

Contents

P/N: 390395000273 Version: C

1. Technical feature	02
2. Light output and beam angle range	03
3. Control channel	04
3.1 Menu control channel	04
3.2 DMX channel	06
4. Operation chart for the display panel function	11
5. Control panel	16
5.1 Control panel introduction	16
5.2 Control panel operation introduction	16
6. Functional introduction	17
6.1 Gobo specification and replacement	17
6.2 Color system	18
6.3 CMY color mixing	19
6.4 Gobo effect	19
6.5 Animation wheel system	19
6.6 Cutting system	19
7. Routine maintenance	21
8. Safety information	22
9. Product connection	23
9.1 Package parts	23
9.2 Power connection	23
9.3 Signal connection	23
10. Parts code	28
Attached 1. Fixture exploded drawing	
Attached 2. Wiring diagram	

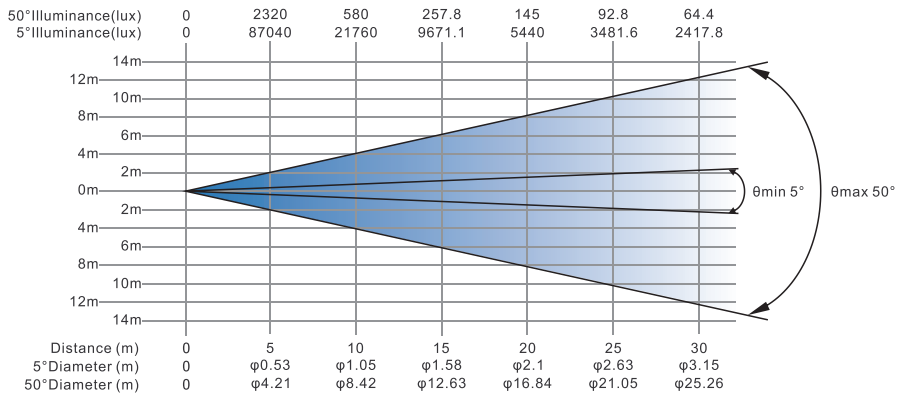
1/ Technical feature

Technical feature	FINE 1700LH ISPOT
Light source	1500W white LED module
Input voltage	100-240V~ 50/60Hz
Input current	17A
Input power	1700W
Power factor	PF \geq 0.98
Beam angle	5°~50°
CRI	Ra \geq 90
Initial luminous flux	30020 lm
Efficiency	18.7 lm/W
Color temperature	6200K
Color system	CMY infinity color mixing+CTO color temperature linear adjustment+2 color filters(12 color filters+white light)
Gobo system	1 rotating gobo wheels(6 glass gobos)+ 1 fixed gobo wheel(9 gobos)+1 animation wheel
cutting system	1 set of full directional framing system, support \pm 90° rotation
Effect equipment	1 rotating 4-facet prism+1 rotating 4-facet gradient prism+ 2 frost+Electronic dimmer+Electronic strobe+Electronic iris
Pan	Pan 540°, precision 2.11°/step, pan fine 0.008°
Tilt	Tilt 270°, precision 1.05°/step, tilt fine 0.004°
Safety protection	Over current, over voltage and overheating protection
Control mode	DMX512/WDMX(optional)/ANET/ADMX/SACN
Work environment	0°C~40°C
Fixture dimension	448x430x813.5mm
Packing dimension	671x549x828.5mm
Weight	Net weight: 45kg, Gross weight: 81kg
Packing	1PCS/flight case
IP rade	IP20

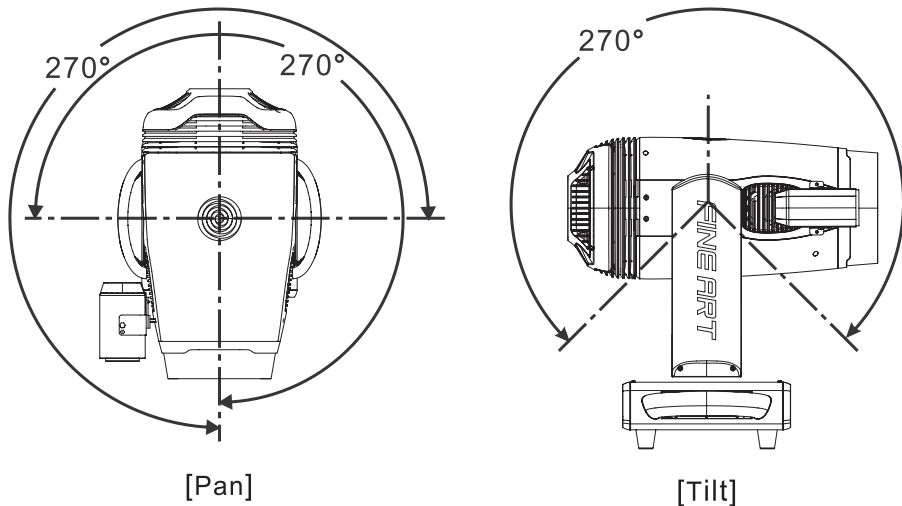
Note: The lamp light source is a non-user replacement light source. In case of damage or thermal deformation, please replace!

2/ Light output and beam angle range

■ FINE 1700LH ISPOT Photometric diagram



■ Pan/tilt scan



3/ Control channel

3.1 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	Frost1	Focus	Focus
22	Frost2	Focus Fine	Focus Fine
23	Iris	Zoom	Zoom
24	Frame1 Position	Zoom Fine	Zoom Fine
25	Frame1 Angle	AutoFocus Distance	AutoFocus Distance
26	Frame2 Position	AutoFocus Adjustment	AutoFocus Adjustment
27	Frame2 Angle	Frost1	Frost1
28	Frame3 Position	Frost2	Frost2

29	Frame3 Angle	Iris	Iris
30	Frame4 Position	Frame1 Position	Frame1 Position
31	Frame4 Angle	Frame1 Angle	Frame1 Angle
32	Frame Rotation	Frame2 Position	Frame2 Position
33	CRI/R9	Frame2 Angle	Frame2 Angle
34	Fixture Control	Frame3 Position	Frame3 Position
35		Frame3 Angle	Frame3 Angle
36		Frame4 Position	Frame4 Position
37		Frame4 Angle	Frame4 Angle
38		Frame Rotation	Frame Rotation
39		Frame Macro	Frame Macro
40		CRI/R9	CRI/R9
41		Fixture Control	Fixture Control
42			Pan-tilt Time
43			Color Time
44			Beam Time
45			Gobo Time

3.2 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
				130~252	Continuous gobo wheel counter-clockwise rotation from slow to fast (2.8rph~75rpm)
				253~255	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	17	18	18		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	18	19	19	000~010	Open
				011~138	Prism1 Inserted
				139~255	Prism2 Inserted
Prism Rot	19	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	20	21	21	000~255	Infinity -> Near
Focus Fine	-	22	22		
Zoom	21	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 +

Frost1	22	27	27	000~127	Open
				128~255	Light Frost
Frost2	23	28	28		open
				000~255	0~100% Linear Movement
Iris	24	29	29	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	25	30	30	000~255	Out -> In
Frame1 Angle	26	31	31	000~255	Angle- --> Parallel --> Angle+
Frame2 Position	27	32	32	000~255	Out -> In
Frame2 Angle	28	33	33	000~255	Angle- --> Parallel --> Angle+
Frame3 Position	29	34	34	000~255	Out -> In
Frame3 Angle	30	35	35	000~255	Angle- --> Parallel --> Angle+
Frame4 Position	31	36	36	000~255	Out -> In
Frame4 Angle	32	37	37	000~255	Angle- --> Parallel --> Angle+
Frame Rotation	33	38	38	000~255	From 0° -> 180° rotation
Frame Macro	-	39	39	000~009	None
				010~019	Square
				020~029	Rectangle
				030~039	Triangle
				040~049	Rhombus
				050~059	Trapezium
				060~255	Reserved
CRI/R9	-	40	40	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	34	41	41	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 Curve --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 curve(-- default setting) --3s
				145~149	CMY parabola --3s
				150~159	CCI Enable
				160~169	CCI Disable
				170~179	Dimmer Close Fast
				180~189	Dimmer Close Fade
				190~234	Reserved
				235~239	Mode 1 In Addition To The XY Property, Console Ccontrols All Properties
				240~244	Mode 2 In Addition To The Gimbal Mapping On The Putter And Roller XY Properties. The console controls all properties
				245~249	Mode 3 In Addition To The Gimbal Mapping On The Putter And XY Properties. The Console Controls All Properties
				250~255	Mode 4 The Console Controls All Properties
Pan-tilt Time	-		42	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Color Time	-		43	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Beam Time	-		44	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data
Gobo Time	-		45	000~254	Slope Time from Fast to Slow
				255~255	Follow Cue Data

4/ Operation chart for the display panel function

MENU1	MENU2	MENU3	MENU4 (DEFAULT)
DMX Addr	001-XXX		001-017
Options	Pan Invert	On/Off	Off
	Tilt Invert	On/Off	Off
	Pan/Tilt Swap	On/Off	Off
	DMX Mode	Std/16 b/Extn	16 b
	Lum Calibrate	0-100	100
	CCI Calibrate	0-100	0
	Dim Control	On/Off	Off
	Short Path	On/Off	On
	CMY Invert	On/Off	Off
	Dimming Freq	1K2h/2K4h/12Kh/24Kh	1K2h
	Dimming Curve	Opti/VRMS/Squa/InvS	Squa
	Frame Mode	On/Off	Off
	Fan Control	Bost/Norm/Sile	Norm
	Exit		
Speed Settings	P/T Speed	High/Fast/Norm/Slow	Fast
	P/T Smooth	000-007	000
	G/C Speed	Fast/Norm	Fast
	Exit		
Manual Control	Strobe	000-xxx	000
	Dimmer	000-xxx	000
	Dimmer fine	000-xxx	000
	Pan	000-xxx	000
	Pan fine	000-xxx	000
	Tilt	000-xxx	000
	Tilt fine	000-xxx	000
	Rot Gobo 1 C.	000-xxx	000
	Gobo1 rot.	000-xxx	000
	Fix Gobo C.	000-xxx	000
	AnimD C.	000-xxx	000
	Cyan	000-xxx	000
	Magenta	000-xxx	000
	Yellow	000-xxx	000
	CTO	000-xxx	000
	Colour W1	000-xxx	000
	Colour W2	000-xxx	000
	Prism C.	000-xxx	000
	Prism rot.	000-xxx	000
	Focus	000-xxx	000
	Zoom	000-xxx	000
	Frost 1	000-xxx	000
	Frost 2	000-xxx	000
	Iris	000-xxx	000
	Blade1Pos	000-xxx	000
	Blade1Ang	000-xxx	000
Blade2Pos	000-xxx	000	
Blade2Ang	000-xxx	000	

	Blade3Pos	000-xxx	000
	Blade3Ang	000-xxx	000
	Blade4Pos	000-xxx	000
	Blade4Ang	000-xxx	000
	FrameRotat	000-xxx	000
	Fixture control	000-xxx	000
	Exit		
Calibration	Pan	0000-XXX0	0000
	Tilt	0000-XXX0	0000
	Cyan	0000-XXX0	0000
	Magenta	0000-XXX0	0000
	Yellow	0000-XXX0	0000
	CTO	0000-XXX0	0000
	Colour W1	0000-XXX0	0000
	Colour W2	0000-XXX0	0000
	Zoom	0000-XXX0	0000
	Focus	0000-XXX0	0000
	Iris	0000-XXX0	0000
	FrameRotat	0000-XXX0	0000
	R.Gobo1 Chg	0000-XXX0	0000
	Gobo1 Rot.	0000-XXX0	0000
	Fix Gobo C.	0000-XXX0	0000
	AnimD C.	0000-XXX0	0000
	AnimD rot.	0000-XXX0	0000
	Prism1 l.	0000-XXX0	0000
	Prism1 Rot.	0000-XXX0	0000
	Prism2 l.	0000-XXX0	0000
	Prism2 Rot.	0000-XXX0	0000
	Frost 1	0000-XXX0	0000
	Frost 2	0000-XXX0	0000
	BladeUp1	0000-XXX0	0000
	BladeUp2	0000-XXX0	0000
	BladeDw1	0000-XXX0	0000
	BladeDw2	0000-XXX0	0000
	BladeLf1	0000-XXX0	0000
BladeLf2	0000-XXX0	0000	
BladeRg1	0000-XXX0	0000	
BladeRg2	0000-XXX0	0000	
	Exit		
DMX Values	Channel - 01	000-xxx	000
	Channel - 02	000-xxx	000
	Channel - 03	000-xxx	000
	Channel - 04	000-xxx	000
	Channel - 05	000-xxx	000
	Channel - 06	000-xxx	000
	Channel - 07	000-xxx	000
	Channel - 08	000-xxx	000
	Channel - 09	000-xxx	000
	Channel - 10	000-xxx	000
	Channel - 11	000-xxx	000
	Channel - 12	000-xxx	000
	Channel - 13	000-xxx	000

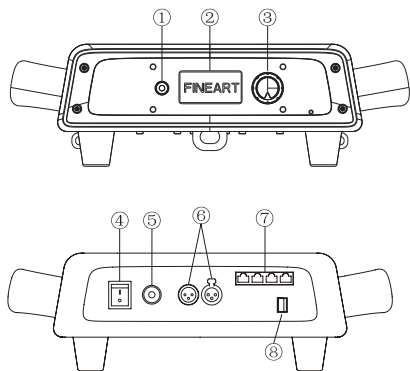
	Channel - 14	000-xxx		000
	Channel - 15	000-xxx		000
	Channel - 16	000-xxx		000
	Channel - 17	000-xxx		000
	Channel - 18	000-xxx		000
	Channel - 19	000-xxx		000
	Channel - 20	000-xxx		000
	Channel - 21	000-xxx		000
	Channel - 22	000-xxx		000
	Channel - 23	000-xxx		000
	Channel - 24	000-xxx		000
	Channel - 25	000-xxx		000
	Channel - 26	000-xxx		000
	Channel - 27	000-xxx		000
	Channel - 28	000-xxx		000
	Channel - 29	000-xxx		000
	Channel - 30	000-xxx		000
	Channel - 31	000-xxx		000
	Channel - 32	000-xxx		000
	Channel - 33	000-xxx		000
	Channel - 34	000-xxx		000
	Channel - 35	000-xxx		000
	Channel - 36	000-xxx		000
	Channel - 37	000-xxx		000
	Channel - 38	000-xxx		000
	Channel - 39	000-xxx		000
	Channel - 40	000-xxx		000
	Channel - 41	000-xxx		000
	Channel - 42	000-xxx		000
	Channel - 43	000-xxx		000
	Channel - 44	000-xxx		000
	Channel - 45	000-xxx		000
	Channel - 46	000-xxx		000
	Channel - 47	000-xxx		000
	Channel - 48	000-xxx		000
	Return	000-xxx		000
Password	Code--01	000-xxx		000
	Code--02	000-xxx		000
	Code--03	000-xxx		000
	Code--04	000-xxx		000
	Code--05	000-xxx		000
	Code--06	000-xxx		000
	Code--07	000-xxx		000
	Code--08	000-xxx		000
	Code--09	000-xxx		000
	Code--10	000-xxx		000
	Code--11	000-xxx		000
	Code--12	000-xxx		000
	Code--13	000-xxx		000
	Code--14	000-xxx		000
	Code--15	000-xxx		000
	Code--16	000-xxx		000
		Return		

Personality	Display	Keep/60s	60s
	Display Int	10-100	100
	Display Inv	On/Off	Off
	Language	Chin/Eng	Eng
	Receive Mode	DMX/WDMX/ANET/ADMX/sACN	DMX
	Universe	000-255	000
	IP Address A	002	002
	IP Address B	168	168
	IP Address C	000	000
	IP Address D	002	002
	Load Config1	Save	Save
	Load Config2	Save	Save
	Factory Set	Save	Save
	Firmware Upd	On/Off	Off
	WDMX Unlink	On/Off	Off
	Fixture Type	F17BF	F17BF
	Sleep Mode	On/Off	Off
	Error Disp	On/Off	Off
	Error Code	00	00
	sACN-Uni	001	001
Exit			
Information	Fixture Hours	xxxx	0000
	Lamp Hours	xxxx	0000
	Dim Hours	xxxx	0000
	Manu ID	05EF	05EF
	Device ID	62908262	XXXXXXXX
	Panel Ver	Vx.xx(Display panel)	Vx.xx
	Panel Temp	xxx(Panel) xxx (reserve)	xxx xxx
	Panel Fan	xxxx xxxx	xxxx xxxx
	0:XY Ver	Vx.xx(XY board)	Vx.xx
	0:XY Temp	xxx(XY board) xxx((NTC)	xxx xxx
	0:XY Fan	xxxx xxxx	xxxx xxxx
	1:SP Ver	Vx.xx(CMY plate)	Vx.xx
	1:SP Temp	xxx(CMY plate) xxx(reserve)	xxx xxx
	1:SP Fan	xxxx xxxx	xxxx xxxx
	2:SP Ver	Vx.xx(Focusing plate)	Vx.xx
	2:SP Temp	xxx(Focusing plate) xxx(reserve)	xxx xxx
	2:SP Fan	xxxx xxxx	xxxx xxxx
	3:SP Ver	Vx.xx(Cutting board)	Vx.xx
	3:SP Temp	xxx(Cutting board) xxx(reserve)	xxx xxx
	3:SP Fan	xxxx xxxx	xxxx xxxx
Exit			
Sensor Monitor	Pan	Norm/Error	Norm
	Tilt	Norm/Error	Norm
	Cyan	Norm/Error	Norm
	Magenta	Norm/Error	Norm
	Yellow	Norm/Error	Norm
	CTO	Norm/Error	Norm
	Colour W1	Norm/Error	Norm
	Colour W2	Norm/Error	Norm
	Zoom	Norm/Error	Norm
Focus	Norm/Error	Norm	

	Iris	Norm/Error		Norm
	FrameRotat	Norm/Error		Norm
	R.Gobo1 Chg	Norm/Error		Norm
	Gobo1 Rot.	Norm/Error		Norm
	Fix Gobo C.	Norm/Error		Norm
	AnimD C.	Norm/Error		Norm
	AnimD rot.	Norm/Error		Norm
	Prism1 l.	Norm/Error		Norm
	Prism1 Rot.	Norm/Error		Norm
	Prism2 l.	Norm/Error		Norm
	Prism2 Rot.	Norm/Error		Norm
	Exit			
Reset	Canc/Exec			Canc
Test Sequence	Stop/PT/Efct/All			Stop
Exit				

5/ Control panel


5.1 Control panel introduction



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

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

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

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: 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.

6/ Function description

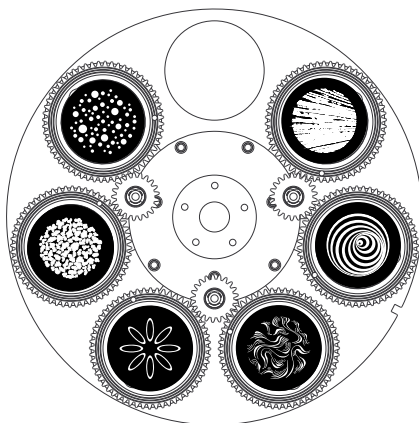
6.1 Gobo specification and replacement

■ Rotating gobo wheel

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

Rotating gobo	
Material	gorilla glass
Thickness	1. 1mm
Outer diameter	$\phi 32+0/-0.2\text{mm}$ ($\phi 26\text{mm}$ for gobo area)

1 rotating gobo wheel with 6 gobos(pluggable) + white.Fig.(6.1-1).



Rotating gobo wheel
(Fig.6.1-1)

■ Gobo replacement



Warning

1. If the equipment is powered off, it must be cooled for 15 minutes before replacement.
 2. For the best effect, please use the original factory pattern, do not use other patterns.
1. Pick the spring ring and gobos, place the new gobo, and then replace the spring ring in the slot as follows(6.1-2).
 2. Place the gobo wheel under the 2pieces 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.

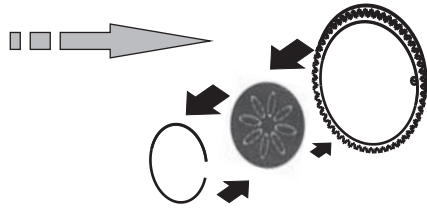
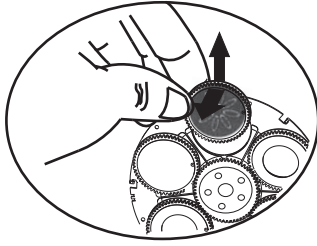


Fig.(6. 1-2)



Notice!

The white side should be faced with the light source when installing the color filters.

● Fixed gobo wheel

1 fixed gobo wheel with 9 gobos + white. Fig.(6.1-3)。

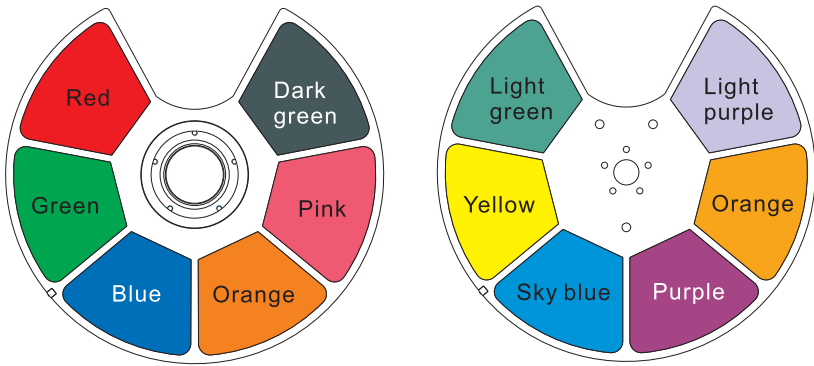


fixed gobo wheel
Fig.(6. 1-3)

6.2 Color System

■ Color filter

The color filter is composed of 12 fixed colors, if use the color filter with the gobos, you can create a colorful gobo effect.



Color filter
(Fig6. 2-1)

Tips: The coating side should be faced with the lamp if installing the color filters.

6.3 CMY color mixing

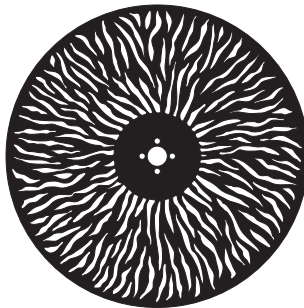
With Subtractive Color Mixture, using Cyan, Magenta and Yellow color filters, our color mixing system achieve CMY most smoothly color transition and extreme reducibility.

6.4 Gobo effect

1 rotating 4-facet prism, 1 rotating 4-facet gradient prism, 2 frost can overlay with each other, prisms can rotate bidirectional.

6.5 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
Fig6.5-1

6.6 Cutting system

With synchronous gear wheel, the whole wheel is available for 180° rotation movement meanwhile the light spot can be cut into kinds of shapes when the blades move in & move out interlacement controlled by designed cutting system. As shown in (Fig.6.6-1) and (Fig.6.6-2)



Linear shape fig.(6.6-1)



Blading fig.(6.6-2)

7/ 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.

8/ 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.



Warning!
Do not use laser to illuminate the camera.



Replace any cracked protective shield.



Minimum distance from lighted objects is 2.6m.



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.



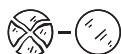
Luminaires not suitable for direct mounting on normally flammable surfaces (suitable only for mounting on non-combustible surfaces)

$t_c \dots ^\circ C$

The surface's temperature is 80°C.

$t_a \dots C$

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.

9/ Product connection

9.1 Package parts

FINE 1700LH ISPOT is packed with flight case. One single standard flight case carries one fixtures. The parts listed below (Shown as table 9.1-1) .

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

Table(9.1-1)

9.2 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 (9.2-1) 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(9.2-1)

9.3 Signal Connection

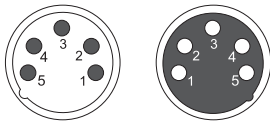
Date linkage for the fixture may be provided by DMX512 connection, Ethernet connection, Ethernet/DMX512 connection and wireless linkage.

DMX connection

Note: The signal cable was type X connection.

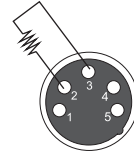
Type X connection—if the external flexible cable or cord of this fixture is damaged, it shall be replaced by a special cord or cord exclusively available from the manufacturer or his service agent.

3-pin or 5-pin XLR 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(+)
Pin4/5: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.(9.3-1)

Connect the fixtures with Max.11 pieces. Make sure to insert the “signal in” terminal in the last connecting fixture. shown in Fig.(9.3-2).

Note: Make sure the fixture vertically upwards when it is placed horizontally, the safe distance between two adjacent fixtures must be $\geq 720\text{mm}$.

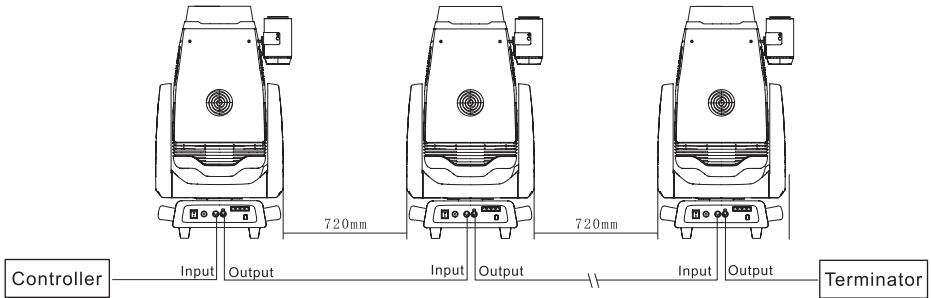


Fig.(9.3-2)

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. 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.(9.3-3).

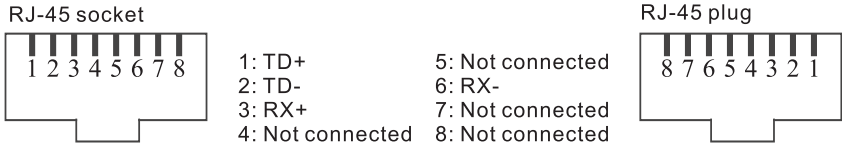


Fig.(9.3-3)

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.(9.3-4).

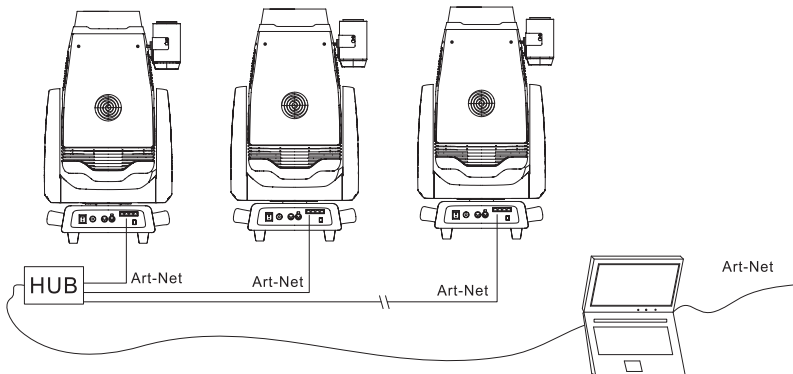


Fig.(9.3-4)

■ 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.(9.3-5).

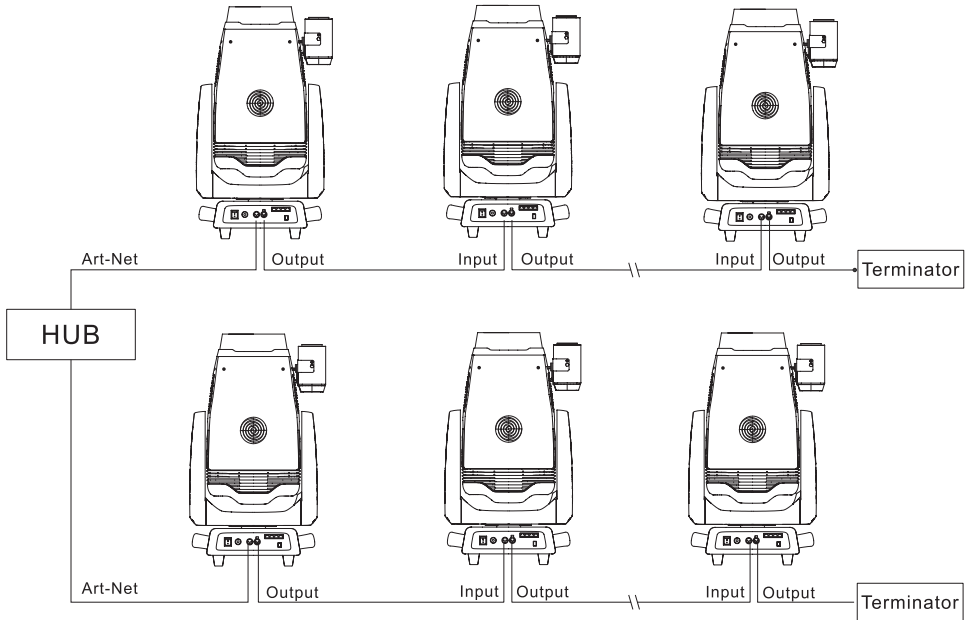


Fig (9. 3-5)

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.(9.3-6).

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.

Controlled
Fixture

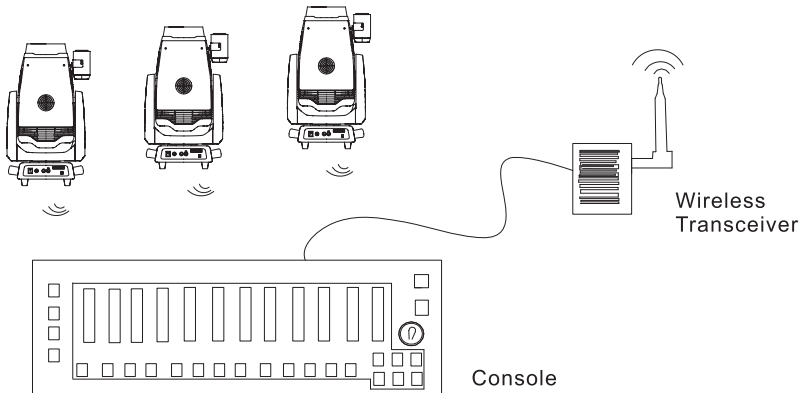


Fig.9.3-6

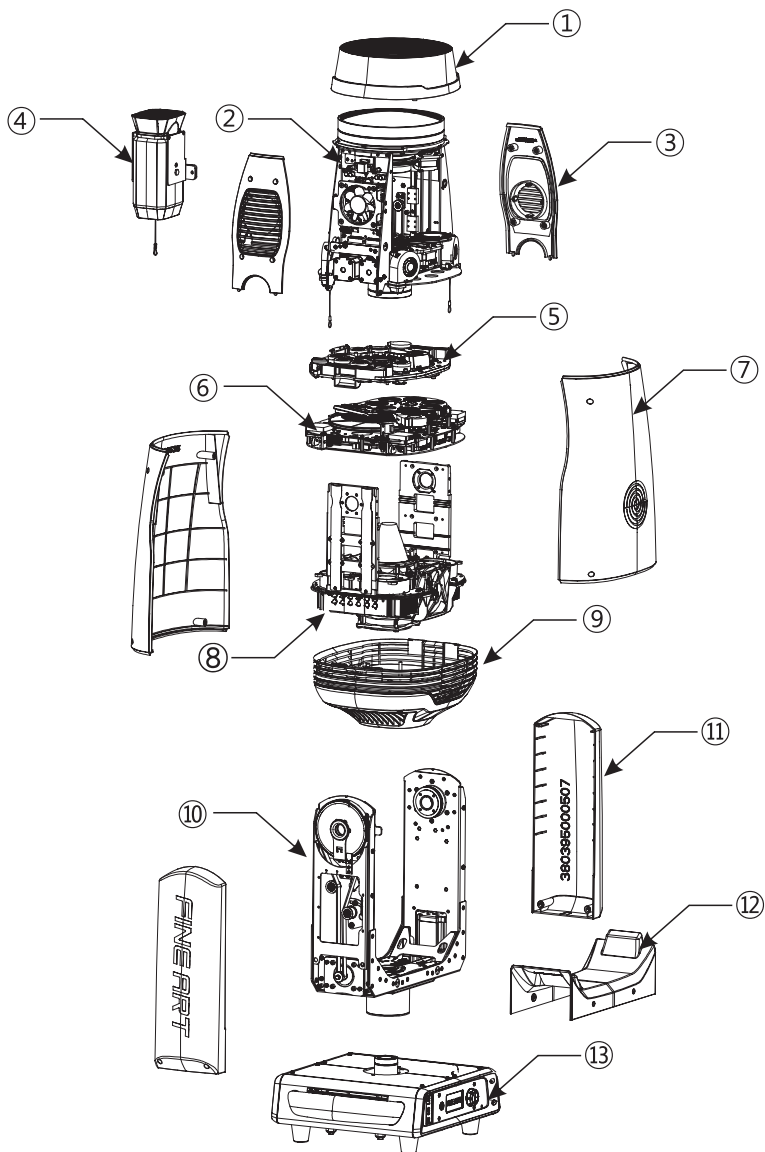
10/

Parts code

NO.	Item	Specification	Ording index
1	Light Source	White LED Light source module	280202000309
2	Display Board	—	330397100191
3	11-ch Gobo Drive Board	—	330395100162
4	10-ch Focus Board	—	330395100163
5	Signal Control Board	—	330395100164
6	XY-axis Drive Board	—	330395100176
7	Cutting Drive Board	—	330395100230
8	9-CH LED Drive Board	—	330395100170
9	Power Adapter Board	27V to 12V	330522100033
10	XY-axis Encoder Board	—	330395100020
11	X-axis Hall Boar	—	330386100001
12	Y-axis Hall Boar	—	330711100046
13	Camera Adapter Board	—	330522100031
14	Switch Board	—	410201000138
15	Fiber Optic Transceiver	—	410201000135
16	5-Pin XLR Socket	5-pin	330395100139
17	Fiber Optic Module	—	410201000118
18	Camera	—	410201000103
19	Power Supply	—	330001200118
20	XY-axis Motor	—	140103000031
21	Baxe Cooling Fan	—	150101000112
22	Rear Cooling Fan 1	—	150101000193
23	Rear Cooling Fan 2	—	150101000192
24	Power Switch	250V 16A	299901010006
25	Display Screen	—	280802000027
26	4-Face Prism	$\Phi 52 \times 8.4 \times 15^\circ$	200709000046
27	4-Face Gradient Prism	$\Phi 52 \times 8.0 \times 6^\circ 17'$	200709000049
28	Frost	3.5°	350395000018

29	Semicircle Diffusefilm	R52.5	350395000028
30	Outer Lens	—	200395000220
31	Zoom Lens	—	200395000221
32	Focus Lens	—	200395000222
33	X-axis Belt	—	350201000811
34	Y-axis Belt	—	350201000815
35	Animation Wheel	—	190120000004
36	Fix Gobo Wheel	—	190158000003
37	Gobo1	—	190320000033
38	Gobo2	—	190320000034
39	Gobo3	—	190320000036
40	Gobo4	—	190320000037
41	Gobo5	—	190320000059
42	Gobo6	—	190320000097
43	Sky Blue Filter	69,07x55	220395000176
44	Purple Filter	69,07x55	220395000177
45	Litht Green Filter	69,07x55	220395000178
46	Yellow Filter	69,07x55	220395000179
47	Orange Yellow Filter	69,07x55	220395000180
48	Light Purple Filter	69,07x55	220395000181
49	Orange Filter	69,07x56	220395000137
50	Red Filter	69,07x56	220395000141
51	Blue Filter	69,07x56	220395000142
52	Pink Filter	69,07x56	220395000144
53	Green Filter	69,07x56	220395000145
54	Blackish Green Filter	69,07x56	220395000146
55	CMY-Cyan Filter 0°	73X70,5	220395000125
56	CMY-Cyan Filter 45°	73X70,5	220395000129
57	CMY-Yellow Filter 0°	73X70,5	220395000220
58	CMY-Yellow Filter 45°	73X70,5	220395000221
59	CMY-CTO Filter 0°	73X70,5	220709000080
60	CMY-CTO Filter 45°	73X70,5	220709000084
61	CMY-Magenta Filter	73X70,5	220395000249

Attached 1: Fixture exploded drawing



- 1. Head cover
- 2. Focus lens module
- 3. Upper side cover
- 4. Camera
- 5. Cutting module

- 6. CMY and gobo module
- 7. Body cover
- 8. Rear body module
- 9. lower body cover
- 10. Arm Pan module

- 11. Arm cover
- 12. Arm Pan cover
- 13. Base module