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Attached 1: FINE 1400ZL PERF exploded drawing

Attached 2: Light output and beam angle range

Attached 3: FINE 1400ZL PERF wiring diagram

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

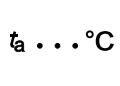
### ★ Declaration

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.

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

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<b>DANGER!</b> Hazardous voltage. Risk of severe or lethal electric shock.	<b>DANGER!</b> Safety hazard. Risk of severe injury or death.	<b>DANGER!</b> Refer to manual before installing, powering or servicing.	<b>Warning!</b> Fire hazard.	<b>Warning!</b> Burn hazard. Hot surface. Do not touch.	<b>Warning!</b> Risk of eye injury. Safety glasses must be worn.	<b>Warning!</b> Risk of hand injury. Safety gloves must be worn.
						
Luminaires not suitable for direct mounting on normally flammable surfaces (suitable only for mounting on 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

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**P/N:390395000219      Edition:A**

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# 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 Manual before mounting and energizing the fixture. Observe the safety guideline and notice the warnings both in this User Manual 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.

$t_a = 40^\circ\text{C}$

The natural working temperature should be lower than 40 degrees. If the ambient temperature exceeds 40 degrees, please stop operating the unit immediately.



### 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 145°C, Please don't touch the moving head during movement.

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.



The minimum distance between fixture and the lighted objects is 3.5m.

## Product introduction

### Fixture profile dimension

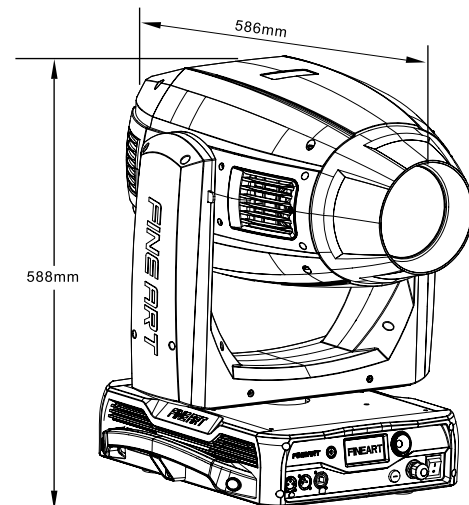
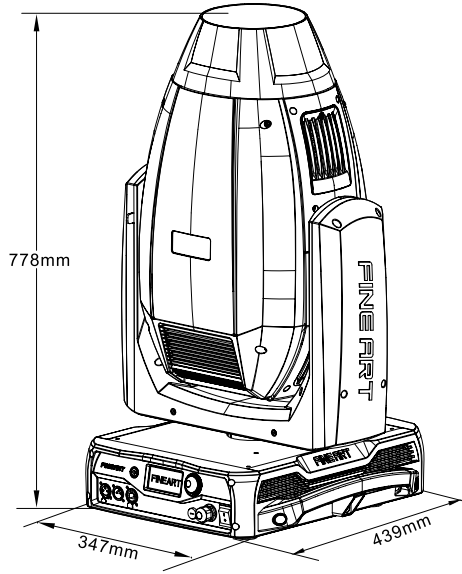
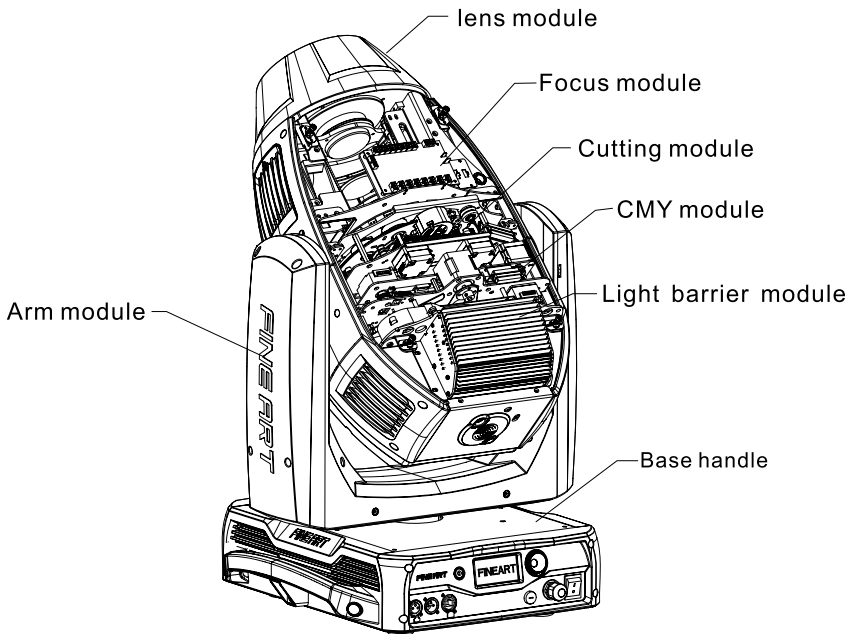


Fig. (2. 1-1)



### Fixture introduction



# Package & delivery

## 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	2	PCS
Power cable	1	PCS

Table 3.1-1

## Transportation lock

For the ease of transit, the fixture is provided with the transportation lock with five 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.

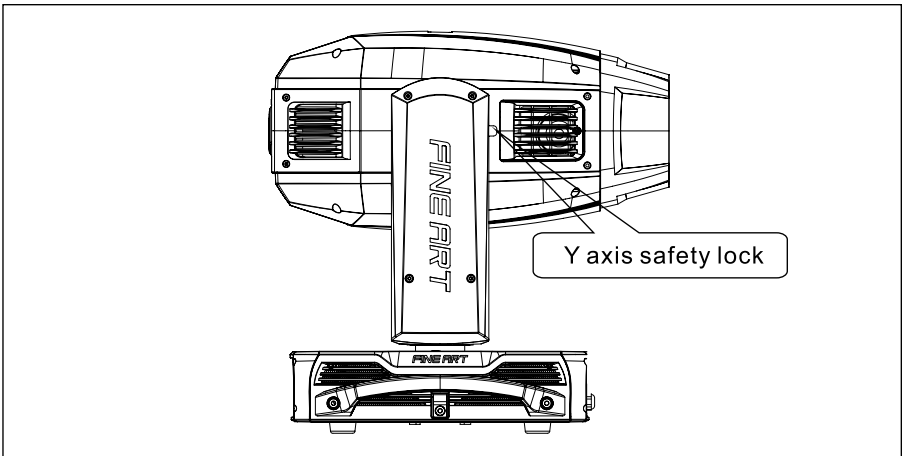


Fig.3.2-1 transportation lock

## 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.

## 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.

# 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°C-40°C, 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.

## Installing riggings

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.

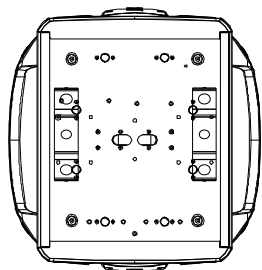


Fig.4.1-1 horizontal orientation

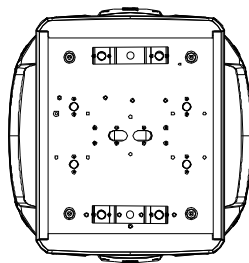


Fig.4.1-2 vertical orientation



The fixture must be fixed by a pair of 1/4 turn clamps. Clockwise rotate the lever by 90°, then the clamp is securely lock.

## Equipment installation

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. Lock each clamp securely to a clamp bracket with a 12M bolt and lock nut.
3. Install a clamp point in the base, insert the fasteners into the base and turn the two levers a full 1/4 buckle clockwise to lock it completely, and install the second clamp in the same way.
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.

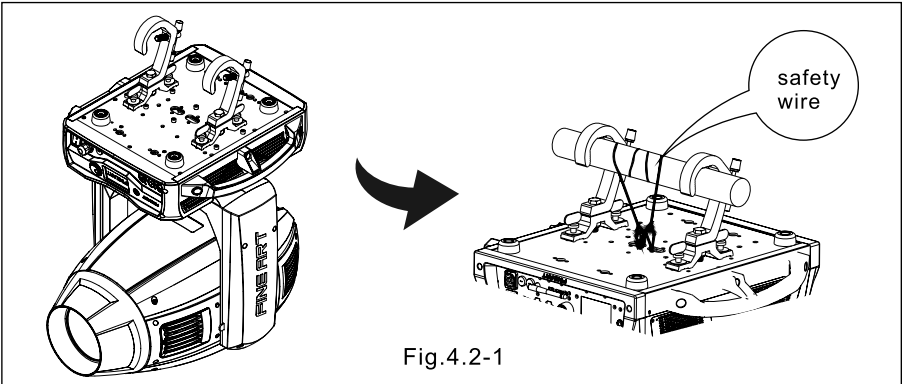


Fig.4.2-1



Warning

The fixtures must be placed upright, minimum spacing between each two fixtures in an array is 500mm, arrangement layout as shown in Fig.4.2-2.

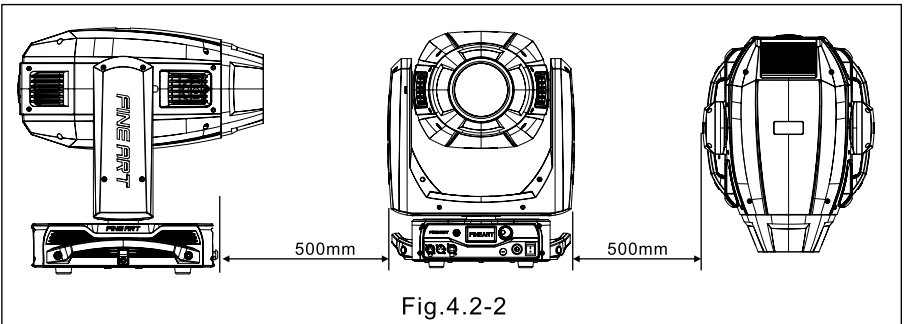


Fig.4.2-2



## Tips for data link

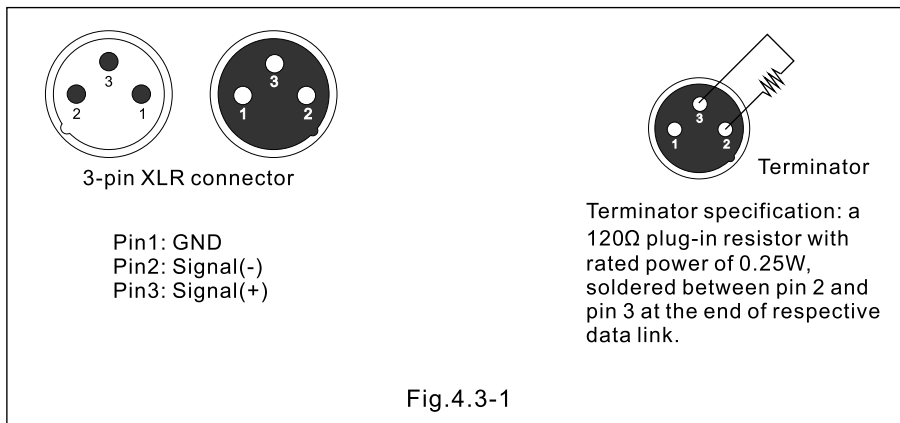
Data linkage for the fixture may be provided by DMX512 connection, Ethernet connection, Ethernet/DMX512 connection and wireless linkage.

### DMX connection

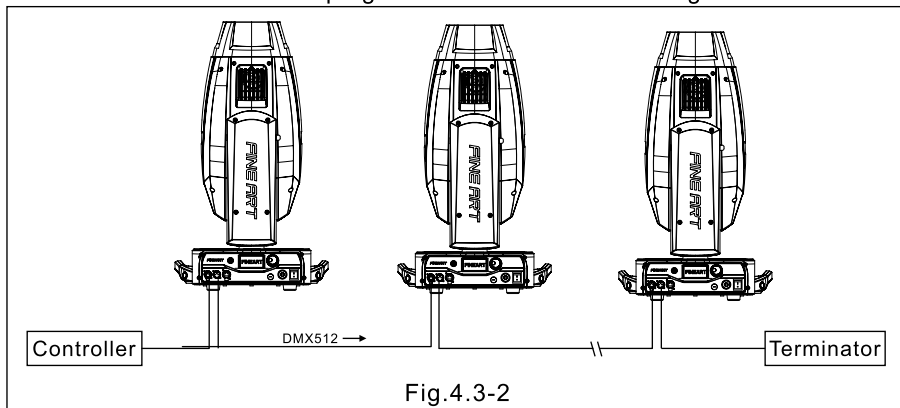
**Note:** The signal cable was type X connection.

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 XLR connectors are provided for fixture DMX input and output. Pin 1 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.



Connect the 3-pin output of a lighting controller to the 3-pin input of a first fixture on the link, then connect the 3-pin 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.



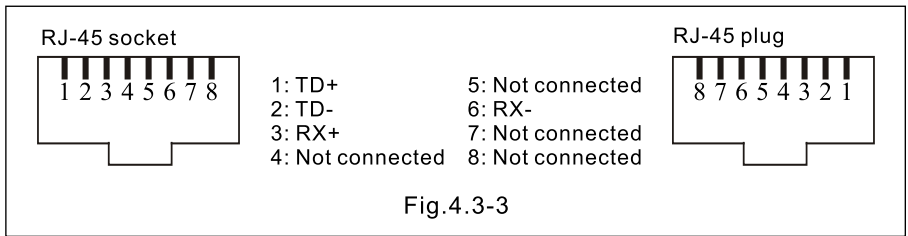
If long-distance data transfer occurs, a DMX512 signal amplifier is necessary. The added amplifier is inserted between the lighting controller and the first fixture on the basis of a normal data link.

**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 class 5 cables and standard RJ-45 connector for internet connection, Shown as Fig.4.3-3.



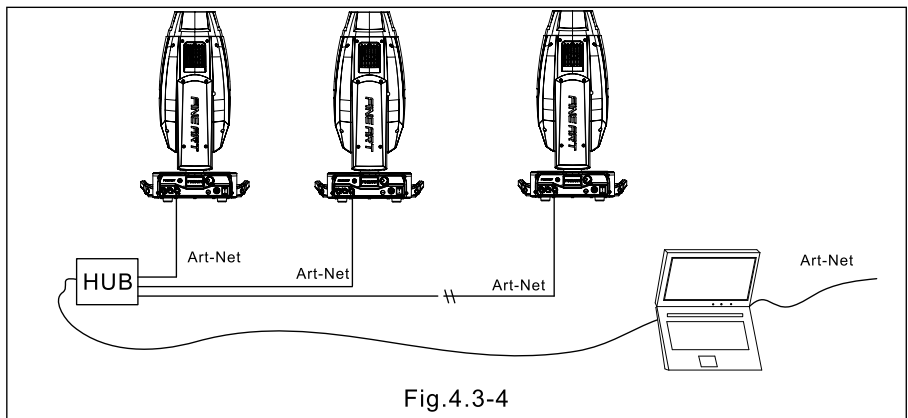
3. Ethernet setting

- (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.



**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.

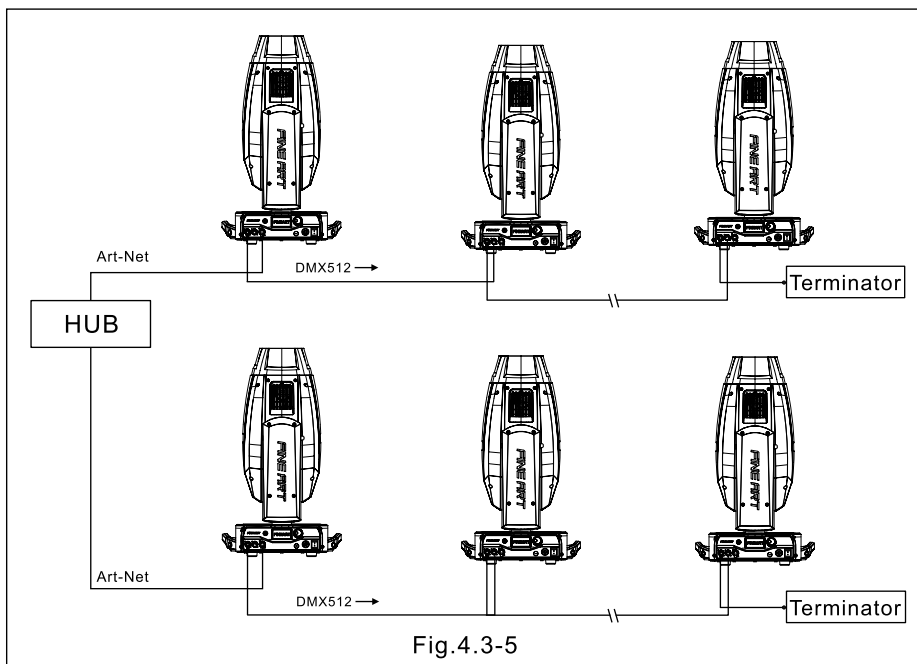


Fig.4.3-5

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

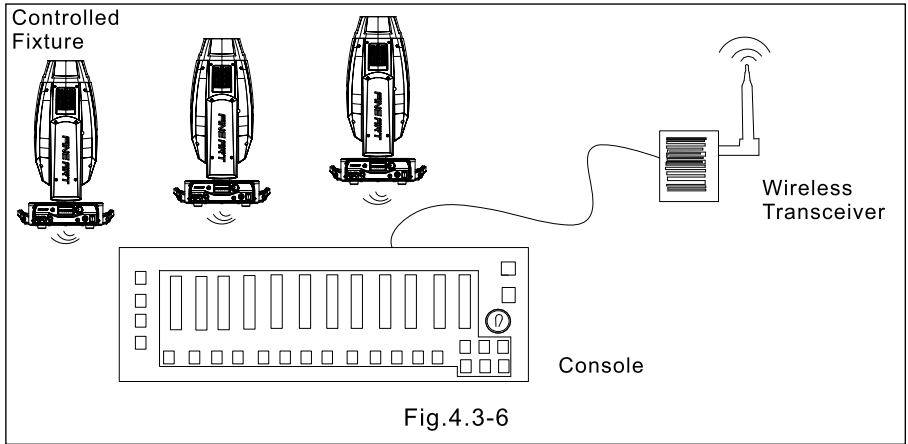
### Wireless transmission (optional)

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.



# AC power supply

## Fuses

Power supply and fuses' type and rating:

Power	Fuse
200-240V~	15A 6×30 (Main fuse)

Table 5.1-1

## Power connection

**Notice:** Type Y attachment for power supply connection. Method of attachment of the cable or cord such that any replacement can only be made by the manufacturer, 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 creepage 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

# Lamp

## Lamp introduction

Comes with OSRAM Lok-it 1400/PS Brilliant single-ended lamp. This short-arc lamp offers stable color temperature, average service life: 750 hrs.



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.

## Lamp replacement



1. Do not touch the quartz bulb of the lamp by bare hand, always keep the lamp clean and free of oil, clean the lamp by alcohol with a dry cloth, especially when you accidentally touch the bulb.
2. Slide in or withdraw lamp slightly and carefully when installing or removing the lamp. Never let the lamp touch the reflector and hard-parts around to avoid any damage to lamp.

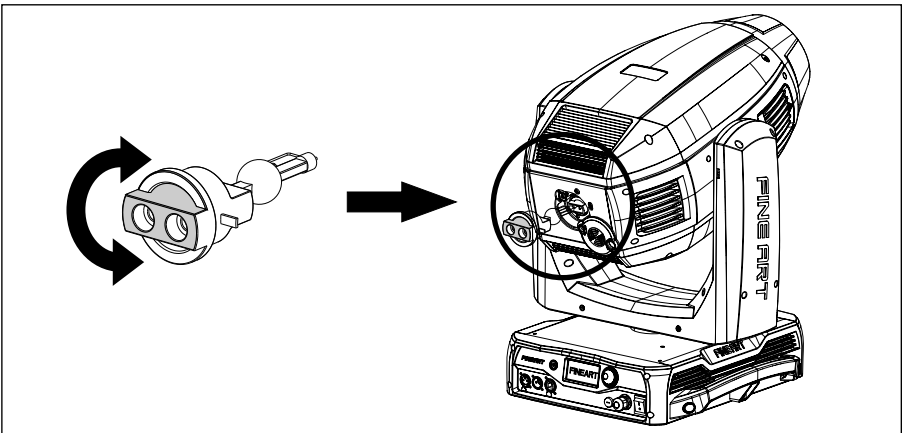


Fig.6.2-1

1. Cut off the power and cool down the fixture completely. Lock the transportation lock wherein the optical axis is horizontally oriented.
2. Open the lamp-access casing with a screwdriver, disconnect supply connection to the lamp base contacts. Press down the springy retainer by one hand and pull out the integrated lamp by the other.
3. When inserting a new lamp, press down the springy retainer against, then carefully insert the lamp inside.
4. The lamp must be inserted in place. Make sure the supply connection to the lamp base contacts are adequately wired. Then fasten the lamp-access casing and screw it up, shown as Fig.6.2-1.

## Lamp adjustment

1. Turn on the power and wait for reset. Use the onboard control panel or a stand-alone lighting controller to project a beam on a non-inflammable surface.
2. Use the (inner)Six angle screwdriver to adjust the screws behind the lamp. B screw can adjust the left-right distance, and the A screw can adjust the up-down distance. The C screw can adjust the front-back distance of the lamp. Please see the following picture.

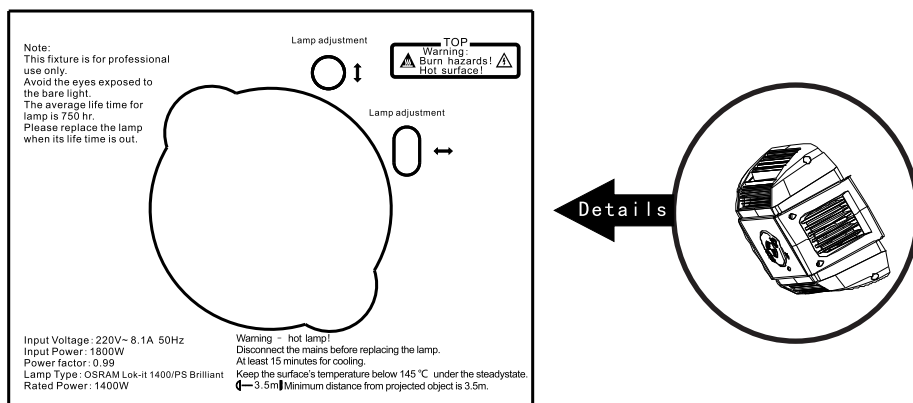
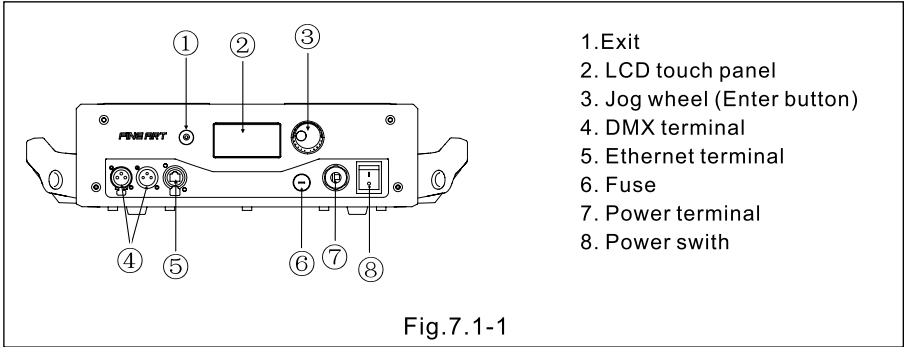


fig. 6.3-1

# Control panel

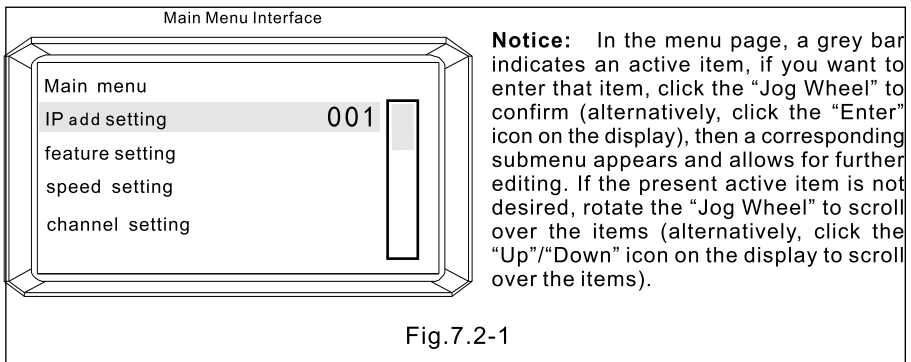
## Control panel introduction

Shown in Fig.7.1-1:

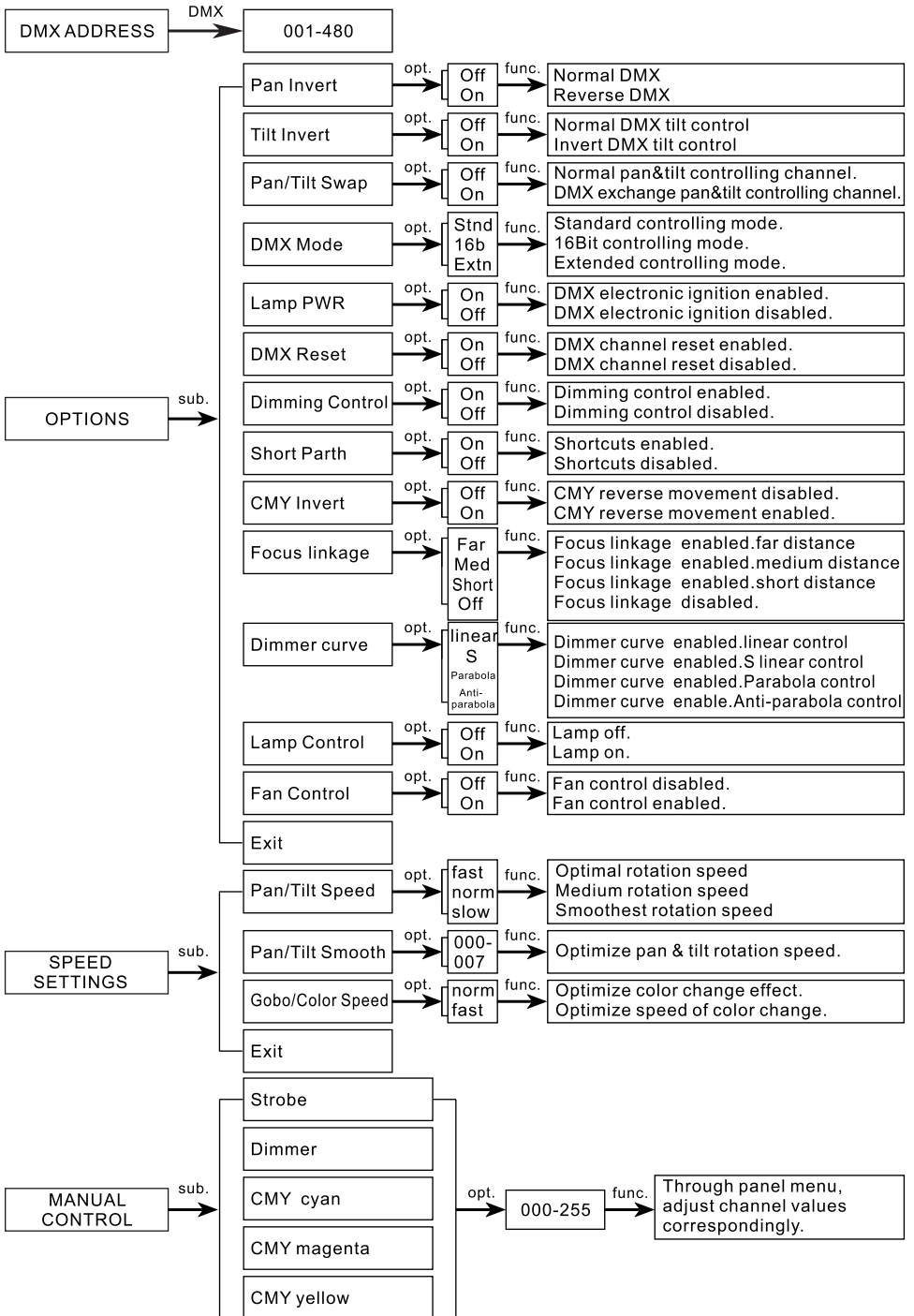


## Control panel operational instruction

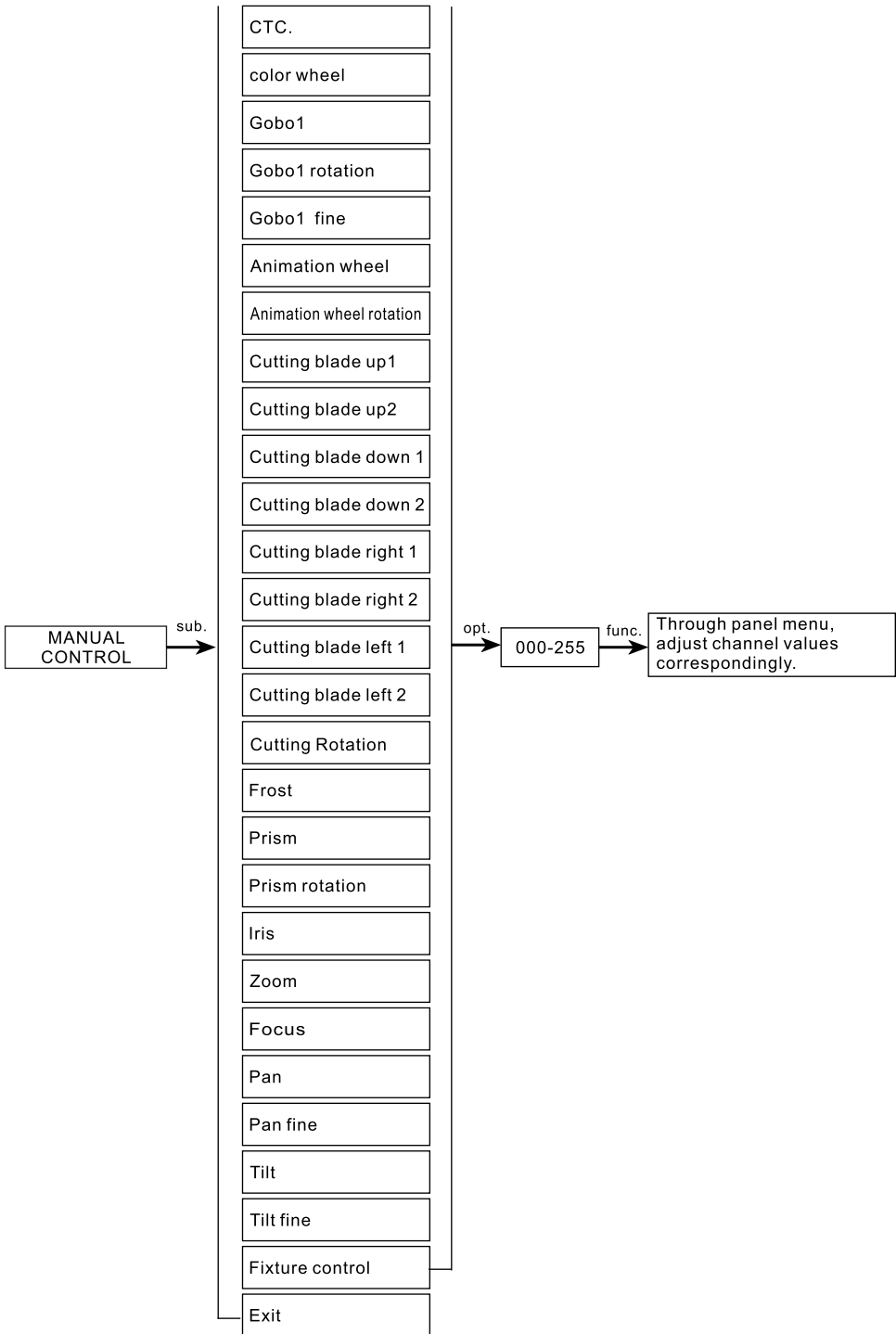
1. Mains switch: It's power off when turning the mains switch to "O". And it's power on when turning the mains switch to "I".
2. Exit button: quit modification or return to upper menu.
3. Jog wheel:  
Press down the jog wheel: enter an item/save the present value. Holds for a few more second, it will return to upper menu.  
Clockwise rotate: scroll down the page/increase the parameter value.  
Counterclockwise rotate: scroll up the page/decrease the parameter value.
4. Menu access: Menu editing is accessible even in the case of supply disconnection, wherein press down and hold both "Exit button" and "jog wheel" till the backup battery is activated, then the main menu will display. Details refer to Fig.7.2-1.
5. Display inverse function: with connection to the supply, press down the "Exit button" and "Jog Wheel" almost at the same time, the screen display will invert by 180°.

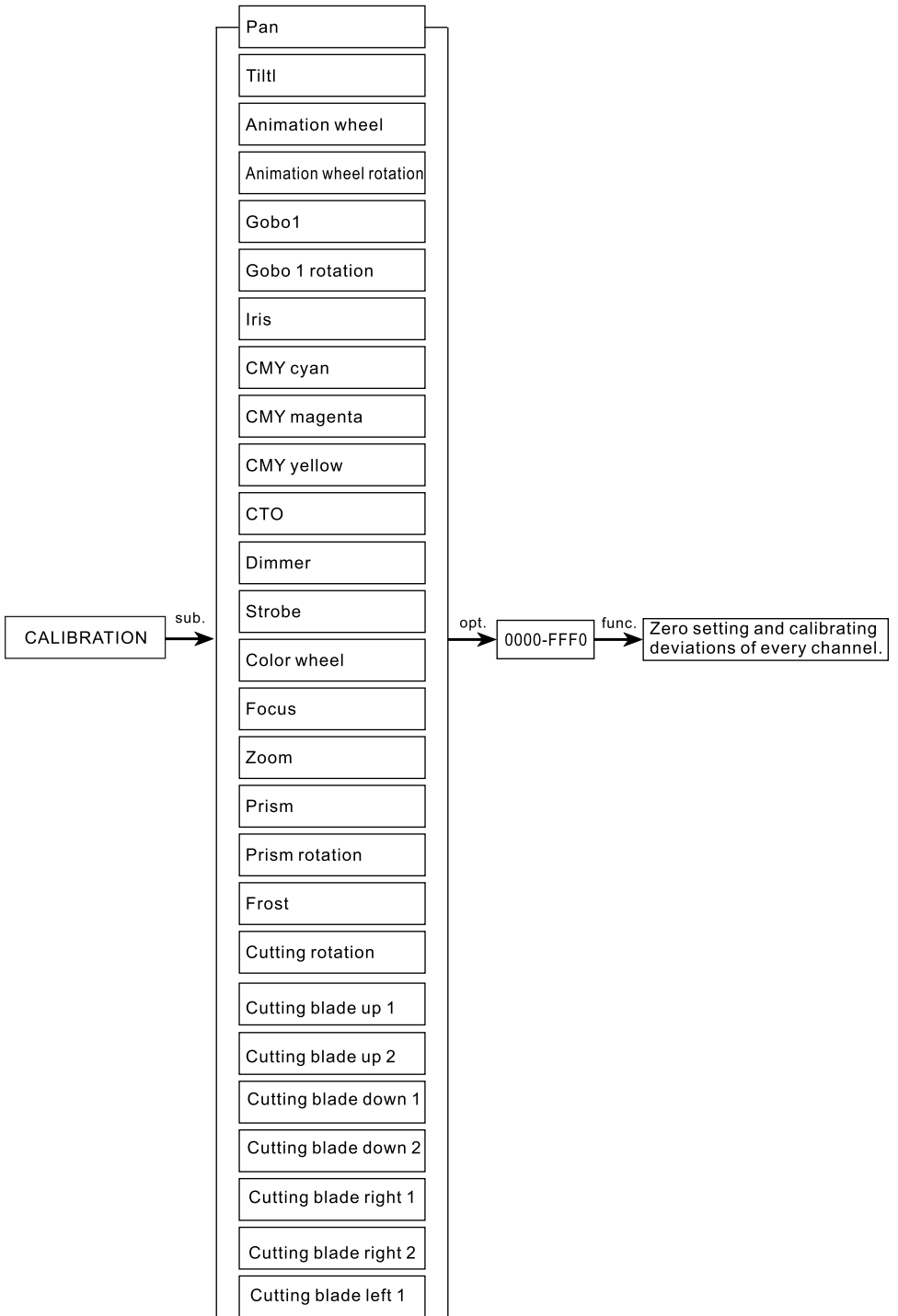


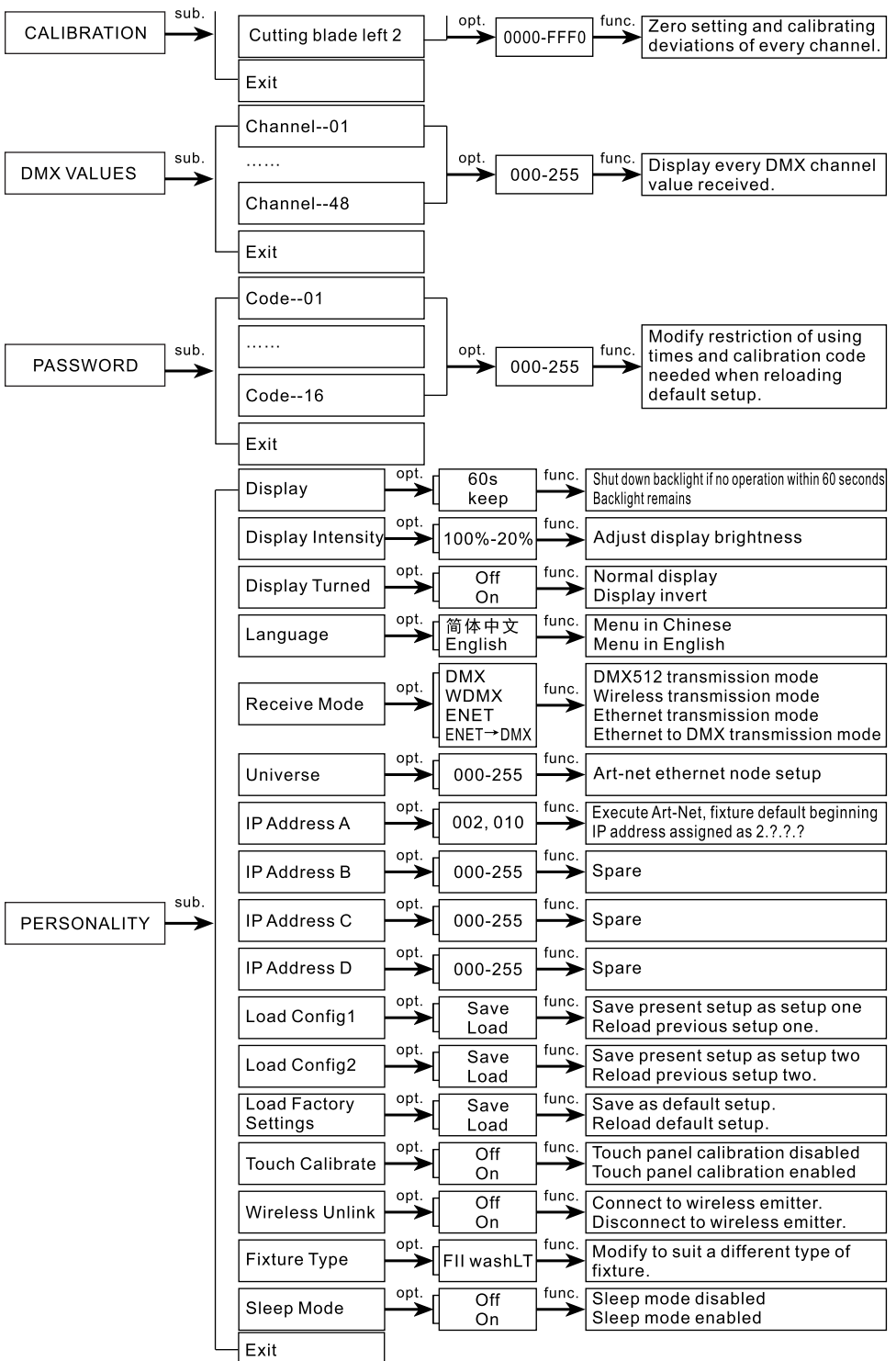
## Display panel operational function detail



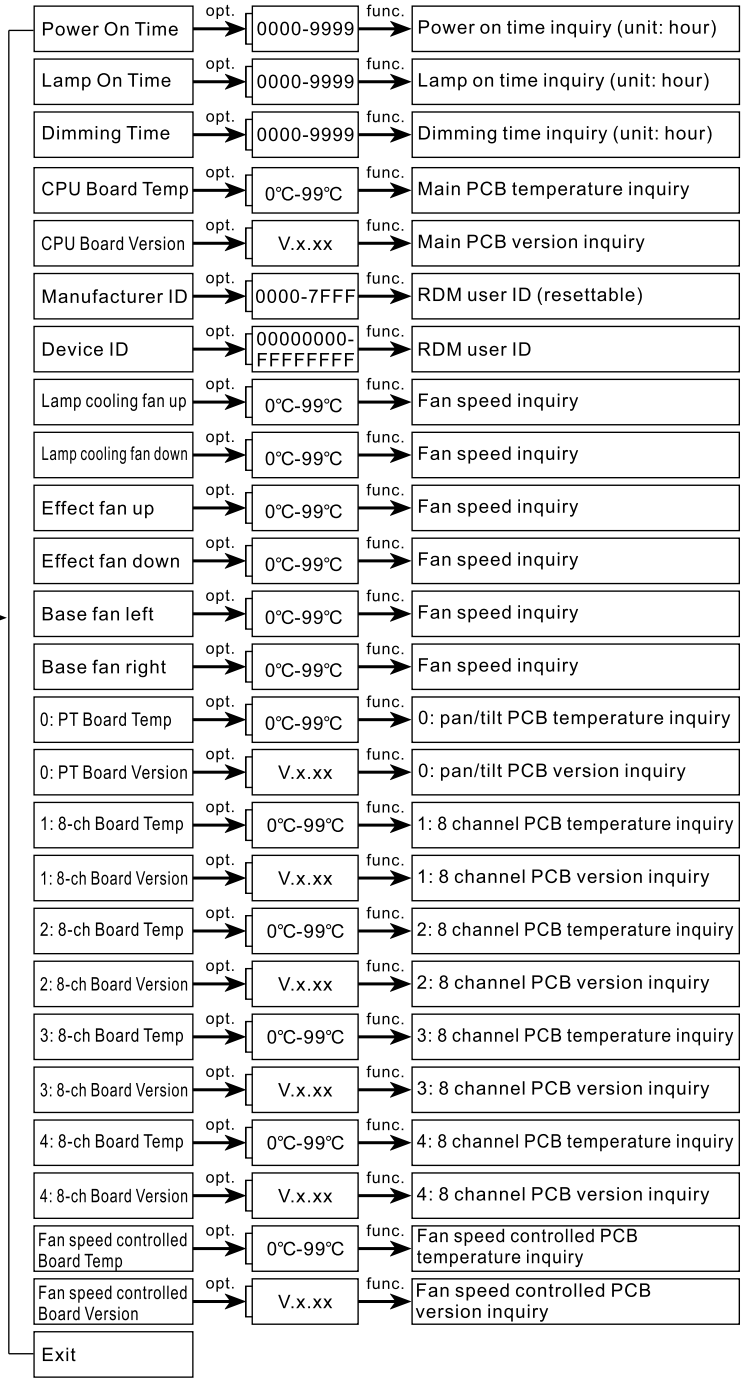


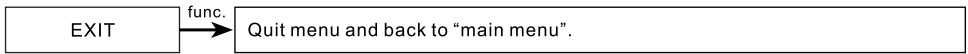
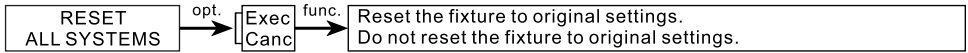
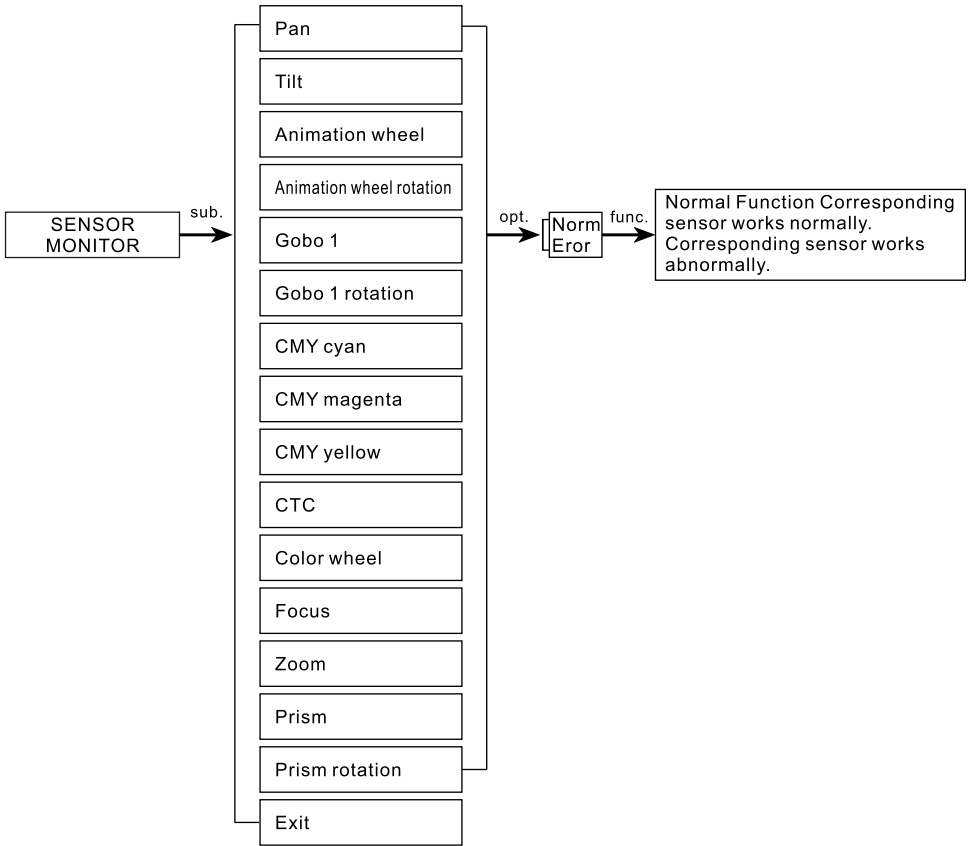






INFORMATION → sub. →





# Technical feature

Production feature explanation

## **OPTICAL SYSTEM**

Lamp type: OSRAM Lok-it! 1400/PS Brilliant ( The lamp cooling has gone through strict tests. If the user use other lamps, Fine Art won't take responsibility for the risk caused by it. )

Reflector: German main and subsidiary reflector

Optical lens: diameter 140mm,

Overall luminous flux: 33787lm

Light Efficiency: 19.41 lm/w

Evenness: 80%

Zoom range: 8°-50°

CRI > 90

## **COLOR SYSTEM**

CMY color mixing system

CTO color linear adjustment

7 color s with white, bidirectional color rainbow can be created, double colors change synchronously and gradually (linear movement), the color wheels rotate bidirectional, change the colors randomly

## **GOBO SYSTEM**

1 rotating gobo wheels, each with 5pcs bidirectional rotating glass gobo filters, with the features of the self-rotating, water running, and shaking effects; The gobo wheels can be positioned;

1 fixed gobo wheel, each wheel has 9 gobo filters

## **FRAMING SYSTEM**

One set of framing system + 90 degree image positioning  
precision positioning

## **EFFECT EQUIPMENT**

One rotational 4-facet prism, bidirectional rotation

Independent soft light and frost effect

Independent dimmer, 0-100% linear dimmer

Independent strobe speed 1-13flash/sec, Multiple strobe effects  
(pulse/asynchronous/synchronous/slow-medium-fast at random)

Fast electric iris 5-100% linear adjustment, macro function of multiple effects  
change.

Electronic linear frost: The frost and soft light effect are showed by electric  
zooming, angular linear adjustment of the light spot realize the depth of the  
frost.

## **MOVEMENT PARAMETER**

Angle: PAN=540°, TILT=270°

TILT FINE=0.088°/step

## **CONTROL AND PROGRAMMING**

Control channel: 3 control modes, 32 (standard)/ 35(16Bit)/ 42 (extended)

Protocol: Standard DMX512 protocol, Art-net light control protocol and wireless DMX512 control (optional)

Menu display: 3.5 inches LCD display, random switch of Chinese and English, available to display 180° reversely; non-touch point button for the option.

## **ELECTRONIC CONTROL TECHNOLOGY**

Built-in self-rechargeable battery, menu edit available without power

Light off or CMY closes, power will automatically decrease

Intelligent fan control

Electronic temperature sensor detection

DMX control monitor

Query by LCD screen

RDM bidirectional data transmission

Non-touch magnetic encoder positioning, signal feedback, absolute position memory, position reset when power-off or DMX disconnection.

## **POWER SUPPLY**

AC200-240V 50/60Hz

Electronic ballast

Input power: 1800w

PF≥0.98

## **DIMENSION AND WEIGHT**

Product Dimension:444 ×439×769mm

Package Dimension:643 ×526×844mm

Net Weight: 40.4kg

Gross Weight: 66 kg

## **PACKAGE**

1pc / flight case

## **IP RATE**

IP20

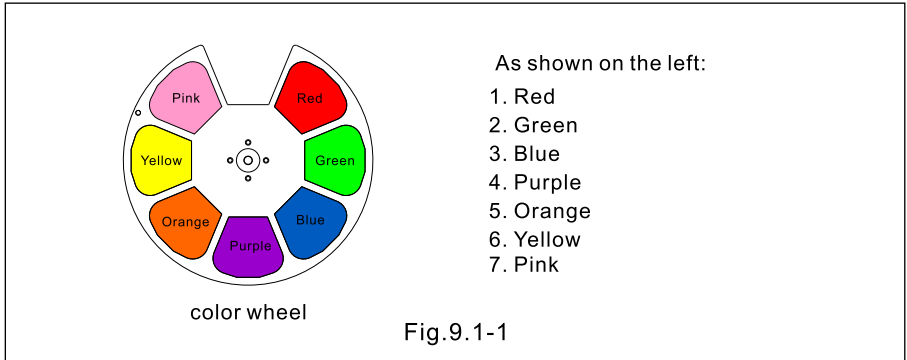
# Functional introduction

## Color wheel

The color wheel comprises seven high-quality color filters as illustrated in Fig.9.1-1.

These amazing palettes favor a lighting designer in creating lighting effects. In conjunction with the gobo wheels, the splendid projected image can be changed as desired anytime.

According to desired requirement, the user can replace with any customized color filters.



## Gobo wheel

The gobo wheel comprises five gobos as illustrated in Fig.9.1-2.

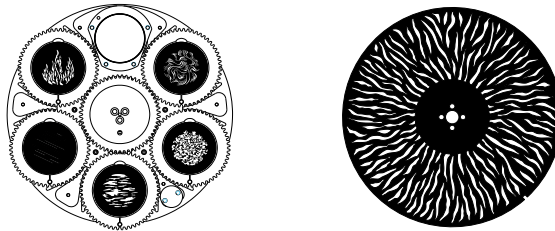


Fig.9.1-2

## Gobo replacement

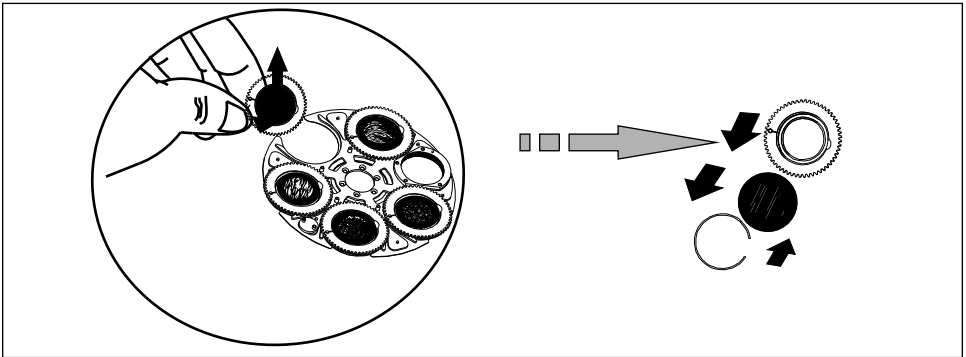
1. Power off and keep the fixture cool for 15 minutes
2. Rotate the fixture and lock the head, open the plastic cover, rotate the gobo wheel to an ideal position, and draw the gobo wheel as the following picture shows.
3. Take out the spring loop and gobo, take the new gobo to the gobo wheel and then put back the spring loop to the groove. (as below photo shows).
4. Please put the gobo wheel to the relative fix holes under two spring clamps. put it slightly to the former position, the screwdriver or similar tools also can be used to prize up spring



Warning

In order to avoid damaging coated side, when put the gobos please make sure that coated side face to supporter edge and non-coated side face to spring loop. when set knaggy gobos it is better to let the plane face to the spring loop.





## Animation wheel

1 rotationable animation wheel ,make the effect of fixture much perfect

## CMY color mixing system

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-design 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.

## CTO

The CTO temperature: 6000k-2800k

## Dimmer and strobe

The mechanical dimmer/shutter system provides smooth,high-resolution 0-100% dimmer,instant open and close,random and adjustable strobe speed can be up to 13HZ most,stroke has another special effect which open and close slowly or close suddenly open slowly,power of close and open is adjustable automatically.adjustable output power 50%-100%.

## Iris

iris can be adjusted from 5%-100%, and the iris channel can be changed from big-narrow or narrow-big randomly.

## Pan & Tilt

Pan 540°,tilt 270°.Both of pan & tilt come with 16 Bit precise positioning function. Pan / tilt speed (fast, normal or slow) can be set up through “speed settings” on the menu item.

## Focus and zoom

1. Zoom lens from 8°-47° , use the optical lens and iris.
2. Beam angle: use the standard 55mm (2 inch) iris equipment to make the beam angle. The narrower light aperture makes smaller beam angle. When the iris channel reaches 100%, the high brightness beam effect can be created.

# Controlling Channels

## Menu control

Channel	Standard mode	16 Bit mode	Extended mode
1	Strobe	Strobe	Strobe
2	Dimmer	Dimmer	Dimmer
3	Cyan	Dimmer fine	Dimmer fine
4	Magenta	Cyan	Cyan
5	Yellow	Magenta	Cyan fine
6	CTC	Yellow	Magenta
7	Color wheel	CTC	Magenta fine
8	Gobo 1	Color wheel	Yellow
9	Gobo 1 rotating	Gobo 1	Yellow fine
10	Gobo 1 rotating fine	Gobo 1 rotating	CTC
11	Animation	Gobo 1 rotating fine	CTC fine
12	Animation rotating	Animation	Color wheel
13	Cutting blade up 1	Animation rotating	Gobo 1
14	Cutting blade up 2	Cutting blade up 1	Gobo 1 rotating
15	Cutting blade down 1	Cutting blade up 2	Gobo 1 rotating fine
16	Cutting blade down 2	Cutting blade down 1	Animation
17	Cutting blade right 1	Cutting blade down 2	Animation rotating
18	Cutting blade right 2	Cutting blade right 1	Cutting blade up 1
19	Cutting blade left 1	Cutting blade right 2	Cutting blade up 2
20	Cutting blade left 2	Cutting blade left 1	Cutting blade down 1
21	Cutting rotation	Cutting blade left 2	Cutting blade down 2
22	Frost	Cutting rotation	Cutting blade right 1
23	Prism	Frost	Cutting blade right 2
24	Prism rotating	Prism	Cutting blade left 1
25	Iris	Prism rotating	Cutting blade left 2
26	Zoom in/out	Iris	Cutting rotation
27	Focus	Zoom in/out	Cutting rotation fine
28	Pan	Zoom in/out fine	Frost
29	Pan fine	Focus	Frost fine
30	Tilt	Focus fine	Prism
31	Tilt fine	Pan	Prism rotating
32	Fixture control	Pan fine	Iris
33	–	Tilt	Iris fine
34	–	Tilt fine	Zoom in/out

35	–	Fixture control	Zoom in /out fine
36	–	–	Focus
37	–	–	Focus fine
38	–	–	Pan
39	–	–	Pan fine
40	–	–	Tilt
41	–	–	Tilt fine
42	–	–	Fixture control

### DMX control

STND	16BT	EXTN	Specific	Value	Function
1	1	1	Strobe	000~019	Off
				020~049	Open
				050~200	Strobe, Fast-->Slow
				201~210	Open
				211~255	Random Strobe, Slow->Fast
2	2	2	Dimmer	000~255	0%->100% Off->Open
-	3	3	Dimmer Fine	000~255	0%->100%
3	4	4	Cyan	000~255	0%->100% White->Cyan
-	-	5	Cyan Fine		
4	5	6	Magenta	000~255	0%->100% White->Magenta
-	-	7	Magenta Fine		
5	6	8	Yellow	000~255	0%->100% White->Yellow
-	-	9	Yellow Fine		
6	7	10	CTC	000~255	0%->100% Cold->Warm
-	-	11	CTC Fine	000~255	
7	8	12	Color Wheel		Linear Movement
				000~119	White->Red...->Pink->White Linear Movement
				120~160	White
					Full Color Mode
				161~163	Red
				164~166	Green
				167~169	Blue
				170~172	Purple
				173~175	Orange
				176~178	Yellow
				179~181	Pink
				182~192	White

7	8	12	Color Wheel		Color Watering
				193~214	Clockwise, Fast->Slow
				215~221	Stop
				222~243	Anti Clockwise, Slow->Fast
					Random Color Mode
				244~247	Fast
				248~251	Medium
				252~255	Slow
8	9	13	Gobo1		Position Mode
				000~009	White
				010~014	Gobo1
				015~019	Gobo2
				020~024	Gobo3
				025~029	Gobo4
				030~034	Gobo5
					Rotation Mode
				035~039	Gobo1
				040~044	Gobo2
				045~049	Gobo3
				050~054	Gobo4
				055~059	Gobo5
					Position Mode(Shake speed)
				060~089	Gobo1
				090~119	Gobo2
				120~149	Gobo3
				150~179	Gobo4
				180~209	Gobo5
					Rotation Mode
210~232	Clockwise, Fast->Slow				
233~255	Anti Clockwise, Slow->Fast				
9	10	14	Gobo1 Rotation	Index	Position Mode
				000~255	0~360°
				Continuous gobo rotation	Rotation Mode
				000~002	No Rotation
				003~126	Clockwise, Fast->Slow
				127~129	No Rotation
				130~253	Anti Clockwise, Slow->Fast
				254~255	No Rotation

10	11	15	Gobo1 Rotation Fine	000~255	Index Fine/Rotation speed fine
11	12	16	Animation Wheel		Position Mode
				000~010	Open
				011~020	Insert
				021~030	Open
				031~040	Insert
					Rotation Mode
				041~050	Position1
				051~060	Position2
				045~070	Position3
				050~080	Position4
				055~090	Position5
				055~100	Position6
055~110	Position7				
	111~255	Open			
12	13	17	Animation Wheel Rotation	Index	Position Mode
				000~255	0~395°
					Rotation Mode
				000~002	No Rotation
				003~126	Clockwise, Fast->Slow
				127~129	No Rotation
				130~253	Anti Clockwise, Slow->Fast
				254~255	No Rotation
13	14	18	Cutting blade up1	000~255	Cutting blade out->in
14	15	19	Cutting blade up2	000~255	Cutting blade out->in
15	16	20	Cutting blade down 1	000~255	Cutting blade out->in
16	17	21	Cutting blade down2	000~255	Cutting blade out->in
17	18	22	Cutting blade right 1	000~255	Cutting blade out->in
18	19	23	Cutting blade right 2	000~255	Cutting blade out->in
19	20	24	Cutting blade left 1	000~255	Cutting blade out->in

20	21	25	Cutting blade left 1	000~255	Cutting blade out->in
21	22	26	Cutting rotation	000~255	Cutting wheel rotating from 0°->90°
-	-	27	Cutting rotation fine		
22	23	28	Frost	000~255	Frost Insert
-	-	29	Frost Fine		
23	24	30	Prism	000~019	White
					Position Mode(prism rotating)
				011~138	Prism Insert
					Rotation Mode(Prism Rotation)
				139~255	Prism Insert
24	25	31	Prism Rotation	Index	Position Mode
				000~255	0~360°
					Rotation Mode
				000~002	No Rotation
				003~126	Clockwise, Fast->Slow
				127~129	No Rotation
				130~253	Anti Clockwise, Slow->Fast
				254~255	No Rotation
25	26	32	Iris	000~255	Iris Big->Small
-	-	33	Iris Fine		
26	27	34	Zoom In/Out	000~255	Small->Big
-	28	35	Zoom In/Out Fine		
27	29	36	Focus	000~255	Far->Close
-	30	37	Focus Fine		
28	31	38	Pan	000~255	0°->540°
29	32	39	Pan Fine		
30	33	40	Tilt	000~255	0°->252°
31	34	41	Tilt Fine		

32	35	42	Fixture Control	1.the resetting state must be activated after the functional value for 5 seconds	
				2.turn off the light after the lamp is lighting for 1 minutes, turn on the light after the lighting is out for 2 minutes.	
				3. use the electricity to turn on or turn off the light.	
				4.if you want to reset the light through the panel, pls open the reset channel, and then re-choose the "0", after that you can operate it.	
				000~009	vacant
				010~014	Fixture Reset
				015~029	Features Reset
				030~034	Pan/Tilt Reset
				035~039	Reserve
				040~044	Lamp On
				045~049	Lamp Off
				050~059	Reserve
				060~064	dimmer Curve, Linear
				065~069	Dimmer Sin Curve
				070~074	Dimmer Cos Curve
				075~079	Dimmer S Curve
				080~104	Reserve
				105~109	Focus,Zoom In/Out disabled
				110~114	Focus,Zoom In/Out Available. short distance mode
				115~119	Focus,Zoom In/Out Available. middle distance mode
				119~124	Focus,Zoom In/Out Available.long distance mode
				125~126	Full Power
				127~132	Reserve
				133~134	Half Power
				135~255	Reserve
Notice :				Linear Color [Open] character setup via panel	
				Dimmer Curve Linear	
				colored character means unavailable function	
				unavailable function can be kept as reserved value	

# Routine maintenance

## Cleaning and 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.

**Notice:** *Excessive dust, smoke fluid and particulate buildup will degrade performance and cause overheating or damage to the fixture that is not covered by the warranty.*

**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, or compressed air.

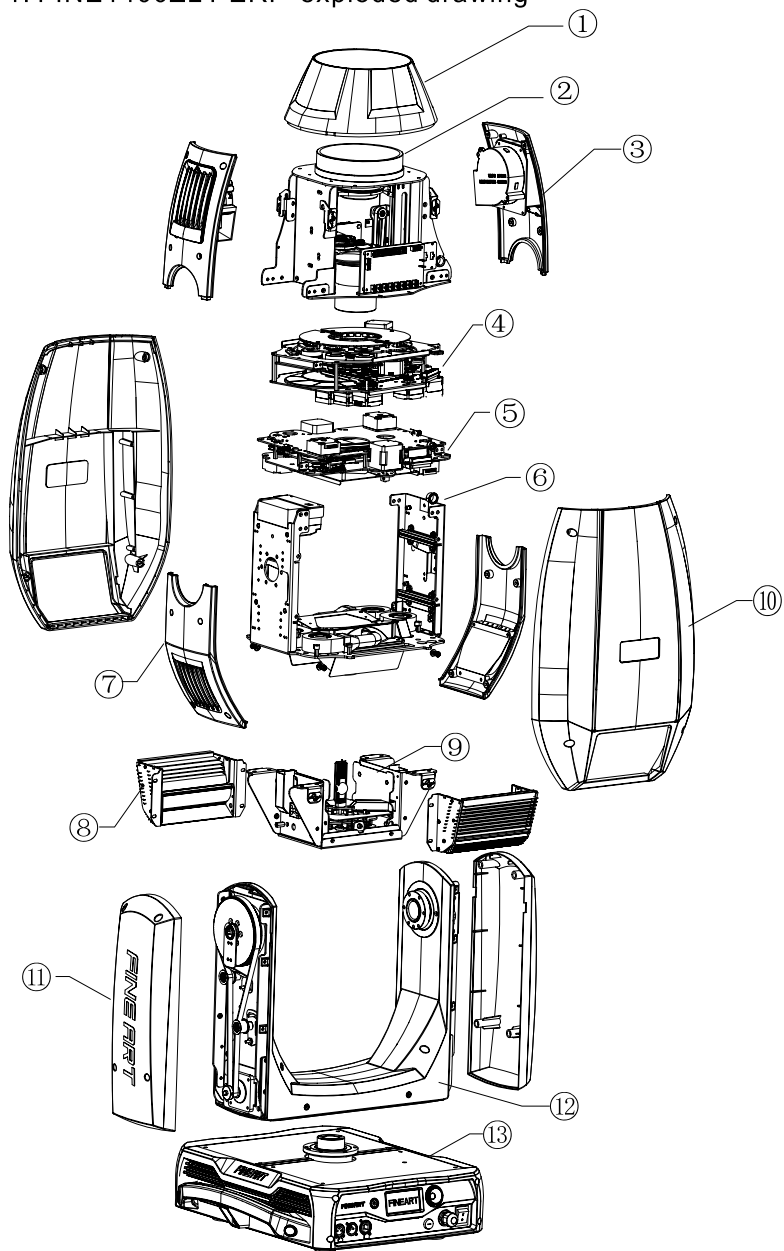


# Ordering P/N

## Common parts for FINE 1400ZL PERF

Item	Specification	Ordering index
Power supply	29 ± 0.5V/350W	330000300005
6-way Driver Board	—	330395100041
8-way Driver Board	—	330395100040
Fan controlboard	—	330389100011
Lamp	1400W	180101000073
P/T driver board	—	330395100019
Fuse	15A	309905000012
Encoder	—	330395100023
Touch switch	—	330395100025
Focusing lens	—	200395000057
Optical lens	—	200395000055
Zoom lens	—	200395000056
Lithium battery	—	130702000003
4-facet prism	φ58	200395000054
Frost	φ60	200397000039
Fan	AD0912UB-A7BGL	150101000022
Fan	G60T24MS1ZZ-51	150102000021
Fan	06023GA24NAT00	150102000019
Fan	BM502005WB49L	150102000029

Attached 1: FINE1400ZL PERF exploded drawing



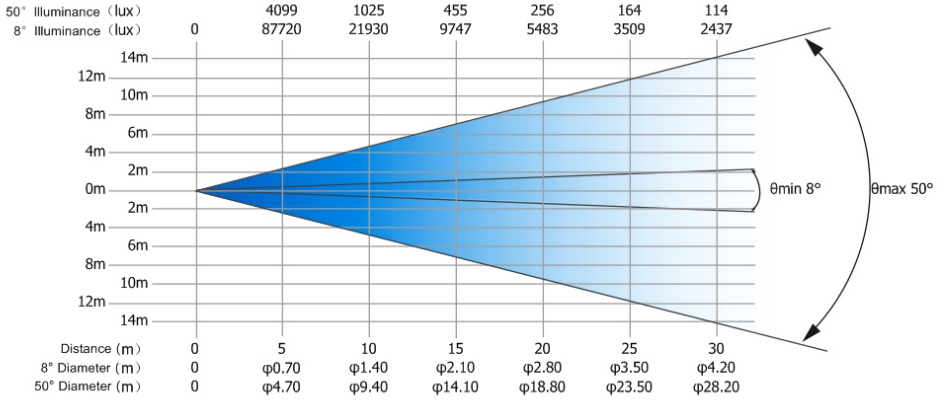
- 1.LENS cap
- 2.Focus module
- 3.Upper lid
- 4.Cutting module
- 5.CMY module

- 6. Side arm module
- 7. Down lid
- 8. Light barrier module
- 9. Lamp holder module
- 10. Front/back casing

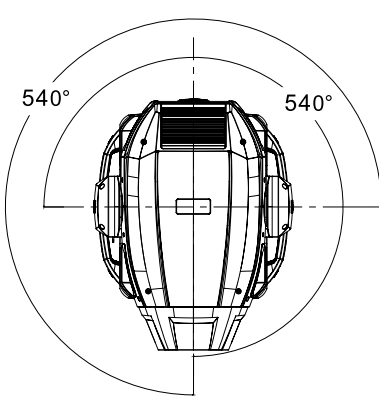
- 11.Mounting arm casing
- 12.Arm module
- 13.Base handle

Attached 2: Light output and beam angle range

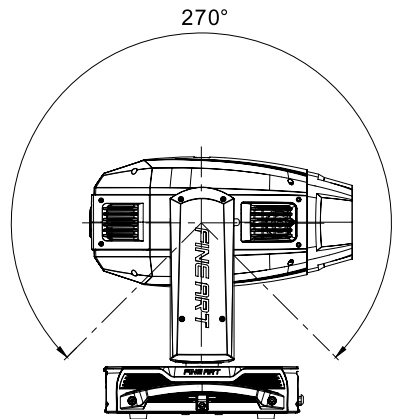
**FINE 1400ZL PERF luminous intensity diagram**



**Pan/tilt scan**



PAN



TILT