017	Gobo 5
		018-020	Gobo 6
		021-023	Gobo 7
		024-026	Gobo 8
		027-029	Gobo 9
		030-032	Gobo 10
		033-035	Gobo 11
		036-038	Gobo 12
		039-041	Gobo 13
		042-044	Gobo 14
		045-054	Gobo 15
		055-058	Gobo 1 shaking slow to fast
		059-062	Gobo 2 shaking slow to fast
		063-066	Gobo 3 shaking slow to fast
		067-070	Gobo 4 shaking slow to fast
		071-074	Gobo 5 shaking slow to fast
		075-078	Gobo 6 shaking slow to fast
		079-082	Gobo 7 shaking slow to fast
		083-086	Gobo 8 shaking slow to fast
		087-090	Gobo 9 shaking slow to fast
		091-094	Gobo 10 shaking slow to fast
		095-098	Gobo 11 shaking slow to fast
		099-102	Gobo 12 shaking slow to fast
		103-106	Gobo 13 shaking slow to fast
		107-110	Gobo 14 shaking slow to fast
		111-127	Gobo 15 shaking slow to fast
		128-189	Clockwise Rotation Fast to Slow
		190-193	Stop

	194-255	Counter-Clockwise Rotation Slow to Fast
11		**GOBO WHEEL 2**
	000-006	White
	007-013	Gobo 1
	014-020	Gobo2
	021-027	Gobo 3
	028-034	Gobo4
	035-041	Gobo 5
	042-048	Gobo 6
	049-055	Gobo 7
	056-062	Gobo 8
	063-083	Gobo 9
	084-087	Gobo 1 shaking slow to fast
	088-092	Gobo 2 shaking slow to fast
	093-097	Gobo 3 shaking slow to fast
	098-102	Gobo 4 shaking slow to fast
	103-107	Gobo 5 shaking slow to fast
	108-112	Gobo 6 shaking slow to fast
	113-117	Gobo 7 shaking slow to fast
	118-122	Gobo 8 shaking slow to fast
	123-127	Gobo 9 shaking slow to fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
12		**R-GOBO2**
	000-255	0%→100%
13		**PRISM1**
	000-007	Close
	008-255	Open
14		**R-PRISM1**
	000-255	0%→100%
15		**PRISM2**
	000-007	Close
	008-255	Open
16		**R-PRISM2**
	000-255	0%→100%
17		**SHUTTER**
	000-003	Light OFF
	004-103	Strobe from slow to fast
	104-107	Light ON
	108-207	Pulsation from slow to fast
	208-212	Light ON
	213-225	Random Strobe at low frequency
	226-238	Random Strobe at medium frequency
	239-251	Random Strobe at high frequency

	252-255	Light ON
18	000-255	**DIMMER** 0%→100%
19	000-255	**FOCUS** 0%→100%
20	000-255	**FOCUS FINE**
21	000-255	**ZOOM** 100%→0%
22	000-255	**ZOOM FINE**
23	000-007 008-255	**FROST** Close Open
24	000-007 008-255	**SOFTEN** Close Open
25	000-069 070-079 080-089 090-099 100-109 110-119 120-129 130-139 140-149 150-159 160-169 170-179 180-189 200-209 210-229 230-239 240-255	**Special Function** No Function Blackout While Pan Tilt Move Enable Blackout While Pan Tilt Move Disable Blackout While Color Move Enable Blackout While Color Move Disable Blackout While Gobo Move Enable Blackout While Gobo Move Disable Lamp On Reset XY Reset Effect Fan Quiet Fan Fast No Function Reset All No Function Lamp Off 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 30/60 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 55103-2: 2009.

&
Harmonized Standard

EN 60598-1: 2015; EN 60598-2-17: 1989+A2: 1991;
EN 62493: 2015.
Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance