

## **PR-6000 FRAMING (1400W)**

PR-2927

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>

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## ACCESSORIES

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

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
XLR Connectors	1	Set	Male and female
Safety cord	2	Pc	
Spare Gobos	4	pc	
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 are 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 change in the user manual won't be with any 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.

						
<b>Warning</b>	<b>User Manual</b>	<b>Electrical shock</b>	<b>Goggles</b>	<b>Protective Gloves</b>	<b>Flames</b>	<b>High Temperature</b>



•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

•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.



- While running normally under normal ambient temperature, the temperature of the external surface of the metal housing of a projector including that of the heat sink may reach 170°C at maximum.
- 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 18m.
- 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.

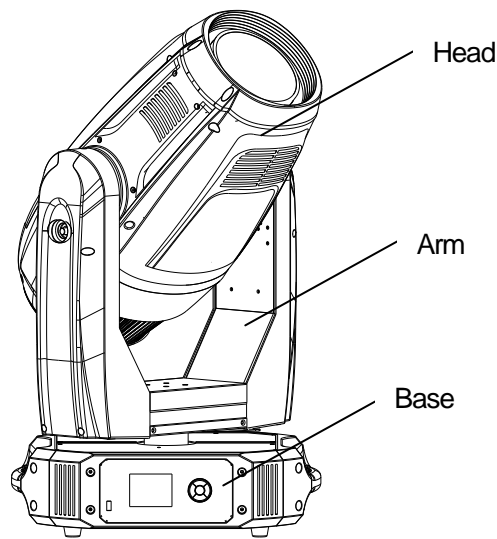
### •LUBRICATION

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

PROBLEM	ACTION
The projector doesn't switch on	<ul style="list-style-type: none"> <li>➤ Check the fuse on the power socket.</li> <li>➤ Check the lamp.</li> </ul>
The lamp is on but the projector doesn't respond to the controller	<ul style="list-style-type: none"> <li>➤ Make sure that the fixture's start address is right</li> <li>➤ Replace or repair the XLR signal cable.</li> </ul>
The projector functions intermittently	<ul style="list-style-type: none"> <li>➤ Make sure the fan is working well or fans and their shields are not blocked</li> </ul>
Beam appears dim, Low in brightness	<ul style="list-style-type: none"> <li>➤ Make sure the lamp is within its lifespan</li> <li>➤ Remove dust or grease from the lenses.</li> </ul>
The project image appears to have a halo	<ul style="list-style-type: none"> <li>➤ Carefully clean the lamp, optical lenses and other components.</li> </ul>
Heavily Defective Beam	<ul style="list-style-type: none"> <li>➤ Check if lens are in good condition(not cracked)</li> <li>➤ Clean dust or grease on the lens.</li> </ul>

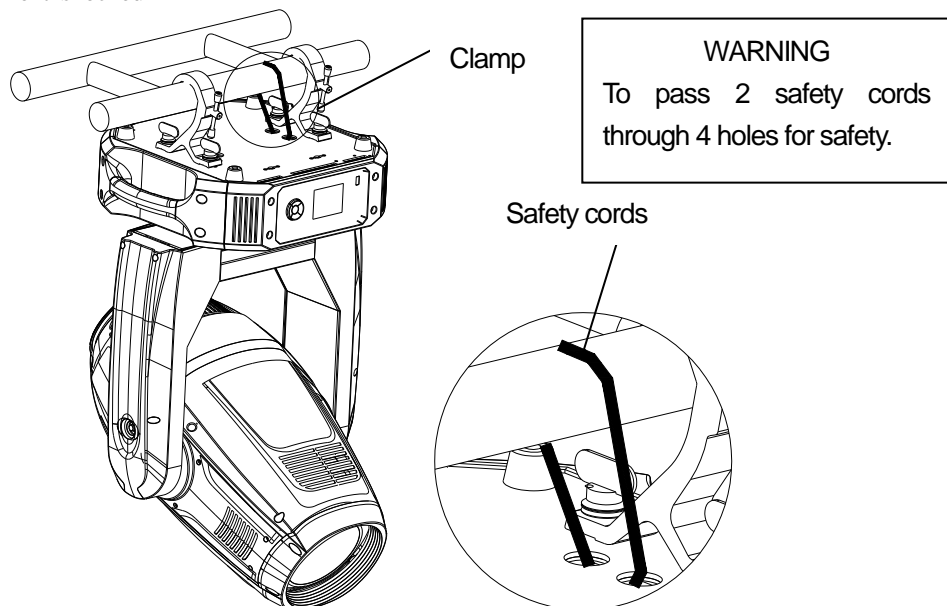
## 3. APPEARANCE



## 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 the unit.



**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:

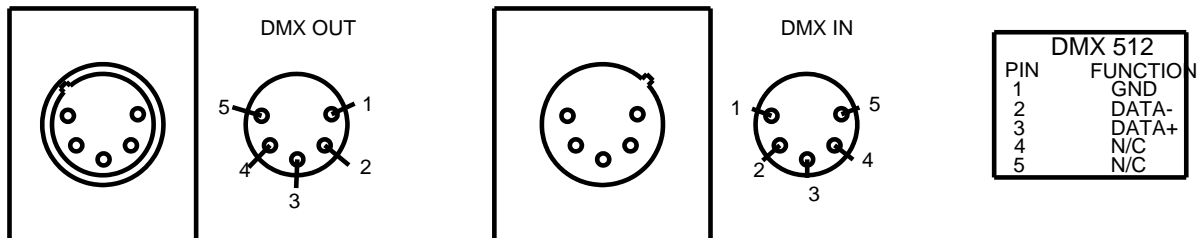
- L (live) =brown
- E (earth) =yellow/green
- N (neutral) =blue

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.



- 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.

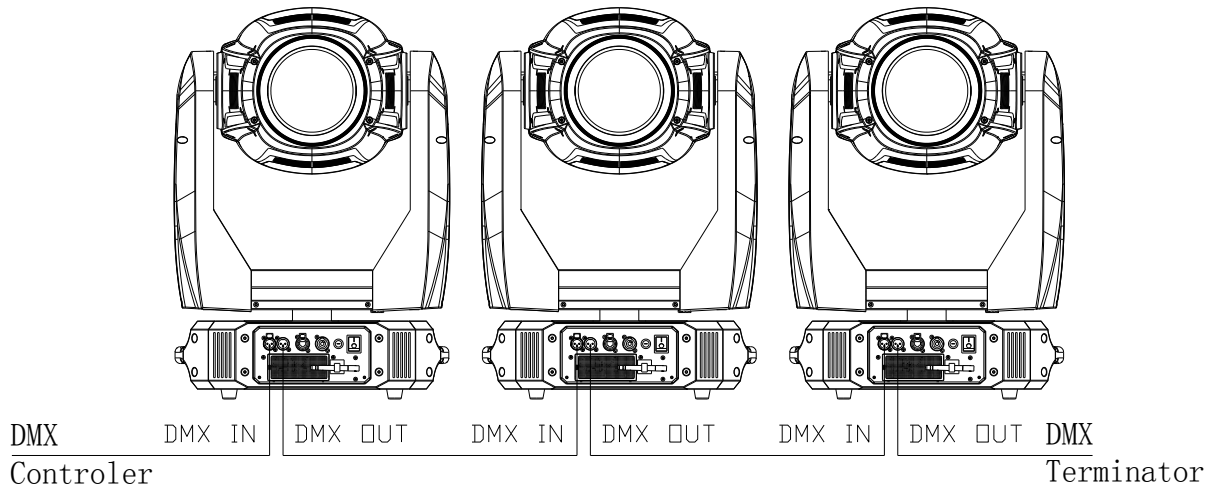
●**DMX CONTROL CONNECTION:**



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 5 pin (which are included with the projector) or 5 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 XR330BWS accepts digital control signals in protocol DMX512 (1990).

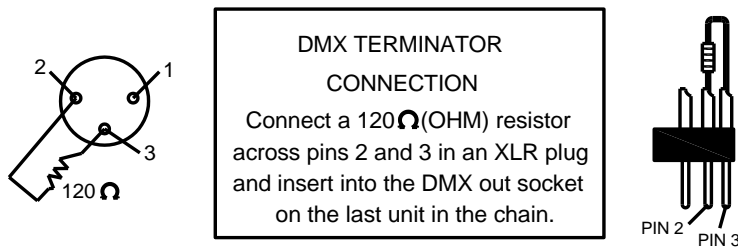
Connect the controller’s DMX output to the first fixture’s DMX input, and connect the first fixture’s DMX output to the second fixture’s DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture’s DMX output to a DMX terminator as shown in the figure below.



**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.



**ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP**

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

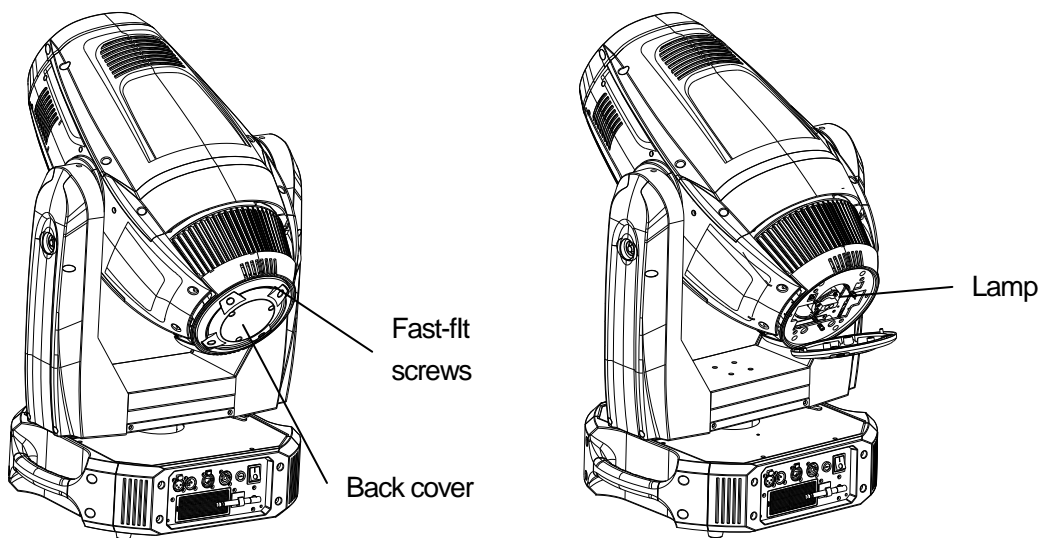
Lock Tilt in the figure below and open the lamp cover after its 4 screws are loosened.

After removal of the lamp cover, take out the lamp while the 2 screws at both ends of the lamp are loosened.

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

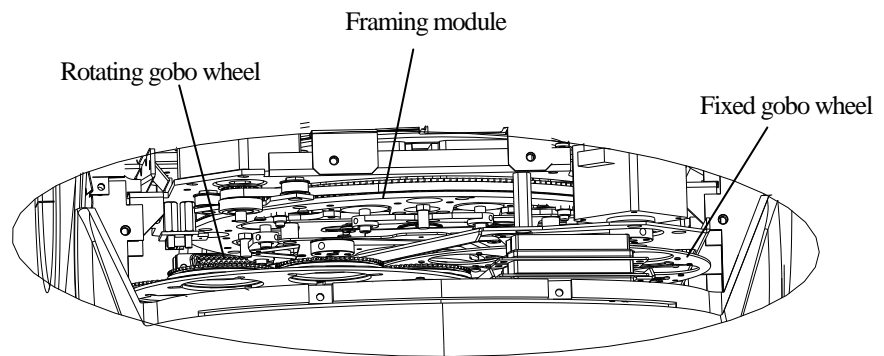
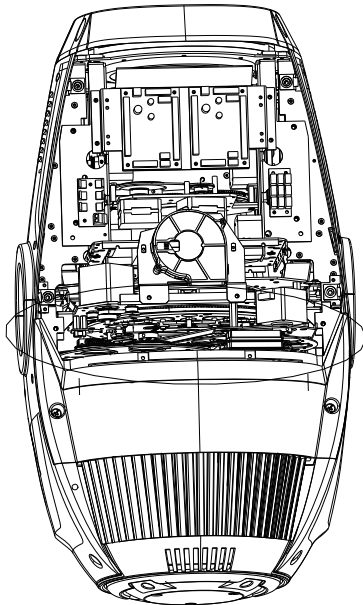
Important: The unit uses high voltage discharge lamp with external igniter(△E). While using the lamp, please carefully read “INSTRUCTIONS” packed with the lamp.





- 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

## •GOBO /COLOR FILTER REPLACEMENT



Lock the tilt and loosen the 6 fast-fit screws on the upper cover ,After removing the cover, you will see the structures as the figure below.

Before replacing a gobo on the fixed gobo wheel, use your finger to remove the spring tightening it and take the old one out with due care. At last put the new into the wheel.

To replace a gobo on the rotating gobo wheel: take the rotator from the wheel, take the gobo out from the rotator by removing the tightening spring. Put the new gobo back to the rotator, then tighten it with the spring. Please ensure the spring is in the narrow location of the rotator, which is the internal ring of it and flatten it. At last, pull up the spring strip using proper tool and put the rotator back to the wheel with the assistance by another hand.

Note: Do not touch the glass gobo with bare hand. Place clean and soft paper or cloth between hand and glass gobos.

Tighten 6 fast-fit screws after the cover is on. Unlock the tilt.



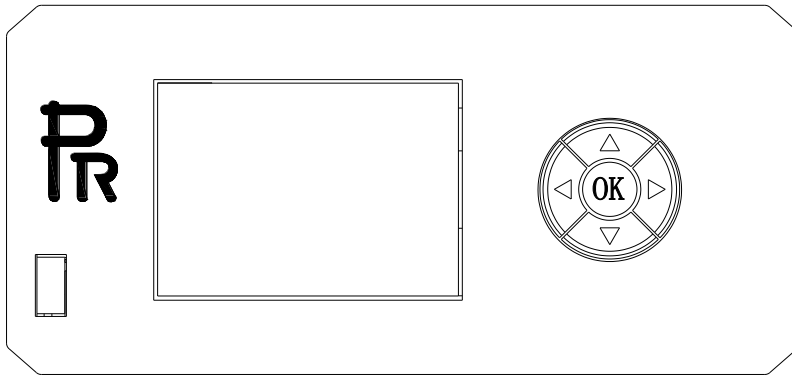
### **DANGER!**

**Before replacement of gobos, the projector must be off the power.**

## **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 6<sup>th</sup> 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 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> level of menus, the key is for ESCAPE, but key won't work, and key is used for ENTER. Press 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 36 channels, so set the No. 1 projector's address 001, No. 2 projector's address 037, No. 3 projector's address 073, and so on.

Switch on the Projector. Press 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 2<sup>nd</sup> 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 (If the projector has the function)

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

The setup of it is below:

1. Press 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**

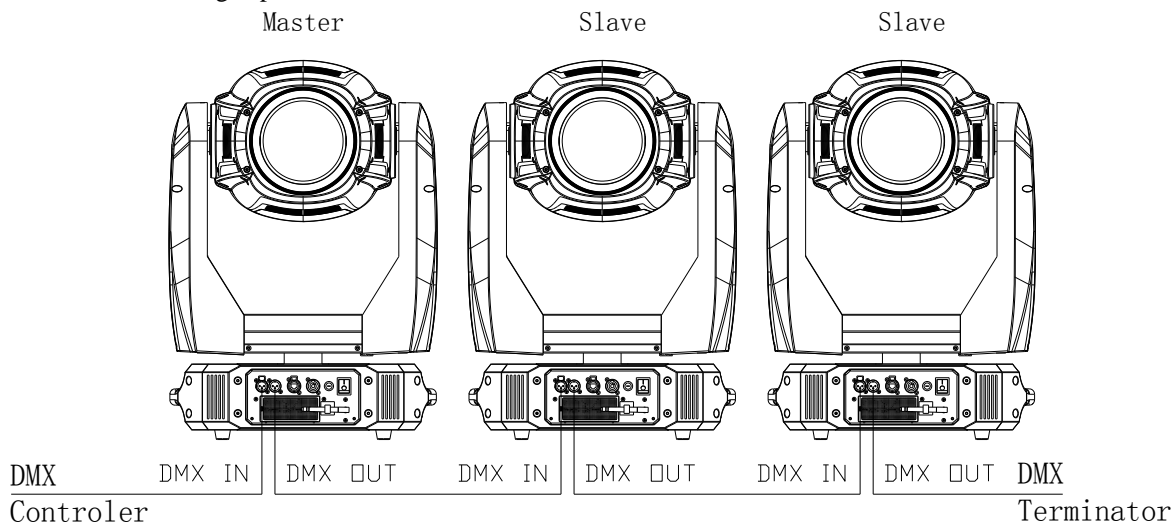
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.  
DMX address can be set at any number within 512.

**●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 projector are connected in this way. Eventually connect the last fixture's DMX output to a DMX terminator. Set 1<sup>st</sup> 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



**6. OPERATION MENU**

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-476		
	IP Address	Default IP Address	2.X.XX /10.X.XX	
		Custom IP Address	X.X.XX	
	SubNet Mask	X.X.XX		
	ArtNet Universe	0-255		
Reset	Total Reset	Really Reset?		
	Pan&Tilt Reset	Really Reset?		
	Colour System Reset	?		
		Really Reset?		
	Gobo Reset	Really Reset?		
	Dimmer/Strobereset	Really Reset?		
	Zo.Fo.Fr.Pr. Reset	?		
Really Reset?				
Config Settings	DMX Channel Mode	Really Reset?		
		Short Mode		
		Standard Mode		
		Extended Mode		
	Lamp Control	View Selected Mode		
		Lamp Control	OFF/ ON	
		On By Power On	OFF/ ON	
		Control By DMX	OFF/ ON	
Signal Select	Lamp Power (W)	1200/1400 1200/ 1400		

		XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless In/XLR Out		
		ARTNET Only		
		ARTNET/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	Input Password123			
Temperature Unit	Celsius Degree			
	Fahrenheit Degree			
Un-Link Wireless	Really Un-Link?			
Factory 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	
		Iris Invert	OFF/ ON	
		Zoom Invert	OFF/ ON	
		CYM Invert	OFF/ ON	
	Dimmer Curve	CTO Invert	OFF/ ON	
Linear/ Square Law				
Defaults	Restore Defaults?			
Information	View DMX Values			
	Lamp Hours	Reset Lamp Hours		
	Total Hours			
	Temperature	Display Board XX°C/F		
		Pan and Tilt XX°C/F		
		Driver Board 1 XX°C/F		
		Driver Board 2 XX°C/F		
		Driver Board 3 XX°C/F		
		Framing BoardXX°C/F		
	Software Version	Head Sensor XX°C/F		
		Display Board	System= XXX Boot =XXX	
	Pan and Tilt	System= XXX Boot =XXX		

		Driver Board 1	System= XXX Boot =XXX	
		Driver Board 2	System= XXX Boot =XXX	
		Driver Board 3	System= XXX Boot =XXX	
		Framing Board	System= XXX Boot =XXX	
	Electronic SN	Electronic SN= *****		
	RDM Device Label	RDM Device Label ANSI E1.20 RDM Version X.X		
	Fan Status			
	XY Encoder			
Lamp Fan Error				
Service	Manual Effect Control	Strobe XXX		
		DimmerXXX		
		...		
	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?	Input Password123
Reset User Memory 2		Reset User Memory?	Input Password123	
Reset Static Scene		Reset Static Scene?	Input Password123	

## 7. DMX PROTOCOL

Short mode	Standard mode	Extended mode	Description	Decimal low	Decimal High
1	1	1	Strobe		
			Close (The lamp's power changes into 1200W after strobe blades close.)	0	10
			Open	11	25
			Strobe from slow to fast	26	225
			Strobe macros (Strobe at random from fast to slow)	226	246
			Open	247	255

2	2	2	Dimmer		
			Close	0	0
			Linear dimmer (0-100%)	1	255
	3	3	Dimmer in 16 bit		
			Dimmer in 16 bit adjustment	0	255
3	4	4	CYM macros		
			The following functions will disable CMY,CTO,color wheel1 and color wheel2		
			No function	0	7
			Color macro1	8	9
			Color macro2	10	11
			Color macro3	12	13
			Color macro4	14	15
			Color macro5	16	17
			Color macro6	18	19
			Color macro7	20	21
			Color macro8	22	23
			Color macro9	24	25
			Color macro10	26	27
			Color macro11	28	29
			Color macro12	30	31
			Color macro13	32	33
			Color macro14	34	35
			Color macro15	36	37
			Color macro16	38	39
			Color macro17	40	41
			Color macro18	42	43
			Color macro19	44	45
			Color macro20	46	47
			Color macro21	48	49
			Color macro22	50	51
			Color macro23	52	53
			Color macro24	54	55
			Color macro25	56	57
			Color macro26	58	59
			Color macro27	60	61
			Color macro28	62	63
			Color macro29	64	65
			Color macro30	66	67
			Color macro31	68	69
			Color macro32	70	71
Color macro33	72	73			
Color macro34	74	75			
Color macro35	76	77			

Color macro36	78	79
Color macro37	80	81
Color macro38	82	83
Color macro39	84	85
Color macro40	86	87
Color macro41	88	89
Color macro42	90	91
Color macro43	92	93
Color macro44	94	95
Color macro45	96	97
Color macro46	98	99
Color macro47	100	101
Color macro48	102	103
Color macro49	104	105
Color macro50	106	107
Color macro51	108	109
Color macro52	110	111
Color macro53	112	113
Color macro54	114	115
Color macro55	116	117
Color macro56	118	119
Color macro57	120	121
Color macro58	122	123
Color macro59	124	125
Color macro60	126	127
Color macro61	128	129
Color macro62	130	131
Color macro63	132	133
Color macro64	134	135
Color macro65	136	137
Color macro66	138	139
Color macro67	140	141
Color macro68	142	143
Color macro69	144	145
Color macro70	146	147
Color macro71	148	149
Color macro72	150	151
Color macro73	152	153
Color macro74	154	155
Color macro75	156	157
Color macro76	158	159
Color macro77	160	161
Color macro78	162	163
Color macro79	164	165

			Color macro80	166	167
			Color macro81	168	169
			Color macro82	170	171
			Color macro83	172	173
			Color macro84	174	175
			Color macro85	176	177
			Color macro86	178	179
			Color macro87	180	181
			Color macro88	182	183
			Color macro89	184	185
			Color macro90	186	187
			Color macro91	188	189
			Color macro92	190	191
			Color macro93	192	193
			Color macro94	194	195
			Color macro95	196	197
			Color macro96	198	199
			CMY color mixing fade from slow toast	200	255
4	5	5	Cyan		
			Cyan (Linear 0-100%)	0	255
		6	Cyan in 16 bit		
			Cyan 16 bit adjustment	0	255
5	6	7	Yellow		
			Yellow (Linear 0-100%)	0	255
		8	Yellow in 16 bit		
			Yellow 16bit adjustment	0	255
6	7	9	Magenta		
			Magenta (Linear 0-100%)	0	255
		10	Magenta in 16bit		
			Magenta 16 bit adjustment	0	255
7	8	11	CTO		
			Linear CTO from high t low	0	255
		12	CTO in 16 bit		
			CTO 16 bit adjustment	0	255
8	9	13	Color wheel1		
			Continuous positioning		
			Indexing 0-360 °	0	63
			Positioning		
			White /Color1(Red )	64	67
			Color 1(Red )	68	71
			Color1(Red )/Color2(Yellow )	72	75
			Color2(Yellow )	76	79
			Color2(Yellow )/Color3(Blue)	80	83
			Color3(Blue)	84	87

			Color3(Blue)/Color4(Green)	88	91
			Color4(Green)	92	95
			Color4(Green)/Color5(Pink)	96	99
			Color5(Pink)	100	103
			Color5(Pink)/Color6(Orange)	104	107
			Color6(Orange)	108	111
			Color6(Orange)/ Color7(UV)	112	115
			Color7(UV)	116	119
			Color7(UV)/White	120	123
			Clockwise rainbow effect from slow to fast	124	191
			Anti-clockwise rainbow effect from slow to fast	192	255
	10	14	Color wheel1 in 16bit		
			Color wheel continuous positioning ,16bit adjustment	0	255
9	11	15	Iris		
			Linear iris from big to small	0	255
		16	Iris in 16bit		
			Iris 16 bit adjustment	0	255
10	12	17	Iris macros		
			Disable iris macro	0	10
			Iris macro1: Iris from big to small (speed from slow to fast)	11	74
			Iris macro2: Iris from small to big (speed from slow to fast)	75	138
			Iris macro3 : Iris contracts from slow to fast	139	202
			Iris macro4(Macro1 at random) (from slow to fast)	203	210
			Iris macro5(Macro2 at random) (from slow to fast)	211	218
			Iris macro 6(Macro3 at random) (from slow to fast)	219	226
			Open	227	255
11	13	18	Fixed gobo wheel		
			White	0	16
			Gobo1	7	31
			Gobo2	32	47
			Gobo3	48	63
			Gobo4	64	79
			Gobo5	80	95
			Gobo6	96	111
			Gobo7	112	127
			Clockwise rotation from slow to fast	128	149
			Anti-clockwise rotation from slow to fast	150	171
			Gobo1 shakes from slow to fast	172	183
			Gobo2 shakes from slow to fast	184	195
			Gobo3 shakes from slow to fast	196	207
			Gobo4shakes from slow to fast	208	219
			Gobo5shakes from slow to fast	220	231
			Gobo6shakes from slow to fast	232	243
			Gobo7shakes from slow to fast	244	255



12	14	19	Rotating gobo wheel		
			White	0	31
			Gobo1	32	47
			Gobo2	48	63
			Gobo3	64	79
			Gobo4	80	95
			Gobo5	96	111
			Gobo6	112	127
			Clockwise rotation from slow to fast	128	143
			Anti-clockwise rotation from slow to fast	144	159
			Gobo1 shakes from slow to fast	160	175
			Gobo2 shakes from slow to fast	176	191
			Gobo3 shakes from slow to fast	192	207
			Gobo4shakes from slow to fast	208	223
			Gobo5shakes from slow to fast	224	239
Gobo6shakes from slow to fast	240	255			
13	15	20	Gobo rotation		
			Indexing 0-360°	0	127
			Stop	128	128
			Clockwise rotation from slow to fast	129	188
			Stop	189	195
			Anti-clockwise rotation from slow to fast	196	255
	16	21	Gobo rotation in 16bit		
			Gobo rotation 16bit adjustment	0	255
14	17	22	Framing blade 1left		
			Linear Framing Blade1 Left Change 0%-100%	0	255
		23	Framing Blade 1 Left change in 16 bit		
			Framing Blade 1 Left change in 16 bit precision	0	255
15	18	24	Framing Blade 1 right		
			Linear Framing Blade1 Right Change 0%-100%	0	255
		25	Framing Blade 1 right change in 16 bit		
			Framing Blade 1 right change in 16 bit precision	0	255
16	19	26	Framing Blade 2 Left		
			Linear Framing Blade2 Left Change 0%-100%	0	255
		27	Framing Blade 2 Left change in 16 bit		
			Framing Blade 2 Left change in 16 bit precision	0	255
17	20	28	Framing Blade 2 Right		

			Linear Framing Blade2 Right Change 0%-100%	0	255
		29	Framing Blade 2 right change in 16 bit		
			Framing Blade 2 right change in 16 bit precision	0	255
18	21	30	Framing Blade 3 Left		
			Linear Framing Blade3 Left Change 0%-100%	0	255
		31	Framing Blade 3 Left change in 16 bit		
			Framing Blade 3Left change in 16 bit precision	0	255
19	22	32	Framing Blade 3 Right		
			Linear Framing Blade3 Right Change 0%-100%	0	255
		33	Framing Blade 3 right change in 16 bit		
			Framing Blade 3right change in 16 bit precision	0	255
20	23	34	Framing Blade 4 Left		
			Linear Framing Blade4Left Change 0%-100%	0	255
		35	Framing Blade 4 Left change in 16 bit		
			Framing Blade 4Left change in 16 bit precision	0	255
21	24	36	Framing Blade 4 Right		
			Linear Framing Blade4Right Change 0%-100%	0	255
		37	Framing Blade 4 right change in 16 bit		
			Framing Blade 4right change in 16 bit precision	0	255
22	25	38	Framing Module continual rotation		
			Framing Module Indexing(0-360degrees)	0	127
			Stop	128	
			Framing Module forward rotation from slow to fast	129	188
			Stop	189	195
			Framing Module forward rotation from slow to fast	196	255
		39	Framing Module continual rotation in 16 bit		
			Framing Module continual rotation in 16 bit	0	255
23	26	40	Prism		
			No	0	16
			Prism in	17	255
24	27	41	Prism rotation		












			Prism indexing	0	127
			Stop	128	128
			Clockwise rotation from slow to fast	129	191
			Stop	192	192
			Anti-clockwise rotation from slow to fast	193	255
25	28	42	Frost		
			Linear frost 0% - 100%	0	255
26	29	43	Focus		
			Linear focus	0	255
		44	Focus in 16 bit		
			Focus 16 bit adjustment	0	255
27	30	45	Zoom		
			Linear Zoom	0	255
		46	Zoom in 16 bit		
			Zoom 16 bit adjustment	0	255
28	31	47	Pan		
			Pan movement	0	255
29	32	48	Pan in 16 bit		
			Pan movement in 16 bit	0	255
30	33	49	Tilt		
			Tilt movement	0	255
31	34	50	Tilt in 16 bit		
			Tilt movement in 16 bit	0	255
32	35	51	Pan & Tilt speed		
			Time mode	0	1
			Speed mode (speed from fast to slow)	2	255
33	36	52	Special function		
			No function	0	4
			Reserved	5	19
			The following function must stay in the DMX range for more than 5s to activate it		
			2.The lamp can be turned off 5minutes after it is on, And the lamp can be turned on 5 minutes after it is off.		
			3.to turn on or turn off the lamp, keep lamp control-DMX control signal as ON		
			Display on	20	24
			Display off	25	29
			Reserved	30	34
			Lamp power 1200W	35	39
			Lamp power 1400W	40	44
			Reserved	45	89
			Pan and tilt speed mode	90	94
			Pan and tilt time mode	95	99
			Reserved	100	129

		Lamp on	130	139
		Pan and tilt reset	140	149
		Color system reset	150	159
		Gobo wheel reset	160	169
		Dimmer/ strobe reset	170	179
		Zoom/Focus/Frost/Prism reset	180	189
		Other (Iris /Framing module) reset	190	199
		Total reset	200	209
		Reserved	210	229
		Lamp off	230	239
		Reserved	240	255



**Remark:**

1. The projector can't be turned on within 5 minutes after the lamp-off.
2. Fan error can cause lamp-off.
3. "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.

**8. SIGNS ON THE TOUCH SCREEN**

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

**9. ERROR MESSAGE**

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
CT	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Fixed gobo wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Dimmer	Timeout	Check if wiring, positioning parts and motors are normal
Prism	Timeout	Check if wiring, positioning parts and motors are normal
Prism Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Focus	Timeout	Check if wiring, positioning parts and motors are normal
Zoom	Timeout	Check if wiring, positioning parts and motors are normal
Lamp Fan T	Error	Check if fan and its wiring are normal
Lamp Fan R	Error	Check if fan and its wiring are normal
Head Fan 1	Error	Check if fan and its wiring are normal
Head Fan 2	Error	Check if fan and its wiring are normal
Strobe Fan	Error	Check if fan and its wiring are normal
CMY Fan	Error	Check if fan and its wiring are normal
Base Fan	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Driver Board 1	Error	Check signal wire
Driver Board2	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Driver Board4	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

### ELECTRIC PARAMETERS

Input voltage 200V~240V AC, 50/60Hz

Input power 1800W@220V

Power factor: PF>0.9

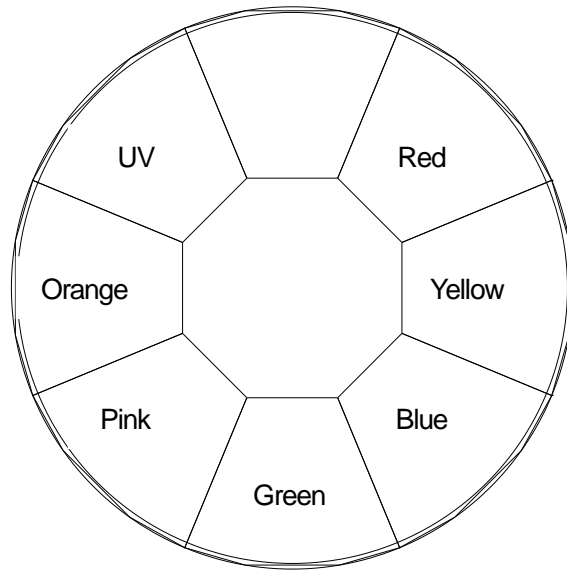
### THE SPECIFICATIONS OF THE LIGHT SOURCE(WITH 1400W BALLAST AND IGNITER)

OSRAM	<b>lok-it 1400/PS</b>
Color temperature	6000K
CRI	> 90
lamp stand	single ended
rated life	750hrs

**COLORS**

CMY linear mixing system with macros

1 color wheel: 7colors+ White, Half Color effect,  
rainbow effect with bi-directional and variable speeds,  
Stepping/linear color changing



**CTO**

0-100% linear CTO

**GOBO/FRAMING**

1 Rotating Gobo Wheel: 6 replaceable gobos+ White, Glass or Metal Gobo

Bi-directional Rotation with variable speeds

With Indexing Function

Gobo Shake Effect with Variable Speeds

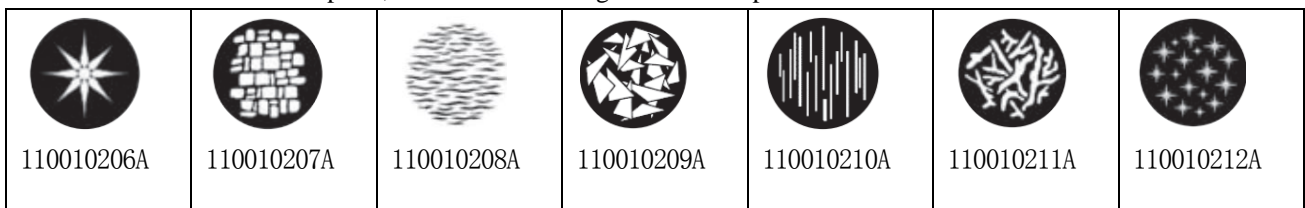
Bi-directional Scrolling with Variable Speeds

Rotating Gobo Wheel 1:



1 fixed gob wheel: 7 replaceable gobos+ White

Gobo Shake Effect with variable speeds, bi-directional scrolling with variable speeds



Gobo outer size: 37.5mm

Gobo image size: 25mm

1 Framing Module: 4 Framing Blades

Framing Module continual rotation with many graphics of different sizes and shapes

4 Framing blades to make full curtain effect

### PRISM

1pc of 3 facet prism , Bi-directional rotation with variable speeds and indexing function

### FROST

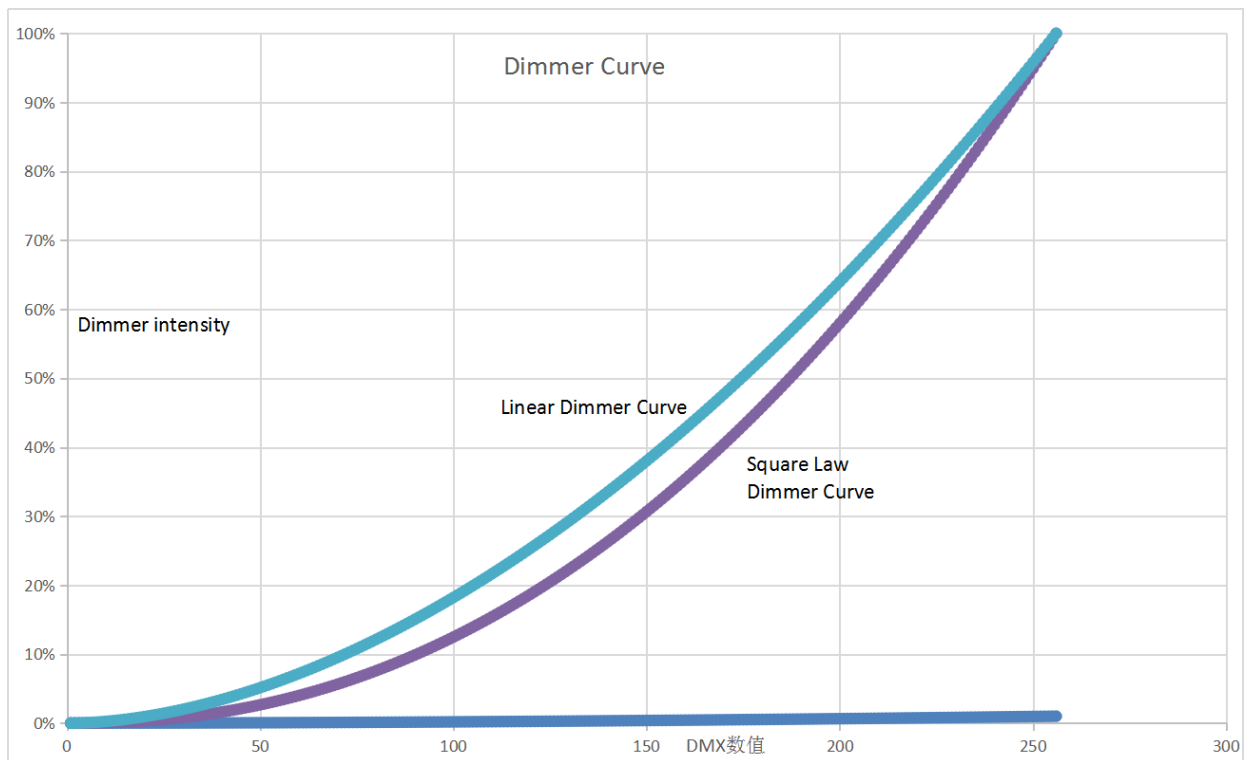
1pc frost filter, linear frost effect

### FOCUS

DMX linear Focusing

### DIMMER

0-100% Linear adjustment



There are 2 dimming curves: 1. Linear dimming curve;2. Inverse square law dimming curve. For blackout application, the inverse dimming curve has wider dimming range and is much more smooth.

### IRIS

5-100% linear adjustment with macros

### STROBE

Double shutter blades, 0.3~25 F.P.S

### HEAD MOVEMENT

Pan 540 °;Tilt 270 °with auto position correction

### **BEAM ANGLE**

linear zoom 6° ~ 55° with 16 bit function

### **CONTROL**

DMX512 5 pin interfaces

RDM control protocol

33channels in short mode, 36channels in standard mode and 52channels in extended mode

Self-test mode

### **OTHER FUNCTIONS**

Adjustable Pan & Tilt speed

Lamp and Total hours displayed

LCD English and Chinese Display with Contrast and brightness adjustable

Energy saving ballast

Built-in sensor diagnostic system

Built-in Chargeable battery and menu setting without power mains

Input signal isolation

Modular Structure for easy maintenance

Ethernet Interface

DMX512 wireless receiver

Optional DMX512 Transmitter

### **HOUSING**

High temperature ABS, IP20

### **NET WEIGHT**

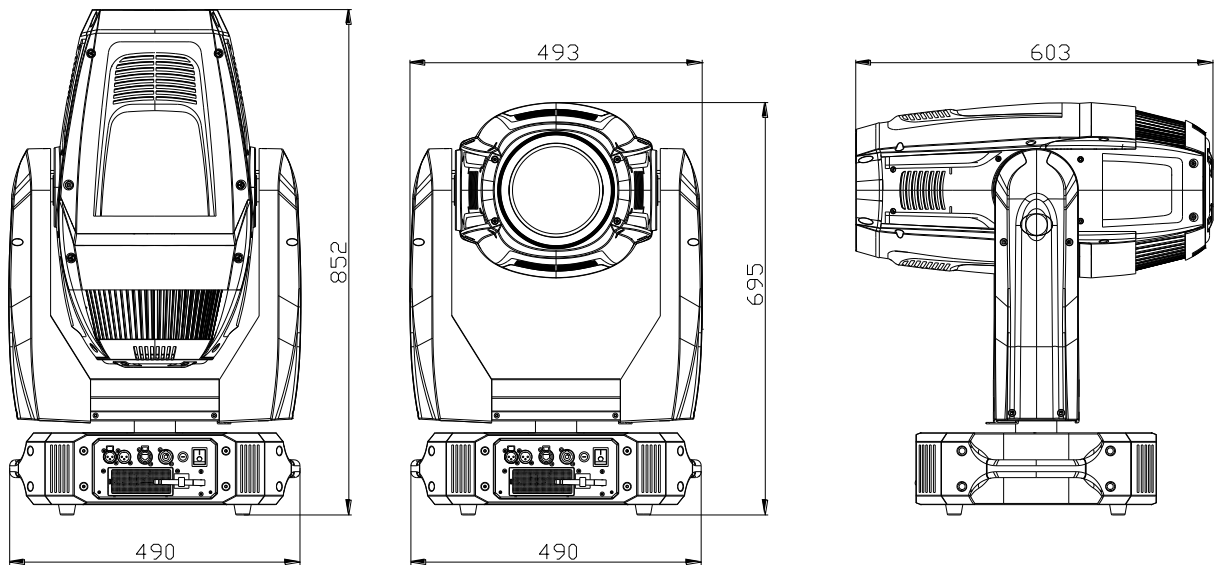
48 Kg

### **OPERATION TEMPERATURE:**

Highest ambient temperature 40 °C

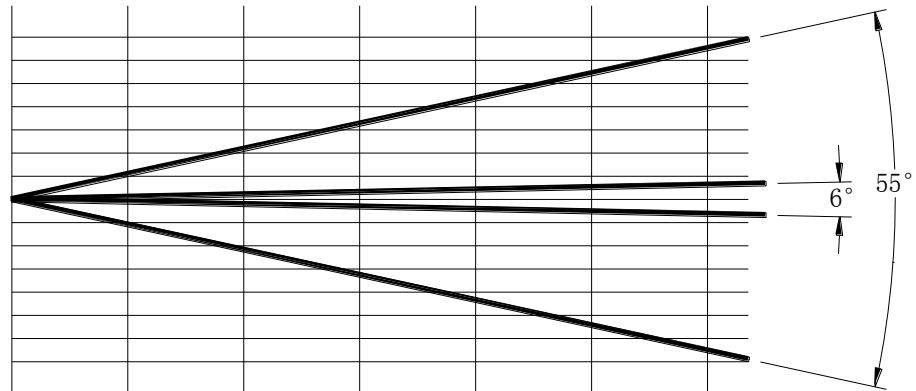
### **SIZES:**





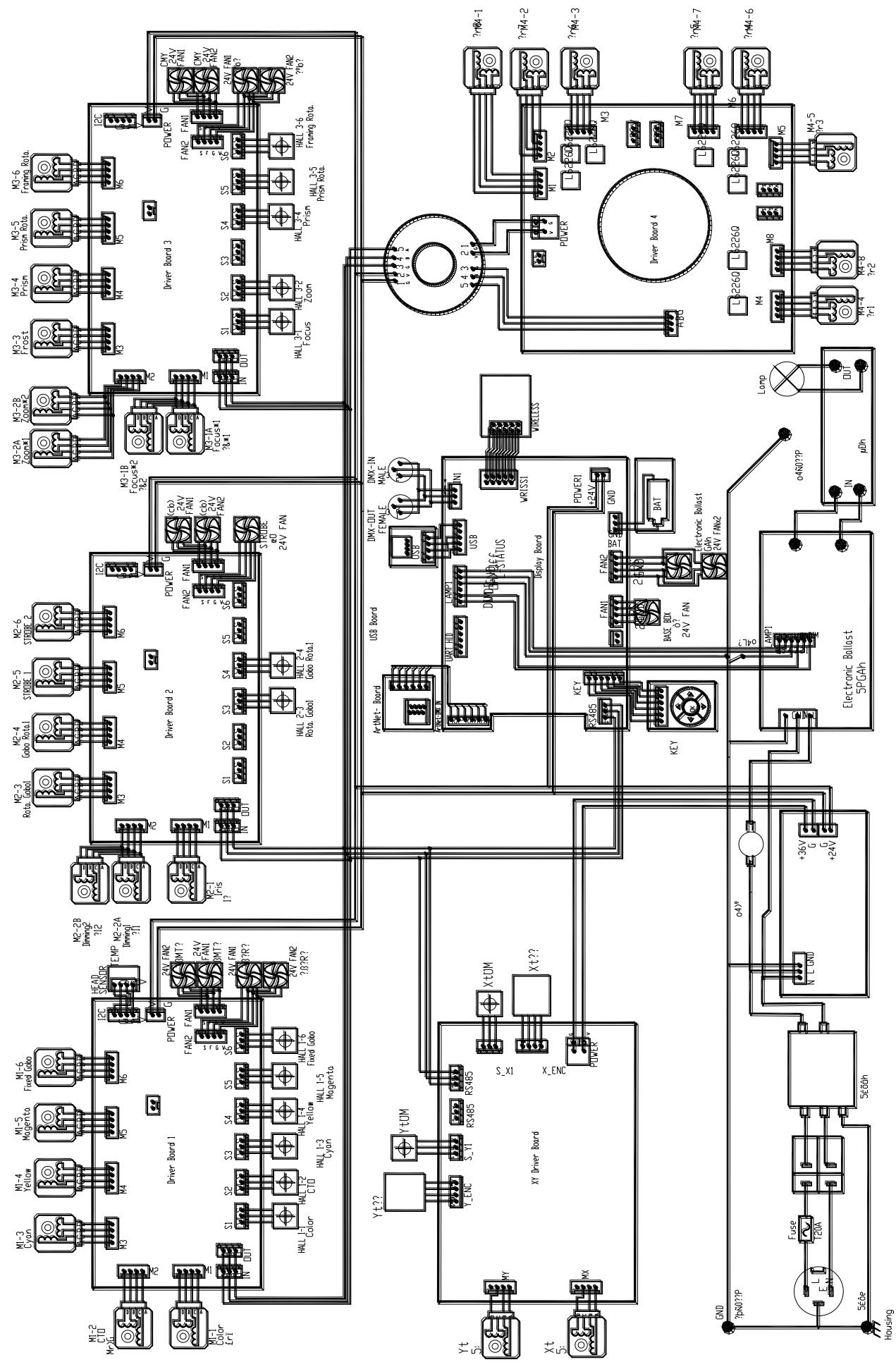
**LIGHT OUTPUT:**

55° (lux)	0	2064	516	229	129	83	57
6° (lux)	0	127684	31921	14187	7980	5107	3547



DISTANCE (m)	0m	5m	10m	15m	20m	25m	30m
6° DIAMETER (m)	0	0.53	1.06	1.59	2.12	2.65	3.18
55° DIAMETER (m)	0	4.85	9.70	14.55	19.40	24.25	29.10

**11. CIRCUIT DIAGRAM**



## 12. COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARKS
POWER SWITCH	192010136	1	
POWER FILTER	193020014	1	
THERMAL SWITCH	190010206	1	
ELECTRONIC BALLAST (1400W)	040070140	1	
LAMP (OSRAM 1400W)	100070047	1	LOK-IT! 1400W/PS OSRAM
IGNITER(1400W)	040090066	1	
TILT BELT	290151205	1	
PAN BELT	290151207	1	
LAMP FAN	030060117	2	
LAMP CERAMIC STAND FAN	030060119	2	
HEAD CHAMBER FAN	030060119	2	
STROBE FAN	030060117	1	
CMY FAN	030060119	2	
SIDE FAN	030060119	2	
BASE FAN	030060122	2	
BALLAST FAN	030069005	1	
FOCUS MOTOR	030040073	2	
ZOOM MOTOR	030040073	2	
ROTATING GOBO MOTOR	030040220A	1	
IRIS MOTOR	030040088	1	
PAN MOTOR	030040262	1	
TILT MOTOR	030040262	1	
STROBE MOTOR	030040214	2	
COLOR WHEEL MOTOR	030040214	1	
PRISM ROTATION MOTOR	030040220A	1	
PRISM REVOLUTION MOTOR	030040221	1	
ROTATING GOBO WHEEL MOTOR	030040095	1	
FRAMING ROTATING MOTOR	030040247	1	
FRAMING ,MOTOR	030040158	8	
FROST FILTER MOTOR	030040226	1	
CYM MOTOR	030040114A	3	
CTO MOTOR	030040114A	1	
DIMMER MOTOR	030040186	2	
FIXED GOBO WHEEL MOTOR	030040217A	1	

**PR LIGHTING LTD.**

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PR lighting will try its best to offer accurate and overall information about a product's technical data. Any changes won't be notified if necessary. Patented Products.  
Counterfeiting Will be Prosecuted!

P/N: 320020801B  
Old Version:20200805  
New Version:20200921