ACME ®

AECO 10

CONTENTS

1. Safety Instructions

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

WARNING

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

Important:

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

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0℃. Maximum ambient temperature TA: 40℃. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 60℃. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.

- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.

- DO NOT touch any wire during operation as there might be a hazard of electric shock.

- Avoid entanglement of the power cord with other wires.

- The minimum distance to objects/surface must be more than 3 meters.

- In the event of serious operating problem, stop using the unit immediately.

- Never turn on and off the unit time after time.

- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

- DO NOT open the housing as there are no user serviceable parts inside.

- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

- Disconnect this product from its power source before servicing.

- DO use the original packaging if the device is to be transported.

- Avoid direct eye exposure to the light source while the product is on.

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

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.

DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

1425W

Light Source:

SSL1000Y-70-R95

Color Temperature:

6000K

Zoom Range:

5°~52°

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Fixation: Pan/Tilt lock

Color Wheel:

1 x color wheel with 6 colors plus white

Gobo Wheel:

1 x static gobo wheel with 8 gobos plus open

1 x rotating gobo wheel with 7 gobos plus open, convenient replacement

Control:

DMX Channel: 35/26/29/20 channels

Control Mode: DMX512, RDM, Art-Net, sACN

Firmware upgrade via DMX link or USB Disk

Construction:

Display: LCD display

Battery backup for user setup without mains connection

Data In/Out: 3-pin and 5-pin XLR, RJ45

Power In/Out: Power Cord, Power Connector in/out

Protection Rating: IP20

Features:

Color Rendering Ra≥95, R9≥90

Linear CMY color mixing+ Variable CTO

1 x animation wheel with outstanding water and flame effect, the wheel can rotate and be replaced

1 x 4-facets prism rotatable in either direction

1 x 4-facets linear prism rotatable in either direction

2 x different frost filters to create and improve the wash effect. They can be used independently and overlayed
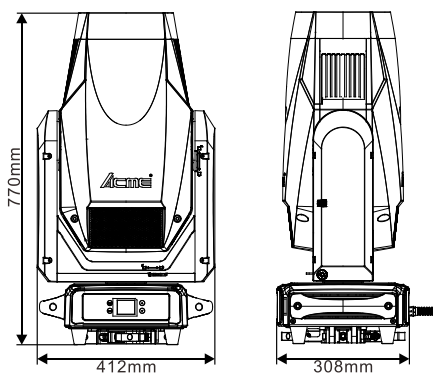
Motorized linear Iris

4 x fast and smooth framing shutters; The position and the angle of each shutter blade can be controlled individually; Each shutter blade can block out light completely; The framing module can rotate at ±60 degrees

2 x fixed clamps for 50mm truss

Dimension/Weight:

412x308x770mm, 43kgs

16"x12"x30"in, 95lbs

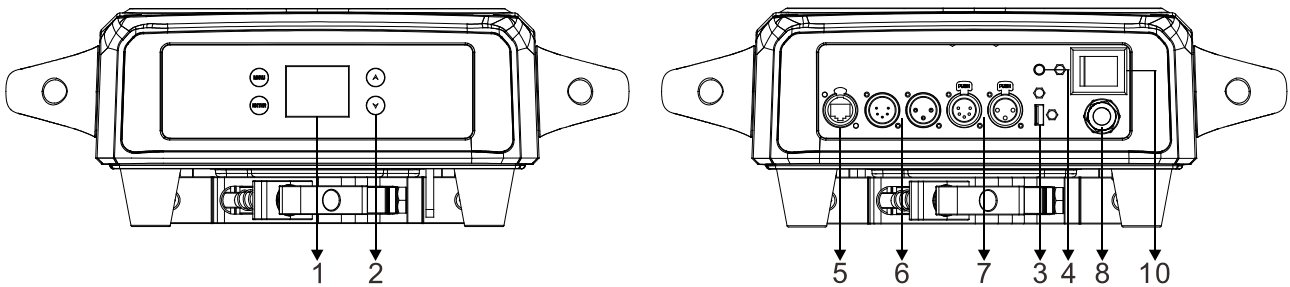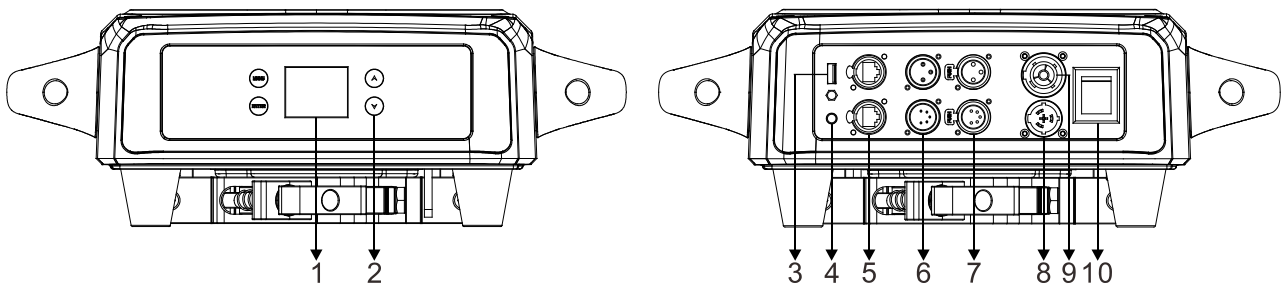**Photometric Diagram:**

Distance(m)	5	10	15	20
5° Lux	80,300	19,350	11,210	6,550
Diameter(m)	0.4	0.9	1.3	1.7
52° Lux	2,150	585	285	170
Diameter(m)	4.9	9.8	14.6	19.5
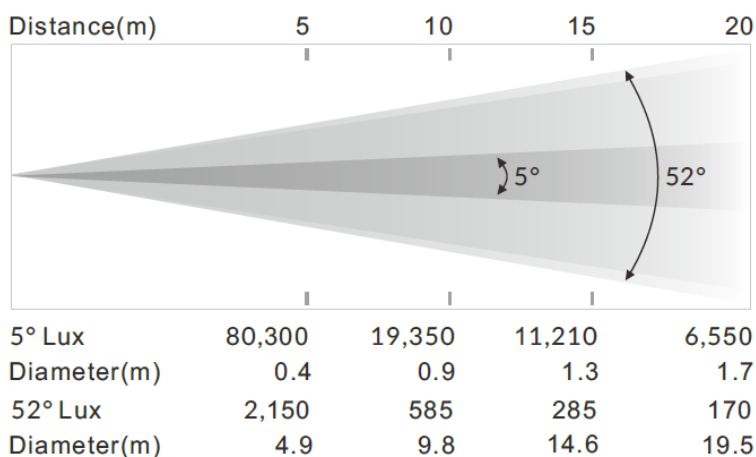
3. Control Panel

Power Cord Version:

Powercon Version:

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

2. Button:

MENU	To enter into move backward or leave the menu
▲ UP	To go backward to move up in the menu
▼ DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

3. FIRMWARE UPGRADE: Used to upgrade the fixture's firmware

4. BATTERY DISPLAY

5. ETHERNET: Transfers fixture's information to a main controller

6. DMX IN: For DMX512 link, use 3/5-pin XLR cable to link the unit and DMX controller

7. DMX OUT: For DMX512 link, use 3/5-pin XLR cable to link the next units

8. POWER IN: To connect to supply power

9. POWER OUT(Powercon Version): To connect to the next fixture

10. POWER SWITCH: To turn on/off the power

4. Effect Wheels
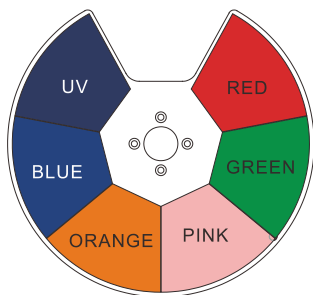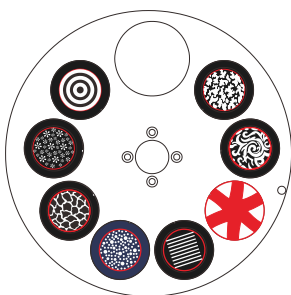
COLOR WHEEL   STATIC GOBO WHEEL   ROTATING GOBO WHEEL   ANIMATION WHEEL
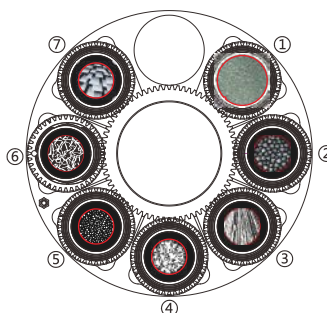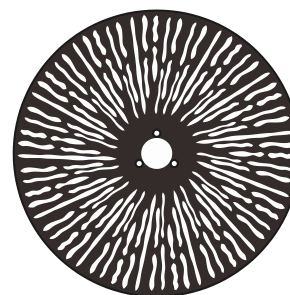
> ***DANGER!***
> ***Install the rotating gobos with the device switched off only.***
> ***Unplug from mains before changing the rotating gobos!***

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

R-Gobos	Part Number
① Gobo1	3015000932
② Gobo2	3011001149
③ Gobo3	3011001150
④ Gobo4	3011001158
⑤ Gobo5	3011001152
⑥ Gobo6	3011001153
⑦ Gobo7	3011001154
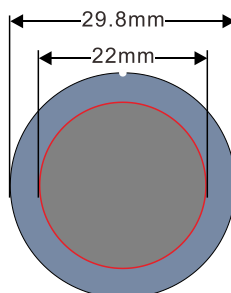
Rotating Gobos
Dimensions

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4.1 Replacing Rotating Gobos

1. Unplug the power and signal adapter cables at A and unscrew the two screws at B to take out the component;
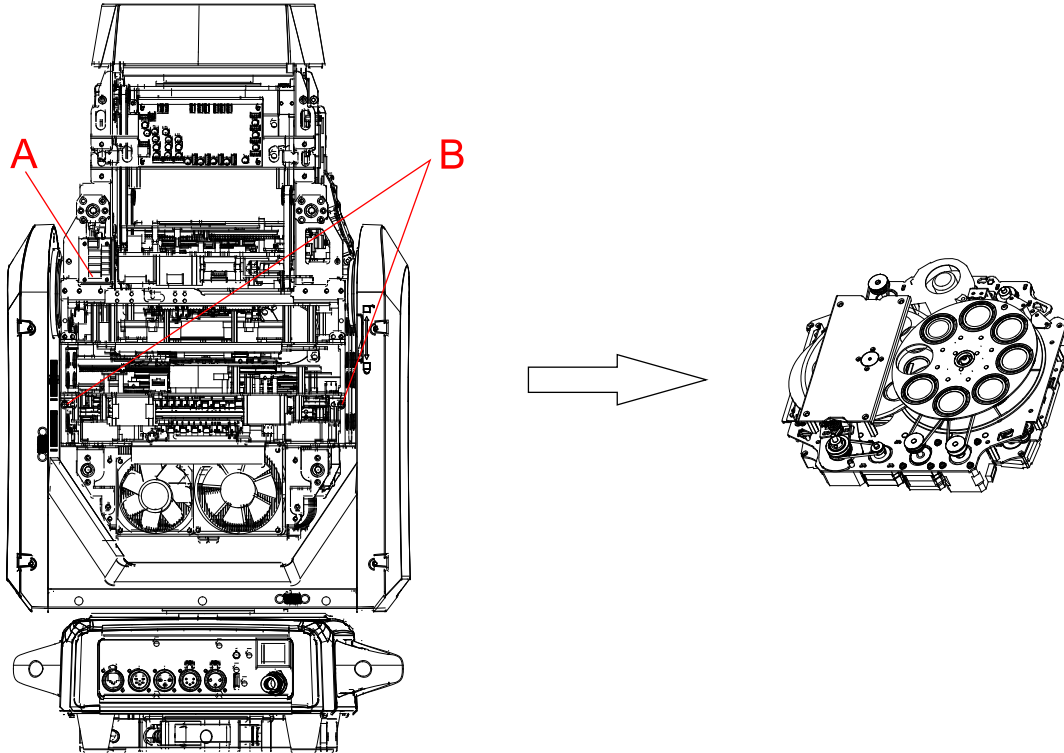
2. Half loosen the eight screws at C and remove the two belts; Unscrew the screw at D, then take out the rotating gobo wheel component;
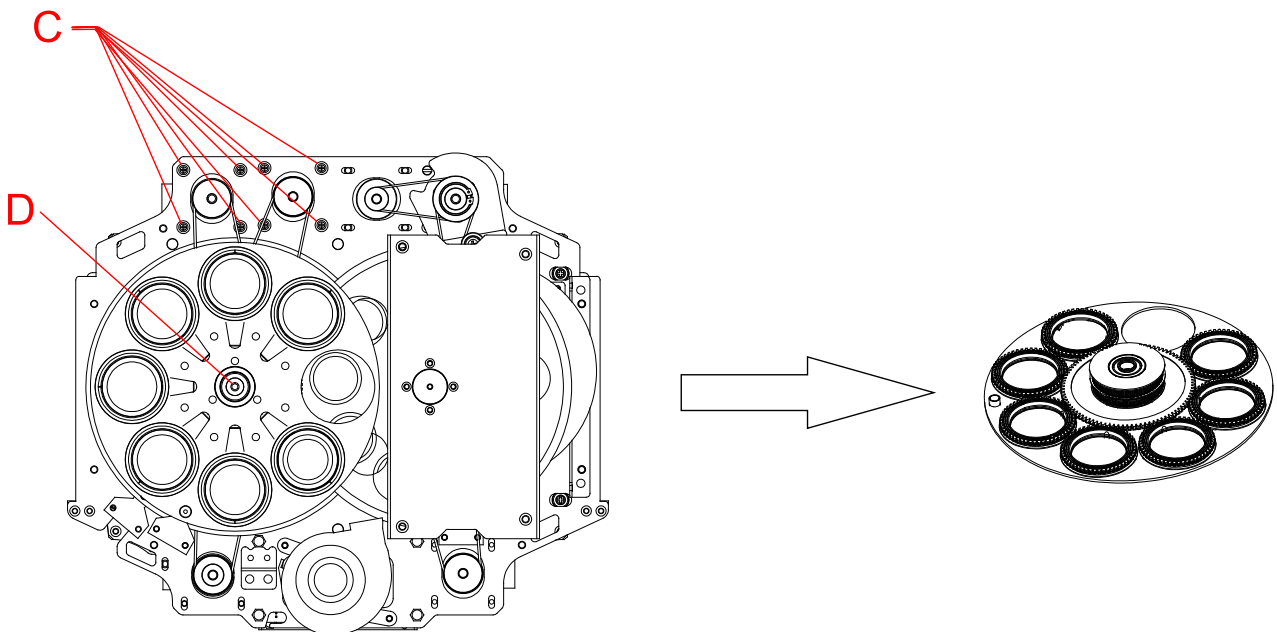
3. Press down the gobo from the edge of the rotating gobo wheel component and slowly pull it out;
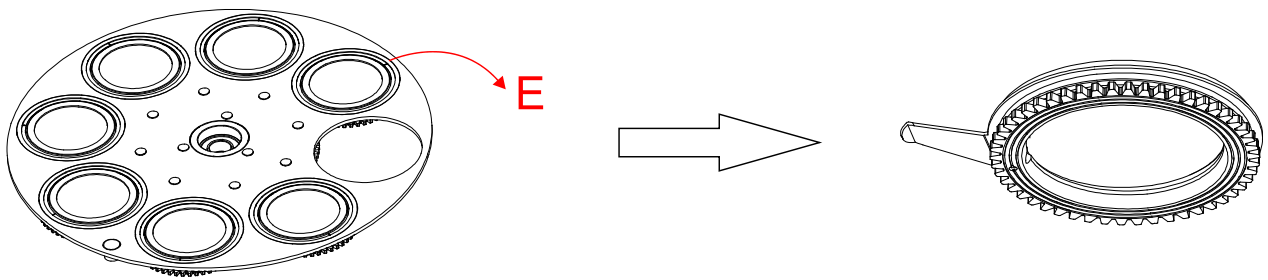
4. Remove the spring lock at F with an appropriate tool like tweezers (if the gobo is coated with glass glue, do remove it with some good glass cleaning fluid before removing the spring lock to avoid damage to the gobo).
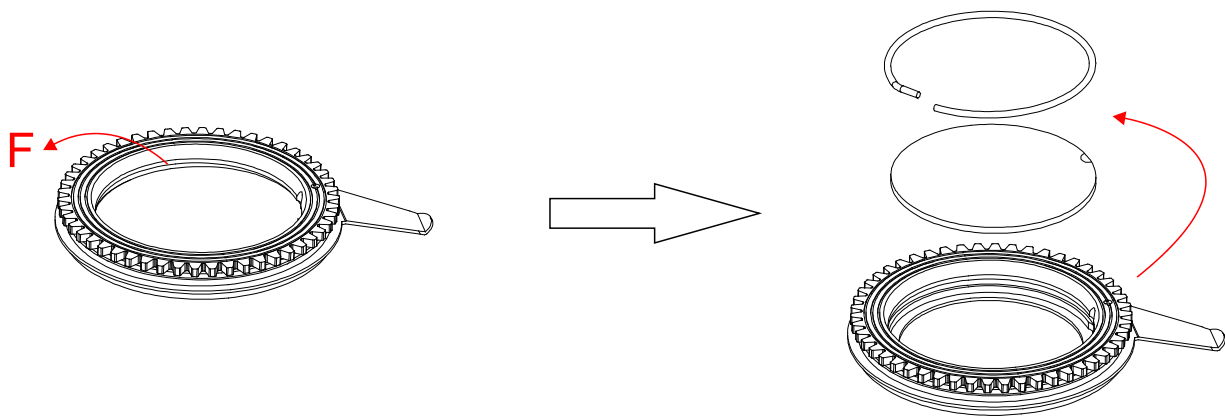
5. Do not touch the surface of the gobo with bare fingers. The gobo has a small position point at its edge which has to aim at the position point on the gobo holder like G shows (glossy side towards the light source).
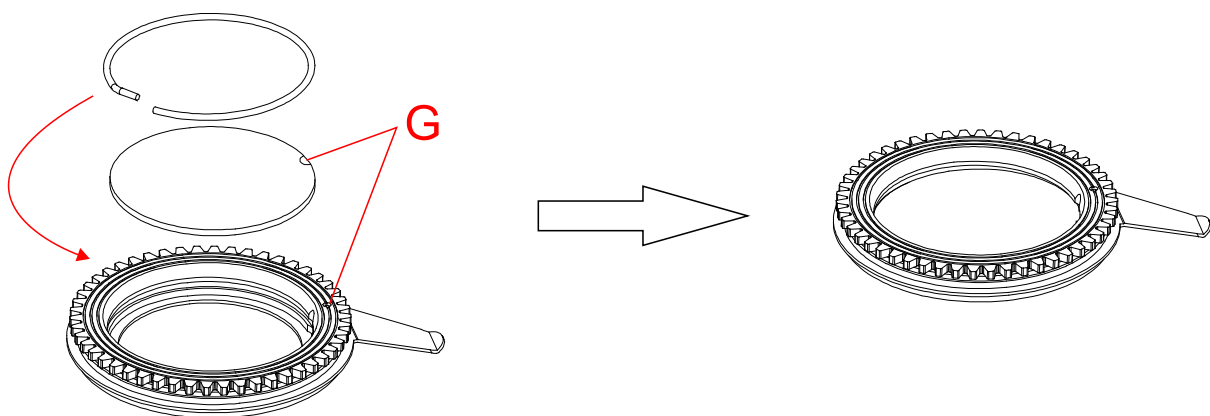
6. Insert the gobo holder back into the rotating gobo wheel component in this way that its position point has to exactly aim at the center of the rotating gobo wheel.
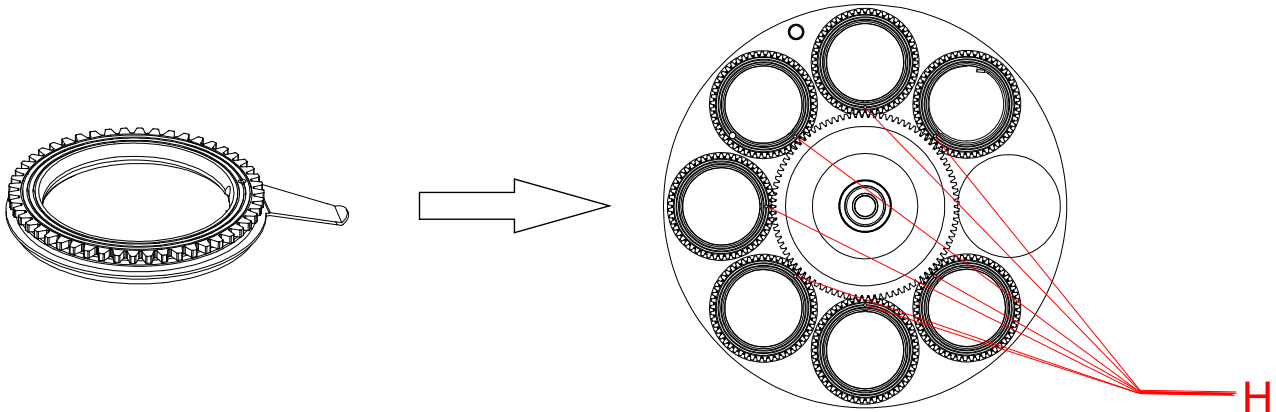
7. After installation, put the component back to the fixture.

5. How To Set The Unit

5.1 Main Function

Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press the MENU button or let the unit idle 30 seconds to exit menu mode.

The main functions are shown below:

```
MENU
├── DMX Settings
│   ├── DMX Address
│   │   ├── 1
│   │   ├── :
│   │   ├── 478
│   │   ├── 487
│   │   ├── 484
│   │   └── 493
│   ├── DMX Channel Mode
│   │   ├── (35) Framing
│   │   ├── (26) Spot
│   │   ├── (29) F-Wash
│   │   └── (20) Wash
│   ├── No DMX Status
│   │   ├── Blackout
│   │   └── Hold
│   ├── Connect Option
│   │   ├── Auto
│   │   ├── DMX
│   │   ├── Art-Net
│   │   └── sACN
│   ├── Network
│   │   ├── IP Address
│   │   │   ├── Default 1
│   │   │   ├── Default 2
│   │   │   └── Manual
│   │   └── Subnet Mask ── xxx.xxx.xxx.xxx
│   ├── Art-Net Settings
│   │   ├── Net ── 0-127
│   │   ├── Sub-Net ── 0-15
│   │   └── Universe ── 0-15
│   ├── sACN Settings
│   │   ├── sACN Universe ── 1-32000
│   │   └── sACN Priority ── 0-200
│   ├── Artnet to DMX
│   │   ├── No
│   │   └── Yes
│   └── View DMX Value
├── Fixture Settings
│   ├── Pan Invert ─┐
│   ├── Tilt Invert ─┼── No
│   ├── P/T Feedback ┘    Yes
│   ├── Dimmer Speed
│   │   ├── Fast
│   │   └── Smooth
│   ├── Dimmer Curve
│   │   ├── Square Law
│   │   ├── Inv SQ Law
│   │   ├── Linear
│   │   └── S Curve
│   ├── Focus Compensate
│   │   ├── Disable
│   │   ├── Near
│   │   ├── Medium
│   │   └── Far
│   ├── Power Mode
│   │   ├── Standard
│   │   └── Quiet
│   ├── Bright Calibration ── 50-100
│   └── CCI Calibration
│       ├── State ── Off/On
│       └── Value ── 0-100
├── Display Settings
│   ├── Display Invert
│   │   ├── No
│   │   └── Yes
│   ├── Backlight Intensity ── 1-10
│   ├── Temperature Unit
│   │   ├── °C
│   │   └── °F
│   └── Language
│       ├── English
│       └── Chinese
├── Fixture Test
│   ├── Auto Test
│   └── Manual Test
├── Fixture Information
│   ├── Fixture Use Hour
│   ├── LED Use Hour
│   │   ├── Total LED Hour
│   │   ├── LED On Hour
│   │   └── LED Hours Reset ── Password=050
│   ├── Temperature
│   │   ├── LED's ─┬── Current
│   │   └── CPU's  └── Max Temp
│   ├── Upgrade File
│   ├── Fan State
│   │   ├── B_FAN1-2
│   │   └── H_FAN1-12
│   ├── Firmware Version
│   ├── RDM UID
│   └── Error Logs
│       ├── Fixture Errors
│       └── Reset Error Log
│           ├── No
│           └── Yes ── Password=050
├── Reset Function
│   ├── Pan/Tilt Reset ─┐
│   ├── Effect Reset ────┼── No
│   └── All Reset ───────┘    Yes
└── Special Function ── Factory Settings
        ├── No
        └── Yes
```

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DMX Settings

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address, DMX Channel Mode, No DMX Status, Connect Option, Network, Art-Net Settings, sACN Settings, Artnet to DMX** or **View DMX Value.**

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **478/487/484/493**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

DMX Channel Mode

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **(35)Framing, (26)Spot, (29)F-Wash** or **(20)Wash**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

No DMX Status

To select **No DMX Status**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Blackout**(fixture blacks out if DMX signal stops) or **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Connect Option

To select **Connect Option**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto, DMX, Art-Net** or **sACN**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Network

To select **Network**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **IP Address** or **Subnet Mask**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Art-Net Settings

To select **Art-Net Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Net, Subnet** or **Universe,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

sACN Settings

To select **sACN Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **sACN Universe** or **sACN Priority,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Artnet to DMX

To select **Artnet to DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes,** press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

View DMX Value

To select **View DMX Value**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to view the DMX channel value. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Invert, Tilt Invert, P/T Feedback, Dimmer Speed, Dimmer Curve, Focus Compensate, Power Mode, Bright Calibration** or **CCI Calibration**.

Pan Invert

To select **Pan Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Invert

To select **Tilt Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (tilt invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

P/T Feedback

To select **P/T Feedback**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (Pan or tilt's position will not feedback while out of step) or **Yes** (Feedback while pan/tilt out of step), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.
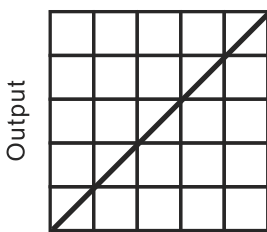
Dimmer Speed

To select **Dimmer Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fast** or **Smooth**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.
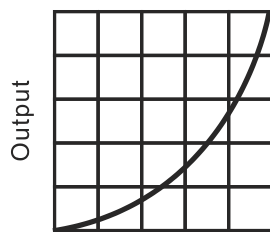
Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to confirm. Use the **DOWN/UP** button to select **Square Law, Inv SQ Law, Linear** or **S Curve**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Dimmer Modes

| Optically Linear | Square Law | Inverse Square Law | S-curve |

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

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

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

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

Focus Compensate

To select **Focus Compensate**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Disable, Near, Medium** or **Far**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.
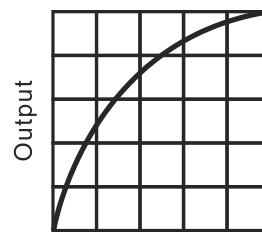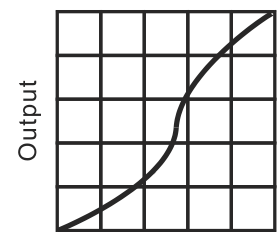
Power Mode

To select **Power Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Standard** or **Quiet**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Bright Calibration

To select **Bright Calibration**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the value from **50** to **100**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

CCI Calibration

To select **CCI Calibration**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **State** or **Value**, press the **ENTER** button to store. Select **State**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off** or **On**, press the **ENTER** button to store. Select **Value**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the value from **0** to **100**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Settings

To select **Display Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Display Invert, Backlight Intensity, Temperature Unit** or **Language.**

Display Invert

Select **Display Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal display) or **Yes** (invert display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Backlight Intensity

Select **Backlight Intensity**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the backlight intensity from **1** (dark) to **10** (bright), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Temperature Unit

Select **Temperature Unit**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select ℃ or ℉, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Language

Select **Language**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **English** or **Chinese**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Test

To select **Fixture Test**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Auto Test** or **Manual Test.**

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, color, gobo, gobo rotation, prism, prism rotation, iris, frost, zoom, focus, etc. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP/DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP/DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

(All channels value will become 0 after exiting Manual Test menu)

Fixture Information

To select **Fixture Information**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Fixture Use Hour, LED Use Hour, Temperature, Upgrade File, Fan State, Firmware Version, RDM UID** or **Error Logs.**

Fixture Use Hour

Select **Fixture Use Hour**, press the **ENTER** button to confirm, fixture use hour will show on the display, press the **MENU** button to exit.

LED Use Hour

To select **LED Use Hour**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Total LED Hour, LED On Hour** or **LED Hours Reset**, press the **ENTER** button to store. To select **LED Hours Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. To select **Yes**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050** to reset the LED hours, press the **ENTER** button to store. Press the **MENU** button back to the last menu or exit menu mode let the unit idle 30 seconds.

Temperature

Select **Temperature**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **LED's** or **CPU's**, press the **ENTER** button to store, LED's or CPU's current temperature and max temperature of the fixture will show on the display, press the **MENU** button to exit.

Upgrade File

Select **Upgrade File**, press the **ENTER** button to confirm, upgrade file will show on the display, press the **MENU** button back to exit.

Fan State

Select **Fan State**, press the **ENTER** button to confirm, fan state will show on the display, press the **MENU** button to exit.

Firmware Version

Select **Firmware Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

RDM UID

Select **RDM UID**, press the **ENTER** button to confirm, RDM UID will show on the display, press the **MENU** button back to exit.

Error Logs

Select **Error Logs**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fixture Errors** or **Reset Error Log**, press the **ENTER** button to store. Select **Reset Error Log**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Select **Yes**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Reset Function

To select **Reset Function**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan/Tilt Reset, Effect Reset** or **All Reset.**

Pan/Tilt Reset

Select **Pan/Tilt Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset pan and tilt to their home positions), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Effect Reset

Select **Effect Reset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset effect to their home positions), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

All Reset

Select **All Reset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset all motors to their home positions), press **ENTER** button to store. Press the **MENU** button to exit.

Special Function

Factory Settings

Select **Factory Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the fixture will reset to factory settings), press **ENTER** button to store. Press the **MENU** button to exit.

RDM FUNCTIONS

Select the MANUFACTURER menu to display the manufacturer of the fixture.

Select the SOFTWARE VERSION menu and the program version number of the fixture will be displayed.

Select the DMX START ADDRESS menu to change the DMX 512 address (001-512).

Select the DEVICE MODEL DESCRIPTION menu to display the model of the fixture.

Select the DEVICE LABEL menu to change the model of the fixture.

Select the DMX PERSONALITY menu to set the channel mode of the fixture (35/26/29/20 channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

Select the DEVICE HOURS menu to display the running time of the fixture.

Select the PAN INVERT menu and the fixture will run the pan invert mode.

Select the TILT INVERT menu and the fixture will run the tilt invert mode.

Select the RESET DEVICE menu, the WARM RESET/COLD RESET option will be displayed. When WARM RESET is selected, the fixture will start a warm reset, and exit when COLD RESET is selected.

5.2 Home Position Adjustment

Press the MENU button into menu mode, then press the ENTER button for about 3 seconds into offset mode to adjust the home position. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press MENU button to exit.

	Frequency(Hz)	1072-1327
	Dimming Start	0-9999
	Dim1 Offset	-128-127
	Dim2 Offset	-128-127
	Dim3 Offset	-128-127
	Dim4 Offset	-128-127
	Dim5 Offset	-128-127
	Dim6 Offset	-128-127
	Dim7 Offset	-128-127
	Dim8 Offset	-128-127
	Dim9 Offset	-128-127
	Pan	-128-127
	Tilt	-128-127
	Cyan	-128-127
	Magenta	-128-127
	Yellow	-128-127
	Cto	-128-127
	Color	-128-127
	Gobo	-128-127
Offset Menu	R-Gobo1	-128-127
	Gobo2	-128-127
	Animation	-128-127
	Prism1	-128-127
	R-Prism1	-128-127
	Prism2	-128-127
	R-Prism2	-128-127
	Iris	0-255
	Frost1	0-255
	Frost2	0-255
	Zoom	-128-127
	Focus	-128-127
	Blade	-128-127
	BladeDW1	0-255
	BladeDW2	0-255
	BladeUP1	0-255
	BladeUP2	0-255
	BladeLF1	0-255
	BladeLF2	0-255
	BladeRG1	0-255
	BladeRG2	0-255

20E

Frequency(Hz)

Enter offset mode, Select **Frequency(Hz)**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 1072 to 1327, press the **ENTER** button to store. Press the **MENU** button to exit.

Dimming Start

Enter offset mode, Select **Dimming Start**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 9999, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim1 Offset

Enter offset mode, Select **Dim1 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim2 Offset

Enter offset mode, Select **Dim2 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim3 Offset

Enter offset mode, Select **Dim3 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim4 Offset

Enter offset mode, Select **Dim4 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim5 Offset

Enter offset mode, Select **Dim5 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim6 Offset

Enter offset mode, Select **Dim6 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim7 Offset

Enter offset mode, Select **Dim7 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim8 Offset

Enter offset mode, Select **Dim8 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dim9 Offset

Enter offset mode, Select **Dim9 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Pan

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

Tilt

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

Cyan

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

Magenta

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

Yellow

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

Cto

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

Color

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

Gobo

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

R-Gobo1

Enter offset mode, Select **R-Gobo1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo2

Enter offset mode, Select **Gobo2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Animation

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

Prism1

Enter offset mode, Select **Prism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Prism1

Enter offset mode, Select **R-Prism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism2

Enter offset mode, Select **Prism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Prism2

Enter offset mode, Select **R-Prism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Iris

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

Frost1

Enter offset mode, Select **Frost1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

Frost2

Enter offset mode, Select **Frost2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

Zoom

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

Focus

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

Blade

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

BladeDW1

Enter offset mode, Select **BladeDW1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeDW2

Enter offset mode, Select **BladeDW2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeUP1

Enter offset mode, Select **BladeUP1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeUP2

Enter offset mode, Select **BladeUP2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeLF1

Enter offset mode, Select **BladeLF1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeLF2

Enter offset mode, Select **BladeLF2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeRG1

Enter offset mode, Select **BladeRG1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

BladeRG2

Enter offset mode, Select **BladeRG2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

6. Control By Universal DMX Controller

6.1 DMX512 Connection
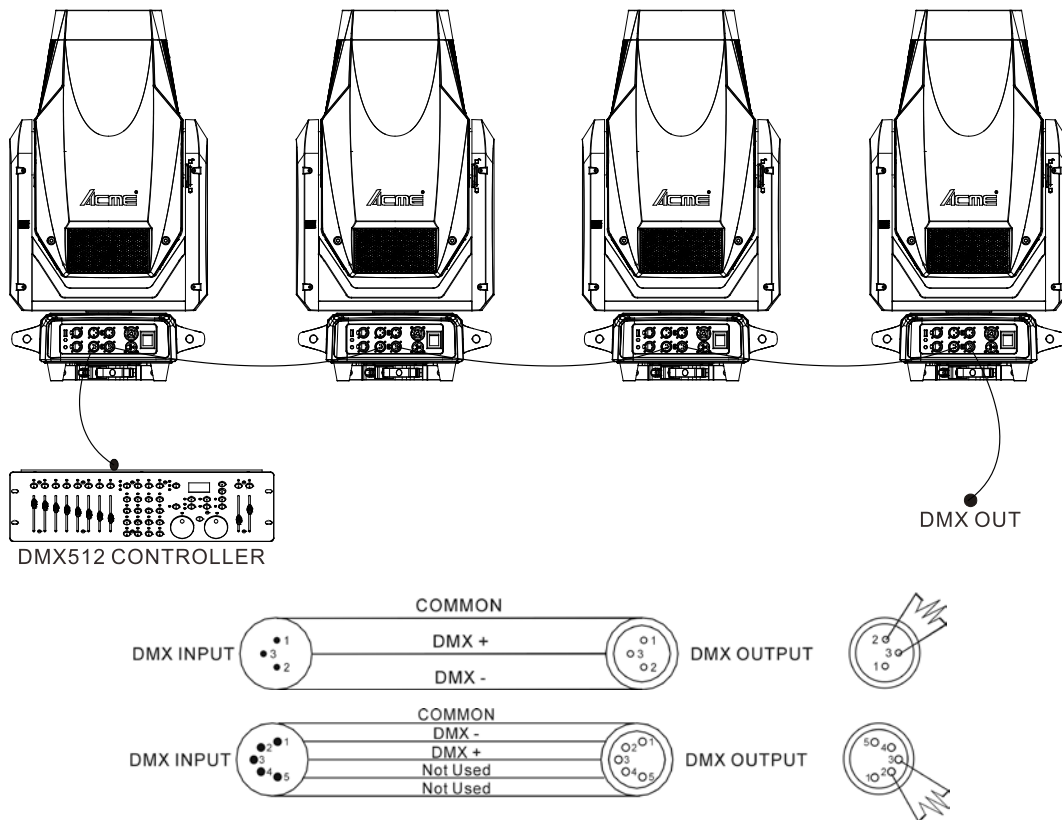
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm ¼W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a "Y" cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

    3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

    5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.2 Address Setting

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

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

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

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
35 channels	1	36	71	106
26 channels	1	27	53	79
29 channels	1	30	59	88
20 channels	1	21	41	61

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.

2. For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

35 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT SPEED** Fast to Slow
6	000-255	**CYAN** 0%→100%
7	000-255	**MAGENTA** 0%→100%
8	000-255	**YELLOW** 0%→100%
9	000-255	**CTO** 0%→100%
10		**COLOR**
	000-007	Open
	008-016	Color 1
	017-025	Color 2
	026-034	Color 3
	035-043	Color 4
	044-052	Color 5
	053-063	Color 6
	064-127	Color Index
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
11		**GOBO 1**
	000-007	Open
	008-015	Gobo 1
	016-023	Gobo 2
	024-031	Gobo 3
	032-039	Gobo 4
	040-047	Gobo 5
	048-055	Gobo 6
	056-063	Gobo 7
	064-072	Gobo 1 Shaking, Slow to Fast
	073-081	Gobo 2 Shaking, Slow to Fast
	082-090	Gobo 3 Shaking, Slow to Fast
	091-099	Gobo 4 Shaking, Slow to Fast

	100-108	Gobo 5 Shaking, Slow to Fast
	109-117	Gobo 6 Shaking, Slow to Fast
	118-127	Gobo 7 Shaking, Slow to Fast
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
12		**R-GOBO 1**
	000-127	Index 0°→360°
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
13		**GOBO 2**
	000-007	Open
	008-014	Gobo 1
	015-021	Gobo 2
	022-028	Gobo 3
	029-035	Gobo 4
	036-042	Gobo 5
	043-049	Gobo 6
	050-056	Gobo 7
	057-063	Gobo 8
	064-071	Gobo 1 Shaking, Slow to Fast
	072-079	Gobo 2 Shaking, Slow to Fast
	080-087	Gobo 3 Shaking, Slow to Fast
	088-095	Gobo 4 Shaking, Slow to Fast
	096-103	Gobo 5 Shaking, Slow to Fast
	104-111	Gobo 6 Shaking, Slow to Fast
	112-119	Gobo 7 Shaking, Slow to Fast
	120-127	Gobo 8 Shaking, Slow to Fast
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
14		**ANIMATION**
	000-007	Open
	008-129	Counter-Clockwise Rotation, Fast to Slow
	130-133	Stop
	134-255	Clockwise Rotation, Slow to Fast
15		**IRIS**
	000-255	100%→0%
16		**PRISM**
	000-007	Open
	008-131	Prism1(4-facet prism)
	132-255	Prism2(4-facet linear prism)
17		**R-PRISM**
	000-127	Index 0°→360°
	128-189	Clockwise Rotation, Fast to Slow

	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
18		**RESERVED**
19		**FROST1 (Light)**
	000-255	0%→100%
20		**FROST2 (Heavy)**
	000-255	0%→100%
21		**ZOOM**
	000-255	52°→5°
22		**FOCUS**
	000-255	0%→100%
23		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Fast Open Slow Close
	182-189	Open
	190-231	Fast Close Slow Open
	232-239	Open
	240-247	Random Strobe
	248-255	Open
24		**DIMMER**
	000-255	0%→100%
25	000-255	**DIMMER FINE**
26		**BLADE**
	000-255	0°→180°
27		**BLADE DW 1**
	000-255	0%→100%
28		**BLADE DW 2**
	000-255	0%→100%
29		**BLADE UP 1**
	000-255	0%→100%
30		**BLADE UP 2**
	000-255	0%→100%
31		**BLADE LF 1**
	000-255	0%→100%
32		**BLADE LF 2**
	000-255	0%→100%
33		**BLADE RG 1**
	000-255	0%→100%
34		**BLADE RG 2**
	000-255	0%→100%

		SPECIAL FUNCTION
35	000-029	Null
	030-039	Dimmer Curve Square Law
	040-049	Dimmer Curve Inv Square Law
	050-059	Dimmer Curve Linear
	060-069	Dimmer Curve S
	070-079	Power Mode: Standard
	080-089	Power Mode: Quiet
	090-099	Null
	100-109	LED Frequency Setting Enable
	110-119	LED Frequency Setting Disable
	120-129	Null
	130-139	Focus Compensate Disable
	140-149	Focus Compensate Near
	150-159	Focus Compensate Medium
	160-169	Focus Compensate Far
	170-179	Null
	180-189	Dimmer Speed Fast
	190-199	Dimmer Speed Smooth
	200-209	Reset All
	210-219	Reset Effect
	220-229	Reset Pan/Tilt
	230-239	Null
	240-245	CCI Calibration: On
	246-251	CCI Calibration: Off
	252-255	Null

26 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT SPEED** Fast to Slow
6	000-255	**CYAN** 0%→100%
7	000-255	**MAGENTA** 0%→100%

		YELLOW
8	000-255	0%→100%

		CTO
9	000-255	0%→100%

		COLOR
	000-007	Open
	008-016	Color 1
	017-025	Color 2
	026-034	Color 3
	035-043	Color 4
10	044-052	Color 5
	053-063	Color 6
	064-127	Color Index
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast

		GOBO 1
	000-007	Open
	008-015	Gobo 1
	016-023	Gobo 2
	024-031	Gobo 3
	032-039	Gobo 4
	040-047	Gobo 5
	048-055	Gobo 6
	056-063	Gobo 7
	064-072	Gobo 1 Shaking, Slow to Fast
	073-081	Gobo 2 Shaking, Slow to Fast
11	082-090	Gobo 3 Shaking, Slow to Fast
	091-099	Gobo 4 Shaking, Slow to Fast
	100-108	Gobo 5 Shaking, Slow to Fast
	109-117	Gobo 6 Shaking, Slow to Fast
	118-127	Gobo 7 Shaking, Slow to Fast
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast

		R-GOBO 1
	000-127	Index 0°→360°
12	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast

		GOBO 2
	000-007	Open
	008-014	Gobo 1
13	015-021	Gobo 2
	022-028	Gobo 3
	029-035	Gobo 4

	036-042	Gobo 5
	043-049	Gobo 6
	050-056	Gobo 7
	057-063	Gobo 8
	064-071	Gobo 1 Shaking, Slow to Fast
	072-079	Gobo 2 Shaking, Slow to Fast
	080-087	Gobo 3 Shaking, Slow to Fast
	088-095	Gobo 4 Shaking, Slow to Fast
	096-103	Gobo 5 Shaking, Slow to Fast
	104-111	Gobo 6 Shaking, Slow to Fast
	112-119	Gobo 7 Shaking, Slow to Fast
	120-127	Gobo 8 Shaking, Slow to Fast
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
14		**ANIMATION**
	000-007	Open
	008-129	Counter-Clockwise Rotation, Fast to Slow
	130-133	Stop
	134-255	Clockwise Rotation, Slow to Fast
15		**IRIS**
	000-255	100%→0%
16		**PRISM**
	000-007	Open
	008-131	Prism1(4-facet prism)
	132-255	Prism2(4-facet linear prism)
17		**R-PRISM**
	000-127	Index 0°→360°
	128-189	Clockwise Rotation, Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
18		**RESERVED**
19		**FROST1 (Light)**
	000-255	0%→100%
20		**FROST2 (Heavy)**
	000-255	0%→100%
21		**ZOOM**
	000-255	52°→5°
22		**FOCUS**
	000-255	0%→100%
23		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open

	140-181	Fast Open Slow Close
	182-189	Open
	190-231	Fast Close Slow Open
	232-239	Open
	240-247	Random Strobe
	248-255	Open
24		**DIMMER**
	000-255	0%→100%
25	000-255	**DIMMER FINE**
26		**SPECIAL FUNCTION**
	000-029	Null
	030-039	Dimmer Curve Square Law
	040-049	Dimmer Curve Inv Square Law
	050-059	Dimmer Curve Linear
	060-069	Dimmer Curve S
	070-079	Power Mode: Standard
	080-089	Power Mode: Quiet
	090-099	Null
	100-109	LED Frequency Setting Enable
	110-119	LED Frequency Setting Disable
	120-129	Null
	130-139	Focus Compensate Disable
	140-149	Focus Compensate Near
	150-159	Focus Compensate Medium
	160-169	Focus Compensate Far
	170-179	Null
	180-189	Dimmer Speed Fast
	190-199	Dimmer Speed Smooth
	200-209	Reset All
	210-219	Reset Effect
	220-229	Reset Pan/Tilt
	230-239	Null
	240-245	CCI Calibration: On
	246-251	CCI Calibration: Off
	252-255	Null

29 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT SPEED** Fast to Slow
6	000-255	**CYAN** 0%→100%
7	000-255	**MAGENTA** 0%→100%
8	000-255	**YELLOW** 0%→100%
9	000-255	**CTO** 0%→100%
10	000-007 008-016 017-025 026-034 035-043 044-052 053-063 064-127 128-189 190-193 194-255	**COLOR** Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color Index Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
11	000-255	**IRIS** 100%→0%
12		**RESERVED**
13	000-255	**FROST1 (Light)** 0%→100%
14	000-255	**FROST2 (Heavy)** 0%→100%
15	000-255	**ZOOM** 52°→5°
16	000-255	**FOCUS** 0%→100%
17		**STROBE**

	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Fast Open Slow Close
	182-189	Open
	190-231	Fast Close Slow Open
	232-239	Open
	240-247	Random Strobe
	248-255	Open
18		**DIMMER**
	000-255	0%→100%
19	000-255	**DIMMER FINE**
20		**BLADE**
	000-255	0°→180°
21		**BLADE DW 1**
	000-255	0%→100%
22		**BLADE DW 2**
	000-255	0%→100%
23		**BLADE UP 1**
	000-255	0%→100%
24		**BLADE UP 2**
	000-255	0%→100%
25		**BLADE LF 1**
	000-255	0%→100%
26		**BLADE LF 2**
	000-255	0%→100%
27		**BLADE RG 1**
	000-255	0%→100%
28		**BLADE RG 2**
	000-255	0%→100%
		SPECIAL FUNCTION
	000-029	Null
	030-039	Dimmer Curve Square Law
	040-049	Dimmer Curve Inv Square Law
	050-059	Dimmer Curve Linear
	060-069	Dimmer Curve S
	070-079	Power Mode: Standard
29	080-089	Power Mode: Quiet
	090-099	Null
	100-109	LED Frequency Setting Enable
	110-119	LED Frequency Setting Disable
	120-129	Null
	130-139	Focus Compensate Disable
	140-149	Focus Compensate Near

	150-159	Focus Compensate Medium
	160-169	Focus Compensate Far
	170-179	Null
	180-189	Dimmer Speed Fast
	190-199	Dimmer Speed Smooth
	200-209	Reset All
	210-219	Reset Effect
	220-229	Reset Pan/Tilt
	230-239	Null
	240-245	CCI Calibration: On
	246-251	CCI Calibration: Off
	252-255	Null

20 Channels (Mode 4):

CHANNEL	VALUE	FUNCTION
1	000-255	**PAN** 0°→540°
2	000-255	**PAN FINE**
3	000-255	**TILT** 0°→270°
4	000-255	**TILT FINE**
5	000-255	**PAN/TILT SPEED** Fast to Slow
6	000-255	**CYAN** 0%→100%
7	000-255	**MAGENTA** 0%→100%
8	000-255	**YELLOW** 0%→100%
9	000-255	**CTO** 0%→100%
10		**COLOR**
	000-007	Open
	008-016	Color 1
	017-025	Color 2
	026-034	Color 3
	035-043	Color 4
	044-052	Color 5
	053-063	Color 6
	064-127	Color Index
	128-189	Clockwise Rotation, Fast to Slow

	190-193	Stop
	194-255	Counter-Clockwise Rotation, Slow to Fast
11		**IRIS**
	000-255	100%→0%
12		**RESERVED**
13		**FROST1 (Light)**
	000-255	0%→100%
14		**FROST2 (Heavy)**
	000-255	0%→100%
15		**ZOOM**
	000-255	52°→5°
16		**FOCUS**
	000-255	0%→100%
17		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Fast Open Slow Close
	182-189	Open
	190-231	Fast Close Slow Open
	232-239	Open
	240-247	Random Strobe
	248-255	Open
18		**DIMMER**
	000-255	0%→100%
19	000-255	**DIMMER FINE**
20		**SPECIAL FUNCTION**
	000-029	Null
	030-039	Dimmer Curve Square Law
	040-049	Dimmer Curve Inv Square Law
	050-059	Dimmer Curve Linear
	060-069	Dimmer Curve S
	070-079	Power Mode: Standard
	080-089	Power Mode: Quiet
	090-099	Null
	100-109	LED Frequency Setting Enable
	110-119	LED Frequency Setting Disable
	120-129	Null
	130-139	Focus Compensate Disable
	140-149	Focus Compensate Near
	150-159	Focus Compensate Medium
	160-169	Focus Compensate Far
	170-179	Null
	180-189	Dimmer Speed Fast

	190-199	Dimmer Speed Smooth
	200-209	Reset All
	210-219	Reset Effect
	220-229	Reset Pan/Tilt
	230-239	Null
	240-245	CCI Calibration: On
	246-251	CCI Calibration: Off
	252-255	Null

7. Error Information

Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

1. CPU-B/C/D/E/F/G/H/I/J Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

2. Pan Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.

Check whether the related circuit of the motor drive board on the pan is damage.

3. Pan Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

4. Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.

Check whether the related circuit of the motor drive board on the tilt is damage.

5. Tilt Encode Error

Check whether the encoder on the tilt is damaged.

Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

6. Cyan Reset Error

Check whether the position of the cyan color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the cyan color wheel operating range.

Check whether the Hall element on the cyan color wheel is damaged.

Check whether the lead connecting the Hall element on the cyan color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the cyan color wheel is damaged.

Check whether the related circuit of the motor drive board on the cyan color wheel is damage.

7. Magenta Reset Error

Check whether the position of the magenta color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the magenta color wheel operating range.

Check whether the Hall element on the magenta color wheel is damaged.

Check whether the lead connecting the Hall element on the magenta color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the magenta color wheel is damaged.

Check whether the related circuit of the motor drive board on the magenta color wheel is damage.

8. Yellow Reset Error

Check whether the position of the yellow color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the yellow color wheel operating range.

Check whether the Hall element on the yellow color wheel is damaged.

Check whether the lead connecting the Hall element on the yellow color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the yellow color wheel is damaged.

Check whether the related circuit of the motor drive board on the yellow color wheel is damage.

9. Cto Reset Error

Check whether the position of the cto where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the cto operating range.

Check whether the Hall element on the cto is damaged.

Check whether the lead connecting the Hall element on the cto and the PCB board is in poor contact or disconnected.

Check whether the motor on the cto is damaged.

Check whether the related circuit of the motor drive board on the cto is damage.

10. Color Reset Error

Check whether the position of the color wheel where the magnet is installed falls or is damaged.

Check whether there are obstacles in the color wheel operating range.

Check whether the Hall element on the color wheel is damaged.

Check whether the lead connecting the Hall element on the color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the color wheel is damaged.

Check whether the related circuit of the motor drive board on the color wheel is damage.

11. Gobo1/2 Reset Error

Check whether the position of the gobo wheel1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel1/2 operating range.

Check whether the Hall element on the gobo wheel1/2 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel1/2 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel1/2 is damage.

12. R-Gobo1 Reset Error

Check whether the position of the gobo wheel1 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel1 operating range.

Check whether the Hall element on the gobo wheel1 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel1 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel1 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel1 is damage.

13. Animation Reset Error

Check whether the position of the animation wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the animation wheel operating range.

Check whether the Hall element on the animation wheel is damaged.

Check whether the lead connecting the Hall element on the animation wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the animation wheel is damaged.

Check whether the related circuit of the motor drive board on the animation wheel is damage.

14. Prism1/2 Reset Error

Check whether the position of the prism1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism1/2 operating range.

Check whether the Hall element on the prism1/2 is damaged.

Check whether the lead connecting the Hall element on the prism1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism1/2 is damaged.

Check whether the related circuit of the motor drive board on the prism1/2 is damage.

15. R-Prism1/2 Reset Error

Check whether the position of the prism1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism1/2 operating range.

Check whether the Hall element on the prism1/2 is damaged.

Check whether the lead connecting the Hall element on the prism1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism1/2 is damaged.

Check whether the related circuit of the motor drive board on the prism1/2 is damage.

16. Focus Reset Error

Check whether the position of the focus where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the focus operating range.

Check whether the Hall element on the focus is damaged.

Check whether the lead connecting the Hall element on the focus and the PCB board is in poor contact or disconnected.

Check whether the motor on the focus is damaged.

Check whether the related circuit of the motor drive board on the focus is damage.

17. Zoom Reset Error

Check whether the position of the zoom where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the zoom operating range.

Check whether the Hall element on the zoom is damaged.

Check whether the lead connecting the Hall element on the zoom and the PCB board is in poor contact or disconnected.

Check whether the motor on the zoom is damaged.

Check whether the related circuit of the motor drive board on the zoom is damage.

18. Blade Reset Error

Check whether the position of the blade where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the blade operating range.

Check whether the Hall element on the blade is damaged.

Check whether the lead connecting the Hall element on the blade and the PCB board is in poor contact or disconnected.

Check whether the motor on the blade is damaged.

Check whether the related circuit of the motor drive board on the blade is damage.

19. Led Temp. Error

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

20. BaseFan1/2 Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

21. BaseFan1/2 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

22. BaseFan1/2 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

23. BaseFan1/2 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

24. HeadFan1/2/3/4/5/6/7/8/9/10/11/12 Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

25. HeadFan1/2/3/4/5/6/7/8/9/10/11/12 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

26. HeadFan1/2/3/4/5/6/7/8/9/10/11/12 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

27. HeadFan1/2/3/4/5/6/7/8/9/10/11/12 Too High
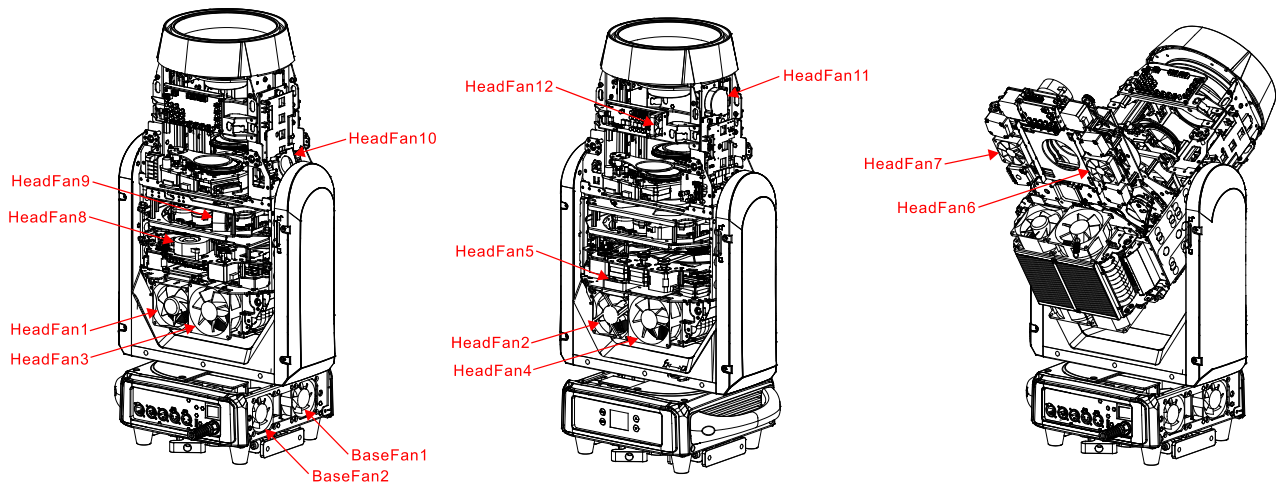
Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

28. LED Timeout Use

29. LED Too Hot Off

When the fixture temperature reaches 86℃, it will automatically turn off to protect the fixture.

The position of each fan of the fixture:

8. Troubleshooting

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

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

1. Check the connected power.

2. Measure the voltage.

3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

1. Check whether the DMX connectors and the DMX cables are connected correctly.

2. Check whether the DMX address is correctly set.

3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.

4. Try it with another DMX controller.

5. Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB might be broken.

2. The motor's drive IC on the PCB might be out of condition.

9. Fixture Cleaning

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

• A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.

• Always dry the parts carefully.

• Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

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