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Attached 1. Wiring diagram	

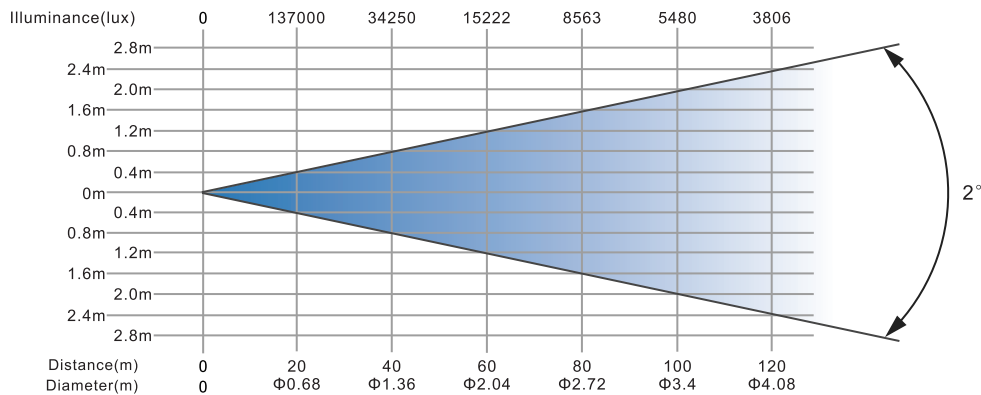
1/ Technical feature

Technical feature	FINE 320 BEAM
Lamp source	310W Lamp
Input voltage	100-240V~ 50/60Hz
Input current	4.5A
Input power	450W
Power factor	PF \geq 0.98
Beam angle	0°~2°
CRI	Ra>80
Max luminous flux	16124 lm
Efficiency	37.46 lm/W
Color system	14 color filters+white light
Effect equipment	1 Frost+Strobe+1 Fixed gobo wheel+8Prism+24Prism
Pan	Pan=540°,Pan= 2.11°/step, Pan fine=0.008°
Tilt	Tilt =260°, Tilt=1.05°/step, Tilt fine=0.004°
Safety protection	Over current, over voltage and overheating protection
Control Protocol	DMX512/Wireless DMX(optional)
Work environment	0°C~40°C
Fixture dimension	332*243*484mm
Package dimension	594*534*725mm
Weight	Net weight: 17.3kg, Gross weight: 70kg(flight case)
Package	2pcs/flight case
IP rate	IP20

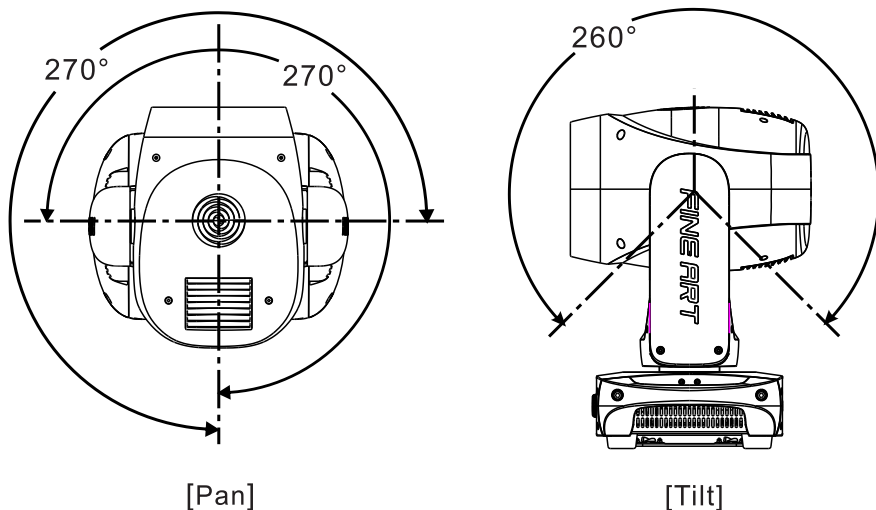
Note: The light source is a non-user replacement light source. If it is damaged or thermally deformed, please replace it!

2/ Light output and beam angle range

■ Photometric diagram



■ Pan&Tilt scan



3/ Control channel

3.1 Menu channel

Channel	Std	16Bit	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	Fixed gobo wheel	Fixed gobo wheel	Fixed gobo wheel
9	Color wheel	Color wheel	Color wheel
10	Prism	Prism	Prism
11	8Prism Rot.	8Prism Rot.	8Prism Rot.
12	24Prism Rot.	24Prism Rot.	24Prism Rot.
13	Focus	Macro effect	Macro effect
14	Frost	Focus	Focus
15	Lamp control	Focus fine	Focus fine
16		Frost	Frost
17		Lamp control	Lamp control
18			Pan-tilt speed
19			Color speed
20			Beam speed
21			Gobo speed

3.2 DMX channel

Specific	STND	16Bit	EXTN	Value	Function
Strobe	1	1	1	000~005	OFF
				006~010	ON
				011~105	strobe slow->fast (0~10Hz)
				106~110	ON
				111~179	pulse slow->fast
				180~185	ON
				186~253	random strobe
				254~255	ON
Dimmer	2	2	2	000~255	0%->100% OFF->ON
Dimmer fine	3	3	3	000~255	0%->100%
Pan	4	4	4	000~255	0°->540°
Pan fine	5	5	5		
Tilt	6	6	6	000~255	0°->252°
Tilt fine	7	7	7		
Fixed gobo	8	8	8	000~003	white
				004~007	Gobo1
				008~011	Gobo2
				012~015	Gobo3
				016~019	Gobo4
				020~023	Gobo5
				024~027	Gobo6
				028~031	Gobo7
				032~035	Gobo8
				036~039	Gobo9
				040~043	Gobo10
				044~047	Gobo11
				048~051	Gobo12
				052~055	Gobo13
				056~059	Gobo14
				060~063	Gobo15
064~067	Gobo16				
068~071	Gobo17				
072~081	Gobo2 shake slow->fast				
082~090	Gobo3 shake slow->fast				

Fixed gobo	8	8	8	091~099	Gobo4 shake slow->fast
				100~109	Gobo5 shake slow->fast
				110~118	Gobo6 shake slow->fast
				119~127	Gobo7 shake slow->fast
				128~136	Gobo8 shake slow->fast
				137~146	Gobo9 shake slow->fast
				147~155	Gobo10 shake slow->fast
				156~164	Gobo11 shake slow->fast
				165~173	Gobo12 shake slow->fast
				174~182	Gobo13 shake slow->fast
				183~192	Gobo14 shake slow->fast
				193~201	Gobo15 shake slow->fast
				202~209	Gobo16 shake slow->fast
				210~231	rotate fast->slow
				232~233	stop
234~255	Rotate slow->fast				
Color wheel	9	9	9		linear change
				000~120	white->color1...->(color14+white)
				7	color1(red)
				14	color2(dark blue)
				22	color3(orange1)
				29	color4(dark green)
				37	color5(light green)
				45	color6(light purple)
				53	color7(pink)
				61	color8(yellow)
				70	color9(magenta)
				78	color10(light blue)
				86	color11(orange2)
				95	color12(blue)
				103	color13(CTO)
				110	color14(UV)
					full color
121~122	color1(red)				
123~125	color2(dark blue)				
126~128	color3(orange1)				

Color wheel	9	9	9	129~130	color4(dark green)
				131~133	color5(light green)
				134~136	color6(light purple)
				137~138	color7(pink)
				139~141	color8(yellow)
				142~144	color9(magenta)
				145~146	color10(light blue)
				147~149	color11(orange2)
				150~152	color12(blue)
				153~154	color13(CTO)
				155~157	color14(UV)
				158~160	white
				161~200	fast->slow clockwise
				201~203	stop
				204~243	slow->fast counterclock
				244~247	fast
248~251	mid				
252~255	slow				
Prism	10	10	10	000~063	none
				064~127	8 Prism Rot.
				128~191	24 Prism Rot.
				192~255	8 Prism Rot.+ 24 Prism Rot.
8 Prism Rot.	11	11	11	000~127	0~360°
				128~190	fast->slow clockwise
				191~192	stop
				193~255	slow->fast counterclock
24 Prism Rot.	12	12	12	000~127	0~360°
				128~190	fast->slow clockwise
				191~192	stop
				193~255	slow->fast counterclock
Macro effect	-	13	13	000~255	NO
Focus	13	14	14	000~255	Far->near
Focus fine	-	15	15		
Frost	14	16	16	000~127	NO
				128~255	Frost insert

Fix control	15	17	17	000~009	Useless passage
				010~014	fix reset
				015~029	reset
				030~034	pan-tilt reset
				035~039	keep
				040~044	lamp off
				045~049	lamp on
				050~255	keep
Pan-tilt speed	-	-	18	000~254	slide time from fast to slow
				255~255	speed follow
Color speed	-	-	19	000~254	slide time from fast to slow
				255~255	speed follow
Beam speed	-	-	20	000~254	slide time from fast to slow
				255~255	speed follow
Gobo speed	-	-	21	000~254	slide time from fast to slow
				255~255	speed follow



Warning

Explanation:

1. Perform its actions need to wait for 5 seconds after reset channel value.
2. If reset the fixture through the panel, need to turn on (channel reset) and then select (Fixture Zero)

4/ Operation chart for the display panel function

Menu	Item	Options	Default
DMX Addr	001-XXX		001-017
OPTIONS	Pan Invert	off/on	off
	Tilt Invert	off/on	off
	Pan/Tilt Swap	off/on	off
	DMX Mode	STND/16Bit/EXTN	16Bit
	Lamp PWR	off/on	on
	DMX Reset	off/on	off
	Dimming Control	off/on	off
	Short Parth	off/on	on
	CMY Invert	off/on	on
	Dimmer on shut	off/on	off
	Lamp Control	off/on	off
	Fan Control	Sile/Normal	Normal
Exit			
SPEED SETTINGS	Pan/Tilt Speed	High/Fast/Normal/ Slow	Fast
	Pan/Tilt Smooth	000-007	000
	Gobo/Color Speed	Fast/Normal	Fast
	Prism Speed	Fast/Normal	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
	Fixed gobo	000-xxx	000
	Color	000-xxx	000
	Prism	000-xxx	000
	8 Prism Rot.	000-xxx	000
	24 Prism Rot.	000-xxx	000
	Focus	000-xxx	000
	Frost	000-xxx	000
	Lamp control	000-xxx	000
Exit			

CALIBRATION	Pan	0000-XXX0	0000
	Tilt	0000-XXX0	0000
	Stop/Strobe	0000-XXX0	0000
	Color	0000-XXX0	0000
	Fixed gobo	0000-XXX0	0000
	8 Prism	0000-XXX0	0000
	8 Prism Rot.	0000-XXX0	0000
	24 Prism Rot.	0000-XXX0	0000
	24 Prism	0000-XXX0	0000
	Frost	0000-XXX0	0000
	Focus	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

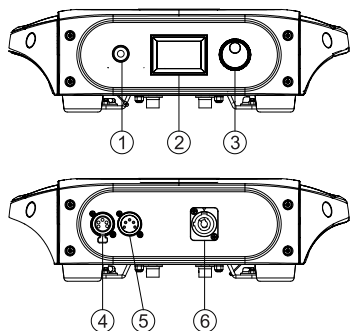
DMX VALUES	Channel 30	000-xxx	000
	Channel 31	000-xxx	000
	Channel 32	000-xxx	000
	Channel 33	000-xxx	000
	Channel 34	000-xxx	000
	Channel 35	000-xxx	000
	Channel 36	000-xxx	000
	Channel 37	000-xxx	000
	Channel 38	000-xxx	000
	Channel 39	000-xxx	000
	Channel 40	000-xxx	000
	Channel 41	000-xxx	000
	Channel 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
Exit			
PASS WORD	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
	Exit		
PERSONALITY	Display	Keep/60s	60s
	Display Intensity	10-100	100
	Display Turned	ON/OFF	OFF
	Language	Chinese/Eng	Chinese

PERSONALITY	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 Config 1	Load/Save	Save
	Load Config 2	Load/Save	Save
	Load Factory Settings	Load/Save	Save
	Renew program	ON/OFF	OFF
	Wireless Unlink	ON/OFF	OFF
	Fixture Type	320BM	320B
	Sleep Mode	ON/OFF	OFF
	Error prompt	ON/OFF	ON
	Error code	00	00
	sACN	001	001
Exit			
INFORMATION	Power On Time	xxxx	0000
	Lamp On Time	xxxx	0000
	Dimming Time	xxxx	0000
	Manufacturer ID	05EF	05EF
	Device ID	62908262	XXXXXXXX
	Panel Ver	Vx.xx	Vx.xx
	Panel Temp	xxx xxx	xxx xxx
	Panel Fan	xxxx xxxx	xxxx xxxx
	XY Ver	Vx.xx	Vx.xx
	XY Temp	xxx xxx	xxx xxx
	XY Fan	xxxx xxxx	xxxx xxxx
	SP Ver	Vx.xx	Vx.xx
	SP Temp	xxx xxx	xxx xxx
	SP Fan	xxxx xxxx	xxxx xxxx
Exit			
SENSOR MONITOR	Pan	Norm/Error	Norm
	Tilt	Norm/Error	Norm
	Stop/Strobe	Norm/Error	Norm
	Color	Norm/Error	Norm
	Fixed gobo	Norm/Error	Norm
	8 Prism	Norm/Error	Norm
	8 Prism Rot.	Norm/Error	Norm

SENSOR MONITOR	24 Prism Rot.	Norm/Eror	Norm
	24 Prism	Norm/Eror	Norm
	Frost	Norm/Eror	Norm
	Focus	Norm/Eror	Norm
	Exit		
RESET	Canc/Exec		Canc
Test Sequence	Test Sequence	Stop/PT/Efct/All	Stop
EXIT			

5/ Control panel


5.1 Control panel introduction




- 1.Exit button
- 2.LCD display
- 3.Function button(Enter)
- 4.DMX out
- 5.DMX in
- 6.Power in

Fig.(5.1-1)

5.2 Control panel operation introduction

1. 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

2.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.

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.

3. LED signal indication

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

4. Fan control

When used in theatre and places of the environment temperature is low, you can choose to silent mode.

6/ Production feature explanation

6.1 Color wheel

The color wheel consists of a high standard of 14 color filters+white light as show in Fig.(6.1-1). Lighting designers can easily choose the colors which they like and create the perfect lighting effect, if use the gobo wheel, the light effect will be better, and you can create the colorful gobo effect.

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

6.2 Fixed gobo wheel

1 fixed gobo wheel with 17 gobos + white light as show in Fig.(6.2-1).
(Customers can replace the rotation gobo in gobo wheel according to their needs)

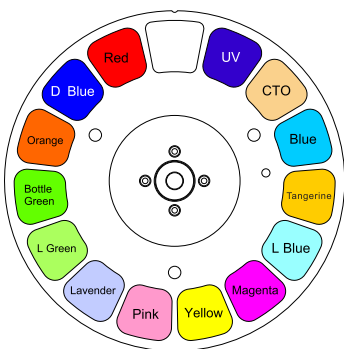


Fig.(6.1-1)

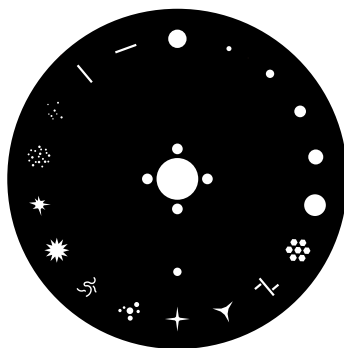


Fig.(6.2-1)

6.3 Pan&Tilt

Pan 540°, tilt 260°. Both of pan & tilt come with 16 Bit precise positioning function. Pan, tilt speed (fast, normal, slow), the speed can be controlled by the menu option.

6.4 Prism effect

one rotating 8-facet prism+one rotating 24-facet prism, bidirectional rotation. The prism can superimpose 32 prisms.

6.5 Other effect equipment

Independent soft light frost effect.

Mechanical linear 0-100% dimming.

Fast speed strobe, multiple strobe effects (pulse/asynchronous/synchronous/slow-medium-fast at random).

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.



Replace any cracked protective shield.



Minimum distance from lighted objects is 14.5m.



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 80°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.

9/ Product Connection

9.1 Included items

FINE 320 BEAM is packed with flight case. One single standard flight case carries two fixtures, Included items 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	1	PCS

Table(9.1-1)

9.2 Power connection

Power supply and fuses' type and rating:

Power	Fuse
100-240V~	10A 5X20


Table(9.2-1)

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.

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 5-pin socket. Please according to table 9.2-2 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.

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

Table(9.2-2)

9.3 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 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.

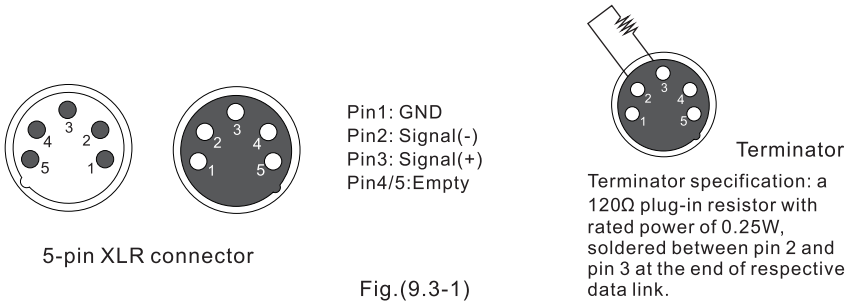


Fig.(9.3-1)

Connect the fixtures with Max.24 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 $\geq 500\text{mm}$.

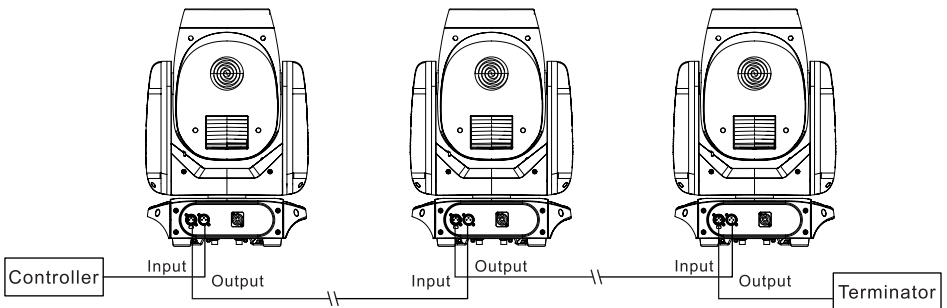


Fig.(9. 3-2)

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.