

# Contents

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Attached 1. Wiring diagram	

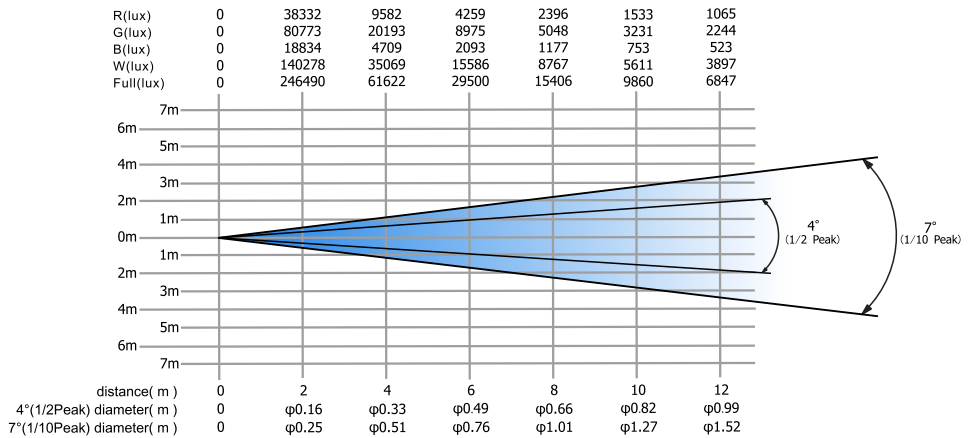
# 1/ Technical feature

Technical feature	FINE 4019 WASH PLUS LED
Light source	40W 4 in1 LEDS
Input voltage	100-240V~ 50/60Hz
Input current	9A
Input power	900W
Power factor	PF $\geq$ 0. 98
Beam angle	4°~60°
Initial luminous flux	Small angle: 5834.8 lm, Large angel: 12791 lm
Efficiency	Small angel: 6.9 lm/W, Large angel:15.14 lm/W
Color system	RGBW 4 in 1
Effect	All-optical domain dimming, 65536 grade dimming accuracy fast strobe 1-25Hz, preset 65 color macro functions, preset 64 effect macro functions
Pan	Pan=540°, Precision 2.11°/step, Pan fine=0.008°
Tilt	Tilt =270°, Precision 0.94°/step, Tilt fine=0.0037°
Safety protection	Over current, over voltage and overheating protection
Control mode	DMX512/Wireless DMX (optional)
Control channel	21/33/37/35
Work environment	0°C~40°C
Fixture dimension	400×378×500mm
Package dimension	841×515.5×735.5mm
Weight	Net weight: 20kg, Gross weight: 42kg
Package	2pcs/flight case
IP rate	IP20

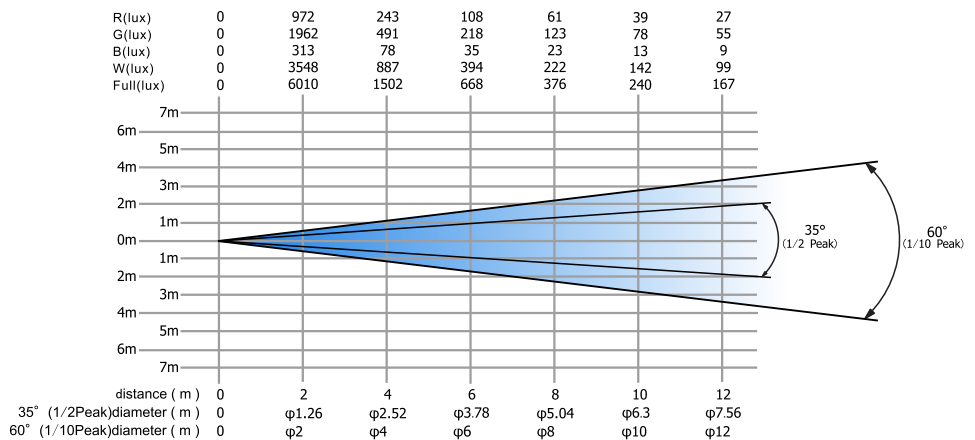
**Note:** The light source is not recommended to be replaced by user. Ask qualified maintenance personnel to replace the light source. If any damage or overheat deformation occurs.

# 2/ Photometric diagram

## FINE 4019 WASH PLUS (Min Angle)



## FINE 4019 WASH PLUS (Max Angle)



# 3/ Control channel

Specific	Stnd	RBG	RGBW	SHAP	Value	Function
Red	1	1	1	1	0->255	Red Tuning
Red fine	2	2	2	2	0->255	Red Fine
Green	3	3	3	3	0->255	Green Tuning
Green fine	4	4	4	4	0->255	Green Fine
Blue	5	5	5	5	0->255	Blue Tuning
Blue fine	6	6	6	6	0->255	Blue Fine
White	7	7	7	7	0->255	White Tuning
White fine	8	8	8	8	0->255	White Fine
CTO	9	9	9	9	0->3	No Function
					4	Color temperature 2700K
					5	Color temperature 3200K
					6	Color temperature 4300K
					7	Color temperature 5600K
					8	Color temperature 6500K
					9	Color temperature 8000K
					10->255	Color temperature from 8000K to 2700K
Macro	10	10	10	10	0->9	No Function
					10->255	Macro color effect
Strobe	11	11	11	11	0->3	CLOSED
					4->103	Pulse Strobe, low->fast, 1Hz-25Hz
					104->107	OPEN
					108->207	Strobe, slow->fast, 1Hz-25Hz
					208->212	OPEN
					213->251	Random Strobe, slow->fast
					252->255	OPEN
Dimmer	12	12	12	12	0->255	Dimmer Tuning
Dimmer fine	13	13	13	13	0->255	Dimmer Fine
Pan	14	14	14	14	0->255	Pan Tuning
Pan fine	15	15	15	15	0->255	Pan Fine
Tilt	16	16	16	16	0->255	Tilt Tuning
Tilt fine	17	17	17	17	0->255	Tilt Fine
Function	18	18	18	18	0->255	Reserved
Reset	19	19	19	19	0->25	No Function
					26->76	ZOOM Reset
					77->127	Pan/Tilt Reset
					128->255	All Reset
Zoom	20	20	20	20	0->255	Spot angle from small to big
Crossfade	21	21	21	21	0->255	The reserver

Shape Selection		22->33	22->37	22	0->255	Separate control on single LED under std, RGB, RGBW mode Shap mode control shap selection manual
Shape Speed				23	0->63	Static shape
					64->158	Speed from fast to slow
					159->160	Stop
					161->255	Speed from slow to fast
Shape Fade				24	0->15	no fade-in/out function
					16->255	fade-in/out function and curve for option
Shape R				25	0->255	shape red dimmer
Shape G				26	0->255	shape green dimmer
Shape B				27	0->255	shape blue dimmer
Shape W				28	0->255	shape white dimmer
Shape Dimmer				29	0->255	shape main dimmer
Background Dimmer				30	0->255	Background Dimmer
Shape Transition				31	0->4	no delay for transition
					5->255	delay transition duration 100ms- >4s
Shape Offset				32	0->255	Adjustment of shape angle or intensity
Shape Strobe				33	0->3	CLOSED
					4->103	Pulse Strobe, slow->fast, 1Hz~25Hz
					104->107	OPEN
					108->207	Strobe, slow-> fast, 1 hz~25hz
					208->212	OPEN
					213->251	Random Strobe, slow->fast
					252->255	OPEN
Background Strobe				34	0->3	CLOSED
					4->103	Pulse Strobe, slow->fast,1Hz-25Hz
					104->107	OPEN
					108->207	Strobe, slow->fast,1Hz-25Hz
					208->212	OPEN
					213->251	Random Strobe, slow->fast
					252->255	OPEN
Background Select				35	0->8	No Funtion
					9->23	Background shape Select
					24->254	No Select
					255	Mirror image enable

# 4/ Operation chart for the display panel function

Menu	Item	Options	Notes(Default settings in bold print)
Address Setting		001-512	DMX address
Specification Setting	Pan Invert	On	Reverse DMX pan control, R->L
		Off	Normal DMX pan control, L->R
	Tilt Invert	On	Reverse DMX tilt control, D->U
		Off	Normal DMX tilt control, U->D
	Pan/Tilt Swap	On	DMX exchange pan&tilt controlling channel
		Off	Normal pan&tilt controlling channel
	DMX Mode	Standard	Standard controlling mode
		RGB	RGB controlling mode
		RGBW	RGBW controlling mode
		SHAP	SHAP controlling mode
Exit		Return to the last menu	
Speed Setting	Pan/Tilt Speed	Fast	Optimize rotation speed
		Normal	Medium rotation speed
		Slow	Smoothest rotation speed
	Pan/Tilt Smooth	000 ~ 007	Optimize pan&tilt rotation speed
	Gobo/Color	Normal	Normal speed of gobo&color change
		Fast	Optimize speed of gobo&color change
	Dimmer Curve	Gm10	Choose different dimmer curve
		GM15	
		Gm20	
		S	
Dimmer Smooth	000 ~ 003	Optimize dimmer smooth	
Exit		Return to the last menu	

Manual Control	Red	000 ~ 255	Through panel menu adjust channel values correspondingly
	Red Fine	000 ~ 255	
	Green	000 ~ 255	
	Green Fine	000 ~ 255	
	Blue	000 ~ 255	
	Blue Fine	000 ~ 255	
	White	000 ~ 255	
	White Fine	000 ~ 255	
	CTC	000 ~ 255	
	Color Macro	000 ~ 255	
	Strobe	000 ~ 255	
	Dimmer	000 ~ 255	
	Dimmer Fine	000 ~ 255	
	Pan	000 ~ 255	
	Pan Fine	000 ~ 255	
	Tilt	000 ~ 255	
	Tilt Fine	000 ~ 255	
	Function control	000 ~ 255	
	Reset	000 ~ 255	
	Zoom	000 ~ 255	
	Prism rotation	000 ~ 255	
	Shape Selection	000 ~ 255	
	Shape Speed	000 ~ 255	
	Shape Fade	000 ~ 255	
	Shape R	000 ~ 255	
	Shape G	000 ~ 255	
	Shape B	000 ~ 255	
	Shape W	000 ~ 255	
	Shape Dimmer	000 ~ 255	
	Background Dimmer	000 ~ 255	
	Shape Transition	000 ~ 255	
	Shape Offset	000 ~ 255	
Shape Strobe	000 ~ 255		
Background Strobe	000 ~ 255		
Background Selection	000 ~ 255		
Exit	000 ~ 255	Return to the last menu	

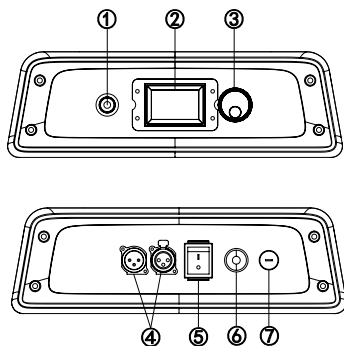
Calibration	Pan	0000~FFF0	Zero setting and calibration deviations of every channel
	Tilt	0000~FFF0	
	Zoom	0000~FFF0	
	Prism rotation	0000~FFF0	
	Exit		Return to the last menu
DMX VALUES	Receive01~ Receive48	000 ~ 255	Display every DMX channel value received
	Exit		Return to the last menu
Password	Code01~ Code16	000 ~ 255	Modify restriction of using times and call in verification code when reloading Default setup
	Exit		Return to the last menu
Personality	Display	Keep	Backlight remains
		60s	Shut down backlight if no operation in 60 seconds
	Brightness	10%~100%	Adjust display brightness
	Display revert	On	Display revert
		Off	Normal display
	Language	Chinese	Menu in Chinese
		English	Menu in English
	Receive Mode	DMX	DMX512 transmission mode
		WDMX	Wireless transmission mode
		ENET	Ethernet transmission mode
		EDMX	Ethernet to DMX transmission mode
	Universe	000~255	Art-Net Ethernet node setup
	IP AddressA	002~010	The defaulted IP should be 2.?.?.? for the product with Art-net
	IP AddressB	000~255	Reserve
	IP AddressC	000~255	Reserve
	IP AddressD	000~255	Reserve
	Load Config 1	Load	Reload previous setup one
		Save	Save present setup as setup one
	Load Config 2	Load	Reload previous setup two
		Save	Save present setup as setup two
	Load Factory setting	Load	Reload default setup
		Save	Save as default setup
Program update	On	Reserve	
	Off		



Personality	Wireless Unlink	On	Disconnect to wireless emitter
		Off	Connect to wireless emitter
	Fixture Type	F4019	Modify fixture type
	Sleep Mode	On	Sleep mode enabled
		Off	Sleep mode disabled
	Error display	On	Error display enabled
		Off	Error display disabled
Exit		Return to the last menu	
Information	Power On Time	0000~9999	Power on time inquiry ( unit: hour)
	Lamp On Time	0000~9999	Lamp on time inquiry ( unit: hour)
	Dimming Time	0000~9999	Dimming time inquiry (unit: hour)
	CPU Board Temp	00°C~99°C	Main PCB temperature inquiry
	CPU Board Version	Vx.xx	Main PCB version inquiry
	Manufacturer ID	0000-7FFF	RDM manufacturer ID
	Device ID	00000000-FF FFFFFF	RDM user ID
	FAN 1 Speed	0000~9999	Display speed of fan , (unit: RPM)
	FAN 2 Speed	0000~9999	
	0:P/T Driver Board Temp	00°C~99°C	0:PT board temperature inquiry
	0:P/T Driver Board Version	Vx.xx	0:PT board version inquiry
	1:LEDBoard Temp	00°C~99°C	1:LEDboard temperature inquiry
	1:LEDBoard Version	Vx.xx	1:LEDboard version inquiry
	Exit		Return to the last menu
Sensor Monitor	Pan	Normal	Normal function corresponding sensor work normally
	Tilt		
	Zoom	Error	Corresponding sensor works abnormally
	Prism rotation		
	Exit		Return to the last menu
Reset All Systems		Execute	Reset the fixture to original settings
		Cancel	Do not reset the fixture to original settings
Exit			Quit menu and back to "main menu"

# 5/ The control panel

## 5.1 Control panel introduction



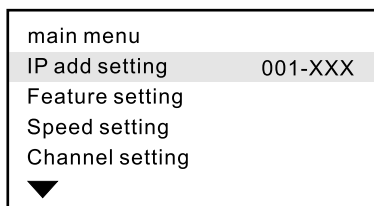
- 1.Exit button
- 2.LCD display
- 3.Function button(Enter)
- 4.DMX interface
- 5.Mains switch
- 6.Power in
- 7.Fuse

Figure(5.1-1)

## 5.2 Control panel Operation introduction

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. Press ● button to trigger the built-in battery(note:optional) for startup fixture and enter the main menu interface for menu operation.

### Main Menu Interface



**Note:** Indicate the selected menu items in the menu interface. If you are sure to enter this menu, please press the runner 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 rotating the runner.

Fig.5.2-1

### 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.

Counter clockwise rotate: scroll up the page/decrease the parameter value.

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°.

Press the jog wheel for 2s: return to previous menu.

Long Press the jog wheel: return to the main menu.

If there no operation in 2minutes in the menu, which means to return to the original menu.

### 4. LED signal indication

DMX512 signal input: The LED light is on and the dot appears on the right side of the address code.

# 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.



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

$t_c \dots \text{°C}$

The surface's temperature is 62°C.

$t_a \dots \text{C}$

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 4019 WASH PLUS LED is packed with flight case. One single standard flight case carries two fixtures, Included items listed below (shown as table 8.1-1):

Accessories	QTY	UNIT
User manual	1	PCS
Warranty card	1	PCS
Female plug	1	PCS
Signal cable	1	PCS
Safety wire	1	PCS
Fuse	2	PCS

Table(8.1-1)

## 8.2 Power Connection

Power supply and fuses' type and rating:

Power	Fuse
100-240V~	10A 6X30

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 8.2-2 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(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 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.

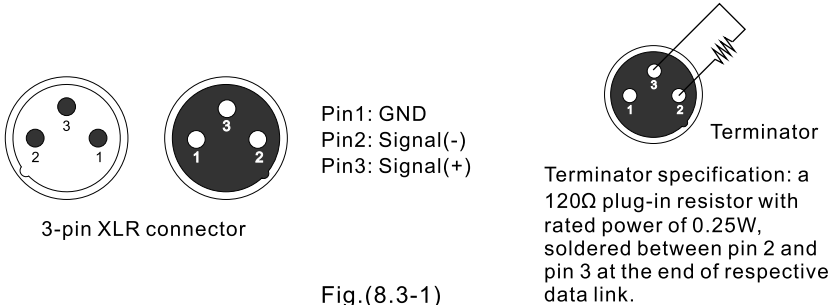


Fig.(8.3-1)

Connect the fixtures with Max.13 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  $\geq 500\text{mm}$ .

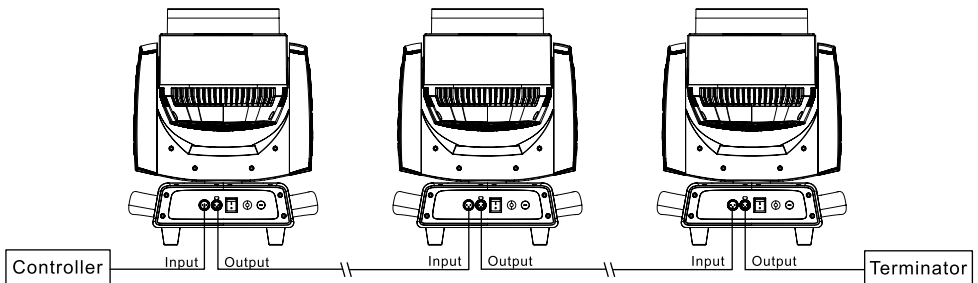


Fig.(8. 3-2)

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.