

## User Manual

Please read the instruction carefully before use

## CONTENTS

1. Safety Instructions .....	2
2. Technical Specifications .....	5
3 Control Panel .....	7
4. Color/Gobo and Lamp.....	8
4.1 Color/Gobo .....	8
4.2 Light Source .....	8
4.3 Change The Lamp.....	9
5. How To Set The Unit.....	11
5.1 Main Function.....	11
5.2 Home Position Adjustment .....	15
6. Control By Universal DMX Controller.....	18
6.1 DMX512 Connection .....	18
6.2 Address Setting .....	19
6.3 DMX512 Configuration.....	19
7. Troubleshooting .....	32
8. Fixture Cleaning .....	33

## 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:

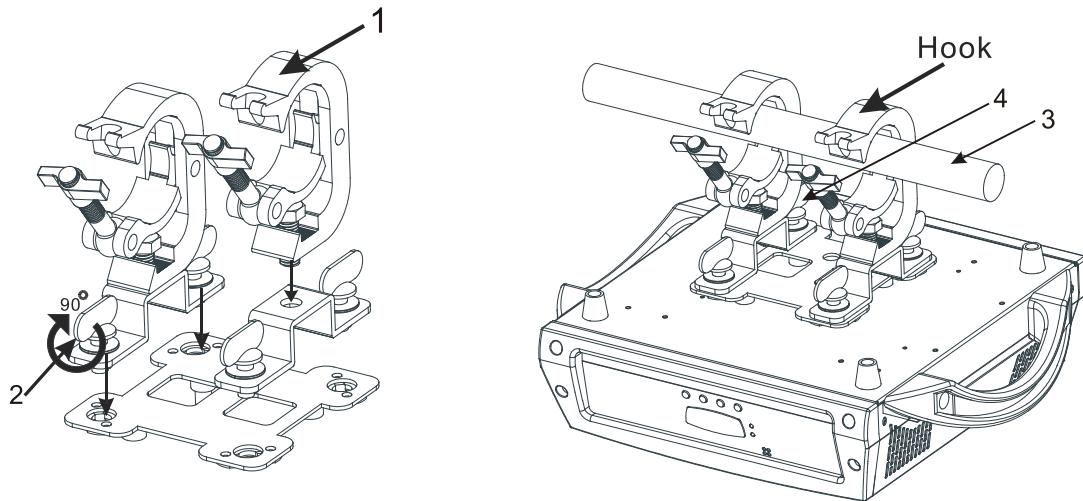
**Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.**

- 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°C. Maximum ambient temperature TA: 40°C.
- 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.
- 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:**

1. Bolt each clamp (1) to the Omega holder with screw and lock nut through the hole in the holder.
2. Fasten the omega holders (2) on the bottom of the base by inserting quick-lock fasteners (3) into the holes of the base and tighten fully clockwise.
3. Hang the fixture to the support (4) through clamp and fasten the screws (5). Fasten the safety cable (6) through the bottom of the base and over the support.

**Attention:**

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:**

270W

**Light Source:**

PHILIPS MSD Platinum 5R

**Color Temperature:**

8000K

**Beam Angle:**

1°/3.8°

**Movement:**

Pan: 540°

Tilt: 250°

Pan/Tilt Resolution: 16 bit

**Dimmer/Shutter:**

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

**Color Wheel:**

1 x color wheel with 14 fixed colors plus white with rainbow effect

**Gobo Wheel:**

1 x static gobo wheel with 17 gobos plus open

**Control:**

DMX Channel: 16/15/19/20 Channels

Control Mode: DMX512

Firmware Upgrade: Update via DMX link

**Construction:**

Display: LED display

Data In/Out: 3-pin XLR

Power In/Out: Power Connector in/out

Protection rating: IP20

**Features:**

Motorized focus

Outstanding color macro effect

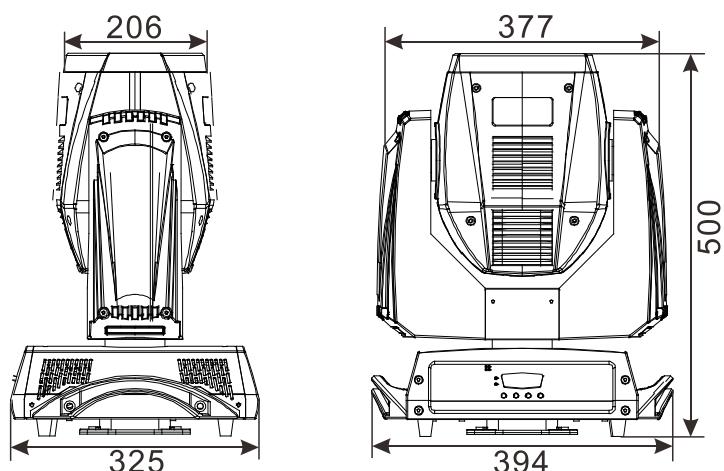
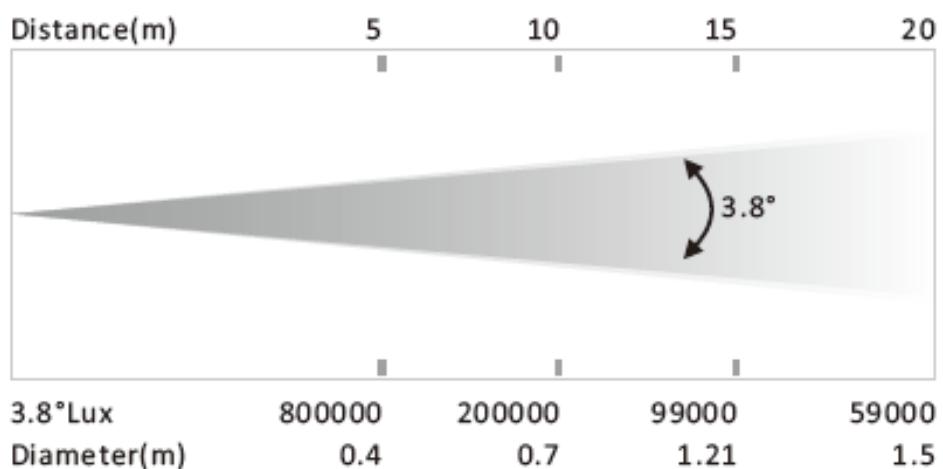
8 facet Prism, rotation in both directions

Independent frost effect

**Dimension/Weight:**

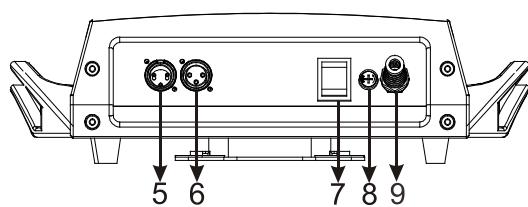
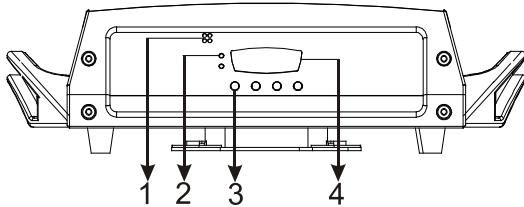
394x325x500mm, 18kgs

15.5"x12.8"x19.7"in, 39.7lbs

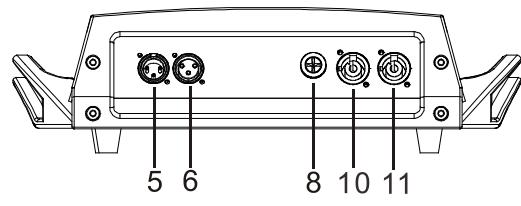
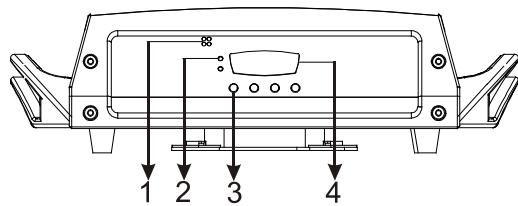
**Photometrics Diagram:**

### 3 Control Panel

Wire Version:



Powercon Version:



**1. Microphone:** To receive music for sound active

**2. LED:**

POWER	On	Power On
DMX	On	DMX input present

**3. Button:**

MENU	To select the programming functions
▼ UP	To go backward in the selected functions
▲ DOWN	To go forward in the selected functions
ENTER	To confirm the selected functions

**4. Display:** Used to show the various menus and the selected function

**5. DMX IN:** DMX 512 link, use 3-pin XLR cable to link the unit and DMX controller

**6. DMX OUT:** DMX 512 operation, use 3-pin XLR cable to link the next units

**7. POWER SWITCH(WIRE VERSION):** Turn On/Off the power

**8. FUSE(T 6.3A):** Protect the unit from damage of over voltage or short circuit

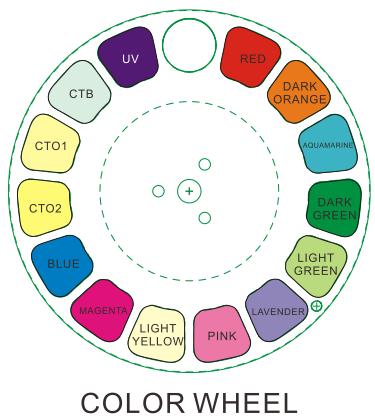
**9. POWER(WIRE VERSION):** Used to connect to supply power

**10. POWER IN(POWERCON VERSION):** Used to connect to supply power

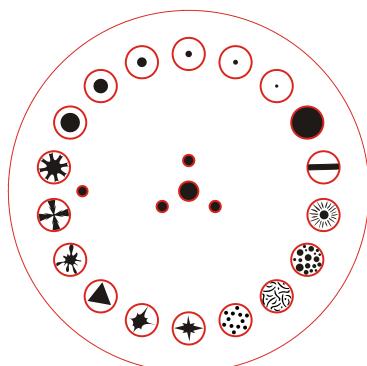
**11. POWER OUT(POWERCON VERSION):** Used to connect to the next fixture

## 4. Color/Gobo and Lamp

### 4.1 Color/Gobo



COLOR WHEEL



STATIC 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!*

### 4.2 Light Source

#### PHILIPS MSD Platinum 5R

- Because of its high internal pressure, there might be a risk that the Discharge lamp would explode during operation. The lamp emits intense UV radiation which is harmful to the eyes and skin. The high luminance of the arc can cause severe damage to the retina if you take a close look at the lamp.
- To protect the lamp, always turn off the lamp first (via control panel or DMX controller) and let the unit run at least five minutes to cool down before switching off the mains supply. Never handle the lamp or luminary when it is hot.
- Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation.
- The lamp generates UV radiation. Never operate the lamp without appropriate shielding.
- When lighting up, the lamp operates at high pressure and there is a slight risk of arc tube rupture. The risk increases with age, temperature and improper handling of the lamp. Do not use the lamp longer than its lifespan.
- Make sure the lamp is located in the center of the reflector for the best projection.

#### **4.3 Change The Lamp**

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

Do not use this lamp more than 2000 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 2000 hour mark, or close to it, we strongly suggest you switch the lamp out. Clear the lamp time after you have replaced the lamp.

**To replace the lamp:**

1. Remove the fixture head covers using a screwdriver (Figure 1).

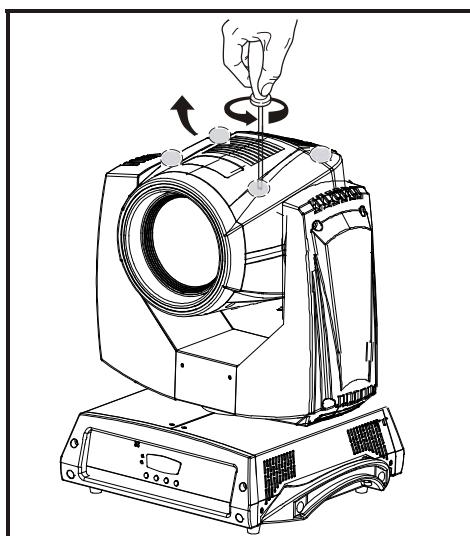


Figure 1

2. Position the head as Figure 2 and remove the lamp cooling fan at the rear of the head.

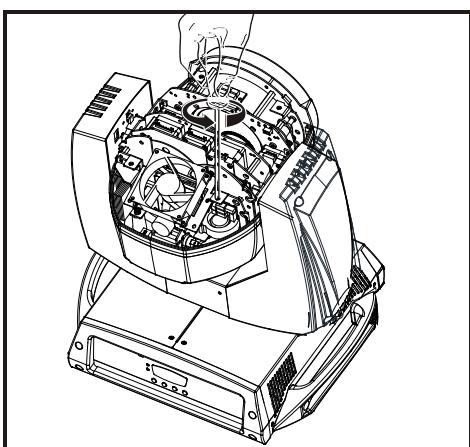


Figure 2

3. Lift the lamp out of its recess as Figure 3.

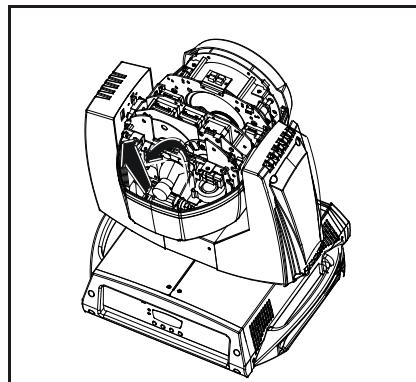


Figure 3

4. Disconnect the lamp and connect the replacement lamp (Figure 4). Place the new lamp into the lamp recess.(Figure 5)

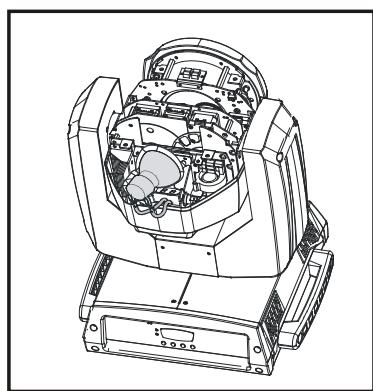


Figure 4

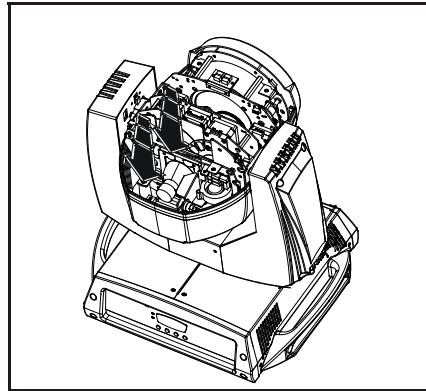


Figure 5

5. See illustration below. Adjust the lamp using a slotted (flat head) screwdriver until it is centralized.

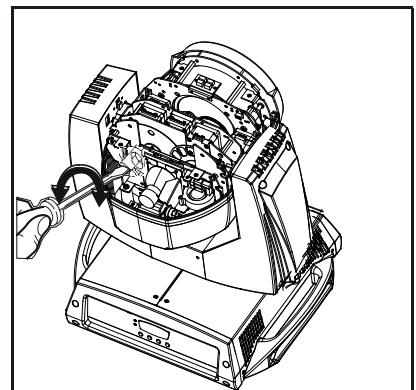
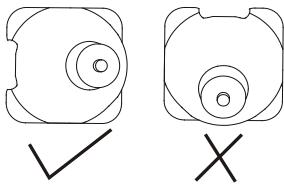


Figure 6

6. Reinstall the fan and secure it, then replace and secure the head covers before reapplying power.

**Warning:**

The installing direction of lamp:

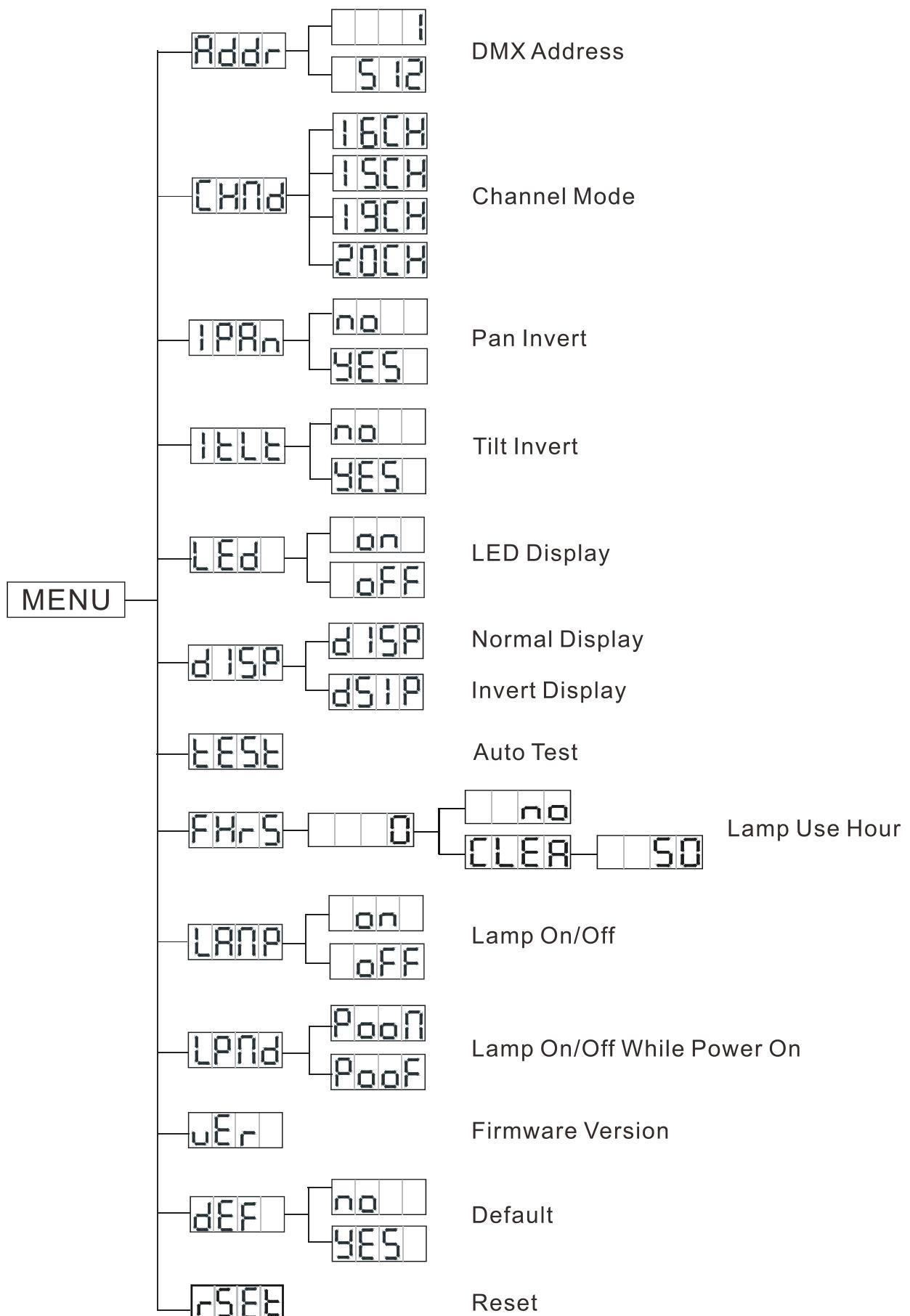


## **5. How To Set The Unit**

### **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 30 seconds to exit menu mode.

The main functions are shown below:



## **Addr** DMX Address

Select the **Addr**, press the **ENTER** button to confirm, the display will show the present address.

Use the **UP/DOWN** button to adjust the address from **00001 (1)** to **512 (512)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **Chnd** Channel Mode

Select the **Chnd**, press the **ENTER** button to confirm, the display will show the present channel mode. Use the **UP/DOWN** button to select **16CH (16 channel)**, **15CH (15 channel)**, **19CH (19 channel)** or **20CH (20 channel)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **IPRn** Pan Invert

Select **IPRn**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **no (normal)** or **yes (pan invert)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **TELt** Tilt Invert

Select **TELt**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **no (normal)** or **yes (tilt invert)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **Lpd** LED Display

Select **Lpd**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **on (on)** or **off (off)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **dISP** Display Setting

Select **dISP**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **dISP (normal display)** or **dSIP (invert display)**. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **tes** Auto Test

Select **tes**, press the **ENTER** button to confirm, then the unit will test by itself. Press the **MENU** button back to the last menu.

## **FhrS** Fixture Use Hours

Select **FhrS**, press the **ENTER** button to confirm, the display will show the working hours of the unit. Use the **UP/DOWN** button to select **no** or **CLEAR** (clear lamp time), press the **ENTER** button to store. When **CLEAR** is selected, use the **UP/DOWN** button to set the password 50, press the **ENTER** button and the lamp time will be cleared. To go back to the functions press the **MENU** button again.

## **LAnP** Lamp On/Off

Select **LAnP**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **on** (On) or **oFF** (Off), press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **LPnD** Lamp On/Off While Power On

Select **LPnD**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **PooN** (lamp on while power on) or **PooF** (lamp off while power on), press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **uEr** Firmware Version

Select **uEr**, press the **ENTER** button to confirm, the display will show the software version of the unit. To go back to the functions press the **MENU** button again.

## **dEf** Default

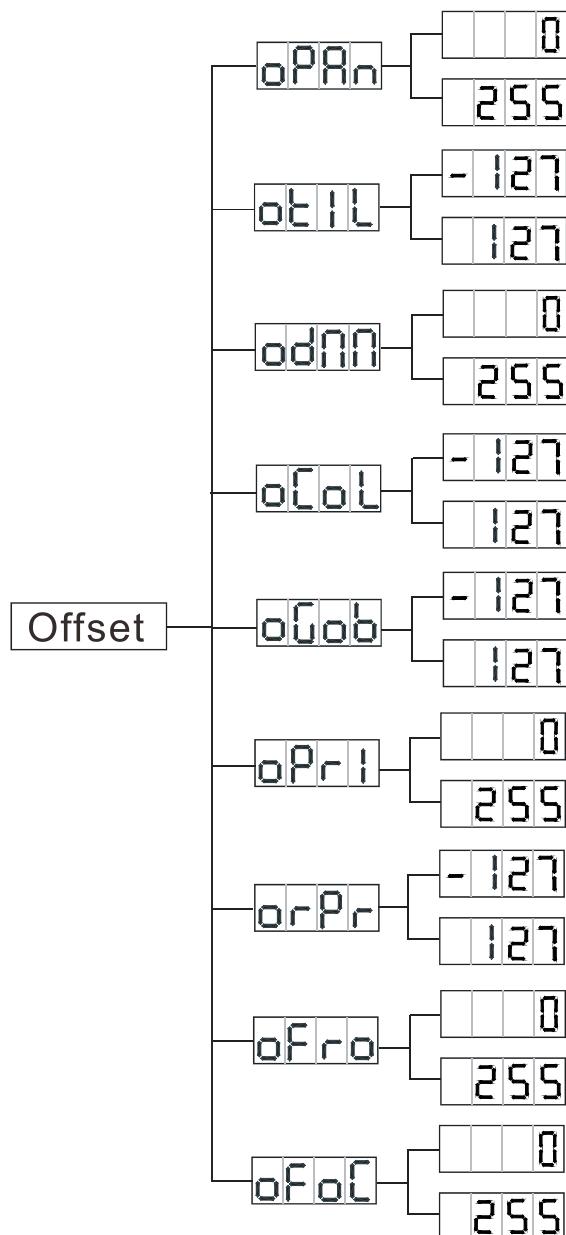
Select **dEf**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **no** (No) or **YES** (Yes), press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## **rSET** Reset

Select **rSET**, press the **ENTER** button to confirm and the fixture will reset.. To go back to the functions press the **MENU** button again.

## **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.



**oPan** — Pan home position adjustment

To select the **oPan**, press the **ENTER** button to show the **PAN OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

**oTilt** —Tilt home position adjustment

To select the **oTilt**, press the **ENTER** button to show the **TILT OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from -127 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

**odim** —Dimmer home position adjustment

To select the **odim**, press the **ENTER** button to show the **DIMMER OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

**oCol** —Color home position adjustment

To select the **oCol**, press the **ENTER** button to show the **COLOR OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from -127 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

**oGob** —Gobo home position adjustment

To select the **oGob**, press the **ENTER** button to show the **GOBO OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from -127 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

**oPrI** —Prism home position adjustment

To select the **oPrI**, press the **ENTER** button to show the **PRISM OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

**orPr** —R-Prism home position adjustment

To select the **orPr**, press the **ENTER** button to show the **R-PRISM OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from -127 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

**oFro** —Frost home position adjustment

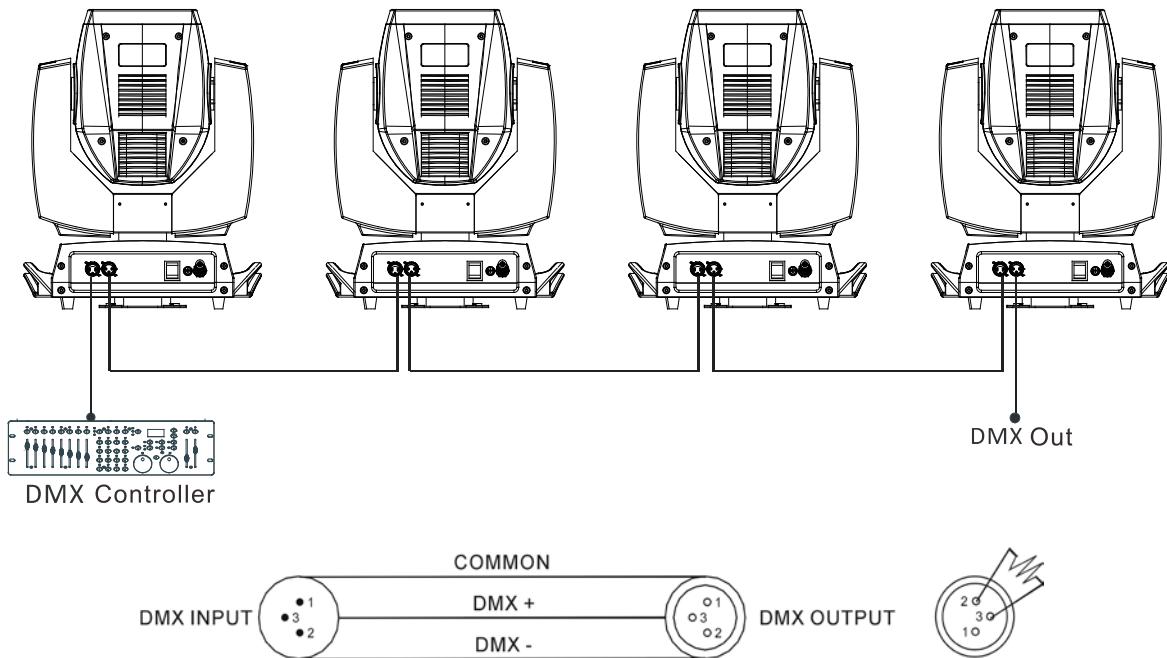
To select the **oFro**, press the **ENTER** button to show the **FROST OFFSET** on the display. Use the **DOWN** and **UP** button to adjust the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

**oFoc** —Focus home position adjustment

To select the **oFoc**, press the **ENTER** button to show the **FOCUS OFFSET** on the display. Use the **DOWN** and **UP** button to adjust 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 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 1-512.
5. The end of the DMX 512 system should be terminated to reduce signal errors.
6. 3 pin XLR connectors are more popular than 5 pins XLR.  
3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)  
5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

## 6.2 Address Setting

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

Press the MENU button to enter menu mode, select DMX Address, press the ENTER button to confirm, the present address will blinking the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
16 channels	1	17	33	49
15 channels	1	16	31	46
19 channels	1	20	39	58
20 channels	1	21	41	61

## 6.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

### Attentions:

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

### 16 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

		<b>Special Function</b>
6	000-049	Null
	050-059	Pan/Tilt fast mode
	060-069	Pan/Tilt normal mode
	070-079	Blackout while pan/tilt move enable
	080-089	Blackout while pan/tilt move disable
	090-099	Blackout while color change enable
	100-109	Blackout while color change disable
	110-119	Blackout while gobo change enable
	120-129	Blackout while gobo change disable
	130-139	Lamp on
	140-149	Pan/Tilt reset
	150-159	Color reset
	160-169	Gobo reset
	170-179	Shutter/Prism/R-Prism/Frost/Focus reset
	180-199	Null
	200-209	Reset all
	210-219	Blackout while pan/tilt/gobo/color change enable
	220-229	Blackout while pan/tilt/gobo/color change disable
	230-239	Lamp off
	240-255	Null
7		<b>Pan/Tilt Macro</b>
	000-007	Off
	008-015	Macro 1
	016-023	Macro 2
	024-031	Macro 3
	032-039	Macro 4
	040-047	Macro 5
	048-055	Macro 6
	056-063	Macro 7
	064-071	Macro 8
	072-079	Macro 9
	080-087	Macro 10
	088-095	Macro 11
	096-103	Macro 12
	104-111	Macro 13
	112-119	Macro 14
	120-127	Macro 15
	128-135	Macro 16
	136-143	Macro 17
	144-151	Macro 18
	152-159	Macro 19
	160-167	Macro 20
	168-175	Macro 21
	176-183	Macro 22
	184-191	Macro 23
	192-199	Macro 24

	200-207 208-215 216-223 224-231 232-239 240-247 248-255	Macro 25 Macro 26 Macro 27 Macro 28 Macro 29 Macro 30 Macro 31
<b>8</b>	000-255	<b>Pan/Tilt Macro Speed</b> Fast→Slow
		<b>Color</b>
	000-002 003-004 005-006 007-008 009-010 011-012 013-014 015-016 017-018 019-021 022-023 024-025 026-027 028-029 030-031 032-033 <b>9</b> 034-035 036-037 038-039 040-042 043-044 045-046 047-048 049-050 051-052 053-054 055-056 057-058 059-060 061-063 064-127 128-189 190-193 194-255	White White+Color1 Color1 Color1+Color2 Color2 Color2+Color3 Color3 Color3+Color4 Color4 Color4+Color5 Color5 Color5+Color6 Color6 Color6+Color7 Color7 Color7+Color8 Color8 Color8+Color9 Color9 Color9+Color10 Color10 Color10+Color11 Color11 Color11+Color12 Color12 Color12+Color13 Color13 Color13+Color14 Color14 Color14+White Index Rotation: Fast→Slow Stop Rotation: Slow→Fast
<b>10</b>	000-003	<b>Gobo</b> White

	004-006 007-009 010-012 013-015 016-018 019-021 022-024 025-027 028-030 031-033 034-036 037-039 040-042 043-045 046-048 049-051 052-055 056-059 060-063 064-068 069-071 072-075 076-079 080-083 084-087 088-091 092-095 096-099 100-103 104-107 108-111 112-115 116-119 120-123 124-127 128-189 190-193 194-255	Gobo1 Gobo2 Gobo3 Gobo4 Gobo5 Gobo6 Gobo7 Gobo8 Gobo9 Gobo10 Gobo11 Gobo12 Gobo13 Gobo14 Gobo15 Gobo16 Gobo17  White Shaking Gobo1 Shaking Gobo2 Shaking Gobo3 Shaking Gobo4 Shaking Gobo5 Shaking Gobo6 Shaking Gobo7 Shaking Gobo8 Shaking Gobo9 Shaking Gobo10 Shaking Gobo11 Shaking Gobo12 Shaking Gobo13 Shaking Gobo14 Shaking Gobo15 Shaking Gobo16 Shaking Gobo17 Shaking  Rotation: Fast→Slow Stop Rotation: Slow→Fast
11	000-007 008-127 128-132 133-137 138-141 142-146 147-150 151-155	<b>Prism</b> Lamp on Prism Rotation Prism rotation effects1 Prism rotation effects2 Prism rotation effects3 Prism rotation effects4 Prism rotation effects5 Prism rotation effects6

	156-159 160-164 165-168 169-173 174-177 178-182 183-187 188-191 192-196 197-200 201-205 206-209 210-214 215-218 219-223 224-227 228-232 233-236 237-241 242-246 247-250 251-255	Prism rotation effects7 Prism rotation effects8 Prism rotation effects9 Prism rotation effects10 Prism rotation effects11 Prism rotation effects12 Prism rotation effects13 Prism rotation effects14 Prism rotation effects15 Prism rotation effects16 Prism rotation effects17 Prism rotation effects18 Prism rotation effects19 Prism rotation effects20 Prism rotation effects21 Prism rotation effects22 Prism rotation effects23 Prism rotation effects24 Prism rotation effects25 Prism rotation effects26 Prism rotation effects27 Prism rotation effects28
12	000-127 128-190 191-192 193-255	<b>Prism Rotation</b> Index Rotation Rotation: Fast→Slow Stop Rotation: Slow→Fast
13	000-255	<b>Focus</b> Far→Near
14	000-255	<b>Frost</b> 0%→100%
15	000-007 008-015 016-131 132-167 168-203 204-239 240-247 240-255	<b>Strobe</b> Lamp off Lamp on Shutter Slow→Fast Fast Close Slow Open Fast Open Slow Close Shutter Slow→Fast Strobe Random Lamp on
16	000-255	<b>Dimmer</b> 0%→100%

**15 Channels (Mode 2):**

Channel	Value	Function
1	000-004	<b>Color</b>
	005-008	White
	009-012	White+Color1
	013-017	Color1
	018-021	Color1+Color2
	022-025	Color2
	026-029	Color2+Color3
	030-034	Color3
	035-038	Color3+Color4
	039-042	Color4
	043-046	Color4+Color5
	047-051	Color5
	052-055	Color5+Color6
	056-059	Color6
	060-063	Color6+Color7
	064-068	Color7
	069-072	Color7+Color8
	073-076	Color8
	077-081	Color8+Color9
	082-085	Color9
	086-089	Color9+Color10
	090-093	Color10
	094-098	Color10+Color11
	099-102	Color11
	103-106	Color11+Color12
	107-110	Color12
	111-115	Color12+Color13
	116-119	Color13
	120-123	Color13+Color14
	124-127	Color14
	128-225	Color14+White Rotation: Slow→Fast
2	000-003	<b>Strobe</b>
	004-103	Closed
	104-107	Strobe Slow→Fast
	108-207	Open
	208-212	Pulsation Slow→Fast
	213-225	Open
	226-238	Random Slow Strobe
	239-251	Random Medium Strobe
	252-255	Random Fast Strobe
3		<b>Dimmer</b>

	000-255	0%→100%
4	000-003 004-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-063 064-067 068-071 072-113 114-117 118-159 160-166 167-172 173-179 180-185 186-191 192-198 199-204 205-211 212-217 218-223 224-230 231-236 237-243 244-249 250-255	<b>Gobo</b> White Gobo1 Gobo2 Gobo3 Gobo4 Gobo5 Gobo6 Gobo7 Gobo8 Gobo9 Gobo10 Gobo11 Gobo12 Gobo13 Gobo14 Gobo15 Gobo16 Gobo17 Rotation: Fast→Slow Stop Rotation: Slow→Fast White Shaking Gobo1 Shaking Gobo2 Shaking Gobo3 Shaking Gobo4 Shaking Gobo5 Shaking Gobo6 Shaking Gobo7 Shaking Gobo8 Shaking Gobo9 Shaking Gobo10 Shaking Gobo11 Shaking Gobo12 Shaking Gobo13 Shaking Gobo14 Shaking
5	000-127 128-255	<b>Prism</b> Prism Excluded Prism Inserted
6	000-127 128-190 191-192 193-255	<b>Prism Rotation</b> Index Rotation Rotation Fast→Slow Stop Rotation Slow→Fast

<b>7</b>	000-255	<b>Frost</b> 0%→100%
<b>8</b>	000-255	<b>Focus</b> Far→Near
<b>9</b>	000-255	<b>Pan</b> 0°→540°
<b>10</b>	000-255	<b>Pan Fine</b>
<b>11</b>	000-255	<b>Tilt</b> 0°→270°
<b>12</b>	000-255	<b>Tilt Fine</b>
<b>13</b>	000-011 012-024 025-037 038-255	<b>Function</b> No Function P/T speed Fast P/T speed Normal No Function
<b>14</b>	000-025 026-076 077-127 128-255	<b>Reset</b> No Function Effects reset Pan/Tilt rest Complete reset
<b>15</b>	000-025 026-100 101-255	<b>Lamp Control</b> No Function Lamp off Lamp on

### 19 Channels (Mode 3):

Channel	Value	Function
<b>1</b>	000-004	<b>Color</b>
	005-008	White
	009-012	White+Color1
	013-017	Color1
	018-021	Color1+Color2
	022-025	Color2
	026-029	Color2+Color3
	030-034	Color3
	035-038	Color3+Color4
	039-042	Color4
	043-046	Color4+Color5
	047-051	Color5
	052-055	Color5+Color6
		Color6

	056-059 060-063 064-068 069-072 073-076 077-081 082-085 086-089 090-093 094-098 099-102 103-106 107-110 111-115 116-119 120-123 124-127 128-225	Color6+Color7 Color7 Color7+Color8 Color8 Color8+Color9 Color9 Color9+Color10 Color10 Color10+Color11 Color11 Color11+Color12 Color12 Color12+Color13 Color13 Color13+Color14 Color14 Color14+White Rotation: Slow→Fast
2	000-003 004-103 104-107 108-207 208-212 213-225 226-238 239-251 252-255	<b>Strobe</b> Closed Strobe Slow→Fast Open Pulsation Slow→Fast Open Random Slow Strobe Random Medium Strobe Random Fast Strobe Open
3	000-255	<b>Dimmer</b> 0%→100%
4	000-003 004-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059	<b>Gobo</b> White Gobo1 Gobo2 Gobo3 Gobo4 Gobo5 Gobo6 Gobo7 Gobo8 Gobo9 Gobo10 Gobo11 Gobo12 Gobo13 Gobo14

	060-063 064-067 068-071 072-113 114-117 118-159 160-166 167-172 173-179 180-185 186-191 192-198 199-204 205-211 212-217 218-223 224-230 231-236 237-243 244-249 250-255	Gobo15 Gobo16 Gobo17 Rotation: Fast→Slow Stop Rotation: Slow→Fast White Shaking Gobo1 Shaking Gobo2 Shaking Gobo3 Shaking Gobo4 Shaking Gobo5 Shaking Gobo6 Shaking Gobo7 Shaking Gobo8 Shaking Gobo9 Shaking Gobo10 Shaking Gobo11 Shaking Gobo12 Shaking Gobo13 Shaking Gobo14 Shaking
<b>5</b>	000-127 128-255	<b>Prism</b> Prism Excluded Prism Inserted
<b>6</b>	000-127 128-190 191-192 193-255	<b>Prism Rotation</b> Index Rotation Rotation Fast→Slow Stop Rotation Slow→Fast
<b>7</b>	000-255	<b>Frost</b> 0%→100%
<b>8</b>	000-255	<b>Focus</b> Far→Near
<b>9</b>	000-255	<b>Pan</b> 0°→540°
<b>10</b>	000-255	<b>Pan Fine</b>
<b>11</b>	000-255	<b>Tilt</b> 0°→270°
<b>12</b>	000-255	<b>Tilt Fine</b>
<b>13</b>	000-011 012-024 025-037 038-255	<b>Function</b> No Function P/T speed Fast P/T speed Normal No Function

<b>14</b>	000-025 026-076 077-127 128-255	<b>Reset</b> No Function Effects reset Pan/Tilt rest Complete reset
<b>15</b>	000-025 026-100 101-255	<b>Lamp Control</b> No Function Lamp off Lamp on
<b>16</b>	000-255	<b>Pan/Tilt time</b> Fast → Slow
<b>17</b>	000-254 255	<b>Color time</b> Fast→Slow Fast
<b>18</b>	000-254 255	<b>Beam time</b> Fast→Slow Fast
<b>19</b>	000-254 255	<b>Gobo time</b> Fast→Slow Fast

#### 20 Channels (Mode 4):

Channel	Value	Function
<b>1</b>	000-004 005-008 009-012 013-017 018-021 022-025 026-029 030-034 035-038 039-042 043-046 047-051 052-055 056-059 060-063 064-068 069-072 073-076 077-081	<b>Color</b> White White+Color1 Color1 Color1+Color2 Color2 Color2+Color3 Color3 Color3+Color4 Color4 Color4+Color5 Color5 Color5+Color6 Color6 Color6+Color7 Color7 Color7+Color8 Color8 Color8+Color9 Color9

	082-085 086-089 090-093 094-098 099-102 103-106 107-110 111-115 116-119 120-123 124-127 128-225	Color9+Color10 Color10 Color10+Color11 Color11 Color11+Color12 Color12 Color12+Color13 Color13 Color13+Color14 Color14 Color14+White Rotation: Slow→Fast
2	000-003 004-103 104-107 108-207 208-212 213-225 226-238 239-251 252-255	<b>Strobe</b> Closed Strobe Slow→Fast Open Pulsation Slow→Fast Open Random Slow Strobe Random Medium Strobe Random Fast Strobe Open
3	000-255	<b>Dimmer</b> 0%→100%
4	000-003 004-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-063 064-067 068-071 072-113 114-117 118-159	<b>Gobo</b> White Gobo1 Gobo2 Gobo3 Gobo4 Gobo5 Gobo6 Gobo7 Gobo8 Gobo9 Gobo10 Gobo11 Gobo12 Gobo13 Gobo14 Gobo15 Gobo16 Gobo17 Rotation: Fast→Slow Stop Rotation: Slow→Fast

	160-166 167-172 173-179 180-185 186-191 192-198 199-204 205-211 212-217 218-223 224-230 231-236 237-243 244-249 250-255	White Shaking Gobo1 Shaking Gobo2 Shaking Gobo3 Shaking Gobo4 Shaking Gobo5 Shaking Gobo6 Shaking Gobo7 Shaking Gobo8 Shaking Gobo9 Shaking Gobo10 Shaking Gobo11 Shaking Gobo12 Shaking Gobo13 Shaking Gobo14 Shaking
<b>5</b>	000-127 128-255	<b>Prism</b> Prism Excluded Prism Inserted
<b>6</b>	000-127 128-190 191-192 193-255	<b>Prism Rotation</b> Index Rotation Rotation Fast→Slow Stop Rotation Slow→Fast
<b>7</b>		<b>No Function</b>
<b>8</b>	000-255	<b>Frost</b> 0%→100%
<b>9</b>	000-255	<b>Focus</b> Far→Near
<b>10</b>	000-255	<b>Pan</b> 0°→540°
<b>11</b>	000-255	<b>Pan Fine</b>
<b>12</b>	000-255	<b>Tilt</b> 0°→270°
<b>13</b>	000-255	<b>Tilt Fine</b>
<b>14</b>	000-011 012-024 025-037 038-255	<b>Function</b> No Function P/T speed Fast P/T speed Normal No Function
<b>15</b>	000-025 026-076 077-127 128-255	<b>Reset</b> No Function Effects reset Pan/Tilt rest Complete reset

<b>16</b>	000-025 026-100 101-255	<b>Lamp Control</b> No Function Lamp off Lamp on
<b>17</b>	000-255	<b>Pan/Tilt time</b> Fast → Slow
<b>18</b>	000-254 255	<b>Color time</b> Fast→Slow Fast
<b>19</b>	000-254 255	<b>Beam time</b> Fast→Slow Fast
<b>20</b>	000-254 255	<b>Gobo time</b> Fast→Slow Fast

## 7. Troubleshooting

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

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

1. Check the connect power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED to see if it can be light up or not.

### B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

#### **C. One of the channels is not working well**

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

#### **D. The lamp is cutting out intermittently**

1. The lamp is not working well. Check the mains voltage either too high or too low.
2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

## **8. Fixture Cleaning**

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

- Clean with soft cloth and use normal glass to clean liquid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30 days.

## **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; EN61000-3-2: 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**