



Crusier LED 700 BWS

LH -C503

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).

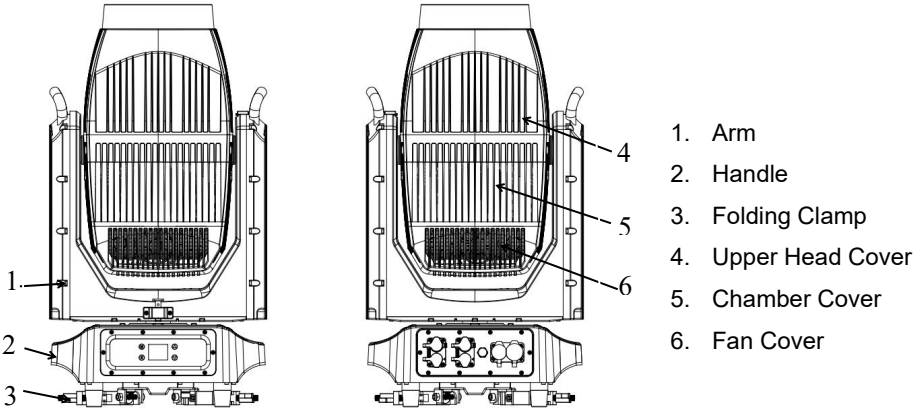
- Temperature & normal conditions

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

2. Appearance

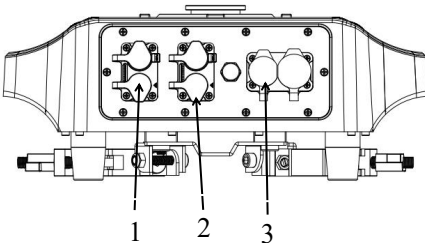
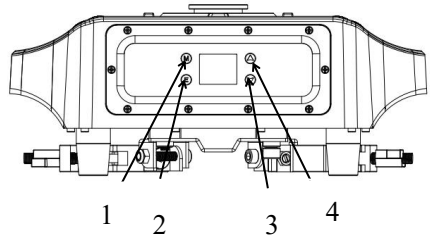
Front side & back side

Front panel & rear panel



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: AC100-240V 50/ 60Hz

Power Consumption:650W

Light source

Light Source:500W white LED module

CCT:7200K

Life expectancy:20000 hours(factory rated)

Zoom range

Zoom range: 3-45°

Control













Display: LCD display

Control mode: Dmx512, master-slave, auto, sound, RDM

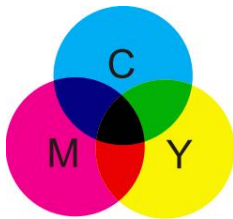
Channel:29CH

Colors

Color wheel1 :12 colors+open

Red	Yellow	Blue	Light green	Rose	Orange	Periwinkle
						
Brown	Green	Purple	Blue green	Cold colors		
						

CMY: Linear CMY color mixing



Variable CTO: 3200-7200K linearly adjustable



Static gobo wheel

Static gobo wheel :12gobos+ open

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

Rotating gobo wheel

Rotating gobo wheel : 7gobos+ open, indexable and replaceable

Outside diameter:23mm

Image diameter: 18mm

Gobo1	Gobo2	Gobo3	Gobo4	Gobo5	Gobo6	Gobo7

Effect

Animation wheel: 1 dynamic effect wheel



Prism/Frost

Prism: 1×4-facet linear prism, 1×4-facet circular prism

Frost: 1 frost filter

linear prism	circular prism	frost filter

Dimming/Strobe

Dimming: 0-100% linear dimming system

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

Other Function

Focus: Electronic focus function

Cooling System: Low noise and efficient fan cooling system

Head movement

Pan/ Tilt: 540° / 270° 16bit with auto position correction

Housing

Housing: Magnesium alloy body

Protection rate: IP65

Working temperature

Working temperature: -10°C-45°C

Connection

Power connection: Powercon in/ out

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

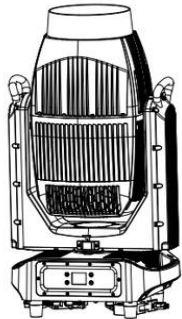
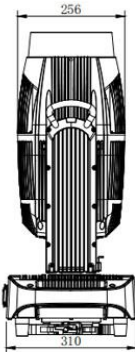
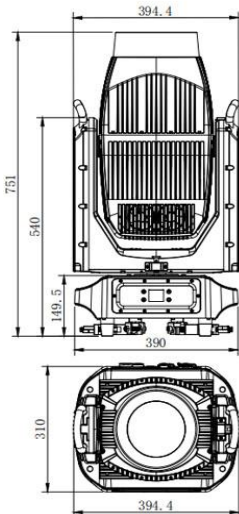
Product dimensions

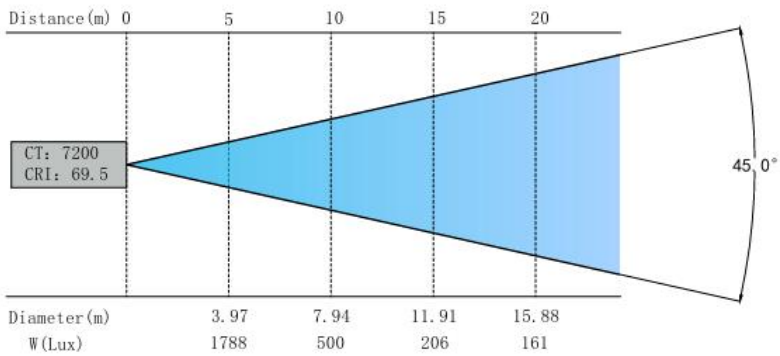
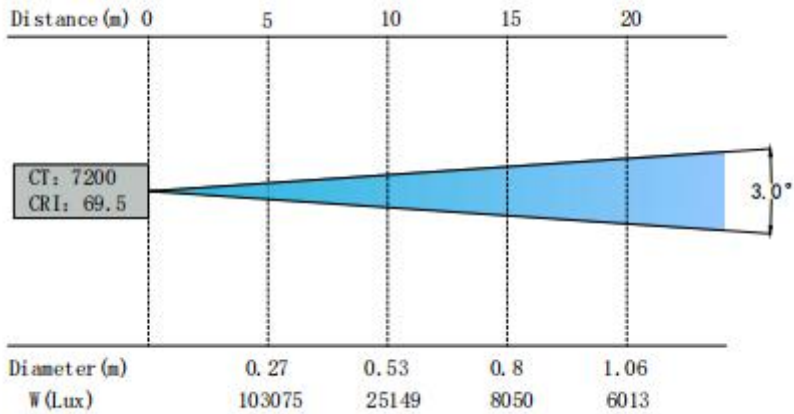
394.4×310×751mm

Net weight

29kg

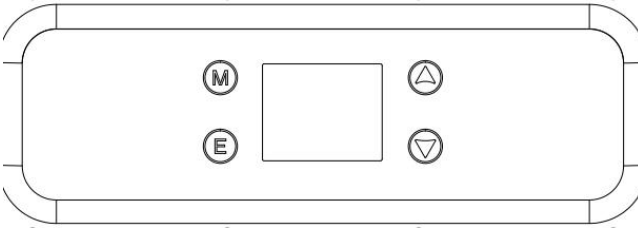
Dimensions:



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
ENTER	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 <ENTER>.

Use the <UP> and <DOWN> buttons to navigate the menu options. Press the <ENTER> 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:

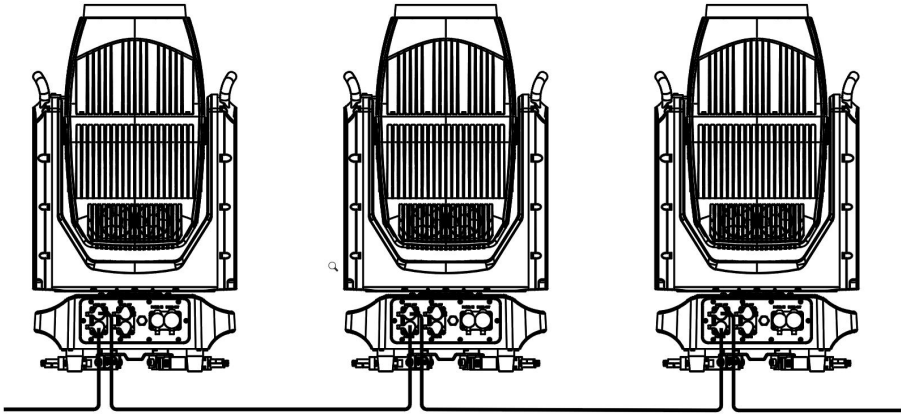
DMX Address	1-512	Press the "OK" button to enter the edit state, the initial address code is 001, press the "Up" or "down" key to change the location Address code. Press the "OK" key to exit the editing state.
Channel Mode	29ch	
Reset	Moter power	
	Pan Tilt	
	color	
	Gobo	
	Beam path	
Run	DMX	
	Auto	
	User	
Channel	Lock Manual ctrl	Yes/no
	Pan	0-255
	Tilt	
	P/T speed	
	Dim	
	strobe	
	color	
	C	
	M	
	Y	
	CTO	
	CMY Macro	
	Gobo	
	Effect	

	Gobo Wheel				
	Rot Gobo				
	Prism 1				
	Prism 1 Rot				
	Prism 2				
	Prism 2 Rot				
	Frost				
	Zoom				
	Focus				
Option	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		
	Dimcurve	Linear /Square			
	Fan mode	Normal/Mute			
	User Program	Manual	Step1-29ch		
		Record	Select Step	0-12	
			Time	0-255	
			Record	0-255	
	Clear All	Input PSW			
	IF no DMX	Power on	Middle/no effect		
		Run Time	Clear/Keep		
	ADVANCED	Adj	Input PSW		
		Display	Auto Lock	Off/ON	
			Sleep	DMX	
			Flip	Off/ON	
		Language	English/Chinese		
		Factory Setting	Input PSW		
Adj Recover	Input PSW				
Information	DMX Monitor	Chn1-29			
	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 modes29channels; 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. For example, when operating in 29-channel mode, set Fixture 1 to 001, Fixture 2 to 030, Fixture 3 to060, Fixture 4 to 090 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 270°
4	Tilt fine	0-255	
5	Pan/Tilt speed	0	top speed
		1-255 Speed mode	Speed from fast to slow
		1-255 Time mode	The time period ranged from 0.1s to 25.5 ses
6	Dimmer	0-255	Dimmer from dark to brightness
7	Dimmer fine	0-255	
8	Strobe	0-3	Strobe close
		4-103	Strobe effect1 from slow to fast
		104-107	Strobe open
		108-155	Strobe effect2 Fast open and slow out, from slow to fast
		156-207	Strobe effect3 Fast go out and slow open, from fast to slow
		208-212	Strobe open

		213-251	Random strobe, from slow to fast
		252-255	Strobe open
9	Color wheel	0-2	Color1 (white)
		3-7	Color1+Color2
		8-12	Color2
		13-17	Color2+Color3
		18-22	Color3
		23-27	Color3+Color4
		28-32	Color4
		33-37	Color4+Color5
		39-42	Color5
		43-47	Color5+Color6
		48-52	Color6
		53-57	Color6+Color7
		58-62	Color7
		63-67	Color7+Color8
		68-72	Color8
		73-77	Color8+Color9
		78-82	Color9
		83-87	Color9+Color10
		88-92	Color10
		93-97	Color10+Color11
		98-102	Color11
		103-107	Color11+Color12
		108-112	Color12
		113-117	Color12+Color13
		118-122	Color13
		123-127	Color13+Color1
		128-190	Rainbow effects from fast to slow
		191-192	Rainbow effects stop

		193-255	Rainbow effects from slow to fast
10	CMY-C	0-255	The linear changes from shallow to deep
11	CMY-M	0-255	The linear changes from shallow to deep
12	CMY-Y	0-255	The linear changes from shallow to deep
13	CTO	0-255	The linear changes from shallow to deep
14	CMY color mixing	0-9	No Function
		10-19	Color1
		20-29	Color2
		30-39	Color3
		40-49	Color4
		50-59	Color5
		60-69	Color6
		70-79	Color7
		80-89	Color8
		90-99	Color9
		100-109	Color10
		110-119	Color11
		120-129	Color12
		130-139	Color13
		140-149	Color14
		150-159	Color15
		160-169	Color16
		170-179	Color17
		180-189	Color18
		190-199	Color19
		200-209	Color20
		210-219	Color21
220-229	Color22		

		230-239	Color23
		240-249	Color24
		250-255	Color25
15	Gobo wheel	0-4	open
		5-12	Gobo1
		13-20	Gobo2
		21-28	Gobo3
		29-36	Gobo4
		37-44	Gobo5
		45-52	Gobo6
		53-60	Gobo7
		61-68	Gobo8
		69-76	Gobo9
		77-84	Gobo10
		85-92	Gobo11
		93-102	Gobo12
		103-110	Gobo1 shake from slow to fast
		111-118	Gobo2 shake from slow to fast
		119-126	Gobo3 shake from slow to fast
127-134	Gobo4 shake from slow to fast		
135-142	Gobo5 shake from slow to fast		
143-150	Gobo6 shake from slow to fast		
151-158	Gobo7 shake from slow to fast		
159-166	Gobo8 shake from slow to fast		

		167-174	Gobo9 shake from slow to fast
		175-182	Gobo10 shake from slow to fast
		183-190	Gobo11 shake from slow to fast
		191-199	Gobo12 shake from slow to fast
		200-201	open
		202-226	The gobo rolls forward, from fast to slow
		227-228	Stop rolling
		229-255	The gobo scroll in reverse, from slow to fast
16	Effect wheel	0	No function
		1-127	Linear cutting
		128-255	Swing effect
17	Rotate gobo	0-5	Open / white hole
		6-15	Gobo1
		16-25	Gobo2
		26-35	Gobo3
		36-45	Gobo4
		46-55	Gobo5
		56-65	Gobo6
		66-75	Gobo7
		76-92	Gobo1 shake from slow to fast
		93-109	Gobo2 shake from slow to fast
		110-126	Gobo3 shake from slow to fast
		127-143	Gobo4 shake from slow to fast

		144-160	Gobo5 shake from slow to fast
		161-177	Gobo6 shake from slow to fast
		178-199	Gobo7 shake from slow to fast
		200-201	stop
		202-227	Forward gobo flow effect: from fast to slow
		228-255	Reverse gobo flow effect: from slow to fast
18	Rotate gobo transposition and rotate	0	No function
		1-127	Rotate gobo transposition
		128-191	Forward gobo rotate: from fast to slow
		192-255	Reverse gobo rotate: from slow to fast
19	Rotate gobo remote fine tuning	0-255	spin fine-tuning
20	Prism1	0-63	no prism
		64-255	Prism 1 was inserted
21	Prism rotation	0-127	Prism 1 positioning and rotation
		128-190	Prism 1 rotates backwards, from fast to slow
		191-192	Prism 1 stopped the rotation
		193-255	Prism 1 rotates forward, from slow to fast
22	Prism2	0-63	no prism

		64-255	Prism2 was inserted
23	Prism rotation	0-127	Prism 2 positioning and rotation
		128-190	Prism 2 rotates backwards, from fast to slow
		191-192	Prism 2 stops the rotation
		193-255	Prism 2 rotates forward, from slow to fast
24	Frost	0-63	no
		64-255	Frost
25	Focus	0-255	from small to large
26	Focus Fine	0-255	from small to large
27	Zoom	0-255	By the far and near continuous regulation
28	Zoom fine	0-255	from far to near
29	Reset	0-199	No function
		200-209	Effect reset
		210-219	PanTilt reset
		220-229	All motor reset
		230-255	No function

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.

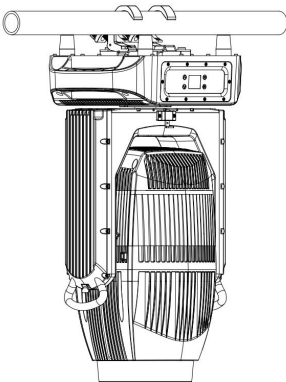
- Lock / Unlock Pan & Tilt

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

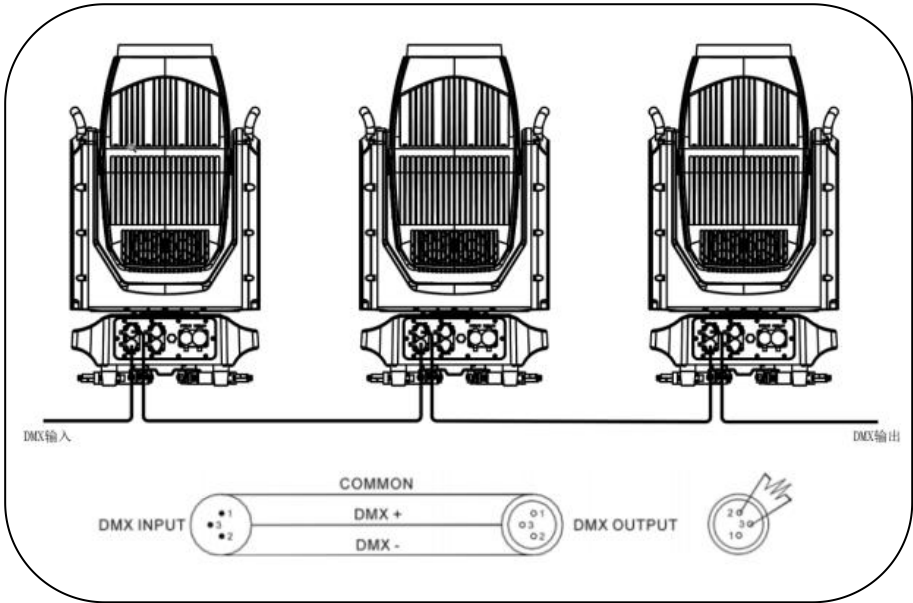
This fixture supports DMX512 (1990) control protocol and is equipped with both 5-pin and 3-pin XLR connectors for data input and output. Use a twin-screened DMX cable with conductors of at least 0.5 mm² , ensuring correct wiring for the selected connector type.

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.



6.4 Alignment/ Installation/Replacement of a lamp

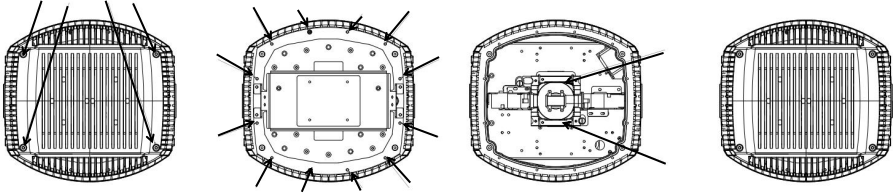


Figure 1: First loosen the 4 screws of the head fan cover and remove the cover.

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.

7. 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.



LEAHUA

Guangzhou Leahua Lighting Technology Ltd

Rm 1004, Building A
Baiyun Lake Future Technology Center
No,1 Xinghu Street, Shimen, Baiyun district
Guangzhou 510440, China
