FOCUS®

PANTHER
15R SPOT

CONTENTS

1. Safety Instructions

 WARNING

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

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.
- The unit 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.
- Maximum ambient temperature TA: 40℃. DO NOT operate it when the temperature is higher.
- 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, and allow about 15 minutes for cooling the unit down before replacing bulb or maintenance as it could be very hot.
- 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.

Cautions:
- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- 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.

2. Technical Specifications

Power supply

- AC 100~240V 50/60Hz

Power Consumption

- 476W

Fuse

- T 10A

Light Source

- Philips MSD Platinum 15R

Battery backup display

- Setting DMX address or other functions without connecting to mains power.
- Battery for LCD display charges automatically when the fixtures connects to the mains power.
- No need to change battery.

Optical system

- High efficiency optical system, delivering extremely powerful output
- High quality dichroic lenses

Movement

- Pan: 540°
- Tilt: 270°
- Pan/Tilt moving speed adjustable.
- Automatic Pan/Tilt correction.
- Easy calibration and maintenance by magnetic home positioning.
- Pan/Tilt position lock for transporting protection.

Dimmer/Shutter

- Blackout, 0~100% smooth dimming, independent shutter and various strobe effect.

Color wheel

- Color wheel: 7 dichroic colors + open.
- Rainbow effect in both directions.
- Easy calibration and maintenance by magnetic home positioning.

CMY

- CMY speed adjustable.
- Optional multiple preset colors and macros available.

Gobo wheel

- Gobo Wheel 1: 8 rotating, indexable, easily replaceable gobos + open.

- Gobo Wheel 2: 14 metallic gobos + open.

- Easy calibration and maintenance by magnetic home positioning.

- Module design for easy assembly and service.

Prism

- 3 facets prism with rotating effect.

Frost

- Variable, separate effect.

Focus

- Focus effect.

Iris

- Motorized

Zoom

- Motorized linear zoom for smooth adjustment of beam size and beam sharpness.
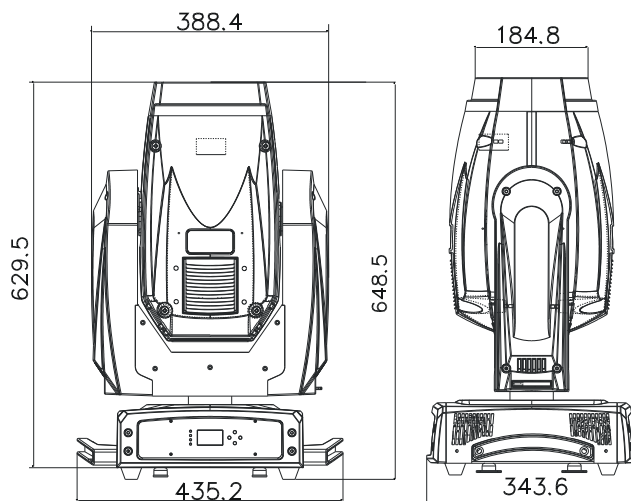
Cool

- Fan cooled

Protocols

- DMX 512

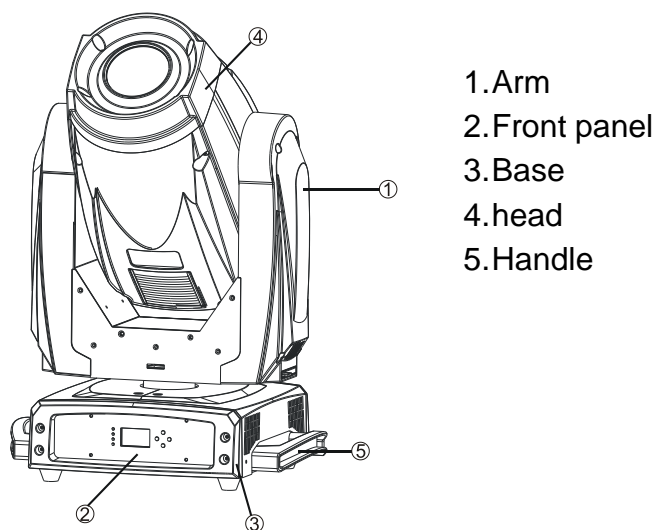- Date input/output: 3/5 Pin XLR socket
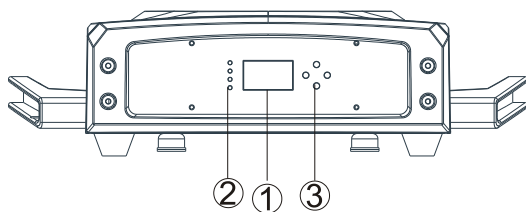
Weight

- 23Kg

Dimension

- 435× 344×649mm

3. Description

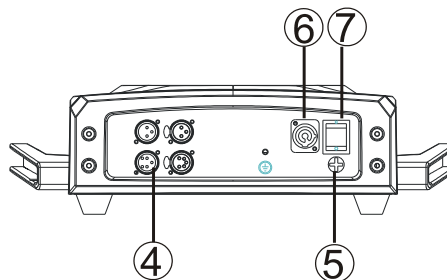## 3.1 Description of the fixture

1. Arm
2. Front panel
3. Base
4. head
5. Handle

3.2 Control Panel

Front view

Rear view

○,1 **Monitor (Batter Back-up display):**

○,2 **LED:**

POWER	On	Power on
NULL		No Function
NULL		No Function
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 to move down in the menu

ENTER	To perform the desired functions

○,4 **DMX input/output:**

For DMX 512 operation, use 3/5-pin XLR plug cable to link the units together

○,5 **Fuse (T 10A):**

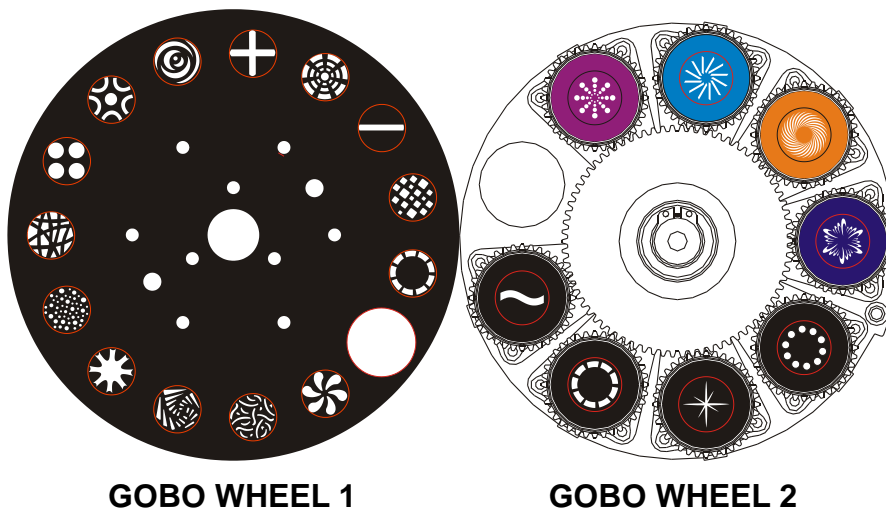Protect the unit from damage of over current.

○,6 **Power Cable:**

To connect to the mains supply

○,7 **Power Switch:**

Turns On/Off the power

4. Gobo and Lamp

4.1 Gobos

GOBO WHEEL 1   **GOBO WHEEL 2**

DANGER!
Install the gobos with the device switched off only.
Unplug from mains before changing gobos!

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

4.2 Light Source

Philips MSD Platinum 15R

- 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.
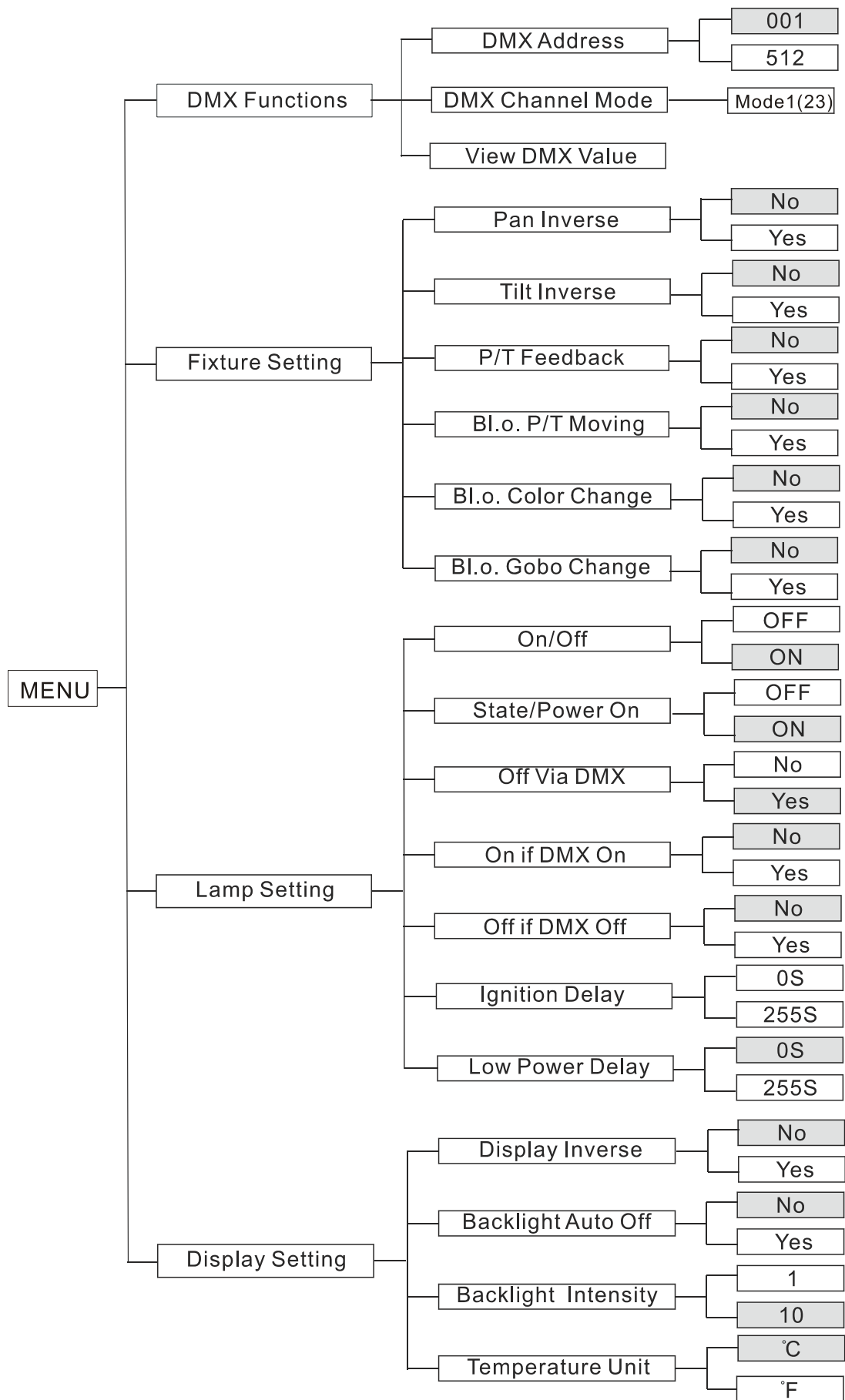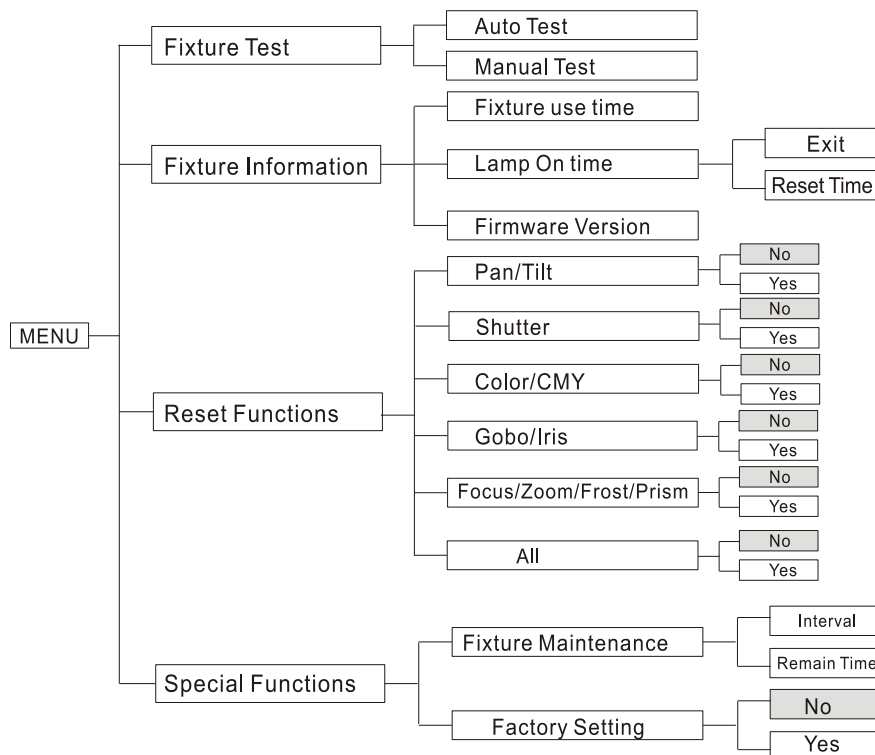
5. How To Set The Unit

5.1 Main Function

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

In the event of disconnecting with mains power, press **UP** button for one minute to enter into menu mode. Press MENU button or let the unit idle one minute to exit.

The main functions are shown below (the grayed boxes are preset settings) :

```
                                                            ┌─ 001
                                       ┌─ DMX Address ──────┤
                                       │                    └─ 512
                    ┌─ DMX Functions ──┼─ DMX Channel Mode ──── Mode1(23)
                    │                  │
                    │                  └─ View DMX Value
                    │
                    │                                       ┌─ No
                    │                  ┌─ Pan Inverse ──────┤
                    │                  │                    └─ Yes
                    │                  │                    ┌─ No
                    │                  ┌─ Tilt Inverse ─────┤
                    │                  │                    └─ Yes
                    │                  │                    ┌─ No
                    │                  ┌─ P/T Feedback ─────┤
                    │                  │                    └─ Yes
                    ├─ Fixture Setting ┤                    ┌─ No
                    │                  ┌─ Bl.o. P/T Moving ─┤
                    │                  │                    └─ Yes
                    │                  │                       ┌─ No
                    │                  ┌─ Bl.o. Color Change ──┤
                    │                  │                       └─ Yes
                    │                  │                      ┌─ No
                    │                  └─ Bl.o. Gobo Change ──┤
                    │                                         └─ Yes
                    │
                    │                                       ┌─ OFF
                    │                  ┌─ On/Off ───────────┤
                    │                  │                    └─ ON
                    │                  │                    ┌─ OFF
                    │                  ┌─ State/Power On ───┤
                    │                  │                    └─ ON
                    │                  │                    ┌─ No
 MENU ──────────────┤                  ┌─ Off Via DMX ──────┤
                    │                  │                    └─ Yes
                    │                  │                    ┌─ No
                    │                  ┌─ On if DMX On ─────┤
                    ├─ Lamp Setting ───┤                    └─ Yes
                    │                  │                    ┌─ No
                    │                  ┌─ Off if DMX Off ───┤
                    │                  │                    └─ Yes
                    │                  │                    ┌─ 0S
                    │                  ┌─ Ignition Delay ───┤
                    │                  │                    └─ 255S
                    │                  │                    ┌─ 0S
                    │                  └─ Low Power Delay ──┤
                    │                                       └─ 255S
                    │
                    │                                       ┌─ No
                    │                  ┌─ Display Inverse ──┤
                    │                  │                    └─ Yes
                    │                  │                       ┌─ No
                    │                  ┌─ Backlight Auto Off ──┤
                    └─ Display Setting ┤                       └─ Yes
                                       │                      ┌─ 1
                                       ┌─ Backlight Intensity ┤
                                       │                      └─ 10
                                       │                     ┌─ ℃
                                       └─ Temperature Unit ──┤
                                                             └─ ℉
```

9A

```
                    ┌─────────────────┐        ┌──────────────────┐
                ┌──┤  Fixture Test   ├────────┤    Auto Test     │
                │   └─────────────────┘    │   ├──────────────────┤
                │                          └───┤   Manual Test    │
                │                              └──────────────────┘
                │   ┌─────────────────┐        ┌──────────────────┐
                │   │                 │    ┌───┤ Fixture use time │
                │   │                 │    │   ├──────────────────┤        ┌──────────────┐
                ├──┤ Fixture Information ├──┼───┤   Lamp On time   ├────────┤    Exit      │
                │   │                 │    │   ├──────────────────┤        ├──────────────┤
                │   │                 │    │   │                  │        │  Reset Time  │
                │   └─────────────────┘    └───┤ Firmware Version │        └──────────────┘
                │                              └──────────────────┘
                │                              ┌──────────────────┐        ┌──────┐
                │                          ┌───┤    Pan/Tilt      ├────────┤  No  │
                │                          │   └──────────────────┘        ├──────┤
                │                          │                               │ Yes  │
                │                          │   ┌──────────────────┐        ┌──────┐
                │                          ├───┤    Shutter       ├────────┤  No  │
                │                          │   └──────────────────┘        ├──────┤
┌───────┐       │                          │                               │ Yes  │
│ MENU  ├───────┤                          │   ┌──────────────────┐        ┌──────┐
└───────┘       │   ┌─────────────────┐    ├───┤    Color/CMY     ├────────┤  No  │
                ├──┤ Reset Functions  ├────┤   └──────────────────┘        ├──────┤
                │   └─────────────────┘    │                               │ Yes  │
                │                          │   ┌──────────────────┐        ┌──────┐
                │                          ├───┤    Gobo/Iris     ├────────┤  No  │
                │                          │   └──────────────────┘        ├──────┤
                │                          │                               │ Yes  │
                │                          │   ┌─────────────────────┐     ┌──────┐
                │                          ├───┤ Focus/Zoom/Frost/Prism ├───┤  No  │
                │                          │   └─────────────────────┘     ├──────┤
                │                          │                               │ Yes  │
                │                          │   ┌──────────────────┐        ┌──────┐
                │                          └───┤       All        ├────────┤  No  │
                │                              └──────────────────┘        ├──────┤
                │                                                          │ Yes  │
                │                              ┌──────────────────┐        ┌──────────────┐
                │   ┌─────────────────┐    ┌───┤Fixture Maintenance├───────┤   Interval   │
                └──┤ Special Functions├────┤   └──────────────────┘        ├──────────────┤
                    └─────────────────┘    │                               │ Remain Time  │
                                           │   ┌──────────────────┐        ┌──────┐
                                           └───┤ Factory Setting  ├────────┤  No  │
                                               └──────────────────┘        ├──────┤
                                                                           │ Yes  │
```

DMX Functions

Enter menu mode, select **DMX Functions**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **DMX Address**, **DMX Channel Mode** or **View DMX Value.**

DMX Address—DMX512 address setting

Select **DMX Address**, press the **ENTER** button to confirm, the present address will blink on the display, use the **UP** and **DOWN** button to adjust the address from **0** 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—channel mode

Select **DMX Channel Mode**, press ENTER button to confirm, present channel mode will blink on the display, use UP and DOWN button to select **Mode1 (23 channels mode)**, press ENTER button to store. Press MENU button back to the last menu or let the unit idle one minute to exit menu mode.

View DMX Value

Select **View DMX Value**, press the **ENTER** button to confirm. Channel function and its

value will show on the display, use the **UP** and **DOWN** button to view other DMX value. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Setting

Enter menu mode, select *Fixture Setting*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select *Pan Inverse, Tile Inverse, P/T Feedback, BL.O. P/T Moving, BL.O. Color Change* or *BL.O. Gobo Change*.

Pan Inverse

Select **Pan Inverse**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **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

Select **Tilt Inverse**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **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

Select **P/T Feedback**, press ENTER button to confirm, present mode will blink on the display, press 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 ENTER button to store. Press MENU button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O. P/T Moving—Blackout while pan/tilt moving

Select **BL.O. P/T Moving**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to select **No** (normal while pan/tilt moving) or **Yes** (blackout while pan/tilt moving), 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—Blackout while change color

Select **BL.O. Color Change**, press ENTER button to confirm, present mode will blink on the display, use UP and DOWN button to select **No** (normal while changing color) or **Yes** (blackout while change color), Press MENU button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O. Gobo Change—Blackout while change gobo

Select **BL.O. Gobo Change**, press ENTER button to confirm, present mode will blink on the display, use UP and DOWN button to select **No** (normal while changing gobo) or **Yes** (blackout while changing gobo), press ENTER button to store. Press MENU button back to the last menu or let the unit idle one minute to exit menu mode.

Lamp Setting

Enter menu mode, select *Fixture Setting*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select *On/Off, State/Power on, Off Via DMX, On if DMX on, Off if DMX off, Cooling Mode, Ignition Delay* or *Low Power Delay.*.

On/Off—Turn on/off the lamp

Select **On/Off**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **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

Select **State/Power On**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **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.

Off Via DMX—Turn off the unit via DMX controller

Select **Off Via DMX**, press the **ENTER** button to confirm, present mode will blink on the

display, use the **UP** and **DOWN** button to select **Yes** (turn off the unit via DMX controller available) or **No** (turn off the unit via DMX controller impracticable), 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.

(When you operate the unit via DMX controller, set the value of channel "special function" to "lamp off", waiting for 5 seconds, then the lamp will be off if you choose "yes" mode).

__On If DMX On__—Lamp turns on when DMX signal is detected

Select **On If DMX On**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to select **Yes** (Lamp turns on when DMX signal is detected) or **No** (keep the present state), 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.*(If the lamp is off via DMX signal, you can reconnect the DMX controller to make the lamp on).*

__Off If DMX Off__—┤ Lamp turns off when DMX signal is cut off

Select **Off If DMX Off**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to select **Yes** (Lamp turns off when DMX signal is cut 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.

__Cooling Mode__—Lamp turns off when DMX signal is cut off

Select **Cooling Mode**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to select **Auto** (fans speed adjust automatically) or **High** (fans run in high speed), 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.

__Ignition Delay__—Delay time between power on and lamp on

Select **Ignition Delay**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to adjust the delay time from 0S to 255S,

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.

Low Power Delay—Delay time between reduce lamp power and shutter off the unit

Select **Low Power Delay**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOWN** button to adjust the delay time from 0S to 255S, 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.
(If you set the low power delay time to 3S, the lamp will run in half power 3 seconds after the unit shutters off)

Display Setting

Enter menu mode, select *Display Setting*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select *Display Inverse, Backlight Auto Off, 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** and **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 Auto Off

Select **Backlight Auto Off**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **DOW**N button to select **No** (display always on) or **Yes** (display goes off one minute after exiting menu 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.

Backlight Intensity

Select **Backlight Intensity**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP** and **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** and **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** and **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, CMY, gobo, gobo rotation, prism, prism rotation, iris, frost, zoom, focus, dimmer, flat and lamp on/off. 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** and **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** and **DOWN** button to select *Fixture Use Time, Lamp On Time* or *Firmware Version.*

Fixture Use Time

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

Lamp On Time

Select **Lamp On Time**, press the **ENTER** button to confirm, lamp on time will show on the display, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Exit** or **Reset Time**, press the **ENTER** button to confirm. Press the **MENU** button back to the last menu or exit menu mode idling one minute.

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 Function*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select *Pan/Tilt, Shutter, Color/CMY, Gobo/Iris, Focus/ Zoom/Frost / Prism* or *All.*

Pan/Tilt—Reset Pan/Tilt

Select **Pan/Tilt**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Yes** (the unit will run built-in program to reset pan and tilt 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.

Shutter—Reset Shutter

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

Color/CMY—Reset Color/CMY

Select **Color/CMY**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button

to select **Yes** (the unit will run built-in program to reset color and CMY to their home positions) or **No**, and press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo/Iris—*Reset Gobo/Iris*

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

Focus/Zoom /Frost/Prism—*Reset Focus/Zoom /Frost/Prism*

Select **Focus/Zoom/Frost/Prism,** press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Yes** (the unit will run built-in program to reset zoom, frost and frost to their home positions) or **No**, and press the **ENTER** button to store. Press the **MENU** button to exit.

All—*Reset All*

Select **All,** press the **ENTER** button to confirm, use the **UP** and **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

Enter menu mode, select *Special Functions*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select *Fixture Maintenance* or *Factory Setting.*

Fixture Maintenance

Select **Fixture Maintenance**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Interval** or **Remain Time**.

Interval

Select **Interval,** press the **ENTER** button to confirm, the interval time will show on the display. Press the **MENU** button to exit.

Remain Time

Select **Remain Time,** press the **ENTER** button to confirm, the remaining time will show on the display, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Exit** or **Reset time**, press the **MENU** button to exit.

Factory Setting

Select **Factory Setting**, press the **ENTER** button to confirm, the fixture will reset to factory settings and exit menu mode.

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 **ENTER** button. Use the **UP** and **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
	Color	-128~127
	Cyan	0~255
	Megenta	0~255
	Yellow	0~255
	Gobo	-128~127
	R-Gobo	-128~127
	Gobo2	-128~127
	Iris	0~255
	Prism	0~255
	R-Prism	-128~127
	Zoom	0~255
	Focus	0~255
	Frost	0~255
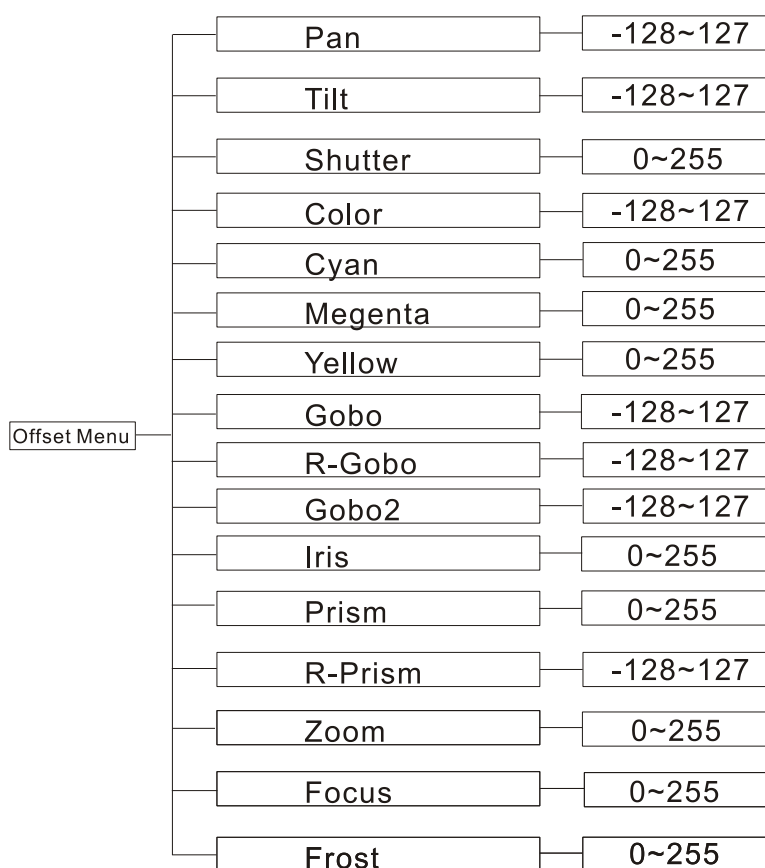
Pan—pan home position adjustment

Enter offset mode, Select **Pan**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP** and **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** and **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** and **DOWN** button to offset the value from 0 to 255, 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** and **DOWN** button to offset the value from -128 to 127, 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** and **DOWN** button to offset the value from 0 to 255, 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** and **DOWN** button to offset the value from 0 to 255, 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** and **DOWN** button to offset the value from 0 to 255, 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** and **DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Gobo—Gobo rotation home position adjustment

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

Gobo 2—Gobo 2 home position adjustment

Enter offset mode, Select **Gobo 2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP** and **DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Iris—Iris home position adjustment

Enter offset mode, Select **Iris**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP** and **DOWN** button to offset the value from 0 to 255, 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** and **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** and **DOWN** button to offset the value from -128 to 127, 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** and **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** and **DOWN** button to offset the value from 0 to 255, 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** and **DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

5.3 Error Information

Lamp Startup Fail

It appears when there is no lamp or some wires are damaged.

Temperature Sense Error

It appears when temperature check board is damaged.

Lamp Too Hot Power Off

It appears when temperature is detected higher than 110℃. Check if the unit is properly ventilated, or fans or temperature check board may is damaged.

Lamp Too Hot Low Power

It appears when detected temperature is higher than 105℃. the unit will run on a low power level.

Maintenance Fixture

It appears when the maintenance remaining time becomes 0S, please enter menu mode and reset the time.

Lamp On Over 700 Hour

It appears when the lamp ~~always~~ has been on over 700 hours, please turn off the lamp.

Memory Initial Fail

It appears when the memory IC is damaged.

CPU-B Error, CPU-C Error, CPU-D Error

They appear when board P.C or some wires are damaged.

Pan Reset Error, Pan Encode Error, Tilt Reset Error, Tilt Encode Error, Shutter Reset

Fail, Dimmer Reset Fail, Color Reset Fail, Cyan Reset Fail, Magenta Reset Fail, Yellow Reset Fail, Gobo1 Reset Fail, R-Gobo1 Reset Fail, Gobo2 Reset Fail, Iris Reset Fail, Effect Reset Fail, R-Effect Reset Fail, Frost Reset Fail, Flat Reset Fail, Focus Reset Fail, Zoom Reset Fail

They may appear when turning on or resetting the unit, for some parts such as board P.C are damaged. Please contact the qualified maintenance.

6. Control By Universal DMX Controller

6.1 Connection

DMX Controller

DMX Output
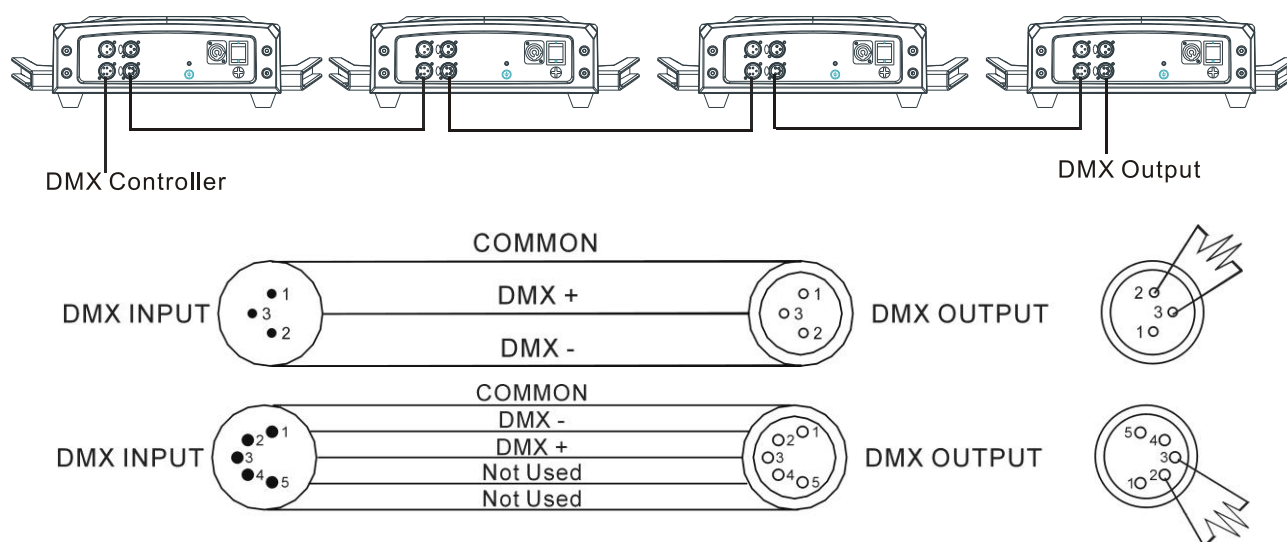
ATTENTION

Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal (Resistance 120 ohm 1/4W between pin2 (DMX-) and pin3 (DMX+) of the last fixture).

1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit

to the input of the next unit. The cable 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 Channel Mode Setting

Enter menu mode, select *DMX Functions*, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **DMX Channel Mode**, press the **ENTER** button to confirm, present channel mode will blink on the display, use the **UP** and **DOWN** button to select **Mode1 (23 channels mode)**, 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.

6.3 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** and **DOWN** button to select *DMX Address*, press the **ENTER** button to confirm, the present address will blinking the display, use **UP** and **DOWN** button to adjust the address from 0 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

6.4 DMX 512 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:

23 Channels Mode

Ch1	Ch2	Ch3	Ch4	Ch5	Ch6
Pan	Pan Fine	Tilt	Tilt Fine	Pan/Tilt Speed	Function

Ch1	Ch2	Ch3	Ch4	Ch5	Ch6
255 ⌐ 540° 0 └ 0°	255 ⌐ 0 └	255 ⌐ 270° 0 └ 0°	255 ⌐ 0 └	255 ⌐ Slow 0 └ Fast	240-255 No Function 230-239 Lamp Off 220-229 Disable Blackout while Pan/Tilt Moving or Color change or gobo change 210-219 Enable Blackout while Pan/Tilt Moving or Color change or gobo change 200-209 Reset All 180-1995 Focus/Frost Reset 170-179 Shutter/Dimmer reset 160-169 Gobo/Iris Reset 150-159 Color/CMY Reset 140-149 Pan/Tilt reset 130-139 Lamp On 120-129 Disable Blackout while gobo change 110-119 Enable Blackout while gobo change 100-109 Disable Blackout while color change 090-099 Enable Blackout while color change 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 Null

Ch7	Ch8	Ch9	Ch10	Ch11
Color	Cyan	Magenta	Yellow	Preset Color

Ch7	Ch8	Ch9	Ch10	Ch11
255 Rotation Fast 194 Rotation Slow 190-193 Stop 189 Rotation Slow 128 Rotation Fast 064-127 Color Mix 056-063 Color7 048-055 Color6 040-047 Color5 032-039 Color4 024-031 Color3 016-023 Color2 008-015 Color1 001-007 White	255 ⌐ 100% 0 └ 0%	255 ⌐ 100% 0 └ 0%	255 ⌐ 100% 0 └ 0%	234-255 Color11 213-233 Color10 192-212 Color9 171-191 Color8 149-170 Color7 128-148 Color6 107-127 Color5 086-106 Color4 064-085 Color3 043-063 Color2 022-042 Color1 000-021 Open

23 Channels Mode

Ch12	Ch13	Ch14	Ch15	Ch16	Ch17
CMY Speed	Gobo	R-Gobo	Gobo2	Prism	R-Prism

Ch12 — CMY Speed

255 Fast
254 Slow

0 Fast

Ch13 — Gobo

255 Rotation Fast
194 Rotation Slow
190-193 Stop
189 Rotation Slow
128 Rotation Fast
064-127 Gobo1-8 Shaking
057-063 Gobo8
050-056 Gobo7
043-049 Gobo6
036-042 Gobo5
029-035 Gobo4
022-028 Gobo3
015-021 Gobo2
008-014 Gobo1
000-007 Open

Ch14 — R-Gobo

255 Rotation Fast
194 Rotation Slow
190-193 Stop
189 Rotation Slow
128 Rotation Fast
0-127 Index

Ch15 — Gobo2

255 Rotation Fast
194 Rotation Slow
190-193 Stop
189 Rotation Slow
128 Rotation Fast
124-127 Gobo14 Shaking
120-123 Gobo13 Shaking
116-119 Gobo12 Shaking
112-125 Gobo11 Shaking
108-111 Gobo10 Shaking
104-107 Gobo9 Shaking
100-103 Gobo8 Shaking
096-099 Gobo7 Shaking
092-085 Gobo6 Shaking
088-091 Gobo5 Shaking
084-087 Gobo4 Shaking
080-083 Gobo3 Shaking
076-079 Gobo2 Shaking
072-075 Gobo1 Shaking
067-071 Gobo14
062-066 Gobo13
057-061 Gobo12
053-056 Gobo11
048-052 Gobo10
043-047 Gobo9
038-042 Gobo8
034-037 Gobo7
029-033 Gobo6
024-028 Gobo5
019-023 Gobo4
016-018 Gobo3
010-015 Gobo2
005-009 Gobo1
000-004 Open

Ch16 — Prism

192-255 Effect 3
128-191 Effect 2
008-127 Effect 1
000-007 No effect

Ch17 — R-Prism

255 Fast Rotation
194 Slow Rotation
190-193 Stop
189 Slow Rotation
128 Fast Rotation
0-127 Index Rotation

Ch18	Ch19	Ch20	Ch21	Ch22	Ch23
Zoom	Focus	Frost	Iris	Shutter	Dimmer

Ch18 — Zoom

255 100%
0 0%

Ch19 — Focus

255
0

Ch20 — Frost

255 100%
0 0%

Ch21 — Iris

255 0%
0 100%

Ch22 — Shutter

248-255 Open
240-247 Random Strobe
204-239 Slow open slow close
168-203 Fast open slow close
132-167 Slow open fast close
16-131
8-15 Open
0-7 Off

Ch23 — Dimmer

255 100%
0 0%

Gobo1:

Gobo8   Gobo7

Gobo6

Gobo5

Gobo1   Gobo4

Gobo2   Gobo3

Gobo2:

Gobo6   Gobo5

Gobo7   Gobo4

Gobo8   Gobo3

Gobo9   Gobo2

Gobo10   Gobo1

Gobo11

Gobo12   Gobo14

Gobo13
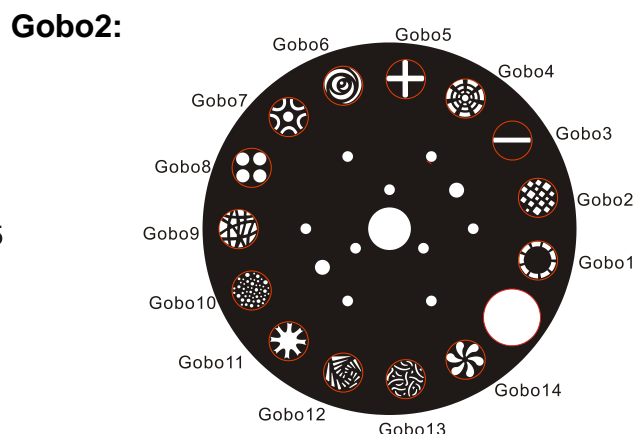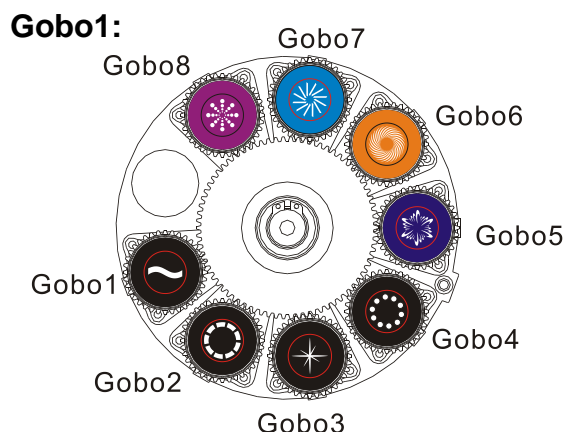
7. Troubleshooting

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.

E. If The pan belt is broken

1. Turn off the mains power.
2. Loosen the screws (A), open the cover (B).
3. Loosen the screws (C).
4. Unplug all the connect wires over the belt.
5. Change a new belt (D), put the belt around the axis gear and motor gear.
6. Plug all the connect wires back upon the belt.
7. Tighten all the screws.
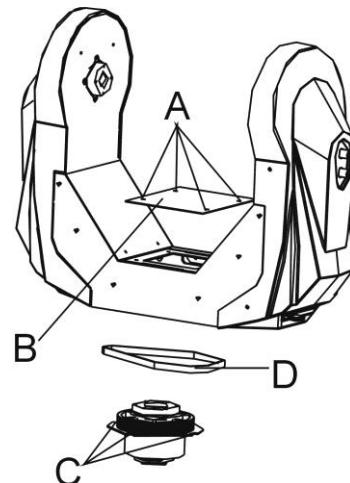
F. If The tilt belt is broken

1. Turn off the mains power.
2. Loosen all the screws (A) and open the right arm cover (B).
3. Loosen the screws (C) that fix the bridge.
4. Change a new belt (D). Please adjust the tension of the belt properly. Note: do not fix the belt too tight as it is can easily rupture.
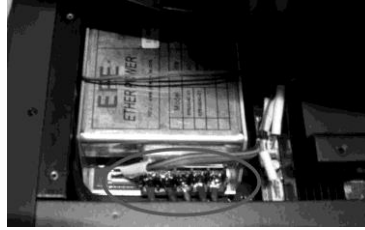5. Reverse the procedures from step 3 to 2.
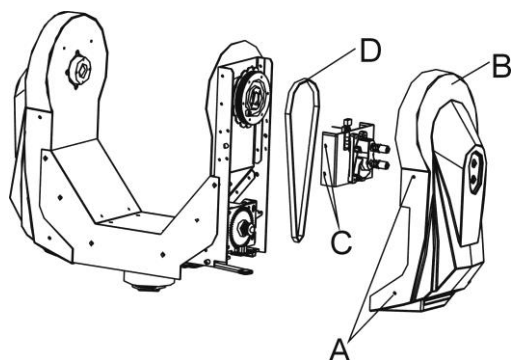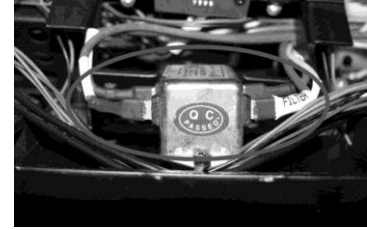
8. Maintenance and Cleaning

Maintenance:
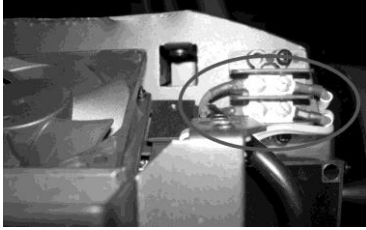
| Ignitor | Ballast | Filter |

A. As the pictures shown above, please replace the cable or cable joints immediately once they've turned yellow.

B. Do maintain the fixtures every two months and make sure that all the screws and terminals have been locked firmly to make sure the normal performance of the fixtures. Negligence of maintenance would cause malfunction of the 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 89/336/EEC.

EN55103-1: 2009 ; EN55103-2: 2009; EN62471: 2008;
EN61000-3-2: 2006 + A1:2009 + A2:2009; EN61000-3-3: 2008.

&
Harmonized Standard

EN 60598-1:2008 + All:2009; EN 60598-2-17:1989 + A2:1991; EN 62471:2008;
EN 62493: 2010
Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance