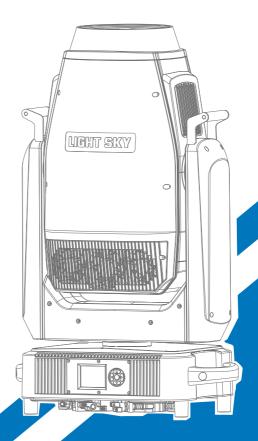


FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

# **SUPER SCOPE MAX**





**User Manual** 

Please read the instruction carefully before use

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## Congratulations on choosing our company product! We thank you for your custom.

- ◆Please note that this product, as all the others in the rich my company range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.
- ◆Carefully read this user manual in its entirety and keep it safe for future reference. It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.
- ♦My company disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this user manual, which must always accompany the fitting.
- ♦ My company reserves the right to modify the characteristics stated in this user manual at any time and without prior notice.

## 1.Safety Instructions



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

## WARNING

Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this manual.

The following symbols are used to identify important safety information on the product and in this manual:



DANGER! Safety hazard. Risk of severe

injury or death.

DANGER! Refer to manual betore installing. powering or ervicing



DANGER! Hazardoue voltage.Risk of severe or lethal electric shock



Warning! Fire hazard.



Warning! Burn hazard. Hot surface. not touch



Risk of eye injury.Safety glasses must



Warning! Risk of hand injury. Safety gloves must be worn

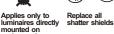


mounted on

non-combustible

surfaces of

materials





Take a short distance from the object to be photographed (meters)



Rated maximum ambient temperature



Indoor use only



Do not point the lens towards the sun or strong light



Operation not allowed during

# **Important:**

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

- ▶ Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- ▶ This product is for indoor use only. Use only in a dry location.
- ▶ DO install and operate by qualified operator.
- ▶ The light source in this luminaire should be replaced by the manufacturer or its service agent or a similarly qualified person, always cut off the power supply before replacing he light source.
- ▶ DO NOT allow children to operate the fixture.

- ► The unit must be installed in a location with adequate ventilation, at least 20cm from adjacent surfaces.
- ▶ Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- ▶ Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- ▶ It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- ▶ Minimum ambient temperature TA: -10 °C. Maximum ambient temperature TA: 40 °C. Do not operate this product at a lower or higher temperature.
- ▶ DO NOT connect the device to any dimmer pack.
- ▶ When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 0.5m.
- ▶ Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- ▶ Unit's surface temperature may reach up to 80 °C. DO NOT touch the housing bare-handedduring its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- ▶ DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- ▶ DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- ▶ The minimum distance to objects/surface must be more than 3 meters.
- ▶ In the event of serious operating problem, stop using the unit immediately.
- ▶ Never turn on and off the unit time after time.
- ► The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- ▶ DO NOT open the housing as there are no user serviceable parts inside.
- ► DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- ▶ Disconnect this product from its power source before servicing.
- ▶ DO use the original packaging if the device is to be transported.
- ▶ Avoid direct eye exposure to the light source while the product is on.

▶ DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

## Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing. DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

# 2. Technical Specifications

## **OPTICAL**

- Light source: 1000W/1200W/1400W white LED module (optional)
- Zoom angle: 6° -50°
- Optical lens: coated with high anti-reflection film, 186mm diameter
- Color Temperature: 6500 K
- CRI: RA≥70 / RA≥90 (cut into the high-display digital filter)
- Total output: 1000 w Light source: 43200 Lm;

1200 w Light source: 50700 Lm; 1400 w Light source: 57200 Lm

## COLOR

- CMY infinite color blend
- CTO color temperature linear adjustment (3000K-6500K)
- 5 color pieces + white light, can achieve bidirectional color rainbow, double color step gradient (linear movement), color wheel bidirectional rotation, Random color mode

### **GOBO**

- 2 rotating pattern plates, 12 glass pattern plates, dynamic stacking effect, can be inserted and replaced, can realize rotation, Flow, jitter effect;
  - Rotary plate 1:6 kinds of glass pattern + white circle, pattern sheet outer diameter 31.9mm, pattern sheet inner diameter 24mm
  - Rotary plate 2:6 kinds of glass pattern + white circle, pattern sheet outer diameter 31.9mm, pattern sheet inner diameter 24mm
- Dynamic effect disc
- Eight-way cutting: four gratings achieve fast and smooth cutting, and eight cutting directions and angles can be individually controlled. Each piece can achieve complete light closure, the whole cutting module can rotate ±45°

#### **EFFECT**

- Four prism, bidirectional rotation
- Heavy atomization + light atomization, can be independently switched, can be superimposed
- Single channel high finger filter -CRI 90
- With electric aperture, 5-100% linear adjustment, with macro function and multiple effect changes

- Electronic dimming, 0-100% linear dimming, uniform spot
- Electron strobe speed is 1-25 times/S
- LED refresh frequency: 1000Hz ~ 25KHz

## CONTROL

- Control channel: 42CH, 56CH, See Channel table for details.
- Protocol: DMX512 protocol, RDM protocol, Art Net (optional)
- Data connection: Three core or five core signal input/output
- RJ45 interface (optional)
- Display: LCD liquid crystal display (LCD)

## **SOFTWARE**

- Upgrade software via DMX signal or USB interface
- Mute fan, three working modes (highlight/mute/ultra-mute)
- Ntelligent temperature control to ensure LED life

### X/Y ANGLE OF MOTION

- X axis: 540° or 630°16bit precision scan
- Y-axis: 270°8bit/16bit precision scan

### **POWER**

- Input voltage: AC 100-240V 50/60Hz
- Maximum power:

1000W Light source :1200W (110V: maximum current 12A; 220V: Maximum current 6A) PF0.996

1200W Light source: 1430W (110V: maximum current 14.3A; 220V: Maximum current 7.15A) PF0.987

1400W Light source:1630W (110V: maximum current 16.3A; 220V: Maximum current 8.15A) PF0.987

#### SIZE & WEIGHT

- Lighting Size: 502mm×300mm×845mm

- Box Size: 920mm×570mm×375mm N.W.: 44.0kg, G.W.: 48.8kg

- Flycase Size (1 set): 710X560X875mm N.W.: 44.0kg , G.W.: 80.6kg

## **OTHERS**

- IP rate: IP20

- Working Ambient : -10 °C ~ 40 °C

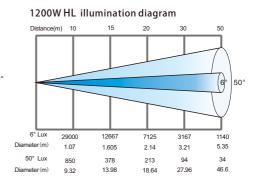
- Maximum temperature of lamp body surface: 80 °C

## STANDARDS AND CERTIFICATION

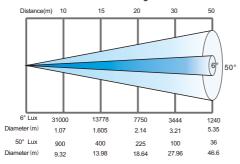
- The product implementation standard: GB 7000.1-2015 GB7000. 217-2008
- Approved certifications: CE , RoHs
- The product complies with the following EU directives:

Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

#### 1000W HL illumination diagram Distance(m) 10 30 6 50° 6° Lux 28500 12667 7125 3167 1140 Diameter (m) 1.605 5.35 1 07 2.14 3.21 50° Lux 89 32 800 356 200 Diameter (m) 13.98 18.64 27.96 9.32



## 1400W HL illumination diagram



# 2.1.Attachment And Size

# Attachment contents-Fig.1







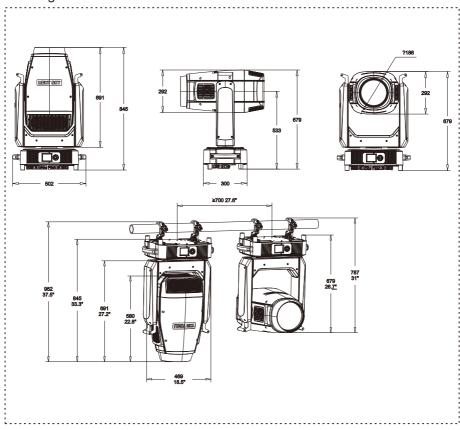




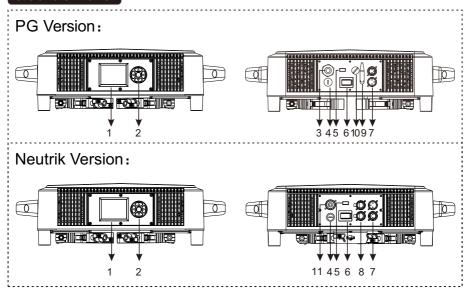




Size-Fig.2



## **3.Control Panel**



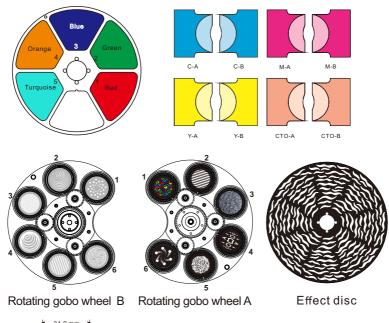
1. Display: To show the various menus and the selected function

## 2. Button:

	OK confirmation key	
	UP	
•	DOWN	
•	To the left	
	To the right	

- 3. PG version power input: connect to the power supply
- 4. FUSE: 20A
- 5. FIRMWARE UPGRADE: Used to upgrade the fixture's firmware
- 6.POWER SWITCH: To turn on/of f the power
- 7.DMX input/output: used for DMX512 connection, use 3/5 core XLR signal cable to connect console and lamps,And input/output DMX signal
- 8.ART-NET: The information of the lamp can be transmitted to the main controller through the network cable, and the lamp can be controlled through RJ45 (optional)
- 9. 4G network module (optional)
- 10. Wireless network module (optional)
- 11. socket version power input: connect the power supply

# 4.Effect Wheels





Rotation Gobo Size

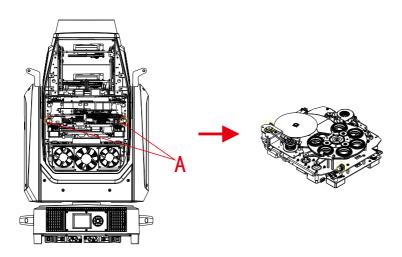
Serial Number	Drawing Number	Part Number	Serial Number	Drawing Number	Part Number
A 1	FG2073A	C0700590002	B1	FG2061A	C0700590008
A2	FG2068A	C0700590003	В2	FG2103A	C0700590009
АЗ	FG1630A	C0700590004	В3	FG2104A	C0700590010
A4	FG2101A	C0700590005	В4	FG2064A	C0700590011
A5	FG2071A	C0700590006	В5	FG2062A	C0700590012
A6	FG2102A	C0700590007	В6	FG2105A	C0700590013

## DANGER!

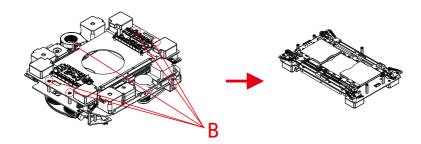
Install the rotating gobos with the device switched of f only.
Unplug from mains before changing the rotating gobos!

# 4.1.Replacing Rotating Gobos

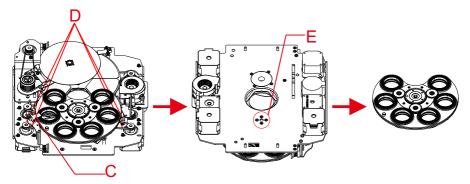
1. Use a screwdriver to unscrew the two screws at **A** to take out the pattern color module assembly;



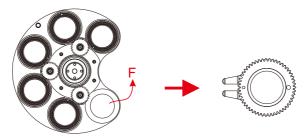
2. Reverse the assembly, and use a screwdriver to unscrew the five screws at **B** to separate the pattern color module from the CMY module;



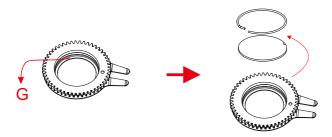
3. From the front of the pattern module, use a screwdriver to unscrew the screws of the two magnetic induction plates at **C**, and then remove the magnetic induction plates; then half loosen the motors in the four places at **D** Screws, remove the belt after moving the motor; turn the pattern module in reverse, and use a screwdriver to unscrew the four screws at E to take out the rotating patternDisc assembly



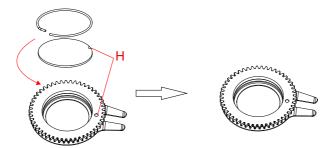
4. Gently lift the gobo holder from the edge of the rotating gobo wheel (reverse side) as **F** shows and slowly pull it out;



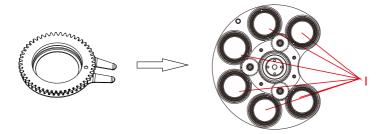
5.Remove the spring lock at **G** with an appropriate tool like tweezers (if the gobo is coated with glass glue, do remove it with some good glass cleaning fluid before removing the spring lock to avoid damage to the gobo).



6. Do not touch the surface of the gobo with bare fingers. The gobo has a small position point at its edge which has to aim at the position point on the gobo holder as **H** shows (glossy side towards the light source).



7. Insert the gobo driven wheel into the driving wheel assembly, as shown in **I**, the gobo driven wheel pit must be positioned towards the center of the driving wheel.



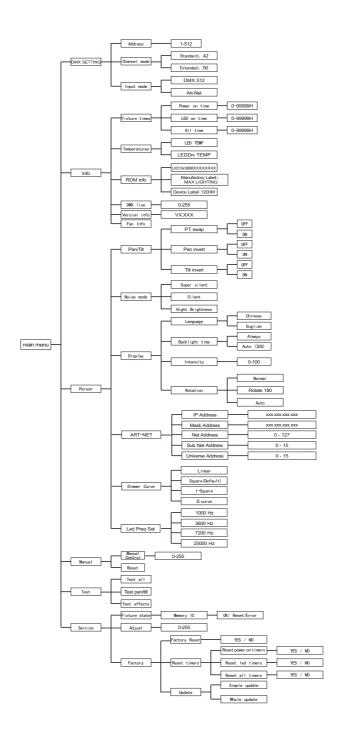
8. After installation, put the component back to the fixture.

# 5.How To Set The Unit

# 5.1.Main Function

Turn on the machine, press the OK button to enter the menu mode, use the left and right buttons to find the menu, when the preset menu is shown on the display, Press the OK button to confirm, use the Up/Down buttons to select a submenu, and press the OK button to save the setting or return to the previous menu.

The main functions are shown below:



## DMX SETTING

Enter the MENU mode, select the setting function, press the OK button to confirm, use the up/down buttons to select: address code, Channel mode, input mode.

#### **DMX Address**

Select the DMX address, press the OK button to confirm, the current DMX address will be shown on the display. Use the left/right buttons to select001~512 address, press the OK button to save. Press the left/right button to return to the previous menu.

### Channel Mode

Select Select Channel Mode, press the OK button to confirm, use the Up/Down buttons to select the Channel Mode: Standard Mode (42 channels), Expansion mode (56 channels, press the OK button to save. Press the left/right button to return to the previous menu.

## Input Mode

Select the input mode, press the OK button to confirm, use the up/down buttons to select the input mode: DMX512, press the OK button to save.Press the left/right button to return to the previous menu.

## Info

Enter the MENU mode, select the device information function, press the OK button to confirm, use the up/down buttons to select: device time, device temperature, RDM information, device channel, version information, fan information.

### **Fixture Times**

Select the device time, press the OK button to confirm, you can view the device: power-on time, lighting time, total time. Press the left/right button to go back to Previous menu.

## Temperature

Select the device temperature, press the OK button to confirm, you can view the device: LED temperature, driver board temperature. Press the left/right button to return to the previous menu.

#### **RDM** Info

Select RDM information, press the OK button to confirm, you can view the device: UID. Press the left/right button to return to the previous menu.

### **DMX Live**

Select the fan information, press the OK button to confirm, use the up and down keys to view the equipment: tail inlet fan, tail outlet fan, cutting fan, Pattern fan, focusing fan, tail inlet fan 1, tail inlet fan 2, tail inlet fan 3, tail outlet fan 1, tail outlet fan 2, tail outlet fan 3, Fan operation information such as cutting fan, CMY fan, pattern fan, bottom box fan board, etc. Press the OK button to return to the previous menu.

### Version Info

Select the version information, press the OK button to confirm, use the up and down keys to view the equipment: display board, XY board, CMY module, pattern module, PCB version information of zoom module, cutting board 1, fan driver board, prism board, cutting board 2, bottom fan board, etc. Press the left/right button to go back go to previous menu

### Fan Info

Select the fan information, press the OK button to confirm, use the up and down keys to view the equipment: tail inlet fan, tail outlet fan, cutting fan, Pattern fan, focusing fan, tail inlet fan 1, tail inlet fan 2, tail inlet fan 3, tail outlet fan 1, tail outlet fan 2, tail outlet fan 3, Fan operation information such as cutting fan, CMY fan, pattern fan, focusing fan board, etc. Press the OK button to return to the previous menu.

### Person

Enter the MENU mode, select the Personalize function, press the OK button to confirm, use the up/down buttons to select: XY axis, noise mode, Display settings, Art-Net settings, dimming curve, Led frequency settings.

### Pan/Tilt

Select the XY axis, press the OK button to confirm, you can use the up and down keys to select: XY swap, X axis reverse, Y axis reverse, press OK to enterNext menu, select: On/Off, press OK to confirm and exit, then press left/right to return to the previous menu.

### Noise Mode

Select the noise mode, press the OK button to confirm, you can use the up and down keys to select: ultra-quiet mode, silent mode(default), highlight mode, Then press the left/right button to return to the previous menu.

## **Display**

Select the display settings, press the OK button to confirm, you can use the up and down keys to select: language selection, backlight time, backlight adjustment, screen rotation, Press OK to enter the next menu level. Select language selection, use the up and down keys to select: Chinese/English, press the OK key to confirm and exit; selectBacklight time (the screen backlight time can be adjusted), use the up and down keys to select: always on/auto 30S, press the OK key to confirm and exit; select the backlightAdjustment (screen brightness can be adjusted): Press the left and right keys to select any value between 0 and 100, press the OK key to confirm and exit; select screen rotation, Use the up and down keys to select: normal/rotate 180°/auto, press the OK key to confirm and exit; then press the left/right button to return to the previous menu.

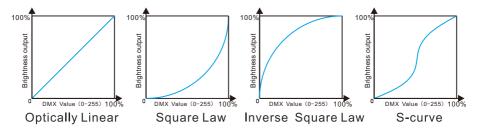
#### Art-Net

Select the XY axis, press the OK button to confirm, you can use the up and down keys to select: IP address, Mask address, Net address, Sub Net address, Universe address, press the OK button to confirm and enter the next menu.

## **Dimmer Curve**

Select the dimming curve, press the OK button to confirm, you can use the up and down keys to select: square, inverse square, linear or S curve, select the desiredAfter the mode, press the OK button to set and save. Then press the left/right button to return.

## **Dimmer Modes**



Optically Linear: The increase in light intensity appears to be linear as DMX value is increased.

Square Law: Light intensity control is finer at low levels and coarser at high levels.

Inverse Square Law: Light intensity control is coarser at low levels and finger at high levels.

S-Curve: Light intensity control is finger at low levels and high levels and coarser at medium levels.

## Led Preg Set

Select the Led frequency setting, press the OK button to confirm, you can use the up and down keys to select: 1000 Hz, 3600 Hz, 7200 Hz,25000 Hz, press OK button to confirm, then press left/right button to return to the previous menu.

## Manual

Enter the Manual mode, select the manual function, press the middle square button to confirm, use the up/down buttons to select: manual control, reset.

#### **Manual Control**

Select manual control, press the OK button to confirm the entry, you can use the up and down keys to select each channel, press the left and right keys to adjust the value of the selected channel, Then press the OK button to return to the previous menu.

#### Reset

Select reset, press the OK button to confirm, you can use the up and down keys to select: machine reset, XY reset, pattern reset, color reset, To reset the cutting system, the focusing system and the effect disc, press the OK key to confirm, and then press the left/right button to return to the previous menu.

### Test

Enter the MENU mode, select the test equipment function, press the middle square button to confirm, use the up/down buttons to select: all tests,XY test, head test.

## Test All

Select all tests, press OK button to confirm, all functions of the whole machine start automatic test, and then press the left/right button to return to the previous menu.

### Test pan / tilt

Select pan / tilt test, press the OK button to confirm, the XY axis function of the whole machine starts to automatically test, and then press the left/right button to return to the previous menu.

## **Test Effects**

Select the head test, press the OK button to confirm, each function of the lamp head of the whole machine will start the automatic test, and then press the left/right button to return to the previous menu.

## Service

Enter the MENU mode, select the service option function, press the OK button to confirm, use the up/down buttons to select: lamp status, calibration, Factory setting.

#### **Fixture State**

Select the lamp status, press the up and down keys to select, press the OK button to confirm, you can see: memory chip, angle sensor, level encoder, Vertical encoder, horizontal, vertical, cyan, magenta, yellow, down color temperature, color wheel, pattern 1, pattern 1 rotation, pattern 2, Pattern 2 rotation, cutting rotation, zoom, focus, prism, prism rotation and other functions of the running status and error records, and then press the left/rightbutton to return to the previous menu.

### Adjust

Select calibration, press the up and down keys to select, press the OK button to confirm, you can fine-tune the position of the following functions from 0 to 255 (default 128): horizontal, Vertical, Cyan, Magenta, Yellow, Down Color Temperature, Color Wheel, Rotation Pattern 1, Pattern 1 Rotation, Rotation Pattern 2, Pattern 2 Rotation, Blade Up 1, Blade Up 2, Blade Down 1, Blade Down 2, Blade Left 1, Blade Left 2, Blade Right 1, Blade Right 2, Cutting Rotation, Prism, Effect Disc, Display Finger, Fog 1, Fog 2, Aperture, Zoom, Focus, Dimming, Focus Pattern 1, Focus Pattern 2, Focus Aperture, etc.and then press the left/right button to return to the previous menu.

## **Factory**

Select the factory settings, press the up and down keys to select, press the OK button to confirm, you can choose: factory reset, clear time, software upgrade, powerAdjustment, power selection and other functions, note that this function is factory set

# 5.2. Home Position Adjustment

Press the OK button to enter the menu mode, press the up and down buttons to select, press the OK button to confirm, you can fine-tune the position of the following functions from 0 to 255 (default 128), then press the left/right button to return to the previous menu.

Pan			
Cyan	1	— Pan	— 0 – 255
Magenta		— Tilt	0 - 255
Yellow 0 - 255  CTO 0 - 255  Colour wheel 0 - 255  Gobo1 0 - 255  Gobo2 0 - 255  Gobo2.rot 0 - 255  Blade UP1 0 - 255  Blade UP2 0 - 255  Blade DW1 0 - 255  Blade LF1 0 - 255  Blade LF2 0 - 255  Blade RF1 0 - 255  Blade RF2 0 - 255  Framingrotat 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Focus 0 - 255  Dimmer 0 - 255  FosForGobo2 0 - 255  FosForGobo2 0 - 255		Cyan	0 - 255
CTO 0 - 255  Colour wheel 0 - 255  Gobo1 0 - 255  Gobo2 0 - 255  Gobo2.rot 0 - 255  Blade UP1 0 - 255  Blade DW1 0 - 255  Blade DW2 0 - 255  Blade LF1 0 - 255  Blade RF1 0 - 255  Blade RF2 0 - 255  Framingrotat 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Frocus 0 - 255  Dimmer 0 - 255  FosForGobo2 0 - 255  FosForGobo2 0 - 255		Magenta	0 - 255
Colour wheel		Yellow	0 - 255
Gobo1		СТО	0 - 255
Gobo1.rot 0 - 255  Gobo2 0 - 255  Gobo2.rot 0 - 255  Blade UP1 0 - 255  Blade UP2 0 - 255  Blade DW1 0 - 255  Blade LF1 0 - 255  Blade LF2 0 - 255  Blade RF1 0 - 255  Blade RF2 0 - 255  Framingrotat 0 - 255  Frism 0 - 255  Frism 0 - 255  CIR 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Focus 0 - 255  FosForGobo2 0 - 255  FosForGobo2 0 - 255		Colour wheel	0 - 255
Gobo2		Gobo1	0 - 255
Gobo2.rot		Gobo1.rot	0 - 255
Blade UP1 0 - 255  Blade UP2 0 - 255  Blade DW1 0 - 255  Blade DW2 0 - 255  Blade LF1 0 - 255  Blade LF2 0 - 255  Blade RF1 0 - 255  Blade RF2 0 - 255  Framingrotat 0 - 255  Prism 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Frous 0 - 255  Focus 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		Gobo2	0 - 255
Blade UP2		Gobo2.rot	0 - 255
Blade DW1		Blade UP1	0 - 255
Blade DW2		Blade UP2	0 - 255
Blade LF1		Blade DW1	0 - 255
Blade LF2		Blade DW2	0 - 255
Blade LF2	Adjust	Blade LF1	0 - 255
Blade RF2	Aujust	Blade LF2	0 - 255
Framingrotat         0 - 255           Prism         0 - 255           Effect         0 - 255           CIR         0 - 255           Frost 1         0 - 255           Frost 2         0 - 255           Iris         0 - 255           Zoom         0 - 255           Focus         0 - 255           Dimmer         0 - 255           FosForGobo1         0 - 255           FosForGobo2         0 - 255		Blade RF1	0 - 255
Prism 0 - 255  Effect 0 - 255  CIR 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Zoom 0 - 255  Focus 0 - 255  Dimmer 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		Blade RF2	0 - 255
Effect 0 - 255  CIR 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Zoom 0 - 255  Focus 0 - 255  Dimmer 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		Framingrotat	0 - 255
CIR 0 - 255  Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Zoom 0 - 255  Focus 0 - 255  Dimmer 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		Prism	0 - 255
Frost 1 0 - 255  Frost 2 0 - 255  Iris 0 - 255  Zoom 0 - 255  Focus 0 - 255  Dimmer 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		Effect	0 - 255
Frost 2		CIR	0 - 255
Iris		Frost 1	0 - 255
Zoom		Frost 2	0 - 255
Focus 0 - 255  Dimmer 0 - 255  FosForGobo1 0 - 255  FosForGobo2 0 - 255		- Iris	0 - 255
Dimmer         0 - 255           FosForGobo1         0 - 255           FosForGobo2         0 - 255		Zoom	0 - 255
FosForGobo2 0 - 255		Focus	0 - 255
FosForGobo2 0 - 255		Dimmer	0 - 255
		FosForGobo1	0 - 255
FosForIris 0 - 255		FosForGobo2	0 - 255
		FosForIris	0 - 255

#### Pan

Enter the initial setting menu, use the up and down keys to select the **Pan** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

#### Tilt

Enter the initial setting menu, use the up and down keys to select the **Tilt** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

### Cyan

Enter the initial setting menu, use the up and down keys to select the **Cyan** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

## Magenta

Enter the initial setting menu, use the up and down keys to select the **Magenta** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128.Perform calibration, press the OK button to save and exit.

#### Yellow

Enter the initial setting menu, use the up and down keys to select the **yellow** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

## СТО

Enter the initial setting menu, use the up and down keys to select the **CTO** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## Color Wheel

Enter the initial setting menu, use the up and down keys to select the **Color Wheel** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

#### Gobo1

Enter the initial setting menu, use the up and down keys to select the **Gobo1** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Gobo1.rot

Enter the initial setting menu, use the up and down keys to select the **Gobo1.rot** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## Gobo2

Enter the initial setting menu, use the up and down keys to select the **Gobo2** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128. calibrate, press the OK button to save and exit.

### Gobo2.rot

Enter the initial setting menu, use the up and down keys to select the **Gobo2.rot** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Blade UP1

Enter the initial setting menu, use the up and down keys to select channel **Blade UP1**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. To calibrate, press the OK button to save and exit.

## Blade UP2

Enter the initial setting menu, use the up and down keys to select the channels **Blade UP2**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## Blade DW1

Enter the initial setting menu, use the up and down keys to select the lower channel **Blade DW1**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, perform calibration, press the OK button to save and exit.

#### Blade DW2

Enter the initial setting menu, use the up and down keys to select the lower channels **Blade DW2**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, perform calibration, press the OK button to save and exit.

#### Blade LF1

Enter the initial setting menu, use the up and down keys to select the left channel **Blade LF1**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

## Blade LF 2

Enter the initial setting menu, use the up and down keys to select the left channels **Blade LF 2**, and use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Blade RF1

Enter the initial setting menu, use the up and down keys to select the right channel **Blade RF1**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Blade RF2

Enter the initial setting menu, use the up and down keys to select the right channel **Blade RF2**, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

### Framing Rotat

Enter the initial setting menu, use the up and down keys to select the **Framing Rotat** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, perform calibration, press the OK button to save and exit.

#### Prism

Enter the initial setting menu, use the up and down keys to select the **Prism** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

#### **Effect**

Enter the initial setting menu, use the up and down keys to select the **Effect** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

#### CRI

Enter the initial setting menu, use the up and down keys to select the **CRI** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## Frost 1

Enter the initial setting menu, use the up and down keys to select the **Frost 1** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

### Frost 2

Enter the initial setting menu, use the up and down keys to select the **Frost 2** channels, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Iris

Enter the initial setting menu, use the up and down keys to select the **Iris** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## Zoom

Enter the initial setting menu, use the up and down keys to select the **Zoom** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

## **Focusing**

Enter the initial setting menu, use the up and down keys to select the **Focusing** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

#### Dimmer

Enter the initial setting menu, use the up and down keys to select the **Dimmer** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, and the default initial position is 128. Perform calibration, press the OK button to save and exit.

#### FosFor Gobo1

Enter the initial setting menu, use the up and down keys to select **FosFor Gobo1** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

### FosFor Gobo2

Enter the initial setting menu, use the up and down keys to select **FosFor Gobo2** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

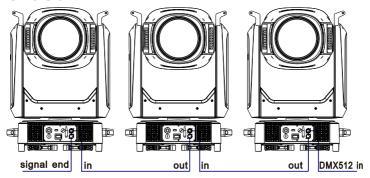
### **FosForIris**

Enter the initial setting menu, use the up and down keys to select **FosForIris** channel, use the left and right keys to adjust the DMX value, the adjustment range is 0-255, the default initial position is 128, calibrate, press the OK button to save and exit.

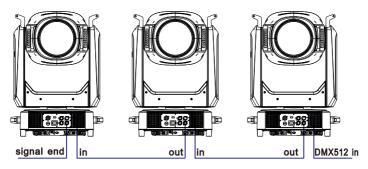
# 6.Control By Universal DMX Controller

# 6.1.DMX 512 Connection

## **PG Version**



## **Neutrik Version**



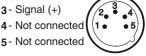
## DMX - output

- 1 Shield
- 2 Signal (-)
- 3 Signal (+)
- 4 Not connected
- 5 Not connected



## **DMX-input**

- 1 Shield
- 2 Signal (-)
- 3 Signal (+)
- 4 Not connected



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 1200hm 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.Channel Setting

Press the OK button to confirm, use the up/down buttons to select the channel mode: standard mode (42CH), extended mode (56CH), press the OK button to save. Press the left/right button to return to the previous menu.

# 6.3.Address Setting

When using a universal DMX controller to control the fixture, you need to set the starting address (1-512) for the fixture so that the machine can receive to the DMX signal. Select the DMX address, press the OK button to confirm, the current DMX address will be shown on the display. Use the left/right buttons to select 001~512 address, press the OK button to save. Press the left/right button to return to the previous menu.

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

Channel mode	Unit 1 Address	Unit <b>2</b> Address	Unit 3 Address	Unit <b>4</b> Address
42 Channel	1	43	85	127
56 Channel	1	57	113	169

# 6.4.DMX 512 Configuration

# Please control the fixture by referring to the configurations below

# 42 Channels (Mode1)

Channel	DMX	Function	Note
1		Pan	
1	0 - 255	Pan movement/positioning	
2		Pan fine	
	0 - 255	Fine Pan positioning	
3		TILT	
	0 - 255	Tilt movement/positioning	
4		TILT fine	
	0 - 255	Fine Tilt movement/positioning	
		Functions	
	0 - 10	NO function	
	11 - 20	All Reset	
	21 - 30	XY Reset	
	31 - 40	Color System Reset	
	41 - 50	Gobo System Reset	
	51 - 60	Profile System Reset	
	61 - 70	Focus System Reset	
	71 - 80	Super silent	
	81 - 90	Silent	
	91 - 100	Hight Brightness	
	101 - 110	Effect Reset	
	111 - 120	NO function	
	121 - 130	NO function	
	131 - 140	NO function	
5	141 - 150	NO function	
	151 - 160	NO function	
	161 - 170	NO function NO function	
	171 - 180 181 - 190	Display Back light is Auto	
1	161 - 190	Display back light is Auto	
	191 - 200	function Open	The console hits this position and waits for about 5 seconds. After the function is turned on, it will be effective after turning on the "silent mode". It is not necessary to turn on this function when performing
	201 - 255	NO function	the reset function. This "open function" will not be stored, it will still be closed after the next boot, and this function needs to be activated again.
6	0 055	Cyan	
	0 - 255	White→full cyan Magenta	
7	0 - 255	White → full magenta	
8		Yellow	
_ ·	0 - 255	White→ full yellow	
9	0 - 255	CTO Color Temperature from Deep to Light	
-	0 - 255	Colour wheel	
	0 00	0 - 360°	
	0 - 89 90 - 104	OPEN	
	105 - 119	COLOR1	
	120 - 134	COLOR2	
10	135 - 149	COLOR3	
	150 - 164	COLOR4	
	165 - 179	COLOR5	
	180 - 214	Forwards Color rotation from slow to fast	
	215 - 249	Backwards Color rotation from fast to slow	
	250 - 255	Random	
		Gobo1	
11	0 - 9	0pen	
1 - L	10 - 19	GOBO1	

Channel	DMX	Function	Note
	20 - 29	GOBO2	
	30 - 39	GOBO3	
	40 - 49	GOBO4	
	50 - 59	G0B05	
	60 - 69	GOBO6	
11	70 - 79	Gobo 1 shake slow to fast/ GOB01	
	80 - 89	Gobo 2 shake slow to fast/GOBO2	
	90 - 99	Gobo 3 shake slow to fast/GOBO3	
	100 - 109	Gobo 4 shake slow to fast/GOBO4	
	110 - 119	Gobo 5 shake slow to fast/GOBO5	
	120 - 129	Gobo 6 shake slow to fast/GOBO6 OPEN	
	130 - 139	Forwards gobo rotation from slow to fast	
	140 - 193	Backwards gobo rotation from fast to slow	
	194 - 249 250 - 255	Random Gobo	
	200 - 200	Gobol Rotation	
	0 - 127	0° - 360°	
12	128 - 189	Forwards gobo rotation from fast to slow	
	190 - 193	Gobo rotation stop	
	194 - 255	Backwards gobo rotation from slow to fast	
	_	Gobo2	
	0 - 9	0pen	
	10 - 19	G0B01	
	20 - 29	G0B02	
	30 - 39	G0B03	
	40 - 49	G0B04	
	50 - 59	G0B05	
	60 - 69	GOBO6	
13	70 - 79	Gobo 1 shake slow to fast/ GOBO1	
	80 - 89	Gobo 2 shake slow to fast/GOBO2	
	90 - 99	Gobo 3 shake slow to fast/GOBO3	
	100 - 109	Gobo 4 shake slow to fast/GOBO4	
	110 - 119	Gobo 5 shake slow to fast/GOBO5 Gobo 6 shake slow to fast/GOBO6	
	120 - 129	OPEN	
	130 - 139 140 - 193	Forwards gobo rotation from slow to fast	
	194 - 249	Backwards gobo rotation from fast to slow	
	250 - 255	Random Gobo	
	200 200	Gobo2 Rotation	
	0 - 127	0° - 360°	
14	128 - 189	Forwards gobo rotation from fast to slow	
	190 - 193	Gobo rotation stop	
	194 - 255	Backwards gobo rotation from slow to fast	
15		Blade UP1	
10	0 - 255	Blade Out→In	
16		Blade UP2	
~	0 - 255	Blade Out→In	
17	_	Blade DW1	
	0 - 255	Blade Out→In	
18	0 0==	Blade DW2	
-	0 - 255	Blade Out→In	
19	0 055	Blade LF1	
	0 - 255	Blade Out→In	
20	0 055	Blade LF2	
	0 - 255	Blade Out→In Blade RF1	
21	0 - 255	Blade Out→In	
	U - Z00	Blade RF2	
22	0 - 255	Blade Out→In	
- 00	0 200	Framing Rotation	
23	0 - 255	0° - 120°	
	0 200	•	

Channel	DMX	Function	Note
		Framing Macro	
	0 - 10	No function	
	11 - 20	Square	
	21 - 30	rectangle	
	31 - 40	Isosceles triangle	
	41 - 50	trapezoidal	
	51 - 60	The Fan(Facing Up)	
	61 - 70	parallelogram	
	71 - 80	Right Angle trapezoid	
	81 - 90	The Fan (Down)	
24	91 - 100	triangle	
	101 - 110	prismatic	
	111 - 120	The stripes	
	121 - 130	bar	
	131 - 140	Upper left quadrant	
	141 - 150	semicircle (Up)	
	151 - 160	Upper right quadrant	
	161 - 170	Right semicircle	
	171 - 180	Right lower quadrant	
	181 - 190	Semicircle (Down)	
	191 - 200	The lower left quadrant	
	201 - 255	Left Semicircle	
25		Framing Macro Zoom	
	0 - 255	Framing Macro Zoom	
		Prism	
26	0 - 10	Prism Out	
	11 - 255	Prism In	
		Prism Rotation	
	0	No Function	
	1 - 63	0360°	
	64 - 127	Forwards rotation from fast to slow	
27	128 - 191	Backwards rotation from slow to fast	
	192 - 207	from slow to fast 90° Swing	
	208 - 223	from slow to fast 180° Swing	
	224 - 239	from slow to fast 270° Swing	
	240 - 255	from slow to fast 360 Swing	
28		Effect	
26	0 - 9	Effect Out	
	10 - 255	Effect In	
	0 0	Effect Rotation	
29	0 - 2	No Function	
	3 - 130	Forwards rotation from fast to slow	
	131 - 255	Backwards rotation from fast to slow CRI	
20	0 0		
30	0 - 9	CRI Out CRI In	
-	10 - 255	Frost1	
	0 107	Frost From Min To Max	
31	0 - 127	Frost From Min To Max No Function	
31	128 - 159	No Function No Function	
	160 - 191 192 - 255	No Function No Function	
	192 - 200	Frost2	
	0 - 127	Frost From Min To Max	
32	128 - 159	No Function	
34	160 - 191	No Function	
	192 255	No Function No Function	
	134 400	Iris	
	0 105		
	0 - 127	From Max To Min	
33	128 - 159	Slow In Fast Out from slow to fast	
	160 - 191	Fast In Slow Out from slow to fast	
	192 - 255	Slow In Slow Out from slow to fast	
	102 200	th bion out from blow to fubt	1

Channel	DMX	Function	Note
0.4		Zoom	
34	0 - 255	WIDE BEAM→NARROW BEAM	
0.5		Focus	
35	0 - 255	Infinity→near	
0.0		Focus Fine	
36	0 - 255	Fine Focus positioning	
		Autofocus Distance	
	0 - 9	NO function	
	10 - 19	7M	
	20 - 29	10M	
37	30 - 39	15M	
31	40 - 49	20M	
	50 - 59	25M	
	60 - 69	30M	
	70 - 79	40M	
	80 - 255	50M	
38		Autofocus Adjustment	
36	0 - 255	Auto Focus Fine	
		Strobe	
	0 - 9	No Function	
	10 - 49	From fast to slow, fast off and slow on	
39	50 - 89	From fast to slow, fast on and slow off	
	90 - 119	No Function	
	120 - 179	Random strobe, slow → fast	
	180 - 255	Strobe, slow → fast	
40	0 255	Dimmer	
	0 - 255	Dimmer from Dark To Bright  Dimmer Fine	
41	0 - 255	Dimmer Fine Dimmer Fine	
	-	Gobo Macro	
42	0 - 15	No Function	
	16 - 255	Gobo Macro Function	

## 56 Channels (Mode2)

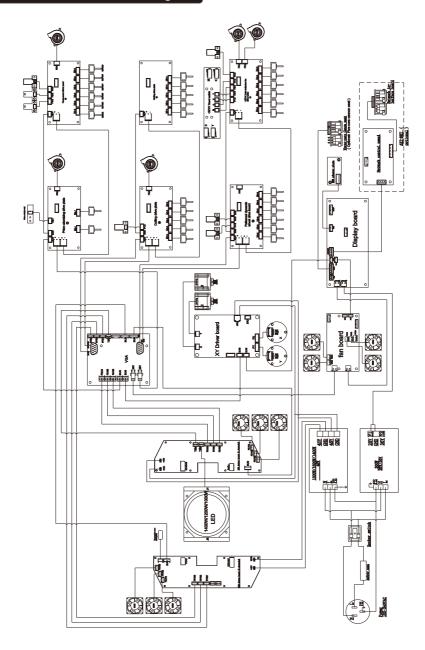
Channel	DMX	Function	Note
	νmΛ	Pan	Note
1	0 - 255	Pan movement/positioning	
		Pan fine	
2	0 - 255	Fine Pan positioning	
3		TILT	
	0 - 255	Tilt movement/positioning	
4	0 055	TILT fine	
	0 - 255	Fine Tilt movement/positioning	
5	0 - 255	PAN TILT Speed Pan Tilt movement Speed From Fast To Slow	
	0 255	Functions	
	11 - 20	All Reset	
	21 - 30	XY Reset	
	31 - 40	Color System Reset	
	41 - 50	Gobo System Reset	
	51 - 60	Profile System Reset	
	61 - 70	Focus System Reset	
	71 - 80	Super silent	
	81 - 90	Silent	
	91 - 100	Hight Brightness Effect Reset	
6	101 - 110 111 - 120	NO function	
	121 - 130	NO function	
	131 - 140	NO function	
	141 - 150	NO function	
	151 - 160	NO function	
	161 - 170	NO function	
	171 - 180	NO function	
	181 - 190	Display Back light is Auto	
	191 - 200	function Open	
	201 - 255	NO function	
		Cyan	
7	0 - 255	White→full cyan	
		Cyan Fine	
8	0 - 255	Cyan Fine movement/positioning	
9		Magenta	
	0 - 255	White → full magenta	
10	0 055	Magenta Fine	
	0 - 255	Magenta Fine movement/positioning	
11	0 - 255	<b>Yellow</b> White→ full yellow	
	0 - 255	Yellow Fine	
12	0 - 255	Yellow Fine movement/positioning	
10	0 200	CTO	
13	0 - 255	Color Temperature from Deep to mall	
14		CTO Fine	
	0 - 255	CTO Fine movement/positioning	
	_	Colour wheel	
	0 - 89	0° - 360°	
	90 - 104	OPEN COLOR1	
	105 - 119 120 - 134	COLOR1 COLOR2	
15	135 - 149	COLOR3	
-	150 - 164	COLOR4	
	165 - 179	COLOR5	
	180 - 214	Forwards Color rotation from slow to fast	
	215 - 249	Backwards Color rotation from fast to slow	
	250 - 255	Random	
	_	Gobo1	
		0pen	
16	0 - 9 10 - 19	GOBO1	

Channel	DMX	Function	Note
	20 - 29	G0B02	
	30 - 39	G0B03	
	40 - 49	G0B04	
	50 - 59	G0B05	
	60 - 69	G0B06	
16	70 - 79	Gobo 1 shake slow to fast/ GOBO1	
	80 - 89	Gobo 2 shake slow to fast/GOBO2	
	90 - 99	Gobo 3 shake slow to fast/GOBO3 Gobo 4 shake slow to fast/GOBO4	
	100 - 109	Gobo 5 shake slow to fast/GOBO5	
	110 - 119 120 - 129	Gobo 6 shake slow to fast/GOBO6	
	130 - 139	OPEN	
	140 - 193	Forwards gobo rotation from slow to fast	
	194 - 249	Backwards gobo rotation from fast to slow	
	250 - 255	Random Gobo	
	200 200	Gobol Rotation	
	0 - 127	0° - 360°	
17	128 - 189	Forwards gobo rotation from fast to slow	
	190 - 193	Gobo rotation stop	
	194 - 255	Backwards gobo rotation from slow to fast	
		Gobo2	
	0 - 9	0pen	
	10 - 19	GOBO1	
	20 - 29	G0B02 G0B03	
	30 - 39	G0B03 G0B04	
	40 - 49 50 - 59	GOBO5	
	60 - 69	GOBO6	
	70 - 79	Gobo 1 shake slow to fast/ GOBO1	
18	80 - 89	Gobo 2 shake slow to fast/GOBO2	
	90 - 99	Gobo 3 shake slow to fast/GOBO3	
	100 - 109	Gobo 4 shake slow to fast/GOBO4	
	110 - 119	Gobo 5 shake slow to fast/GOBO5	
	120 - 129	Gobo 6 shake slow to fast/GOBO6	
	130 - 139	OPEN	
	140 - 193	Forwards gobo rotation from slow to fast	
	194 - 249	Backwards gobo rotation from fast to slow	
	250 - 255	Random Gobo Gobo2 Rotation	
	0 197	0° - 360°	
19	0 - 127 128 - 189	Forwards gobo rotation from fast to slow	
13	190 - 193	Gobo rotation stop	
	194 - 255	Backwards gobo rotation from slow to fast	
	101 200	Blade UP1	
20	0 - 255	Blade Out→In	
	0 200	Blade UP1 Fine	
21	0 955	Fine Blade positioning	
	0 - 255		
22		Blade UP2	
	0 - 255	Blade Out→In	
23		Blade UP2 Fine	
	0 - 255	Fine Blade positioning	
24		Blade DW1	
44	0 - 255	Blade Out→In	
05		Blade DW1 Fine	
25	0 - 255	Fine Blade positioning	
00		Blade DW2	
26	0 - 255	Blade Out→In	
27		Blade DW2 Fine	
41	0 - 255	Fine Blade positioning	

Channel	DMX	Function	Note
28		Blade LF1	
20	0 - 255	Blade Out→In	
		Blade LF1 Fine	
29	0 - 255	Fine Blade positioning	
		Blade LF2	
30	0 - 255	Blade Out→In	
31		Blade LF2 Fine	
	0 - 255	Fine Blade positioning	
32	0 - 255	<b>Blade RF1</b> Blade Out→In	
	0 - 255	Blade RF1 Fine	
33	0 - 255	Fine Blade positioning	
34		Blade RF2	
	0 - 255	Blade Out→In	
35	0 - 255	Blade <b>RF2 Fine</b> Fine Blade positioning	
	0 - 255	Framing Rotation	
36	0 - 255	0° - 90°	
		Framing Macro	
	0 - 10	No function	
	11 - 20	Square	
	21 - 30	rectangle	
	31 - 40 41 - 50	Isosceles triangle trapezoidal	
	51 - 60	The Fan(Facing Up)	
	61 - 70	parallelogram	
	71 - 80	Right Angle trapezoid	
	81 - 90	The Fan (Down)	
37	91 - 100	triangle	
31	101 - 110	prismatic	
	111 - 120	The stripes	
	121 - 130	bar	
	131 - 140	Upper left quadrant	
	141 - 150 151 - 160	semicircle (Up) Upper right quadrant	
	161 - 170	Right semicircle	
	171 - 180	Right lower quadrant	
	181 - 190	Semicircle (Down)	
	191 - 200	The lower left quadrant	
	201 - 255	Left Semicircle	
38	0 055	Framing Macro Zoom	
	0 - 255	Framing Macro Zoom Prism	
39	0 - 10	Prism Out	
	11 - 255	Prism In	
		Prism Rotation	
	0	No Function	
	1 - 63	0°-360°	
40	64 - 127 128 - 191	Forwards rotation from fast to slow Backwards rotation from slow to fast	
-10	192 - 207	from slow to fast 90° Swing	
	208 - 223	from slow to fast 180° Swing	
	224 - 239	from slow to fast 270° Swing	
	240 - 255	from slow to fast 360° Swing	
		Effect	
41	0 - 9	Effect Out	
	10 - 255	Effect In Effect Rotation	
	0 - 2	No Function	
42	3 - 130	Forwards rotation from fast to slow	
	131 - 255	Backwards rotation from fast to slow	

Channel	DMX	Function	Note
		CRI	
43	0 - 9	CRI Out	
	10 - 255	CRI In	
		Frost1	
	0 - 127	Frost From Min To Max	
44	128 - 159	No Function	
	160 - 191	No Function	
	192 - 255	No Function	
		Frost2	
	0 - 127	Frost From Min To Max	
45	128 - 159	No Function	
	160 - 191	No Function	
	192 - 255	No Function	
	0 107	Iris	
40	0 - 127	From Max To Min	
46	128 - 159 160 - 191	Slow In Fast Out from slow to fast Fast In Slow Out from slow to fast	
	192 - 255	Slow In Slow Out from slow to fast	
	192 - 255	Zoom	
47	0 - 255	WIDE BEAM→NARROW BEAM	
	0 200	ZoomFine	
48	0 - 255	Fine Zoom positioning	
	0 200	Focus	
49	0 - 255	Infinity→near	
	0 200	Focus Fine	
50	0 - 255	Fine Focus positioning	
		Autofocus Distance	
	0 - 9	NO function	
	10 - 19	7M	
	20 - 29	10M	
51	30 - 39	15M	
31	40 - 49	20M	
	50 - 59	25M	
	60 - 69	30M	
	70 - 79	40M	
	80 - 255	50M	
52	0 055	Autofocus Adjustment	
<del>     </del>	0 - 255	Auto Focus Fine Strobe	
	0 - 9	No Function	
	10 - 49	From fast to slow, fast off and slow on	
53	50 - 89	From fast to slow, fast on and slow off	
00	90 - 119	No Function	
	120 - 179	Random strobe, slow → fast	
	180 - 255	Strobe, slow → fast	
	200	Dimmer	
54	0 - 255	Dimmer from Dark To Bright	
		Dimmer Fine	
55	0 - 255	Dimmer Fine	
		Gobo Macro	
56	0 - 15	No Function	
	16 - 255	Gobo Macro Function	

# 7.Electrical Connection Diagram



# 8.Error Information

Error messages will be displayed under the **Fixture state** status menu when the fixture fails and they will not disappear until the fixture is repaired.

## 1. Memory IC:

Check whether the **Memory IC** is damaged.

Check whether the related circuit of the **Memory IC** is damaged.

## 2. Angle sensor:

Check the **Angle sensor** chip for damage.

Check whether the related circuit of the **Angle sensor** chip is damaged.

#### 3. Pan Encodeer:

Check whether the connection wire connecting the **X-axis** magnetic induction board is in poor contact or disconnected.

Check whether the related circuit of the **X-axis** motor driver board is damaged.

Check the X-axis magnetic plate for looseness, falling off or damage.

#### 4. Tilt Encoder:

Check whether the connecting wire connecting the **Y-axis** magnetic induction board is in poor contact or disconnected.

Check whether the related circuit of the **Y-axis** motor driver board is damaged.

Check whether the Y-axis magnetic induction plate is loose, dropped or damaged.

### 5. Pan:

Check whether there are other objects in the **X-axis** running range interfering with its running and reset.

Check whether the connection wire connecting the **X-axis** magnetic induction board is in poor contact or disconnected.

Check the X-axis magnetic plate for looseness, falling off or damage.

Check whether the related circuit of the X-axis motor driver board is damaged.

Check if the **X-axis** motor is damaged.

### 6. Tilt:

Check whether there are other objects in the **Y-axis** running range interfering with its running and reset

Check whether the connecting wire connecting the **Y-axis** magnetic induction board is in poor contact or is disconnected.

Check the Y-axis magnetic induction plate for looseness, falling off or damage.

Check whether the related circuit of the **Y-axis** motor driver board is damaged.

Check if the **Y-axis** motor is damaged.

## 7. Cyan:

Check whether there are other objects in the operation range of the **C** color film interfering with its operation and reset.

Check whether the connection line connecting the **C** color chip and the magnetic induction board is in poor contact or disconnected.

Check the **C** color chip magnets for looseness, falling off, or damage.

Check whether the C color chip magnetic plate is loose, fallen off or damaged.

Check whether the related circuit of the **C** color chip motor driver board is damaged.

Check whether the C color chip motor is damaged.

## 8. Magenta:

Check whether there are other objects in the operating range of the **M** color film interfering with its operation and reset.

Check whether the connection line connecting the **M** color chip magnetic induction board is in poor contact or disconnected.

Check if the M color chip magnet is loose, dropped or damaged.

Check whether the **M** color chip magnetic plate is loose, falling off or damaged.

Check whether the related circuit of the **M** color chip motor driver board is damaged.

Check if the **M** color chip motor is damaged.

#### 9. Yellow:

Check whether there are other objects in the operation range of the **Y** color film interfering with its operation and reset.

Check whether the connecting wire connecting the **Y**-color chip magnetic induction board is in poor contact or disconnected.

Check the **Y**-chip magnets for looseness, falling off, or damage.

Check whether the Y color chip magnetic induction board is loose, fallen off or damaged.

Check whether the related circuit of the Y color chip motor driver board is damaged.

Check if the Y chip motor is damaged.

## 10. CTO:

Check whether there are other objects in the operation range of the **CTO** color film interfering with its operation and reset.

Check whether the connecting wire connecting the **CTO** color chip magnetic induction board is in poor contact or disconnected.

Check the CTO chip magnets for looseness, falling off, or damage.

Check the CTO color chip magnetic plate for looseness, falling off or damage.

Check whether the related circuit of the CTO color chip motor driver board is damaged.

Check the CTO chip motor for damage.

### 11. Color wheel:

Check whether there are other objects in the operation range of the **color wheel** interfering with its operation and reset.

Check whether the connection line connecting the **color wheel** and the magnetic induction board is in poor contact or disconnected.

Check the **color wheel** magnets for looseness, falling off, or damage.

Check the **color wheel** magnetic plate for looseness, falling off or damage.

Check whether the related circuit of the **color wheel** motor driver board is damaged.

Check the **color wheel** motor for damage.

#### 12. Gobo1:

Check whether there are other objects in the revolution and operation range of **Gobo1** interfering with its operation and reset.

Check whether the connection line of the connection **Gobo1** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of Gobo1 is loose, fallen off or damaged.

Check the Gobo1 revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the **Gobo1** revolution motor driver board is damaged.

Check if the Gobo1 revolution motor is damaged.

### 13. Gobo1 Rot.:

Check whether there are other objects in the revolution and operation range of **Gobo1 Rot.** interfering with its operation and reset.

Check whether the connection line of the connection **Gobo1 Rot.** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of Gobo1 Rot. is loose, fallen off or damaged.

Check the Gobo1 Rot. revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the **Gobo1 Rot.** revolution motor driver board is damaged.

Check if the Gobo1 Rot. revolution motor is damaged.

### 14. Gobo2:

Check whether there are other objects in the revolution and operation range of **Gobo2** interfering with its operation and reset.

Check whether the connection line of the connection **Gobo2** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of **Gobo2** is loose, fallen off or damaged.

Check the Gobo2 revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the **Gobo2** revolution motor driver board is damaged.

Check if the Gobo2 revolution motor is damaged.

### 15. Gobo2 Rot.:

Check whether there are other objects in the revolution and operation range of **Gobo2 Rot.** interfering with its operation and reset.

Check whether the connection line of the connection **Gobo2 Rot.** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of Gobo2 Rot. is loose, fallen off or damaged.

Check the Gobo2 Rot. revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the Gobo2 Rot. revolution motor driver board is damaged.

Check if the Gobo2 Rot. revolution motor is damaged.

#### 16. Fram Rot.:

Check whether there are other objects in the revolution and operation range of **Fram Rot.** interfering with its operation and reset.

Check whether the connection line of the connection **Fram Rot.** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of Fram Rot. is loose, fallen off or damaged.

Check the Fram Rot. revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the Fram Rot. revolution motor driver board is damaged.

Check if the Fram Rot. revolution motor is damaged.

#### 17. Zoom:

Check whether there are other objects in the revolution and operation range of **Zoom** interfering with its operation and reset.

Check whether the connection line of the connection **Zoom** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of **Zoom** is loose, fallen off or damaged.

Check the **Zoom** revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the **Zoom** revolution motor driver board is damaged.

Check if the **Zoom** revolution motor is damaged.

## 18. Focus:

Check whether there are other objects in the revolution and operation range of **Focus** interfering with its operation and reset.

Check whether the connection line of the connection **Focus** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of Focus is loose, fallen off or damaged.

Check the **Focus** revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the Focus revolution motor driver board is damaged.

Check if the **Focus** revolution motor is damaged.

## 19. Prism:

Check whether there are other objects in the revolution and operation range of **Prism** interfering with its operation and reset.

Check whether the connection line of the connection **Prism** male wheel magnetic induction board is in poor contact or disconnected.

Check if the revolving magnet of **Prism** is loose, fallen off or damaged.

Check the Prism revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the **Prism** revolution motor driver board is damaged.

Check if the **Prism** revolution motor is damaged.

### 20. Prism Rot.:

Check whether there are other objects in the revolution and operation range of **Prism Rot.** interfering with its operation and reset.

Check whether the connection line of the connection **Prism Rot.** male wheel magnetic induction board is in poor contact or disconnected.

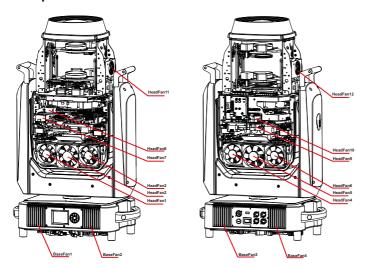
Check if the revolving magnet of Prism Rot. is loose, fallen off or damaged.

Check the **Prism Rot.** revolution magnetic induction plate for looseness, falling off or damage.

Check if the circuit related to the Prism Rot. revolution motor driver board is damaged.

Check if the **Prism Rot**. revolution motor is damaged.

## The position of each fan of the fixture:



# 9.Troubleshooting

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

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

- Check the connected power.
- Measure the voltage.
- Check the power indicator to see whether it can be lit up or not.

## B. Not responding to the DMX controller

- Check whether the DMX connectors and the DMX cables are connected correctly.
- Check whether the DMX address is correctly set.
- If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- Try it with another DMX controller.
- Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

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

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

## 10.Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- \* A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- \* Always dry the parts carefully.
- \* Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

## CAUTION!!!

Disconnect from mains before starting maintenance operation.

# 11.Duty exonerative and copyright protectio

- \* Light source belongs to consumption products, not within the scope of warranty.
- \* The manufacturer shall not bear any responsibility for any damage caused by failure to operate in accordance with this instruction.
- \* All the information in this manual shall be interpreted by the manufacturer.
- \* All the information in this manual shall not be copied without permission.
- \* The data contained in this statement are subject to change in the future without prior notice.