Contents

The following symbols are used to identify important safety information on the product and in this manual:

DANGER!
Hazardous voltage.
Risk of severe or lethal electric shock.

DANGER!
Safety hazard.
Risk of severe injury or death.

DANGER!
Refer to manual before installing, powering or servicing.

Warning!
Fire hazard.

Warning!
Burn hazard.
Hot surface. not touch. Do not touch.

Warning!
Risk of eye injury.
Safety glasses must be worn.

Warning!
Risk of hand injury.
Safety gloves must be worn.

Luminaires not suitable for direct mounting on normally flammable surfaces (suitableonly for mountingon non-combustible surfaces)

For indoor use only

Do not direct lens to sun ray or strong light!

Do not actuate during operation

Replace any cracked protective shield

Minimum distance from lighted objects (metres)

Rated maximum ambient temperature

★ Declaration

This product has passed the final check for both functionalities and package when delivered from the factory. All users should observe the instructions and pay attentions to the warnings covered by this manual. Unreasonable damages resulting from unintended operations or not heeding instructions covered by this manual will void the warranty. Specifications in this manual intend for reference only, the fixture delivered takes the priority. Any future modification pertaining to content of this manual, there will be no particular notifications. FINE ART reserves all copyrights. To obtain the latest information about software update, hardware and other files, please visit FINE ART website.

P/N:390709000022 Edition:D

1. Safety information

WARNING!
Read the safety precautions in this section before installing, powering, operating or servicing this product.

After receiving the fixture, please unpack and check if there is any damage due to transportation. If any obvious damage or flaw is found, do not put it into use and contact the distributor or manufacturer as soon as possible.

This fixture is intended for professional use only.

Read this User Mannual before mounting and ennergizing the fixture.
Observe the safety guideline and notice the warnings both in this User Mannual and on the fixture.
Yet any safety concerns not covered hereby, contact the distributor or service hot-line.

Protection against over heat

The fixture is intended for indoor application, its protection rating is IP20.
The fixture should be kept dry and avoid working in presence of moisture, over-heat or heavy smokes.
The natural working temperature should be lower than 40 degrees. If the ambient temperature exceeds 40 degrees, please stop operating the unit immediately.

t_a=40℃

Protection against explosion

Shields, lenses and ultraviolet screens must be replaced if they have become visible damaged to such an extent that their effectiveness is impaired. Replace the lamp immediately if it becomes visually deformed, damaged or in any way defected.

Protection against injury due to falls

Do not lift or carry the fixture alone.
To inspect that the structure and the truss hooks are in good condition and can bear about 10 times the weight of the fixture.
Ensure the cover and all riggings are securely fastened, safety wire is necessary to use as a secondary attachment.
Block access below the working area and work from a stable platform while installing, servicing or moving the fixture.

Protection against electrical shock

All electrical connections must be performed by a qualified person with technical certificate.
Make sure that the mains power supply you use is up to local construction and electronic code regulation, the over-load protection reliable earthing is essential.

Each fixture must be grounded correctly, and be installed according to related regulation.
Disconnect the fixture from AC power before removing or installing any cover or part, including the lamp and fuses, and when not in use.
Do not expose the fixture to rain or moisture.

Protection against burning or fire

Please do not install the fixture onto combustible surface.
Do not attempt to bypass the thermostat switch or fuse.
Replace defective fuses with specified ratings only.
Keep flammable materials far away from the fixture. Minimum distance from the flammable materials is 0.5m.

Under the steady working state, the max temperature of exterior surface is 76℃, Please don't touch the moving head during movement.

The minimum distance between fixture and the lighted objects is 2.6m.
Ensure a minimum clearance of 0.1m around the cooling fans and ventilations.

Do not place any filter or other object onto the optical lens.
Allow the fixture to cool for at least 15 minutes before transit.
Do not revise the fixture or install any parts not from Guangzhou CHAI YI LIGHT Co.Ltd.

2. Product introduction

2.1 Fixture profile dimension

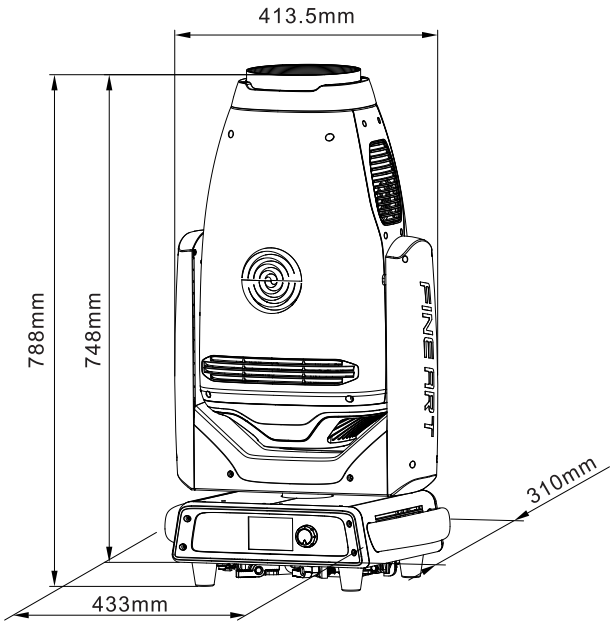


Fig.(2.1-1)

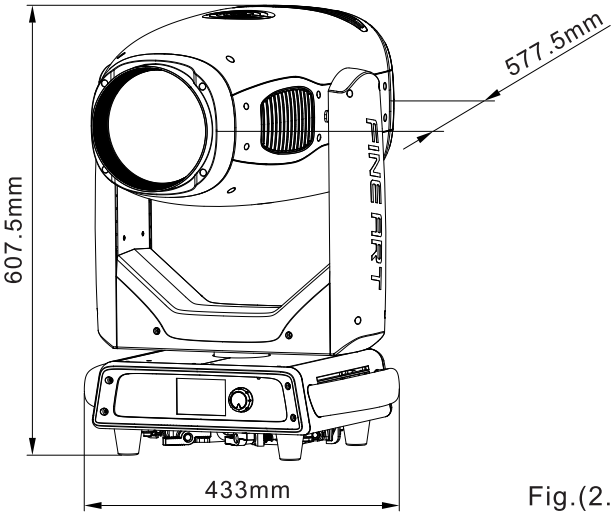


Fig.(2.1-1)

2.2 Fixture introduction

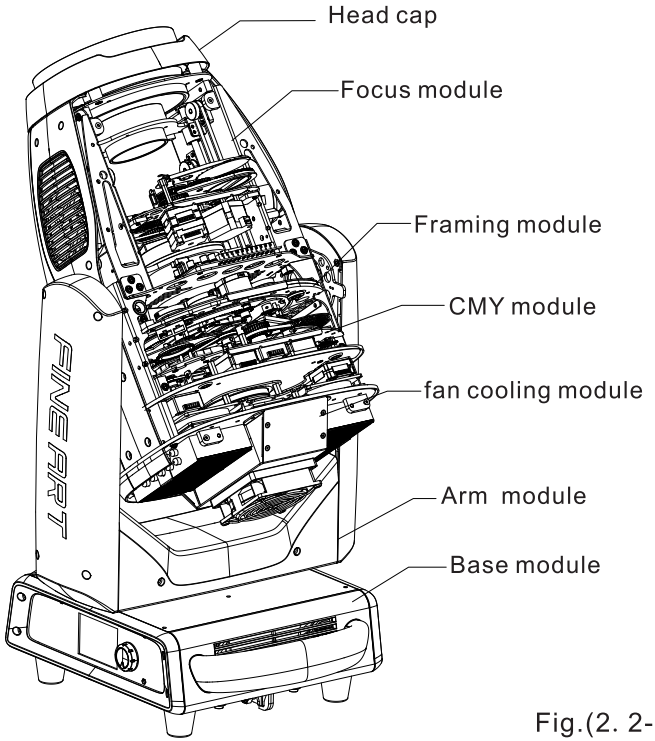


Fig.(2. 2-1)

3.Package & delivery

3. 1 Included items

Packed with single flight case, Included items listed below(shown as table 3.1-1):

Accessories	QTY	UNIT
User manual	1	PCS
Warranty card	1	PCS
Suspension fasteners	2	SET
Signal cable	1	PCS
Safety wire	1	PCS
Fuse	1	PCS

Table 3.1-1

3.2 Transportation lock

For the ease of transit, the fixture is provided with the transportation lock with three locking positions. As shown in Fig.3.2-1, the fixture is lock at middle locking position where in the beam axis is perpendicular to the yoke.

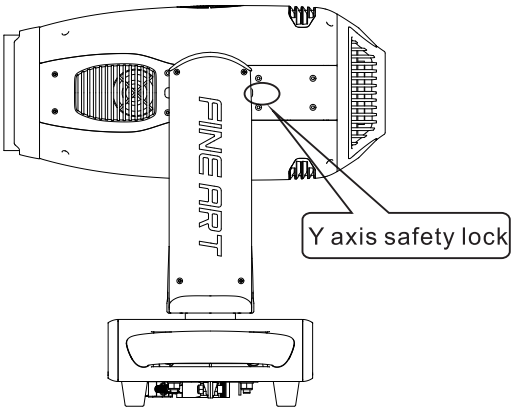


Fig.3.2-1

3. 3 Fixture package

1. Before packaging, please disconnect the fixture from power supply and wait at least 15 minutes for cooling.
2. Remove dust buildup on the exterior surface, tight the transportation lock.
3. Pack the fixture with an inner bag, grasp both handles on the base and carefully upside down the fixture, and gently place it onto the intended mounting recesses within the road-case.

4. Pack the included accessories into the road-case.
5. Road-case stacking do not exceed 2 layers, upside down the road-case is not allowed.

3. 4 Unpacking

Notice: inspect the units upon reception. If there is any evident damage due to transit, do not use the units and notify FINEART local distributor or contact Guangzhou CHAIYI LIGHT Co.,ltd directly.

1. Open the road-case and unpack the inner bag.
2. Grasp the handles on the base and lift the fixture out from the road-case. Alternatively, first open the upper casing of the road-case. Apply 2 sets of suspension clamps to the bottom of the base. Then lower the lifter to such a level where it's easier to clamp the fixture and the lifter together via a "G" hook. Secure the locking screw in the "G" hook. Finally, lift the fixture out of the flight case.
3. Release the transportation lock before power up the fixture.

4.Installation

User must be termly check the fixture and its install materials, if you are non-qualified to check that, please contact the professional person. Wrong installation will result in fatal hazard.

The fixture working ambient temperature are between 0℃~40℃, When ambient temperature over the range, don't operate the fixture. When the fixture are in installtion, teardown, remove or servicing, don't stand in under the fixture. Operator must be insure the fixture are safely connected. The input power supply must match the specific type demanded by the fixture. Make sure the installation check annually by professional person.

4.1 Equipment installation

Can be put on stage floor or fixed on any brace or truss.
Quick trigger locks can easily fix the fixture to mounting brackets shown as follows.

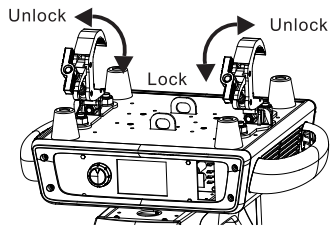


Fig.4.1-1 horizontal orientation

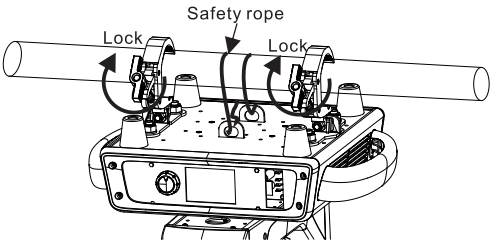


Fig.4.1-2 vertical orientation

Warning

The hangding must be completely locked and the safely rope must put on to avoid safety accidents.

4.2 Light fixation

1. To inspect the truss hook/rigging are in good condition and can bear about 10times the weight of the light fixture. Be sure the truss or pipe construction can bear 10 times the weight of all equipments including lights, truss hooks, cables and accessories.
2. Pull the light hook perpendicular to the base.
3. Hook the lamp cap on the fixed bracket and lock the bracket.
4. If the truss can be lift automatic up and down, the light fixture can be lifted and hooked from flight case directly. When the lights equipments need to lift high, the working area below should have some barrier to ensure the installation works operated under safety condition. Finally suspend the fixture onto the truss and fasten clamps all and lift truss totally.
5. Connect a safety rope which can bear 10 times weight of the fixture, the attachment is designed to fit a clamp.
6. Check the transportation lock have been unlocked, Be sure there is no explosive or inflammable materials around the fixture in 0.5 meter around.

Warning

The safety wire should attached to the hole on the mounting plate. Do not tie the safety wire to the handles instead.

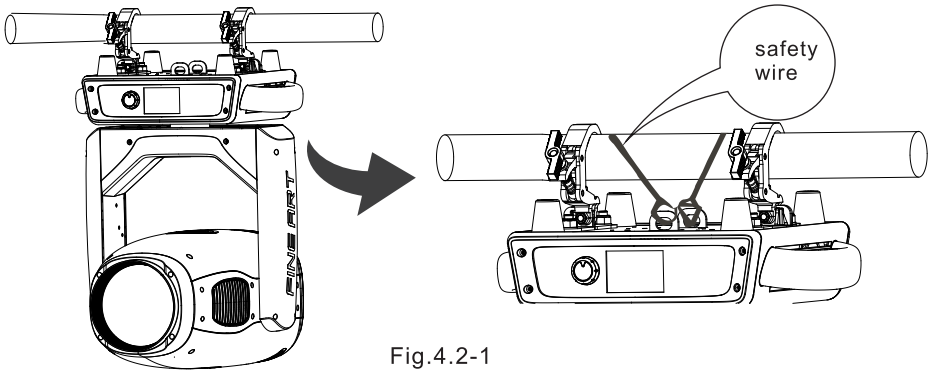


Fig.4.2-1

Warning

The fixtures must be placed upright, minimum spacing between each two fixtures in an array is 900mm, arrangement layout as shown in Fig.4.2-2.

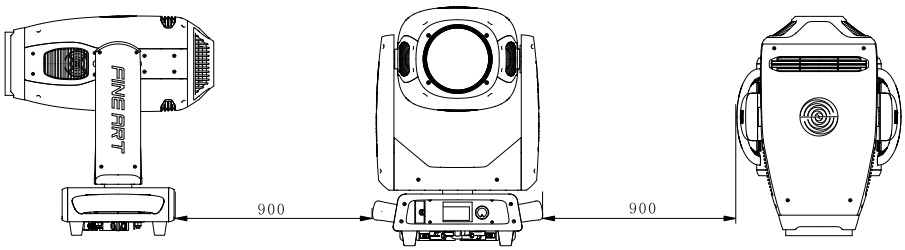


Fig.4.2-2

4.3 Data link

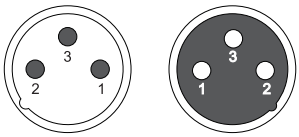
Data linkage for the fixture may be provided by DMX512 connection, Ethernet connection, Ethernet/DMX512 connection and wireless linkage.

DMX connection

Note: The signal cable was type X connection.

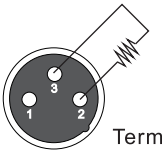
Type X connection—if the external flexible cable or cord of this fixture is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

3-pin or 5-pin XLR connecters are provided for fixture DMX input and output.Pin1 is for earthing, pin 2 is for minus signals, and pin 3 is for plus signals. To prevent and absorb the reflection and interference of the signals, each data link must be ended by a respective terminator.



3-pin XLR connector

Pin1: GND
Pin2: Signal(-)
Pin3: Signal(+)



Terminator

Terminator specification: a 120Ω plug-in resistor with rated power of 0.25W, soldered between pin 2 and pin 3 at the end of respective data link.

Fig.4.3-1

Connect the 3-pin or 5-pin output of a lighting controller to the 3-pin input of a first fixture on the link, then connect the 3-pinn output of the said first fixture to the 3-pin input of a second fixture. Similarly, repeat the above connection step and end the data link with a plug-in terminator. Shown as Fig. 4.3-2 below.

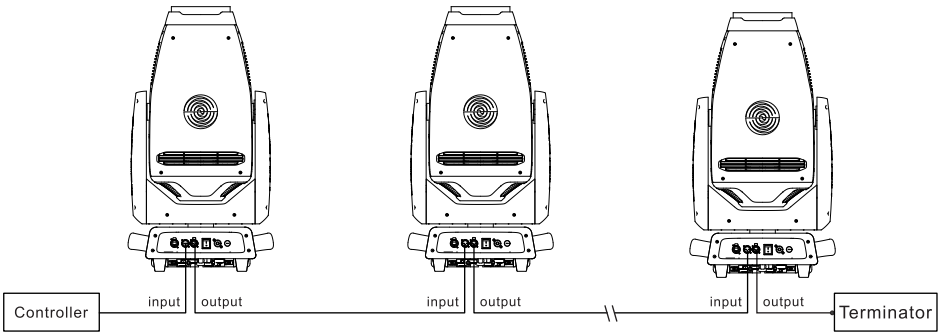


Fig.4.3-2

If long-distance data transfer occurs, a DMX512 signal amplifier is necessary. The added amplifier is inserted between the lighting controller and the first fixture on the basis of a normal data link.

Notice:

1. No more than one signal input or output can occur in one fixture.
2. Don't split a data link via output ports on the fixture, use a DMX512 signal amplifier instead, if necessary.
3. Use only shielded-pair cables, and standard microphone cable is not reliable for long-distance data transfer.

Ethernet connection

1. The data communication is provided with ART-NET protocol, thus the controlling utilities used in the lighting controller or PC must support such protocol.
   Art-Net is a kind of 10 base T Ethernet protocol derived from TCP/IP. It allows transmission of enormous DMX512 data over normative network. The maximum transferring speed can reach 10Mb/s.
2. The fixture is provided with 8-pin RJ-45 connector for internet input. Please use use class 5 cables and standard RJ-45 connector for internet connection, Shown as Fig.4.3-3.

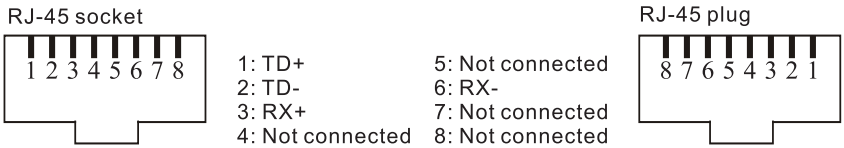


Fig.4.3-3

3. Ethernet setting
   (a) Ethernet receiving mode setup:
   "Personality"→"Receive Mode"→"ENET"
   (b) IP address setup:
   "Personality"→"IP Address A"→"002, 010"
   →"IP Address B"→"xxx (000-255)"
   →"IP Address C"→"xxx (000-255)"
   →"IP Address D"→"xxx (000-255)"
   Type A IP address is configured as default addresses.
   (c) Ethernet node (universe) setup:
   "Personality"→"Universe"→"xxx(000 - 255)"
4. Ethernet connection layout, shown as Fig.4.3-4.

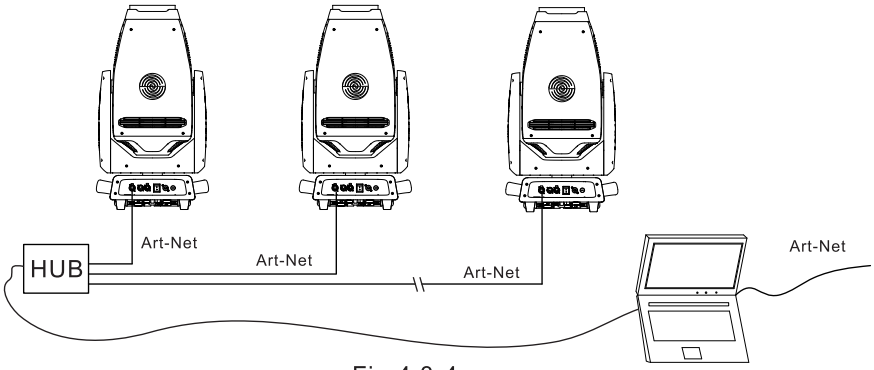


Fig.4.3-4

Notice: If a fixture directly connected to a PC without using a hub or a LAN, the wiring should be crossed connection.

Ethernet/DMX512 connection

The first fixture in the serial link, which is directly connected to the Ethernet network, should be such that the “fixture receiving mode” is set as “ENET→DMX” The rest fixtures in the link should be set as “DMX” receiving mode. Then connect the output of the said first fixture to the input of a next fixture. Similarly, repeat the above connection till the DMX data link is completed. Shown as Fig. 4.3-5.

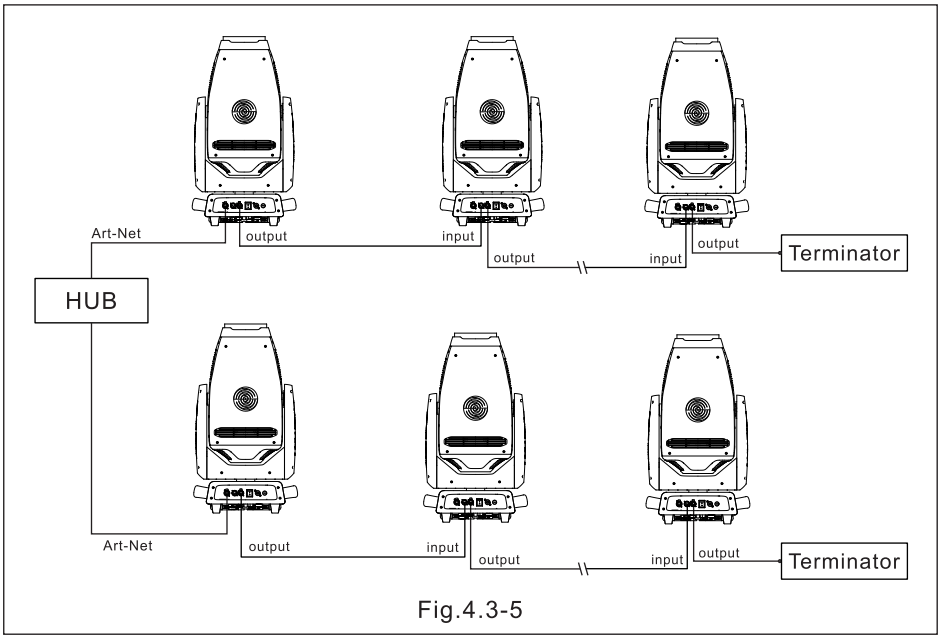


Fig.4.3-5

Notice: apply a plug-in terminator to end the DMX data link.

Wireless transmission (optional)

1. Customer might choose wireless edition fixture which supports wireless data transmission. Wireless signal control is pretty reliable within a 225m radius empty space, thus no need for physical connection for data transmission. All has to be done is to set up corresponding addresses.
2. 2.4GHz worldwide free frequency band available in wireless control. Such huge frequency band favors users with variable band options.
   (a) Wireless receiving mode setup:
   “Personality”→“Receive Mode”→“WDMX”
   (b) Press emitter button to search preset address within a fixture. When it’s done, remotely control a fixture through a controller, Shown as Fig.4.3-6.

Notice:

1. Emitter location: Distribute the antenna higher than any barrier on floor as possible.
2. Antenna direction: Emitting antenna points to receiving antenna.
3. Antenna position: Keep away from EMI source as possible, such as WLAN antenna.

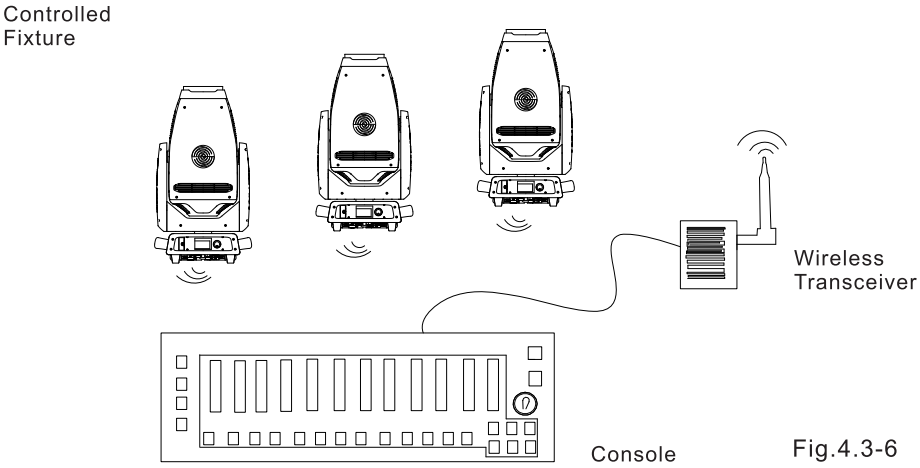


Fig.4.3-6

5.AC power supply

5.1 Fuses

Power supply and fuses' type and rating:

Power	Fuse
100-240V~	20A 6×30 (Main fuse)

Table 5.1-1

5. 2 Power connection

Notice: Type X attachment for power supply connection. Method of attachment of the cable or cord such that any replacement can only be made by the manufactur -er, his service agent or similarly qualified person.

The person must have the relevant qualification to connect the power supply. The AC power voltage shall be suitable to the lamp provided with over-loading or cree-page protection.

1. Connecting the equipment to the power supply, do not connect to silicon box system, or else, it will destroy the equipment. The fixture is provided with standard 3-pin socket. Please according to table 5.2-1 connect to power supply, Yellow/green line must be earthed. If you still have any question to the installation, please consultant with the experienced electrician.
2. When power is supplied, put the base switch to the position "I".

Color	Wire	Mark
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚

Table 5.2-1

6. Lamp

6.1 Lamp Introduction

Comes with 1000W white led module with long life pan, low power consumption. And it will decrease the cost of power consumption and the lamp exchange compared to the halide lamp computer light.

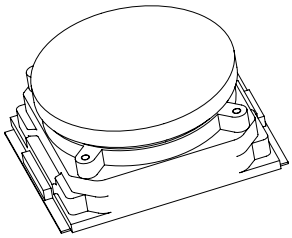


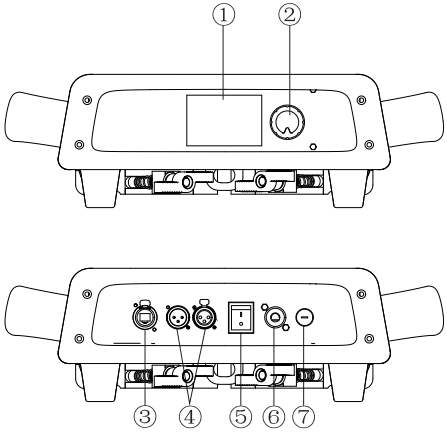
Fig.6.1-1

Warning

1. Don't use other types of lamps instead of the intended ones, other-wise safety hazards or damages to the fixture may arise.
2. To reduce the risk of lamp shattering, replace a used lamp when it reaches its expected service life.
3. Do not use a defected or fissured lamp.
4. Do not disconnect the power supply in working, or will damage the lamp.

7.Control panel

7.1 Control panel introduction



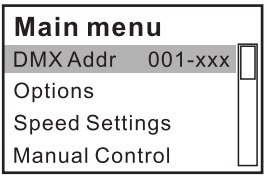
1. LCD screen
2. Jog wheel (Enter button)
3. Ethernet terminal(optional)
4. DMX terminal
5. Power switch
6. Power terminal
7. Fuse

Fig.7.1-1

7.2 Control panel operational introduction

1. It's power off when turning the main switch to "O". And it's power on when turning the main switch to “I”.
2. Press this button to enter the main menu interface for menu operation. (the menu as the followed fig)

Main Menu Interface



Notice: After entering the menu, the chosen menu is in grey color. Press relative function button to confirm (or by clicking “confirmation” button), then the user can enter in the next menu to edit the value. The user can scroll the function button to the next page (or by choosing up/down).enter the menu interface and show the chosed menu item, if the press the button to confirm the menu, then enter the next menu, and continues to audit, if do not enter the “ DMX address ”, the rotate the wheel to page turning. shows the next sub-menu, there are some functions to choose and then adjust the parameter.

3. menu rotate wheel operation:
press the rotating button for the “menu choice” “ menu exchange” “ confirm menu”. Rotate the button clockwise: Scroll down menu to select the cursor /increase/modify the value. Rotate the button anticlockwise: Scroll up menu to select the cursor/ decrease/modify the value.
if there is no operation in 2 minutes in the menu, which means to return to the original menu.
4. LED signal indication
DMX 512 signal input: long light indication, the address value will express the round spot on the right.
Ethernet signal input: light flash, the address value will express the round spot on the right.
5. Fan Control
When used in theatre and places of the environment temperature is low, you can choose to silent mode.

Display panel operational function detail

MENU1	MENU2	MENU3	MENU4	(DEFAULT)
1 ADDRESS	1 DMX512 ADD	001-XXX		001-040
	2 CHANNEL MODE	STD:32/16B:40/EXT:44		16B:40
	3 SIGNAL MODE	DMX512/WirelessDMX/Ethernet /NET-DMX		DMX512
	4 EXIT			
2 MANUAL	1 RESET	CANCEL/ACTION		CANCEL
	2 REPAIR	CANCEL/ACTION		CANCEL
	3 CHANNEL CTRL	1 Strobe	000-xxx	000
		2 Dimmer	000-xxx	000
		3 Dimmer Fine	000-xxx	000
		4 Pan	000-xxx	000
		5 Pan Fine	000-xxx	000
		6 Tilt	000-xxx	000
		7 Tilt Fine	000-xxx	000
		8 Gobo1	000-xxx	000
		9 Gobo1 Rot	000-xxx	000
		10 Gobo1 Rot Fine	000-xxx	000
		11 Fixed Gobo	000-xxx	000
		12 Anime	000-xxx	000
		13 Cyan	000-xxx	000
		14 Magenta	000-xxx	000
		15 Yellow	000-xxx	000
		16 CTO	000-xxx	000
		17 Color	000-xxx	000
		18 Color Macro	000-xxx	000
		19 Prism	000-xxx	000
		20 Prism Rot	000-xxx	000
		21 Focus	000-xxx	000
		22 Focus Fine	000-xxx	000
		23 Zoom	000-xxx	000
		24 Zoom Fine	000-xxx	000
		25 AutoFocus Distance	000-xxx	000
		26 AutoFocus Adjustment	000-xxx	000
		27 Frost	000-xxx	000
		28 Iris	000-xxx	000
		29 Frame1 Position	000-xxx	000
		30 Frame1 Angle	000-xxx	000
		31 Frame2 Position	000-xxx	000
		32 Frame2 Angle	000-xxx	000
		33 Frame3 Position	000-xxx	000
		34 Frame3 Angle	000-xxx	000
		35 Frame4 Position	000-xxx	000
		36 Frame4 Angle	000-xxx	000
		37 Frame Rotation	000-xxx	000
		38 Frame Macro	000-xxx	000
		39 CRI/R9	000-xxx	000
		40 Fixture Control	000-xxx	000
		41 EXIT		
	4 EXIT			

3 SPECIFIC	1 X REVERSE	OFF/ON		OFF
	2 Y REVERSE	OFF/ON		OFF
	3 XY SWAP	OFF/ON		OFF
	4 XY SPEED	SLOW/NORMAL/FAST		NORMAL
	5 DIMMER CURVE	PARA-CURVE/LINEAR CURVE/S-CURVE/R_PARA-CURVE		PARA-CURVE
	6 CMY REVERSE	OFF/ON		OFF
	7 CMY CURVE	S CURVE/PARA-CURVE		S CURVE
	8 SHORTEST	ON/OFF		ON
	9 XY ENCODER	ON/OFF		ON
	10 SHELD MODE	OFF/ON		OFF
	11 BEAM SPEED	EFFECT Time 1/2/3		EFFECT Time 1
	12 FAN CONTROL	FORCE/QUITE		FORCE
	13 PANEL REV	OFF/ON		OFF
	14 PANEL TOUCH	OFF/ON		OFF
	15 SLEEP MODE	OFF/ON		OFF
	16 POWER SELECT	NORMAL/SUPER/THEATRE		NORMAL
	17 B_L MODE	DELAY OFF/LIGHT		DELAY OFF
	18 EXIT			
4 TEST	1 NO ACT	RUN/STOP		RUN
	2 XY AUTO	STOP/RUN		STOP
	3 BEAM AUTO	STOP/RUN		STOP
	4 FIXTURE DEMO	STOP/RUN		STOP
	5 EXIT			
5 ADVANCED	1 CODE	CODE01	0000-XXXX	0000
		CODE02	0000-XXXX	0000
		CODE03	0000-XXXX	0000
		CODE04	0000-XXXX	0000
		EXIT		
	2 OFFSET	00 Pan Offset	0000-XXX0	0000
		01 Tilt Offset	0000-XXX0	0000
		02 Cyan Offset	0000-XXX0	0000
		03 Magent Offset	0000-XXX0	0000
		04 Yellow Offset	0000-XXX0	0000
		05 CTO Offset	0000-XXX0	0000
		06 Color Offset	0000-XXX0	0000
		07 C-Render Off	0000-XXX0	0000
		08 Zoom Offset	0000-XXX0	0000
		09 Focus Offset	0000-XXX0	0000
		10 Iris Offset	0000-XXX0	0000
		11 Frame Offset	0000-XXX0	0000
		12 Gobo1 Offset	0000-XXX0	0000
		13 G1_Rot Offset	0000-XXX0	0000
		14 FixGoboOffset	0000-XXX0	0000
		15 Animation Off	0000-XXX0	0000
		16 Anim_Rot Off	0000-XXX0	0000
		17 Prism1 Offset	0000-XXX0	0000
		18 Prism1Rot Off	0000-XXX0	0000
		19 Prism2 Offset	0000-XXX0	0000
		20 Prism2Rot Off	0000-XXX0	0000
		21 Frost1 Offset	0000-XXX0	0000
		22 Frost2 Offset	0000-XXX0	0000
		23 Frame Up1 Off	0000-XXX0	0000
		24 Frame Up2 Off	0000-XXX0	0000
		25 FrameDown1Off	0000-XXX0	0000
		26 FrameDown2Off	0000-XXX0	0000
		27 Frame Right 1	0000-XXX0	0000
		28 Frame Right 2	0000-XXX0	0000
		29 Frame Left 1	0000-XXX0	0000
		30 Frame Left 2	0000-XXX0	0000
		31 EXIT	0000-XXX0	0000
	3 FIXTURE MODE	2K0L BSWF/1K0L BSWF		2K0L BSWF
	4 PANEL DIM	003-007		003
	5 LANGUAGE	English/Chinese		English
	6 DEFAULT SET	CANCEL/ACTION		CANCEL
	7 UNIVERSE	0000-0016		0000
	8 TIME CLEAR	CANCEL/ACTION		CANCEL
	9 WDMX UNLINK	CANCEL/ACTION		CANCEL
	10 SERVER CLR	CANCEL/ACTION		CANCEL
	11 EXIT			

6 INFORM	1 POWER TIME	xxxx.x		0000.0
	2 LAMP ON TIME	xxxx.x		0000.0
	3 BODY TEMP	xxx xxx		000 000
	4 XY BOARD TEMP	xxx xxx		000 000
	5 DRIVER1 TEMP	xxx xxx		000 000
	6 DRIVER2 TEMP	xxx xxx		000 000
	7 DRIVER3 TEMP	xxx xxx		000 000
	8 BODY FAN SPED	xxxx xxxx xxxx xxxx		0000 0000 0000 0000
	9 XY BOARD FAN	xxxx xxxx		0000 0000 0000 0000
	10 DRIVER1 FAN	xxxx xxxx		0000 0000 0000 0000
	11 DRIVER2 FAN	xxxx xxxx		0000 0000 0000 0000
	12 DRIVER3 FAN	xxxx xxxx		0000 0000 0000 0000
	13 PANEL VER	xxxxxxxx		FP1K0L0XX
	14 XY BOARD VER	xxxxxxxx		F2KLXxxxx
	15 DRIVER1 VER	xxxxxxxx		F2KLSxxxx
	16 DRIVER2 VER	xxxxxxxx		F2KLSxxxx
	17 DRIVER3 VER	xxxxxxxx		F2KLSxxxx
	18 RESET STATUS	00 Pan Reset	FAIL/OK	
		01 Tilt Reset	FAIL/OK	
		02 Cyan Reset	FAIL/OK	
		03 Magent Reset	FAIL/OK	
		04 Yellow Reset	FAIL/OK	
		05 CTO Reset	FAIL/OK	
		06 Color Reset	FAIL/OK	
		07 Zoom Reset	FAIL/OK	
		08 Focus Reset	FAIL/OK	
		09 Frame Reset	FAIL/OK	
		10 Gobo1 Reset	FAIL/OK	
		11 Gobo1 Rot Reset	FAIL/OK	
		12 FixedGoboReset	FAIL/OK	
		13 Prism1 Reset	FAIL/OK	
		14 Prism1Rot Rst	FAIL/OK	
		15 Prism2 Reset	FAIL/OK	
		16 Prism2Rot Rst	FAIL/OK	
		17 Exit	FAIL/OK	
	19 CHANNEL LEVEL	LEVEL01	000-xxx	000
		LEVEL02	000-xxx	000
		LEVEL03	000-xxx	000
		LEVEL04	000-xxx	000
		LEVEL05	000-xxx	000
		LEVEL06	000-xxx	000
		LEVEL07	000-xxx	000
		LEVEL08	000-xxx	000
		LEVEL09	000-xxx	000
		.....	000-xxx	000
		LEVEL57	000-xxx	000
		LEVEL58	000-xxx	000
		LEVEL59	000-xxx	000
		LEVEL60	000-xxx	000
		LEVEL61	000-xxx	000
		LEVEL62	000-xxx	000
		LEVEL63	000-xxx	000
		EXIT		
	20 EXIT			

8. Technical Data

8. 1 Production feature explanation

Light Source: 1000W LED module
The diameter of optical lens: 173mm
Zoom Range: 5° ~ 50°
High Luminance Mode: Ra≥70
High CRI Mode: Ra≥90

COLOR SYSTEM
CMY infinite color mixing
CTO linear adjustment
6 color filters + white light

GOBO SYSTEM
1 rotating gobo wheels with 6 glass gobos, in bidirectional rotation way
1 fixed gobo wheel with 9 gobos
1 animation gobo wheel, can fade in/out
1 set of full directional framing system, support ±90° rotation
Framing blade position with high precision

EFFECT EQUIPMENT
1 rotating 4-facet gradient prism
1 rotating 4-facet prism
Both prisms can rotate bidirectional
2 independent soft light frost effects, can overlay with each other
Fast electronic iris, 5-100 % linear adjustment

MOVEMENT PARAMETER
Pan 540°
Tilt 270°

CONTROL AND PROGRAMMING
Control channel: 32(standard)/ 40(16 bit)/ 44(extended) 3 channel modes
Protocol: Standard DMX512, Art-net Ethernet Control Protocol, Optional: wireless
DMX512 Menu display: 3.5 inches LCD black and white display

ELECTRONIC CONTROL TECHNOLOGY
Built-in self-rechargeable battery, menu edit available without power
Intelligent fan control
Temperature electronic sensor detection
DMX control monitoring
Query by LCD screen
RDM bidirectional data transmission
Non-touch magnetic rotating encoder positioning, signal feedback, absolute position memory, DMX offline power off position recovery

POWER SUPPLY
100-240V~ 50/60Hz
Input power: 1480W
PF≧0.98

DIMENSION AND WEIGHT
Fixture Dimension : 433x310x788mm
Package Dimension: 671x 549x 829(flight case)
Net Weight: 38.5kg (fixture)
Gross Weight: 73.5kg (flight case)

PACKAGE
1pc /flight case

IP RATE
IP 20

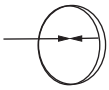
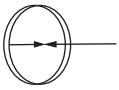
9. Function introduction

9. 1 Gobo specification

All designs can use circular glass pattern and metal pattern, for the best effect, please use the original factory pattern, do not use other patterns.

rotate gobo Outer diameter: 32+0/-0.2mm Largest pattern diameter: 26mm Thickness: 1.1mm
Material: high boron glass

Coating: dichroic

Coating	non-coating
	
If the object supporting one side of the coating, then there is no gap between the object and the reflector, and can not see the rear edge penetrate the coating.	If the object supporting one side of the non-coating, then there is the gap between the object and the reflector, and will see the rear edge penetrate the non-coating.

The thickness of the glass gobo and the color filter is 1.1mm, if install the gobo, there should be the joint ring to avoid shake and shed.

There should be the high-temperature glass glue Pls stick with the high-temperature glass glue if the thickness of the gobo exceed the standard thickness.

9.2 Gobo replacement

1. Cooling the fixture for 15 minutes after power off.
2. Rotate and lock the fixture head, the open the body plastic cover, rotate the gobo wheel to the idea location, and the pick up the gobo wheel as follows.

Glass gobo replacement

1. Pick the spring ring and gobos, place the new gobo, and then replace the spring ring in the slot as follows(9.2-1).
2. Place the gobo wheel under the 2 pieces of Shrapnel clips of corresponding installing hole, and then push the wheel to the original place, or you can use the screwdriver or some other similar tools to pry up the shrapnel clips.

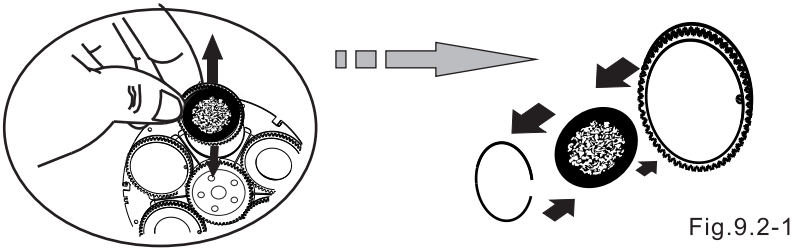


Fig.9.2-1

Pick up the gobo that you want to replace inclined

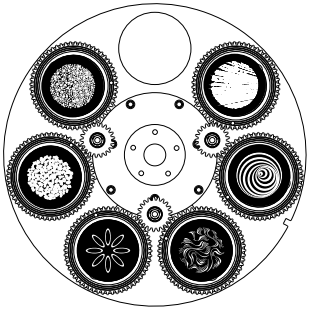
Align the gobo with the narrow ring of the spring

Warning

If place the gobos, the coating side should face with the upholder, the non-coating face with with the spring, then the coating will not be destroyed by the installed spring, it is better for the flat of the concavo convex gobos face with the spring.

9.3 Gobo wheel

1 rotating gobo wheel with 6 glass gobos and 1 fixed gobo wheel with 9 gobos.



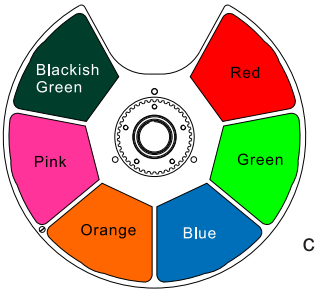
rotating gobo wheel1
Fig9.3-1

fixed gobo wheel
Fig9.3-2

9.4 Color system

●Color filter

The color fliter is composed of 6 fixed colors, the light designer can choose the his wanted color and create the perfect light effect, if use the color filters with the gobos, the light effect will be better, and you can create the colorful gobo effect.



color filters
Fig.9. 4-1

Tip: the coating side should be faced with the lamp if install the color filters.

9.5 CMY color mixing

Color mixing system uses continuous dichroic filters with cyan, magenta and yellow color filters, it utilizes color mix losing luster principle that can remove color from white, three filters superposed to black, each two colors mixed to another color.
The fixture uses the new-desingn and simple CMY color system, with the infinite color mixing. The CMY system occupies less space, changes colors faster, runs smoother, but causes less power.

9.6 Gobo effect

one 4-facet gradient prism, one 4-facet prism, 2 frost, bidirectional rotating 4-facet prism.

9.7 CTO color temperature correction

Gradient CTO color temperature 2700k-6200k.

9.8 Dimmer

Electric dimmer, 0-100% linear dimmer, even light spot.

9.9 Iris

5-100% fast electronic iris adjustment with macro function and multi effect changes, the speed of the iris channels can be changed from fast to slow or slow to fast.

9.10 Pan and tilt scanning

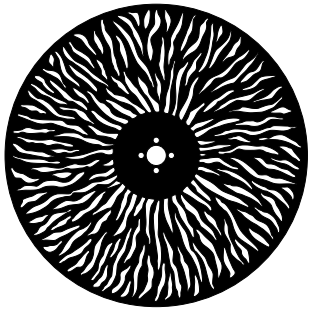
pan 540°, tilt 270°, 16 bit
speed of the pan/tilt (fast, normal, slow), choose the speed from the speed setting.

9.11 Focus and zoom

Zoom lens from 5°~50°, the focus lens can project from 2m to infinite.

9.12 Animation wheel system

Has a rotatable and movable animation effect wheel system, which can be combined with the gobos to achieve rotation, water flow, and jiggle effects.



Animation wheel
Fig9.12-1

9.13 cutting system

The blades will be driven by 8 pcs of stepper motors with the transmission belt in the whole plate in order to do the 90°rotation. And every two stepper motors will drive 1 blade to do the forward to backwards movement in the light beam hole, when 4 pcs of the blades are interlaced with the movement,then the light spot will be cut for all kinds of shapes.

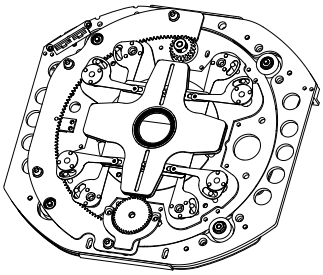
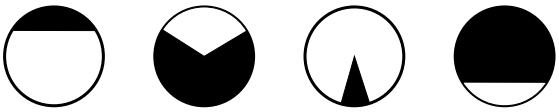


Fig.9.13-1

Has the auto cutting system for the images,the light beam will be cut by the blades for the square, rhombus, triangle and other shapes with angle. And the edge will make the light for the shape, which is useful for the stage setting. In addition to that, all the cutting system can do the 90°rotation, and the system will do the shapes as follows (9.13 -2 and 9.13-3) with the precise control.



Linear shape pictures (9.13-2)

Blading pictures(9.13-3)

10. Light control channel

10.1 Menu control channel

Channel	STND	16BT	EXTN
1	Strobe	Strobe	Strobe
2	Dimmer	Dimmer	Dimmer
3	Dimmer Fine	Dimmer Fine	Dimmer Fine
4	Pan	Pan	Pan
5	Pan Fine	Pan Fine	Pan Fine
6	Tilt	Tilt	Tilt
7	Tilt Fine	Tilt Fine	Tilt Fine
8	Gobo1	Gobo1	Gobo1
9	Gobo1 Rot	Gobo1 Rot	Gobo1 Rot
10	Fixed Gobo	Gobo1 Rot Fine	Gobo1 Rot Fine
11	Anime	Fixed Gobo	Fixed Gobo
12	Cyan	Anime	Anime
13	Magenta	Cyan	Cyan
14	Yellow	Magenta	Magenta
15	CTO	Yellow	Yellow
16	Color	CTO	CTO
17	Prism	Color	Color
18	Prism Rot	Color Macro	Color Macro
19	Focus	Prism	Prism
20	Zoom	Prism Rot	Prism Rot
21	Frost	Focus	Focus
22	Iris	Focus Fine	Focus Fine
23	Frame1 Position	Zoom	Zoom
24	Frame1 Angle	Zoom Fine	Zoom Fine
25	Frame2 Position	AutoFocus Distance	AutoFocus Distance
26	Frame2 Angle	AutoFocus Adjustment	AutoFocus Adjustment
27	Frame3 Position	Frost	Frost
28	Frame3 Angle	Iris	Iris
29	Frame4 Position	Frame1 Position	Frame1 Position
30	Frame4 Angle	Frame1 Angle	Frame1 Angle

31	Frame Rotation	Frame2 Position	Frame2 Position
32	Fixture Control	Frame2 Angle	Frame2 Angle
33		Frame3 Position	Frame3 Position
34		Frame3 Angle	Frame3 Angle
35		Frame4 Position	Frame4 Position
36		Frame4 Angle	Frame4 Angle
37		Frame Rotation	Frame Rotation
38		Frame Macro	Frame Macro
39		CRI/R9	CRI/R9
40		Fixture Control	Fixture Control
41			Pan-tilt Time
42			Color Time
43			Beam Time
44			Gobo Time

10. 2 DMX channel

Specific	STND	16BT	EXTN	Value	Function
Strobe	1	1	1	000~005	Closed
				006~010	Open
				011~105	Strobe at linearly variable frequency from slow to fast(0~20Hz)
				106~110	Open
				111~179	Thunder Strobe from slow to fast
				180~185	Open
				186~253	Random Strobe
				254~255	Open
Dimmer	2	2	2	000~255	0%->100%
Dimmer Fine	3	3	3	000~255	0%->100%
Pan	4	4	4	000~255	Movement positioning from 0° to 540°
Pan Fine	5	5	5		
Tilt	6	6	6	000~255	Movement positioning from 0° to 252°
Tilt Fine	7	7	7		
Gobo1	8	8	8	000~009	Open
				010~019	Gobo1
				020~029	Gobo2
				030~039	Gobo3
				040~049	Gobo4
				050~059	Gobo5
				060~071	Gobo6
				072~094	Gobo1 shake from slow to fast (0.4Hz~6.6Hz)
				095~117	Gobo2 shake from slow to fast (0.4Hz~6.6Hz)
				118~140	Gobo3 shake from slow to fast (0.4Hz~6.6Hz)
				141~163	Gobo4 shake from slow to fast (0.4Hz~6.6Hz)
				164~186	Gobo5 shake from slow to fast (0.4Hz~6.6Hz)
				187~209	Gobo6 shake from slow to fast (0.4Hz~6.6Hz)
				210~231	Continuous gobo wheel clockwise rotation from fast to slow(15.6rpm~10rph)
				232~233	Stop
				234~255	Continuous gobo wheel counter-clockwise rotation from slow to fast(10rph~15.6rpm)
Gobo1 Rot	9	9	9	000~127	0°~360°
				128~190	Continuous gobo wheel clockwise rotation from fast to slow (145rpm~8.7rpm)
				191~192	Stop
				193~255	Continuous gobo wheel counter-clockwise rotation from slow to fast (8.7rph~145rpm)
Gobo1 Rot Fine	-	10	10		

Fixed Gobo	**10**	**11**	**11**	000~008	Open
				009~015	Gobo1
				016~022	Gobo2
				023~029	Gobo3
				030~036	Gobo4
				037~043	Gobo5
				044~050	Gobo6
				051~057	Gobo7
				058~064	Gobo8
				065~071	Gobo9
				072~086	Gobo1 shake from slow to fast (0.4Hz~6.6Hz)
				087~101	Gobo2 shake from slow to fast (0.4Hz~6.6Hz)
				102~117	Gobo3 shake from slow to fast (0.4Hz~6.6Hz)
				118~133	Gobo4 shake from slow to fast (0.4Hz~6.6Hz)
				134~148	Gobo5 shake from slow to fast (0.4Hz~6.6Hz)
				149~163	Gobo6 shake from slow to fast (0.4Hz~6.6Hz)
				164~178	Gobo7 shake from slow to fast (0.4Hz~6.6Hz)
				179~194	Gobo8 shake from slow to fast (0.4Hz~6.6Hz)
				195~209	Gobo9 shake from slow to fast (0.4Hz~6.6Hz)
				210~231	Continuous gobo wheel clockwise rotation from fast to slow (70rpm->20rph)
				232~233	Stop
				233~255	Continuous gobo wheel counter-clockwise rotation from slow to fast (20rph->70rpm)
Anime	**11**	**12**	**12**	000~002	None
				003~126	Continuous gobo wheel clockwise rotation from fast to slow (75rpm~2.8rph)
				127~129	Stop
				130~253	Continuous gobo wheel counter-clockwise rotation from slow to fast (2.8rph~75rpm)
				254~255	Stop
Cyan	**12**	**13**	**13**	000~255	0%->100% Linear Cyan movement
Magenta	**13**	**14**	**14**	000~255	0%->100% Linear Magenta movement
Yellow	**14**	**15**	**15**	000~255	0%->100% Linear Yellow movement
CTO	**15**	**16**	**16**	000~255	0%->100%
Color	**16**	**17**	**17**		Linear Movement
				000~119	From Open to (6th Color+Open) Linearity Movement
				18	Color1 (Red)
				35	Color2 (Green)
				54	Color3 (Blue)
				70	Color4 (Orange)
				86	Color5 (Pink)
				104	Color6 (Deep Green)
				120~120	Open
					Full Color

				121~126	Color1 (Red)
				127~132	Color2 (Green)
				133~138	Color3 (Blue)
				139~144	Color4 (Orange)
				145~150	Color5 (Pink)
				151~156	Color6 (Deep Green)
				157~160	Open
					Continuous Rotation
				161~200	Continuous color wheel clockwise rotation from fast to slow (46.7rpm->3.67rpm)
				201~203	Stop
				204~243	Continuous color wheel counter-clockwise rotation from slow to fast 3.67rpm->46.7rpm)
					random full color
				244~247	Fast
				248~251	Medium
				252~255	Slow
Color Macro	**-**	**18**	**18**	000~255	Reserved
Prism	**17**	**19**	**19**	000~010	Open
				011~138	Prism1 Inserted
				139~255	Prism2 Inserted
Prism Rot	**18**	**20**	**20**	000~127	0°~360°
				128~190	Continuous gobo wheel clockwise rotation from fast to slow (78rpm~2.32rph)
				191~192	Stop
				193~255	Continuous gobo wheel counter-clockwise rotation from slow to fast (2.32rph~78rpm)
Focus	**19**	**21**	**21**	000~255	Infinity -> Near
Focus Fine	**-**	**22**	**22**		
Zoom	**20**	**23**	**23**	000~255	Narrow beam -> Wide beam
Zoom Fine	**-**	**24**	**24**		
AutoFocus Distance	**-**	**25**	**25**	000~005	AutoFocus Off
				006~031	Reserved
				032~057	8 meters
				058~083	12 meters
				084~109	16 meters
				110~255	Reserved
AutoFocus Adjustment	**-**	**26**	**26**	000~127	Focus Fine -
				128~128	Stop
				129~255	Focus Fine +
Frost	**21**	**27**	**27**	000~063	Open
				064~127	Light Frost
				128~191	Medium Frost
				192~255	Heavy Frost

Iris	**22**	**28**	**28**	000~131	Open->Closed
				132~151	Iris pulsation from slow to fast speed (0.1~5Hz)
				152~171	Iris pulsation from slow to fast speed with fast closing(0.1~5Hz)
				172~191	Iris pulsation from slow to fast speed with fast opening(0.1~5Hz)
				192~255	Reserved
Frame1 Position	**23**	**29**	**29**	000~255	Out -> In
Frame1 Angle	**24**	**30**	**30**	000~255	Angle- --> Parallel --> Angle+
Frame2 Position	**25**	**31**	**31**	000~255	Out -> In
Frame2 Angle	**26**	**32**	**32**	000~255	Angle- --> Parallel --> Angle+
Frame3 Position	**27**	**33**	**33**	000~255	Out -> In
Frame3 Angle	**28**	**34**	**34**	000~255	Angle- --> Parallel --> Angle+
Frame4 Position	**29**	**35**	**35**	000~255	Out -> In
Frame4 Angle	**30**	**36**	**36**	000~255	Angle- --> Parallel --> Angle+
Frame Rotation	**31**	**37**	**37**	000~255	From 0° -> 180° rotation
Frame Macro	**-**	**38**	**38**	000~009	None
				010~019	Square
				020~029	Rectangle
				030~039	Triangle
				040~049	Rhombus
				050~059	Trapezium
				060~255	Reserved
CRI/R9	**-**	**39**	**39**	000~005	None
				006~010	CRI Inserted\R9-70
				011~015	CRI Inserted\R9-80
				016~020	CRI Inserted\R9-90
				021~255	Reserved
Fixture Control	**32**	**40**	**40**	000~009	None
				010~014	Entire Fixture Reset, staying in this range for 5 seconds
				015~029	Effects Reset, staying in this range for 5 seconds.
				030~034	Pan/Tilt Reset, staying in this range for 5 seconds.
				035~049	Reserved
				050~054	Led Module Out Frequency 1.2KHz --3s
				055~059	Led Module Out Frequency 2.4KHz --3s
				060~064	Led Module Out Frequency 12KHz --3s
				065~069	Led Module Out Frequency 24KHz --3s
				070~074	S-curve Dimmer curve --3s
				075~079	Square Law Dimming curve --3s
				080~084	Inverse Square Law Dimming curve --3s
				085~089	Linear Dimming Cuve --3s
				090~094	Reserved
				095~099	Color Rendering Filter Excluded --3s
				100~104	Color Rendering Filter Inserted --3s
				105~124	Reserved

				125~129	High light Mode (LED Out Power) --3s
				130~134	Standard Mode (LED Out Power-- default setting) --3s
				135~139	Theater Mode (LED Out Power) --3s
				140~144	CMY S curve(-- default setting) --3s
				145~149	CMY parabola --3s
				150~255	Reserved
Pan-tilt Time	-	-	**41**	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Color Time	-	-	**42**	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Beam Time	-	-	**43**	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Gobo Time	-	-	**44**	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data

11. Routine maintenance

11.1 Clean & Maintenance

This fixture requires routine cleaning. The service life depends on the operating environment heavily. Please kindly contact GUANG ZHOU CHAI YI LIGHT CO, LTD for more maintenance information not included in this user's manual.

Warning: *Please unplug the fixture before you open any covers.*

Cleaning

Optical components should be cleaned carefully and lightly. Coating face is easily damaged, do not use harmful solvent so as to avoid damage to plastic parts or coating parts.

Cleaning optical components

1. Switch off the fixture and keep it cool completely, then open the cover.
2. Clean the floats by dust collector or compressed.
3. Use cotton paper without smell or cotton cloth soaked with the water, distilled water to wipe the granular thing, don't wipe the surface, float things should be blown away by the pressure gas.
4. Use the cotton cloth or cotton paper without smell soaked with isopropyl alcohol to remove the smoke and other residues. A commercial glass cleaner may be used, but residues must be removed with distilled water. Clean with a slow circular motion from center to edge. Dry with a clean, soft and lint-free cloth or compressed air.

Cleaning fan and air vents

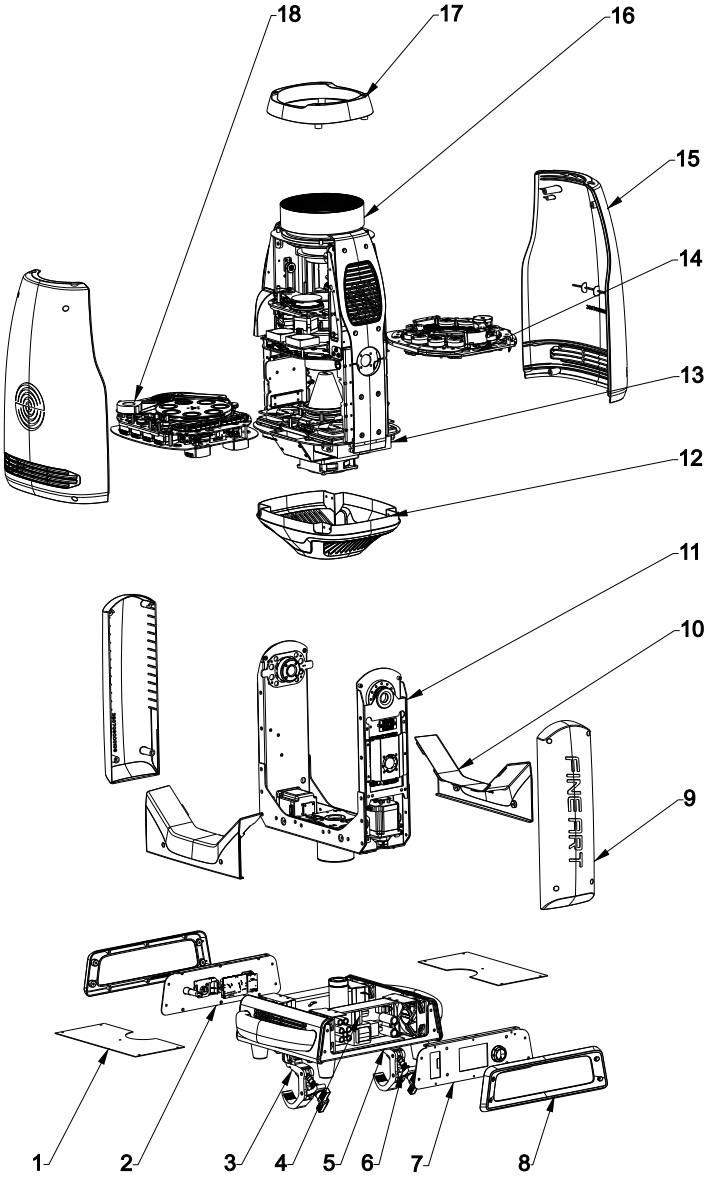
Remove dust from the fans and air vents with a soft brush, cotton paper, vacuum.

Attention*: the over-dust, smoky, and improper destructions are not included in the warranty.*

12.Parts Code

Item	Specification	Ordering index
Switch Power	—	330001200126
8 ch drive board	—	330395100095
9 ch drive board	—	330709100012
White high luminance LED light source module	—	280202000298
White high CRI LED light source module	—	280202000222
11 ch drive board	—	330709100011
XY axis drive board	—	330395100087
Fuse	R3-44 250V 15A	309904063005
Fuse	20A 6X30	300302000029
Φ63 Embossed light atomizing lens	—	200709000060
Φ63 Embossing atomizing lens	—	200709000061
4 facet prism	Φ52x8.4x15°	200709000046
Outer lens module	—	200709000080
Zoom lens module	—	200709000081
Focus lens module	—	200709000082
DC glue axial fan	MF50151V1-B00C-G99	150102000046
Double switch power suppiy	MK brand, 250V, 16A	299901010006

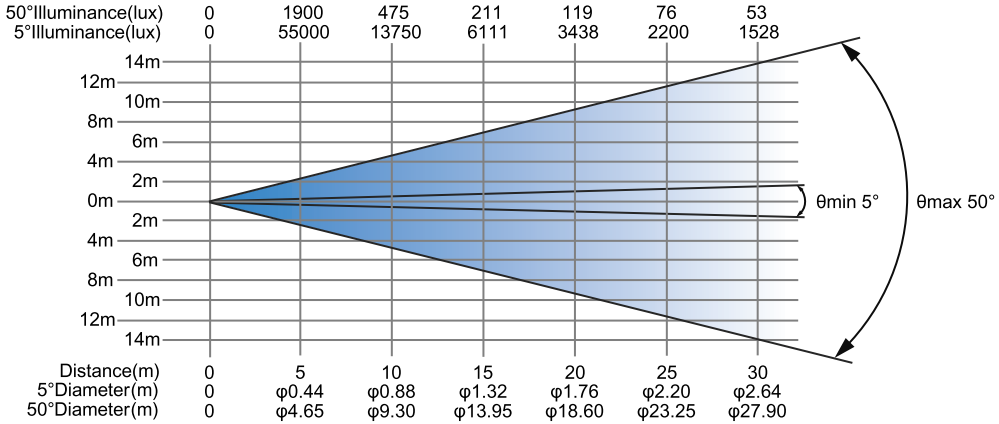
Attached 1: Fixture exploded drawing



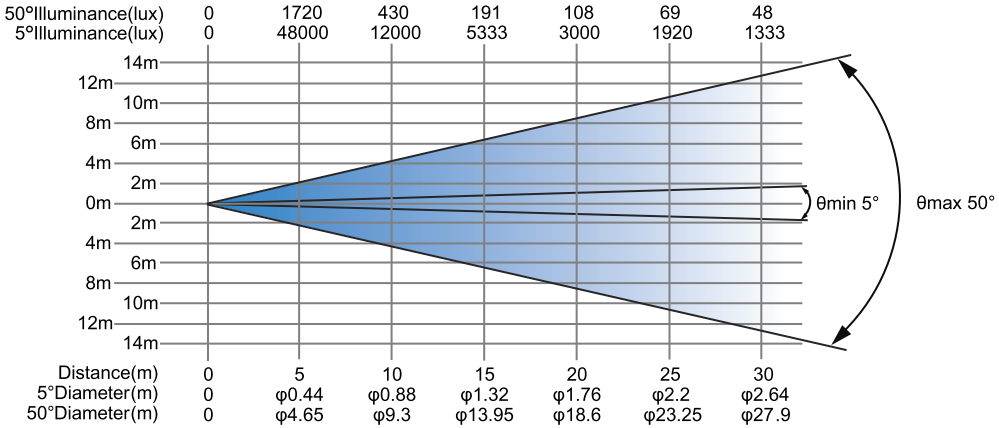
1. Base cover
2. Base power/ panel assembly
3. Folding clamp/ ϕ60 left
4. Power assembly
5. Base module
6. Folding clamp/ ϕ60 right
7. Base display panel assembly
8. Front and rear cover of base
9. Arm bracket
10. Arm beam cover
11. Arm beam assembly
12. Lower cover of fixture body
13. Fan cooling module
14. Framing module
15. Body cover
16. Focus lens module
17. Head cover
18. Gobo assembly

Attached 2: Light output and beam angle range

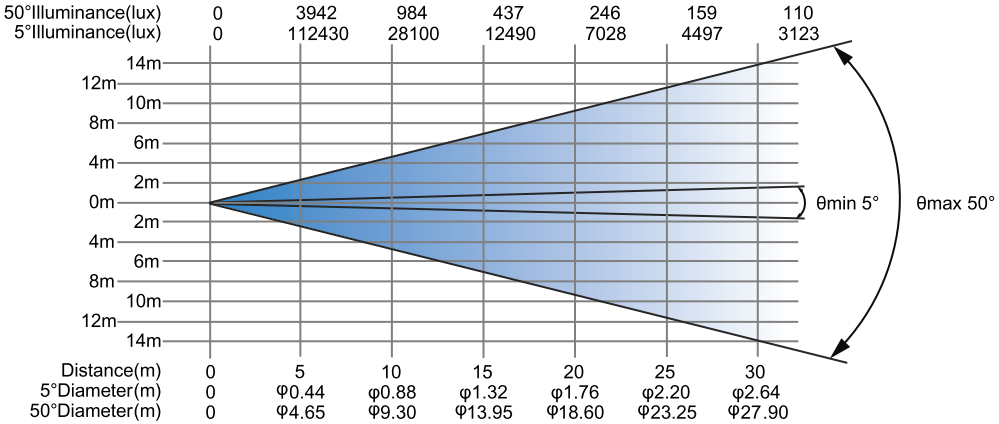
FINE 2000L BSWF PHOTOMETRIC



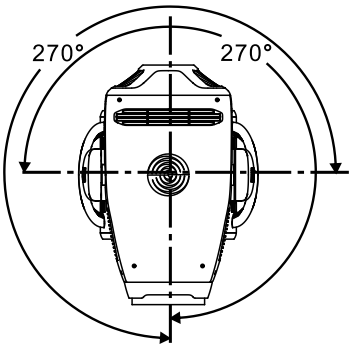
FINE 2000LH BSWF PHOTOMETRIC



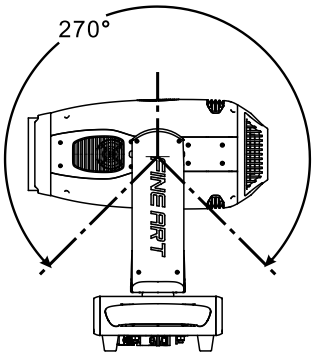
FINE 2000LB BSWF PHOTOMETRIC



● Pan/tilt scan



[pan]



[Tilt]