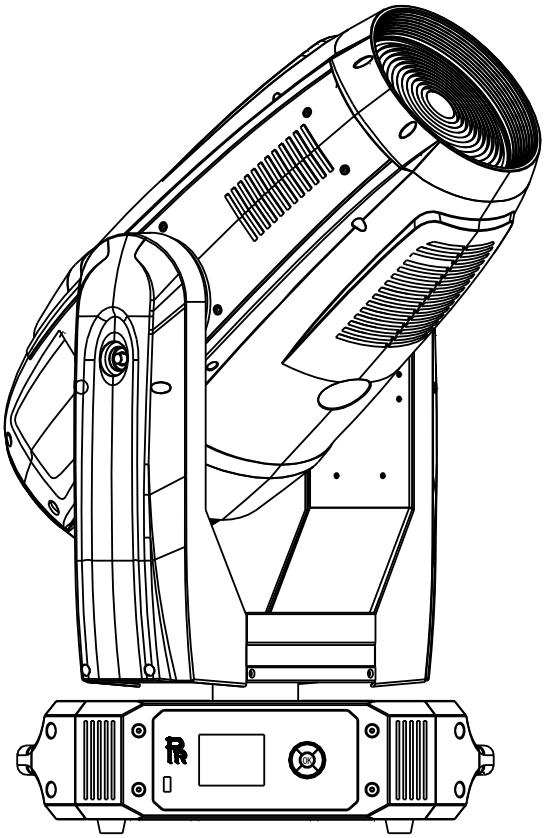
珠江灯光



XR 1700 WASH/FRAMING

PR-2886

The user manual contains important information about the safe installation and use of a projector. Please read and follow these instructions carefully and keep the manual in a safe place for future reference.

PR LIGHTING LTD.
http://www.pr-lighting.com

INDEX

ACCESSORIES

The following items are supplied with the projector and please check:

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
XLR connector	1	Set	Male and female
Safety cord	2	Pcs	
Spare gobos	4	Pcs	
User manual	1	Pc	
Ω clamps	2	Pcs	Optional

Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of the manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.
Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit is in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

Any future technical changes in the user manual won't be with any further notice.

Note: For the products made by Guangzhou PR lighting Ltd, the warranty for the whole product is one year starting from the delivery date but the light source is not within the warranty.

1. SAFETY AND WARNINGS

NOTE

Before a projector's installation, power-on, operation and maintenance, please carefully read the safety information hereinafter!

The following safety signs are used in the user manual.

						
Warning	**User Manual**	**Electrical shock**	**Goggles**	**Protective Gloves**	**Flames**	**High Temperature**

- **When unpacking , check if there is transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use it**.
- The manufacture is not responsible for loss caused by the user not following the manual or changing the projector as he/she likes.
- Please be noted that the damage caused by changing the projector at will is not warranted.
- Do not hesitate to contact the dealer or the manufacturer if any questions or advice.

- The projector is for indoor use only, IP20.
- Use only in dry locations. Keep this unit away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.
- The projector should be kept away from high temperature, fire, electrical surge, vibration and strong light while being operated.
- The projector is only intended for installation, operation and maintenance by qualified personnel. And the operation must strictly follow the procedures in the manual.
- No repairable parts in the projector and do not open covers for maintenance by yourself.

- Don't look straightly into the light sources especially for epileptics, otherwise eyes will be burned..
- Do not connect this device to any type of dimmer pack.
- After lamp switched on, the minimum distance between the projector and illuminated surface is 10m.
- lens and other optical parts shall be replaced immediately if they have deformed or been damaged, otherwise the light output will be compromised.

- Before operation, please confirm that all covers(housing) are on and screws tightened. It's forbidden to use a projector while covers(housing)are off .
- Keep the lamp clean and do not touch it with bare hands.
- While operating it, wear protective items.

- Any electrical connection must be carried out by a qualified person .
- Before installation, please confirm the voltage supplied matches what is required for the projector.
- Each projector must be properly earthed and installed as per related electrical standards.
- Do not use power cord with its insulator damaged and connect the power cord with other cables.
- If the projector is not used or under cleaning,, please hold the plug and unplug it. Do not unplug it forcefully or by pulling the power cable.
- All power cords must conform to related safety and regulations.
- While being operated, the projector should not be under rains or in humidity.
- Do not switch on and off the projector constantly in very short intervals, otherwise the light source's and other electrical parts' life will be shortened .

•There are safety cord holes at the bottom of the base of a projector. In view of safety, please run the safety cord supplied through the safety cord holes for safety support.
•Before any installation, maintenance and cleaning work, please ensure the projector is disconnected from power mains.

•After running for 30minutes, the temperature of the housing of the projector is 45℃.After stable operation , its temperature is 80℃.
•While the lamp is stricken for the first time, there will be smoke and strange smell. It's normal and does not mean the projector has some defects.

•Do not mount the projector directly on inflammable surface. 
•Do not project the beam straightly on combustible items and the minimum distance between the projector and illuminated items is 10m.
•A projector should be installed with good ventilation and the minimum distance between the projector and walls is 50cm. At the same time, please ensure the fans and air inlets and outlets are workable.

2. INSTRUCTIONS

•CLEANING AND MAINTENANCE

If a projector can't start. Please check if the fuse is blown up. If it does, replace it with a new fuse with same ratings. And the projector has over-temperature protective device. If the temperature is too high, the protective device will be triggered to shut the projector off. When it happens, please check if the fans run normally or fan shield is blocked by dust. After the issue is solved, restart the projector.

The accumulation of oil, smoke and dust on the lens will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use of it. Cooling fans need to be cleaned every 15days. Internal lens, reflector and hot mirror need to be cleaned periodically to optimize light output.

Cleaning frequency is to be decided by operations and its environment. Use soft cloth and normal detergent for glass for cleaning work. It's advised external optical system be cleaned every 20days and internal optical systems every 30/60days. Keep lens clean and do not touch optical parts with bare hands.

•Before any maintenance and cleaning, please ensure the project is off the power.
•Only qualified person is allowed to do maintenance.
•During maintenance and before maintenance, the projector must be off power.

•To avoid internal damage, sun light or other light mustn't penetrate into the projector via front lens whether it runs or not.
•Do not use alcohol or other organic solvent to clean the housing to avoid damage.
•Do not use any solvent with chemical elements to clean color filters or hot mirror.

•LUBRICATION

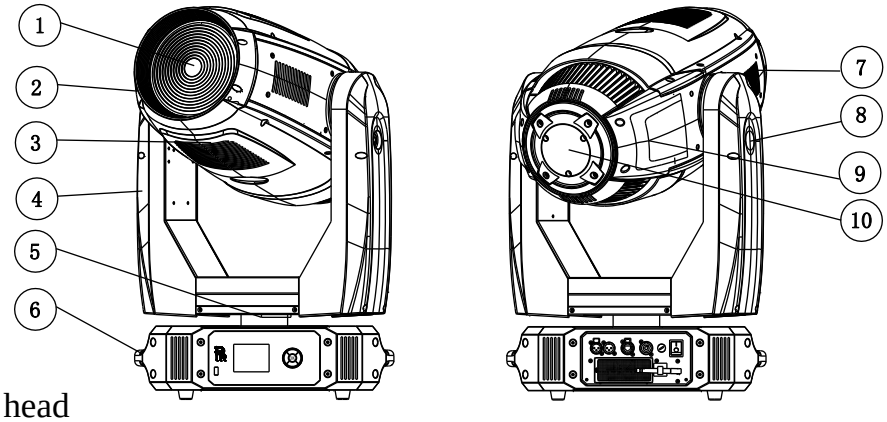
To ensure smooth movement of gobos and zoom and focus lens, it's advised rotators' bearings and 2 sliding bars for zoom and focus lens be lubricated every 2 months. High quality and high temperature lubricant/grease is advised..

•TROUBLESHOOTING(Details vary with different projectors)

PROBLEM	ACTION
The projector doesn't switch on	➢ Check the fuse on the power socket. ➢ Check the lamp.
The lamp is on but the projector doesn't respond to the controller	➢ Make sure that the fixture's start address is right ➢ Replace or repair the XLR signal cable.
The projector functions intermittently	➢ Make sure the fan is working well or fans and their shields are not blocked
Beam appears dim, Low in brightness	➢ Make sure the lamp is within its lifespan ➢ Remove dust or grease from the lenses.
The project image appears to have a halo	➢ Carefully clean the lamp, optical lenses and other components.
Heavily Defective Beam	➢ Check if lens are in good condition(not cracked) ➢ Clean dust or grease on the lens.

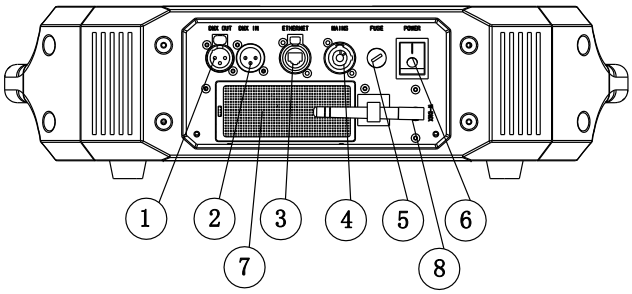
3. APPEARANCE

1. Fresnel lens
2. Front Cover of the head
3. front and back covers of the head
4. U arm cover
5. Pan Lock
6. handle in the base
7. Front side cover of the head
8. Tilt lock
9. Back side cover of the head
10. lamp cove



During transportation, the head should be locked-Pan lock (5) and Tilt Lock(6) should be in LOCK position. Before operation, both need to be unlocked.

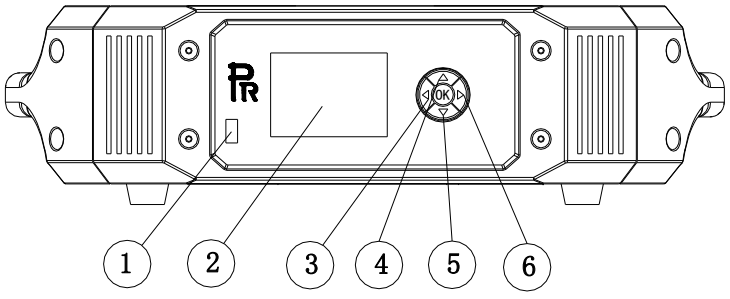
.Back panel of the base



1. 3-pin XLR socket(Female)
2. 3-pin XLR socket(Male)
3. Ethernet Port
4. Power socket
5. Fuse holder
6. Power switch
7. Air inlet
8. Wireless Receiver(Only for the lighting fixture with wireless control function)

Front panel of the base

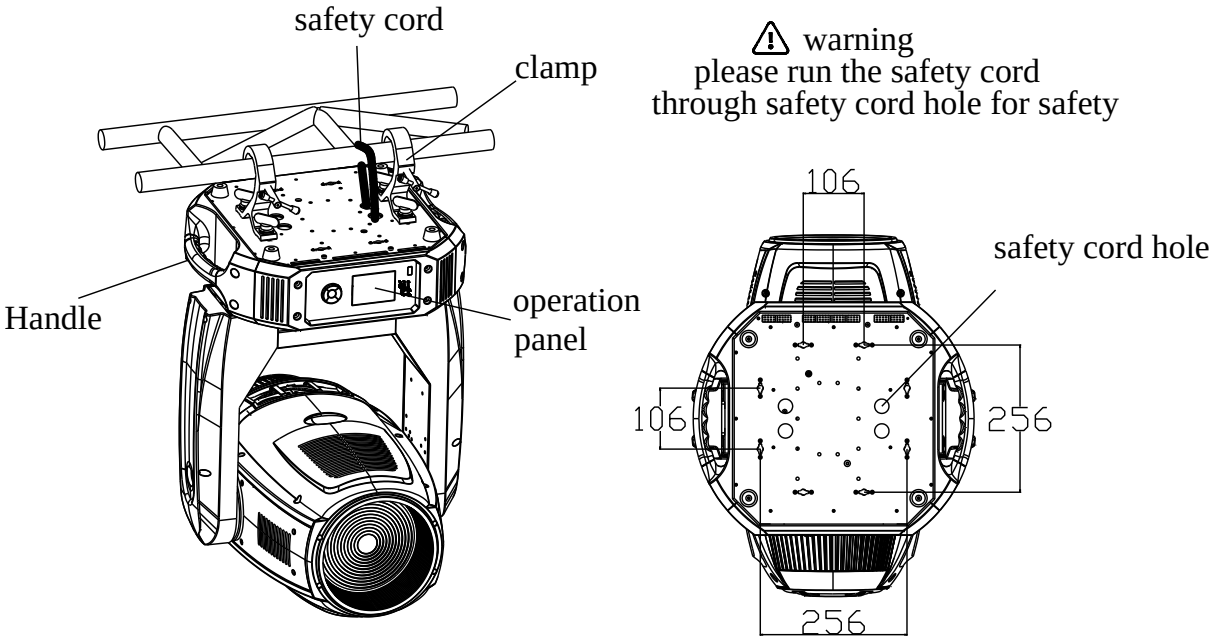
1. USB interface
2. Touch screen
3. Escape key/ left key
4. up key
5. down key
6. right key



4. INSTALLATION

•RIGGING

Before moving a projector, Please lock Pan and Tilt. Before its operation, please unlock them. It's forbidden to run a projector with power while it is locked.



Take 2 clamps and the safety cord out from the package and mount 2 clamps on the underside of fixture with 2 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the underside of the base as shown above) **To pass the SAFETY CORD through the HOLES for safety!** Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector to is secure and strong enough to support the weight of a XR 1000 Framing.

WARNING:

•The projector MUST be lifted or carried by the HANDLES instead of clamps.

•.For safety the safety cord should afford 10 times the Projector's weight.

• POWER CONNECTION

Connect the power cord as follows:
L (live) =brown
E (earth) =yellow/green
N (neutral) =blue

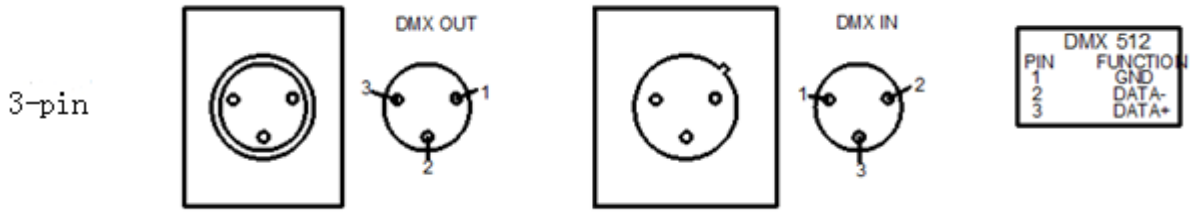
Before power connection, please ensure the power supplied must match what the nameplate says. It is recommended that each projector be connected with power separately so that they may be individually switched on and off.

Note: If projectors are connected in series, please connect POWERIN port of the 1st projector with the Power Mains, then connect its POWER OUT with POWER IN of the 2nd projector, and so on till all fixtures are connected. If the voltage supplied is 200V-240V, the maximum projectors connected is 8pcs, if it is 100V-120V, the maximum is 4pcs. The diameter of the cores of the wires for the Power in/out cables must be equal or bigger than 2.5mm^{2}.

•The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.

•If any questions about the electrical installation, do not continue but consult a qualified electrician.

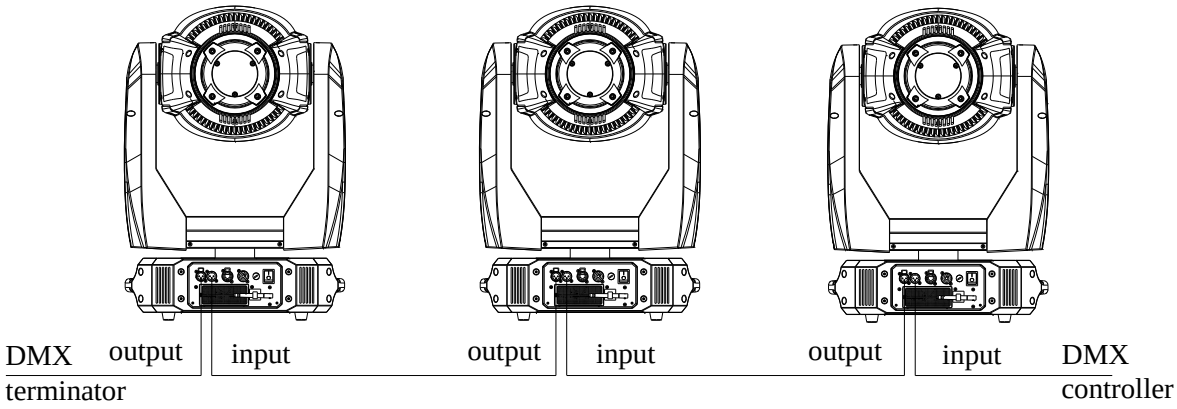
•DMX CONTROL CONNECTION:



Connection between controller and projector and between one projector and another must be made with a twin-screened cable, with each wire having at least a 0.5mm in diameter. Connection to and from the projector is via cannon 3 pin (which are included with the projector) or 3 pin XLR plugs and sockets. The XLR's are connected as shown in the figure above.

Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. XLR plugs and sockets mustn't be connected in any way other than mentioned in the above figure. The projector accepts digital control signals in protocol DMX512 (1990).

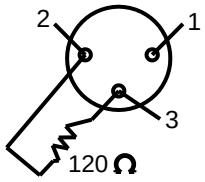
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



•DMX TERMINATOR

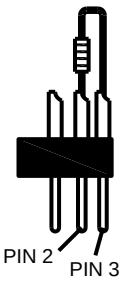
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.



DMX TERMINATOR CONNECTION

Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



• ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP

Before installation/replacement/alignment of a lamp, disconnect the unit from the power and let it cool first.

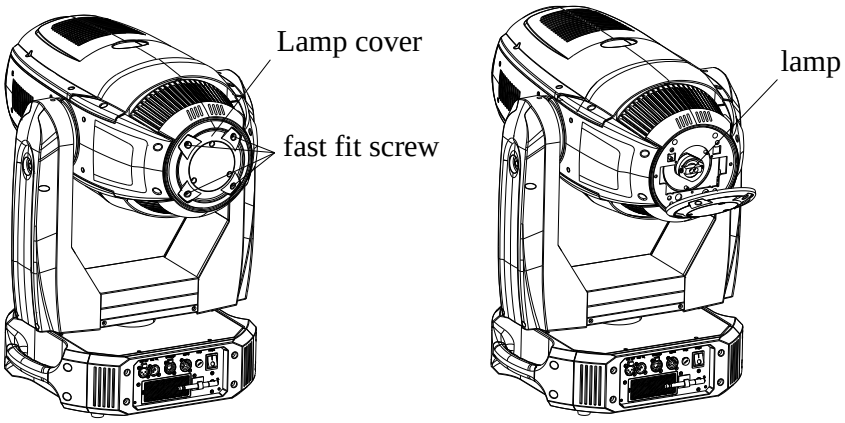
Lock Tilt in the figure below and open the lamp cover after its 4 screws are loosened.

After removal of the lamp cover, turn the lamp anti-clockwise and take it out of the ceramic stand..

Insert a new lamp. Note: while placing a new lamp, do not touch the burner of the lamp with bare hands, otherwise the light output will be compromised.

Fasten the 4 fast-fit screws after the lamp cover is on

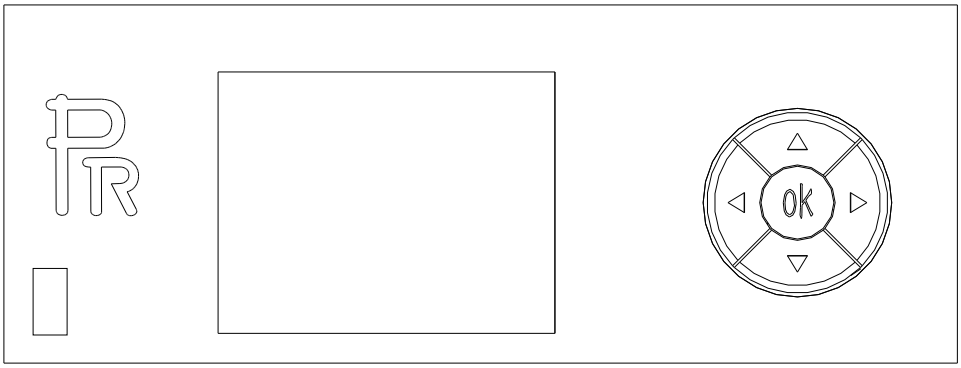
Important: The unit uses high voltage discharge lamp with external igniter(). While using the lamp, please carefully read "INSTRUCTIONS" packed with the lamp.



•Don't touch the internal surface of the reflector and the burner of the lamp with bare hands so as not to impair the beam output. While lamp's installation, do not damage the metal wire around the burner.
•Please read "Instructions " enclosed with the lamp
•Do operate the projector while adjusting the lamp

5. SETUP AND CONFIGURATION

•FRONT PANEL OPERATION



The projector configuration can be set conveniently via push buttons and color touch screen.

To browse through or change the projector 's settings, touch the white area of the touch screen or press OK button for more than 3s(Only powered by the battery, pressing the OK button) to unlock the screen , then press ▶ key to enter the projector 's function menus. Each main menu has its sub-menus. And each menu stands for special function. For the details, please see the following 6th point "Operation Menu".:

1. At the page to set the fixture's functions, press ◀,▶,▲,▼ keys or their respective icons to select the functions desired.

2. While at 2nd,3rd and 4th level of menus, the ◀ key is for ESCAPE, but ▶ key won't work, and OK key is used for ENTER. Press OK key to save the changes or enter into the sub menus. Press ▲ or ▼ keys to change the numbers(minus or plus). Or touch the option needed for change.

   Shortcut keys: After the Function Menu is entered into, there are all options for the functions on the top of the screen. On the right there are 4 shortcut keys like ←,→ Lamp Control and English/Chinese.

• DMX START ADDRESS

Each projector must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The projector has 3DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 30 **c**hannels, so set the No. 1 projector's address 001, No. 2 projector's address 031, No. 3 projector's address 061,No. 4 projector's address 091, and so on.

Switch on the Projector . Press OK key more than 3 seconds to unlock panel, then press ▶ key to enter into the fixture's operation menus.

Select DMX Address icon and press OK key or touch the icon directly on the display and select DMX address at the 2nd level menu for the address setting.

Press ▲ or ▼ keys or touch<、>displayed for the DMX address desired.

Press OK key to confirm.

Press the ◀ key to go back to the upper level menu.

•DMX WIRELESS CONTROL

The projector has wireless control function with wireless receiver module and antenna for remote control.

The setup of it is below:

1. Press OK for more than 3s to unlock the control panel, then press ▶ key to enter into the operation menu and select "Config Settings".
2. Select "Wireless First" or "Wireless Only" from the menu of "Signal Select".

Only after the projector is linked with a transmitter, can it receive wireless signal sent by the transmitter. If unlinking it, Press "Enter" for the menu of Un-link Wireless under the upper level menu of Config Settings , then the fixture is unlinked with the wireless transmitter.

•STAND-ALONE MODE

Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.

DMX address can be set at any number within 512.

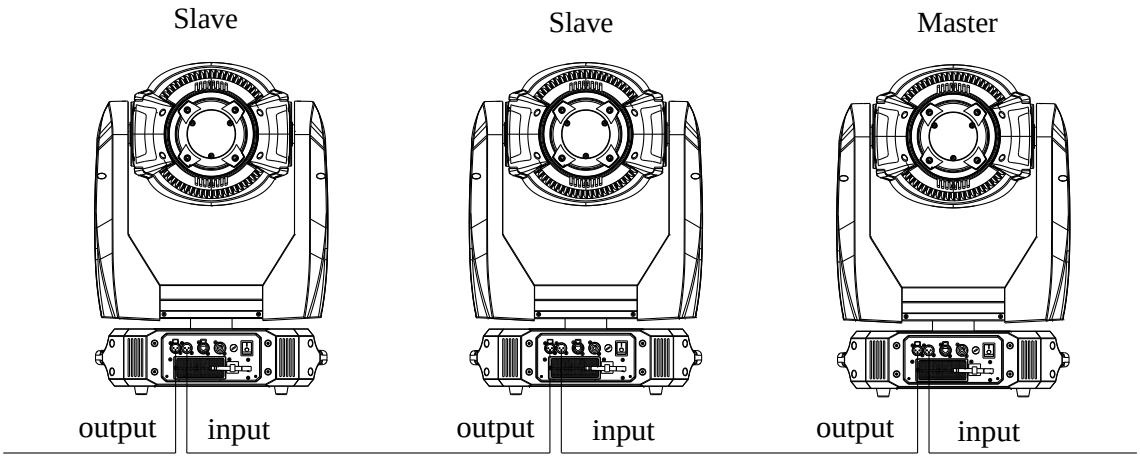
•MASTER/SLAVE MODE

Many projectors can run synchronously in the Master/Slave mode by linking them with each other. First,

Connect the first fixture's DMX output to the second fixture's DMX input using XLR-XLR control cable and then connect the second fixture's DMX output to the third fixture's DMX input, and so on until all projectors are connected in this way. Eventually connect the last fixture's DMX output to a DMX terminator. Set 1st projector as the master and others are Slaves.

Start Addresses of all Slaves are 001; Operation mode of the Master can be set any mode for a Master' and Slaves' operation mode can be set accordingly.

After Powered on, the group will run in Master/Slave Mode



.FIRWARE UPGRADE VIA USB DISK

Copy the upgrade .PRS file to USB disk and plug it into USB disk interface. Under the menu of service\USB update software, you can seen the upgrade file, or select the upgrade PRS file under the folder ,at last press update menu. Then the system will display *Please waiting…..* , which means the file is been copying to the system. After that, enter into Bootloader interface and countdown 10 seconds. Within 10 seconds, press UP and DOWN keys together, Software update interface will be entered into. During the update, the power mustn't be interrupted. Otherwise, it won't enter into the interface.

6. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-482		
	IP Address	Default IP Address	2.X.X.X /10.X.X.X	
		Custom IP Address	X.X.X.X	
	SubNet Mask	X.X.X.X		
	ArtNet Universe	0-255		
Reset	Total Reset	Really Reset?		
	Pan&Tilt Reset	Really Reset?		
	Colour System Reset	Really Reset?		
	Dimmer/Strobe reset	Really Reset?		
	Zoom & focus reset	Really Reset?		
	Other reset	Really Reset?		
Config Settings	DMX Channel Mode	Short Mode		
		Standard Mode		
		Extended Mode		
		View Selected Mode		
	Lamp Control	Lamp Control	OFF/ ON	
		On By Power On	OFF/ ON	
		Control By DMX	OFF/ ON	
		Lamp Power(W)	1500/ 1700	
	Signal Select	XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless In/XLR Out		
		ArtNet Only		
		ArtNet In/ XLR Out		
	Loss of DMX	Normal time out		
		Hold Last Value		
	Display Config	Display Mode	Off After Delay	
			On Always	
		Display Invert	Invert OFF	
			Invert ON	
			Invert Auto	
		Language Setting	English	
			Chinese	
		Touch Calibration		
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Un-Link Wireless	Really Un-Link?		
	Defaults	Restore Defaults?		
Option Settings	Pan/Tilt Settings	Pan DMX Invert	OFF/ ON	
		Tilt DMX Invert	OFF/ ON	
		Pan Tilt Swap	OFF/ ON	
		XY Feedback	OFF/ ON	
		Pan/Tilt mode	Speed/Time	

	Invert Settings	Dimmer Invert	OFF/ ON	
		Zoom Invert	OFF/ ON	
		CYM Invert	OFF/ ON	
		CTO Invert		
	Dimmer Curve	Linear/ Square Law		
	Defaults	Restore Defaults?	Conirm/Cancle	
Information	View DMX Values			
	Lamp Hours	Reset Lamp Hours		
	Total Hours			
	Temperature	Display Board XX℃/F		
		Pan and Tilt Board XX℃/F		
		Driver Board 1 XX℃/F		
		Driver Board 2 XX℃/F		
		Driver Board 3 XX℃/F		
		Head Sensor XX℃/F		
	Software Version	Display Board	Sys= XXX Boot =XXX	
		Pan and Tilt Board	Sys= XXX Boot =XXX	
		Driver Board 1	Sys= XXX Boot =XXX	
		Driver Board 2	Sy= XXX Boot =XXX	
		Driver Board 3	Sy= XXX Boot =XXX	
	Electronic SN			
	RDM Device Label			
	Fan Status			
Service	Manual Effect Control	Strobe XXX		
		Dimmer XXX		
		…	Tilt XXX	
	USB Update Software			
	Factory Test			
Operation Mode	DMX Mode	Change Operation Mode?		
	Master Mode	Preset Memory	Change Operation Mode?	
		User Memory 1	Change Operation Mode?	
		User Memory 2	Change Operation Mode?	
	Stand-Alone Mode	Preset Memory	Change Operation Mode?	
		User Memory 1	Change Operation Mode?	
		User Memory 2	Change Operation Mode?	
	Static Scene	Change Operation Mode?		
User Memories	Edit User Memory	Edit User Memory 1 / Edit User Memory 2	Scene XX （1~200 Scenes）	Strobe XXX Dimmer XXX … Delay Time XXX Delay Unit Link To Step XXX
		Edit Static Scene	Strobe XXX	
			Dimmer XXX	
			…	
	Init User Memory	Reset User Memory 1	Reset User Memory?	
		Reset User Memory 2	Reset User Memory?	
		Reset Static Scene	Reset Static Scene?	

Remarks:

1. "Speed Mode" means Pan and Tilt will move from Point A to Point B at their respective maximum speeds."Time Mode" means both Pan and Tilt will arrive at designated point at the same time. It's advised Time Mode be used if the projector runs

circles or in oblique lines.

2.While *Normal Time Out* and with DMX signal, if the signal doesn't exist for more than 10 minutes, the lighting fixture will be automatically turned of with lamp-off, dead motors and fans.

7.DMX PROTOCOL

Basic mode	Standard mode	Extended mode	Function Description	Decimal Low	Decimal High
1	1	1	**Strobe**		
			Close(Lamp Switches to 1200 watt mode after shutter is closed for 5 seconds)	0	10
			Open	11	25
			Strobe speed from slow to fast	26	225
			Macro(Random strobe speed slow to fast)	226	246
			Open	247	255
2	2	2	**Dimmer**		
			Close	0	0
			Dimmer from dark to light (0-100%)	1	255
	3	3	**Dimmer Fine**		
			Fine dimmer	0	255
3	4	4	**CYM Macro**		
			The following functions can be used after CMY,CTO, Color Wheel1 and Color Wheel2 channels are disabled		
			No Function	0	7
			Colour Macro 1	8	9
			Colour Macro 2	10	11
			Colour Macro 3	12	13
			Colour Macro 4	14	15
			Colour Macro 5	16	17
			Colour Macro 6	18	19
			Colour Macro 7	20	21
			Colour Macro 8	22	23
			Colour Macro 9	24	25
			Colour Macro 10	26	27
			Colour Macro 11	28	29
			Colour Macro 12	30	31
			Colour Macro 13	32	33
			Colour Macro 14	34	35
			Colour Macro 15	36	37
			Colour Macro 16	38	39
			Colour Macro 17	40	41
			Colour Macro 18	42	43
			Colour Macro 19	44	45
			Colour Macro 20	46	47
			Colour Macro 21	48	49
			Colour Macro 22	50	51

Colour Macro 23	52	53
Colour Macro 24	54	55
Colour Macro 25	56	57
Colour Macro 26	58	59
Colour Macro 27	60	61
Colour Macro 28	62	63
Colour Macro 29	64	65
Colour Macro 30	66	67
LEE colour swatches LEE		
LEE 4 (Medium Bastard Amber)	68	69
LEE 10 (Medium Yellow)	70	71
LEE 19 (Fire)	72	73
LEE 26 (Bright Red)	74	75
LEE 58 (Lavender)	76	77
LEE 68 (Sky Blue)	78	79
LEE 71 (Tokyo Blue)	80	81
LEE 79 (Just Blue)	82	83
LEE 88 (Lime Green)	84	85
LEE 90 (Dark Yellow Green)	86	87
LEE 100 (Spring Yellow)	88	89
LEE 101 (Yellow)	90	91
LEE 102 (Light Amber)	92	93
LEE 103 (Straw)	94	95
Lee 104 (Deep Amber)	96	97
LEE 105 (Orange)	98	99
LEE 106 (Primary Red)	100	101
LEE 111 (Dark Pink)	102	103
LEE 115 (Peacock Blue)	104	105
LEE 116 (Medium Blue-Green)	106	107
LEE 117 (Steel Blue)	108	109
LEE 118 (Light Blue)	110	111
LEE 119 (Dark Blue)	112	113
LEE 120 (Deep Blue)	114	115
LEE 121 (LEE Green)	116	117
LEE 128 (Bright Pink)	118	119
LEE 131 (Marine Blue)	120	121
LEE 132 (Medium Blue)	122	123
LEE 134 (Golden Amber)	124	125
LEE 135 (Deep Golden Amber)	126	127
LEE 136 (Pale Lavender)	128	129
LEE 137 (Special Lavender)	130	131
LEE 138 (Pale Green)	132	133
LEE 139 (Primary Green)	134	135
LEE 141 (Bright Blue)	136	137

			LEE 147 (Apricot)	138	139
			LEE 148 (Bright Rose)	140	141
			LEE 152 (Pale Gold)	142	143
			LEE 154 (Pale Rose)	144	145
			LEE 157 (Pink)	146	147
			LEE 158 (Deep Orange)	148	149
			LEE 162 (Bastard Amber)	150	151
			LEE 164 (Flame Red)	152	153
			LEE 165 (Daylight Blue)	154	155
			LEE 169 (Lilac Tint)	156	157
			LEE 170 (Deep Lavender)	158	159
			LEE 172 (Lagoon Blue)	160	161
			LEE 179 (Chrome Orange)	162	163
			LEE 180 (Dark Lavender)	164	165
			LEE 181 (Congo Blue)	166	167
			LEE 197 (Alice Blue)	168	169
			LEE 201 (Full C.T. Blue)	170	171
			LEE 202 (Half C.T. Blue)	172	173
			LEE 203 (Quarter C.T. Blue)	174	175
			LEE 204 (Full C.T. Orange)	176	177
			LEE 205 (Half C.T. Orange)	178	179
			LEE 206 (Quarter C.T. Orange)	180	181
			LEE 247 (LEE Minus Green)	182	183
			LEE 248 (Half Minus Green)	184	185
			LEE 281 (Three Quarter C.T. Blue)	186	187
			LEE 285 (Three Quarter C.T. Orange)	188	189
			LEE 352 (Glacier Blue)	190	191
			LEE 353 (Lighter Blue)	192	193
			LEE 715 (Cabana Blue)	194	195
			LEE 778 (Millennium Gold)	196	197
			LEE 793 (Vanity Fair)	198	199
			CMY colour mixing from slow to fast	200	255
4	**5**	**5**	**Cyan**		
			Cyan (Linear 0-100%)	0	255
		6	**Cyan Fine**		
			Cyan in 16 Bit precision	0	255
5	**6**	**7**	**Yellow**		
			Yellow (Linear 0-100%)	0	255
		8	**Yellow Fine**		
			Yellow in 16 Bit precision	0	255
6	**7**	**9**	**Magenta**		
			Magenta (Linear 0-100%)	0	255
		10	**Magenta Fine**		
			Magenta in 16 Bit precision	0	255

7	**8**	**11**	**CTO**		
			Linear adjust from high to low	0	255
		12	**CTO Fine**		
			CTO in 16 Bit precision	0	255
8	**9**	**13**	**Colour Wheel 1**		
			Continual positioning		
			index 0-360 °	0	63
			positioning		
			White	64	67
			White/colour 1(Red)	68	71
			Colour 1(Red)	72	75
			Colour 1(Red)/colour 2(Yellow)	76	79
			Colour 2(Yellow)	80	83
			Colour 2(Yellow)/colour 3(Blue)	84	87
			Colour 3(Blue)	88	91
			Colour 3(Blue)/colour 4(Green)	92	95
			Colour 4(Green)	96	99
			Colour 4(Green)/colour 5(Pink)	100	103
			Colour 5(Pink)	104	107
			Colour 5（Pink））/colour 6（Orange）	108	111
			Colour 6(Orange)	112	115
			Colour 6(Orange)/ Colour 7(UV)	116	119
			Colour 7(UV)	120	123
			Colour 7(UV)/white	124	127
			Rainbow rotation speed from slow to fast	128	191
			Rainbow reverse rotation speed from slow to fast	192	255
	10	**14**	**Colour Wheel 1 Fine**		
			Colour Continual positioning in 16 Bit precision	0	255
9	**11**	**15**	**Colour Wheel 2**		
			Continual positioning		
			index 0-360 °		
			positioning		
			White	64	67
			White/colour 1(Depp Red)	68	71
			Colour 1(Deep Red)	72	75
			Colour 1(Depp Red)/colour 2(Deep Magenta)	76	79
			Colour 2(Deep Magenta)	80	83

			Colour 2(Deep Magenta)/colour 3(Light Magenta)	84	87
			Colour 3(Light Magenta)	88	91
			Colour 3(Light Magenta)/colour 4(Light Yellow)	92	95
			Colour 4(Light Yellow)	96	99
			Colour 4(Light Yellow)/colour 5(Light Green)	100	103
			Colour 5(Light Green)	104	107
			Colour 5（Light Green））/colour 6（Deep Cyan）	108	111
			Colour 6(Deep Cyan)	112	115
			Colour 6(Deep Cyan)/ Colour 7(Light Cyan)	116	119
			Colour 7(Light Cyan)	120	123
			Colour 7 Light Cyan)/white	124	127
			Rainbow rotation speed from slow to fast	128	191
			Rainbow reverse rotation speed from slow to fast	192	255
	12	**16**	**Colour Wheel 1 Fine**		
			Colour Continual positioning in 16 Bit precision	0	255
			Open	0	10
10	13	17	Framing blade 1 left		
			Framing blade 1 left linearly closing from big to small	0	255
		18	Framing blade 1 left in 16 bit		
			Framing blade 1 left fine adjustment	0	255
11	14	19	Framing blade 1 right		
			Framing blade 1 right linearly closing from big to small	0	255
		20	Framing blade 1 right in 16 bit		
			Framing blade 1 right fine adjustment	0	255
12	15	21	Framing blade 2 left		
			Framing blade2 left linearly closing from big to small	0	255
		22	Framing blade 2 left in 16 bit		
			Framing blade 2 left fine adjustment	0	255
13	16	23	Framing blade 2 right		
			Framing blade 2 right linearly closing from big to small	0	255
		24	Framing blade 2 right in 16 bit		
			Framing blade 2 right fine adjustment	0	255
14	17	25	Framing blade 3 left		

			Framing blade 3left linearly closing from big to small	0	255
		26	Framing blade 3 left in 16 bit		
			Framing blade 3 left fine adjustment	0	255
15	18	27	Framing blade 3 right		
			Framing blade 3 right linearly closing from big to small	0	255
		28	Framing blade 3right in 16 bit		
			Framing blade 3right fine adjustment	0	255
16	19	29	Framing blade 4 left		
			Framing blade 4left linearly closing from big to small	0	255
		30	Framing blade 4left in 16 bit		
			Framing blade 4 left fine adjustment	0	255
17	20	31	Framing blade 4 right		
			Framing blade 4 right linearly closing from big to small	0	255
		32	Framing blade 4right in 16 bit		
			Framing blade 4right fine adjustment	0	255
18	21	33	Framing module rotation		
			Framing module indexing(0-360degrees)		
			Stop		
			Framing module clockwise rotation from slow to fast		
			Stop		
			Framing module anti-clockwise rotation from slow to fast		
		34	Framing module rotation in 16 bit		
			Framing module fine rotation		
19	22	35	**Frost**		
			Light Frost from 0% to 100%	0	255
20	23	36	**Focus**		
			Linearly focusing	0	255
		37	**Focus Fine**		
			Focus in 16 precision	0	255
21	24	38	**Zoom**		
			Linearly zooming	0	255
		39	**Zoom Fine**		
			Zoom in 16 Bit precision	0	255
22	25	40	**Pan**		
			Pan movement	0	255
	26	41	**Pan Fine**		
			Pan movement in 16 bit precision	0	255
23	27	42	**Tilt**		
			Tilt movement	0	255
	28	43	**Tilt fine**		
			Tilt movement 16 bit precision	0	255
24	29	44	**Pan/Tilt speed**		
			fast Speed Mode	0	1
			Pan &Tilt speed from fast to slow	2	255

25	30	45	**Power/Special functions**		
			No function:	0	4
			Reserved	5	19
			1.To activate following functions, stay in DMX value for at least 5 s		
			2.The lamp is allowed to be turned off 5 minutes after the lamp is on. And the lamp is allowed to be turned on 5 minutes after the lamp is off.		
			3. Before the lamp on or lamp off, set "control by DMX"/Lamp Control/Config Setting s as ON via control panel.		
			Graphic display On	20	24
			Graphic display Off	25	29
			Reserved	30	34
			Lamp power 1500W	35	39
			Lamp power 1700W	40	44
			Reserved	45	89
			Pan/Tilt speed mode	90	94
			Pan/Tilt time mode	95	99
			Reserved	100	129
			Lamp On	130	139
			Pan/Tilt reset	140	149
			Colour system reset	150	159
			Reserved	160	169
			Dimmer/Strobe reset	170	179
			Zoom/focus/frost reset	180	189
			Framing module reset	190	199
			Total reset	200	209
			Reserved	210	229
			Lamp Off	230	239
			Reserved	240	255

Note:

1. If you intend to turn on/off the lamp via the last channel of the controller, don't attempt to push the channel to value 224-255 immediately after turning it off, or push the slide bar to value 224-255 to wait it cooling. Under these 2 circumstances, the lamp can not be turned on. The right operation is: turn it off---cool down---push the slide bar to turn it on.
2. Fan error can cause lamp-off.

8. ICONS OF THE TROUCH SCREEN

	Lamp Control		Option Settings
	Chinese/English		Information
	Error Messages		Service
	Address		Operation Mode
	Reset		User Memories
	Config Settings		

9.ERROR MESSAGES

The system can detect some errors during the reset, if  displayed, touch  to view the error.
The error messages are as follows:

Name	Type	Correction
Pan	Timeout/magnet Sensor/Encoder	Check if wiring, positioning parts and motors are normal
Tilt	Timeout/magnet Sensor/Encoder	Check if wiring, positioning parts and motors are normal
Cyan	Timeout	Check if wiring, positioning parts and motors are normal
Yellow	Timeout	Check if wiring, positioning parts and motors are normal
Magenta	Timeout	Check if wiring, positioning parts and motors are normal
CTO	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel1	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel12	Timeout	Check if wiring, positioning parts and motors are normal
Dimmer	Timeout	Check if wiring, positioning parts and motors are normal
Focus 1	Timeout	Check if wiring, positioning parts and motors are normal
Focus 2	Timeout	Check if wiring, positioning parts and motors are normal
Zoom	Timeout	Check if wiring, positioning parts and motors are normal
Lamp Fan1	Error	Check if fan and its wiring are normal
Lamp Fan2	Error	Check if fan and its wiring are normal
Framing Module Fan	Error	Check if fan and its wiring are normal
Head Fan	Error	Check if fan and its wiring are normal
Base Fan1	Error	Check if fan and its wiring are normal
Base Fan2	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Motor Driver Board 1	Error	Check signal wire
Motor Driver Board2	Error	Check signal wire
Motor Driver Board3	Error	Check signal wire
Lamp on	Timeout	Check if he lamp is damaged

Lamp Life	Timeout Warning	
Lamp Off[Fan Error]	Error	Check if all fans are normal
Time IC	Error	

10. TECHNICAL DATA

INPUT VOLTAGES

Input voltage 200V~240V AC，50/60Hz

Input power 2100W @ 220V

Current at maximum AC10A

Power factor PF>90%

LAMP SPECIFICATIONS

Lamp	lok-it 1700W/PS
Color Temperature	5600K
Ceramic Stand	Single-ended
Manufacturers Rated Lamp Life	750hours

COLORS

CMY linear color mixing system with macros

2Color wheels: 7colors+ Open, half-color effect, bi-directional rainbow effect with variable speeds,

Stepping/linear color changing

Color Wheel 1

No.	Code No.	Colors	Wave Length
1	090070041A	Red	λ=620±5nm
2	090070044A	Yellow	λ=510/545±5nm
3	090070043A	Blue	λ=500±5nm
4	090070042A	Green	λ=540±5nm
5	090070045A	Pink	λ=490/585±5nm
6	090070046A	Orange	λ=600±5nm
7	090070047A	UV light	λ=460/690±5nm

Color Wheel2

No.	Code No.	Colors	Wave Length
1	090070034A	Deep Red	λ=645±5nm
2	090070037A	Deep Magenta	λ=450/630±5nm
3	090070040A	Light Magenta	λ=445/620±5nm
4	090070039A	Light Yellow	λ=520±5nm
5	090070035A	Light Green	λ=485/525 ±5nm
6	090070036A	Deep Cyan	λ=575±5nm
7	090070038A	Light Cyan	λ=590±5nm

CTO

0-100% Linear CTO system

1 FRAMING MODULE

4 framing blades

Continual framing module rotation, to make graphics of different sizes and shapes

4 framing blade to make full curtain effect

FROST WHEEL

1Pc linear frost filter

FOCUS

DMX linear zoom

ZOOM

DMX linear zoom

DIMMER

0-100% Linearly adjustable

STROBE

Double blade strobe, 0.3-25 F.P.S .

HEAD MOVEMENT

Pan 540 º, Tilt 270 ºwith auto position correction

BEAM ANGLE

Linear zoom 10 º～ 55 ºwith 16bit adjustment

CONTROL

DMX512, 5 pin interfaces

RDM control protocol

25channels in basic mode, 30channels in standard mode , 45channels in extended mode

Self-test mode

OTHER FUNCTIONS

Adjustable Pan & Tilt speeds

Lamp's and fixture's hours displayed

Color touch screen, Chinese and English menus, brightness and contrast adjustable

Input signal isolated

Modular Structure for easy maintenance

Ethernet interface

DMX512 wirless reciever

Optional DMX512 Wireless Transmitter

HOUSING

High temperature ABS, IP20

WEIGHT

52Kg

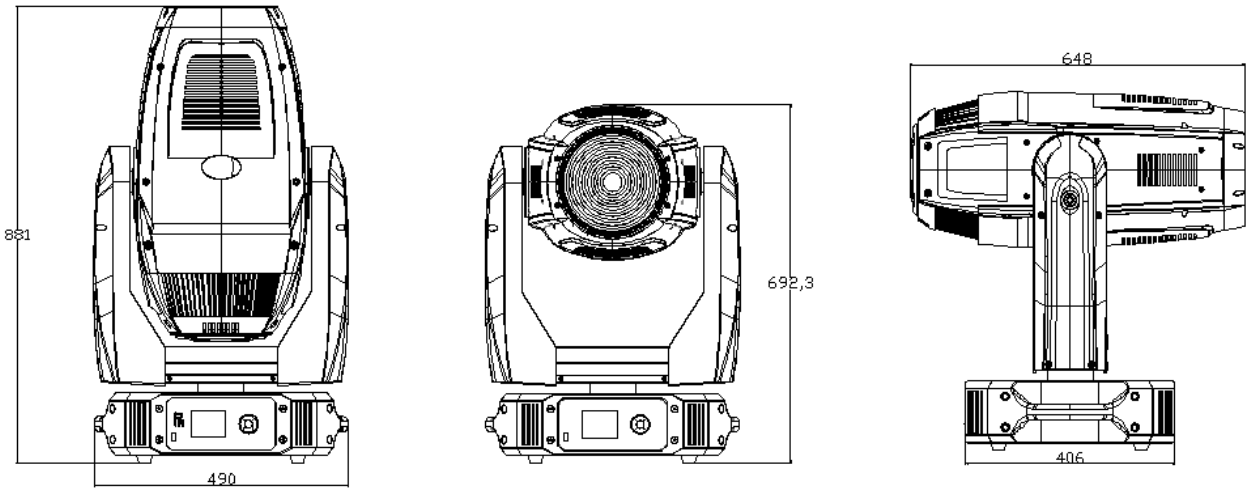
RIGGING

Head up or Head down

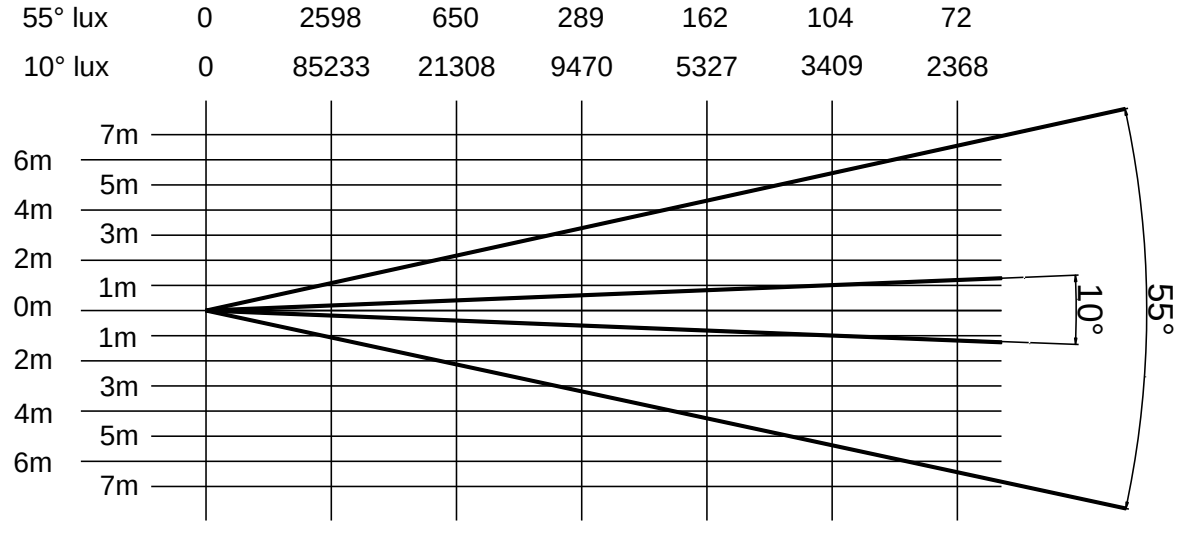
OPERATION TEMPERATURE

Maximum ambient temperature: 40 ℃

1. SIZES:



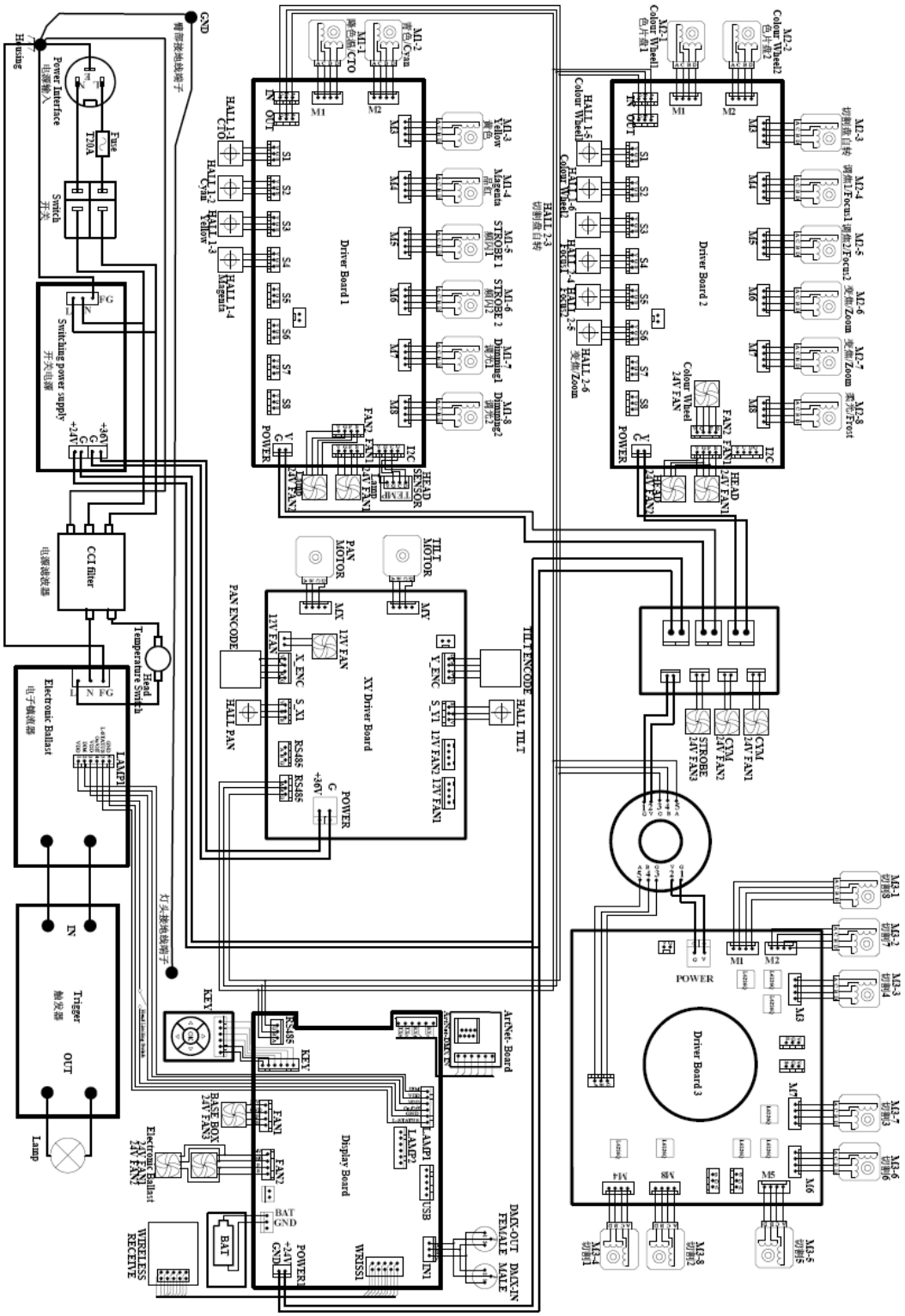
2. LIGHT OUTPUT:



55° lux	0	2598	650	289	162	104	72
10° lux	0	85233	21308	9470	5327	3409	2368
	投射距离(m)	0	5	10	15	20	25	30
55°	光斑直径(m)	Φ0.0	Φ4.78	Φ9.56	Φ14.33	Φ19.11	Φ23.89	Φ28.67
10°	光斑直径(m)	Φ0.0	Φ0.87	Φ1.74	Φ2.61	Φ3.48	Φ4.36	Φ5.23

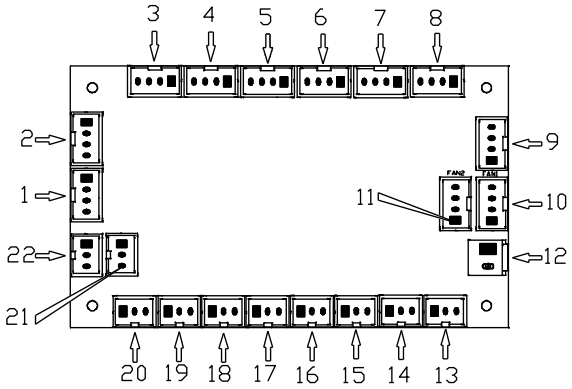
11. CIRCUIT DIAGRAM AND PCB CONNECTIONS

•CIRCUIT DIAGRAM



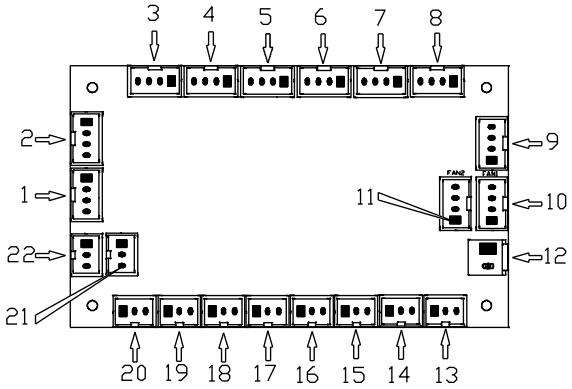
PCB CONNECTION

8 channel motor driver board1: P/N 230060744



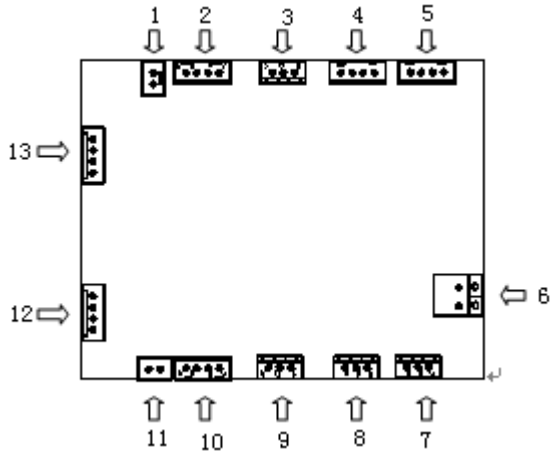
8 channel motor driver board			
1	M1-1motor	12	24V power input
2	M1-2 motor	13	Reserved
3	M1-3 motor	14	Reserved
4	M1-4 motor	15	Reserved
5	M1-5 motor	16	Reserved
6	M1-6 motor	17	HALL1-4 magnet sensor
7	M1-7 motor	18	HALL1-3 magnet sensor
8	M1-8 motor	19	HALL1-2 magnet sensor
9	Thermal sensor	20	HALL1-1 magnet sensor
10	Lamp fan1	21	Signal output
11	Lamp fan2	22	Signal input

8 channel motor driver board2: P/N 230060745



8 channel motor driver board			
1	M2-1motor	12	24V power input
2	M2-2 motor	13	Reserved
3	M2-3 motor	14	Reserved
4	M2-4 motor	15	HALL2-6 magnet sensor
5	M2-5 motor	16	HALL2-5 magnet sensor
6	M2-6 motor	17	HALL2-4 magnet sensor
7	M2-7 motor	18	HALL2-3 magnet sensor
8	M2-8 motor	19	HALL2-2 magnet sensor
9	Thermal sensor	20	HALL12-1 magnet sensor
10	CMY FAN	21	Signal output
11	Framing module fan	22	Signal input

XY diver board P/N230060742



XY driver board			
1	Reserved	8	Signal input
2	TILT ENCODE	9	SX magnet sensor
3	SY magnet sensor	10	PAN ENCODE
4	Reserved	11	XY driver board fan
5	Reserved	12	PAN motor
6	36V power input	13	TILT motor
7	Signal input		

12. COMPONENT ORDER CODES

NAME	PART NO.	QTY	REMARK
PAN MOTOR	030040262	1	
TILT MOTOR	030040262	1	
STORE MOTOR	030040095A	2	
DIMMER MOTOR	030040186A	2	
COLOR WHEEL1 MOTOR	030040215A	1	
COLOR WHEEL2 MOTOR	030040215A	1	
CMY MOTOR	030040114A	4	
FOCUS MOTOR	030040213A	2	
ZOOM MOTOR	030040261	2	
FRAMING MODULE MOVE MOTOR	030040029	1	
FRAMING BLADE MOTOR	030040247	8	
FAN	030060104	2	BASE FAN1
FAN	030060089A	1	BASE FAN2
TURBO FAN	030060107	2	COOLING LAMP
TURBO FAN	030060094	1	CMY FAN
TURBO FAN	030060106	2	DIMMER FAN
TURBO FAN	030060102	2	PAN & TLT BOARD
SMALL FAN	030060093	1	
LAMP BALLAST	040070133A	1	
SWITCHING POWER SUPPLY	230020689	1	
POWER FILTER	193020014	1	
IGNITER	040090066	1	
LAMP	100050085	1	
COLOR WHEEL ACCESSORY 1	120110917	1	
COLOR WHEEL ACCESSORY 1	120600041A	1	
MAIN BOARD	230060743	1	
8 CHANNEL MOTOR DIVER BOARD 1	230060744	1	
8 CHANNEL MOTOR DIVER BOARD2	230060745	1	
PAN & TILT BOARD	230060742	1	
FUSE	270041065	1	
PAN BELT	290151205	1	
TILT BELT	290151207	1	
FOCUS BELT	290151423	2	
ZOOM BELT	290151316	2	
COLOR WHEEL BELT	290151361	2	
CMY BELT	290151341	4	

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