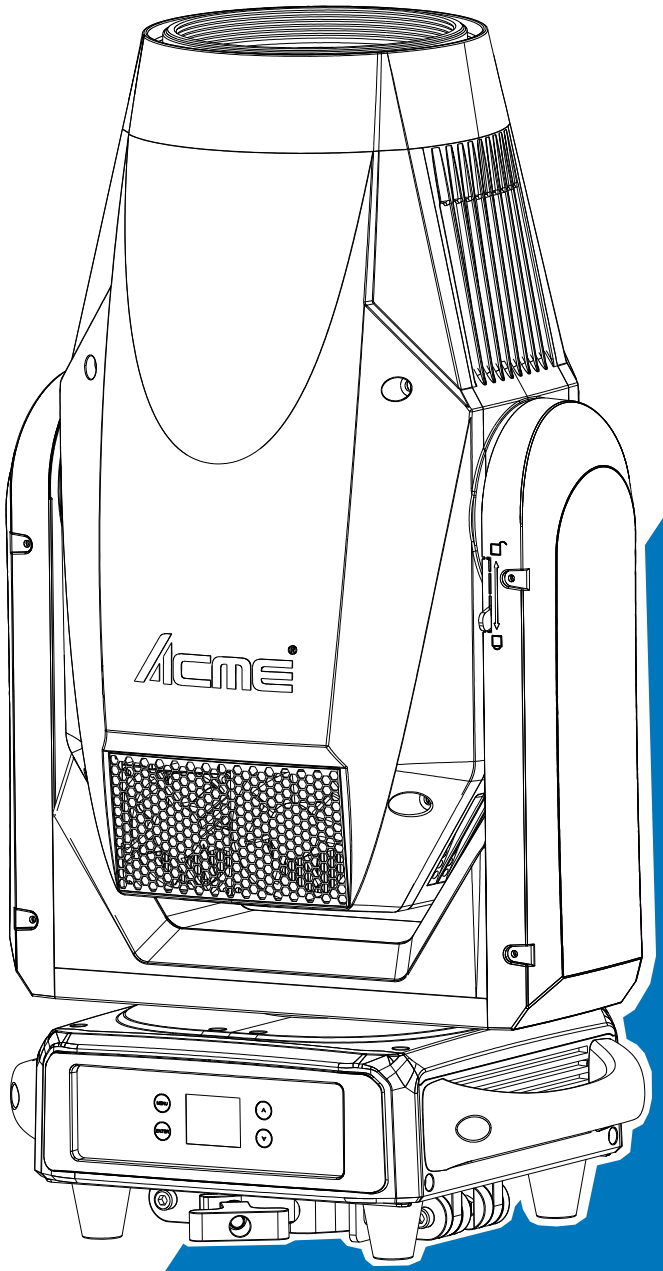
ACME

ECO 15



User Manual

Please read the instruction carefully before use

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01/ Safety Instructions



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

WARNING

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

Important:

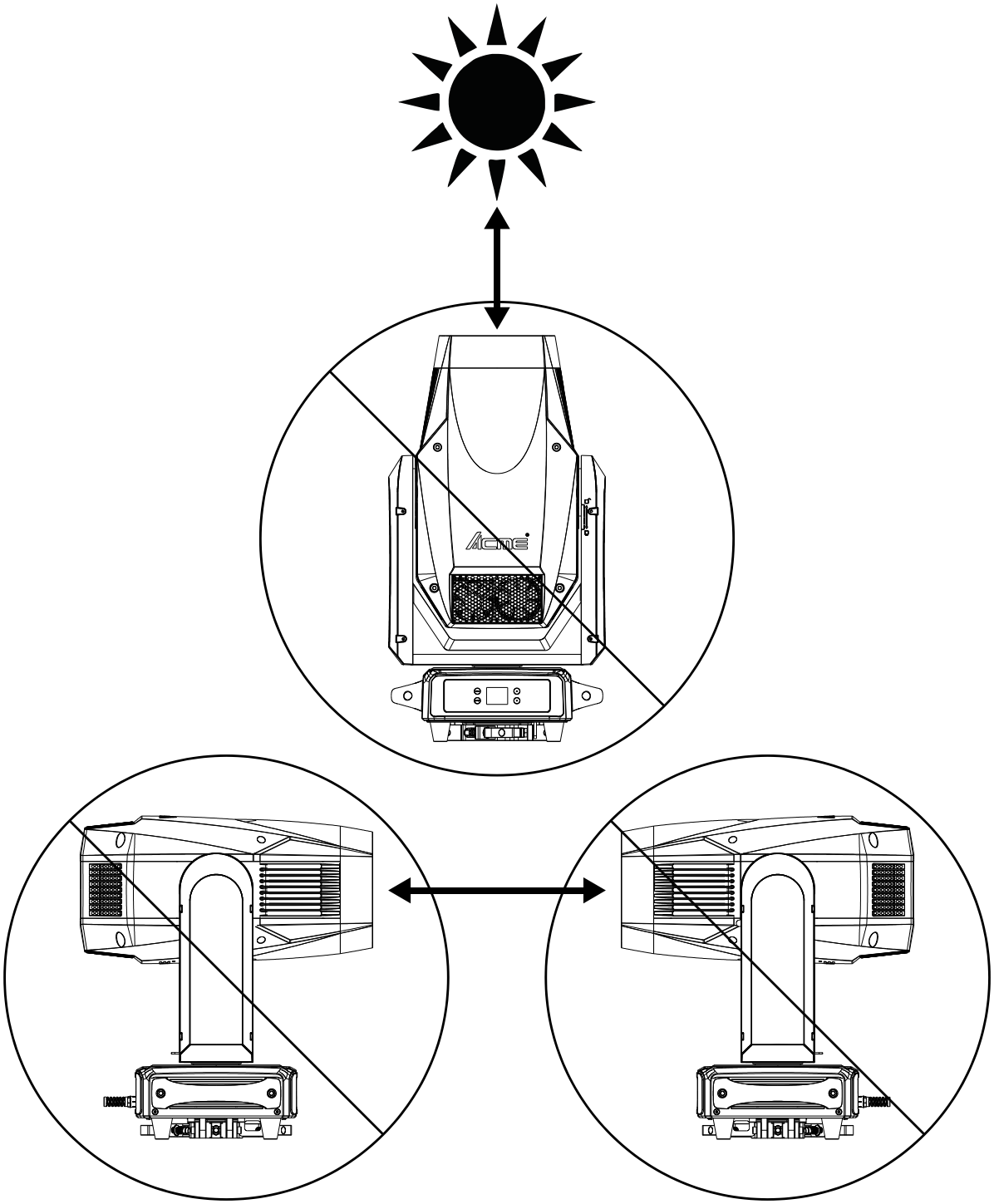
Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- 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 60˚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 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.

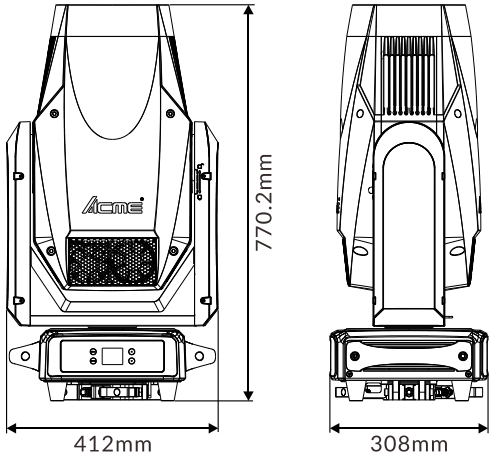
- External sources of light beams from direct sunlight or any other strong light source, which penetrate the front lens of lighting fixtures, can cause severe internal damage. DO NOT expose the fixture front lens to light beams from direct sunlight or any other strong light source from any angle while unpacking, installation, use, and extended idle times outdoors. DO NOT focus a light beam from one lighting fixture directly towards another.



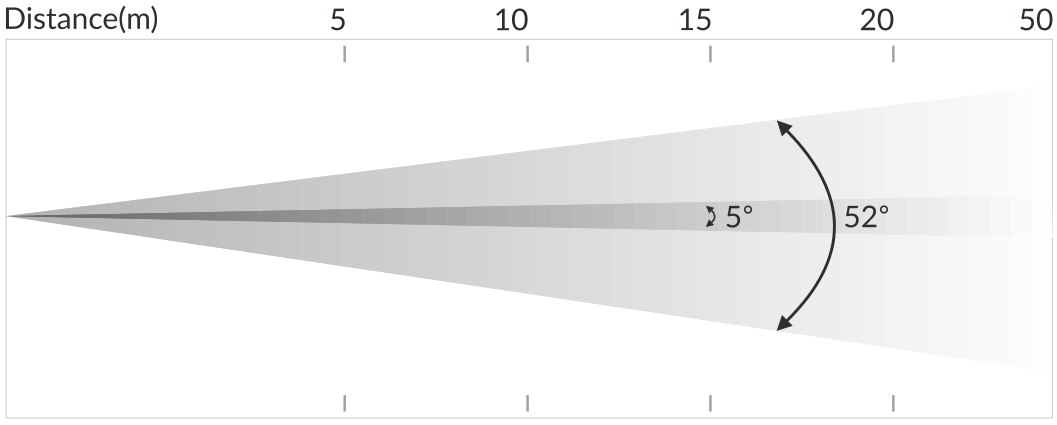
02/ Technical Specifications

Power Voltage	100-240Vac; 50/60Hz	
Power Consumption	1555W	
Light Source	ESP_SCL1500YH-70-R95	
Color Temperature	6200K	
Zoom Range	5°-52°	
Dimmer/Strobe	0-100% smooth dimming; outstanding strobe effect with variable speed	
Color Wheel	5 colors + CTB + open	
Gobo Wheel	Static Gobo Wheel	8 gobos + open
	Rotating Gobo Wheel	7 replaceable gobos + open
Movement	Pan	540°
	Tilt	270°
	Pan/Tilt Resolution	16 bit
	Automatic pan/tilt position correction	
	Fixation	Pan/Tilt lock
Control	DMX Channel	38/29/31/22 Channels
	Control Mode	DMX512
		RDM
	Firmware Upgrade	Firmware Upgrade via DMX link
Construction	Display	LCD display
	Battery backup for user setup without mains connection	
	Data In/Out	3-pin/5-pin XLR
	Power In/Out	Power Cord in
	Protection Rating	IP20
Features	Color Rendering: Ra≥95, R9≥95, R15≥95, TLCI≥95, TM-30 Rf: 91, TM-30 Rg: 99	
	Linear CMY color mixing	
	Variable CTO	
	Motorized focus	
	Motorized zoom	

	2 different frost filters to create and improve the wash effect	
	1 x rotatable 4-facet prism	
	Motorized linear iris	
	1 x rotatable animation wheel with outstanding water and flame effect	
	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 be rotated at ±60 degrees	
	2 x fixed clamps for 50mm truss	
Dimensions	412x308x770.2mm	16.2"x12.1"x30.3"in
Weight	43 kg	94.8 lbs

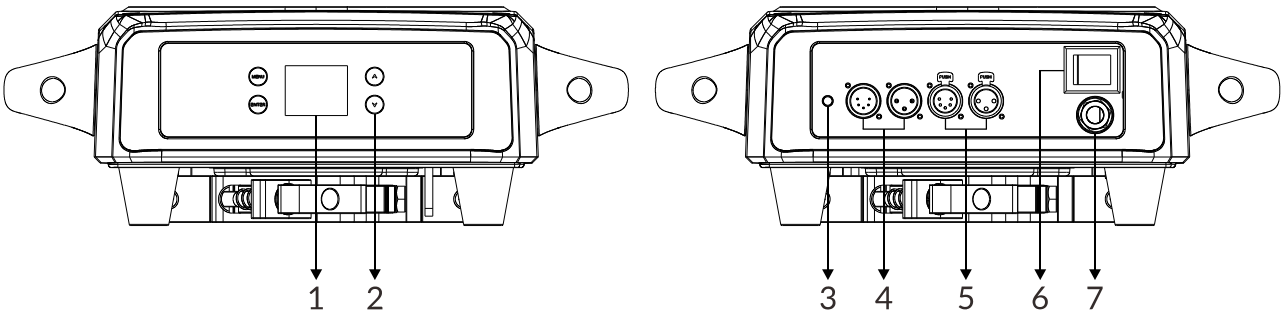


Photometric Diagram:



5° Lux	81,906	19,737	9,098	5,120	819
Diameter(m)	0.4	0.8	1.2	1.6	4.0
52° Lux	2,193	596	290	173	27
Diameter(m)	4.9	9.8	14.7	19.6	49.0

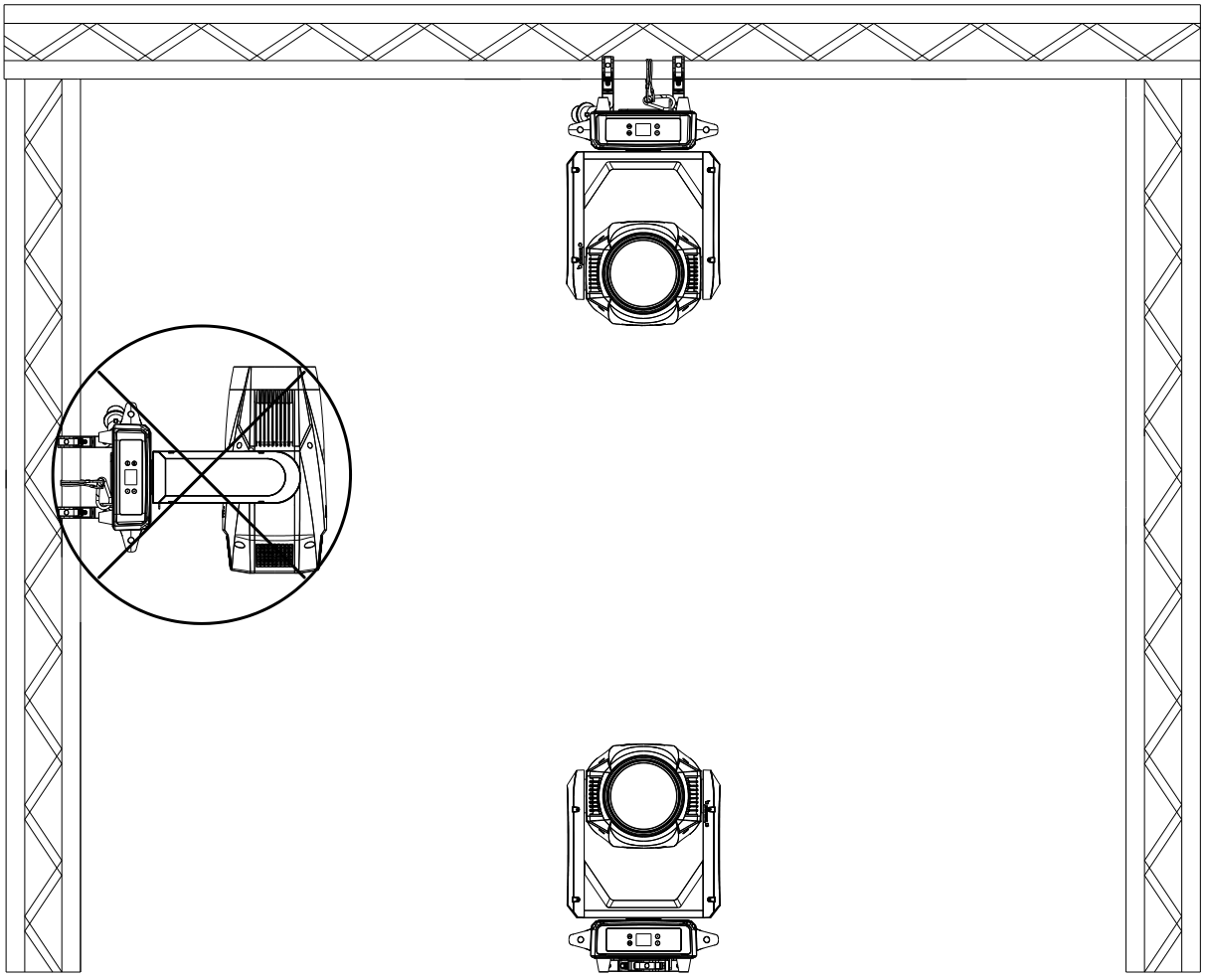
03/ Control Panel



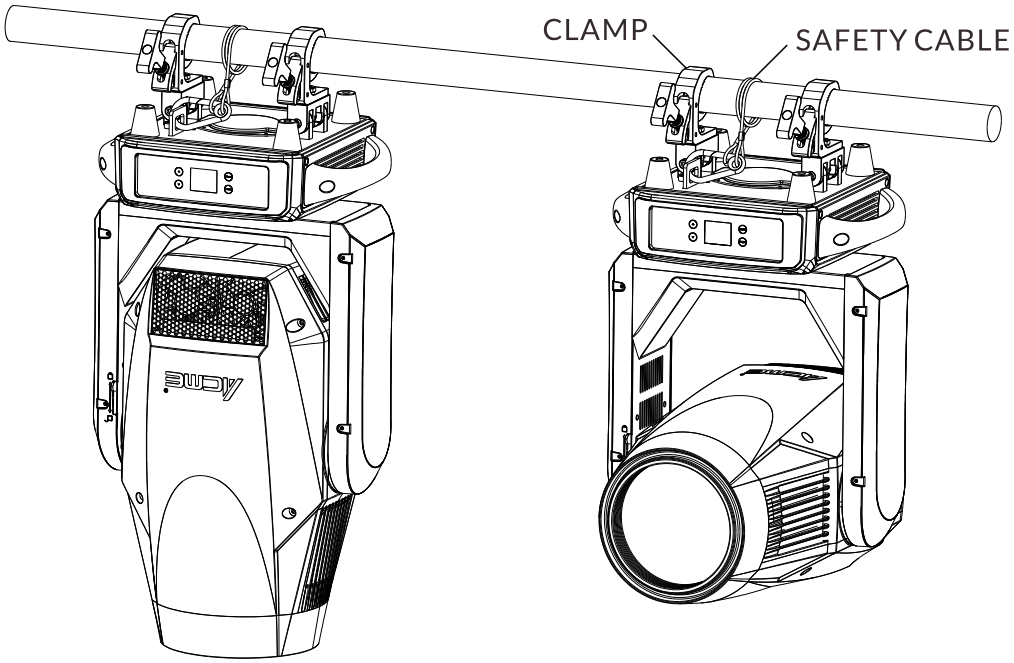
1. Display	To show the various menus and the selected function	
2. Buttons	MENU	To enter into move backward or leave the menu
	▲ UP	To go backward to move up in the menu
	▼ DOWN	To go forward to move down in the menu
	ENTER	To perform the desired functions
3. BATTERY DISPLAY		
4. DMX IN	For DMX512 link, use 3/5-pin XLR cable to link the unit and DMX controller to input DMX signal	
5. DMX OUT	For DMX512 link, use 3/5-pin XLR cable to link the next units to output DMX signal	
6. POWER SWITCH	Turns on/off the power	
7. POWER	To connect to supply power	

04/ Fixture Installation

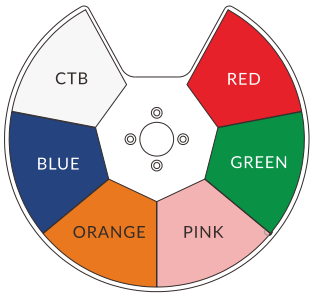
- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure 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 attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in two different mounting positions: hanging upside-down, or standing on the floor. DO NOT mount this fixture sideways on trussing. Always use and install a safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



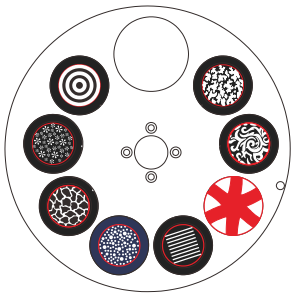
Hanging the fixture:



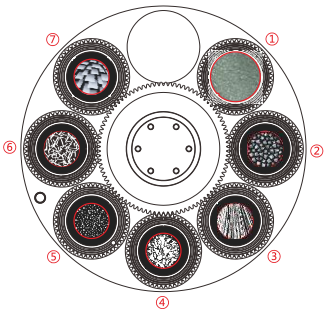
05/ Effect Wheels



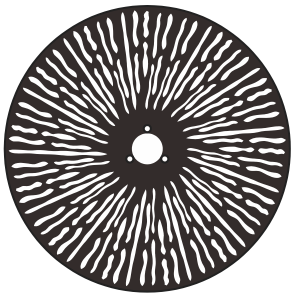
COLOR WHEEL



STATIC GOBO WHEEL



ROTATING GOBO WHEEL



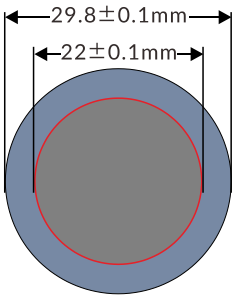
ANIMATION WHEEL

DANGER!

Install the rotating gobos with the device switched off only.

Unplug from mains before changing the rotating gobos!

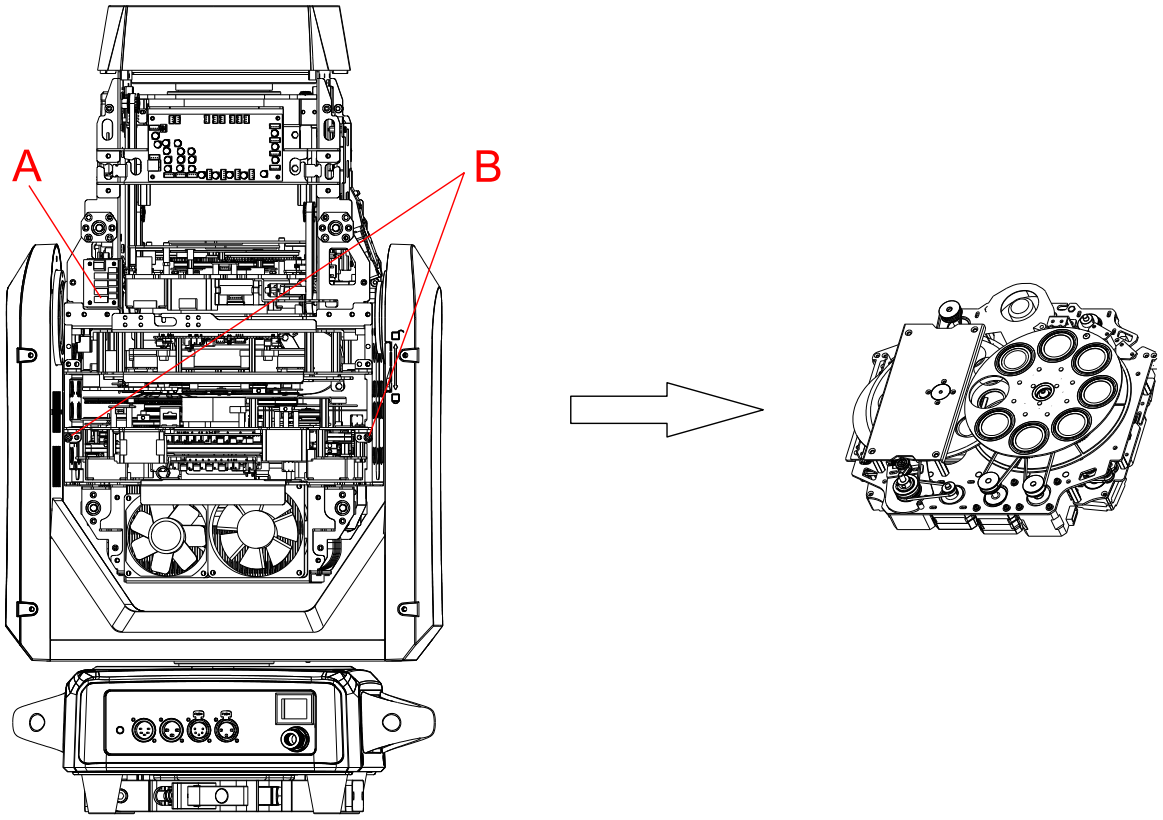
R-Gobos	Part Number
① Gobo1	3015000932
② Gobo2	3011001149
③ Gobo3	3011001150
④ Gobo4	3011001158
⑤ Gobo5	3011001152
⑥ Gobo6	3011001153
⑦ Gobo7	3011001154



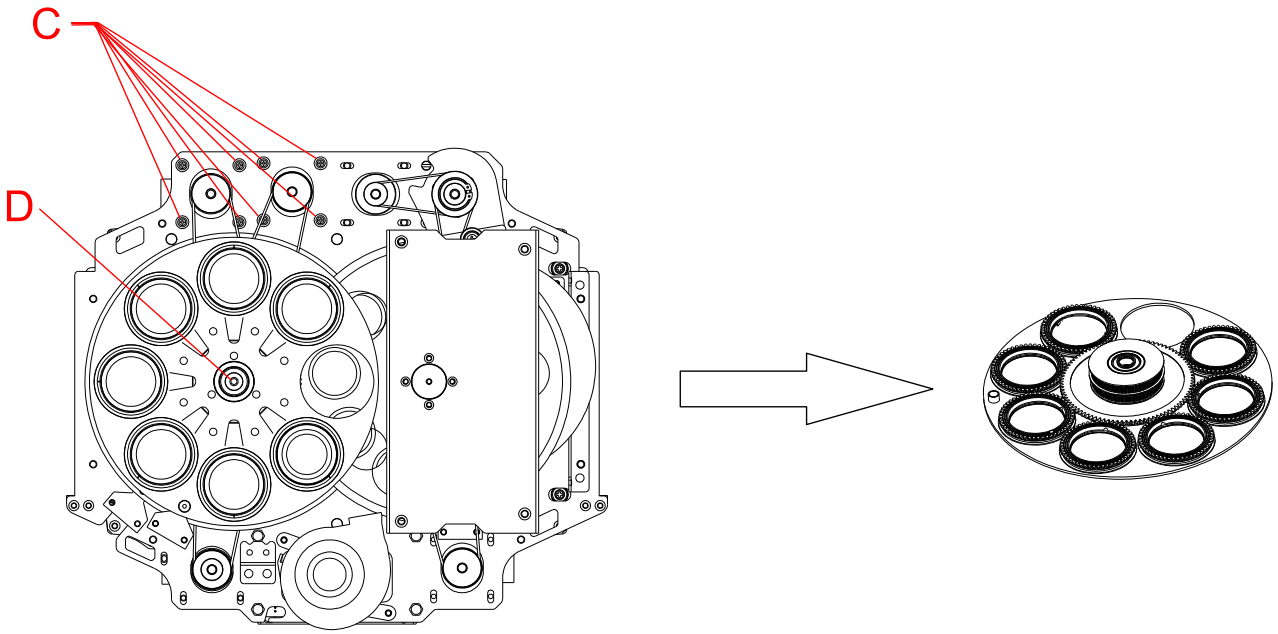
Rotating Gobos Dimensions

5.1 Replacing Rotating Gobos

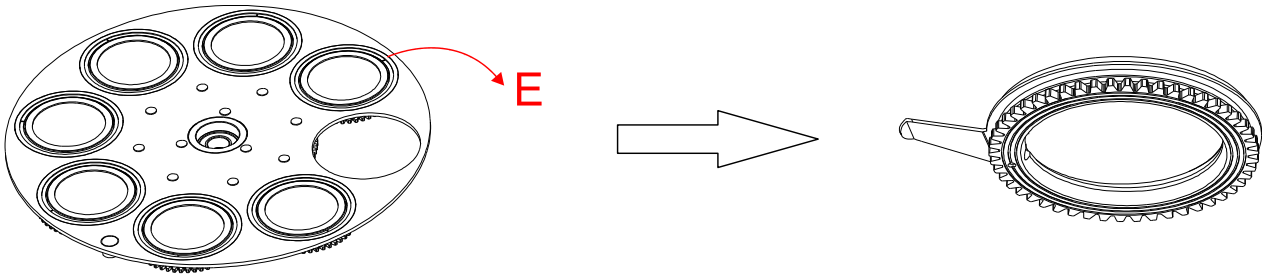
1. Unplug the power and signal adapter cables at A and unscrew the two screws at B to take out the component.



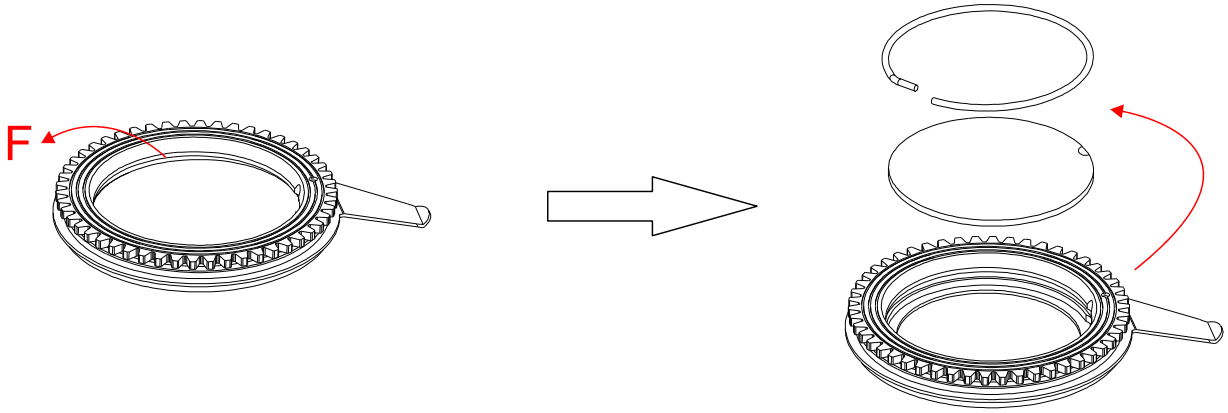
2. Half loosen the eight screws at C and remove the two belts; Unscrew the screw at D, then take out the rotating gobo wheel component.



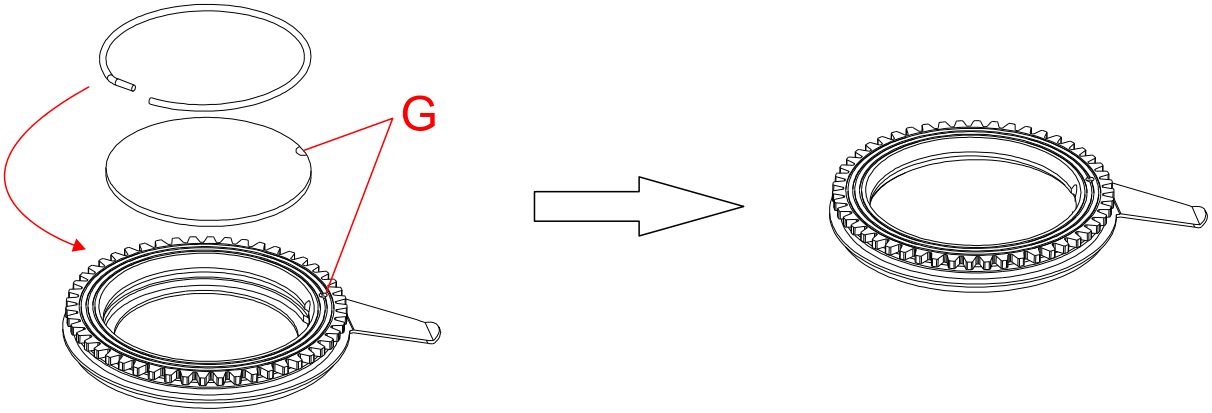
3. Press down the gobo from the edge of the rotating gobo wheel component and slowly pull it out.



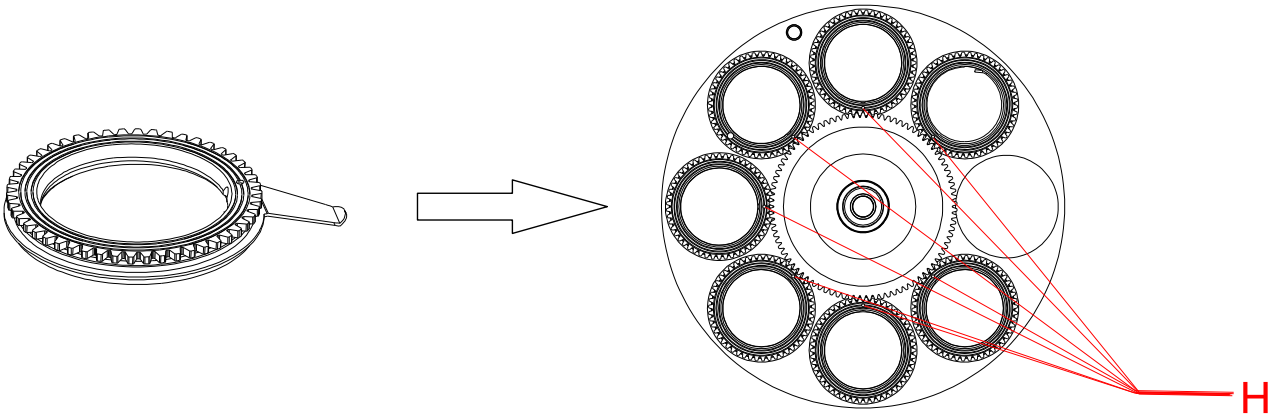
4. Remove the spring lock at F with an appropriate tool like tweezers (if the gobo is coated with glass glue, do remove it with some good glass cleaning fluid before removing the spring lock to avoid damage to the gobo).



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.

06/ How To Set The Unit

6.1 Main Functions

- To access the control menus, press the [MENU] button.
- Navigate the menu structure, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

The main functions are shown below:

MENU	SUBMENU	OPTIONS	
DMX Settings	DMX Address	1-475 (38 CH)	(Default=1)
		1-484 (29 CH)	
		1-482 (31 CH)	
		1-491 (22 CH)	
	DMX Channel Mode	(38) Framing	
		(29) Spot	
		(31) F-Wash	
		(22) Wash	
	No DMX Status	Blackout	
		Hold	
		Manual	
	View DMX Value		
Fixture Settings	Pan Invert	No	
		Yes	
	Tilt Invert	No	
		Yes	
	P/T Feedback	No	
		Yes	
	Dimmer Speed	Fast	
		Smooth	
	Dimmer Curve	Square Law	
		Inv SQ Law	
		Linear	
		S Curve	

MENU	SUBMENU	OPTIONS	
	LED Refresh Rate	900Hz	
		1000Hz	
		1100Hz	
		1200Hz	
		1300Hz	
		1400Hz	
		1500Hz	
		2500Hz	
		4000Hz	
		5000Hz	
		6000Hz	
		10KHz	
		15KHz	
		20KHz	
		25KHz	
	Power Mode	Standard	
		Quiet	
		Theatre	
	Bright Calibration	50-100	(Default=100)
	CCI Calibration	State	Off
			On
		Value	0-100
	Blade Mode	Mode 1	
		Mode 2	
	Gobo Short Cut	Enable	
		Disable	
	Color Short Cut	Enable	
		Disable	
Display Settings	Display Invert	No	
		Yes	
	Backlight Intensity	1-10	(Default=10)
	Temperature Unit	℃	
		°F	
	Language	English	
		Chinese	

MENU	SUBMENU	OPTIONS	
Fixture Test	Auto Test		
	Manual Test	Clear	No/Yes
		Pan	0-255
		Tilt	0-255
		HUE	0-255
		Cyan	0-255
		Magenta	0-255
		Yellow	0-255
		Cto	0-255
		Color	0-255
		Gobo 1	0-255
		R-Gobo 1	0-255
		Gobo 2	0-255
		Animation	0-255
		Iris	0-255
		Prism	0-255
		R-Prism	0-255
		Frost 1	0-255
		Frost 2	0-255
		Zoom	0-255
		Focus	0-255
		Strobe	0-255
		Dimmer	0-255
		Blade	0-255
		Blade Down 1	0-255
		Blade Down 2	0-255
		Blade Up 1	0-255
		Blade Up 2	0-255
		Blade Left 1	0-255
		Blade Left 2	0-255
		Blade Right 1	0-255
		Blade Right 2	0-255

MENU	SUBMENU	OPTIONS		
Fixture Information	Fixture Use Hour			
	LED Use Hour	Total LED Hour		
		LED On Hour		
		LED Hours Reset	Password=050	
	Temperature		Current	Max temp
		LED's		
	Fan State	B_FAN 1-2		
		H_FAN 1-12		
	Firmware Version			
	RDM UID			
	Error Logs	Fixture Errors		
		Reset Error Log	No	
			Yes	Password=050
Reset Function	Pan/Tilt Reset	No		
		Yes		
	Effect Reset	No		
		Yes		
	All Reset	No		
		Yes		
Special Function	Factory Settings	No		
		Yes		

DMX Settings

Enter the control menu and select **DMX Settings**, press ENTER. Use the UP/DOWN button to select **DMX Address, DMX Channel Mode, No DMX Status** or **View DMX Value.**

DMX Address

Select **DMX Address,** press ENTER.

Use UP/DOWN button to select an address, confirm your selection with ENTER.

CHANNEL MODE	DMX ADDRESS
(38) Framing	1-475
(29) Spot	1-484
(31) F-Wash	1-482
(22) Wash	1-491

To exit the menu, press MENU, or wait 30 seconds.

DMX Channel Mode

Select **DMX Channel Mode,** press ENTER.

Use UP/DOWN button to select between **(38) Framing, (29) Spot, (31) F-Wash** and **(22) Wash**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

No DMX Status

Select **No DMX Status,** press ENTER.

Use UP/DOWN button to select one of the following status:

Blackout (Fixture blacks out if DMX signal stops)

Hold (The device continues to operate in the current mode with the last active DMX values until the signal returns)

Manual (The device accepts the DMX value stored in the 'Manual Test' menu)

Confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

View DMX Value

Select **View DMX Value,** press ENTER.
Use UP/DOWN button to select the desired DMX channel, for which the value is to be displayed.
To exit the menu, press MENU, or wait 30 seconds.

Fixture Settings

Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Pan Invert, Tilt Invert, P/T Feedback, Dimmer Speed, Dimmer Curve, Led Refresh Rate, Power Mode, Bright Calibration, CCI Calibration, Blade Mode, Gobo Short Cut** or **Color Short Cut.**

Pan Invert

Select **Pan Invert,** press ENTER.
Use UP/DOWN button to select **No** (pan invert deactivated) or **Yes** (pan invert activated), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Tilt Invert

Select **Tilt Invert,** press ENTER.
Use UP/DOWN button to select **No** (tilt invert deactivated) or **Yes** (tilt invert activated), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

P/T Feedback

Select **P/T Feedback,** press ENTER.
Use UP/DOWN button to select **No** (pan/tilt feedback deactivated) or **Yes** (pan/tilt feedback activated), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Dimmer Speed

Select **Dimmer Speed,** press ENTER.

Use UP/DOWN button to select **Fast** or **Smooth**, confirm your selection with ENTER.

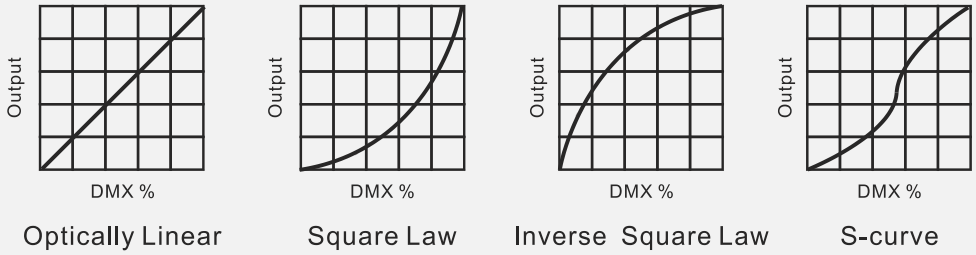
To exit the menu, press MENU, or wait 30 seconds.

Dimmer Curve

Select **Dimmer Curve,** press ENTER.

Use UP/DOWN button to select **Square Law, Inv SQ Law, Linear** or **S Curve**, confirm your selection with ENTER.

Dimmer Modes



To exit the menu, press MENU, or wait 30 seconds.

LED Refresh Rate

Select **LED Refresh Rate,** press ENTER.

Use UP/DOWN button to select **900Hz, 1000Hz, 1100Hz, 1200Hz, 1300Hz, 1400Hz, 1500Hz, 2500Hz, 4000Hz, 5000Hz, 6000Hz, 10KHz, 15KHz, 20KHz** or **25KHz**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Power Mode

Select **Power Mode,** press ENTER.

Use UP/DOWN button to select **Standard, Quiet** or **Theatre**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Bright Calibration

Select **Bright Calibration,** press ENTER.
Use UP/DOWN button to select a value between **50** and **100**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

CCI Calibration

Select **CCI Calibration,** press ENTER.
Use UP/DOWN button to select **State** or **Value**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Blade Mode

Select **Blade Mode,** press ENTER.
Use UP/DOWN button to select **Mode 1** or **Mode 2**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Gobo Short Cut

Select **Gobo Short Cut,** press ENTER.
Use UP/DOWN button to select **Enable** or **Disable**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Color Short Cut

Select **Color Short Cut,** press ENTER.
Use UP/DOWN button to select **Enable** or **Disable**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Display Settings

Enter the control menu and select **Display Settings**, press ENTER. Use the UP/DOWN button to select **Display Invert, Backlight Intensity, Temperature Unit** or **Language.**

Display Invert

Select **Display Invert,** press ENTER.
Use UP/DOWN button to select **No** (display normal) or **Yes** (display inverted), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Backlight Intensity

Select **Backlight Intensity,** press ENTER.
Use UP/DOWN button to select a value between **1** (dark) and **10** (bright), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Temperature Unit

Select **Temperature Unit,** press ENTER.
Use UP/DOWN button to select **°C** or **°F**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Language

Select **Language,** press ENTER.
Use UP/DOWN button to select **English** or **Chinese**, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Fixture Test

Enter the control menu and select **Fixture Test**, press ENTER. Use the UP/DOWN button to select **Auto Test** or **Manual Test.**

Auto Test

Select **Auto Test,** press ENTER.
The device immediately performs an automatic self-test.
To end the automatic self-test and exit the menu, press MENU, or wait 30 seconds.

Manual Test

Select **Manual Test,** press ENTER.
Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.
Use UP/DOWN button to select a value, confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.
(The device returns to its original DMX state after the manual test. The test values are saved automatically when the device is switched off.)

Fixture Information

Enter the control menu and select **Fixture Information**, press ENTER. 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 ENTER.
The operating hours is displayed.
To exit the menu, press MENU, or wait 30 seconds.

LED Use Hour

Select **LED Use Hour,** press ENTER.
Use UP/DOWN button to select **Total LED Hour** (total time) or **LED On Hour** (current switch-on time), confirm your selection with ENTER.
The total time or current switch-on time is displayed.
Use UP/DOWN button to select **LED Hours Reset**, confirm your selection with ENTER.
Use UP/DOWN button to set the password 050, confirm your selection with ENTER. The LED operating hours is reset.
To exit the menu, press MENU, or wait 30 seconds.

Temperature

Select **Temperature,** press ENTER.
The device temperature is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Fan State

Select **Fan State,** press ENTER.
The fan status is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Firmware Version

Select **Firmware Version,** press ENTER.
The firmware version is displayed.
To exit the menu, press MENU, or wait 30 seconds.

RDM UID

Select **RDM UID,** press ENTER.
The RDM UID is displayed.
To exit the menu, press MENU, or wait 30 seconds.

Error Logs

Select **Error Logs,** press ENTER.
Use UP/DOWN button to select **Fixture Errors**, confirm your selection with ENTER.
The error list is displayed.
Use UP/DOWN button to select **Reset Error Log**, confirm your selection with ENTER.
If you wish to reset the relevant error logs, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.
If you select **Yes**, use UP/DOWN button to set the password 050, confirm your selection with ENTER. The relevant error logs are reset.
To exit the menu, press MENU, or wait 30 seconds.

Reset Function

Enter the control menu and select **Reset Function**, press ENTER. Use the UP/DOWN button to select **Pan/Tilt Reset, Effect Reset** or **All Reset.**

Pan/Tilt Reset

Select **Pan/Tilt Reset,** press ENTER.
Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset pan/tilt to their home positions), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Effect Reset

Select **Effect Reset,** press ENTER.
Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset effect to their home positions), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

All Reset

Select **All Reset,** press ENTER.
Use UP/DOWN button to select **No** or **Yes** (the device will run built-in program to reset all to their home positions), confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

Special Function

Enter the control menu and select **Special Function**, press ENTER. Use the UP/DOWN button to select **Factory Settings.**

Factory Settings

Select **Factory Settings,** press ENTER.
If you wish to reset the device to the factory settings, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

Parameter ID	Command 'Discovery'	Command 'Set'	Command 'Get'
DISC_UNIQUE_BRANCH	√		
DISC_MUTE	√		
DISC_UN_MUTE	√		
DEVICE_INFO			√
SUPPORTED_PARAMETERS			√
SOFTWARE_VERSION_LABEL			√
DMX_START_ADDRESS		√	√
IDENTIFY_DEVICE		√	√
DEVICE_MODEL_DESCRIPTION			√
PARAMETER_DESCRIPTION			√
MANUFACTURER_LABEL			√
DEVICE_LABEL		√	√
FACTORY_DEFAULTS		√	√
BOOT_SOFTWARE_VERSION_ID			√
BOOT_SOFTWARE_VERSION_LABEL			√
DMX_PERSONALITY		√	√
DMX_PERSONALITY_DESCRIPTION			√
SLOT_INFO			√
SLOT_DESCRIPTION			√
SENSOR_DEFINITION			√
SENSOR_VALUE			√
DEVICE_HOURS			√
LAMP_HOURS			√
PAN_INVERT		√	√
TILT_INVERT		√	√
RESET_DEVICE		√	
CURVE		√	√
DMX_STATE		√	√
DIMMER_SPEED		√	√

√ -Command implemented for the respective parameter ID

6.2 Home Position Adjustment

- To access the control menus, press the [MENU] button.
- To access the offset menus, long-press the [ENTER] button.
- Navigate the offset menus, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

OFFSET MENU	VALUES
Frequency(Hz)	1072~1327
Dimming Start	0~9999
Dim 1 Offset	-128~127
.....	.....
Dim 9 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 1	-128~127
R-Gobo 1	-128~127
Gobo 2	-128~127
Animation	-128~127
Prism	-128~127
R-Prism	-128~127
Iris	0~255
Frost 1	0~255
Frost 2	0~255
Zoom	-128~127
Focus	-128~127
Blade	-128~127
Blade Down 1	-128~127
Blade Down 2	-128~127
Blade Up 1	-128~127

Blade Up 2	-128~127
Blade Left 1	-128~127
Blade Left 2	-128~127
Blade Right 1	-128~127
Blade Right 2	-128~127

Frequency(Hz)

Select **Frequency(Hz),** press ENTER.

Use UP/DOWN button to select a value, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Frequency	VALUES
900Hz	772~1027
1000Hz	872~1127
1100Hz	972~1227
1200Hz	1072~1327
1300Hz	1172~1427
1400Hz	1272~1527
1500Hz	1372~1627
2500Hz	2372~2627
4000Hz	3872~4127
5000Hz	4872~5127
6000Hz	5872~6127
10KHz	9872~10127
15KHz	14872~15127
20KHz	19872~20127
25KHz	24872~25127

Dimming Start

Select **Dimming Start,** press ENTER.

Use UP/DOWN button to select a value between 0 and 9999, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Dim 1 Offset

Select **Dim 1 Offset,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

.....

Dim 9 Offset

Select **Dim 9 Offset,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Pan

Select **Pan,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Tilt

Select **Tilt,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Cyan

Select **Cyan,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Magenta

Select **Magenta,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Yellow

Select **Yellow,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Cto

Select **Cto,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Color

Select **Color,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Gobo 1

Select **Gobo 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

R-Gobo 1

Select **R-Gobo 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Gobo 2

Select **Gobo 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Animation

Select **Animation,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Prism

Select **Prism,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

R-Prism

Select **R-Prism,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Iris

Select **Iris,** press ENTER.
Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Frost 1

Select **Frost 1,** press ENTER.
Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Frost 2

Select **Frost 2,** press ENTER.
Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Zoom

Select **Zoom,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Focus

Select **Focus,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade

Select **Blade,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Down 1

Select **Blade Down 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Down 2

Select **Blade Down 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Up 1

Select **Blade Up 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Up 2

Select **Blade Up 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Left 1

Select **Blade Left 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Left 2

Select **Blade Left 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

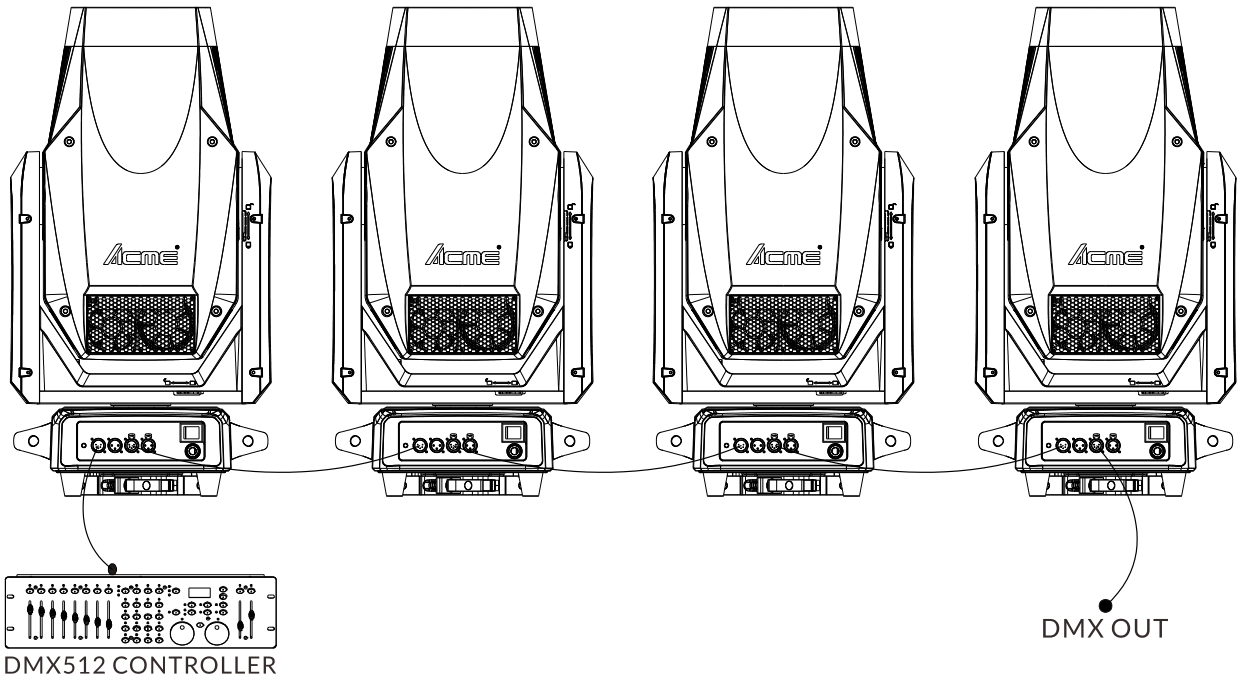
Blade Right 1

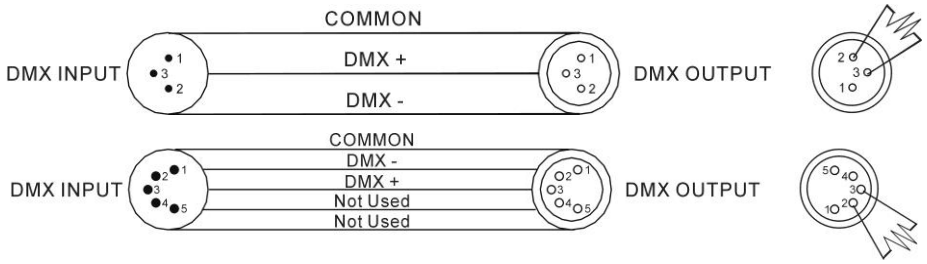
Select **Blade Right 1,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blade Right 2

Select **Blade Right 2,** press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

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

7.2 Address Setting

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

Press the MENU button to access the control menus, 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 show on the display. Use the UP/DOWN button to adjust the address between 001 and 512, press the ENTER button to store. To exit the menu, press MENU, or wait 30 seconds.

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
38 channels	1	39	77	115
29 channels	1	30	59	88
31 channels	1	32	63	94
22 channels	1	23	45	67

7.3 DMX512 Configuration

Please control the fixture by referring to the configurations below.

Attentions:

- The unit will maintain the last condition until reset if you cut-off the DMX signal.
- For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

CHANNEL				VALUE	FUNCTION
38ch	29ch	31ch	22ch		
1	1	1	1	000-255	**PAN** 0°→540°
2	2	2	2	000-255	**PAN FINE**
3	3	3	3	000-255	**TILT** 0°→270°
4	4	4	4	000-255	**TILT FINE**
5	5	5	5	000-255	**PAN/TILT SPEED** Fast to Slow
6	6	6	6	000-255	**HUE** 0%→100%
7	7	7	7	000-255	**CYAN** 0%→100%
8	8	8	8	000-255	**MAGENTA** 0%→100%
9	9	9	9	000-255	**YELLOW** 0%→100%
10	10	10	10	000-255	**CTO** 0%→100%
11	11	11	11	**COLOR WHEEL** 000-007 008-016 017-025 026-034 035-043 044-063 064-067 068-071 072-075 076-079 080-083 084-087	**COLOR WHEEL** Open Color 1 Color 2 Color 3 Color 4 Color 5 Open Open + Color 1 Color 1 Color 1 + Color 2 Color 2 Color 2 + Color 3

				088-091	Color 3
				092-095	Color 3 + Color 4
				096-099	Color 4
				100-103	Color 4 + Color 5
				104-107	Color 5
				108-111	Color 5 + CTB
				112-115	CTB
				116-119	CTB + Open
				120-127	Open
				128-189	Clockwise Rotation, Fast to Slow
				190-193	Stop
				194-255	Counter-Clockwise Rotation, Slow to Fast
					GOBO WHEEL 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
12	**12**			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
					R-GOBO WHEEL 1
				000-127	Index 0°→360°
13	**13**			128-189	Clockwise Rotation, Fast to Slow
				190-193	Stop
				194-255	Counter-Clockwise Rotation, Slow to Fast
14	**14**				**R-GOBO WHEEL 1 FINE**
				000-255	0%→100%
					GOBO WHEEL 2
				000-007	Open
				008-014	Gobo 1
				015-021	Gobo 2
15	**15**			022-028	Gobo 3
				029-035	Gobo 4
				036-042	Gobo 5
				043-049	Gobo 6
				050-056	Gobo 7

				057-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-189 190-193 194-255	Gobo 8 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 Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
16	**16**			000-007 008-129 130-133 134-255	**ANIMATION** Open Clockwise Rotation, Fast to Slow Stop Counter-Clockwise Rotation, Slow to Fast
17	**17**	**12**	**12**	000-255	**IRIS** 100%→0%
18	**18**			000-007 008-255	**PRISM (4-facet prism)** Close Open
19	**19**			000-127 128-189 190-193 194-255	**R-PRISM** Index 0°→360° Counter-Clockwise Rotation, Fast to Slow Stop Clockwise Rotation, Slow to Fast
20	**20**	**13**	**13**	000-255	**FROST1 (Light)** 0%→100%
21	**21**	**14**	**14**	000-255	**FROST2 (Heavy)** 0%→100%
22	**22**	**15**	**15**	000-255	**ZOOM** Wide→Narrow
23	**23**	**16**	**16**	000-255	**ZOOM FINE**
24	**24**	**17**	**17**	000-255	**FOCUS** 0%→100%
25	**25**	**18**	**18**	000-255	**FOCUS FINE**
26	**26**	**19**	**19**	000-007 008-015 016-131 132-139 140-181 182-189 190-231	**STROBE** Close Open Strobe from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Slow Open Fast Close from Slow to Fast

				232-239 240-247 248-255	Open Random Strobe from Slow to Fast Open
27	27	20	20	000-255	**DIMMER** 0%→100%
28	28	21	21	000-255	**DIMMER FINE**
29		22		000-255	**BLADE** 0°→180°
30		23		000-255	**BLADE DW 1** 0%→100%
31		24		000-255	**BLADE DW 2** 0%→100%
32		25		000-255	**BLADE UP 1** 0%→100%
33		26		000-255	**BLADE UP 2** 0%→100%
34		27		000-255	**BLADE LF 1** 0%→100%
35		28		000-255	**BLADE LF 2** 0%→100%
36		29		000-255	**BLADE RG 1** 0%→100%
37		30		000-255	**BLADE RG 2** 0%→100%
38	29	31	22	000-009 010-019 020-029 030-039 040-049 050-059 060-069 070-079 080-089 090-099 100-109 110-119 120-122 123 124 125 126 127 128 129	**FUNCTION** Null Blade Mode: Mode 1 (Not available on 29ch & 22ch) Blade Mode: Mode 2 (Not available on 29ch & 22ch) Dimmer Curve Square Law Dimmer Curve Inv Square Law Dimmer Curve Linear Dimmer Curve S Cooling Mode: Standard Cooling Mode: Quiet Cooling Mode: Theatre LED Frequency Setting Enable LED Frequency Setting Disable Null 900Hz 1000Hz 1100Hz 1200Hz 1300Hz 1400Hz 1500Hz

				130	2500Hz
				131	4000Hz
				132	5000Hz
				133	6000Hz
				134	10KHz
				135	15KHz
				136	20KHz
				137	25KHz
				138-139	Null
				140-149	Reset Pan/Tilt
				150-159	Reset Effect
				160-199	Null
				200-209	Reset All
				210-219	Dimmer Speed Fast
				220-229	Dimmer Speed Smooth
				230-231	Gobo Short Cut: Enable (Not available on 31ch & 22ch)
				232-233	Gobo Short Cut: Disable (Not available on 31ch & 22ch)
				234-235	Color Short Cut: Enable
				236-237	Color Short Cut: Disable
				238-239	Null
				240-245	CCI Calibration: On
				246-251	CCI Calibration: Off
				252-255	Null

08/ Error Information

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

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Gobo1/2 Reset Error

Check whether the position of the gobo wheel 1/2 where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the gobo wheel 1/2 operating range.
Check whether the Hall element on the gobo wheel 1/2 is damaged.
Check whether the lead connecting the Hall element on the gobo wheel 1/2 and the PCB board is in poor contact or disconnected.
Check whether the motor on the gobo wheel 1/2 is damaged.
Check whether the related circuit of the motor drive board on the gobo wheel 1/2 is damage.

R-Gobo1 Reset Error

Check whether the position of the gobo wheel 1 where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the gobo wheel 1 operating range.
Check whether the Hall element on the gobo wheel 1 is damaged.
Check whether the lead connecting the Hall element on the gobo wheel 1 and the PCB board is in poor contact or disconnected.
Check whether the motor on the gobo wheel 1 is damaged.
Check whether the related circuit of the motor drive board on the gobo wheel 1 is damage.

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.

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.

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.

Frost Reset Error

Check whether the position of the frost where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the frost operating range.
Check whether the Hall element on the frost is damaged.
Check whether the lead connecting the Hall element on the frost and the PCB board is in poor contact or disconnected.
Check whether the motor on the frost is damaged.
Check whether the related circuit of the motor drive board on the frost is damage.

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.

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.

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.

Base Fan 1/2 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.

Head Fan 1/2/3/4/5/6/7/8/9/10/11/12 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.

Led Temp. Error

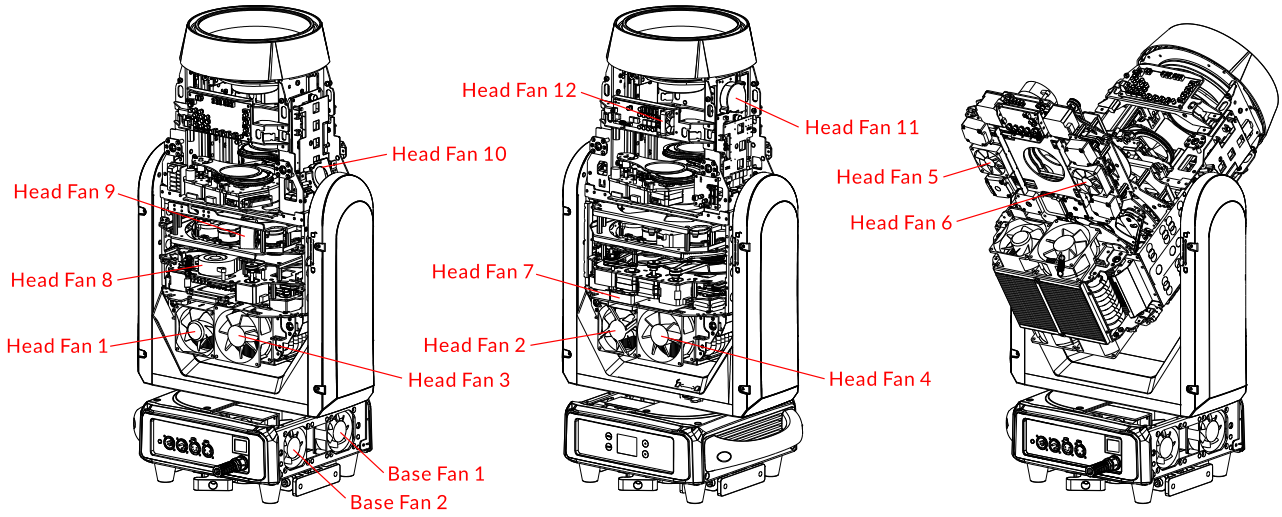
Check whether the temperature detecting board is normal.
Check whether the components of the temperature detecting board are damaged.
Check whether the lead on the temperature detecting board is installed in place or disconnected.

LED Timeout Use

LED Too Hot Off

When the fixture temperature reaches 83℃, it will automatically turn off to protect the fixture.

Position of cooling fans:



09/ 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

- Check the connected power.
- Measure the voltage.
- Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

- Check whether the DMX connectors and the DMX cables are connected correctly.
- Check whether the DMX address is correctly set.
- If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- Try it with another DMX controller.
- 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

- The stepper motor might be damaged or the cable connected to the PCB might be broken.
- The motor's drive IC on the PCB might be out of condition.

10/ 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.