Contents

P/N: 390712210063 Version: B

1/ Technical feature

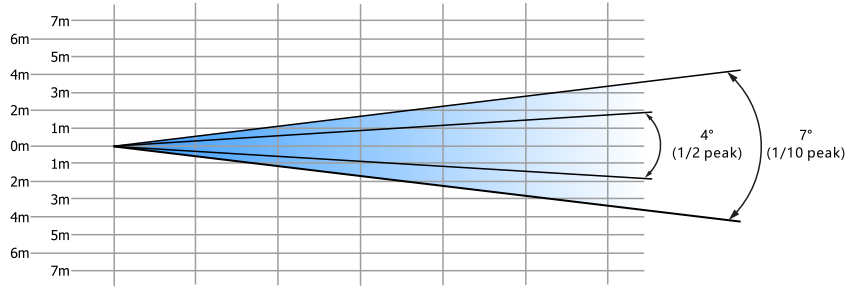
Technical feature	FINE 407 WASH LED
Light source	7 PCS 4 in1 40W LED
Input voltage	100-240V~ 50/60Hz
Input current	3.3A
Input power	330W
Power factor	PF⩾0. 98
Beam angle	4°~60°
Max luminous flux	Small angle: 2109.5 lm, Large angel: 3477.2 lm
Max effciency	Small angel: 6.99 lm/W, Large angel:11.49 lm/W
Control channel	Stand 20
Effect	All-optical domain dimming, 65536 grade dimming accuracy fast strobe 1-25Hz, preset 100 color macro functions
Pan	Pan=540°,Pan= 2.11°/step, Pan fine=0.008°
Tilt	Tilt =230°, Tilt=1.05°/step, Tilt fine=0.004°
Safety protection	Over current, over voltage and overheating protection
Control mode	DMX512
Work environment	0℃~40℃
Fixture dimension	254*172*381.5mm
Package dimension	1154*534*664mm (flight case)
Weight	Net weight: 6.8kg, Gross weight: 95.4kg (flight case)
Package	8pcs/flight case
IP rate	IP20

Note: The light source is not recommended to replaced by user. Ask qualified maintenance personnel to replace the light source If any damage or overheat deformation.

2/ Light output and beam angle range

PHOTOMETRIC(Min Angle)

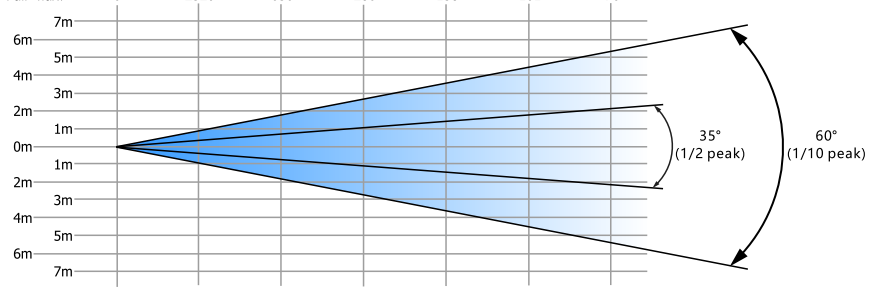
R（lux）	0	11115	2779	1235	695	445	309
G（lux）	0	24075	6019	2675	1505	963	669
B（lux）	0	6660	1665	740	416	266	185
W（lux）	0	51975	12994	5775	3248	2079	1444
Full（lux）	0	91125	22781	10125	5695	3645	2531



distance(m)	0	2	4	6	8	10	12
4°(1/2 peak) diameter(m)	0	φ0.16	φ0.33	φ0.49	φ0.66	φ0.82	φ0.99
7°(1/10 peak) diameter(m)	0	φ0.25	φ0.51	φ0.76	φ1.01	φ1.27	φ1.52

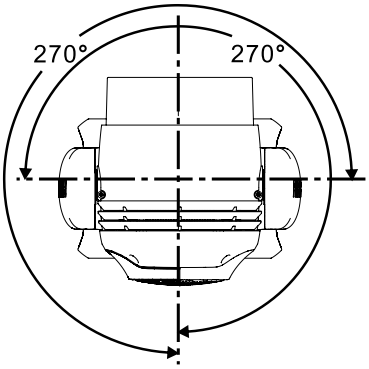
PHOTOMETRIC(Max Angle)

R（lux）	0	304	76	34	19	12	8
G（lux）	0	729	182	81	46	29	20
B（lux）	0	189	47	21	12	8	5
W（lux）	0	1508	377	168	94	60	42
Full（lux）	0	2520	630	280	158	101	70

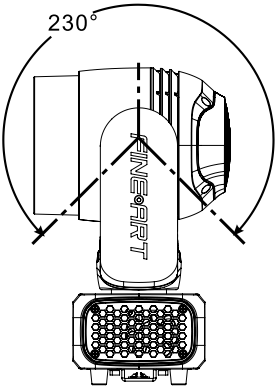


distance(m)	0	2	4	6	8	10	12
35°(1/2 peak) diameter(m)	0	φ1.26	φ2.52	φ3.78	φ5.04	φ6.3	φ7.56
60°(1/10 peak) diameter(m)	0	φ2	φ4	φ6	φ8	φ10	φ12

■Pan&Tilt



[Pan]



[Tilt]

3/ Control channel

ID	Specific	Value	Function
1	Red	0->255	Red
2	Red fine	0->255	Red fine
3	Green	0->255	Green
4	Green fine	0->255	Green fine
5	Blue	0->255	Blue
6	Blue fine	0->255	Blue fine
7	White	0->255	White
8	White fine	0->255	White fine
9	CTO	0->3	No Function
		4	Colour temperature 2500K
		5	Colour temperature 3200K
		6	Colour temperature 4500K
		7	Colour temperature 5600K
		8	Colour temperature 6500K
		9	Colour temperature 8000K
		10->255	Colour temperature from 8000K to 2500K
10	Macro Color	0->9	No Function
		10->16	7 kinds rainbow effect
		17->27	Reserved
		28->241	Macro Colour
		242->255	Reserved
11	Strobe	0->3	CLOSED
		4->103	Pulse Strobe from slow to fast, 1Hz-25Hz
		104->107	OPEN
		108->207	Strobe from slow to fas, 1Hz-25Hz
		208->212	OPEN
		213->251	Random Strobe from slow to fast
		252->255	OPEN
12	Dimmer	0->255	Dimmer Tuning
13	Dimmer fine	0->255	Dimmer fine
14	Pan	0->255	Pan Tuning 0->540
15	Pan fine	0->255	Pan fine
16	Tilt	0->255	Tilt Tuning 0->220
17	Tilt fine	0->255	Tilt fine
18	Function	0->255	Reserved
19	Reset	0->25	No Function
		26->76	ZOOM Reset
		77->127	Pan/Tilt Reset
		128->255	All Reset
20	Zoom	0->255	Spot angle from small to big

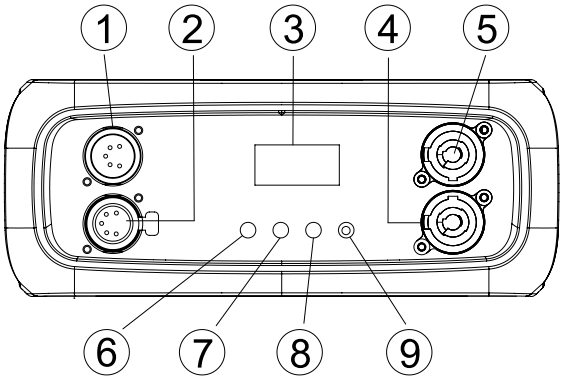
4/ Operation chart for the display panel function

FirstLevel	SecondLevel	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 20	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	Reserved
SPEED SETTINGS	Pan/Tilt Speed	Fast/Normal/Slow	Fast	Reserved
	Pan/Tilt Smooth	0~7	0	Reserved
	G/C Speed	Fast/Slow	Fast	Reserved
MANUAL CONTROL	MANUAL CONTROL	000 ~ 255	0	Through panel menu, adjust channel values correspondingly
CALIBRATION	Pan	0000-FFF0	0	Zero setting and calibrating deviations of every channel
	Tilt	0000-FFF0	0	
	Zoom	0000-FFF0	0	
	R1	0000-FFF0	0	
DMX VALUES	Channel 01 ~ 48	000 ~ 255		Display every DMX channel value received
PASSWORD	Code01 ~ 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/ENET/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

	Load Config 1	Load	Save	Reload previous setup one
		Save		Save present setup as setup one
	Load Config 2	Load	Save	Reload previous setup two
		Save		Save present setup as setup two
	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
PERSONALITY	Fixture Type	F407	F407	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-ffffffff	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:LED Board Temp	00-99	xx	1:LED board temperature inquiry
	1:LED Board Version	Vx.xx	Vx.xx	LED board version inquiry
	2:Cloud Board Information			View Information of Cloud
	2:Cloud Board Ver	Vx.xx	Vx.xx	
SENSOR MONITOR	Pan	Norm/Eror	Norm	Normal Function Corresponding sensor works normally Corresponding sensor works abnormally
	Tilt	Norm/Eror	Norm	
	Zoom	Norm/Eror	Norm	
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 out
5.Power in
6.Menu
7.Enter
8.Up
9.Down

Figure(5.1-1)

5.2 Control panel Operation introduction

Main Menu Interface

main menu	
IP add setting	001-XXX
Feature setting	
Speed setting	
Channel setting	
▼	

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.

Minimum distance from lighted objects is 0.5m.

For indoor use only.

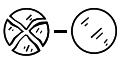
Do not direct lens to sun ray or strong light!

Do not actuate during operating.

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

The surface's temperature is 71℃.

Rated maximum ambient temperature is 40˚C.



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.

8/ Product Connection

8.1 Included items

FINE 407 WASH LED 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
Signal cable	1	PCS
Suspension fasteners	1	PCS
User manual	1	PCS
Warranty card	1	PCS
Certificate	1	PCS

Table(8.1-1)

8.2 Power Connection

Power supply and fuses' type and rating:

Power	Fuse
100-240V~	5A 5X20

Table(8.2-1)

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 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(8.2-2)

Notice: One power cable can only connect up to 3 fixture in series (including the first one)

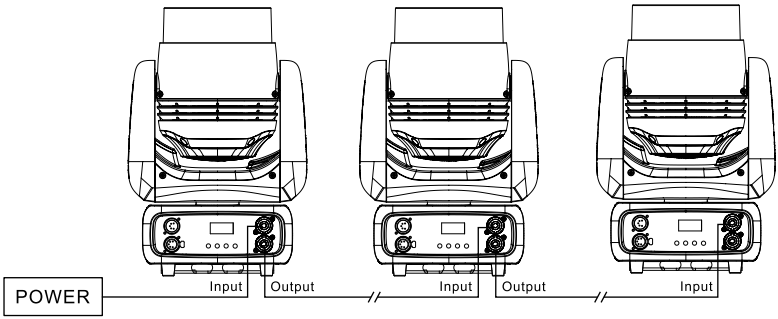


Fig.(8. 2-2)

8.3 Signal Connection

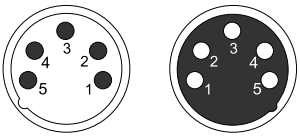
Data linkage for the fixture may be provided by DMX512 connection and wireless linkage.

DMX connection

Note: The signal cable was type Y connection.

Type Y 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.

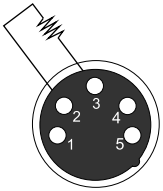
5-pin or 3-pin XLR connecters are provided for fixture DMX input and output. Pin 1 is for earthing, pin 2 is for minus signals, and pin 3 is for plus signals. To prevent and absorb the reflection and interference of the signals, each data link must be ended by a respective terminator.



5-pin XLR connector

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

Fig.(8.3-1)



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.

Connect the fixtures with Max 25 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 ≥ 500mm.

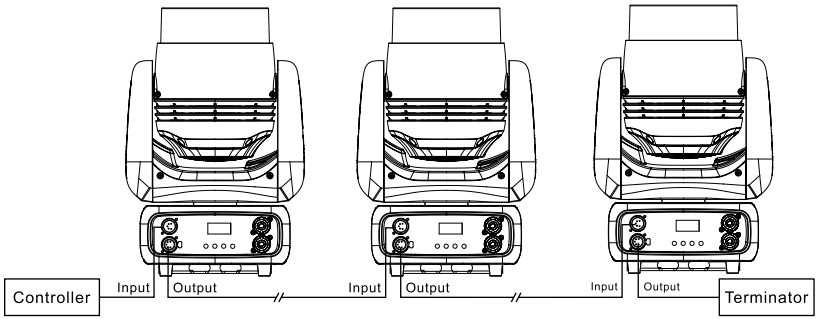


Fig.(8. 3-2)

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.

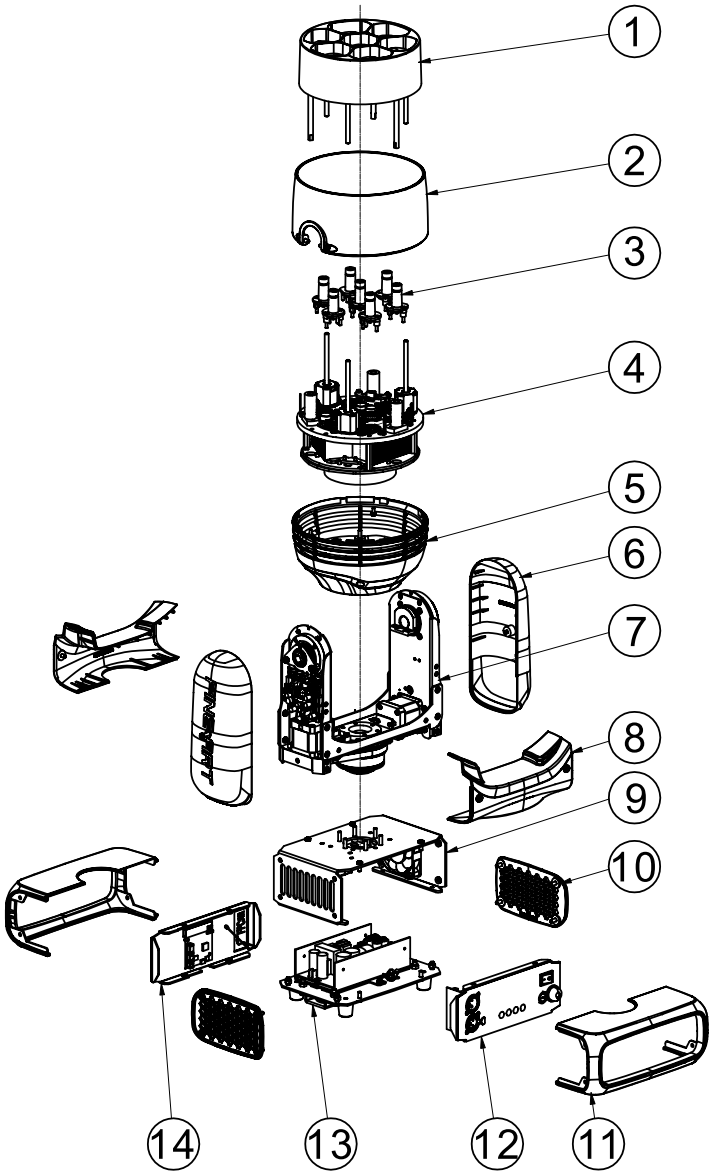
Notice!

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.

9/ Parts Code

Number	Item	Specification	Ordering index
1	Switch Power	400W	330001200119
2	LED light board	-	330712100176
3	LCD display	1.3 inch	330712100182
4	XY axis drive board	-	330712100181
5	Signal board	-	330712100164
6	4G module	-	330709100191
7	Y axis hall	-	330712100191
8	X axis hall	-	330397100058
9	XY axis Encoder	-	330712100192
10	Focus hall	-	330712100201
11	Fuse	5X20 5A	309905000008
12	XY axis motor	-	140103000050
13	Focus motor	-	140102000369
14	X axis synchronous belt	HTD-306-3M	350201000849
15	Y axis synchronous belt	HTD-384-3M	350201000858
16	Lens 1	-	200712000019
17	Lens 2	47.9*19 mm	200712000050
18	Light pipe module	-	200712000074
19	Base cooling fan	AGE06015B12U	150101000077
20	Light cooling fan	YDS9225B12F	150101000192
21	Lithium battery	18650 3.7V 3350mAh	130702000020

Attached 1: Fixture exploded drawing



1.Upper head module
2.Head cover
3.Light pipe module
4.Head module
5.Lower head cover
6.Arm cover
7.Arm beam module
8.Arm beam 2
9.Base cover module
10.Base side cover
11.Base cover
12.Display module
13.Base module
14.4G module