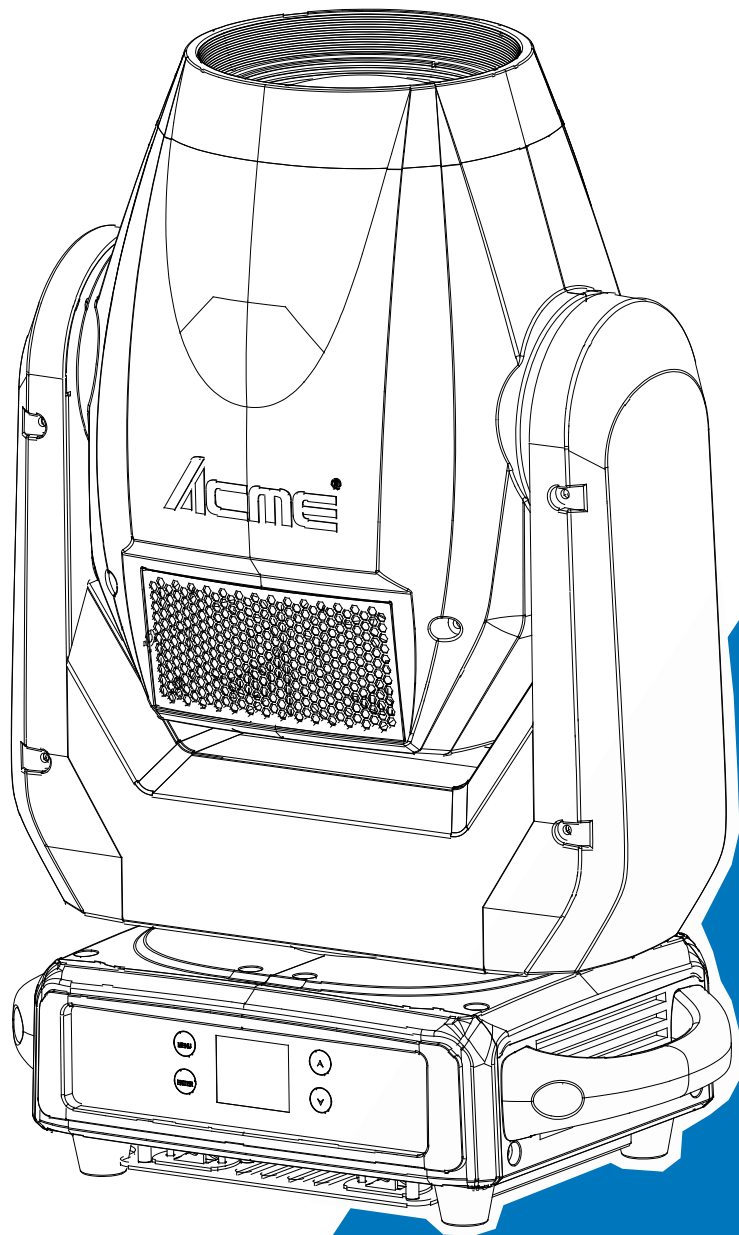


Acme®

WILLOW 500



User Manual

Please read the instruction carefully before use

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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°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- 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 70°C. 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 2 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 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:

500W

Light Source:

LCOB-6400M

Color Temperature:

8000K

Beam Angle:

1°/3°/6.5°/10°

Spot Angle:

Static Gobo: 9°/18° (with zoom lens)

Rotating Gobo: 10°/20° (with zoom lens)

Wash Angle:

12°~23°

Movement:

Pan: 540°

Tilt: 240°

Pan/Tilt Resolution: 16 bit

Dimmer/Shutter:

Smooth dimming from 0-100%; outstanding strobe effect with variable speed

Color Wheel:

1 x color wheel with 7 fixed colors plus white and rainbow effect

Gobo Wheel:

1 x static gobo wheel with 9 fixed gobos plus open

1 x rotating gobo wheel with 7 gobos plus open

Control:

DMX Channel: 17/18 channels

Control Mode: DMX512, RDM

Firmware Upgrade via DMX link

Construction:

Display: LCD display

Data In/Out: 3/5-pin XLR

Power In/Out: Power Cord/Power Connector In/Out

Protection Rating: IP20

Features:

Motorized focus

1 x prism: 6-facet prism, rotating in both directions

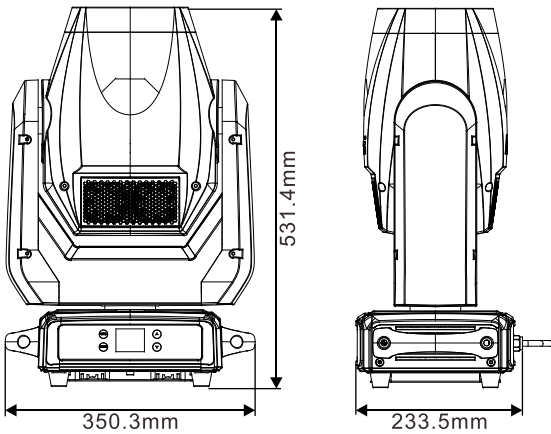
Independent frost effect

Integrated three features: beam, spot, and wash

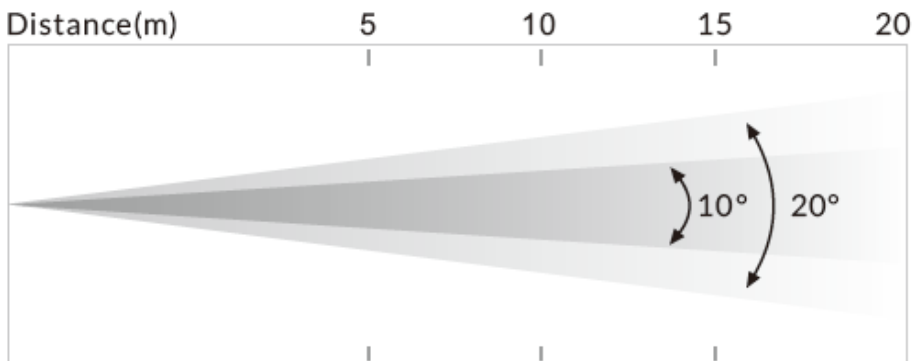
Dimension/Weight:

350.3x233.5x531.4mm, 18.1kgs

13.8"x9.2"x20.9" in, 39.9lbs

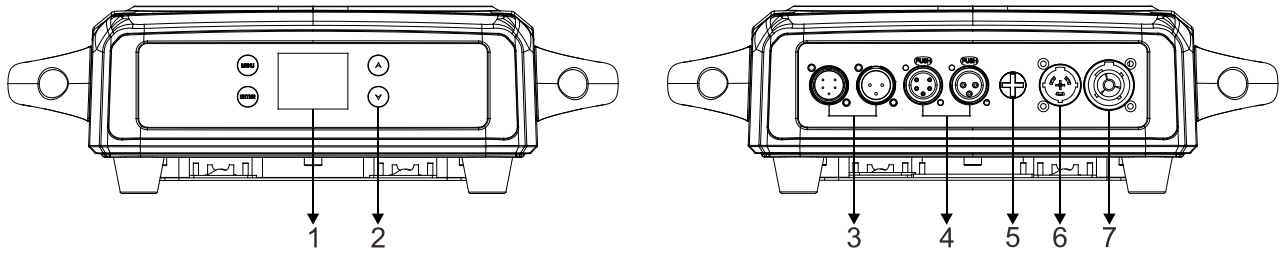


Photometric Diagram:



	5	10	15	20
10° Lux	29,500	7,375	3,278	1,844
Diameter(m)	0.1	0.2	0.3	0.4
20° Lux	9,960	2,490	1,106	623
Diameter(m)	1.8	3.5	5.3	7.1

3. Control Panel



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. DMX IN:

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

4. DMX OUT:

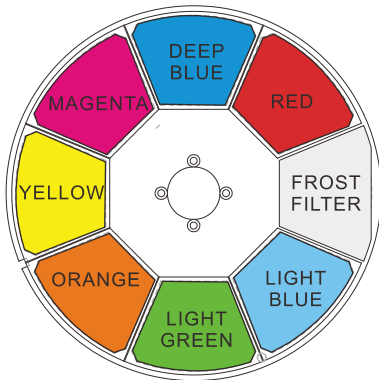
For DMX512 link, use 3/5-pin XLR cable to link the next units

5. FUSE(T 10A): Protects the unit from over-voltage or short circuit

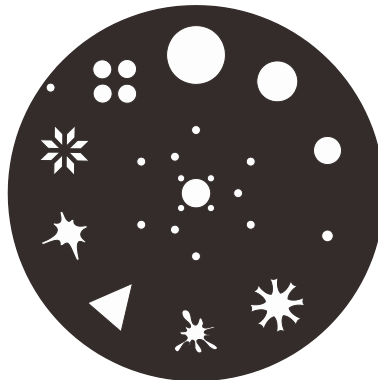
6. POWERCON IN: To connect to supply power

7. POWERCON OUT: To connect to the next fixture

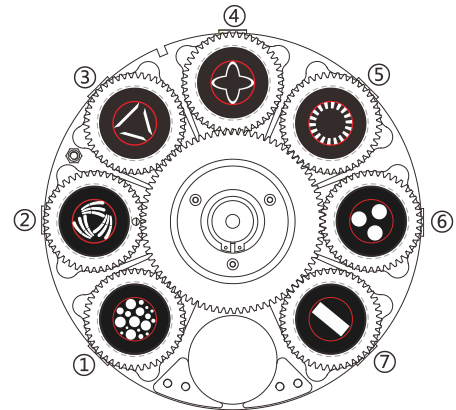
4. Effect Wheels



COLOR WHEEL



STATIC GOBO WHEEL



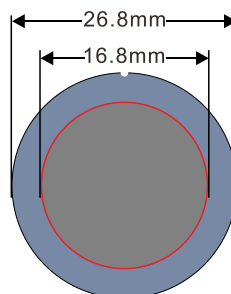
ROTATING GOBO WHEEL

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!

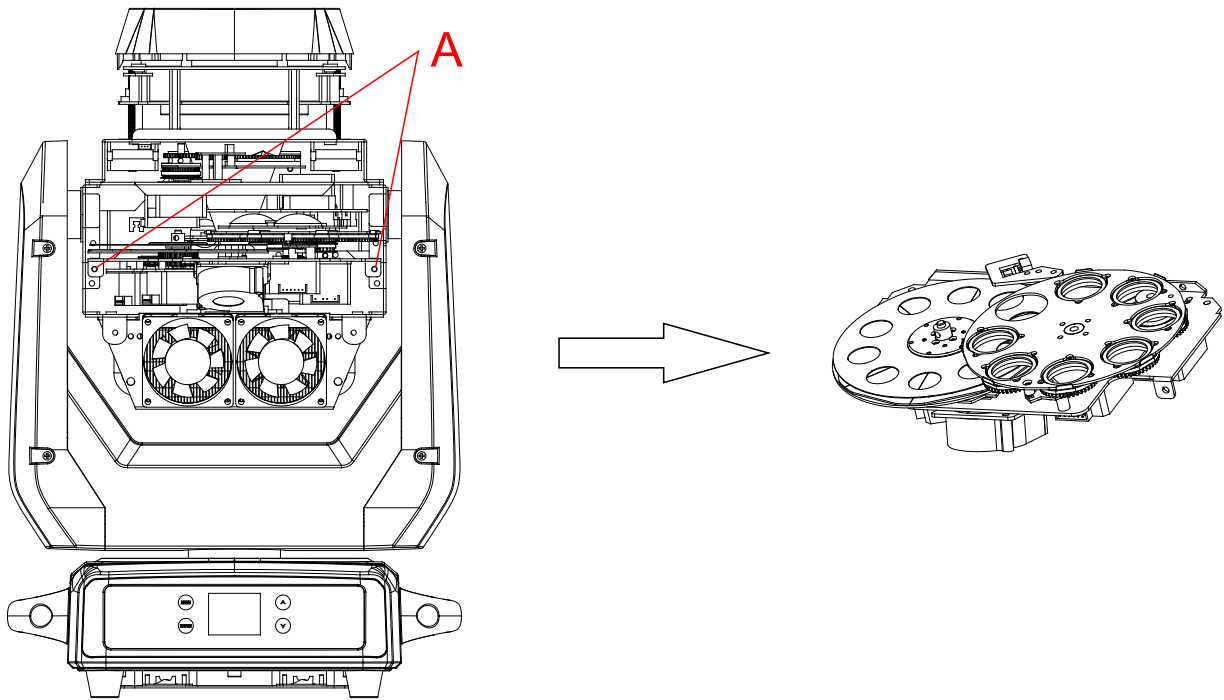
R-Gobos	Part Number
① Gobo1	3011000745
② Gobo2	3011000746
③ Gobo3	3011001129
④ Gobo4	3011001130
⑤ Gobo5	3011001355
⑥ Gobo6	3011000750
⑦ Gobo7	3011000751



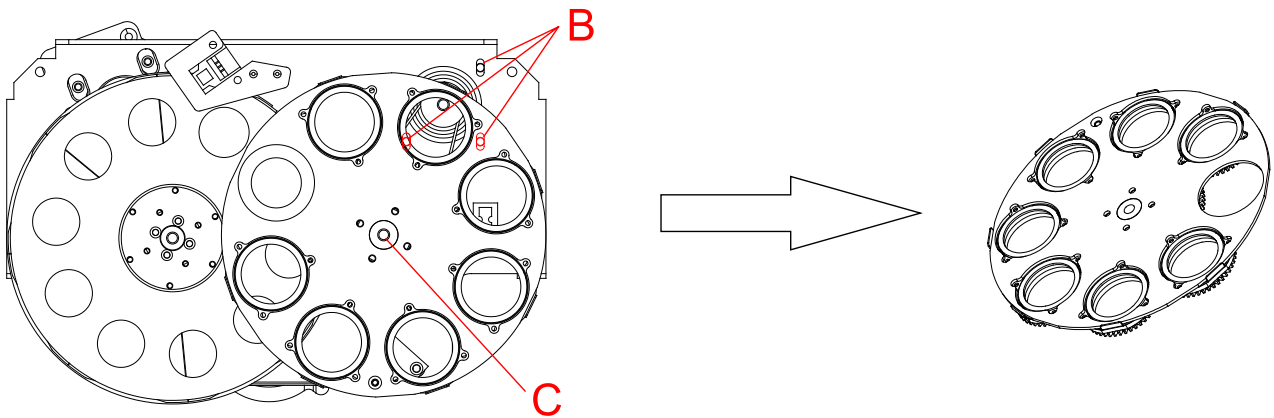
Rotating Gobos
Dimensions

4.1 Replacing Rotating Gobos

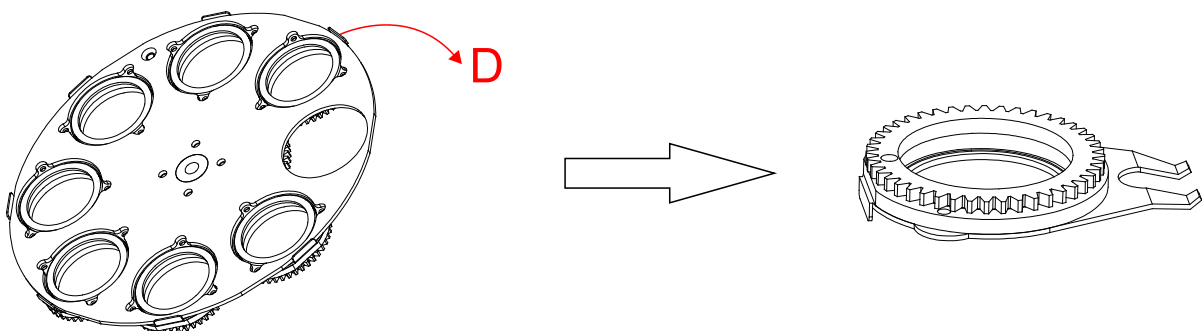
1. Unscrew the two screws at A to take out the component;



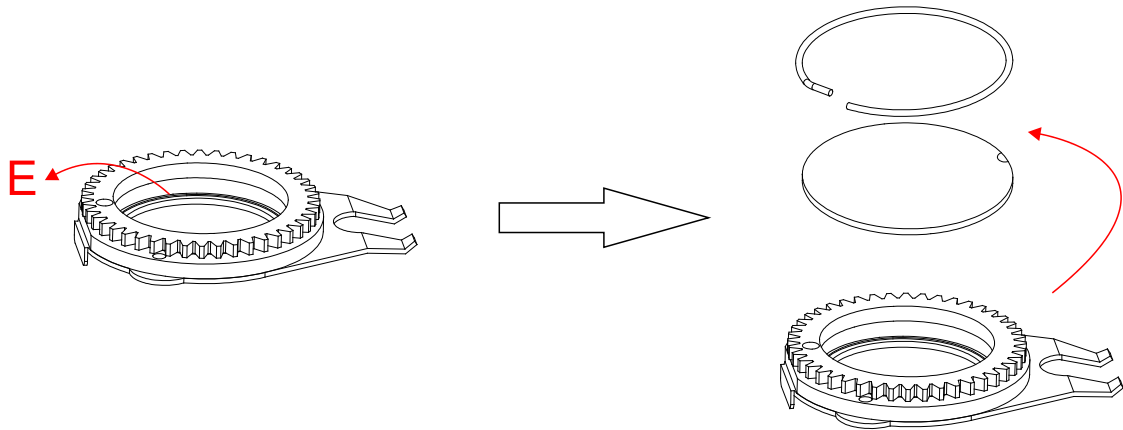
2. Half loosen the three screws at B and remove the belts; Unscrew the screw at C, then take out the rotating gobo wheel component;



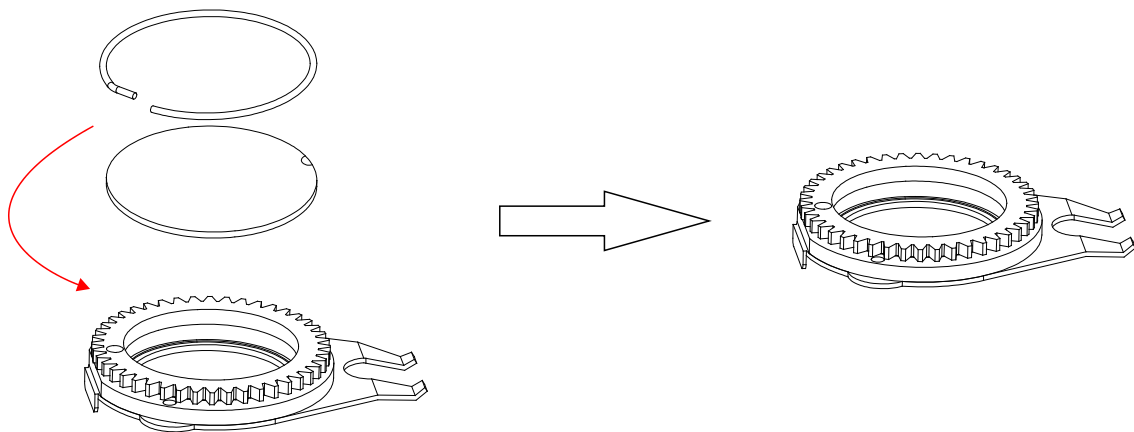
3. Press down the gobo from the edge of the rotating gobo wheel and slowly pull it out;



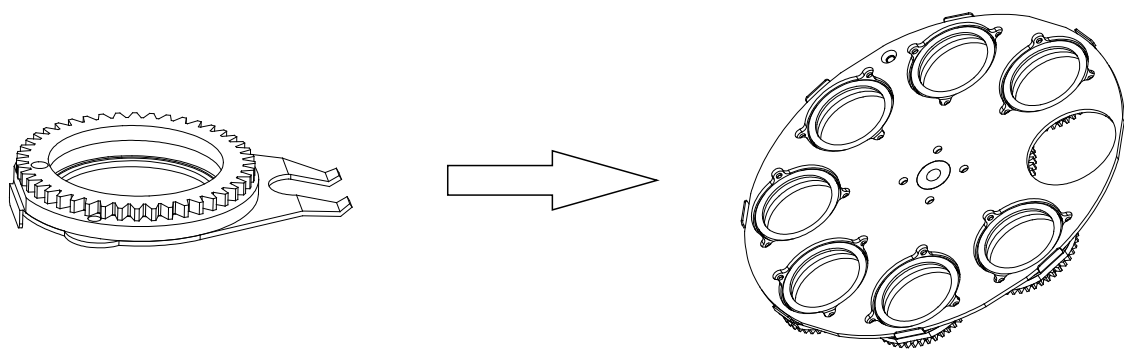
4. Remove the spring lock at E with an appropriate tool like tweezers (if the gobo is coated with glass glue, do remove it with some good glass cleaning fluid before removing the spring lock to avoid damage to the gobo).



5. Do not touch the surface of the gobo with bare fingers when installing the gobo (glossy side towards the light source).



6. Insert the gobo holder back into the rotating gobo wheel in this way that it has to exactly aim at the center of the rotating gobo wheel.



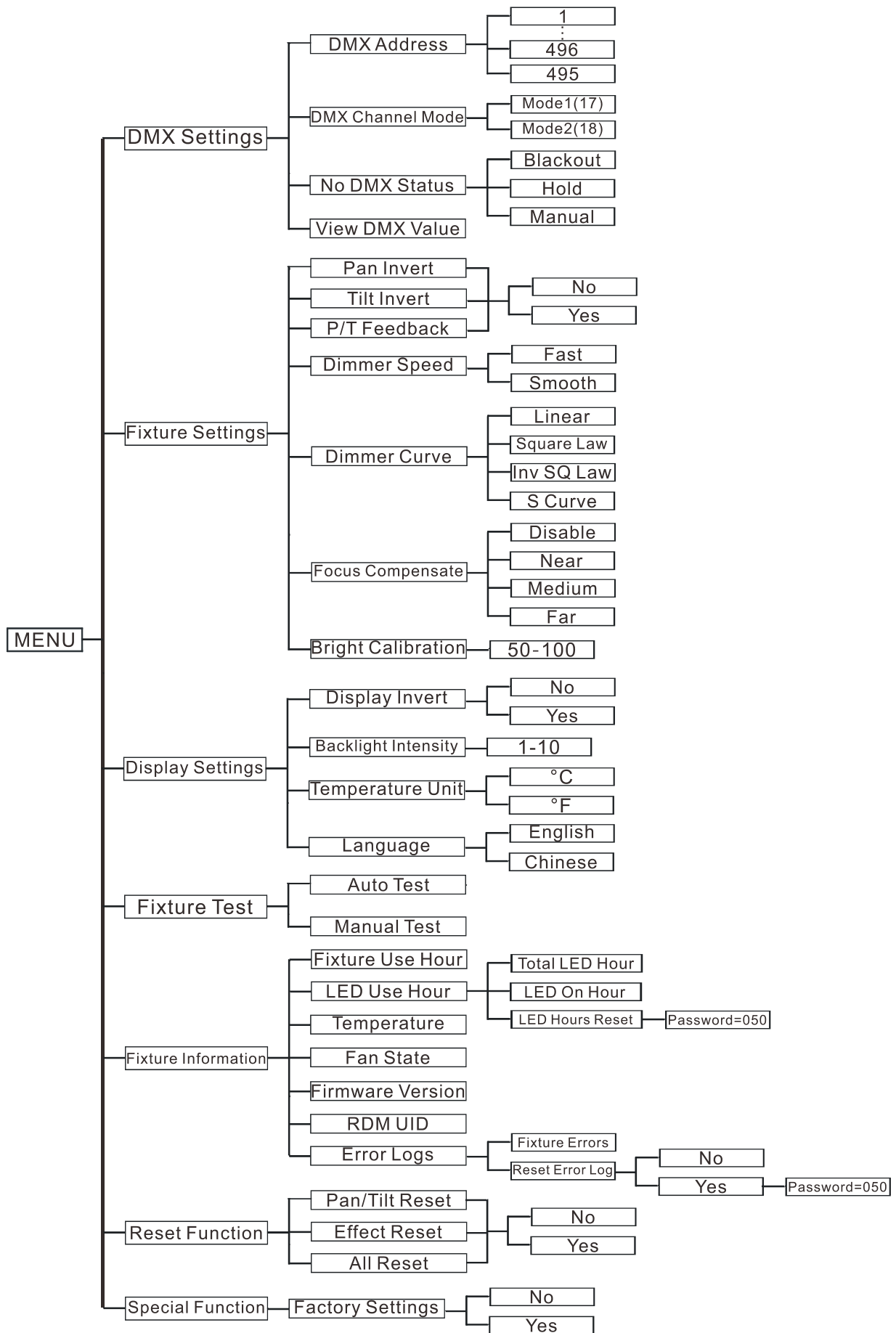
7. After installation, put the component back to the fixture.

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:



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** 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 **496/495**, 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 **Mode1(17)** or **Mode2(18)**, 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), **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops) or **Manual**(the fixture will automatically read the DMX value in the “Manual Test” menu for operation after selecting this mode), 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** or **Bright 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.

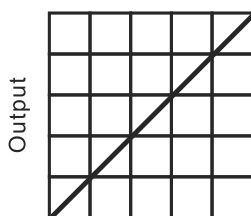
Dimmer Speed

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.

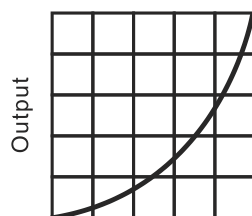
Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to confirm. Use the **DOWN/UP** button to select **Linear**, **Square Law**, **Inv SQ Law** 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.

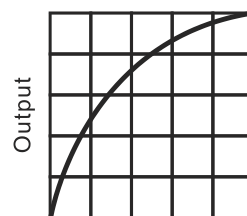
Dimmer Modes



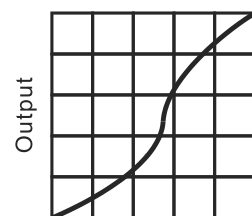
Optically Linear



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 finer at high levels.

S-Curve: Light intensity control is finer 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.

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.

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 **°C** or **°F**, 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, frost, 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.

(The fixture will return to the previous DMX state after exiting Manual Test menu and the Manual Test parameters will be automatically saved after power off and restart.)

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, 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. Use the **UP/DOWN** button to select **LED Hours Reset**, 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, fixture temperature will show on the display, press the **MENU** button 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 (17/18 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.

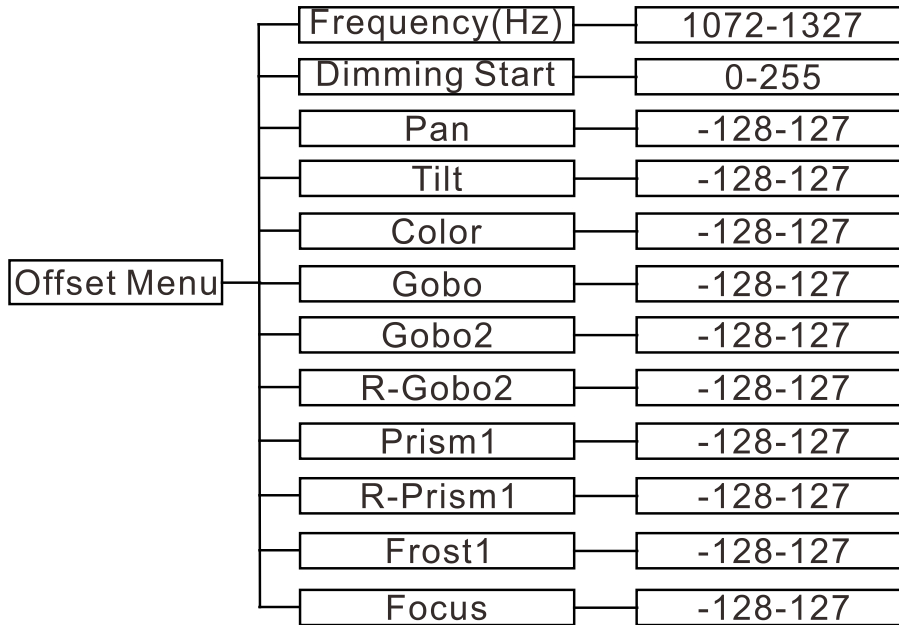
Select the PAN INVERT menu and the fixture will run the pan invert mode.

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)

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 255, 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.

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.

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.

R-Gobo2

Enter offset mode, Select **R-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 -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.

Frost1

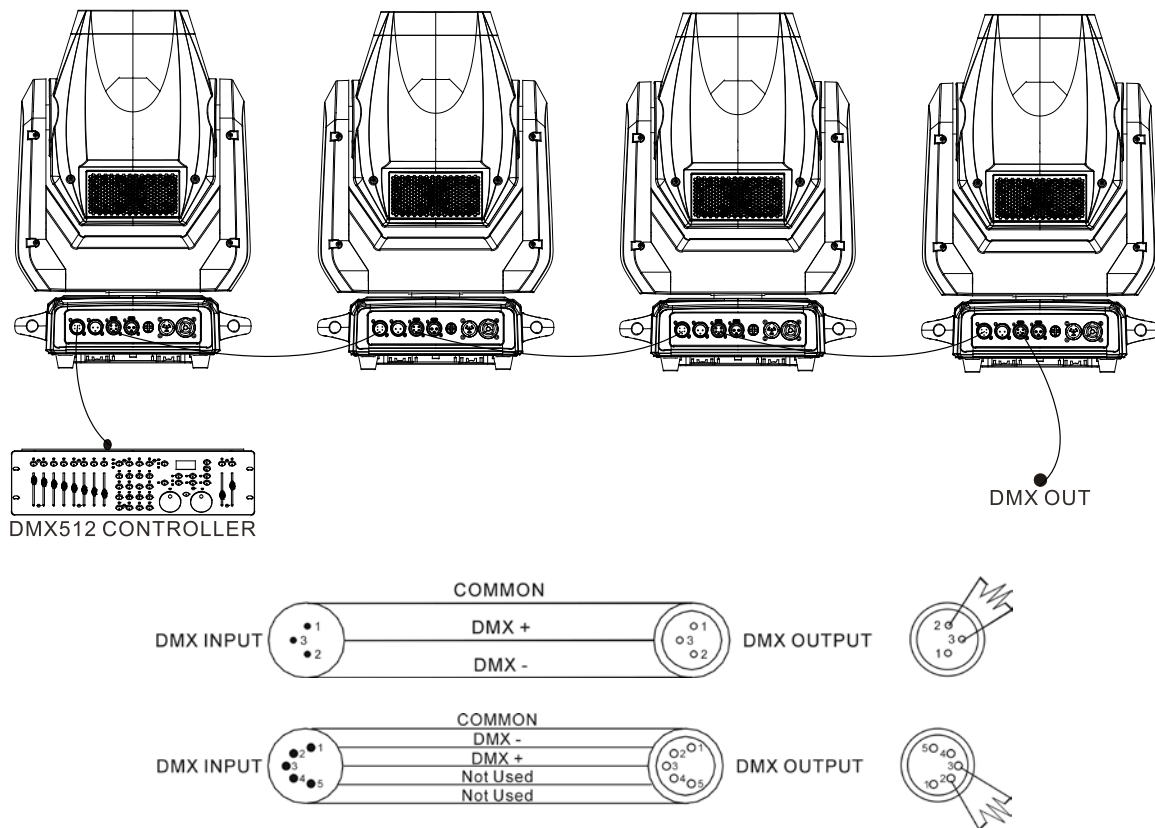
Enter offset mode, Select **Frost1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

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.

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 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 can only be used in series and cannot be connected in parallel. 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 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
17 channels	1	18	35	52
18 channels	1	19	37	55

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.

17 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→240°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-007	COLOR Open

	008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-127 128-189 190-193 194-255	Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color Wheel Indexing Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
7	000-007 008-013 014-019 020-025 026-031 032-037 038-043 044-049 050-055 056-063 064-070 071-077 078-084 085-091 092-098 099-105 106-112 113-119 120-127 128-189 190-193 194-255	GOBO 1 Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 8 Gobo 9 Gobo 1 Shaking, Slow to Fast Gobo 2 Shaking, Slow to Fast Gobo 3 Shaking, Slow to Fast Gobo 4 Shaking, Slow to Fast Gobo 5 Shaking, Slow to Fast Gobo 6 Shaking, Slow to Fast Gobo 7 Shaking, Slow to Fast Gobo 8 Shaking, Slow to Fast Gobo 9 Shaking, Slow to Fast Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
8	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-072 073-081 082-090 091-099	GOBO 2 Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 1 Shaking, Slow to Fast Gobo 2 Shaking, Slow to Fast Gobo 3 Shaking, Slow to Fast Gobo 4 Shaking, Slow to Fast

	100-108 109-117 118-127 128-189 190-193 194-255	Gobo 5 Shaking, Slow to Fast Gobo 6 Shaking, Slow to Fast Gobo 7 Shaking, Slow to Fast Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
9	000-127 128-189 190-193 194-255	R-GOBO 2 Index 0°→360° Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
10	000-007 008-255	PRISM No Effect On
11	000-127 128-189 190-193 194-255	R-PRISM Index 0°→360° Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
12	000-007 008-128 129-255	FROST Null Zoom Frost
13	000-255	FOCUS 100%→0%
14	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe from Slow to Fast Open Slow Open Fast Close Open Fast Open Slow Close Open Random Strobe Open
15	000-255	DIMMER 0%→100%
16	000-255	DIMMER FINE
17	000-009 010-019 020-029 030-039 040-049	SPECIAL FUNCTION No Function Auto Focus Enable Auto Focus Disable Dimmer Curve: Linear Dimmer Curve: Square law

	050-059	Dimmer Curve: Inv SQ law
	060-069	Dimmer Curve: S curve
	070-099	No Function
	100-109	Led Frequency Setting Enable
	110-119	Led Frequency Setting Disable
	120-139	No Function
	140-149	Pan/Tilt Reset
	150-159	Effect Reset
	160-169	Focus Compensate: Disable
	170-179	Focus Compensate: Near
	180-189	Focus Compensate: Medium
	190-199	Focus Compensate: Far
	200-209	Reset All
	210-219	Dimmer Speed: Fast
	220-229	Dimmer Speed: Smooth
	230-255	No Function

18 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→240°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-127 128-189 190-193 194-255	COLOR Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color Wheel Indexing Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
7	000-007	GOBO 1 Open

	008-013 014-019 020-025 026-031 032-037 038-043 044-049 050-055 056-063 064-070 071-077 078-084 085-091 092-098 099-105 106-112 113-119 120-127 128-189 190-193 194-255	Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 8 Gobo 9 Gobo 1 Shaking, Slow to Fast Gobo 2 Shaking, Slow to Fast Gobo 3 Shaking, Slow to Fast Gobo 4 Shaking, Slow to Fast Gobo 5 Shaking, Slow to Fast Gobo 6 Shaking, Slow to Fast Gobo 7 Shaking, Slow to Fast Gobo 8 Shaking, Slow to Fast Gobo 9 Shaking, Slow to Fast Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
8	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-072 073-081 082-090 091-099 100-108 109-117 118-127 128-189 190-193 194-255	GOBO 2 Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 1 Shaking, Slow to Fast Gobo 2 Shaking, Slow to Fast Gobo 3 Shaking, Slow to Fast Gobo 4 Shaking, Slow to Fast Gobo 5 Shaking, Slow to Fast Gobo 6 Shaking, Slow to Fast Gobo 7 Shaking, Slow to Fast Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
9	000-127 128-189 190-193 194-255	R-GOBO 2 Index 0°→360° Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
10		PRISM

	000-007 008-255	No Effect On
11	000-127 128-189 190-193 194-255	R-PRISM Index 0°→360° Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
12	000-007 008-128 129-255	FROST Null Zoom Frost
13	000-255	FOCUS 100%→0%
14	000-255	FOCUS FINE
15	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe from Slow to Fast Open Slow Open Fast Close Open Fast Open Slow Close Open Random Strobe Open
16	000-255	DIMMER 0%→100%
17	000-255	DIMMER FINE
18	000-009 010-019 020-029 030-039 040-049 050-059 060-069 070-099 100-109 110-119 120-139 140-149 150-159 160-169 170-179 180-189	SPECIAL FUNCTION No Function Auto Focus Enable Auto Focus Disable Dimmer Curve: Linear Dimmer Curve: Square law Dimmer Curve: Inv SQ law Dimmer Curve: S curve No Function Led Frequency Setting Enable Led Frequency Setting Disable No Function Pan/Tilt Reset Effect Reset Focus Compensate: Disable Focus Compensate: Near Focus Compensate: Medium

	190-199	Focus Compensate: Far
	200-209	Reset All
	210-219	Dimmer Speed: Fast
	220-229	Dimmer Speed: Smooth
	230-255	No Function

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 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. Color Reset Error

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

7. Gobo Reset Error

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

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

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

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

Check whether the motor on the gobo wheel is damaged.

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

8. Gobo2 Reset Error

Check whether the position of the gobo wheel2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel2 operating range.

Check whether the Hall element on the gobo wheel2 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel2 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel2 is damage.

9. R-Gobo2 Reset Error

Check whether the position of the gobo wheel2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel2 operating range.

Check whether the Hall element on the gobo wheel2 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel2 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel2 is damage.

10. Prism Reset Error

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

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

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

Check whether the motor on the prism is damaged.

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

11. R-Prism Reset Error

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

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

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

Check whether the motor on the prism is damaged.

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

12. 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.

13. 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.

14. BaseFan1/2 Start Error

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.

15. BaseFan1/2 Stop Error

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

16. BaseFan1/2 Too Slow

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

17. BaseFan1/2 Too Fast

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

18. ArmFan Start Error

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.

19. ArmFan Stop Error

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

20. ArmFan Too Slow

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

21. ArmFan Too Fast

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

22. HeadFan1/2/3/4/5 Start Error

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.

23. HeadFan1/2/3/4/5 Stop Error

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

24. HeadFan1/2/3/4/5 Too Slow

Check whether the fan is out of order.

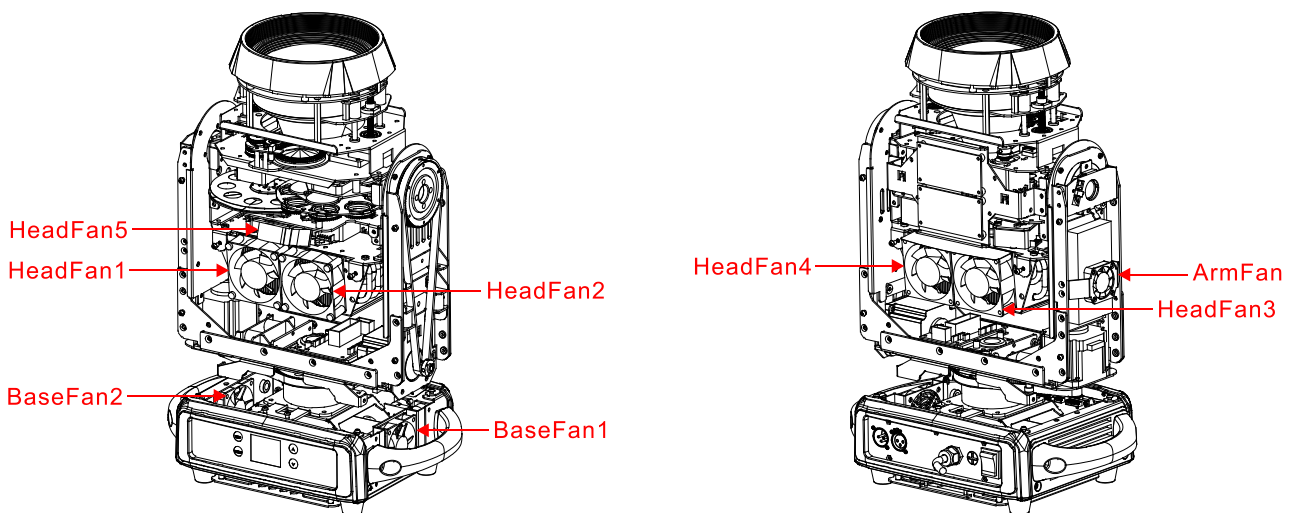
Check whether there are obstacles in the fan operating range.

25. HeadFan1/2/3/4/5 Too Fast

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

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 and main fuse.
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.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

EN 55032: 2015+A11:2020; EN 55035: 2017+A11: 2020;
EN IEC 61000-3-2: 2019; EN 61000-3-3: 2013+A1: 2019.

&

Harmonized Standard

EN 60598-2-17: 2018; EN 60598-1: 2015+A1: 2018.

Safety of household and similar electrical appliances
Part 1: General requirements and tests

Innovation, Quality, Performance