

# **EDGE**

## **USER MANUAL**

KEEP THIS MANUAL FOR FUTURE NEEDS



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## 1. SAFETY INSTRUCTIONS

### 1.1. IMPORTANT SAFETY WARNING

This device has left the factory in perfect condition. In order to maintain this condition and to ensure safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

In order to install, operate, and maintain the lighting fixture safely and correctly we suggest that the installation and operation be carried out by qualified technicians and these instructions be carefully followed.



**CAUTION!**  
HIGH VOLTAGE. RISK OF SEVERE OR FATAL ELECTRIC SHOCK



**CAUTION!**  
ALWAYS DISCONNECT MAINS SUPPLY BEFORE REMOVING ANY FIXTURE COVERS



**CAUTION!**  
NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE. SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK



**CAUTION!**  
NEVER TOUCH THE DEVICE DURING OPERATION! COVERS MAY BE HOT



**CAUTION!**  
KEEP THIS DEVICE AWAY FROM RAIN AND MOISTURE



**Important:**

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

- 1) If the device has been exposed to temperature changes due to environmental conditions, do not power on immediately. The resulting condensation could damage the device. Leave the device powered off until it has reached room temperature.
- 2) This device falls under protection-class I. Therefore, it is essential that the device be earthed.
- 3) If either lenses or display are damaged (damage may include cracks or gashes in the material) they must be replaced.
- 4) Electrical connections, such as replacing the power plug, must be performed by a qualified person.
- 5) Make sure that the available voltage is not higher than that which is stated at the end of this manual.
- 6) Make sure the power cord is never crushed or damaged by sharp edges. If the flexible power cord of this device is damaged, it should be replaced by the manufacturer, local service agent or a similar qualified person in order to avoid injury.
- 7) When the device is not in use or before performing maintenance, always disconnect the device from the mains. Only handle the power cord from the plug. Never pull the plug out of a socket by tugging the power cord.
- 8) When powered on for the first time, some smoke or smell may occur. This is caused by coating on metal parts when heated and is normal. If you are concerned, please contact your distributor.
- 9) Do not focus the beam onto flammable surfaces. The minimum distance between the exiting lens of the device and the illuminated surface must be greater than 10 metres.

**Please be aware that damage caused by any modifications to the device are not subject to warranty. Keep away from children and non-professionals.**

## **1.2. GENERAL GUIDELINES**

- 1) This device is a lighting effect for professional use on stages, in discotheques, theatres, etc., the device was designed for indoor use only.
- 2) This fixture is only allowed to be operated within the maximum alternating current as stated in the technical specifications in section 2 of this manual.
- 3) Handle the device with care, avoid shaking or using force when installing or maintaining the device.
- 4) When choosing the installation location, please make sure that the device is not exposed to extreme heat, moisture or dust.
- 5) If you use the quick lock cam when rigging the device, make sure the quick lock fasteners are located in the quick lock holes correctly and securely.
- 6) Operate the device only after having familiarised yourself with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.
- 7) Please use the original packaging if the device is to be transported.
- 8) The applicable temperature for the device is between -10°C to 45°C. Do not use the device outside of this temperature range.

**For safety reasons, please be aware that all modifications to the device are forbidden. If this device is operated in any way different to the ones described in this manual, the product may suffer damage and the warranty becomes void. Furthermore, any other operation may lead to short-circuits, burns, electric shocks etc.**

## 2. FEATURES

### POWER SUPPLY

- AC 100-240V~, 50/60Hz
- Power Consumption: 700W

### OPTICS

- Lamp: MSD Platinum 21R 470W
- Extremely long Life: >1500H

### MOVEMENT

- Pan movement: 540° /630° Optional (16 bit)
- Tilt movement: 270° (16 bit)
- Advanced moving system: fast, stable and quite, auto x-y repositioning

### COLORS

- CMY & CTO Variable Color Mixing for Infinite Color Possibilities
- 1 Color wheel: 14 dichroic filters + open, indexable, rainbow effect

### GOBOS

- 1 Rotation gobo wheel: 8 interchangeable, rotating, and indexable, gobo + open
- “Slot in & out” gobo wheel system.
- 1 Static gobo wheel: 14 + open

### FEATURES

- 2 Control channel modes: 25/36 channels
- 2 operations modes: DMX-512, Extended / Standard
- Strobe effect with 1-25 flashes per second and pulse effect
- Rotating Prism: 8 facets prism, Linear prism and prism Macros
- Motorized focus
- Dimmer: 0%~100% full range dimming.
- Stepless frost, 0%~100% linear change frost.
- Animation Wheel: flame or water effect

### DISPLAY

- Advanced and convenient full –color LCD touch screen, with rechargeable battery
- Locked automatically after standby for 15 seconds to prevent error; hold the  button for 3 seconds to activate.
- Pan/Tilt Lock Out: Locks Pan / Tilt from resetting, enabling reset to be carried out inside a flight case.

Power the unit. Press & hold  button until the display shows “No Movement Reset”.

### SOFTWARE

Upgrades: fast and convenient through DMX cable

Reset DMX address, remote lamp switch, reset can all be done by the controller

Running time of fixture on display for reference

### OTHER SPEC

Input signal isolation: guarantees stable signal transmission without interference

Advanced RDM function

### WEIGHT

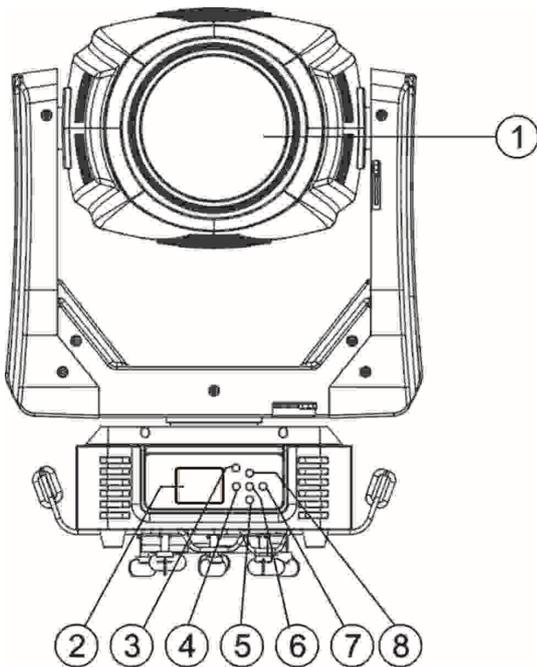
Net weight: 29.8 kg

## DMX CHANNEL DATA IMAGE

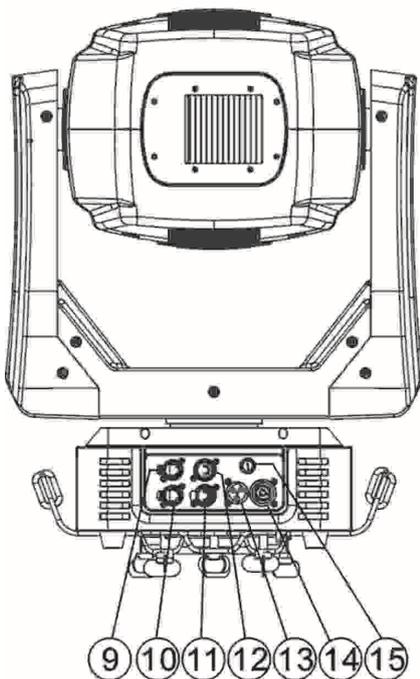
%	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
%	Pan	Pan Fine	Tilt	Tilt Fine	Color	C	M	Y	CTO	Beam or spot mode select	Rota. Gobo	Gobo Rotation	Fixed Gobos	Animation wheel	8/Linear Prism
100%		16bit Pan Fine		16bit Tilt Fine											
75%										Spot mode					
50%										Beam mode					
25%															
0%															

%	16	17	18	19	20	21	22	23	24	25
%	8 Prism Rotation	Linear Prism Rotation	Zoom	Focus	Auto Focus	Auto Focus Fine	Strobe	Dimming	Frost	Control
100%					20m					Other motor reset
75%										Pan/TILT reset
50%					15m					All motor reset
25%										Lamp switch off
0%	Prism indexing	Prism indexing			Auto Focus Off					Lamp on
										Blackout by movement
										No function

### 3. FIXTURE OVERVIEW

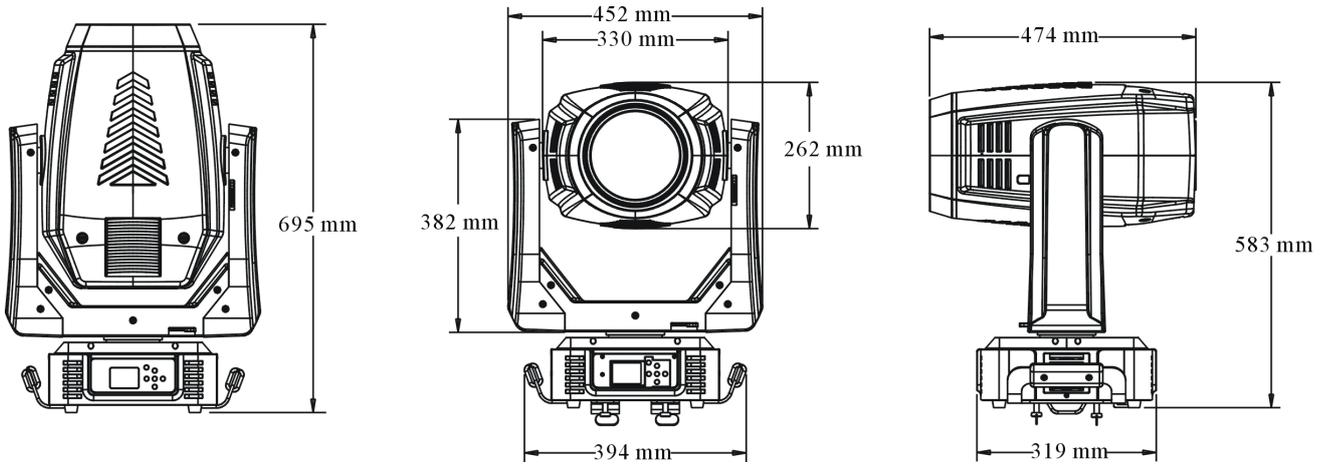


- 1) Lens
- 2) Display
- 3) Mode/Esc-button
- 4) Left-button
- 5) Down-button
- 6) ENTER-button
- 7) Right-button
- 8) Up-button



- 9) RJ45 in
- 10) RJ45 out
- 11) DMX in
- 12) DMX out
- 13) Power in
- 14) Power out
- 15) Fuse

#### 4. DIMENSIONAL DRAWINGS



## 5. INSTALLATION INSTRUCTIONS

### 5.1. Installing or replacing the lamp



**CAUTION!**

ONLY INSTALL THE LAMP WITH THE DEVICE UNPLUGGED FROM THE MAINS



**CAUTION!**

THE LAMP HAS TO BE REPLACED WHEN IT IS DAMAGED OR DEFORMED

Because of the nature of the extreme heat associated with the MSD Platinum 21R 470W lamp and the tight nature of the internal optical system it is imperative that the lamp be replaced every 1500 hours. This is done to protect the internal optical system as well as prevent accidental lamp explosion, which could lead to hot glass particles falling from the fixture. Failure to change the lamp within 300 hours of operation will result in automatic shut down of the fixture's electronics.

At 1500 hours the display will begin to flash "Replace the lamp" and the lamp will flicker for the first five minutes of operation. At this point the lamp has reached the maximum rated life and should be replaced immediately. After the lamp has flickered for about five minutes it should strike normally allowing the fixture to be used temporarily until a replacement lamp can be installed. The fixture will continue to operate for an additional 300 hours, however the "Replace the Lamp" warning will continue to flash in the display. Keep in mind that the flicker protection circuitry will only work for about 300 hours (lamp clock life of 1500-1800 hours).

After 1800 hours the fixture will no longer respond to DMX commands and immediately enter a hibernation mode that will electronically discontinue all fixture functionality with the exception of a few menu commands. The fixture will continue to enter hibernation mode until the lamp is replaced and the lamp clock has been reset.

Before replacing the lamp let the lamp cool down, because during operation, the lamp can reach very high temperatures.

During the installation of halogen lamps do not touch the glass bare handed. Always use a cloth to handle the lamps during insertion and removal.

Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.



**WARNING!**

THE BULB SHOULD BE REPLACED WHEN DAMAGED OR HEAT DISTORTION.

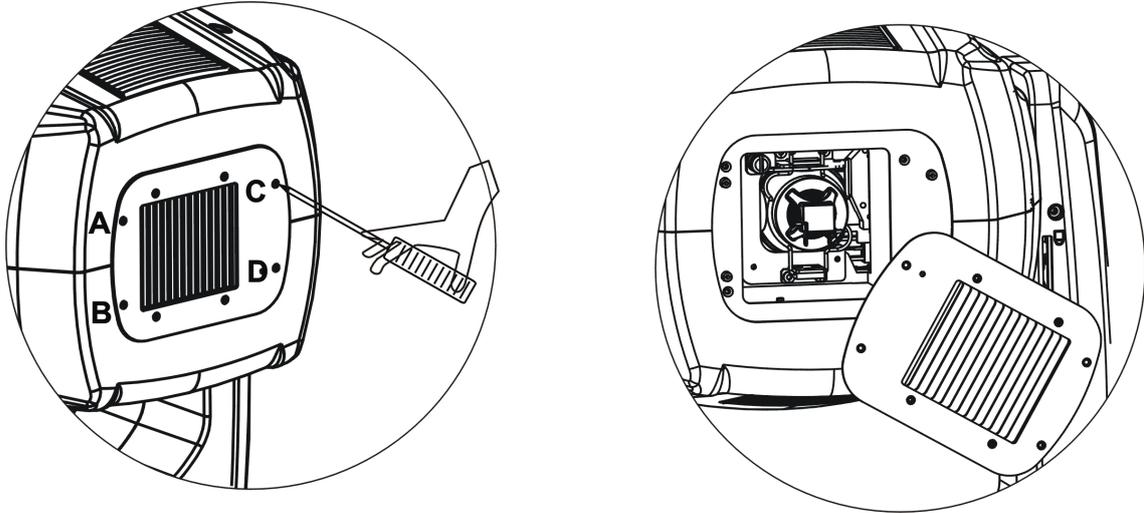


**CAUTION!**

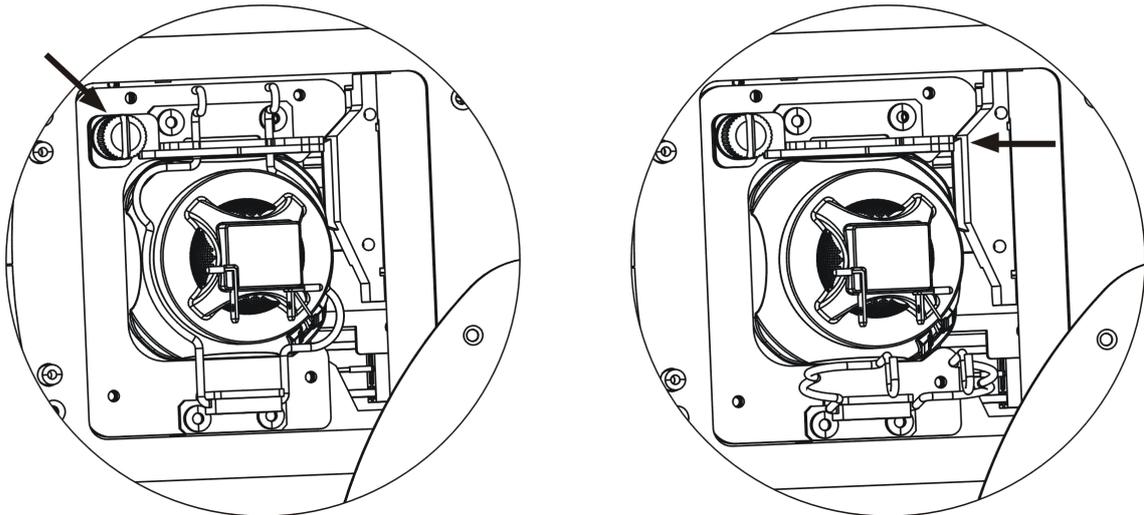
DISCONNECT THE FIXTURE FROM POWER AND ALLOW IT TO COOL FOR ONE HOUR

**Procedures:**

- 1) Please put the fixture on a flat surface, release the screw A, B, C, D. Then open the back plate to view the lamp-socket.



- 2) Before removing the lamp, please release the lamp wires which connect to the lamp terminals.
- 3) Release the screw indicated by arrow below, pull the metal plate to the right, and then pull down the spring, whilst holding the lamp to ensure it doesn't fall out.



- 4) Ensure to use a soft cloth to remove and replace the lamp to avoid your fingers touching the glass of the lamp.
- 5) Replace lamp and make it stable and located. Please note that there's only one orientation for the lamp. Make sure the replaced lamp is installed in the same direction as the old with the terminals of the lamp pointing down.
- 6) Replace the spring over the lamp and re-install the plate over the spring. Tighten screw and replace lamp wires.
- 7) Replace the back plate and tighten screw A, B, C, D.
- 8) Please reset the lamp life-time. Otherwise it is likely to trigger the protecting firmware of the system to make the replaced lamp close itself automatically.

**Please remember the lamp is not a hot-restrike type, you must wait for approximately 10 minutes after having turned off the lamp before you can turn it back on again.**



**CAUTION!**

DO NOT OPERATE THIS DEVICE WITH OPEN COVERS

## **5.2. RIGGING THE DEVICE**

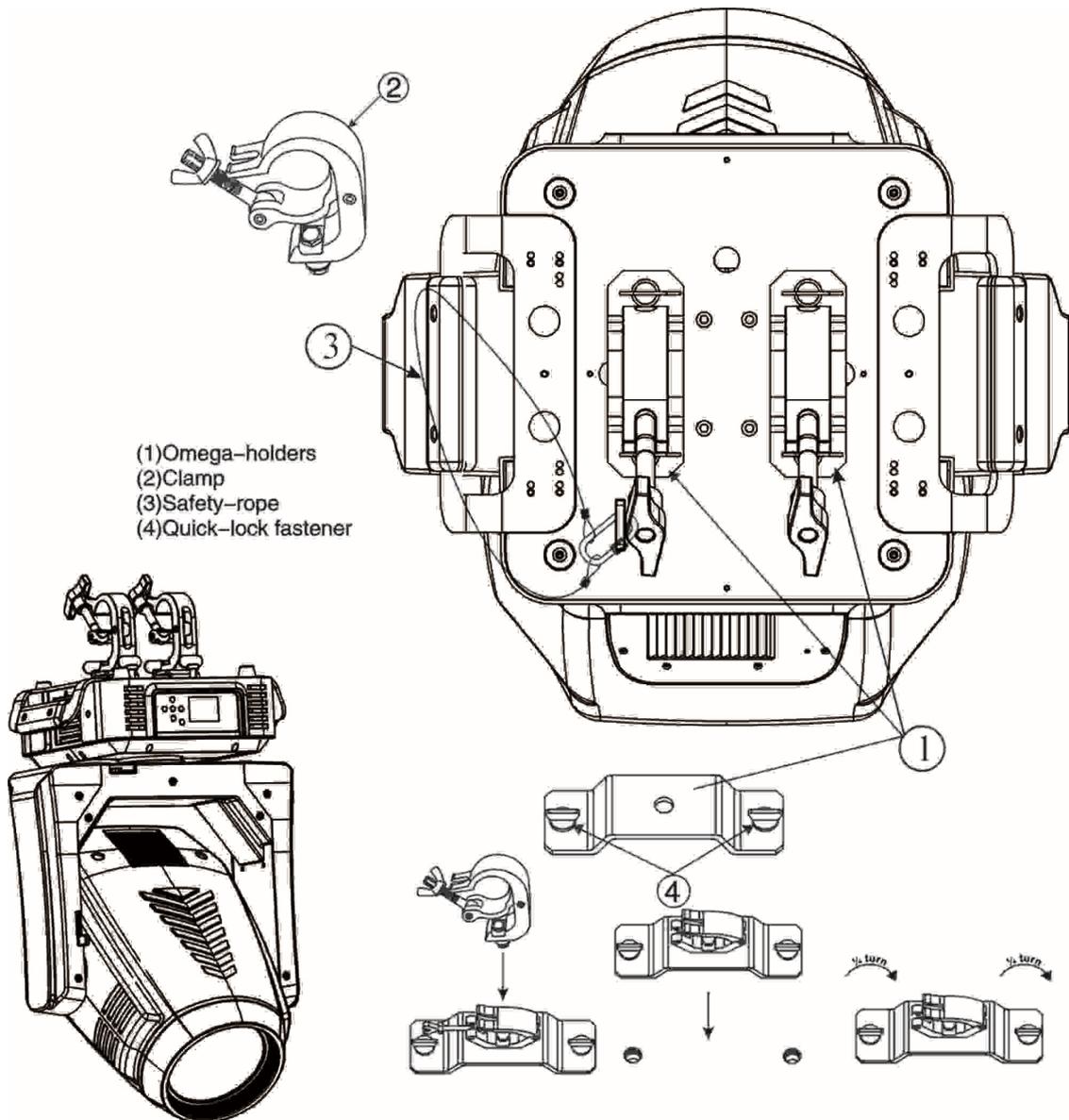


**CAUTION!**

PLEASE CONSIDER THE GB7000.1-2015, GB7000.217-2008 AND THE OTHER RESPECTIVE NATIONAL NORMS DURING THE INSTALLATION. THE INSTALLATION MUST ONLY BE CARRIED OUT BY A QUALIFIED PERSON.

- The structure on which the device is rigged must be able to support 10 times the weight of the device for 1 hour without any critical deformation occurring.
- The installation must always be secured with a secondary safety attachment, e.g. the included appropriate safety cable.
- Never stand directly below the device when rigging, de-rigging or maintaining the device.
- All electrical connections should be approved by a qualified electrician prior to using the product.
- When the device is permanently installed these installations have to be approved by a qualified person once a year.
- Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/ rigging materials, and periodic safety inspection of all installation material as well as the device. If you lack these qualifications, do not attempt the rigging of this device yourself. Improper installation/ rigging can result in serious bodily injury.
- Before rigging, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

### 5.3. RIGGING USING THE OMEGA BRACKETS



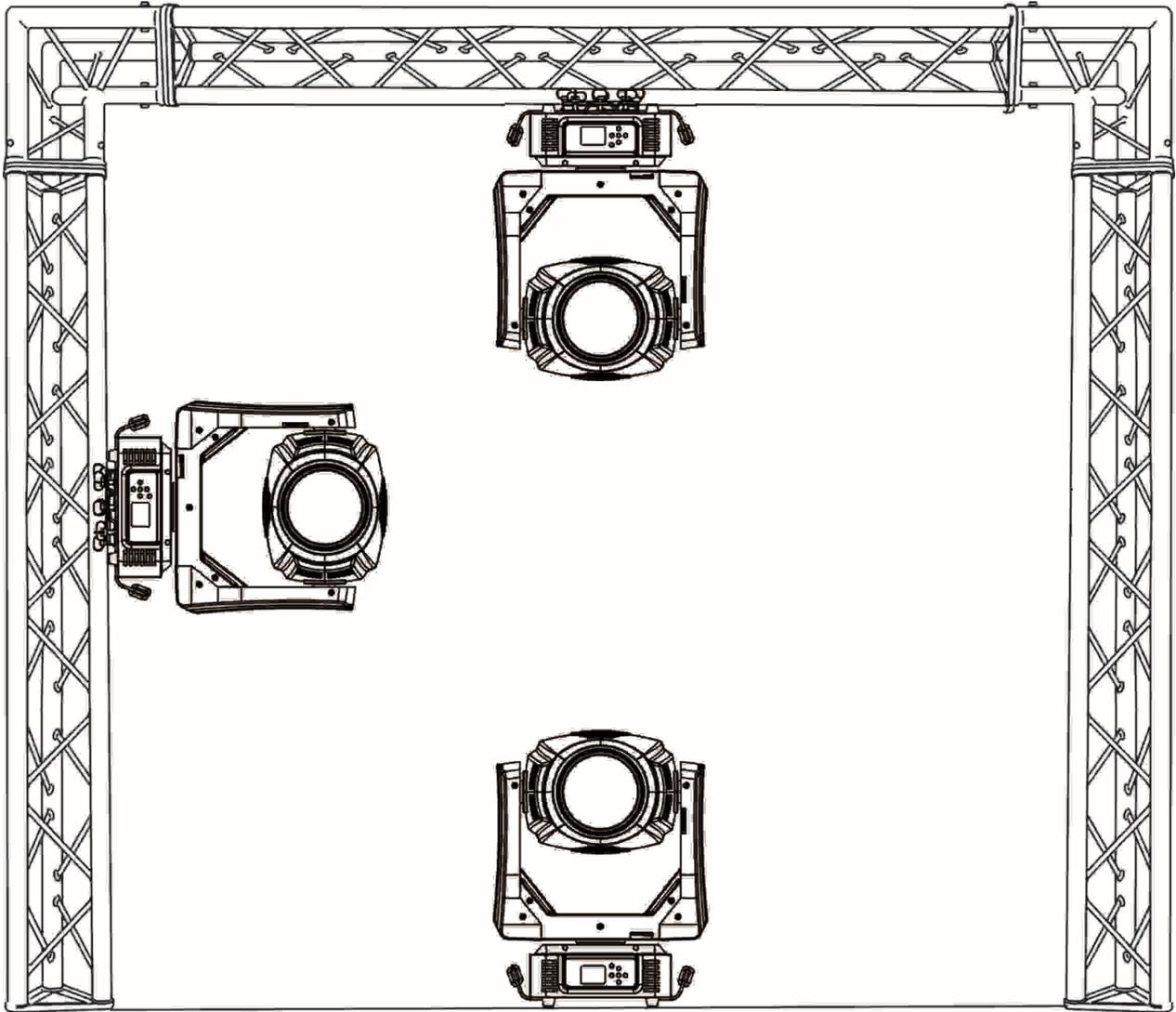
- Fix the clamp to the bracket by tightening the M12 nut and bolt to the bracket through the  $\Phi 13$  hole in the middle of the bracket.
- Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- Install the second Omega holder.
- Pull the safety cable through the holes on the bottom of the base and over the trussing system or another suitable rigging point. Insert the end into the carabiner and tighten the safety screw.



**Important:**

*This step is very important to ensure safe rigging of the fixture.*

## 5.4. RIGGING DRAWINGS



- The device can be rigged in any of the orientations shown in the image above.
- The device must be kept at least 0.1 m away from any flammable materials (decoration etc.).
- Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



**Important:**

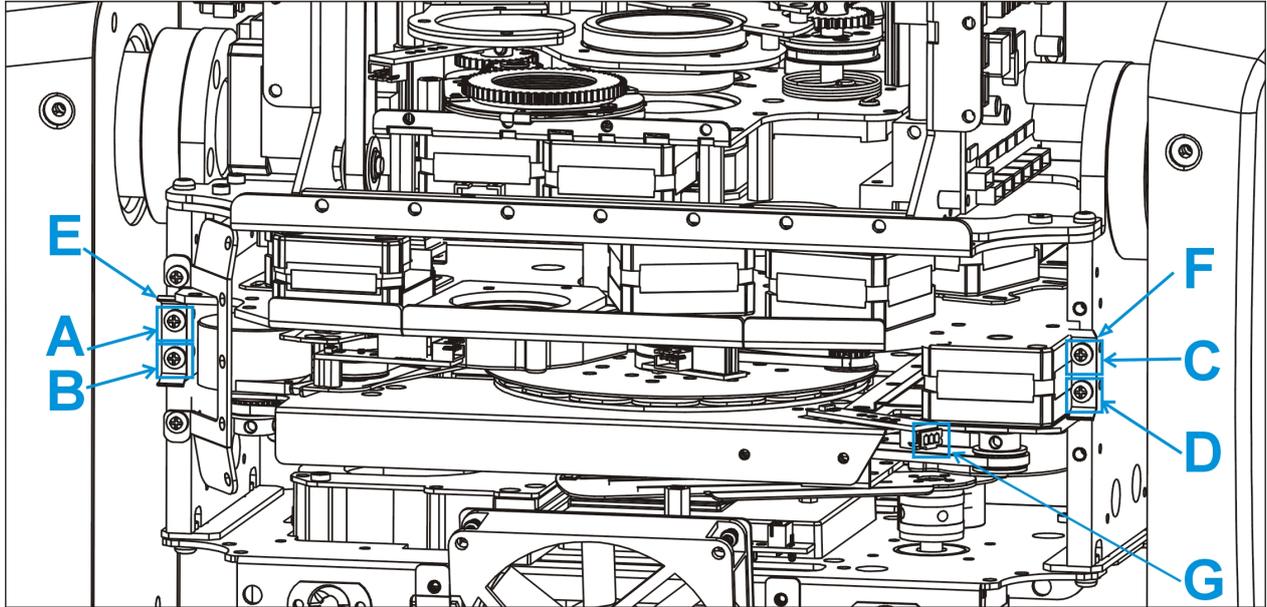
Overhead rigging requires extensive experience, including (but not limited to) calculating working load limits, specifying installation/ rigging materials, and periodic safety inspection of all installation material as well as the device. If you lack these qualifications, do not attempt the rigging of this device yourself. Improper installation/ rigging can result in serious bodily injury.

## 5.5. CMY Module and Pattern Module Disassembly and Installation

### CMY Module Disassemble and Install Instruction:

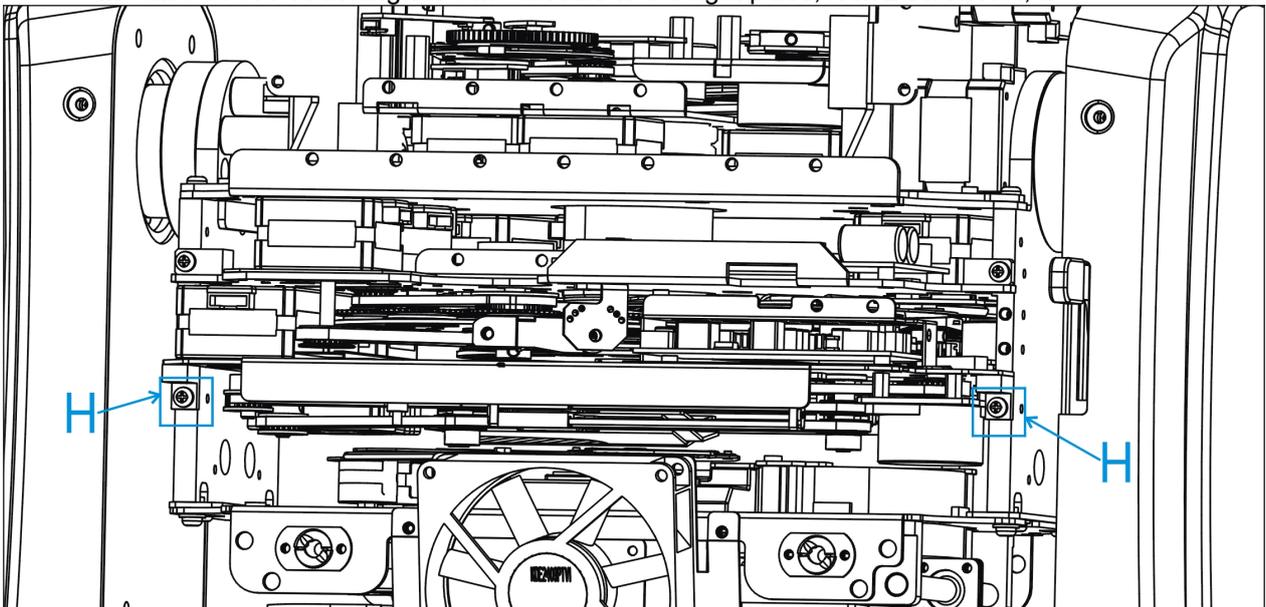
**Disassemble 1:** Remove 4 screws: A, B, C, D. Remove the 2 positioning plates: E, F. Unplug the sensor signal wire from socket G.

**Install 4 or 7:** rotate the yoke 180, flip the head to another side, and use screw A, B to lock positioning plate E tightly and screw C, D to lock positioning plate F tightly. Plug the sensor signal wire into socket G.



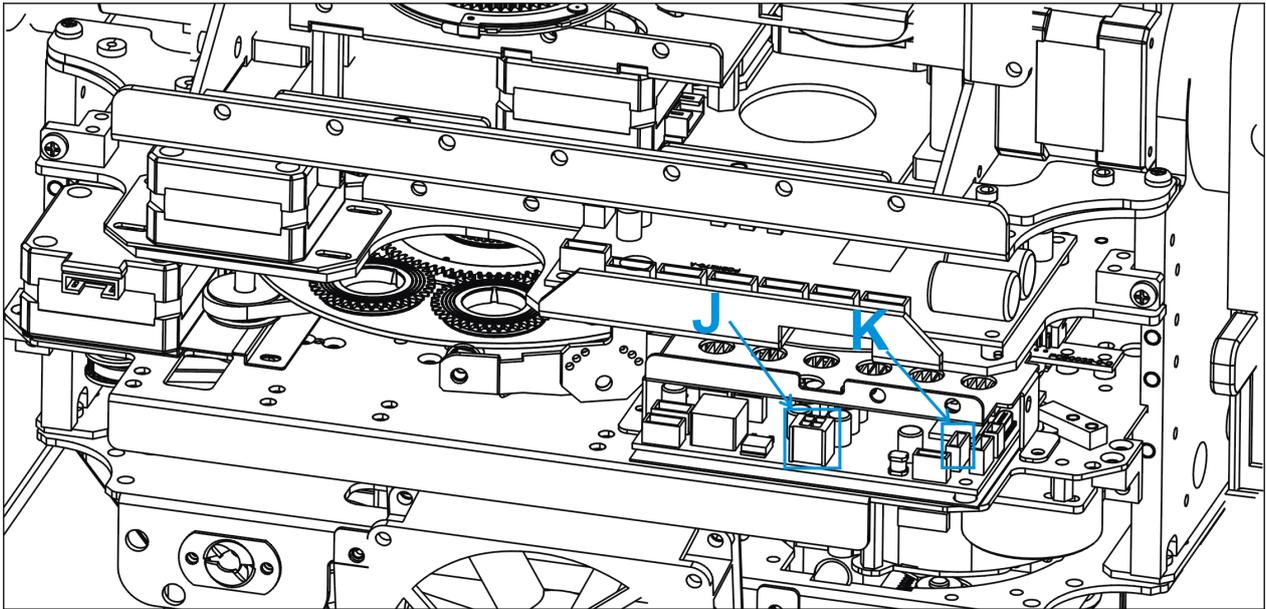
**Disassemble 2:** rotate the yoke 180, flip the head to the other side, and remove 2 screws: H, I.

**Install 3 or 6:** Positioning the CMY module to the right place, lock 2 screws: H, I.



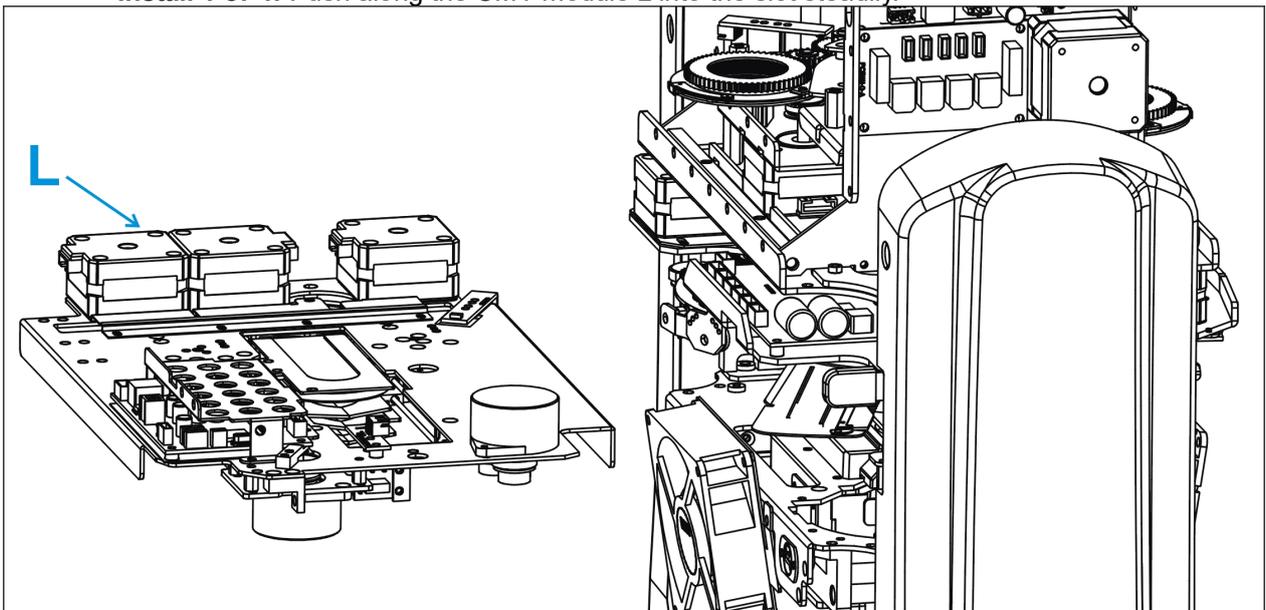
**Disassemble 3:** Pull out the CMY module about 30mm, unplug power cord from socket J and signal wire from K.

**Install 2 or 5:** Push along the CMY module into the slot about 90mm, plug the power cord into socket J and signal wire into socket K.



**Disassemble 4:** Pull out CMY module L until this bulkhead is separated from the fixture. This is all for the disassembling CMY module.

**Install 1 or 4:** Push along the CMY module L into the slot steadily.



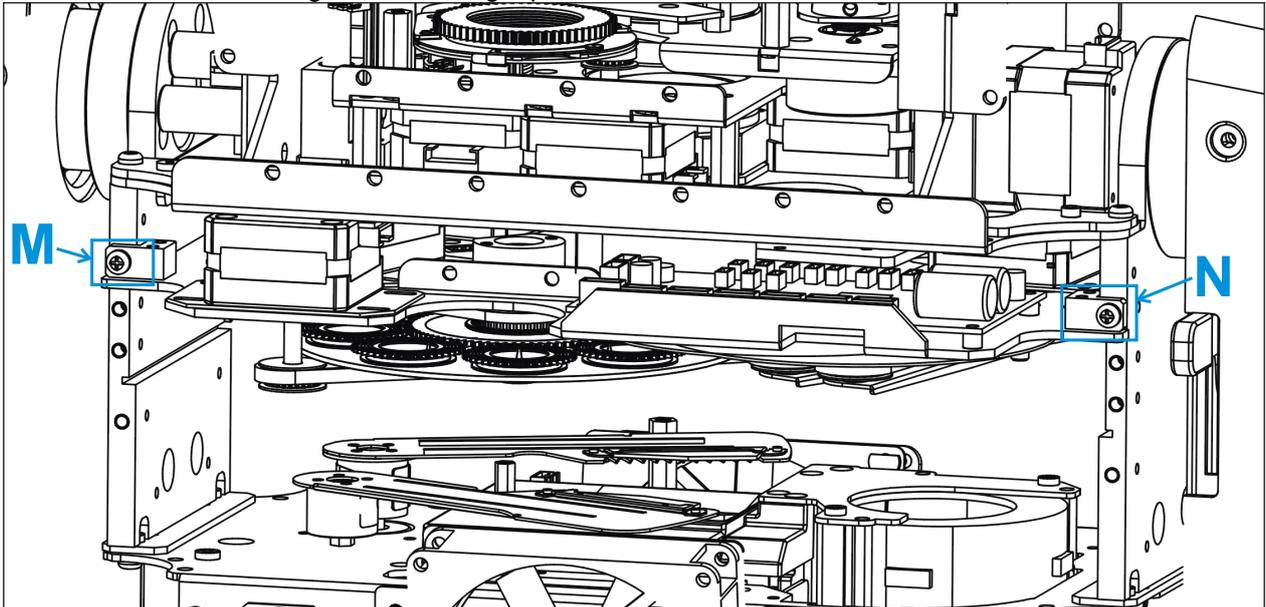
Installation of CMY module is the backward procedure from 1-4.

### Pattern Module Disassemble and Install Instruction:

With the limitation of the space, the CMY module has to be removed before disassemble the pattern and color module. Ensure the Zoom Assy is pushed forward to the front lens.

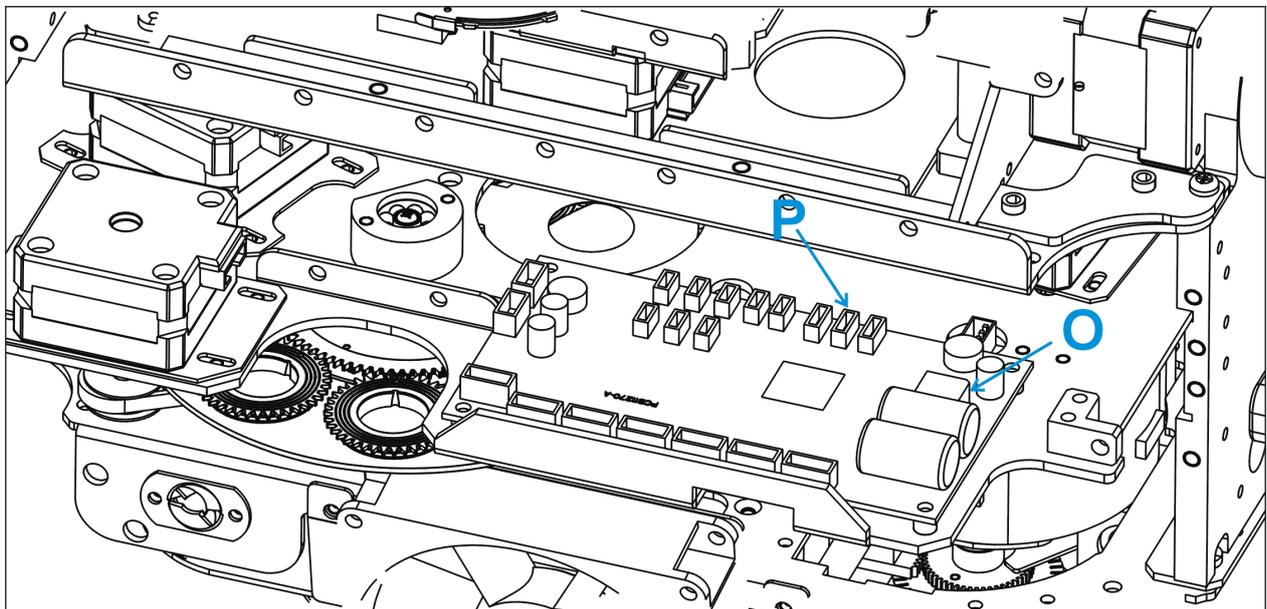
**Disassemble 5:** Remove 2 screws: M, N

**Install 3:** Push the gobo into the right place and lock 2 screws M, N.



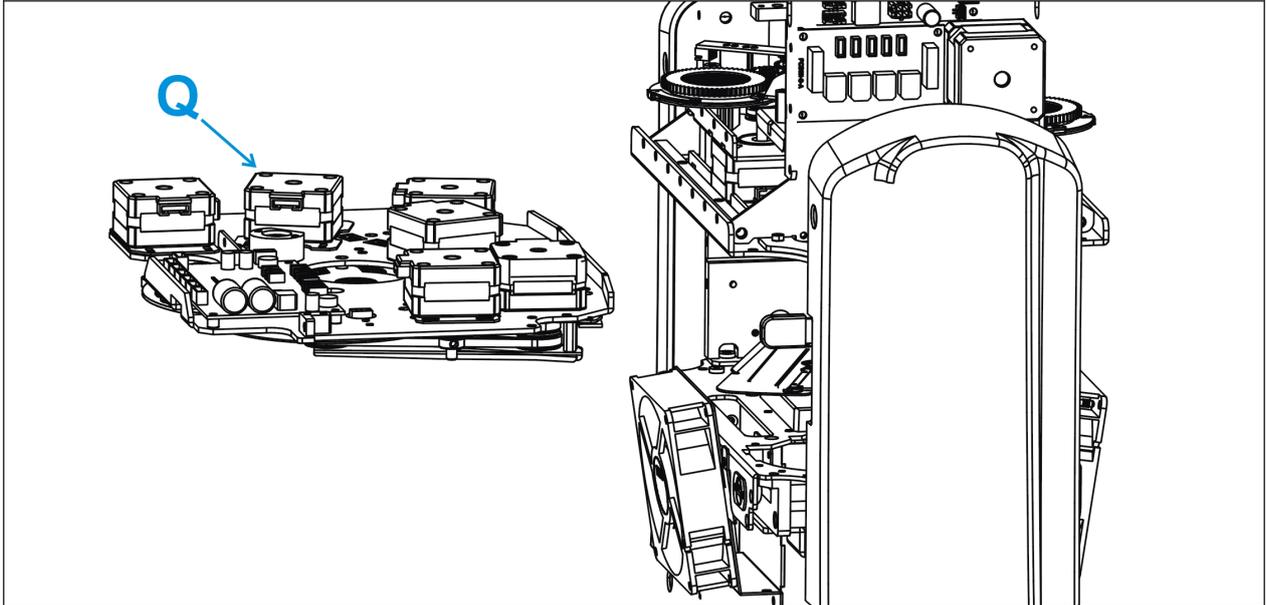
**Disassemble 6:** Pull out the gobo assembly about 60mm, unplug the power cord from socket O, and signal wire from socket P.

**Install 2:** Push along the gobo assembly into the slot about 50mm, plug the power cord into socket O and signal wire into socket P.



**Remove 7:** Pull out the gobo & color assembly Q until it's separated from the fixture. This is all for the gobo & color assembly disassembling.

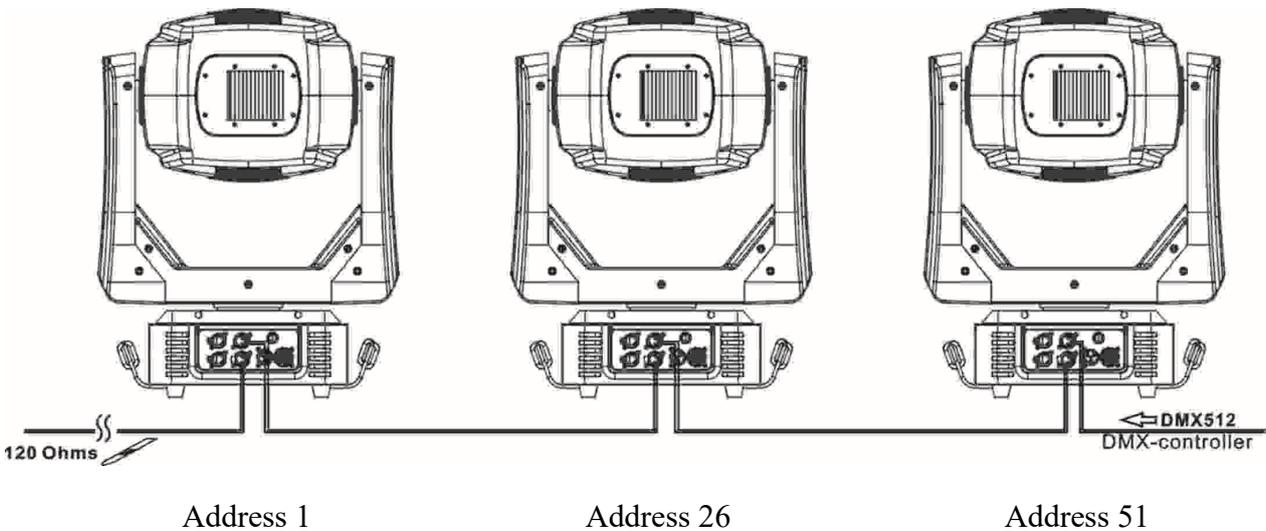
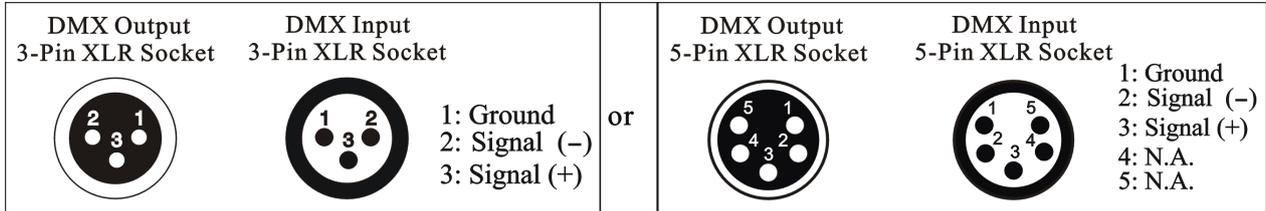
**Install 1:** Push along the gobo & color assembly Q into the socket.



Pattern assembly installation is the backward procedure from 1-3. Last but not the least, install the CMY module in the end 4-7.

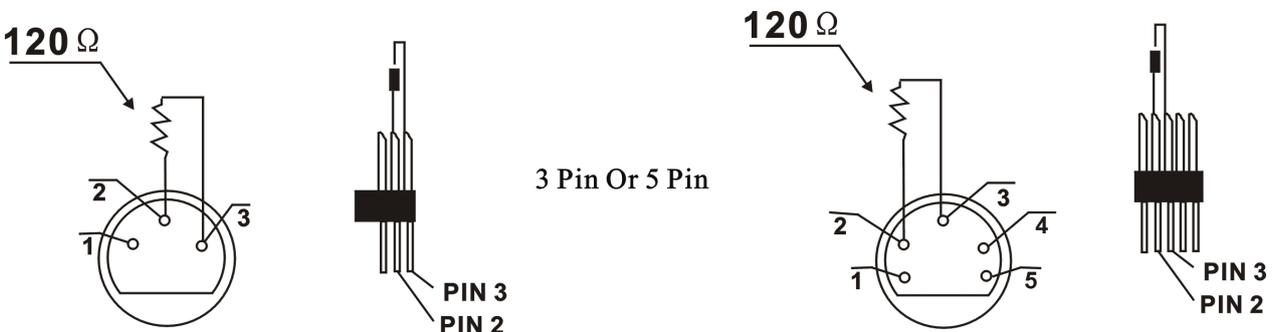
## 6. DMX-512 CONTROL CONNECTION

Connect the provided male side of the XLR cable to the female XLR output of your controller and the female side of the XLR cable to the male XLR input of the device. You can connect multiple devices together in a serial fashion. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.



## 7. DMX-512 CONNECTION WITH DMX TERMINATOR

For installations where the DMX cable has to run over a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal caused by electrical noise. The DMX terminator is an XLR plug with a 120  $\Omega$  resistor connected between pins 2 and 3, which is then plugged into the output (female) XLR socket of the last fixture in the chain. Please see illustrations below.



## 8. DEVICE DMX START ADDRESS SELECTION

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to “listen” to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct address number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each fixture individually.

If you set the same address on all devices, all the devices will start to “listen” to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to “listen” to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected device.

In the case of the led move head, which is a 25 channel fixture, you should set the starting address of the first unit to 1, the second unit to 26 (25 + 1), the third unit to 51 (25+ 26), and so on.

## 9. DISPLAY

The Display offers several features: you can set the starting address, run the pre-programmed program or reset the device.

The main menu is accessed by pressing the  -button until the display starts flashing. Browse through the menu by pressing the  -button,  -button,  -button or  -button. Press the Enter-button in order to select the desired menu. You can change the selection by pressing the  -button,  -button,  -button or  -button. Confirm every selection by pressing the  -button. You can leave every mode by pressing the  -button. After accessing the edit mode, the unit will automatically exit to the main menu after 15 seconds from the last button press. When the unit is powered on, if no data signal is connected after 1 minute, then the display will switch off automatically. The Display does not need external power to operate. Hold down the  -button for 3 seconds and the Display will turn on by using the unit's battery built in battery.

Address	A001~AXXX			
Config	Mode	Extended Mode		Default
		Standard Mode		
	Select Signal	DMX Only		Default
		Art-Net On IP2		
		Art-Net On IP10		
	Set Universe	001~255		Default 001
	Pan and Tilt	Tilt Reverse	On/Off	Default Off
		Pan Reverse	On/Off	Default Off
		Feedback	On/Off	Default On
	Dimmer Curve	Standard		Default
		Linear		
	Beam enable Rot. gobo	ALL GLASS GOBO		
		ALL METAL GOBO		Default
GOBO8 IS GLASS				
Reset Defaults	On/Off		Default Off	
Lamp	Lamp Power	On/Off		Default Off
	Automatic On	On/Off		Default Off
	Lamp Hours	XXXX (Hours)		
	Password			
	Reset Lamp Hour	On/Off		Need Password 38
	Temperature	Head Temperature	XXX°C/°F	
Reset Function	All			
	Pan/Tilt			
	Others			
Comm	Read DMX Value	Pan, Tilt, .....		
	DMX Info	DMX Update Rate	Unit: Package per second (p/s)	
	Comm Loss	No Fade on Loss		
		Fade out 30 seconds		Default
		Fade out 60 seconds		
Info	Software Version	V1.1.0.....		
	ARTNET IP	ARTNET IP XXX. XXX. XXX. XXX XXX. XXX. XXX. XXX		
	Cross load SW	On		Need Password 50
		Off		Default
	Total Run Time	XXXX (Hours)		
Last Run Time	XXXX (Hours)			

	Service Setting	Password	Password= XXX	Need Password 50	
		RDM UID	XXXXXX		
		Clear Err.Info	OFF		
	ON				
	Fan Speed	Fan Speed			
		Lamp2UFan1	xxxx RPM		
		Lamp2UFan2	xxxx RPM		
		Color5UFan2	xxxx RPM		
		Color6UFan1	xxxx RPM		
		Head4UFan1	xxxx RPM		
		Head4UFan2	xxxx RPM		
	Fan Mode	Normal	Default		
		High Speed			
Error Info	Error Record 1				
	Error Record 2				
	Error Record 3....				
Test	Self Test	All	Pan XXX		
			Tilt XXX		
			... ..		
		Internal Functions	Strobe XXX		
			Color Wheel XXX		
			... ..		
		Movement	Pan XXX		
			Tilt XXX		
		Individual Function	Pan	Pan XXX	
			Tilt	Tilt XXX	
	...		... ..		
	Manual Control	Pan, Tilt, .....			
	Calibrate	Password	Need Password 50		
PAN					
TILT					
Strobe					
Color Wheel					
.....					
Clean Mode	Clean Focus				
	Clean 8 Prism				
	Clean Line Prism				
	Clean Zoom				

## 9.1. Address

### 9.1.1. Address

With this function, you can adjust the desired DMX-address via the Control Board.

1. Access the main menu.
2. Tap the <Up/Down>button until “Address” is displayed.
3. Press ENTER, the display will show “Address”.
4. Tap the <Up/Down>button, to select desired address
5. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

## 9.2. Config

### 9.2.1. Mode

With this function, you can define the device as slave.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER.
2. Tap the <Up/Down>button until “Mode” is displayed.
3. Press ENTER, the display will show “Mode”.
4. The display show “Extended Mode, Press <Up/Down>, the display will show “Standard Mode”.
5. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

### 9.2.2. Select Signal

With this function, you can define the device as slave.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER Tap the <Up/Down>button until “Select Signal” is displayed.
2. Press ENTER, the display will show “Select Signal”.
3. The display show “DMX Only, Press <Up/Down>, the display will show “Art-Net On IP2”, “Art-Net On IP10”.
4. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

### 9.2.3. Set Universe

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER, the display will show “Config”.
2. Press <Up/Down>, Until display shows “Set Universe”.
3. Press <ENTER>, the display will show “Set Universe”.
4. The display show “001~255”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.2.4. Pan and Tilt

#### Tilt Reverse

With this function you can reverse the Tilt-movement.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER, the display will show “Config”. Tap the <Up/Down>button until the display will show “Pan and Tilt”. Press ENTER.
2. Press <Up/Down>, the display will show “Tilt Reverse”.
3. Press <ENTER>, the display will show “Tilt Reverse”.
4. The display show “OFF, Press <Up/Down>, the display will show “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

#### Pan Reverse

With this function you can reverse the Pan-movement.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER, the display will show “Config”. Tap the <Up/Down>button until the display will show “Pan and Tilt”. Press ENTER.
2. Press <Up/Down>, the display will show “Pan Reverse”.
3. Press <ENTER>, the display will show “Pan Reverse”.
4. The display show “OFF, Press <Up/Down>, the display will show “ON”.

5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### **Feedback**

With this function, you can feedback switch of pan movement or tilt movement.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Config”is displayed. Press ENTER, the display will show “Config”. Tap the <Up/Down>button until the display will show “Pan and Tilt”. Press ENTER.
2. Press <Up/Down>, until the display shows “Feedback”.
3. Press< ENTER>, the display will show “Feedback”.
4. The display show “ON, Press <Up/Down>, the display will show “OFF”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### **9.2.5. Dimmer Curve**

With this function, you can select between Standard and linear modes.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Config”is displayed. Press ENTER, the display will show “Config”. Tap the <Up/Down>button until the display shows “Dimmer Curve”. Press ENTER.
2. The display show “Normal”, Press <Up/Down>, the display will show “Linear”
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### **9.2.6. Beam enable Rot. gobo**

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Config” is displayed. Press ENTER.
2. Tap the <Up/Down> button until “Beam enable Rot. Gobo” is displayed.
3. Press ENTER, the display will show “Beam enable Rot. Gobo”.
4. The display show “ALL METAL GOBO”, Press <Up/Down>, the display will show “ALL GLASS GOBO”, “GOBO8 IS GLASS”.
5. Press ENTER to confirm or press <MODE/ESC> to return to the main menu

### **9.2.7. Reset to Factory Defaults**

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Config”is displayed. Press ENTER.
2. Press <Up/Down>, until the display will show “Reset Defaults”.
3. Press< ENTER>, the display will show “Reset Defaults”.
4. The display show “OFF”, Press <Up/Down>, the display will show “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

## **9.3. Lamp**

### **9.3.1. Lamp Power**

With this function you can switch the lamp on or off via the Control Board.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Lamp”is displayed. Press ENTER. Tap the <Up/Down>button until the display will show “Lamp Power”. Press ENTER, the display will show “Lamp Power”.
2. Press <Up/Down>, the display will show “OFF”or“ON”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

**Remark:** The menu Lamp On/Off is the software command only, the lamp can be striked successfully only when the menu Lamp is set to ON and the actual temperature is lower than the limited value.

### **9.3.2. Automatic On**

With this function you can select if the lamp will be switched on when switching the power on. Select “ON” by turning the encoder if you wish to enable this function or “OFF” if you don’t.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Lamp”is displayed. Press ENTER. Tap the <Up/Down>button until the display will show “Automatic On”. Press ENTER, the display will show “Automatic On”.
2. Press <Up/Down>, the display will show “OFF”or“ON”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.3.3. Lamp Hours

With this function, you can display the running time of the lamp. The display shows “XXXX”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Lamp” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Lamp Hours”.
3. Press < ENTER>, the display will show “Lamp Hours”.
4. The display will show “XXXX” (Hours) ;
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.3.4. Password

With this function, you can display the timer password. The time password is 038.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Lamp” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Password”.
3. Enter Password, the time password is 038.
4. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.3.5. Reset Lamp Hours

With this function you can clear the running time of the lamp. Please clear the lamp time every time you replace the lamp.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Lamp” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Reset Lamp Hour”.
3. Password must be entered (see 9.3.4.) correctly, press < ENTER>, the display will show “Reset Lamp Hour”.
4. The display will show “OFF” or “ON”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.3.6. Temperature

#### Head Temperature

With this function you can display the temperature from the sensor located near CMY-filter in Celsius & Fahrenheit.

1. Tap <MODE/ESC>button, access the main menu, Press the <Up/Down>button until “Lamp” is displayed. Press <ENTER>. Tap the <Up/Down>button until “Temperature” is displayed. Press ENTER.
2. Press <Up/Down>, the display will show “Head Temp”.
3. Press < ENTER>, the display will show “Head Temp”.
4. The display show “XXX °C/ °F”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

## 9.4. Reset Function

With this function you can reset the device via the Control Board. You can select the different reset functions by turning the encoder.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Reset Function” is displayed. Press ENTER.
2. The display show “All”, Press <Up/Down>, the display will show “Pan/Tilt”, “Others”.
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

## 9.5. Communication

### 9.5.1. Read DMX Value

With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value changing.

1. Tap <MODE/ESC> button , access the main menu , Press the <Up/Down>button until “Communication” is displayed. Press <ENTER>. Tap the <Up/Down>button until “Read DMX Value” is displayed. Press ENTER.
2. The display show “All Control.....”.

3. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

### 9.5.2. DMX Info

1. Tap <MODE/ESC>button , access the main menu , Press the <Up/Down>button until“Communication”is displayed. Press <ENTER>. Tap the <Up/Down>button until“DMX Info”is displayed. Press ENTER.
2. The display show “DMX Update Rate”.
3. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

### 9.5.3. Comm Loss

1. Tap <MODE/ESC>button , access the main menu , Press the <Up/Down>button until“Communication”is displayed. Press <ENTER>. Tap the <Up/Down>button until“Comm Loss”is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “No Fade on Loss”, “Fade out 30 seconds” or “Fade out 60 seconds”.
3. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

## 9.6. Info

### 9.6.1. Software Version

With this function, you can display the software version of the device.

1. Tap <MODE/ESC>button , access the main menu , Tap the <Up/Down>button until“Info”is displayed. Press ENTER.
2. Press <Up/Down>, the display will show “SoftwareVersion”.
3. Press< ENTER>, the display will show “SoftwareVersion”.
4. The display show “Ver x.x.x”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.6.2. ARTNET IP

1. Tap <MODE/ESC>button , access the main menu , Tap the <Up/Down>button until“Info”is displayed. Press ENTER, the display will show “Info”.
2. Press <Up/Down>, until the display shows “ARTNET IP”.
3. Press< ENTER>, the display will show “ARTNET IP”.
4. The display will show “ARTNET IP XXX. XXX. XXX. XXX”  
“SUB NET XXX.XXX.XXX.XXX”
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.6.3. Cross load Software

1. Tap <MODE/ESC>button , access the main menu , Tap the <Up/Down>button until“Info”is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Cross load SW”.
3. Press< ENTER>, the display will show “Cross load SW”.
4. The display show “OFF”, Press <Up/Down>, the display will show “ON”.
5. If “ON” is selected a Password is required. The password is 050
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.6.4. Total Run Time

With this function, you can display the running time of the device. The display shows “XXXXh”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button , access the main menu , Tap the <Up/Down>button until“Info”is displayed. Press ENTER. Tap the <Up/Down>button until the display shows “Total Run Time”. Press ENTER, the display will show “Total Run Time”.
2. The display will show “XXXXh” (Hours).
3. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.6.5. Last Run Time

With this function, you can display last the running time of the lamp. The display shows “XXXXh”, “XXXX” stands for the number of hours.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Info” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Last Run Time”.
3. Press < ENTER>, the display will show “Last Run Time”.
4. The display will show “XXXXh” (Hours).
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.6.6. Service Setting

**Password:** The Password for this function is “50”.

**RDM UID:** With this function you can call up various submenus via RDM.

**Clear Err.Info:** Clears the Error list (9.6.8)

This device is RDM ready. RDM stands for "remote device management" and makes remote control of devices connected to the DMX-bus. ANSI E1.20-2006 by ESTA specifies the RDM standard as an extension of the DMX512 protocol.

Manual settings like adjusting the DMX starting address are no longer needed. This is especially useful when the device is installed in a remote area.

RDM ready and conventional DMX devices can be operated in one DMX line. The RDM protocol sends own packages in the DMX512 data feed and does not influence conventional devices.

If DMX splitters are used and RDM control is to be used, these splitters must support RDM.

The number and type of RDM parameters depend on the RDM controller being used.

### 9.6.7. Fan Speed

With this function, you can set the speed of the running fans. The selection have Lamp Fan, HeadFan1, HeadFan2 and Color Fan.

### 9.6.8. Error Info

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Info” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Error Info”.
3. Press <ENTER>, Display shows Error Records 1-10. Use <Up/Down>, to scroll through to 10.
4. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

## 9.7. Test

### 9.7.1. Self Test

With this function you can test each channel on its (correct) function.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until “Test” is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Self Test”.
3. Press < ENTER>.
4. The display show “All”, Press <Up/Down>, the display will show “Internal Functions”, “Movement”, “Individual Function”.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.7.2. Manual Control

With this function, you can adjust the lamp more easily. All effects will be canceled, the shutter opens and the dimmer intensity will be set to 100 %. With the individual functions, you can focus the light on a flat surface (wall) and perform the fine lamp adjustment.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Test”is displayed. Press ENTER.
2. Press <Up/Down>, the display will show “Manual control”.
3. Press< ENTER>, the display will show “Manual control”.
4. The display show “PAN”. Use <Up/Down> to select parameters.
5. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.7.3. Calibration

With this function, you can calibrate and adjust the effect wheels to their correct positions. The password of calibrate values is 050.

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Test”is displayed. Press ENTER.
2. Press <Up/Down>, until the display shows “Calibration”.
3. Press< ENTER>, the display will show “Calibration”.
4. The display shows“Password”, Enter Password and Press <Enter>
5. Press <Up/Down>, the display will show“Pan”, “Tilt”, “Strobe”, “Color Wheel”.....
6. Press <ENTER> to confirm or press <MODE/ESC> to return to the main menu.

### 9.7.4. Lens Cleaning Mode

1. Tap <MODE/ESC>button, access the main menu, Tap the <Up/Down>button until“Test”is displayed. Press ENTER Tap the <Up/Down>button until“Clean Mode”is displayed.
2. Press ENTER.
3. Press <Up/Down>, until the display shows “Clean Focus”, “Clean 8 Prism” , “Clean Line Prism” or “Clean Zoom”.
4. Press ENTER to confirm or press <MODE/ESC> to return to the main menu.

## 10. DMX PROTOCOL

DMX channel's functions and their values ( 36 DMX channels):			
Mode/Channel		Value	Function
St	Ex		
1	1	0-255	<b><u>PAN Movement 8bit :</u></b> Pan Movement
2	2	0-255	<b><u>Pan Fine 16bit</u></b> Fine control of Pan movement
3	3	0-255	<b><u>TILT Movement 8bit :</u></b> Tilt Movement
4	4	0-255	<b><u>Tilt Fine 16bit</u></b> Fine control of Tilt movement
5	5	0-209 13-15 27-29 41-43	<b><u>Color Wheel and colour change to any position:</u></b> Colour change to any position Color 1 Color 2 Color 3

		55-57	Color 4
		69-71	Color 5
		83-85	Color 6
		97-99	Color 7
		111-113	Color 8
		125-127	Color 9
		139-141	Color 10
		153-155	Color 11
		167-169	Color 12
		181-183	Color 13
		195~197	Color 14
		210-230	Forwards rainbow effect from fast to slow
		231-234	No rotation
		235-255	Backwards rainbow effect from slow to fast
	6	0-255	<b><u>Color Wheel Fine :</u></b> Color Wheel colour change to any position Fine
6	7	0-255	<b><u>Cyan Color :</u></b> Cyan (0-white, 255-100% Cyan)
	8	0-255	<b><u>Cyan Color Fine :</u></b> Cyan Fine
7	9	0-255	<b><u>Magenta Color :</u></b> Magenta (0-white, 255-100% magenta)
	10	0-255	<b><u>Magenta Color Fine :</u></b> Magenta Fine
8	11	0-255	<b><u>Yellow Color :</u></b> Yellow (0-white, 255-100% Yellow)
	12	0-255	<b><u>Yellow Color Fine :</u></b> Yellow Fine
9	13	0-255	<b><u>CTO Color :</u></b> CTO (0-white, 255-100% CTO)
	14	0-255	<b><u>CTO Color Fine :</u></b> CTO Fine
10	15	0-127 128-255	<b><u>Beam or spot mode select</u></b> Beam mode Spot mode
11	16	0-21 22-31 32-41 42-51 52-61 62-71 72-81	<b><u>Rotating gobos, cont. rotation :</u></b> Open/hole Rot. gobo 1 Rot. gobo 2 Rot. gobo 3 Rot. gobo 4 Rot. gobo 5 Rot. gobo 6

		82-91	Rot. gobo 7
		92-101	Rot. gobo 8
		102-112	Rot. gobo 1 shake
		113-123	Rot. gobo 2 shake
		124-134	Rot. gobo 3 shake
		135-145	Rot. gobo 4 shake
		146-156	Rot. gobo 5 shake
		157-167	Rot. gobo 6 shake
		168-178	Rot. gobo 7 shake
		179-189	Rot. gobo 8 shake
		190-221	Clock-wise scroll from fast to slow
		222-223	No rotation
		224-255	Counter clock-wise scroll from slow to fast
12	17	0-127	<b><u>Rotating gobo index, rotating gobo rotation :</u></b> Gobo indexing
		128-189	Clock-wise rotation from fast to slow
		190-193	No rotation
		194-255	Counter clock-wise rotation from slow to fast
	18	0-255	<b><u>Rotating gobo indexing Fine</u></b> Fine indexing
13	19	0-7	<b><u>Fixed Gobos :</u></b> Open/hole
		8-14	Gobo 1
		15-21	Gobo 2
		22-28	Gobo 3
		29-35	Gobo 4
		36-42	Gobo 5
		43-49	Gobo 6
		50-56	Gobo 7
		57-63	Gobo 8
		64-70	Gobo 9
		71-77	Gobo 10
		78-84	Gobo 11
		85-91	Gobo 12
		92-98	Gobo 13
		99-105	Gobo 14
		106-111	Gobo 1 shake slow to fast
		112-117	Gobo 2 shake slow to fast
		118-123	Gobo 3 shake slow to fast
		124-129	Gobo 4 shake slow to fast
		130-135	Gobo 5 shake slow to fast
		136-141	Gobo 6 shake slow to fast
		142-147	Gobo 7 shake slow to fast

		148-153 154-159 160-165 166-171 172-177 178-183 184-189 190-221 222-223 224-255	Gobo 8 shake slow to fast Gobo 9 shake slow to fast Gobo 10 shake slow to fast Gobo 11 shake slow to fast Gobo 12 shake slow to fast Gobo 13 shake slow to fast Gobo 14 shake slow to fast Clock-wise scroll from fast to slow No rotation Counter clock-wise scroll from slow to fast
14	20	0-7 8-127 128-187 188-195 196-255	<b><u>Wheel Animation :</u></b> Close Animation indexing Clock-wise scroll from fast to slow No rotation Counter clock-wise scroll from slow to fast
15	21	0-63 64-127  128- 191 192- 255	<b><u>8/Linear Prism:</u></b> Open position (hole) 8 Prism  Linear Prism 8/Linear Prism
16	22	0-127 128-189 190-193 194-255	<b><u>Rotating 8 prism index, rotating prism rotation</u></b> Prism indexing Clock-wise rotation from fast to slow No rotation Counter clock-wise rotation from slow to fast
	23	0-255	<b><u>Rotating 8 prism indexing Fine</u></b> Fine indexing
17	24	0-127 128-189 190-193 194-255	<b><u>Rotating linear prism index, rotating prism rotation</u></b> Prism indexing Clock-wise rotation from fast to slow No rotation Counter clock-wise rotation from slow to fast
	25	0-255	<b><u>Rotating linear prism indexing Fine</u></b> Fine indexing
18	26	0-255	<b><u>Zoom :</u></b> Zoom adjustment from small to big
	27	0-255	<b><u>Zoom Fine:</u></b> Zoom adjustment Fine
19	28	0-255	<b><u>Focus :</u></b> Continuous adjustment from near to far

	29	0-255	<b><u>Focus Fine:</u></b> Continuous adjustment Fine
20	30	0-50 51-150 151-255	<b><u>Auto Focus:</u></b> Auto Focus Off 15m 20m
21	31	0-255	<b><u>Auto Focus adjustment:</u></b> Continuous adjustment
22	32	0-31 32-63 64-95 96-127 128-159 160-191 192-223 224-255	<b><u>Shutter, strobe:</u></b> Shutter closed No function (shutter open) Strobe effect slow to fast No function (shutter open) Pulse-effect in sequences No function (shutter open) Random strobe effect slow to fast No function (shutter open)
23	33	0-255	<b><u>Dimmer intensity:</u></b> Intensity 0 to 100%
	34	0-255	<b><u>Fine Dimmer intensity:</u></b> Dimmer intensity fine
24	35	0-127 128-255	<b><u>Frost:</u></b> Disable frost Enable frost
25	36	0-29 30~39 40-59 60-79 80-139 140-199 200-255	<b><u>Control:</u></b> no function blackout by movement Lamp on Lamp switch off All motor reset Pan/TILT reset other motor reset

## 11. ERROR MESSAGES

When you turn on the device, it will first perform a reset. The display may show "Err channel is XX" should there be problems with one or more functions. "XX" stands for channel 1, 2, 3, 4, 5, 6 etc whose sensor has encountered a problem. For example, when the display shows "Err channel is Pan movement", it means there is an error on channel 1. If there are errors on channel 1, channel 3, channel 6 at the same time, you may see the error message, "Err channel is Pan movement", "Err channel is Tilt movement" "Err channel is Shutter" ,flash twice, and then the device will generate a second reset. If the error messages persist after performing a reset more than twice, the channels which have errors may not work properly however, all other functions can work as usual. Please contact your dealer or manufacturer for service. Self repair is not allowed.

### **PAN- movement Er**

(PAN- yoke movement error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (Optical Sensor or Magnetic Sensor fails) or the stepper motor is defective (or its driving IC on the main PCB). The PAN- movement is not located in the default position after the reset.

### **TILT- movement Er**

(TILT- head movement error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions ((Optical Sensor or Magnetic Sensor fails)) or the stepper motor is defective (or its driving IC on the main PCB). The TILT- movement is not located in the default position after the reset.

### **CMY wheel Er**

(CMY wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The CMY - movement is not located in the default position after the reset.

### **CTO wheel Er**

(CTO wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The CMY - movement is not located in the default position after the reset.

### **COLOR wheel Er**

(COLOR wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The COLOR - movement is not located in the default position after the reset.

### **GOBO wheel Er**

(GOBO wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The GOBO1 - movement is not located in the default position after the reset.

### **GOBO\_R wheel Er**

(GOBO\_R wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The GOBO1\_R - movement is not located in the default position after the reset.

### **Dimmer wheel Er**

(Dimmer wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The GOBO2- movement is not located in the default position after the reset.

### **Fix Gobo wheel Er**

(Fix Gobo wheel- error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The GOBO2- movement is not located in the default position after the

reset.

**PRISM 1 wheel Er**

(PRISM 1 wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The PRISM - movement is not located in the default position after the reset.

**Prism1Rot 1 wheel Er**

(Prism1Rot wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The PRISM - movement is not located in the default position after the reset.

**PRISM 2 wheel Er**

(PRISM 2 wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The PRISM - movement is not located in the default position after the reset.

**Prism1Rot 2 wheel Er**

(Prism2 Rot wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The PRISM - movement is not located in the default position after the reset.

**FOCUS wheel Er**

(FOCUS wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The FOCUS - movement is not located in the default position after the reset.

**ZOOM wheel Er**

(ZOOM wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The FROST - movement is not located in the default position after the reset.

**Frost wheel Er**

(Frost wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The FOCUS - movement is not located in the default position after the reset.

**Animation wheel Er**

(Animation wheel\_ error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepper motor is defective (or its driving IC on the main PCB). The FOCUS - movement is not located in the default position after the reset.

## 12. CLEANING AND MAINTENANCE

The following points have to be considered during inspection:

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations to the housing, lenses, rigging and installation points (ceiling, suspension, trussing).
- 3) Motorized parts must not show any signs of wear and must move smoothly without issue.
- 4) The power supply cables must not show any damage, material fatigue or sediment.

Further instructions depending on the installation location and usage have to be adhered to by a qualified installer and any safety concerns have to be removed.



### CAUTION!

Disconnect from mains before starting maintenance operation.

In order to ensure the device remains in good condition and does not fail prematurely, we suggest regular maintenance.

- 1) Clean the inside and outside lens each week to avoid loss of output due to accumulation of dust/ dirt on the lens.
- 2) Clean the fans each week to ensure maximum airflow and efficient thermal cooling. This will ensure the light source is operated in the best possible condition.
- 3) A detailed electrical check by an approved electrician every quarter to make sure that the circuit contacts are in good condition. This will prevent poor circuit contacts and the resultant overheating.

We recommend frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.

Please refer to the instructions under “Installation instructions”.

Should you need any spare parts, please order genuine parts from your local dealer.