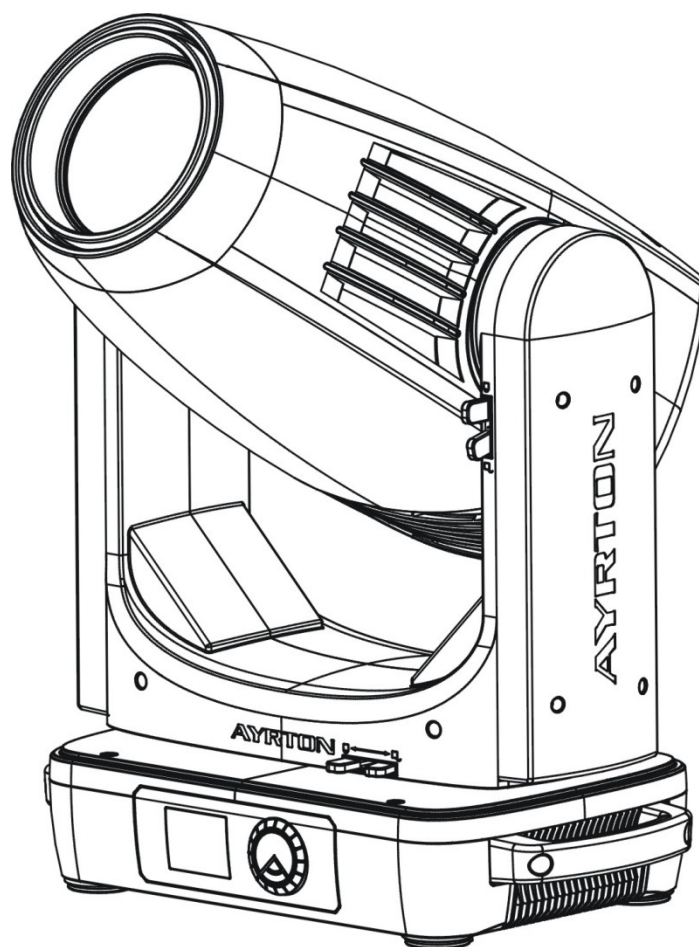




*Manuel d'utilisation*



KEEP THIS MANUAL FOR FUTURE NEEDS



# CONTENTS

<b>1. SAFETY INSTRUCTIONS</b>	<b>1</b>
<b>2. FEATURES</b>	<b>4</b>
<b>3. FIXTURE OVERVIEW</b>	<b>6</b>
<b>4. DIMENSIONAL DRAWINGS</b>	<b>7</b>
<b>5. INSTALLATION INSTRUCTIONS</b>	<b>8</b>
<b>6. DMX-512 CONTROL CONNECTION</b>	<b>11</b>
<b>7. DMX-512 CONNECTION WITH DMX TERMINATOR</b>	<b>11</b>
<b>8. DEVICE DMX START ADDRESS SELECTION</b>	<b>12</b>
<b>9. OPERATING INSTRUCTIONS OF THE INTERNAL DMX WIRELESS SYSTEM</b>	<b>12</b>
<b>10. DISPLAY</b>	<b>14</b>
<b>11. DMX PROTOCOL</b>	<b>27</b>
<b>12. ERROR MESSAGES</b>	<b>33</b>
<b>13. CLEANING AND MAINTENANCE</b>	<b>36</b>

## **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



***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.***

- 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.
- Ensure the sealing rubber covers of oower CON and XLR connectors are fitted properly when the device is not in use, to avoid water ingress.
- This device falls under protection-class I. Therefore, it is essential that the device be earthed.
- If either lenses or display are damaged (damage may include cracks or gashes in the material) they must be replaced.
- Electrical connections, such as replacing the power plug, must be performed by a qualified person.
- Make sure that the available voltage is not higher than that which is stated at the end of this manual.
- Make sure the power cord is never crushed or damaged by sharp edges. If this should be the case, replacement of the cable must be done by an authorized dealer.
- If the external flexible power cord of this device is damaged, it shall be exclusively replaced by the manufacturer or their service agent or a similar qualified person in order to avoid injury.
- 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.
- 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.

- 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 **2 meter**.

**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

- This device is a lighting effect for professional use on stages, in discotheques, theatres, etc. the device was designed for indoor use.
- 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.
- Handle the device with care, avoid shaking or using force when installing or maintaining the device.
- 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.
- Operate the device only after having familiarized yourself with its functions. Do not permit operation by persons not qualified for operating the device. Most damage is the result of unprofessional operation.
- Please use the original packaging if the device is to be transported.
- The applicable temperature for the device is between -10°C to 45°C. Do not use the device outside of this temperature range.
- The light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.

**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**

- AC100-240V~, 50/60Hz
- Power Consumption: 900W

### **LIGHT SOURCE**

- White LED 620W, 8000 ± 350K Color temperature
- Extremely long Life: >50,000H

### **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 color mixing, uniform, linear and speed can be adjustable
- 1 Color wheel: 6 dichroic filters + open, indexable, rainbow effect

### **GOBOS**

- Rotating gobo wheel: 7 interchangeable, rotating, and indexable, gobo + open
- “Slot in & out” gobo wheel system
- Fix gobo wheel: 8 + open, with different speed gobo shaking and gobo indexing

### **FEATURES**

- 3 Control channel modes: 38/36/58 channels
- 2 Operation modes: DMX-512, Master / Slave mode
- Strobe effect with 1-25 flashes per second and pulse effect
- Rotating prism: 16 prism Macros
- Animation wheel: can make special dynamic flame or water effect
- Focus: Motorized focus
- Stepless frost: 0%~100% linear change frost
- Stepless iris: 5%~100% linear change iris, pulse iris effect
- Dimmer: 0%~100% full range dimming

### **DISPLAY**

- Advanced and convenient full –color LCD, with rechargeable battery(optional)
- Can be changed 180° reverse to fit for different installation position

### **SOFTWARE**

7 pre-installed programs available upon selection

Upgrades: fast and convenient through DMX cable with DMX-512 controller

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

Running time of fixture on display for reference

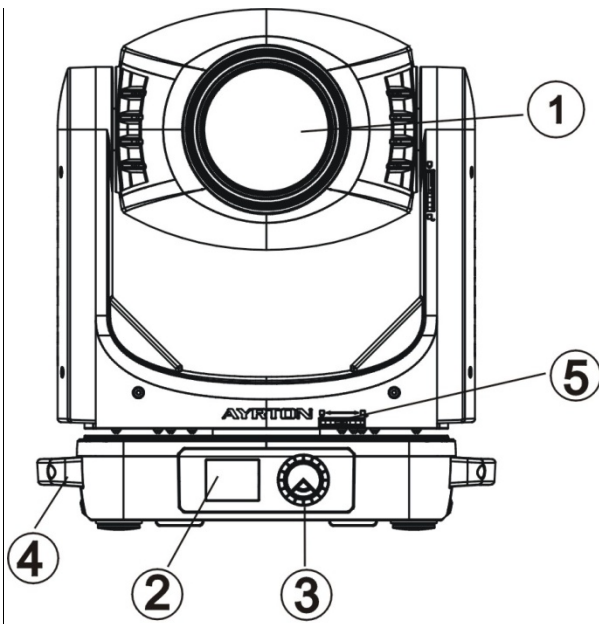
### **OTHER SPEC**

Input signal isolation: guarantees stable signal transmission without interference  
Advanced RDM function

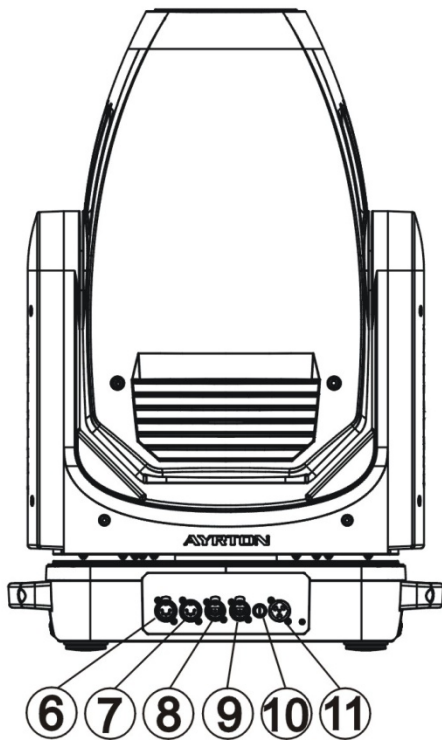
**WEIGHT**

Net weight: 35,6kg

### 3. FIXTURE OVERVIEW

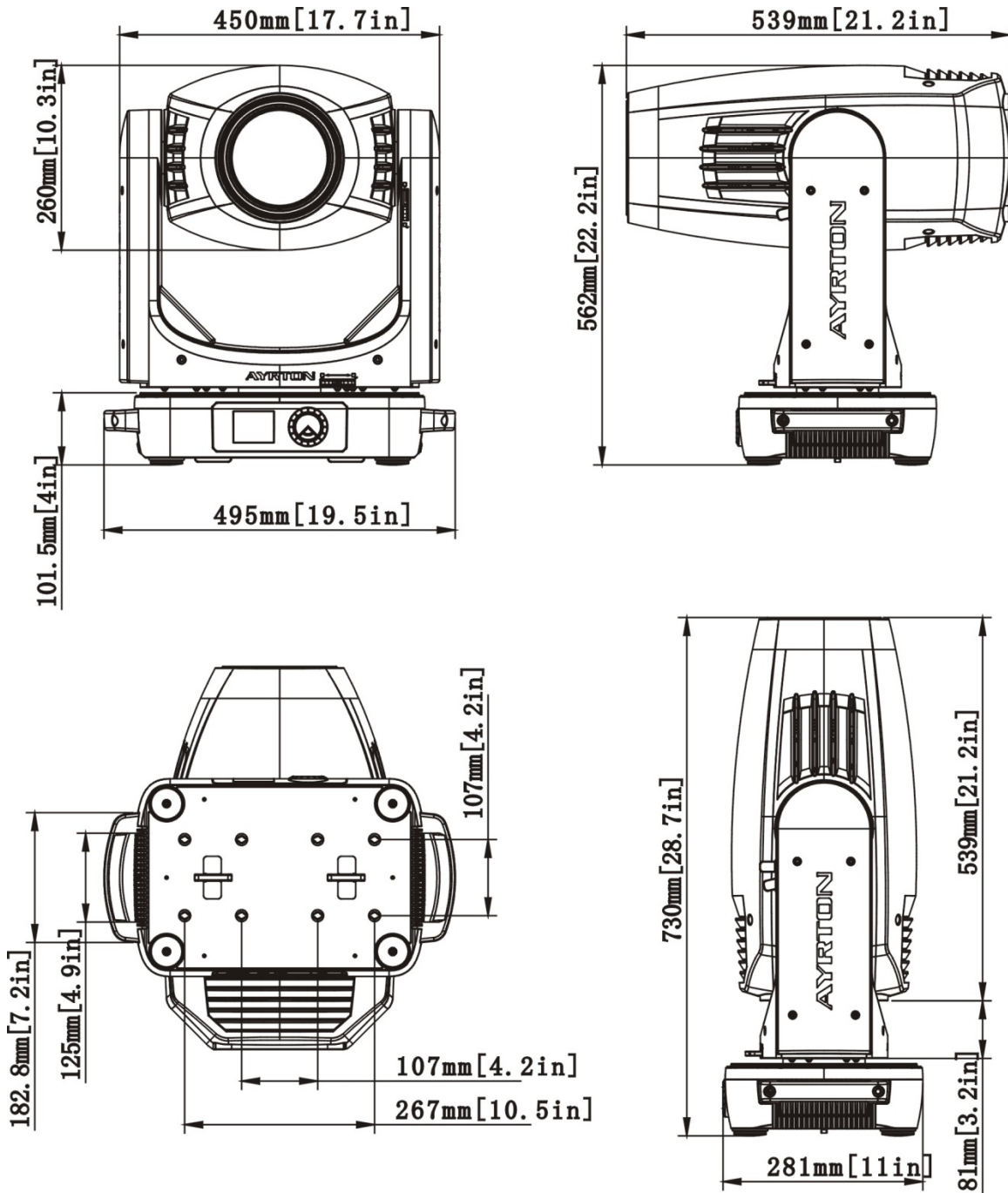


- 1) Lens
- 2) Display
- 3) Rotary knob
- 4) Handle
- 5) Pan Lock



- 6) DMX Out
- 7) DMX In
- 8) RJ45 Out
- 9) RJ45 In
- 10) Fuse
- 11) Power In

## 4. DIMENSIONAL DRAWINGS





## 5. INSTALLATION INSTRUCTIONS

### 5.1. Rigging the device

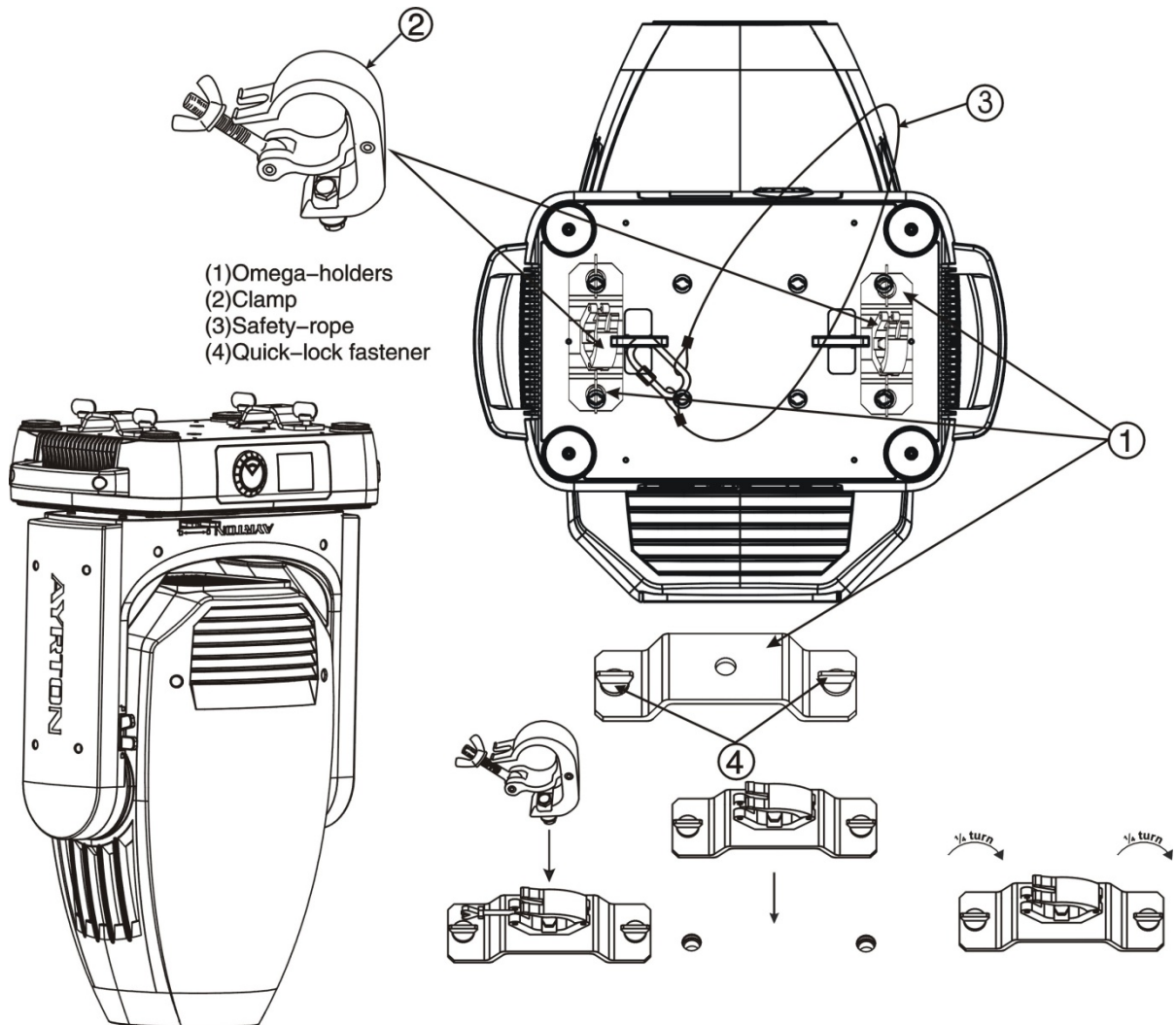


#### **CAUTION!**

PLEASE CONSIDER THE RESPECTIVE NATIONAL NORMS DURING INSTALLATION. THE INSTALLATION MUST ONLY BE CARRIED OUT BY A QUALIFIED PERSON.

- The applicable temperature for the lighting is between  $-10^{\circ}\text{C}$  to  $45^{\circ}\text{C}$ . Do not use the lighting under or above the temperature.
- The installation of the effect has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.
- The installation must always be secured with a secondary safety attachment, e. g. an appropriate safety rope.
- Never stand directly below the device when mounting, removing or servicing the fixture.
- The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.
- These installations have to be approved by a skilled person once a year.
- Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

## 5.2. Rigging using the omega brackets



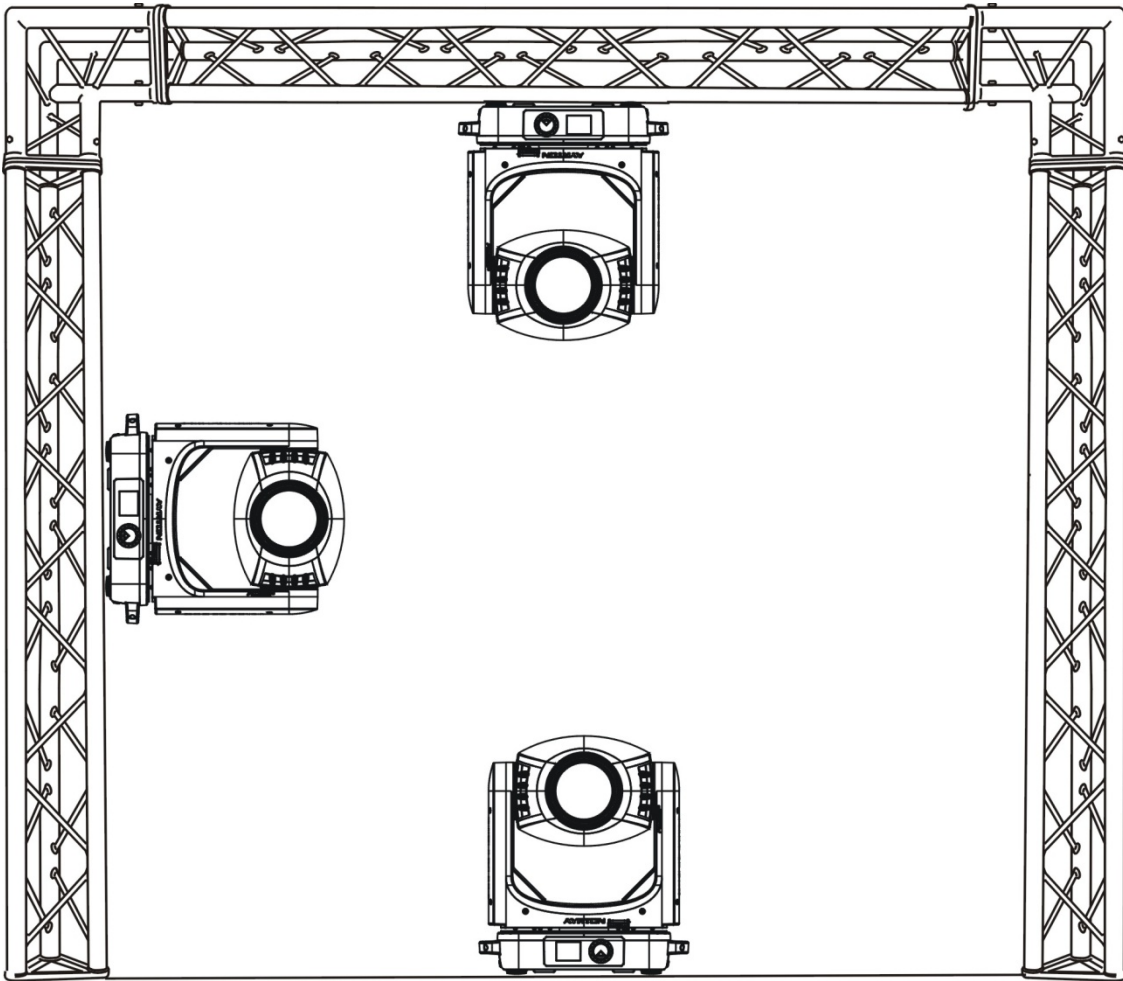
- Fix the clamp to the bracket by tightening the M12 nut and bolt to the bracket through the  $\Phi 13$  hole in the middle of the bracket.
- Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.
- 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.

### 5.3. RIGGING DRAWINGS



- Be sure this fixture is 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.

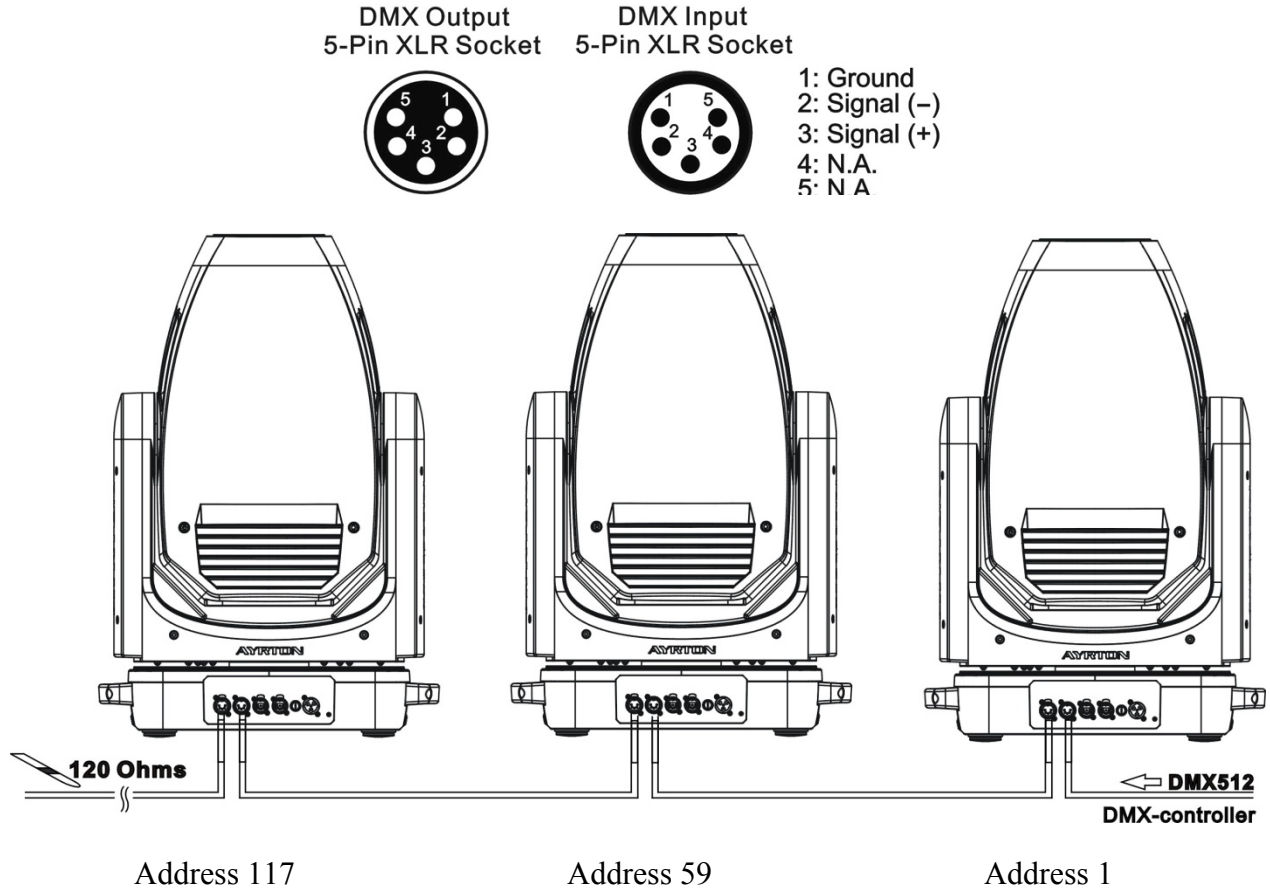


**Important:**

**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.**

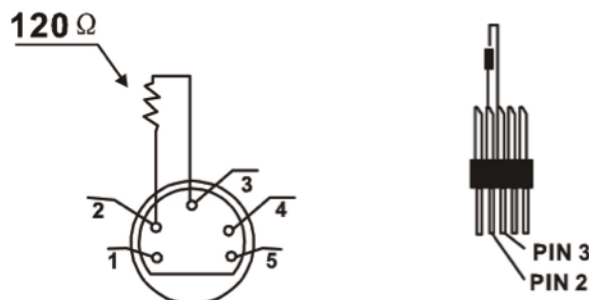
## 6. DMX-512 CONTROL CONNECTION

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 moving head, in 58 channel mode, you should set the starting address of the first unit to 1, the second unit to 59 (58 + 1), the third unit to 117 (58+ 59), and so on.

## **9. OPERATING INSTRUCTIONS OF THE INTERNAL DMX WIRELESS SYSTEM**

### **9.1 Equipments:**

DMX 512 controller, wireless transmitter, and the fixtures with wireless receiver.

### **9.2 Message from the LED indicator:**

- 1) Rapid flashing red/Green: logging in to a transmitter.
- 2) Slow flashing Red/Green: Logged on a transmitter and the DMX line is idle (No DMX is connected to transmitter) .
- 3) Solid Green: Logged on to a transmitter and receiving DMX data.
- 4) Solid Red: Not logged on to a transmitter ( free) .

### **9.3 WDMX in the menu of the fixture:**

On a fixture installed with wireless system, in order to switch between wireless control system and traditional DMX control (with cable) , a new menu WDMX is added to the display board.

ON: (Activate WDMX)

- 1) When the fixture is on power, and the WDMX is activated to ON status, but did not connect to the controller and did not log in to the transmitter, the fixture will search for the DMX signal source. If the fixture is connected to the DMX controller it can be controlled by DMX controller; if it is log in to the wireless transmitter, it can be controlled by the Transmitter.
- 2) When the fixture is power off, and the WDMX is in ON status, if the fixture is connected to DMX controller. After the fixture is power on, it can be controlled only by the DMX

controller which connected. The fixture can log in the wireless transmitter, and receive only radio signal from transmitter, but not DMX from the transmitter.

OFF: (De-activate WDMX)

In this status, wireless system is not activated, so the fixture can not log in the transmitter.

REST: (reset WDMX memory)

Can remove the fixture from the connection with the transmitter, the fixture become free and ready to log in any transmitter.

#### **9.4 Setup the wireless system:**

- 1) Connect the transmitter with the DMX controller.
- 2) To make the fixture installed with wireless receiver log in to the transmitter.
  - a) Initially, the indicator on the receiver fixture should be in Solid red.
  - b) Press and hold the configuration button on transmitter for less than 3 seconds the red/green LEDs on the transmitter and the receiver fixture will flash rapidly for about 5~ 10 seconds while the system goes through its setup procedure.
  - c) Once the receiver fixture is logged in to the transmitter (T1), the fixture with wireless receiver will keep the memory, even if restart the power, this unit will log in the transmitter (T1) automatically.
- 3) Use the DMX 512 to control the fixture

#### **9.5 Remove the receivers from transmitter(T1)and to log in to another transmitter(T2):**

Case 1: Remove a receiver:

- a) On the control board of the fixture, enter menu to activated the function of REST;
- b) The LED for wireless on the fixture should turn to Solid red; the receiver can log out from the transmitter (T1) ;
- c) press the configuration button on transmitter (T2) for less than 3 second, then the fixture will start to connect with the transmitter (T2) .

Case 2: Remove all receivers from a transmitter (T1) to log in to T2:

- a) Press and hold the configuration button on the T1 as least 5 seconds, can clear the connection with all the fixtures;
- b) All the red/green LEDs on the receiver fixtures will turn to Solid red to indicate that the receivers are unassigned and removed from the transmitter (T1) ;
- c) Press and hold the configuration button on the T2 less then less than 3 second, the fixtures will connect with the T2.

#### **PS:**

1. Please log the receivers out from the transmitter after every job, so that the receivers are in free un assigned state and ready to be assigned to a transmitter.
2. Do not connect the fixture which is under the communication of wireless system to the DMX controller, otherwise it will cause interference from the DMX controller.

## 10. DISPLAY

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

The main menu is accessed by double clicking the rotary knob .

Browse through the menu by turning rotary knob clockwise or counterclockwise.

Double click in order to select the desired menu and press and hold Rotary knob for exit menu. 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 in case there is battery, hold down the rotary knob for seconds and the Display will turn on by using the unit's battery.

PS: No response when quick press the rotary knob.

Default settings shaded

Address	Address	DMX address:001-XXX :		DMX address setting
Users Mode	User Mode	Stand Mode Basic Mode Extend Mode User Mode A User Mode B User Mode C		User's mode to change channel numbers
	Edit User	Max channel PAN :		Preset User modes A,B,C
Options	Status	No DMX Mode Pan Reverse Tilt Reverse Pan Degree Feedback Pan/Tilt Spd Hibernation Art-Net to DMX	Close/Hold/Auto ON/OFF ON/OFF 630/540 ON/OFF Speed 1~ 4 OFF , 01M~99M ON/OFF	Auto run if no DMX Pan Reverse movement Tilt Reverse movement Pan Degree Select Movement Feedback Movement Speed Stand by Mode Art-Net to DMX
	Service PIN	Service PIN RDM UID Set Ip Cross Laod Soft	Password=XXX  xxx.xxx.xxx.xxx OFF, ON	Service Password''=050''  Set Ip

	Fans Control	Head Control	Auto Stage Studio Silence	Fans Speed select
	Disp.Setting	Shutoff Time Flip Display Key Lock DispFlash	02~60m 05m ON/OFF ON/OFF ON/OFF	Display shutoff time Reverse 180 degree Key Lock DispFlash
	Signal Select	DMX WDMX Art—Net sACN		DMX WDMX Art-Net sACN
	Flip Pixel	ON/OFF		Flip Pixel
	Temp. C/F	Celsius Fahrenheit		Temperature switch between □/°F
	Initial Pos.	PAN =XXX		Initial effect position
	Wireless DMX	Activate WDMX Act&Data Out Rest WDMX		Activate WDMX Act&Data Out Rest WDMX
	Dim Curve	Square Law Linear		
	Refresh Rate	1,2K 2,4K 16K		PWM Frequency
	Trigger	DMX Value Disp. Set To Slave Auto Program	PAN..... Slave1,Slave2,Slave3 Master / Alone	DMX Value Disp. Set To Slave Auto Program
	ResetDefault	ON/OFF		Restore factory set.
Info	Time Info.	Current Time Ttl Life Hrs Last Run Hrs Timer PIN Clr Last Run		XXXX(Hours) XXXX(Hours) XXXX(Hours) Password=XXX ON/OFF
	Temp. Info	Head Temp.		XXX°C/°F
	Software Ver	V1.0.....		Software version
	Network	IP,Mask,Mac		Network
Test	Home	All Pan&Tilt Color Gobo Other		Reset All Reset Pan&Tilt Reset Color Reset Gobo Reset Others
	Test Channel	PAN .....		Test function
	Manual Ctrl.	PAN =XXX :		Fine adjustment of the lamp



	Calibration	-Password- PAN :		Password "050" Calbrate and adjust the effects to standard/right position
Preset	Select Prog.	Prog. Part 1 = Program 1 ~ 10 <b>Program 1</b> Prog. Part 2 = Program 1 ~ 10 <b>Program 2</b> Prog. Part 3 = Program 1 ~ 10 <b>Program 3</b>		Select programs to be run
	Edit Prog.	Program 1 : Program 10	Program Test Step 01=SCxxx Step 64=SCxxx	Testing program Program in loop Save and exit
	Edit Scenes	Edit Scene 001 ~ Edit Scene 250	Pan,Tilt,..... --Fade Time-- --Secne Time-- Input By Outside	Save and automatically return manual scenes edit
	Scenes Input	XX~XX		Scenes Input

## 10.1. Address

### 10.1.1. Set DMX Address

With this function, you can adjust the DMX address and ArtNet univers via the Display.

1. Double clicking rotary knob to access main menu.
2. The display will show "ADDRESS" .
3. Double click; "Set DMX Address" should be displayed.
4. Turn the rotary knob clockwise then display "A001~AXXX" .
5. Double click to confirm ; "Set DMX Address", then back to main menu by long click.

## 10.2.Users Mode

### 10.2.1. User Mode

With this function, you can create user defined channel orders.

1. Double clicking rotary knob to access main menu, turn the rotary knob clockwise to display "USERS MODE" .
2. Double click to edit.
3. Turn the rotary knob clockwise to display "User mode", double click to edit.
4. When in "Stand Mode", turn the rotary knob to select "Basic mode", "Ext mode", "User Mode A", "User Mode B" and "User Mode C" .
5. Double click to confirm – then back to main menu by long click.

### 10.2.2. Edit User Mode

With this function, you can adjust the rest user defined channel order.

1. Double clicking rotary knob to access"USERS MODE"menu, turn the rotary knob until display "Edit User" .
2. Double click to enter "Edit User" menu.
3. Set up "Max Channel=xxx" and select channel value.
4. Set up "Mode B" and "Mode C" by the same way.
5. Double click to confirm – "Edit User", then back to main menu by long click.

## **10.3.Options**

### **10.3.1. Status Settings**

#### **No DMX Status**

With this function, when the drive is not DMX signal, it runs automatism, close, hold and music, the default is hold.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “No DMX Status” .
5. Double click to access “No DMX Status”, The display will show “Hold”, Turn the rotary knob to select “Close”, “Auto” .
6. Double click to confirm, then back to main menu by long click.

#### **Pan Reverse**

With this function you can reverse the Pan-movement.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Pan Reverse” .
5. Double click to access “Pan Reverse”, The display will show “OFF”, Turn the rotary knob to select “NO” .
6. Double click to confirm, then back to main menu by long click.

#### **Tilt Reverse**

With this function you can reverse the Tilt-movement.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Tilt Reverse” .
5. Double click to access “Tilt Reverse”, The display will show “OFF”, Turn the rotary knob to select “NO” .
6. Double click to confirm, then back to main menu by long click.

#### **Pan Degree**

With this function, you can select pan degree for 630 or 540.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Pan Degree” .
5. Double click to access “Pan Degree”, The display will show “540”, Turn the rotary knob to select “630” .
6. Double click to confirm, then back to main menu by long click.

#### **Feedback**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Feedback” .
5. Double click to access “Feedback”, The display will show “ON”, Turn the rotary knob to select “OFF” .
6. Double click to confirm, then back to main menu by long click.

### **Pan/Tilt Spd**

With this function, you can select scan mode from 1 to 4.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu. The display will show “Pan/Tilt Spd” .
5. Double click to access “Pan/Tilt Spd”, The display will show “Speed 1”, Turn the rotary knob to select “Speed 1”, “Speed 2”, “Speed 3”, “Speed 4” .
6. Double click to confirm, then back to main menu by long click.

### **Hibernation: Standby mode**

The device and step motors will be power off if the fixture stay without DMX signal for 15 mins (Factory default). And the fixture will be reset before working once it receive DMX signal again.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Hibernation” .
5. Double click to access “Hibernation”, The display will show “OFF”, Turn the rotary knob to select “01M”, “02M” . . . “99M” .
6. Double click to confirm, then back to main menu by long click.

### **Art-Net to DMX**

With this function, you can use the Ghibli as an Art-Net node.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Status” .
4. Double click to access “Status” menu, The display will show “Art-Net to DMX” .
5. Double click to access “Art-Net to DMX”, The display will show “OFF”, Turn the rotary knob to select “ON” .
6. Double click to confirm, then back to main menu by long click.

## **10.3.2. Service PIN**

### **Password**

The Password for this function is “050” .

### **Set IP**

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .

3. Pressing the rotary knob 2 seconds to access “Options”, turn the rotary knob to select “Service PIN” .
4. Pressing the rotary knob 2 seconds to access “Service PIN” menu, The display will show “Set IP” .
5. Pressing the rotary knob 2 seconds to access “Set IP”, The display will show “XXX. XXX. XXX. XXX” .
6. Double click the rotary knob to back to last button press – “Service PIN”, then back to main menu by double click again.

### **Cross Load SW**

With this function, it is possible to use one Ghibli to upload its current firmware release to Other Ghiblis

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Service PIN” .
4. Double click to access “Service PIN” menu. Enter the password 050
5. Choose “Cross Load SW”.
6. Double click to access “Cross Load SW” . Firmware will be uploaded to connected units
7. Double click the rotary knob to confirm, then back to main menu by long click.

### **10.3.3. Fans Control**

#### **Head Control**

With this function you can set the speed of the running fans. The selections have Auto, Stage and Studio.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Fans Control” .
4. Double click to access “Fans Control” menu.
5. Turn the rotary knob to select “Auto”, “Stage” , “Studio” or “Silence”
6. Double click the rotary knob to confirm, then back to main menu by long click.

### **10.3.4. Display Setting**

#### **Shut off Time**

With this function you can shut off the LCD display after 2 to 60 minutes. Default is 5 minutes.

1. Double click rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Display Setting” .
4. Double click to access “Display Setting” menu. The display will show “Shut off Time” .
5. Double click to access “Shut off Time”, The display will show “05m”, Turn the rotary knob to select “02~60m” .
6. Double click the rotary knob to confirm, then back to main menu by long click.

### **Flip Display**

With this function you can invert the display by 180°.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Display Setting” .
4. Double click to access “Display Setting” menu, The display will show “Flip Display” .
5. Double click to access “Flip Display” . The display will show “OFF”, Turn the rotary knob to select “ON” .
6. Double click the rotary knob to confirm, then back to main menu by long click.

### **Key Lock**

With this function you can activate the automatic key lock function. If this function is activated, the keys will be locked automatically after exiting the edit mode for 15 seconds. keeping press the <MODE/ESC> key for 3seconds if you do not need this function.

1. Double click rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Display Setting” .
4. Double click to access “Display Setting” menu. The display will show “Key Lock” .
5. Double click to access “Key Lock”. The display will show “OFF” . Turn the rotary knob to select “ON” .
6. Double click the rotary knob to confirm, then back to main menu by long click.

### **DispFlash**

With this function display will flash if no DMX. This function is disabled as default.

1. Double click rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Display Setting” .
4. Double click to access “Display Setting” menu, The display will show “DispFlash” .
5. Double click to access “DispFlash” . The display will show “OFF” . Turn the rotary knob to select “ON” .
6. Double click the rotary knob confirm, then back to main menu by long click.

### **10.3.5. Signal Select**

1. Double click rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Signal Select” .
4. Double click to access “Signal Select” . The display will show “DMX” . Turn the rotary knob to select “DMX”, “WDMX”, “Art-Net”, “sACN” .
5. Double click to confirm, then back to main menu by long click.

### **10.3.6. Flip Pixel**

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Flip Pixel” .
4. Double click to access “Flip Pixel”, The display will show “OFF”, Turn the rotary knob to select “ON” .
5. Double click to confirm, then back to main menu by long click.

### **10.3.7. Temperature C/F**

With this function you can display the temperature in Celsius or Fahrenheit.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Temperature C/ F” .
4. Double click to access “Temperature C/ F”, The display will show “Fahrenheit”, Turn the rotary knob to select “Celsius” .
5. Double click to confirm, then back to main menu by long click.

### **10.3.8. Initial Pos.**

With this function you can display initial effect position.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Initial Pos. ” .
4. Double click to access “Initial Pos. ”, The display will show “PAN=XXX” .
5. Double click to confirm, then back to main menu by long click.

### **10.3.9. Wireless DMX**

From factory, this projector is prepared for wireless data transmission (W-DMX) . If you wish to de-activate W-DMX control, you can select the function “De-activate WDMX” by turning the encoder. With the function “rest” , you can log out the projector from the wireless sender.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Wireless DMX” .
4. Double click to access “Wireless DMX”, The display will show “Activate WDMX”, Turn the rotary knob to select “Act&Data Out” , “Rest WDMX” .
5. Double click to confirm, then back to main menu by long click.

### **10.3.10. Dim Curve**

This function will allow you to choose between square or linear dimming curve.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Dim Cruve” .
4. Double click to access “Dim Curve” . Turn the rotary knob to select “Square Law” or “Linear” .
5. Double click to confirm, then back to main menu by long click.

### 10.3.11. Refresh Rate

This function will allow you to choose the PWM frequency (1,2kHz – 2,4kHz or 16kHz)

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Refresh Rate” .
4. Double click to access “Refresh Rate” . Turn the rotary knob to select between “1,2K” “2,4k” or “16K”
5. Double click to confirm, then back to main menu by long click

### 10.3.12. Trigger

#### **DMX Value Disp.**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Trigger” .
4. Double click to access “Trigger” menu, The display will show “DMX Value Disp” .
5. Double click to access “DMX Value Disp”, The display will show “PAN=.....” .
6. Double click to confirm, then back to main menu by long click.

#### **Set To Slave**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Trigger” .
4. Double click to access “Trigger” menu, The display will show “Set To Slave” .
5. Double click to access “Set To Slave”, choose between “Slave1” , “Slave2” , “Slave3” .
6. Double click to confirm, then back to main menu by long click.

#### **Auto Program**

With this function, you can run the internal program. You can select the desired program under “**Select program**” . You can set the number of steps under “**Edit program**” . You can edit the individual scenes under “**Edit scenes**” . With this function, you can run the individual scenes either automatically, i. e. with the adjusted Step-Time.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Trigger” .
4. Double click to access “Trigger” menu. The display will show “Auto Program” .
5. Double click to access “Auto Program”, choose between “Master” , “Alone” .
6. Double click to confirm, then back to main menu by long click.

### 10.3.13. Reset Default

With this function, you can select restore factory set for ON or OFF, the default is OFF.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Options” .
3. Double click to access “Options”, turn the rotary knob to select “Reset Default” .
4. Double click to access “Reset Default” menu. The display will show “OFF” ; turn the rotary knob to select “ON” .
5. Double click to confirm, then back to main menu by long click.

## 10.4. Info

### 10.4.1. Time information

#### Current Time

With this function, you can display the temporary running time of the device from the last power on. The display shows “XXXX” , “XXXX” stands for the number of hours. The counter is reset after turning the device off.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Time Info.” .
4. Double click to access “Time Info.”, The display will show “Current Time” .
5. Double click to access “Current Time”, The display will show “XXXX (Hours)” .
6. Double click to confirm, then back to main menu by long click.

#### Ttl Life Hrs

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Time Info.” .
4. Double click to access “Time Info.”, the display will show “Ttl Life Hrs” .
5. Double click to access “Ttl Life Hrs”, the display will show “XXXX (Hours)” .
6. Double click to confirm, then back to main menu by long click

#### Last Run Hrs

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Time Info.” .
4. Double click to access “Time Info.”, the display will show “Last Run Hrs” .
5. Double click to access “Last Run Hrs”, the display will show “XXXX (Hours)” .
6. Double click to confirm, then back to main menu by long click.



### **Timer PIN**

With this function, you can enter the timer password.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Time Info.” .
4. Double click to access “Time Info.”, the display will show “Timer PIN” .
5. Double click to access “Timer PIN”, enter the password “Password=038” .
6. Double click to confirm, then back to main menu by long click.

### **Clr Last Run**

With this function, you can clear last run time of the fixture. The display shows “ON” or “OFF”, Press “Enter” to confirm.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Time Info.” .
4. Double click to access “Time Info.”, the display will show “Clear Last Run” .
5. Double click to access “Clear Last Run”, the display will show “OFF”, turn the rotary knob to select “ON” .
6. Double click to confirm, then back to main menu by long click.

## **10.4.2. Temp. Info**

### **Head Temp.**

With this function you can display the temperature on the display board of the base (near CMY-filter) in Celsius.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Temp Info” .
4. Double click to access “Temp Info”, the display will show “Head Temp.” .
5. Pressing the rotary knob 2 seconds to access “Head Temp.”, the display will show “XXX °C/ °F” .
6. Double click to confirm, then back to main menu by long click.

## **10.4.3. Software Ver**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Software Ver” .
4. Double click to access “Software Ver”, The display will show “Ver x.x.x” .
5. Double click to confirm, then back to main menu by long click.

## **10.4.4. Network**

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Info” .
3. Double click to access “Info”, turn the rotary knob to select “Network” .
4. Double click to access “Network”, the display will show “IP” . Turn the rotary knob to select “Mask”, “Mac” .
5. Double click to confirm, then back to main menu by long click.

## **10.5. Test**

### **10.5.1. Home**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Test” .
3. Double click to access “Test”, turn the rotary knob to select “Home” .
4. Double click to access “Home”, the display will show “All” . Turn the rotary knob to select “All”, “Pan&Tilt”, “Color”, “Gobo”, “Other” .
5. Double click to confirm, then back to main menu by long click.

### **10.5.2. Test Channel**

With this function you can test each channel’s function to ensure correct operation.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Test” .
3. Double click to access “Test”, turn the rotary knob to select “Test Channel” .
4. Double click to access “Test Channel” . The display will show “Pan” . Turn the rotary knob to select other channel.
5. Double click to confirm, then back to main menu by long.

### **10.5.3. Manual Control**

When set to Manual Mode, fixture will be back to factory settings. If want to adjust brightness, can adjust by shutter and dimming channel, channel value is 0-255. Other functions can be set according to user's real need.

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Test” .
3. Double click to access “Test”, turn the rotary knob to select “Manual control” .
4. Double click to access “Manual control” . The display will show “PAN=XXX” .
5. Double click to confirm, then back to main menu by long click.

### **10.5.4. Calibration**

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

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Test” .
3. Double click to access “Test”, turn the rotary knob to select “Calibration” .
4. Double click to access “Calibration” . The display will show “Password=050” .
5. Double click to confirm, then back to main menu by long click.

## 10.6. Preset

1. Double clicking rotary knob to access main menu.
2. Turn the rotary knob clockwise then display “Preset” .
3. Double click to access “Preset”, turn the rotary knob to select “Select prog. ”, “Edit prog. ”, “Edit Scenes”, “Scenes Input” .
4. Double click the rotary knob to back to last button press – “Preset” .

Run the auto program: A master fixture can output to three different program signals to the slave fixture to operate. It means the host will send cyclically in the following orders (The host will keep operating the program of Part 1) Then the slave fixture will make the selectively receiving according to its own set.



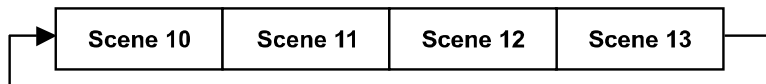
1. If the slave fixture chooses Run For Slave 1 from the menu of 1-3, then it will receive the part 1’s automatic program from link, in the same way, when the slave fixture chooses Run For Slave 2, then it will receive the part 2’s automatic program from link.
2. Enter the menu of 1-3 Function Mode---Set To Slave, Here to set machine operate which part of the program during the host-slave connection
3. Enter the menu of 1-4, 1-5 Function Mode---Set To Master
4. Enter the menu of 8-1 Edit Program---Auto Program Part1. The host outputs three groups driven program---Part1, Part2, Part3(Part1 program runs the same effect as the host)
5. Enter the menu of 8-2 Edit Program---Edit Program. Edit the program’s connection, connect the scene in order
6. The editor of the scene, there are as many as 250 scenario editors, and every scene can have a program connection of 10.

**Note:**

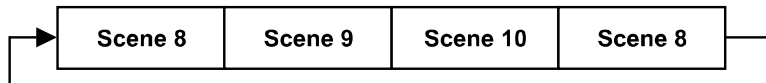
Part 2, Part 3 repeat in accordance with the Part1’s repeat. For example: When Part 1 uses Program 2, Part 2 uses Program 4, Part 3 uses Program 6, Assume: Program 2 includes scene of 10, 11, 12, 13; Program 4 includes scene of 8, 9, 10; Program 6 includes scene of 12, 13, 14, 15; Then it will run as below.

Example:

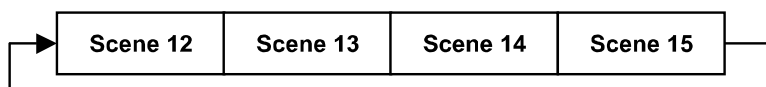
**Part 1:**



**Part 2:**



**Part 3:**



## 11. DMX PROTOCOL

<b>DMX channel's functions and their values (57DMX channels):</b>				
<b>Mode/Channel</b>			<b>Value</b>	<b>Function</b>
<b>St</b>	<b>Ba</b>	<b>Ex</b>		
1	1	1		<b><u>PAN Movement 8bit :</u></b>
			0-255	Pan Movement
2		2		<b><u>Pan Fine 16bit</u></b>
			0-255	Fine control of Pan movement
3	2	3		<b><u>TILT Movement 8bit :</u></b>
			0-255	Tilt Movement
4		4		<b><u>Tilt Fine 16bit</u></b>
			0-255	Fine control of Tilt movement
5	3	5		<b><u>Speed Pan/Tilt movement:</u></b>
			0-225	max to min speed
			226-235	blackout by movement
			236-245	blackout by all wheel changing
6	4	6		<b><u>Shutter, strobe:</u></b>
			0-31	Shutter closed
			32-63	No function (shutter open)
			64-95	Strobe effect slow to fast
			96-127	No function (shutter open)
			128-159	Pulse-effect in sequences
			160-191	No function (shutter open)
			192-223	Random strobe effect slow to fast
224-255	No function (shutter open)			
7	5	7		<b><u>Dimmer intensity:</u></b>
			0-255	Intensity 0 to 100%
		8		<b><u>Fine Dimmer intensity:</u></b>
			0-255	Dimmer intensity fine
8	6	9		<b><u>Chase Patterns</u></b>
			0-9	Open
			10-19	Chase 1
			20-29	Chase 2
			30-39	Chase 3
			40-49	Chase 4
			50-59	Chase 5
			60-69	Chase 6
			70-79	Chase 7
80-89	Chase 8			

			90-99	Chase 9
			100-109	Chase 10
			110-119	Chase 11
			120-129	Chase 12
			130-139	Chase 13
			140-255	Reserved
9	7	10		<b><u>Chase Speed</u></b>
			0-125	Fast to Slow Backward
			126-130	Stop
			131-255	Slow to Fast Forward
10	8	11		<b><u>Chase Fade</u></b>
			0-255	Fade Chase
11	9	12		<b><u>Zoom :</u></b>
			0-255	Zoom adjustment from small to big
		13		<b><u>Zoom Fine:</u></b>
			0-255	Zoom adjustment Fine
12	10	14		<b><u>Focus :</u></b>
			0-255	Continuous adjustment from near to far
		15		<b><u>Focus Fine:</u></b>
			0-255	Continuous adjustment Fine
13	11	16		<b><u>Auto Focus :</u></b>
			0-50	Auto Focus Off
			51-100	5m
			101-150	7.5m
			151-200	10m
			201-255	15m
14	12	17		<b><u>AutoFocus Fine:</u></b>
			0-255	Continuous adjustment Fine
15	13	18		<b><u>Color Wheel:</u></b>
			0-17	Open / white
			18-35	Color 1 (CRI Filter)
			36-53	Color 2 (Congo Blue)
			54-71	Color 3 (Green)
			72-89	Color 4 (Orange)
			90-107	Color 5 (Light Blue)
			108-127	Color 6 (Red)
			128-189	Forwards rainbow effect from fast to slow
			190-193	No rotation
			194-255	Backwards rainbow effect from slow to fast
		19		<b><u>Color Wheel Fine :</u></b>
			0-255	Color Wheel colour change to any position Fine
16	14	20		<b><u>Cyan Color :</u></b>
			0-255	Cyan (0-white, 255-100% Cyan)

		21		<b><u>Cyan Color Fine :</u></b>
			0-255	Cyan Fine
17	15	22		<b><u>Magenta Color :</u></b>
			0-255	Magenta (0-white, 255-100% magenta)
		23		<b><u>Magenta Color Fine :</u></b>
			0-255	Magenta Fine
18	16	24		<b><u>Yellow Color :</u></b>
			0-255	Yellow (0-white, 255-100% Yellow)
		25		<b><u>Yellow Color Fine :</u></b>
			0-255	Yellow Fine
19	17	26		<b><u>CTO Color :</u></b>
			0-255	CTO (0-white, 255-100% CTO)
		27		<b><u>CTO Color Fine :</u></b>
			0-255	CTO Fine
				<b><u>Rotating gobos, cont. rotation 1:</u></b>
			0-9	Open
			10-19	Rot. gobo 1
			20-29	Rot. gobo 2
			30-39	Rot. gobo 3
			40-49	Rot. gobo 4
			50-59	Rot. gobo 5
			60-69	Rot. gobo 6
			70-77	Rot. Gobo 7
20	18	28	78-93	Gobo 1 shake slow to fast
			94-109	Gobo 2 shake slow to fast
			110-125	Gobo 3 shake slow to fast
			126-141	Gobo 4 shake slow to fast
			142-157	Gobo 5 shake slow to fast
			158-173	Gobo 6 shake slow to fast
			174-189	Gobo 7 shake slow to fast
			190-221	Gobo wheel rotation forwards from fast to slow
			222-223	No rotation
			224-255	Gobo wheel rotation f backwards from slow to fast
				<b><u>Rotating gobo index,rotating gobo rotation 1:</u></b>
21	19	29	0-127	Gobo indexing
			128-189	Forwards gobo rotation from fast to slow
			190-193	No rotation
			194-255	Backwards gobo rotation from slow to fast
		30		<b><u>Rotating gobo indexing Fine 1:</u></b>
			0-255	Fine indexing
22	20	31		<b><u>Fixed Gobo2 :</u></b>
			0-21	open
			22-31	Gobo 1

			32-41	Gobo 2
			42-51	Gobo 3
			52-61	Gobo 4
			62-71	Gobo 5
			72-81	Gobo 6
			82-91	Gobo 7
			92-101	Gobo 8
			102-112	Gobo 1 shake slow to fast
			113-123	Gobo 2 shake slow to fast
			124-134	Gobo 3 shake slow to fast
			135-145	Gobo 4 shake slow to fast
			146-156	Gobo 5 shake slow to fast
			157-167	Gobo 6 shake slow to fast
			168-178	Gobo 7 shake slow to fast
			179-189	Gobo 8 shake slow to fast
			190-221	Clock-wise scroll from fast to slow
			222-223	Reserved
			224-255	Counter clock-wise scroll from slow to fast
				<b><u>Animation wheel:</u></b>
23	21	32	0-7	open
			8-127	Forwards rotation from fast to slow
			128-135	No rotation
			136-255	Backwards rotation from slow to fast
				<b><u>Iris:</u></b>
24	22	33	0-191	Max. diameter to Min.diameter
			192-223	Pulse closing fast to slow
			224-255	Pulse opening slow to fast
				<b><u>Iris Fine:</u></b>
		34	0-255	Iris Fine
				<b><u>Prism :</u></b>
25	23	35	0-127	Open
			128-255	5 Facets Prim
				<b><u>Rotating prism index, rotating prism rotation</u></b>
26	24	36	0-127	Prism indexing
			128-189	Forwards prism rotation from fast to slow
			190-193	No rotation
			194-255	Backwards prism rotation from slow to fast
				<b><u>Rotating prism indexing Fine :</u></b>
		37	0-255	Fine indexing
				<b><u>Frost 1:</u></b>
27	25	38	0-255	0-100%
				<b><u>Frost 2 :</u></b>
28	26	39	0-255	0-100%

29	27	40		<b>Blade 1 A :</b>
			0-255	Open to Close
		41		<b>Blade 1 A Fine :</b>
			0-255	Open to Close Fine
30	28	42		<b>Blade 1 B :</b>
			0-255	Open to Close
		43		<b>Blade 1 B Fine :</b>
			0-255	Open to Close Fine
31	29	44		<b>Blade 2 A:</b>
			0-255	Open to Close
		45		<b>Blade 2 A Fine :</b>
			0-255	Open to Close Fine
32	30	46		<b>Blade 2 B :</b>
			0-255	Open to Close
		47		<b>Blade 2 B Fine :</b>
			0-255	Open to Close Fine
33	31	48		<b>Blade 3 A :</b>
			0-255	Open to Close
		49		<b>Blade 3 A Fine :</b>
			0-255	Open to Close Fine
34	32	50		<b>Blade 3 B :</b>
			0-255	Open to Close
		51		<b>Blade 3 B Fine :</b>
			0-255	Open to Close Fine
35	33	52		<b>Blade 4 A :</b>
			0-255	Open to Close
		53		<b>Blade 4 A Fine :</b>
			0-255	Open to Close Fine
36	34	54		<b>Blade 4 B :</b>
			0-255	Open to Close
		55		<b>Blade 4 B Fine :</b>
			0-255	Open to Close Fine
37	35	56		<b>All Blade Rotation :</b>
			0-255	All Blade Rotation
		57		<b>All Blade Rotation Fine :</b>
			0-255	All Blade Rotation Fine
38	36	58		<b>LED on/off, reset, internal programs:</b>
			0-9	Unused
			10-14	Display OFF
			15-19	Display ON
			20-24	Display Invert Off
			25-29	Display invert On
			30-34	Auto Fan mode



			35-39	Stage Fan mode
			40-44	Studio Fan mode
			45-49	Silence Fan mode
			50-54	Square law dimming curve
			55-59	Linear dimming curve
			60-64	1,2kHz PWM frequency
			65-69	2,4kHz PWM frequency
			70-74	16kHz PWM frequency
			75-79	Unused
			80-84	All motor reset
			85-87	Pan&Tilt reset
			88-90	Color motor reset
			91-93	Gobo motor reset
			94-99	Other motor reset
			100-119	Internal program 1 (scene1~8 of EEPROM)
			120-139	Internal program 2 (scene9~16 of EEPROM)
			140-159	Internal program 3 (scene17~24 of EEPROM)
			160-179	Internal program 4 (scene25~32 of EEPROM)
			180-199	Internal program 5 (scene33~40 of EEPROM)
			200-219	Internal program 6 (scene41~48 of EEPROM)
			220-239	Internal program 7 (scene49~56 of EEPROM)
			240-255	Internal program 8 (scene49~56 of EEPROM)

## 12. 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 15 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.

### **Zoom wheel Er**

(Zoom wheel 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 Zoom - 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 (Optical Sensor or Magnetic Sensor fails) 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.

### **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.

### **Cyan Color wheel Er**

(Cyan 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 CMY - movement is not located in the default position after the reset.

**Magenta Color wheel Er**

(Magenta 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 CMY - movement is not located in the default position after the reset.

**Yellow Color wheel Er**

(Yellow 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 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 CTO - movement is not located in the default position after the reset.

**Rot\_Gobo1 wheel Er**

(Rot\_Gobo1 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 Rot\_Gobo1 - 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 Fix\_Gobo - 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 Animation - movement is not located in the default position after the reset.

**Iris wheel Er**

(Iris 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 Iris - movement is not located in the default position after the reset.

**Prism\_5 wheel Er**

(Prism\_5 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\_5 - movement is not located in the default position after the reset.

**Frost 1 wheel Er**

(Frost 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 Frost 1 - movement is not located in the default position after the reset.

**Blade 1 wheel Er**

(Blade 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 Blade 1 - movement is not located in the default position after the reset.

**Blade 1\_Rot wheel Er**

(Blade 1\_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 Blade 1\_Rot - movement is not located in the default position after the reset.

**Blade 2 wheel Er**

(Blade 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 Blade 2 - movement is not located in the default position after the reset.

**Blade 2\_Rot wheel Er**

(Blade 2\_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 Blade 2\_Rot - movement is not located in the default position after the reset.

**Blade 3 wheel Er**

(Blade 3 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 Blade 3 - movement is not located in the default position after the reset.

**Blade 3\_Rot wheel Er**

(Blade 3\_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 Blade 3\_Rot - movement is not located in the default position after the reset.

**Blade 4 wheel Er**

(Blade 4 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 Blade 4 - movement is not located in the default position after the reset.

**Blade 4\_Rot wheel Er**

(Blade 4\_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 Blade 4\_Rot - movement is not located in the default position after the reset.

**All\_Blade\_Rot wheel Er**

(All\_Blade\_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 All\_Blade\_Rot - movement is not located in the default position after the reset.

**Frost 2 wheel Er**

(Frost 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 Frost 2 - movement is not located in the default position after the reset.

**Animation\_Rot wheel Er**

(Animation\_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 Animation\_Rot - movement is not located in the default position after the reset.

### 13. 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.

**Remark:** Errors and omissions for all information given in this manual are excepted. All information is subject to change without prior notice.