

Contents

P/N: 390383000062 Version: A

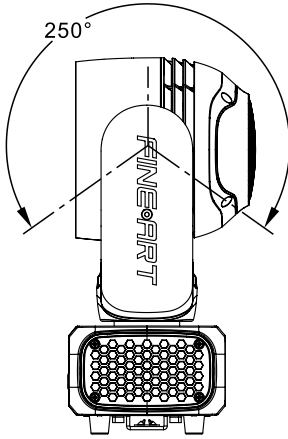
1. Technical Feature.....	02
2. Angle range.....	03
3. Control channel.....	04
4. Operation chart for the display panel function.....	05
5. Control panel.....	07
5.1 Control panel introduction.....	07
5.2 Control panel Operation introduction.....	07
6. Routine maintenance.....	08
7. Safety information.....	09
8. Product Connection.....	10
8.1 Included items.....	10
8.2 Power Connection.....	10
8.3 Signal Connection.....	11
9. Parts Code.....	13
Attached 1. Fixture exploded drawing	
Attached 2. Wiring diagram	

1 /Technical feature

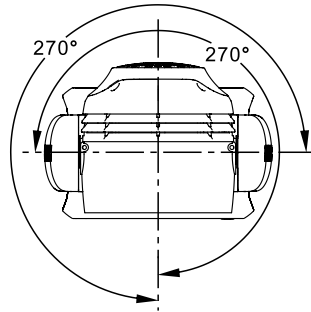
Technical feature	FINE ISPOT EYE
Camera	Network high-definition camera
Input voltage	100-240V~ 50/60Hz
Input current	0.25A
Input power	25W
Power factor	PF \geq 0.98
Digital zoom	32x optical zoom
Other effects	Gyro anti shake function/Quick focus function
Control channel	Stand 8
Pan	Pan=540°,Pan= 2.11°/step, Pan fine=0.008°
Tilt	Tilt =250°, Tilt=1.05°/step, Tilt fine=0.004°
Safety protection	Over current, over voltage and overheating protection
Control mode	DMX512/Art-Net
Work environment	0°C~40°C
Fixture dimension	332*254*172mm
Package dimension	1154*534*664mm
Weight	Net weight: 5.5kg, Gross weight: 93kg
Package	8pcs/flight case
IP rate	IP20

2 /Angle range

■ Pan&Tilt



[Tilt]



[Pan]

3 /Control channel

Stand Control channel			
ID	English	Value	Remark
1	Pan	0-255	Pan 0->540
2	Pan fine	0-255	Pan fine
3	Tilt	0-255	Tilt 0->250
4	Tilt fine	0-255	Tilt fine
5	Control	0-234 No Function 235-239 Mode 1 : Console control all attributes , except for the pan/tilt attribute ; 240-244 Mode 2 : Console control all attributes , except for the cloud platform mapping attributes on push rods and rollers , andthe pan/tilt attribute ; 245-249 Mode 3 : Console control all attributes , except for the cloud platform mapping attributes on rollers , andthe pan/tilt attribute ; 250-255 Mode 4 : Console control all attributes ;	Reserved
6	Reset	0-76 No Function 77-127 Pan/Tilt Reset 128-255 All Reset (#1)	Reset
7	Reserved1	0->255	Reserved
8	Reserved2	0->255	Reserved

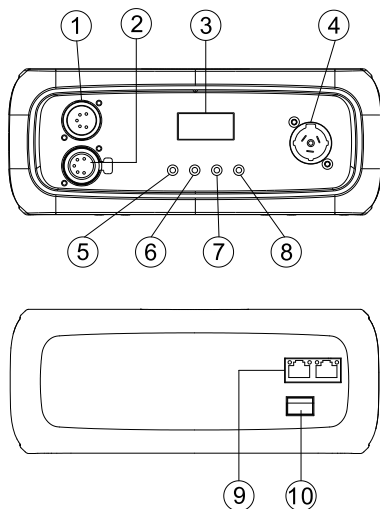
4 / Operation chart for the display panel function

First Level	Second Level	Option/Value	Default	Description
Address	DMX Address	1~512	1	Change DMX Address
Option	Pan Invert	OFF/ON	OFF	
	Tilt Invert	OFF/ON	OFF	
	Pan/Tilt Swap	OFF/ON	OFF	
	DMX Mode	Stnd 8	Stnd	
	Lamp PWR	OFF/ON	ON	Reserved
	DMX Reset	OFF/ON	ON	Reserved
	Dimming Control	OFF/ON	ON	Reserved
	Short Parth	OFF/ON	ON	Reserved
	CMY Invert	OFF/ON	OFF	Reserved
	Strobe Auto	OFF/ON	OFF	Reserved
	Dimmer Auto	OFF/ON	OFF	Reserved
	Lamp Control	OFF/ON	OFF	Reserved
	Fan Control	Normal/Sile	Normal	Control power and noise of fans
		Dimmer curve	Opti/VRMS/Squa /Invs	ON
SPEED SETTINGS	Pan/Tilt Speed	Fast/Normal/ Slow	Fast	Reserved
	Pan/Tilt Smooth	0~7	0	Reserved
MANUAL CONTROL	MANUAL CONTROL	000 ~ 255	0	Through panel menu, adjust channel values correspond-ingly
CALIBRATION	Pan	0000-FFF0	0	Zero setting and calibrating deviations of every channel
	Tilt	0000-FFF0	0	
DMX VALUES	Channel 01 ~ 48	000 ~ 255		Display every DMX channel value received
PASSWORD	Code 01 ~ 16	000-255	0	Modify restriction of using times and calibration code needed when reloading default setup.
PERSONALITY	Display	Keep/60s	60s	Shut down backlight if no operation within 60 seconds Backlight remains
	Display Intensity	10-100	100%	Adjust display brightness
	Display Turned	OFF/ON	ON	Display invert
	Language	Chinese/English	Chinese	
	Receive Mode	DMX/WDMX/ENE T/ EDMX/SACN	DMX	Receive Mode
	Universe	0-255	0	Art-net ethernet node setup
	IP Address A	002-010	2	ARt-Net IP Address A
IP Address B	000-255	168	ARt-Net IP Address B	
IP Address C	000-255	0	ARt-Net IP Address C	
IP Address D	000-255	2	ARt-Net IP Address D	

PERSONALITY	Load Config 1	Load	Save	Reload previous setup one
		Save		Save present setup as setup 1
	Load Config 2	Load	Save	Reload previous setup two
		Save		Save present setup as setup 2
	Load Factory Settings	Load	Save	Reload default setup
		Save		Save as default setup
	Renew program	ON	ON	Program renew unavailable
		OFF		Program renew available
	Wireless Unlink	ON	ON	Disconnect to wireless emitter
		OFF		Connect to wireless emitter
	Fixture Type	FlspEye	FlspEye	Modify to suit a different type of fixture.
	Sleep Mode	ON	OFF	Sleep mode enabled
		OFF		Sleep mode disabled
	Error prompt	ON	ON	Error prompt available unavailable
		OFF		Error prompt available
	Error code	0x0000-0xffff	0	Display error code
INFORMATIO	Power On Time	0000-9999	0	Power on time inquiry (unit: hour)
	Lamp On Time	0000-9999	0	Lamp on time inquiry (unit: hour)
	Dimming Time	0000-9999	0	Dimming time inquiry (unit: hour)
	CPU Board Temp	00-99	xx	Main PCB temperature inquiry
	CPU Board Version	Vx.xx	Vx.xx	Main PCB version inquiry
	Manufacturer ID	000-7fff	05Ef	RDM user ID (resettable)
	Device ID	00000000-ffffff	xxxxxx	RDM user ID
	Speed of fan 1	0000-9999	xxxx	Fan speed display (unit: RPM)
	Speed of fan 2	0000-9999	xxxx	Fan speed display (unit: RPM)
	0:PT Board Temp	00-99	xx	0: pan/tilt PCB temperature inquiry
0:PT Board Version	Vx.xx	Vx.xx	0: pan/tilt PCB version inquiry	
	1:Cloud Board Information			
	1:Cloud Board Ver	Vx.xx	Vx.xx	
SENSOR MONITOR	Pan	Norm/Error	Norm	Normal Function Corresponding sensor works normally
	Tilt	Norm/Error	Norm	Corresponding sensor works abnormally
RESET ALL SYSTEMS		Exec/Canc	Canc	Reset the fixture to original settings
EXIT				Quit menu and back to "main menu"

5 /Control panel

5.1 Control panel introduction



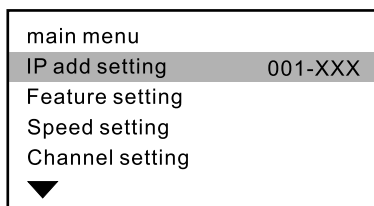
1. DMX in
2. DMX out
3. LCD display
4. Power in
5. Menu
6. Enter
7. Up
8. Down
9. Art-Net interface
10. Optical interface

Figure(5.1-1)

5.2 Control panel Operation introduction

1. Press "MENU" button to trigger the built-in battery for startup fixture and enter the main menu interface for menu operation.

Main Menu Interface



Note: Indicate the selected menu items in the menu. If you are sure to enter this menu, please press the enter button to confirm. That is to say, enter the next menu and continue editing. If this menu option is not set in the entry address, the menu can be paged by Up or Down button.

Fig.5.2-1

6 / Routine maintenance

This fixture requires routine cleaning. The service life depends on the operating environment heavily. Please kindly contact GUANGZHOU CHAIYI 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 over heating 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.

7 / Safety information

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



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



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



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



Warning!
Fire hazard.



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



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



Warning!
Do not stare at the bulb which is still on.



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



Replace any cracked protective shield.

$t_a \dots C$

Rated maximum ambient temperature is 40°C.



For indoor use only. (The camera is not waterproof, please stay away from water sources.)



Do not direct lens to sun ray or strong light!



Do not actuate during operating.



Luminaries not suitable for direct mounting on normally flammable surfaces (suitable only for mounting on non-combustible surfaces)



Warning Laser



Protection against explosion

Protection screen must be replaced if they have become visible damaged to such an extent that their effectiveness is impaired.



Protection against burning or fire

Keep flammable materials far away from the fixture. Minimum distance from the flammable materials is 0.5m.



Warning Laser

Avoid direct laser irradiation on the camera.

8 /Product connection

8.1 Included items

FINE ISPOT EYE is packed with flight case. One single standard flight case carries 8 fixtures, Included items listed below (shown as table 8.1-1):

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

Table (8.1-1)

8.2 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 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 3/5-pin socket. Please according to table (8.2-1) 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.

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

Table (8.2-1)

8.3 Signal connection

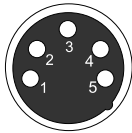
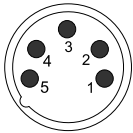
There are 2 ways to connect the data lines of fixture and lanterns for reference, namely DMX512, Art-Net.

DMX connection

Note: The signal cable was type X connection.

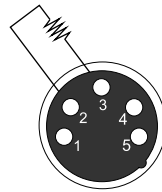
Type X connection—if the external flexible cable or cord of this fixture is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

3-pin or 5pin 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.



5-pin XLR connector

Pin1: GND
Pin2: Signal(-)
Pin3: Signal(+)
Pin4: Empty
Pin5: Empty



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.(8.3-1)

Connect the fixtures with Max 64 pieces. Make sure to insert the “signal in” terminal in the last connecting fixture. shown in Figure8.3-2.

Note: Make sure the fixture vertically upwards when it is placed horizontally, the safe distance between two adjacent fixtures must be $\geq 500\text{mm}$.

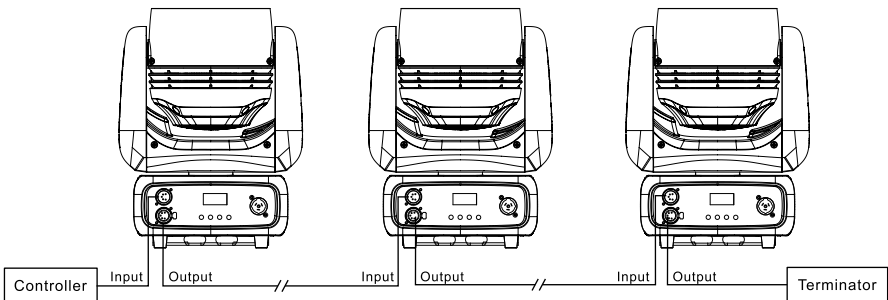


Fig.(8. 3-2)

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.

ART-NET 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.8.3-3.

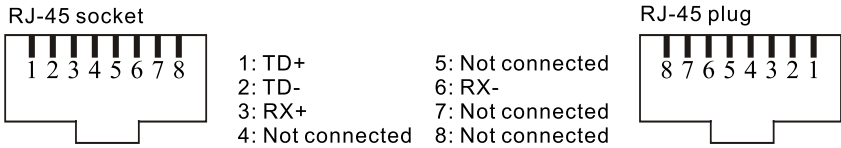


Fig.8.3-3

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.8.3-4.

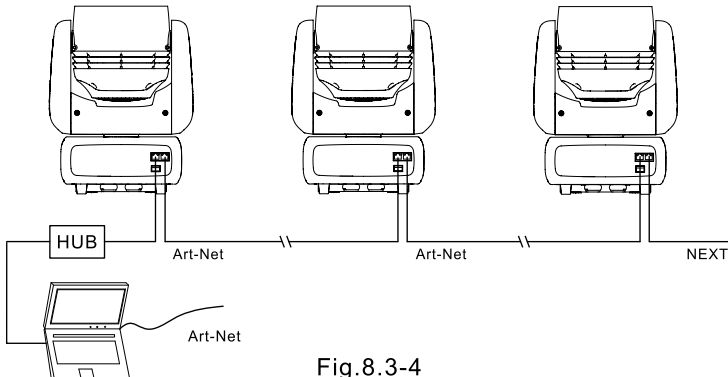
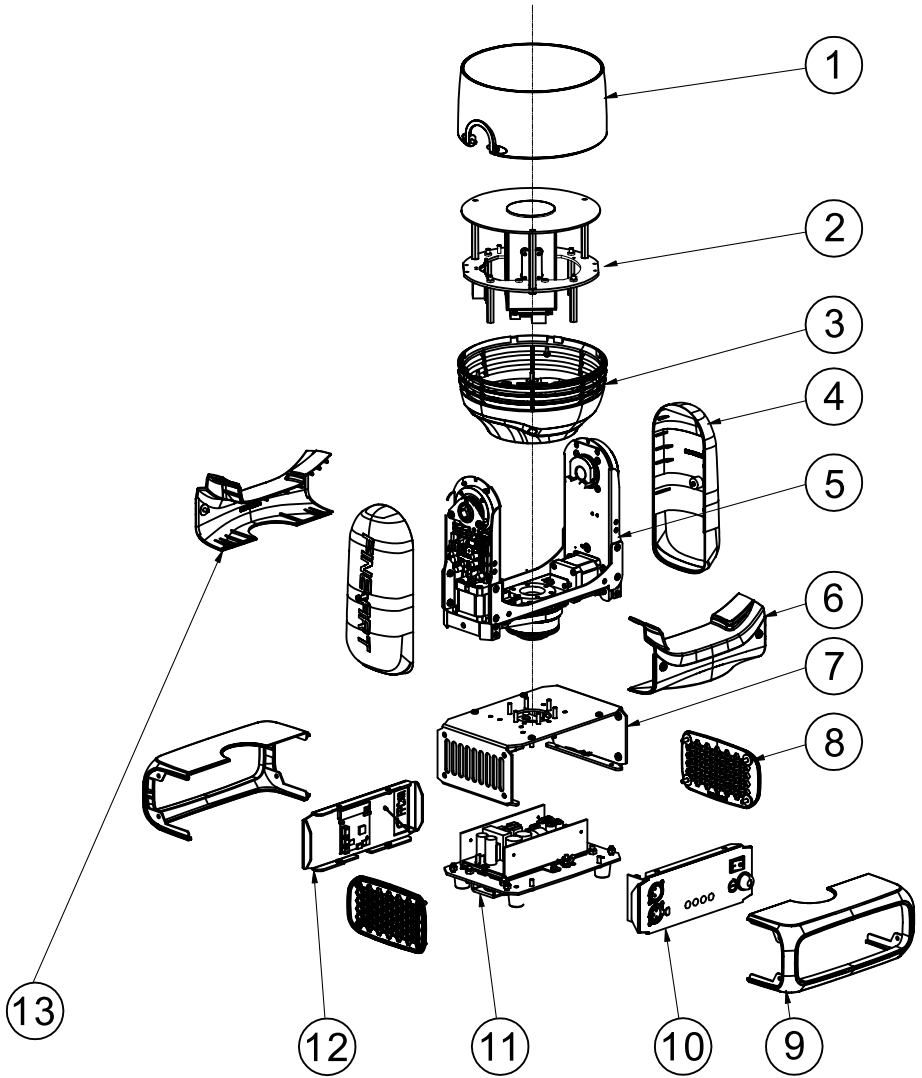


Fig.8.3-4

10 /Parts Code

No.	Item	Specification	Ordering index
1	Camera	iDS-2ZMN3209N B	410201000103
2	Switch power supply	40W	330001200142
3	Display board	1.3 inch	330712100225
4	XY axis drive board	-	330712100181
5	DMX adapter board	-	330713100047
6	Ethernet adapter board	-	330522100027
7	Gigabit net-work switch	-	410201000138
8	Mini SFP fiber optic transceiver	-	410201000135
9	Camera adapter board	-	330522100031
10	XY axis magnetic encoder	-	330712100192
11	Y axis hall	-	330712100191
12	X axis hall	-	330397100058
13	X axis synchronous belt	TD-306-3M	350201000849
14	Y axis synchronous belt	HTD-384-3M	350201000858
15	X&Y axis motor	-	140103000050
16	Lithium battery	18650 3.7V 3350mAh	130702000020

Attached 1: Fixture exploded drawing



- | | | |
|--------------------------------|----------------------------|-------------------------|
| 1. Head cover | 6. Arm beam2 | 11. Base assembly |
| 2. Cameras assembly | 7. Base cover assembly | 12. Rear panel assembly |
| 3. Lower cover of fixture body | 8. Base side cover | 13. Arm beam |
| 4. Arm cover | 9. Base cover | |
| 5. Arm beam assembly | 10. Display panel assembly | |