ACME®

GEIST
FRAMING

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 that there is no transportation damage before using the unit.

- This product is for indoor use only. Use only in a dry location.

- DO install and operate by qualified operator.

- DO NOT allow children to operate the fixture.

- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.

- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.

- Be sure that no ventilation slots are blocked, otherwise the unit will be overheated.

- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

- Minimum ambient temperature TA: 0℃. Maximum ambient temperature TA: 40℃.

- DO NOT connect the device to any dimmer pack.

- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.

- Examine the power wires carefully; replace them immediately if there is any damage.

- Unit's surface temperature may reach up to 65℃. DO NOT touch the housing bare-handed during its operation.

- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut

off the mains power immediately.

- DO NOT operate in dirty or dusty environment, do clean fixtures regularly.

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

- Avoid power wires together twist other cables.

- The minimum distance between light output and the illuminated surface must be more than 5 meters.

- Disconnect mains power before fuse replacement or servicing.

- Replace fuse only with the same type.

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

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

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

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

- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

- Disconnect the mains power if the fixture is has not been used for a long time.

- DO use the original packing materials before transporting it again.

- DO NOT look directly at the light while the LED is on.

- DO NOT start on the unit without LED enclosure or when housing is damaged.

Installation:

The fixture should be mounted via its Omega Quick Release Clamp bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating and make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the fixtures weight. Always use a safety cable that can hold 12 times of the weight of the fixture when installing.

The equipment must be installed by professionals. It must be installed in a place where is out of the reach of people and no one can pass by or under it.

2. Technical Specifications

Power Voltage:

AC 100~240V, 50/60Hz

Power Consumption:

620W

Light Source:

HL440-A

Color Temperature:

7500K

Beam Angle:

14°~35°

Dimmer/Shutter:

0~100% smooth dimming; various strobe speeds

Color Wheel:

1 color wheel with 6 colors plus open

Gobo Wheel:

1 static gobo wheel with 8 gobos plus open

1 rotating gobo wheel with 6 gobos plus open, easy to replace

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Fixation: Tilt lock

Control:

DMX Channel: 29/31 channels

Control Mode: DMX512, RDM

Firmware Upgrade: Update via DMX link

Construction:

Display: LCD display

Battery backup for user setup without mains connection

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

Power In/Out: PowerCon in

Protection Rating: IP20

Features:

Motorized focus

Linear CMY color mixing+Linear CTO color correction

3 facet circular prism, indexable and rotating in both directions at different speed

5 facet linear prism, indexable and rotating in both directions at different speed

Motorized linear iris

4 fast and smooth framing shutters, each shutter blade position and angle can be controlled individually; complete framing module can be rotated at 180°

Dimension/Weight:

447x335x722mm, 32kgs

17.6"x13.2"x28.4"in, 70.6lbs

Photometric Diagram:

	Distance(m)	5	10	15	20
14°Lux		9800	2300	1034	780
Diameter(m)		1.2	2.5	3.7	4.9
35°Lux		1870	485	230	180
Diameter(m)		3.1	6.3	9.5	12.6
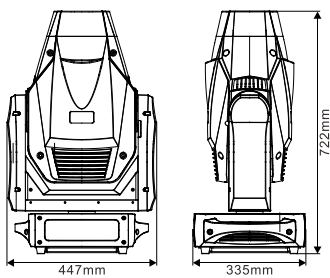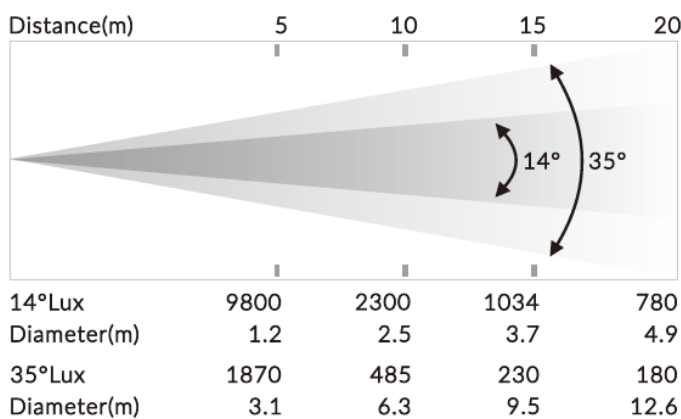
3. Control Panel
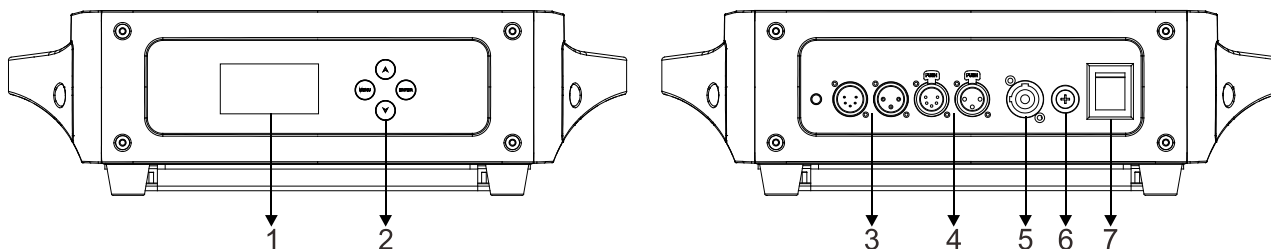
1. Display: Used to show the various menus and the selected function

2. Button:

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

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

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

5. POWER: Connect to power supply

6. FUSE(T 15A): Protect the unit from damage of the overcurrent

7. POWER WITCH: Turns on/off the power

4. Color/Gobo
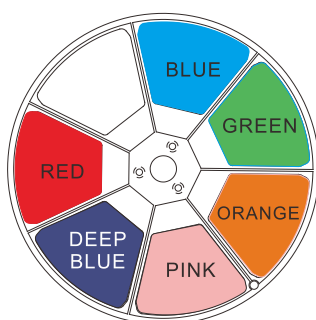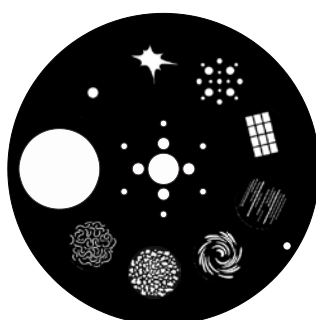
COLOR WHEEL   STATIC GOBO WHEEL   ROTATING GOBO WHEEL
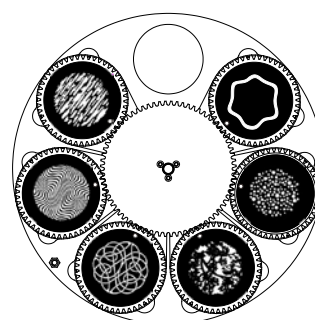
DANGER!
Install the color wheel/gobo wheels with the device switched off only.
Unplug from mains before changing the color wheel/gobo wheels!

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

opened!

5. How To Set The Unit

5.1 Main Function

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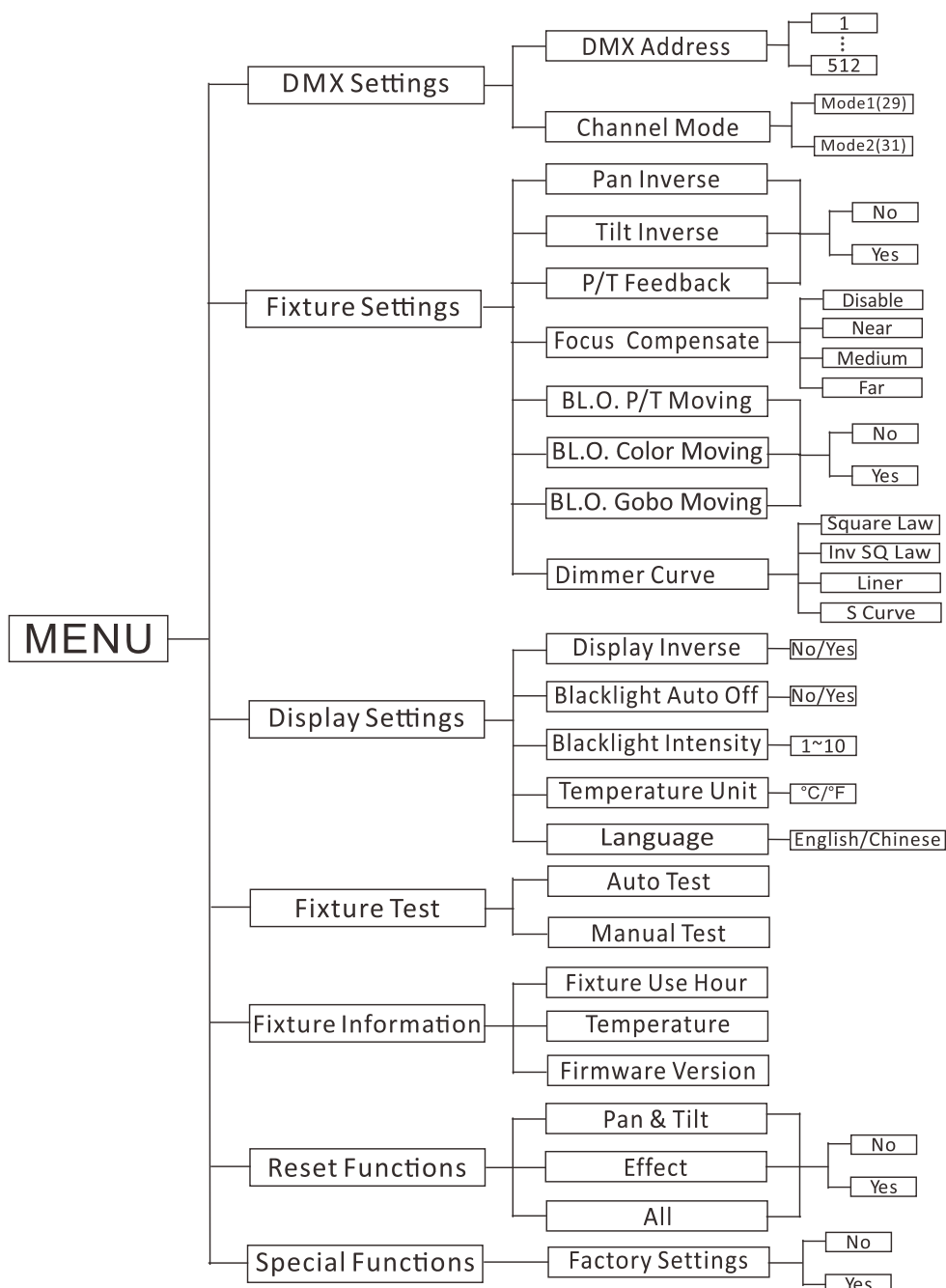
DMX Settings

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address** or **Channel Mode.**

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. 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.

Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (29)** or **Mode2 (31)**, 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 Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Inverse, Tilt Inverse, P/T Feedback**, **Focus Compensate, BL.O. P/T Moving, BL.O. Color Moving, BL.O. Gobo Moving** or **Dimmer Curve.**

Pan Inverse

To select **Pan Inverse**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan inverse), 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 Inverse

To select **Tilt Inverse**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (tilt inverse), 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.

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.

BL.O. P/T Moving

To select **BL.O. P/T Moving**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal while pan/tilt moving) or **Yes** (blackout while pan/tilt moving), 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.

BL.O. Color Moving

To select **BL.O. Color Moving**, press the **ENTER** button to confirm. Use **UP/DOWN** button to select **No** (normal while color changing) or **Yes** (blackout while color changing), 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.

BL.O. Gobo Moving

To select **BL.O. Gobo Moving**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal while gobo changing) or **Yes** (blackout while gobo changing), 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 the **Square, Inv SQ Law, Liner** 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
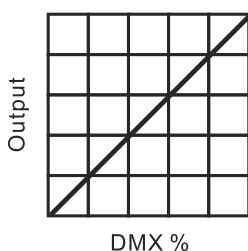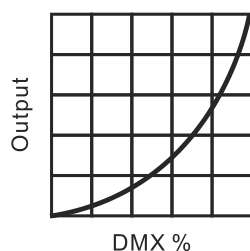
Optically Linear   Square Law   Inverse Square Law   S-curve

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.

Display Settings

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

Display Inverse

Select **Display Inverse**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **No** (normal display) or **Yes** (inverse 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.
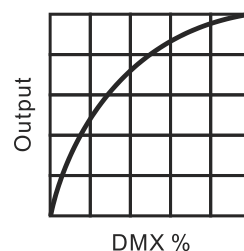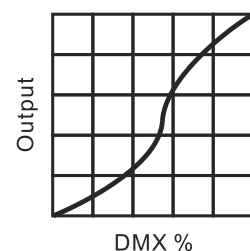
Backlight Auto Off

Select **Backlight Auto Off**, press the **ENTER** button to confirm, present mode will blink on the display, 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.

Backlight Intensity

Select **Backlight Intensity**, press the **ENTER** button to confirm, present mode will blink on the display, 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, present mode will blink on the display, 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, present mode will blink on the display, 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, focus, zoom, 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, Temperature** or **Firmware Version.**

Fixture Use Hour

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

Temperature

Select **Temperature**, press the **ENTER** button to confirm, fixture temperature 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.

Reset Functions

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

Pan & Tilt

Select **Pan & Tilt**, 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 to exit.

Effect

Select **Effect,** 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 to exit.

All

Select **All,** 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 Functions

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 (29/31 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 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.

	Pan	-128-127
	Tilt	-128-127
	Cyan	-128-127
	Magenta	-128-127
	Yellow	-128-127
	Cto	-128-127
	Color	-128-127
	Gobo1	-128-127
	Rgobo1	-128-127
	Gobo2	-128-127
	Prism1	0-255
	Rprism1	-128-127
OFFSET MENU	Prism2	0-255
	Rprism2	-128-127
	Iris	-128-127
	Focus	-128-127
	Zoom	-128-127
	BladeUP1	0-255
	BladeUP2	0-255
	BladeDW1	0-255
	BladeDW2	0-255
	BladeLF1	0-255
	BladeLF2	0-255
	BladeRG1	0-255
	BladeRG2	0-255

14E

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.

Gobo1

Enter offset mode, Select **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.

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.

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 0 to 255, 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 0 to 255, 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 -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.

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.

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.

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.

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.
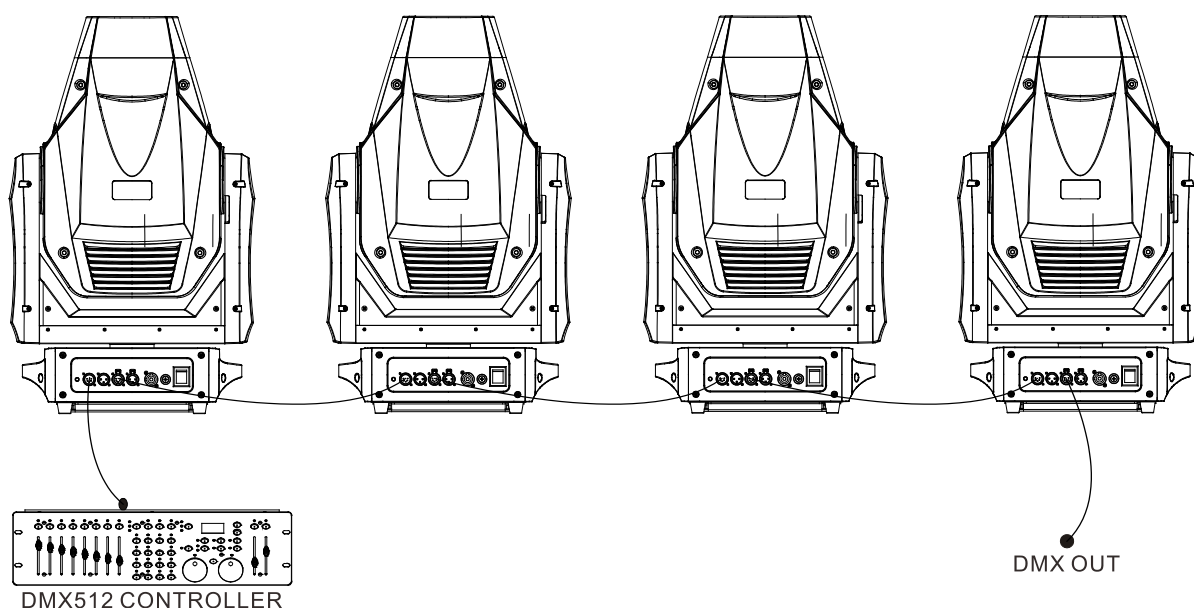
BladeRG2

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

DMX512 CONTROLLER
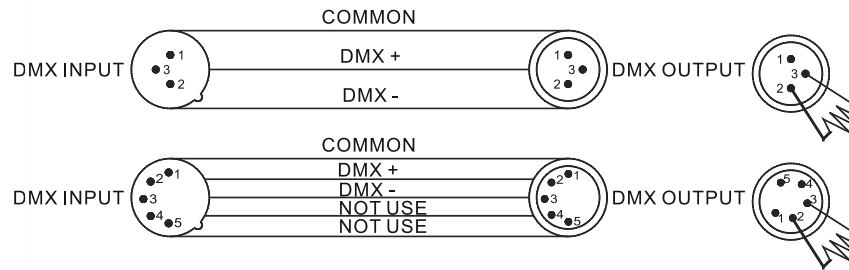
DMX OUT

1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1⁄4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

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

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

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

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

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

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

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

6.2 Address Setting

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

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

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

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
29 Channels	1	30	59	88
31 Channels	1	32	63	94

6.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

Attentions:

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

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

29 Channels Mode (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	**Pan** 0°→540°
2	000-255	**Tilt** 0°→270°
3	000-255	**Pan/Tilt Speed** Fast to Slow
4	000-255	**Cyan** 0%→100%
5	000-255	**Magenta** 0%→100%
6	000-255	**Yellow** 0%→100%
7	000-255	**CTO** 0%→100%
8	000-009 010-018 019-027 028-036 037-045 046-054	**Color** Open Color1 Color2 Color3 Color4 Color5

	055-063	Color6
	064-127	Color Index
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
9		**Gobo 1**
	000-009	Open
	010-018	Gobo1
	019-027	Gobo2
	028-036	Gobo3
	037-045	Gobo4
	046-054	Gobo5
	055-063	Gobo6
	064-074	Gobo1 Shaking
	075-085	Gobo2 Shaking
	086-096	Gobo3 Shaking
	097-107	Gobo4 Shaking
	108-118	Gobo5 Shaking
	119-127	Gobo6 Shaking
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
10		**R-Gobo 1**
	000-127	Index: 0°→360°
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
11		**Gobo 2**
	000-007	Open
	008-014	Gobo1
	015-021	Gobo2
	022-028	Gobo3
	029-035	Gobo4
	036-042	Gobo5
	043-049	Gobo6
	050-056	Gobo7
	057-063	Gobo8
	064-071	Gobo1 Shaking
	072-079	Gobo2 Shaking
	080-087	Gobo3 Shaking
	088-095	Gobo4 Shaking
	096-103	Gobo5 Shaking
	104-111	Gobo6 Shaking
	112-119	Gobo7 Shaking

	120-127	Gobo8 Shaking
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
12		**Iris**
	000-255	0%→100%
13		**Prism**
	000-007	No Effect
	008-127	Prism 1
	128-255	Prism 2
14		**R-Prism**
	000-127	Index: 0°→360°
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
15		**Zoom**
	000-255	0%→100%
16		**Focus**
	000-255	0%→100%
17		**Strobe**
	000-007	Close
	008-015	Open
	016-131	Strobe Slow to Fast
	132-139	Open
	140-181	Fast Close Slow Open
	182-189	Open
	190-231	Fast Open Slow Close
	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 UP 1**
	000-255	0%→100%
22		**Blade UP 2**
	000-255	0%→100%
23		**Blade DW 1**
	000-255	0%→100%

CHANNEL	VALUE	FUNCTION
24	000-255	**Blade DW 2** 0%→100%
25	000-255	**Blade LF 1** 0%→100%
26	000-255	**Blade LF 2** 0%→100%
27	000-255	**Blade RG 1** 0%→100%
28	000-255	**Blade RG 2** 0%→100%
29	000-009 010-014 015-029 030-034 035-255	**Function** Null Reset All Reset Effect Reset Pan/Tilt Null

31 Channels Mode (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%
8	000-255	**Yellow** 0%→100%
9	000-255	**CTO** 0%→100%
10	000-009 010-018	**Color** Open Color1

	019-027	Color2
	028-036	Color3
	037-045	Color4
	046-054	Color5
	055-063	Color6
	064-127	Color Index
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
		Gobo 1
	000-009	Open
	010-018	Gobo1
	019-027	Gobo2
	028-036	Gobo3
	037-045	Gobo4
	046-054	Gobo5
	055-063	Gobo6
11	064-074	Gobo1 Shaking
	075-085	Gobo2 Shaking
	086-096	Gobo3 Shaking
	097-107	Gobo4 Shaking
	108-118	Gobo5 Shaking
	119-127	Gobo6 Shaking
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
		R-Gobo 1
	000-127	Index: 0°→360°
12	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
		Gobo 2
	000-007	Open
	008-014	Gobo1
	015-021	Gobo2
	022-028	Gobo3
	029-035	Gobo4
13	036-042	Gobo5
	043-049	Gobo6
	050-056	Gobo7
	057-063	Gobo8
	064-071	Gobo1 Shaking
	072-079	Gobo2 Shaking
	080-087	Gobo3 Shaking

	088-095	Gobo4 Shaking
	096-103	Gobo5 Shaking
	104-111	Gobo6 Shaking
	112-119	Gobo7 Shaking
	120-127	Gobo8 Shaking
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
14		**Iris**
	000-255	0%→100%
15		**Prism**
	000-007	No Effect
	008-127	Prism 1
	128-255	Prism 2
16		**R-Prism**
	000-127	Index: 0°→360°
	128-189	Rotation: Fast to Slow
	190-193	Stop
	194-255	Rotation: Slow to Fast
17		**Zoom**
	000-255	0%→100%
18		**Focus**
	000-255	0%→100%
19		**Strobe**
	000-007	Close
	008-015	Open
	016-131	Strobe Slow to Fast
	132-139	Open
	140-181	Fast Close Slow Open
	182-189	Open
	190-231	Fast Open Slow Close
	232-239	Open
	240-247	Random Strobe
	248-255	Open
20		**Dimmer**
	000-255	0%→100%
21	000-255	**Dimmer Fine**
22		**Blade**
	000-255	0°→180°
23		**Blade UP 1**
	000-255	0%→100%
24		**Blade UP 2**

			0%→100%
25		000-255	**Blade DW 1** 0%→100%
26		000-255	**Blade DW 2** 0%→100%
27		000-255	**Blade LF 1** 0%→100%
28		000-255	**Blade LF 2** 0%→100%
29		000-255	**Blade RG 1** 0%→100%
30		000-255	**Blade RG 2** 0%→100%
31	000-009 010-014 015-029 030-034 035-255		**Function** Null Reset All Reset Effect Reset Pan/Tilt Null

7. Error Information

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

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

Check whether the 485 (DATA) lead is disconnected.

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

2. Pan Reset Error

Check if the position of the pan mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the pan operating range.

Check if the pan Hall elements is damaged.

Check if the pan Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the pan motor is damaged.

Check if there is any damage to the circuit of the pan motor drive board.

3. Pan Encode Error

Check if the pan encoder is damaged.

Check if the pan encoder is in poor contact with the lead of the PCB board or disconnected.

4. Tilt Reset Error

Check if the position of the tilt mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the tilt operating range.

Check if the tilt Hall elements is damaged.

Check if the tilt Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the tilt motor is damaged.

Check if there is any damage to the circuit of the tilt motor drive board.

5. Tilt Encode Error

Check if the tilt encoder is damaged.

Check if the tilt encoder is in poor contact with the lead of the PCB board or disconnected.

6. Cyan Reset Error

Check if the position of the cyan color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the cyan color wheel operating range.

Check if the cyan color wheel Hall elements is damaged.

Check if the cyan color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the cyan color wheel motor is damaged.

Check if there is any damage to the circuit of the cyan color wheel motor drive board.

7. Magenta Error

Check if the position of the magenta color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the magenta color wheel operating range.

Check if the magenta color wheel Hall elements is damaged.

Check if the magenta color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the magenta color wheel motor is damaged.

Check if there is any damage to the circuit of the magenta color wheel motor drive board.

8. Yellow Error

Check if the position of the yellow color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the yellow color wheel operating range.

Check if the yellow color wheel Hall elements is damaged.

Check if the yellow color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the yellow color wheel motor is damaged.

Check if there is any damage to the circuit of the yellow color wheel motor drive board.

9. Cto Error

Check if the position of the cto mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the cto operating range.

Check if the cto Hall elements is damaged.

Check if the cto Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the cto motor is damaged.

Check if there is any damage to the circuit of the cto motor drive board.

10. Color 1 Error

Check if the position of the color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the color wheel operating range.

Check if the color wheel Hall elements is damaged.

Check if the color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the color wheel motor is damaged.

Check if there is any damage to the circuit of the color wheel motor drive board.

11. Gobo1/2 Error

Check if the position of the gobo wheel1/2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the gobo wheel1/2 operating range.

Check if the gobo wheel1/2 Hall elements is damaged.

Check if the gobo wheel1/2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the gobo wheel1/2 motor is damaged.

Check if there is any damage to the circuit of the gobo wheel1/2 motor drive board.

12. R-Gobo1 Error

Check if the position of the gobo wheel1 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the gobo wheel1 operating range.

Check if the gobo wheel1 Hall elements is damaged.

Check if the gobo wheel1 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the gobo wheel1 motor is damaged.

Check if there is any damage to the circuit of the gobo wheel1 motor drive board.

13. Blade Error

Check if the position of the blade mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the blade operating range.

Check if the blade Hall elements is damaged.

Check if the blade Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the blade motor is damaged.

Check if there is any damage to the circuit of the blade motor drive board.

14. Prism Error

Check if the position of the prism mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the prism operating range.

Check if the prism Hall elements is damaged.

Check if the prism Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the prism motor is damaged.

Check if there is any damage to the circuit of the prism motor drive board.

15. R-Prism Error

Check if the position of the prism mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the prism operating range.

Check if the prism Hall elements is damaged.

Check if the prism Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the prism motor is damaged.

Check if there is any damage to the circuit of the prism motor drive board.

16. Prism2 Error

Check if the position of the prism2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the prism2 operating range.

Check if the prism2 Hall elements is damaged.

Check if the prism2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the prism2 motor is damaged.

Check if there is any damage to the circuit of the prism2 motor drive board.

17. R-Prism2 Error

Check if the position of the prism2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the prism2 operating range.

Check if the prism2 Hall elements is damaged.

Check if the prism2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the prism2 motor is damaged.

Check if there is any damage to the circuit of the prism2 motor drive board.

18. Focus Error

Check if the position of the focus mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the focus operating range.

Check if the focus Hall elements is damaged.

Check if the focus Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the focus motor is damaged.

Check if there is any damage to the circuit of the focus motor drive board.

19. Zoom Error

Check if the position of the zoom mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the zoom operating range.

Check if the zoom Hall elements is damaged.

Check if the zoom Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the zoom motor is damaged.

Check if there is any damage to the circuit of the zoom motor drive board.

20. Base Fan1/2/3 Error

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

21. Head Fan1/2 Error

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

22. Led Fan1/2/3/4 Error

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

8. Troubleshooting

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

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

1. Check the connect power and main fuse.

2. Measure the mains voltage on the main connector.

3. Check the power on LED to see if it can be light up or not.

B. Not responding to DMX controller

1. Check DMX connectors, cables to see if they are linked properly.

2. Check the address settings and DMX polarity.

3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.

4. Try to use another DMX controller.

5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

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

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

9. Fixture Cleaning

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

• Clean with soft cloth and use normal glass to clean liquid.

• Always dry the parts carefully.

• Clean the external optics at least every 20 days. Clean the internal optics at least every 30 days.

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