



Cruiser 470 Beam

LH-C470

This manual contains important information.
Please read before operating fixture.

Guangzhou Leahua Lighting Technology Ltd
[http:// www.leahualighting.com](http://www.leahualighting.com)

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Accessories

Name	Quantity	Remark
User manual	1pc	
Folding clamp	1set	
Power cable	1pc	
DMX signal cable	1pc	
Safety cord	1pc	Optional

1. Safety Instructions

WARNING!!! To reduce the risk of fire, electric shock, or injury to persons, follow these important safety instructions:

- Check before use

Before operation, inspect the fixture for transportation damage. Do not use it if damaged. Unauthorized modification or improper use is not covered by warranty.

- Environment

The fixture is IP65-rated, suitable for indoor/outdoor use, and can operate in humid or dusty areas. Keep it away from excessive heat, fire, vibration, electrical surges, and strong light.

- Personnel & operation

Installation and operation must be performed by qualified personnel. Ensure all covers are securely in place, wear protective gear, and do not open the housing or attempt self-maintenance.

- Optical safety

Do not look directly into the light source. Do not use with dimmer packs. Maintain a minimum distance of 20 m from illuminated surfaces, and replace damaged optical components immediately.

- Electrical safety

Ensure correct voltage, proper grounding, and compliant power cords. Do not use damaged cables, and unplug by holding the plug. Avoid operating under heavy rain or extreme humidity, and avoid frequent on/off switching.

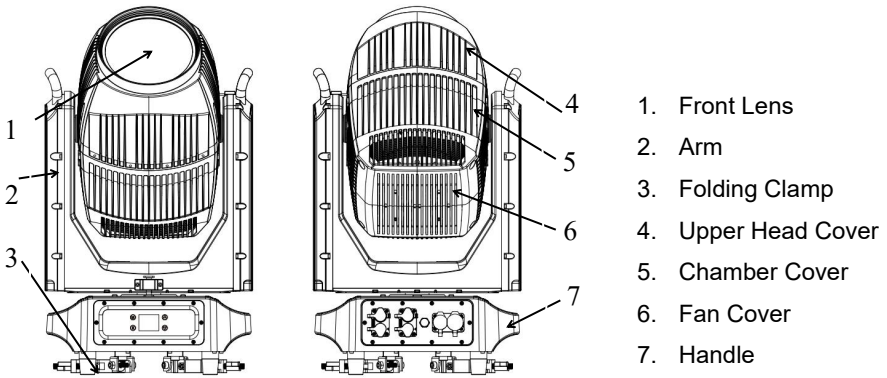
- Installation

Use the safety cord through the provided safety holes. Keep at least 50 cm ventilation clearance and do not mount on flammable surfaces or aim the beam at combustible objects (minimum 20 m).

- Temperature & normal conditions

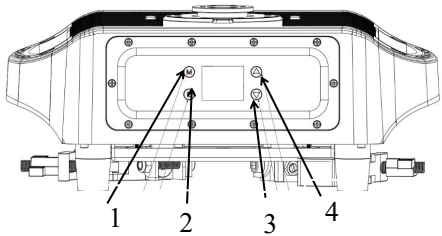
Housing temperature may reach 45 – 75° C during operation. Slight smoke or odor may occur at first ignition and is considered normal.

2. Appearance



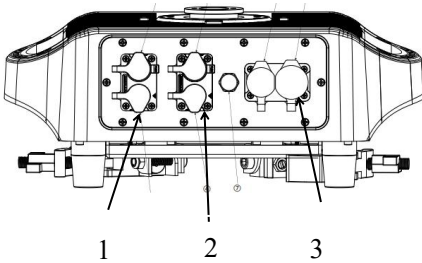
Front Panel of the Base

1. Menu Key
2. Return Key
3. Up Key
4. Down Key



Rear Panel of the Base

1. Waterproof DMX3-pin in/out
2. Waterproof DMX5-pin in/out
3. Waterproof power socket



3. Technical Specifications

Power

Input Voltage: AC 100-240V 50/60Hz

Power Consumption: 580W

Light source

Light Source: 420W USHIO lamp

CCT: 5600K

Life expectancy: 2500Hrs(factory rated)

Zoom range

Beam Angle: 1.8°

Control

Display: LCD display

Control mode: DMX512, master-slave, auto, sound , RDM

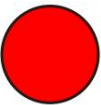

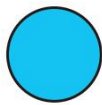
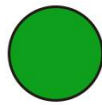
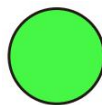
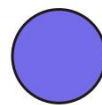

Channel: 24CH

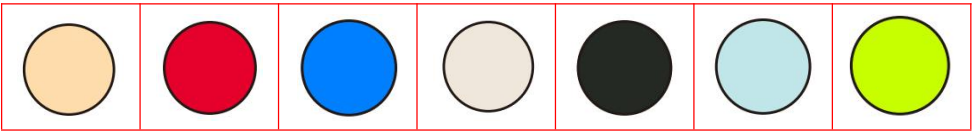
Head Movement

Pan/ Tilt: 540°/270° with auto-correction







Colors

Color Wheel 1: 14colors + open

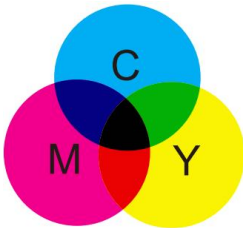
Red	Orange	Blue -green	Green	Yellow- green 1	Periwink le	Purple
						
Light -yellow	Pink	Blue	CRI	Minus- green	Cold color	Fluoresc ent 4



Color Wheel 2: 6 color filter

Purple	Orange	Blue	Green	Yellow	Red
					

CMY: Linear CMY color mixing
















Variable CTO: 3200-6500K linearly adjustable



Static gobo wheel

Static gobo wheel : 13 gobos+ open

Gobo1	Gobo2	Gobo3	Gobo4	Gobo5	Gobo6	Gobo7
						
Gobo8	Gobo9	Gobo10	Gobo11	Gobo12	Gobo13	
						





Effect

Animation wheel: 1 individual effect wheel, overlapping with static gobo wheel



Prism/Frost

Prism: 1× 8-facet circular prism, 1×24-facet circular prism, 1×48-facet circular prism, 1× 6-facet linear prism, bi-directional rotation

Gobo1	Gobo2	Gobo3	Gobo4
			

Frost: 1 frost filter



Dimming/Strobe

Dimming: 0-100% linear dimming system

Strobe: 1-20 F.P.S, speed adjustable

Housing

Housing: Magnesium alloy body

Protection rate: IP65

Working temperature

Working temperature: -10°C-45°C

Cooling System: Low noise and efficient fan cooling system

Connection

Power connection: Powercon in/out

DMX connection: DMX 3-pin + 5-pin in/out

Product dimensions

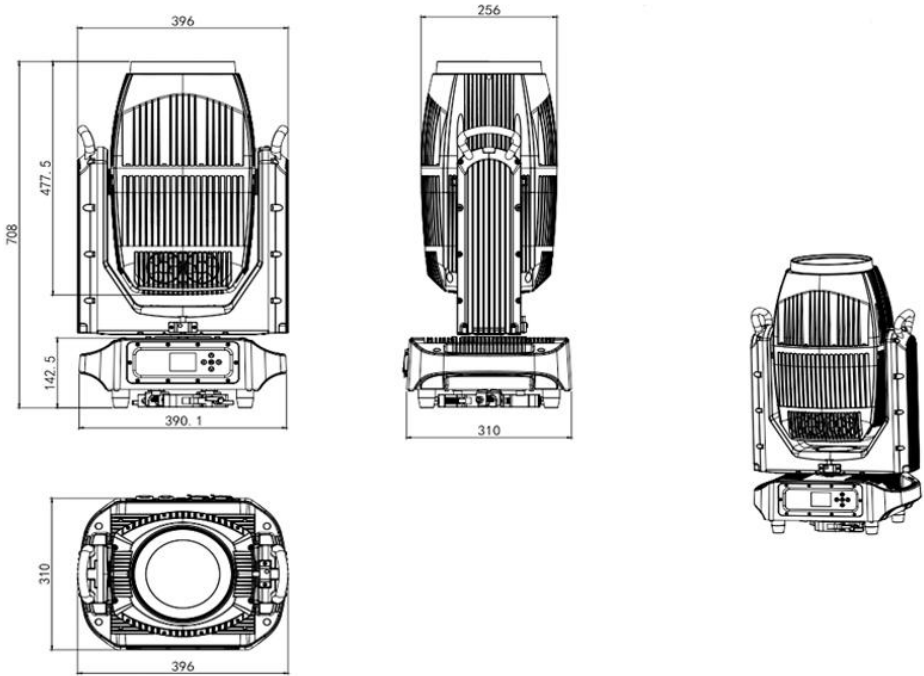
396×310×708mm

Net weight

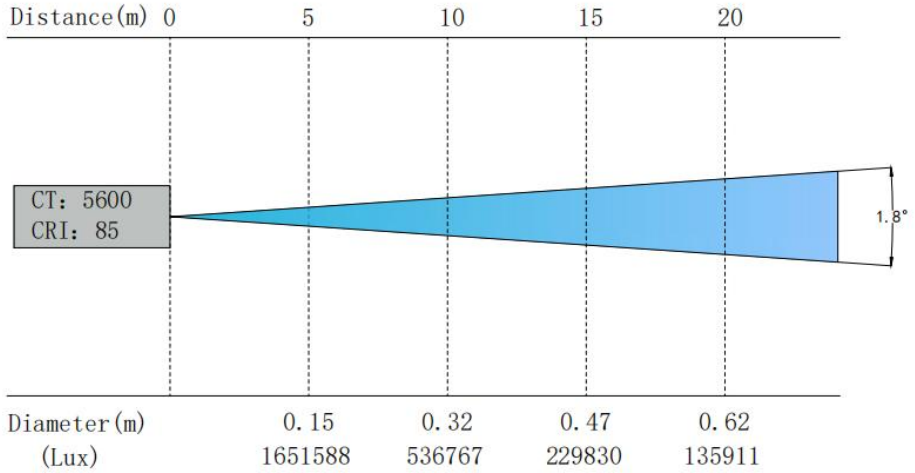
29.5kg

Dimensions:

Cruiser 470 Beam

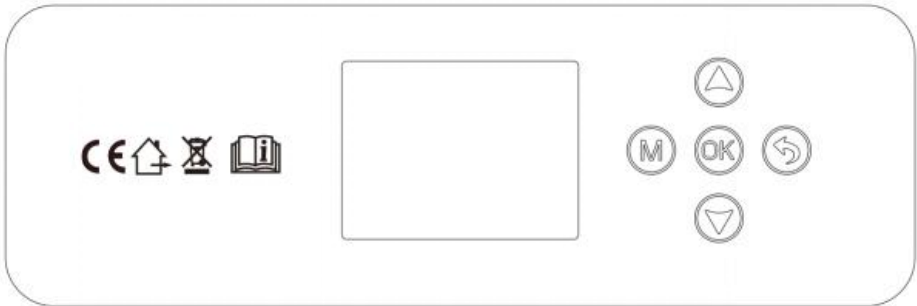


Light output:



4. Operation

4.1 Front panel operation:



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
OK	To perform the desired functions

Pressing any button from the home screen will show the selectable menu items from the menu map. When a menu function is selected, the display will immediately show the first available option for the selected menu function. To select a menu item, press <OK>.

Use the <UP> and <DOWN> buttons to navigate the menu options. Press the <OK> button to select the menu function currently displayed, or to enable a menu option. To return to the previous option or menu without changing the value, press the <MENU> button.

4.2 Board instruction:

DMX Address	1-512	Press the "OK" button to enter the edit state, the initial address code is 001, press the "Up" or "down" key to change the location Address code. Press the "OK" key to exit the editing state.
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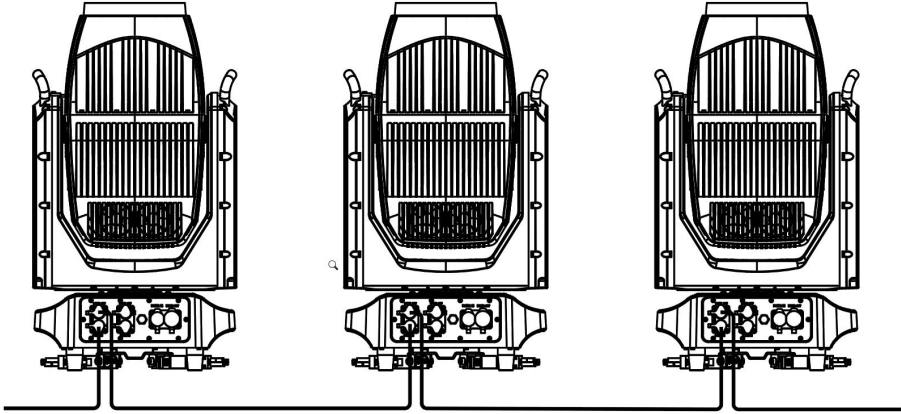
Channel Mode	24ch	
Reset	Motor power	
	Pan Tilt	
	Color	
	Gobo	
	Beam path	
Run	DMX	
	Auto	
	User	
Manual	Lock Manual ctrl	Yes/no
	Pan	0-255
	Tilt	
	P/T speed	
	C	
	M	
	Y	
	CTO	
	Color	
	Gobo	
	Prism	
	Prism1 Rot	
	Prism2 Rot	
	Built In Effect	
	Effect Speed	
	Strobe	
	Dimmer	
Focus		
Colorful/Frost		
Options	M/S mode	Slave /Master

	Pan/Tilt	Manual Pan/Tilt	ON/OFF	
		Invert Pan	ON/OFF	
		Invert Tilt	ON/OFF	
		Speed chn RT	YES/NO	
	User Program			
	Auto Master	No/Yes		
	IF no DMX	Power on	Middle/no effect	
		Run Time	Clear/Keep	
Lamp Auto	On/Off			
ADVANCED	Adjust			
	Display	Auto Lock	Off/ON	
		Sleep	DMX	
		Flip	Off/ON	
	Language	English/Chinese		
	Factory Setting	Input PSW		
Adjust Recover	Input PSW			
INFORMATION	DMX Monitor	Chn1-24		
	System Errors			
	LED	Usage times/clear times		
	Factory tesr	Input PSW		
	Product code			

4.3 DMX address setting:

Each fixture must be assigned a unique DMX start address within the 001 – 512 range. The start address represents the first channel the fixture occupies. This product provides one DMX modes 24 channels, therefore, the next fixture's start address must be calculated according to the number of channels used in the selected mode to avoid overlapping addresses. when operating in 24-channel mode, set Fixture 1 to 001, Fixture 2 to 025,

Fixture 3 to 049, Fixture 4 to 073, etc.



DMX Input

DMX Output

5.DMX Protocol

CH	Channel	DMX value	Description
1	Pan	0-255	Pan movement range 540°
2	Pan fine	0-255	Pan fine
3	Tilt	0-255	Tilt movement range 260°
4	Tilt fine	0-255	Tilt fine
5	Pan/Tilt speed	0	Maximum speed
		1-255	Speed from max to min.
		Speed mode	
		1-255	Time from 0.1s to 25.5 ses
		Time mode	
6	CMY-C	0-255	From min. saturation to full cyan
7	CMY-M	0-255	From min. saturation to full magenta
8	CMY-Y	0-255	From min. saturation to full yellow
9	CTO	0-255	The color saturation ranges from low to high (when 12CH is at the value 000-007, this CTO functions is active; 12CH at 008-255, CTO doesn't work; When 16CH is at the value 000-007, this CTO functions is active; 12CH at 008-255, CTO doesn't work)
10	Color wheel	000-003	Open
		004-007	Color1
		008-011	Color2
		012-015	Color3
		016-019	Color4

		020-023	Color5
		024-027	Color6
		028-031	Color7
		032-035	Color8
		036-039	Color9
		040-043	Color10
		044-047	Color11
		048-051	Color12
		052-055	Color13
		056-059	Color14
		060-061	Open
		062-063	Open+Color1
		064-065	Color1
		066-067	Color1+Color2
		068-069	Color2
		070-071	Color2+Color3
		072-073	Color3
		074-075	Color3+Color4
		076-077	Color4
		078-079	Color4+Color5
		080-081	Color5
		082-083	Color5+Color6
		084-085	Color6
		086-087	Color6+Color7
		088-089	Color7
		090-091	Color7+Color8
		092-093	Color8
		094-095	Color8+Color9
		096-097	Color9
		098-099	Color9+Color10

		100-101	Color10
		102-103	Color10+Color11
		104-105	Color11
		106-107	Color11+Color12
		108-109	Color12
		110-111	Color12+Color13
		112-113	Color13
		114-115	Color13+Color14
		116-117	Color14
		118-119	Color14+Open
		120-127	Open
		128-189	Backwards rotation from fast to slow
		190-193	Stop
		194-255	Forwards rotation from slow to fast
11	Gobo wheel (when 16CH is at the value 000-007, this channel is active; 16CH at 008-255, this channel doesn't work.)	000-007	open
		008-010	Gobo1
		011-013	Gobo2
		014-016	Gobo3
		017-019	Gobo4
		020-022	Gobo5
		023-025	Gobo6
		026-028	Gobo7
		029-031	Gobo8
		032-034	Gobo9
		035-037	Gobo10
		038-043	Gobo11(effect gobo 1)
		044-049	Gobo12(effect gobo 2)
		050-055	Gobo13(effect gobo 3)

		056-059	Open hole shaking from slow to fast
		060-063	Gobo 1 shaking from slow to fast
		064-067	Gobo 2 shaking from slow to fast
		068-071	Gobo 3 shaking from slow to fast
		072-075	Gobo 4 shaking from slow to fast
		076-079	Gobo 5 shaking from slow to fast
		080-083	Gobo 6 shaking from slow to fast
		084-087	Gobo 7 shaking from slow to fast
		088-091	Gobo 8 shaking from slow to fast
		092-095	Gobo 9 shaking from slow to fast
		096-103	Gobo10 shaking from slow to fast
		104-111	Gobo11(effect gobo 1) shaking from slow to fast
		112-119	Gobo12(effect gobo 2) shaking from slow to fast
		120-127	Gobo13(effect gobo 3) shaking from slow to fast
		128-189	Forwards rotation from fast to slow
		190-193	Stop
		194-255	Backwards rotation from slow to fast
12	Effect wheel (when 16CH is at the value 000-007, this channel is active; 16CH at 008-255, this channel doesn't work.)	000-007	Open
		008-038	Soft Filter 1
		039-069	Soft Filter 2
		070-100	Gobo 1
		101-131	Gobo 1 shaking from slow to fast
		132-162	Gobo 2
		163-193	Gobo 2 shaking from slow to fast
		194-224	Gobo 3

		225-255	Gobo 3 shaking from slow to fast
13	Prism	000-007	Open
		008-038	Prism L6
		039-069	Prism C8
		070-100	Prism C24
		101-131	Prism C48
		132-162	Prism L6+Prism C24
		163-193	Prism L6+Prism C48
		194-224	Prism C8+Prism C24
		225-255	Prism C8+Prism C48
14	PRISM 1 ROTATION	000-127	Prism indexing
		128-189	Forwards rotation from fast to slow
		190-193	Stop
		194-255	Backwards rotation from slow to fast
15	PRISM 2 ROTATION	000-127	Prism indexing
		128-189	Forwards rotation from fast to slow
		190-193	Stop
		194-255	Backwards rotation from slow to fast
16	MACRO EFFECT (CTO function is only active when 16CH at value 000-007)	000-007	Macro 1
		008-010	Macro 2
		011-013	Macro 3
		014-016	Macro 4
		017-019	Macro 5
		020-022	Macro 6
		023-025	Macro 7
		026-028	Macro 8
		029-031	Macro 9
		032-034	Macro 10

		035-037	Macro 11
		038-040	Macro 1
		041-043	Macro 12
		044-046	Macro 13
		047-049	Macro 14
		050-052	Macro 15
		053-055	Macro 16
		056-058	Macro 17
		059-061	Macro 18
		062-064	Macro 19
		065-067	Macro 20
		068-070	Macro 21
		071-073	Macro 22
		074-076	Macro 23
		077-079	Macro 24
		080-082	Macro 25
		083-085	Macro 26
		086-088	Macro 27
		089-091	Macro 28
		092-094	Macro 29
		095-097	Macro 30
		098-100	Macro 31
		101-103	Macro 32
		104-106	Macro 33
		107-109	Macro 34
		110-112	Macro 35
		113-115	Macro 36
		116-118	Macro 37
		119-121	Macro 38
		122-124	Macro 39

	125-127	Macro 40
	128-130	Macro 41
	131-133	Macro 42
	134-136	Macro 43
	137-139	Macro 44
	140-142	Macro 45
	143-145	Macro 46
	146-148	Macro 47
	149-151	Macro 48
	152-154	Macro 49
	155-157	Macro 50
	158-160	Macro 51
	161-163	Macro 52
	164-166	Macro 53
	167-169	Macro 54
	170-172	Macro 55
	173-175	Macro 56
	176-178	Macro 57
	179-181	Macro 58
	182-184	Macro 59
	185-187	Macro 60
	188-190	Macro 61
	191-193	Macro 62
	194-196	Macro 63
	197-199	Macro 64
	200-202	Macro 65
	203-205	Macro 66
	206-208	Macro 67
	209-211	Macro 68
	212-214	Macro 69

		215-217	Macro 70
		218-220	Macro 71
		221-223	Macro 72
		224-226	Macro 73
		227-229	Macro 74
		230-232	Macro 75
		233-235	Macro 76
		236-238	Macro 77
		239-241	Macro 78
		242-244	Macro 79
		245-247	Macro 80
		248-255	Reserved
17	Macro SPEED	000-007	Stop
		008-255	Slow to fast
18	Shutter	000-007	Close
		008-015	Open
		016-131	Shutter effect from slow to fast
		132-167	Closing pulse in sequences from fast to slow
		168-203	Opening pulse in sequences from slow to fast
		204-239	Pulsation from slow to fast
		240-247	Shutter effect, random from from slow to fast
		248-255	Open
19	Dimmer	0-255	Dimmer intensity: from 0% to 100%
20	Dimmer fine	0-255	Dimmer fine: from 0% to 100%
21	Focus	0-255	Continuously adjustment from near to far
22	Focus Fine	0-255	Fine focusing

23	Frost	000-007	Close
		008-255	Open
24	Reset(functions are in active when stopping in value for at least 3 seconds)	000-069	Reserved
		070-129	Reserved
		130-139	Lamp On
		140-149	Reset Pan/Tilt
		150-159	Reset Effect
		160-199	Reserved
		200-209	Reset All
		210-229	Reserved
		230-239	Lamp off
		240-255	Reserved

6. Installation

6.1 Mounting & Rigging

- Prepare the fixture

Ensure the fixture is in good condition and the ventilation openings are unobstructed.

- Mount using the built-in folding clamp

Hang the fixture directly onto the truss or mounting structure using the integrated folding clamp.

Always lift or carry the fixture using the handles—not the clamp.

- Install the safety cable

Pass the safety cable through the two safety-cable holes on the base and secure it to an independent safety point.

The safety cable must be rated to withstand 10× the fixture’s weight.

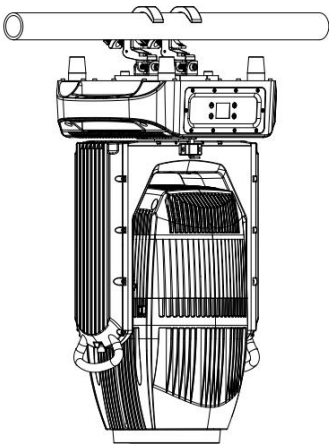
- Lock / Unlock Pan & Tilt

Lock Pan and Tilt before moving the fixture; unlock them before powering on.

Do not operate the fixture while Pan/Tilt is locked.

- Final Safety Check


Confirm the hook is fully engaged, the safety cable is properly secured, and the mounting structure can safely support the fixture’s weight.



6.2 Power connection

Please checking the power equipment supported.

Please put the plug of power source wire connect with the main power source .

(EU)Wire	Wire(America)	Direction of wire	General marks
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	

6.3 DMX Control Connection

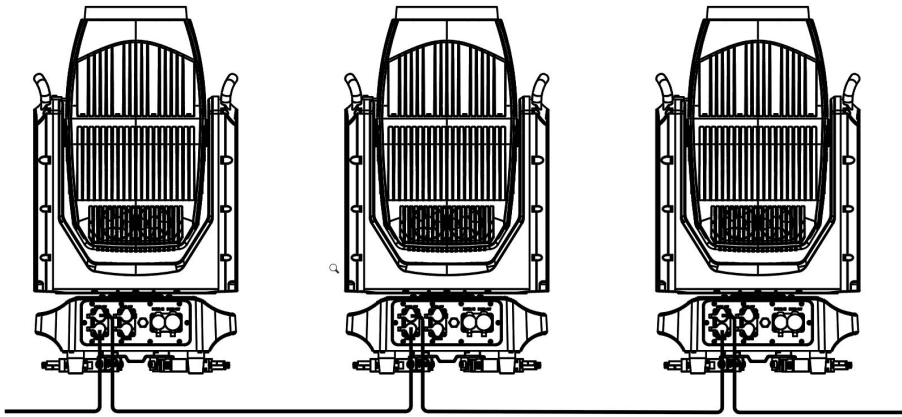
This fixture supports DMX512 (1990) control protocol and is equipped with both 5-pin and 3-pin XLR connectors for data input and output. Use a twin-screened DMX cable with conductors of at least 0.5 mm² , ensuring correct wiring for the selected connector type.

Connect the controller's DMX OUT to the first fixture's DMX IN, then link fixtures DMX OUT → DMX IN in a daisy-chain. For optimal signal integrity, install a **DMX terminator** on the DMX OUT of the final fixture.

Ensure no pin makes contact with the connector housing or other pins.

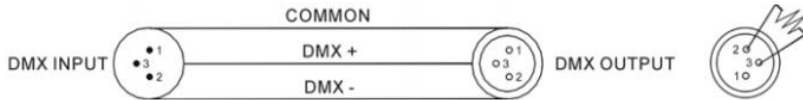
Before use, test cables with an ohm meter to verify correct polarity and to ensure no pins or shield are shorted to ground, as this may result in data errors or unstable operation.

For convenience, connect fixtures in the physical order they are installed, rather than by DMX address sequence.



DMX Input

DMX Output



6.4 Alignment/ Installation/Replacement of a lamp

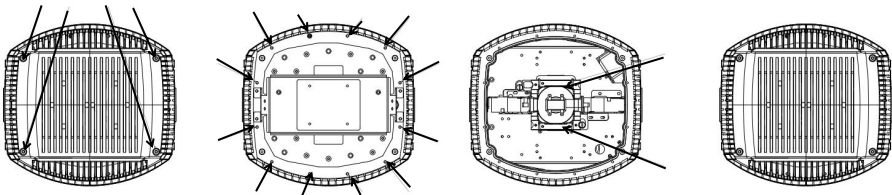


Figure 1: First loosen the 4 screws of the head fan cover and remove the cover.

Figure 2: Then loosen the 12 screws of the radiator module, unplug the fan wire, and remove the module.

Figure 3: Unplug the bulb power cord, loosen the 4 screws of the bulb pressure plate, then take out the bulb for replacement.

Figure 4: After replacing the bulb, first ensure the bulb is clamped tightly before plugging in the bulb power cord, then turn on the light and adjust the bulb's center point to the middle position. After adjustment, install the radiator module, plug in the fan wire, and finally attach the fan cover.

Operational Safety Precautions

1. **Power-off Operation:** The main power supply of the equipment must be cut off before operation to avoid the risk of electric shock.
2. **Anti-scalding Treatment:** If the equipment has just been used, wait for the lamp body and bulb to cool down before operation to prevent scalding from high temperatures.
3. **Handle with Care:** The bulb is a fragile item; avoid collision and extrusion when taking and placing it. When disassembling and assembling the radiator module, operate steadily to prevent damage to parts.
4. **Wiring Specification:** Align the connectors when plugging in the wires; avoid forced plugging and unplugging, which may cause poor contact or damage to the circuit.

5. Maintenance & Cleaning

Regular maintenance is essential to ensure optimal performance and extend the service life of the fixture.

7.1 Cleaning

Disconnect the unit from power before any cleaning work.

Use a soft, lint-free cloth slightly dampened with mild detergent to clean the exterior surfaces.

Gently remove dust from ventilation slots, optical lenses, and cooling components using compressed air or a soft brush.

Avoid using solvents, alcohol, or abrasive materials that may damage the housing or optical elements.

7.2 Lubrication

This fixture is designed with sealed or maintenance-free moving parts. Under normal operating conditions, no additional lubrication is required.

If abnormal noise or movement resistance is observed, contact qualified service personnel before applying any lubricant.

7.3 Troubleshooting

If the fixture does not power on, verify the power supply, cables, and connectors.

For control issues, check DMX addressing, cable integrity, and ensure proper 3-pin/5-pin XLR connections.

Overheating or unexpected shutdown may indicate blocked ventilation; inspect and clean air inlets and outlets.

If problems persist after basic checks, discontinue use and contact authorized service technicians.



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