

XRLED 1500-W Framing

PR-8177A

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

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

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

Name	Quantity	Unit	Remark
G clamp	2	Pcs	
XLR connector	1	Set	Male and female
Safety cord	2	Pc	
User manual	1	Pc	
Ω clamp	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 changes are not subject to 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 5m
- If there are visible damages on the lamp, lens and protective cover for the screen, i.e., to the extent which affects its performance like cracking or deformation, please stop using it and contact the manufacture for their replacement with original parts, otherwise its performance 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

- 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 .
- The projector is of class IP65, and not used in the environment higher than it.



- 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°C. After stable operation , its temperature is 80°C.
- 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.
- Don't touch the covers of the working projector(They are very hot!)



- Do not mount the projector directly on inflammable surface.
- Do not project the beam straightly on combustibile items and the minimum distance between the projector and illuminated items is 5m.
- 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.

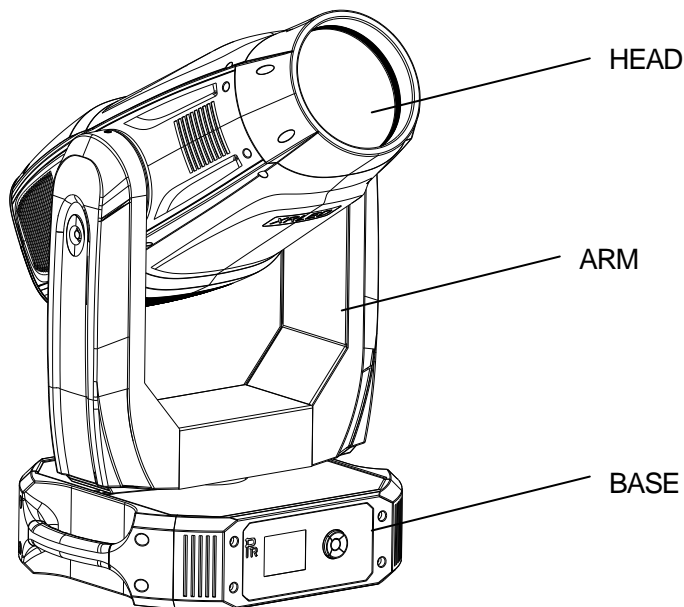
LUBRICATION

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

TROUBLESHOOTING

PROBLEM	ACTION
The projector can't be switched on	<ul style="list-style-type: none"> ➤ Check if the fuse is burned ➤ Check if the power cord is connected well ➤ Check if the switching power supply is bad or not connected well. A professional technician is required for the repair ➤ Check if the control board is connected well. .A professional technician is required for the repair
The projector can be switched on , but the LED lamp's brightness can't be controlled	<ul style="list-style-type: none"> ➤ Check if the LED driver board is connected well. A professional technician is required for the repair
The projector can be switched on normally, but not controlled by the DMX controller	<ul style="list-style-type: none"> ➤ Make sure that the fixture's start address is right ➤ Replace or repair the XLR signal cable.
The beam is not bright and its brightness decreases sharply	<ul style="list-style-type: none"> ➤ Make sure the fans are working well or fans and their shields are not blocked by dust. ➤ Make sure that the internal optics is clean.
The project image appears to have a halo	<ul style="list-style-type: none"> ➤ Carefully clean the LED lamp, optical lenses and other components.
Heavily Defective Beam	<ul style="list-style-type: none"> ➤ Check if lens are in good condition(not cracked) ➤ Clean dust or grease on the lens.

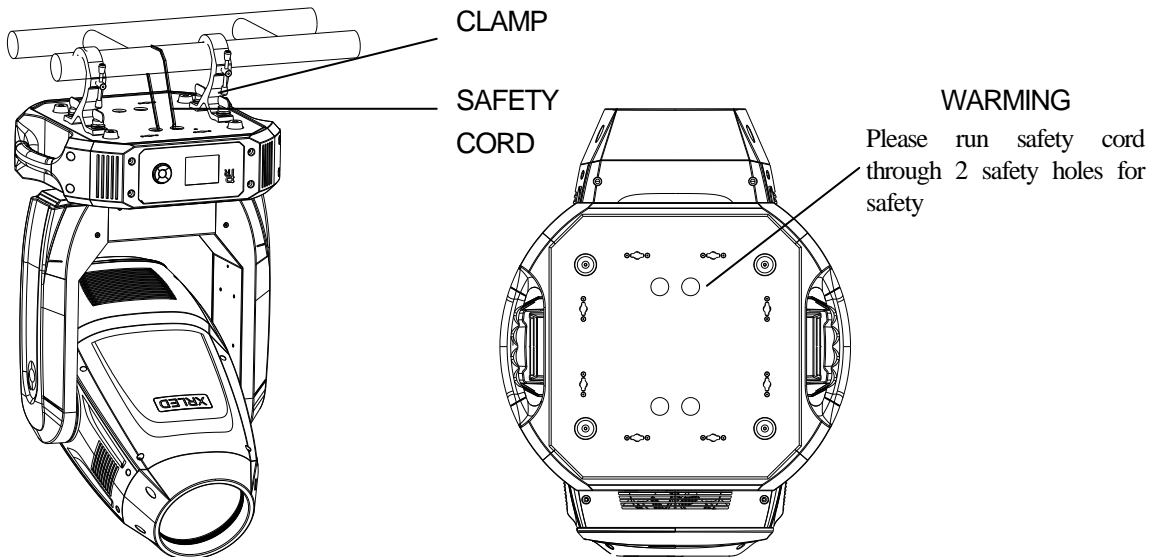
3. APPEARANCE



4. INSTALLATION

RIGGING

During transportation, please lock the projector well; Before the use of projector please unlock the head. It's forbidden to run the projector without unlock Pan and Tilt



Take 2 clamps and 1 safety cords out from the package and mount 2 clamps on the underside of fixture with 4 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) 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 is secure and is strong enough to support the weight of the fixture.



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.
- For safety, it should not be hung by its sides.

• **POWER CONNECTIONS**

Connect the power cord as follows:

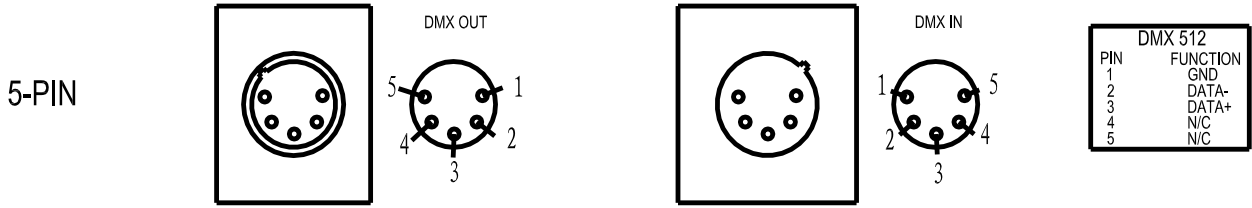
- L (live) =brown
- E (earth) =yellow/green
- N (neutral) =blue

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.
- The lighting fixture is with waterproof power socket, it should be equipped with same IP rating power plug.

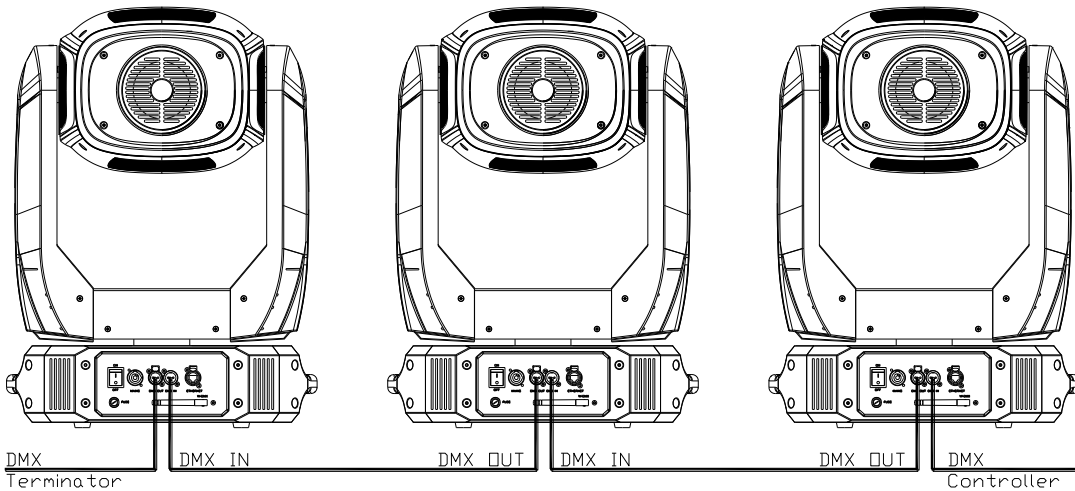
.DMX CONTROL CONNECTION



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 projector accepts digital control signals in protocol DMX512 (1990).

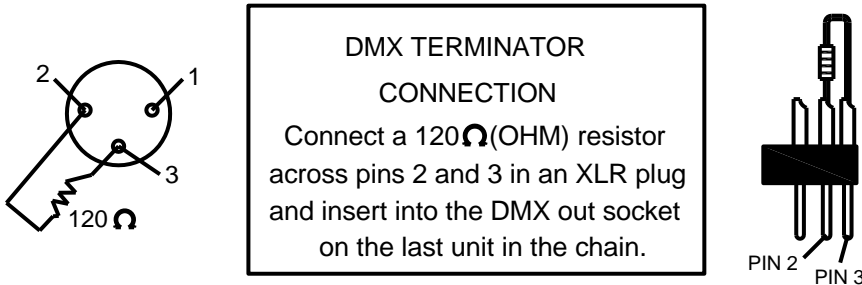
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



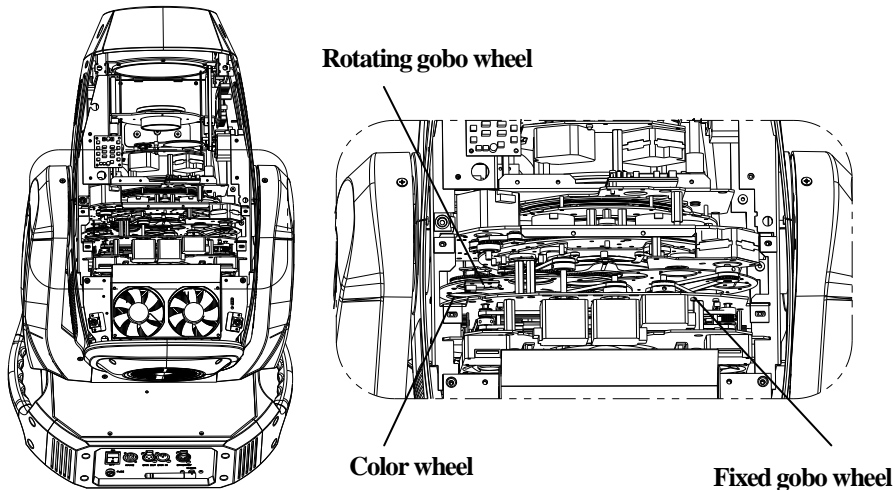
.DMX TERMINATOR

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



.REPLACEMENT OF GOBOS



Lock the tilt and unfasten 6 fast fit screws in the front cove. Open the cover and you'll see the structures as the figures above.

For the replacement of color filters, use the fingers to remove the filters and place new ones.

For the rotating gobos: remove the rotator by hand; remove the gobo after the tightening spring for the gobo is taken out. Place a new gobo in the rotator and put back the spring. And ensure the spring is into the narrow end of the rotator, i.e., inner ring of the rotator. At last, use a proper tool to pull the tightening clip and put the rotator back to the wheel with the help of the other hand.

Note: Do not touch the color filters ,glass gobos with bare hand. There must be soft and clean paper or cloth between the hand and the glass gobo. Tighten the 6 fast fit screws after the cover is put back. Unlock the Tilt.

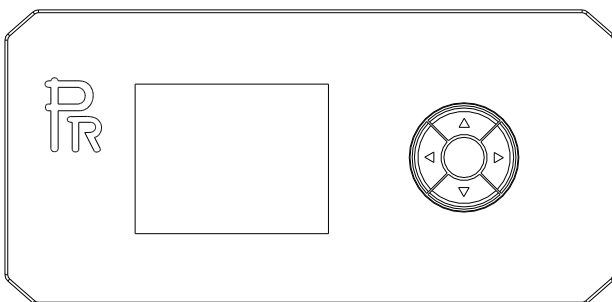


DANGER!

BEFORE THE REPLACEMENT OF GOBO AND COLOR FILTER, THE PROJECTOR MUST BE OFF POWER.

5. SETUP AND CONFIGURATION



.FRONT PANEL OPERATION



The configuration and start address can be set conveniently via push button and color touch screen.

To view or change its setup, touch any white area of the screen or push the key OK for more than 3 seconds to unlock the display(While only on battery, push OK key). After the unlocking, push ► key to enter into function menus. Each main menu has its submenus and each submenu has a specific function. For details, please see the “OPERATION MENU” with following the 6th point..

1. In the page of function setup, push any key of ◀, ▶, ▲ and ▼ or icon for the function desired.
2. At 2nd ,3rd and 4th level menus, key ◀ means ESCAPE, key ▶ won't function, key OK means ENTER. Push key OK to







save any changes or enter into submenus. Push key  or  to change numbers (plus or minus) or tap any item required for changes.

Push the left key or shortcut key X to go back to the upper level menu. If none pushed, the system will go back to initial display automatically.

Shortcut keys: after the interface of FUNCTION MENU, the upper part is with menus for many functions. On the right, there are 4 shortcut keys, which are ←, →, lamp control or English/Chinese menus.



• 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 3 DMX modes. There are short mode, standard mode and extended mode. For example standard mode has 38 channels, so set the No. 1 projector’s address 001, No. 2 projector’s address 039, No. 3 projector’s address 077, No. 4 projector’s address 115, and so on.

Launch the projector. Press key  more than 3 seconds to unlock the display. After the unlocking, push key  to enter into menus. After selecting the sign of DMX setting, push OK key or tap the screen directly and select DMX address at 2nd level menus. Push key  or  or tap sign < or > to set the number desired. Push  key to confirm. Push key  and it will return to the upper menu.

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

The setup of it is below:

1. Enter into the projector’s menu. Select the menu “Config Settings” via the keys of  and .
2. Select **DMX control Mode**— **Wireless First** (Note: Do not select **XLR ONLY**). The DMX wireless control function is activated.

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 Unlink Wireless under the upper level menu of Config Settings.

• STAND-ALONE MODE

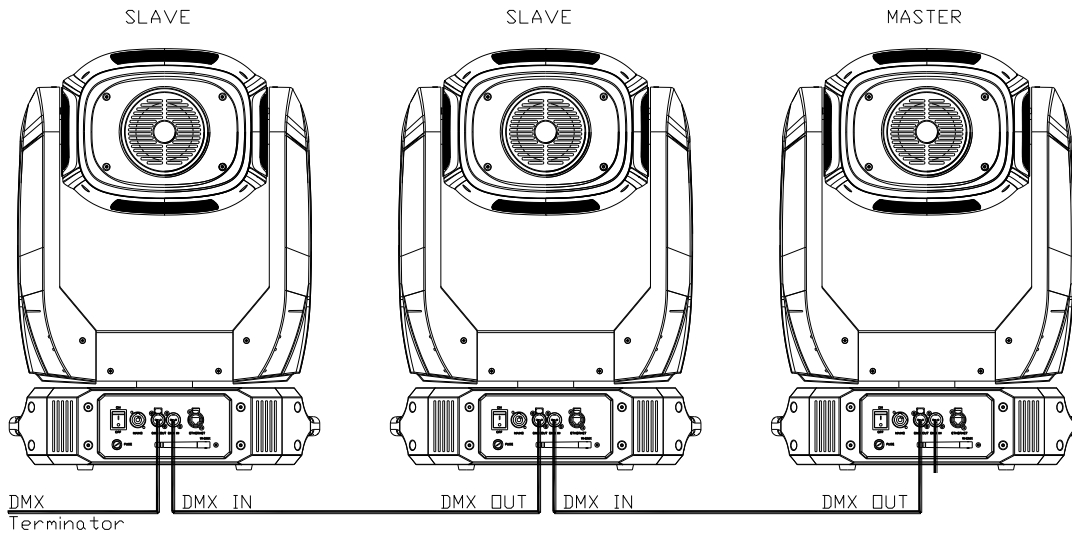
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically. DMX address can be set at any number within 512.

• 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



6. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL	
Address	DMX Address	1-477 (Short Mode) 1-474 (Standard Mode) 1-458 (Extended Mode)			
	IP Address	Default IP Address	2.X.X.X /10.X.X.X		
	SubNet Mask	Custom IP Address	X.X.X.X		
	ArtNet ArtNet Universe	X.X.X.X 0-255			
Reset	Total Reset	Really Reset?	Confirm/ Cancel		
	Pan&Tilt Reset	Really Reset?	Confirm/ Cancel		
	Colour System Reset	Really Reset?	Confirm/ Cancel		
	Gobo Reset	Really Reset?	Confirm/ Cancel		
	Zo.Fo.Fr.Pr. Reset	Really Reset?	Confirm/ Cancel		
	Other Reset	Really Reset?	Confirm/ Cancel		
Config Settings	DMX Channel Mode	Short Mode			
		Standard Mode			
		Extended Mode			
		View Selected Mode		Strobe	
	Signal Select	XLR Only			
		XLR First			
		Wireless Only			
		Wireless First			
		Wireless In/XLR Out			
		Artnet Only			
	Loss of DMX	Artnet In/XLR Out			
		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?	Confirm/ Cancel		
	Defaults	Restore Defaults?	Confirm/ Cancel		
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	Iris Invert	OFF/ ON		
		Zoom Invert	OFF/ ON		
		CYM Invert	OFF/ ON		
		CTO Invert	OFF/ ON		
	Dimmer Settings	Gamma Curve	Gamma 2.0/2.2/2.4/2.6		
		LED Refresh Rate	1200/2400/4800/10000/12000/15000/20000/25000Hz		
		Dimmer Speed	Fast/Medium/Slow Speed		
Fan Settings	Standard/Theatre				
Restore Defaults	Restore Defaults?	Confirm/ Cancel			
Information	View DMX Values				
	Lamp Hours	Reset Lamp Hours			
	Total Hours				
	Temperature	Display Board XX°C/F			
		Pan and Tilt Board XX°C/F			
		Driver Board 1 XX°C/F			
		Driver Board 2 XX°C/F			
		Driver Board 3 XX°C/F			
		Driver Board 4 XX°C/F			
		Blade Board XX°C/F			
		Fan Board XX°C/F			
	LED XX°C/F				
	LED Sensor XX°C/F				
	Software Version	Display Board	System= XXX Boot =XXX		
		Pan and Tilt Board	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		
		Driver Board4	System= XXX Boot =XXX		
		Blade Board	System= XXX Boot =XXX		
		Fan Board	System= XXX Boot =XXX		
	Electronic SN	Electronic SN= *****			
RDM Device Label	RDM Device Label ANSI E1.20 RDM Version X.X				
Fan Status	LED Fan				
	Head Fan1				
	Head Fan2				

Service	Manual Effect Control	Strobe XXX		
		Dimmer XXX		
		...		
	Factory Test			
Operation Mode	DMX Mode	Change Operation Mode?	Confirm/ Cancel	
	Master Mode	Preset Memory	Change Operation Mode?	Confirm/ Cancel
		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 Password 123
Reset User Memory 2		Reset User Memory?	Input Password 123	
Reset Static Scene		Reset Static Scene?	Input Password 123	

Remark:

1. In the synchronous control of multiple projectors parameters can be transmitted from the master including: DMX mode, display setting, operation mode(user memory);
2. all projectors Accepting parameters will automatically be set to slave mode.

7. DMX PROTOCOL

Short mode	Standard mode	Extended mode	Function Description	Decimal Low	Decimal High
1	1	1	Strobe		
			Close	0	0
			Pulse strobe speed from slow to fast	1	127
			Strobe speed slow to fast	128	255
2	2	2	Dimmer		
			Close	0	3
			Dimmer from dark to light (0-100%)	4	255
	3	3	Dimmer Fine		
			Fine dimmer	0	255
3	4	4	CYM Macro		
			The following functions can be used after CMY,CTO, and Color Wheels1 and Color Wheel2		
			No Function	0	9
			Colour Macro 1	10	11
			Colour Macro 2	12	13
			Colour Macro 3	14	15
			Colour Macro 4	16	17
			Colour Macro 5	18	19
			Colour Macro 6	20	21
			Colour Macro 7	22	23
			Colour Macro 8	24	25
			Colour Macro 9	26	27
			Colour Macro 10	28	29
			Colour Macro 11	30	31
			Colour Macro 12	32	33
			Colour Macro 13	34	35
			Colour Macro 14	36	37
			Colour Macro 15	38	39
			Colour Macro 16	40	41
			Colour Macro 17	42	43
			Colour Macro 18	44	45
			Colour Macro 19	46	47
			Colour Macro 20	48	49
			Colour Macro 21	50	51
			Colour Macro 22	52	53
			Colour Macro 23	54	55
			Colour Macro 24	56	57
Colour Macro 25	58	59			
Colour Macro 26	60	61			

Colour Macro 27	62	63
Colour Macro 28	64	65
Colour Macro 29	66	67
Colour Macro 30	68	69
Colour Macro 31	70	71
Colour Macro 32	72	73
Colour Macro 33	74	75
Colour Macro 34	76	77
Colour Macro 35	78	79
Colour Macro 36	80	81
Colour Macro 37	82	83
Colour Macro 38	84	85
Colour Macro 39	86	87
Colour Macro 40	88	89
Colour Macro 41	90	91
Colour Macro 42	92	93
Colour Macro 43	94	95
Colour Macro 44	96	97
Colour Macro 45	98	99
Colour Macro 46	100	101
Colour Macro 47	102	103
Colour Macro 48	104	105
Colour Macro 49	106	107
Colour Macro 50	108	109
Colour Macro 51	110	111
Colour Macro 52	112	113
Colour Macro 53	114	115
Colour Macro 54	116	117
Colour Macro 55	118	119
Colour Macro 56	120	121
Colour Macro 57	122	123
Colour Macro 58	124	125
Colour Macro 59	126	127
Colour Macro 60	128	129
Colour Macro 61	130	131
Colour Macro 62	132	133
Colour Macro 63	134	135
Colour Macro 64	136	137
Colour Macro 65	138	139
Colour Macro 66	140	141
Colour Macro 67	142	143
Colour Macro 68	144	145
Colour Macro 69	146	147

			Colour Macro 70	148	149
			Colour Macro 71	150	151
			Colour Macro 72	152	153
			Colour Macro 73	154	155
			Colour Macro 74	156	157
			Colour Macro 75	158	159
			Colour Macro 76	160	161
			Colour Macro 77	162	163
			Colour Macro 78	164	165
			Colour Macro 79	166	167
			Colour Macro 80	168	169
			Colour Macro 81	170	171
			Colour Macro 82	172	173
			Colour Macro 83	174	175
			Colour Macro 84	176	177
			Colour Macro 85	178	179
			Colour Macro 86	180	181
			Colour Macro 87	182	183
			Colour Macro 88	184	185
			Colour Macro 89	186	187
			Colour Macro 90	188	189
			Colour Macro 91	190	191
			Colour Macro 92	192	193
			Colour Macro 93	194	195
			Colour Macro 94	196	197
			Colour Macro 95	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		
			Continual positioning		
			index 0-360 °	0	63
			positioning		
			White	64	67
			White/Color1(UV)	68	71
			Color1(UV)	72	75
			Color1(UV)/Color 2(Red)	76	79
			Color 2(Red)	80	83
			Color 2(Red)/Color 3(Pink)	84	87
			Color 3(Pink)	88	91
			Color 3(Pink)/ Color 4(Orange)	92	95
			Color 4(Orange)	96	99
			Color 4(Orange)/Color 5(Green)	100	103
			Color 5(Green)	104	107
			Color 5 (Green)) /Color 6 (Blue)	108	111
			Color 6(Blue)	112	115
			Color6(Blue)/ White	116	119
			White	120	127
			Clockwise rainbow effect rotation speed from slow to fast	128	191
Anti-clockwise rainbow effect rotation speed from slow to fast	192	255			
	10	14	Color Wheel Fine		
			Color Continual positioning in 16 Bit precision	0	255
9	11	15	Iris		
			Linear Iris from small to big 0-100%	0	255
		16	Iris in 16 bit		
			Iris in 16 bit precision	0	255
10	12	17	Iris Macro		
			Iris Macro disabled	0	10
			Iris Macro1: from big to small with speed from slow to fast	11	74
			Iris Macro2: from small to big with speed from slow to fast	75	138
			Iris Macro3: Iris contracts from slow to fast	139	202
			Iris Macro4(Macro1 at random) with speed from slow to fast	203	210
			Iris Macro5(Macro2 at random) with speed from slow to fast	211	218
			Iris Macro6(Macro3 at random) with speed from slow to fast	219	226
			Open	227	255
11	13	18	Fixed gobo wheel		
			White	0	15
			Gobo1	16	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 shake from slow to fast	172	183
			Gobo2 shake from slow to fast	184	195
			Gobo3 shake from slow to fast	196	207
			Gobo4 shake from slow to fast	208	219
			Gobo5 shake from slow to fast	220	231
			Gobo6 shake from slow to fast	232	243
			Gobo7 shake from slow to fast	244	255
			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 shake from slow to fast	160	175
			Gobo2 shake from slow to fast	176	191
			Gobo3 shake from slow to fast	192	207
			Gobo4 shake from slow to fast	208	223
			Gobo5 shake from slow to fast	224	239
			Gobo6 shake from slow to fast	240	255
			Rotating gobo wheel rotation		
			Indexing 0-360 °	0	128
			Clockwise rotation from slow to fast	129	188
			Stop	189	195
			Anti-clockwise rotation from slow to fast	196	255
			Rotating gobo wheel rotation in 16 bit		
			Rotating gobo wheel fine rotation	0	255
			Framing blade 1 left		
			Framing blade 1 left linearly closing from big to small	0	255
			Framing blade 1 left in 16 bit		
			Framing blade 1 left fine adjustment	0	255
			Framing blade 1 right		
			Framing blade 1 right linearly closing from big to small	0	255
			Framing blade 1 right in 16 bit		
			Framing blade 1 right fine adjustment	0	255

16	19	26	Framing blade 2 left		
			Framing blade2 left linearly closing from big to small	0	255
		27	Framing blade 2 left in 16 bit		
			Framing blade 2 left fine adjustment	0	255
17	20	28	Framing blade 2 right		
			Framing blade 2 right linearly closing from big to small	0	255
		29	Framing blade 2 right in 16 bit		
			Framing blade 2 right fine adjustment	0	255
18	21	30	Framing blade 3 left		
			Framing blade 3left linearly closing from big to small	0	255
		31	Framing blade 3 left in 16 bit		
			Framing blade 3 left fine adjustment	0	255
19	22	32	Framing blade 3 right		
			Framing blade 3 right linearly closing from big to small	0	255
		33	Framing blade 3right in 16 bit		
			Framing blade 3right fine adjustment	0	255
20	23	34	Framing blade 4 left		
			Framing blade 4left linearly closing from big to small	0	255
		35	Framing blade 4left in 16 bit		
			Framing blade 4 left fine adjustment	0	255
21	22	36	Framing blade 4 right		
			Framing blade 4 right linearly closing from big to small	0	255
		37	Framing blade 4right in 16 bit		
			Framing blade 4right fine adjustment	0	255
22	25	38	Framing module rotation		
			Framing module indexing(0-360degrees)	0	127
			Stop	128	
			Framing module clockwise rotation from slow to fast	129	188
			Stop	189	195
			Framing module anti-clockwise rotation from slow to fast	196	255
		39	Framing module rotation in 16 bit		
			Framing module fine rotation	0	255
23	26	40	Prism		
			No Prism	0	16
			Prism	17	255
24	27	41	Prism rotation		
			Prism index	0	127
			Prism stops	128	
			Rotation speed from slow to fast	129	191
			Stop rotating	192	
			Reverse rotation speed from slow to fast	193	255
25	28	42	Effect Wheel		
			No effect wheel	0	19

			Effect wheel in	20	255
26	29	43	Effect Wheel Rotation		
			Forwards rotation from slow to fast	0	127
			Reverse rotation from slow to fast	128	255
27	30	44	Frost		
			Light Frost from 0% to 100%	0	255
28	31	45	Focus		
			Linearly focusing	0	255
		46	Focus Fine		
			Focus in 16 precision	0	255
29	32	47	Zoom		
			Linearly zooming	0	255
		48	Zoom Fine		
			Zoom in 16 Bit precision	0	255
30	33	49	Pan		
			Pan movement	0	255
31	34	50	Pan Fine		
			Pan movement in 16 bit precision	0	255
32	35	51	Tilt		
			Tilt movement	0	255
33	36	52	Tilt fine		
			Tilt movement 16 bit precision	0	255
34	37	53	Pan/Tilt speed		
			Fast Speed Mode	0	1
			Pan &Tilt speed from fast to slow	2	255
35	38	54	Power/Special functions		
			No function:	0	4
			Reserved	5	19
			To activate following functions, stay in DMX value for at least 5 s		
			Graphic display On	20	24
			Graphic display Off	25	29
			Reserved	30	44
			Reserved	45	46
			Fan standard mode	47	48
			Fan theater mode	49	50
			Reserved	51	52
			Fast speed dimmer	53	54
			Mid speed dimmer	55	56
			Slow speed dimmer	57	58
			Gamma curve 2.0	59	60
			Gamma curve 2.2	61	62
Gamma curve 2.4	63	64			

		Gamma curve 2.6	65	66
		LED refresh rate 1200Hz	67	68
		LED refresh rate 2400Hz	69	70
		LED refresh rate 4800Hz	71	72
		LED refresh rate 10000Hz	73	74
		LED refresh rate 12000Hz	75	76
		LED refresh rate 15000Hz	77	78
		LED refresh rate 20000Hz	79	80
		LED refresh rate 25000Hz	81	82
		Reserved	83	89
		Pan/Tilt speed mode	90	94
		Pan/Tilt time mode	95	99
		Reserved	100	129
		Reserved	130	139
		Pan/Tilt reset	140	149
		Colour system reset	150	159
		Gobo wheels reset	160	169
		Reserved	170	179
		Zoom/focus/frost/prism reset	180	189
		Others(Iris/ effect wheel/Framing module) reset	190	199
		Total reset	200	209
		Reserved	210	229
		Reserved	240	255

Note:

1. The DMX channel priority from high to low: Focus, Zoom, Prism, Frost;
2. While the higher priority DMX channels are in use, lower ones won't work;

8. TECHNICAL DATA

ELECTRICAL PARAMETERS

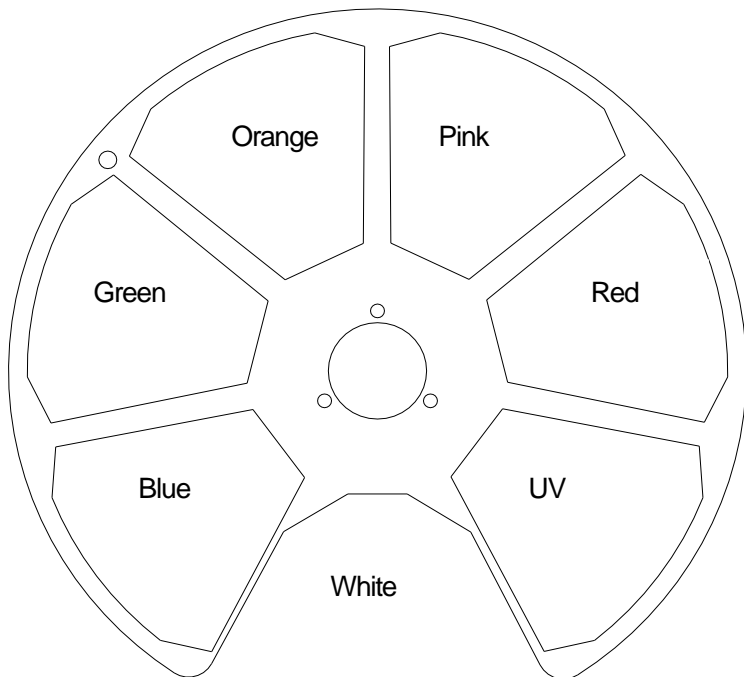
Input voltage: 100V-240V AC, 50/60Hz

Input power: 880 W @220V AC
930 W @100V AC

Power factor: PF>0.9

SPECIFICATIONS OF LIGHT SOURCE

Lamp 600W
Colour Temperature 8000K
Manufacturers Rated Lamp Life 20000hrs
Ra ≥70
Ra ≥95 , R9 ≥90 Lamp: Optional



COLORS

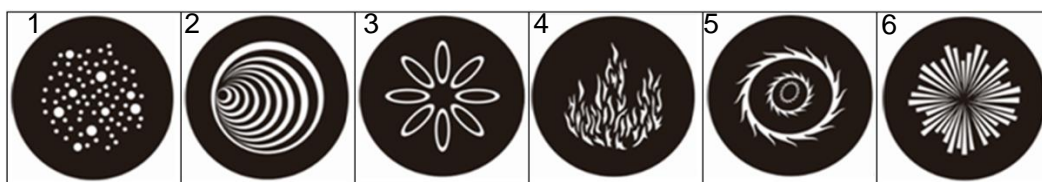
CMY linear coloring mixing system with macros
1 Color Wheel
6 color s+ white
Bi-directional rainbow effect with variable speeds and half color effect
Linear /stepping color changing

CTO

Linear CTO system(0-100%)

GOBOS

1 rotating gobo wheel: 6 exchangeable+ white, glass or metal gobos
Bi-directional rotation, indexing, shake with varied speeds, bi-directional scrolling with varied speeds
Rotating gob wheel:



1 fixed gobo wheel
7 exchangeable gobos+ white
Shake effect with varied speeds and bi-directional rotation with varied speeds
Fixed gob wheel



Rotating gobo external size: 37.5mm; fixed gobo size 36.3mm

Image size of rotating gobo is $\Phi 24\text{mm}$, image size of fixed gobos is $\Phi 23\text{mm}$

FRAMING MODULE

Continual rotation with graphics with different sizes and shapes

4 blades for full curtain effect

PRISM

1pc 4 facet prism, bi-directional rotation with varied speeds and indexing function

FROST

Linear frost (0-100%)

EFFECT WHEEL

1 exchangeable graphic effect wheel, bi-directional rotation with varied speeds

FOCUS

0-100% linearly adjustable by DMX

DIMMER

Linear dimmer 0-100%

3 dimmer speeds

4 dimmer gamma curves

Dimmer frequency(1.2K~2.5K) good for high speed 4K video camera

IRIS

Linear iris 5-100% with macros

STROBE

Double shutter blades, 0.3~25 FPS

HEAD MOVEMENT

Pan 540 °, Tilt 270 ° with auto position correction

BEAM ANGLE

Linear zoom 6 °~ 56 ° with 16 bit precision

CONTROL

International standard DMX512 signal , 5 pin interface(Optional 3pin interface)

RDM control protocol

ArtNet protocol

35channels in short mode, 38channels in standard mode, 54channel in extended mode

Stand-alone mode

Master mode

OTHER FUNCTIONS

Adjustable Pan & Tilt speeds

- Pan and Tilt swappable and invertible
- Fixture and lamp hours' display
- Color screen, Chinese-English menus, brightness and contrast adjustable
- Diagnostic system with sensors
- Built-in rechargeable battery for settings via control panel without mains power
- Software version display
- Protection and insulation of input signals
- Modular construction for easy maintenance
- ArtNet interface
- DMX512 wireless receiver
- DMX512 wireless transmitter

HOUSING

High temperature resistant, IP20

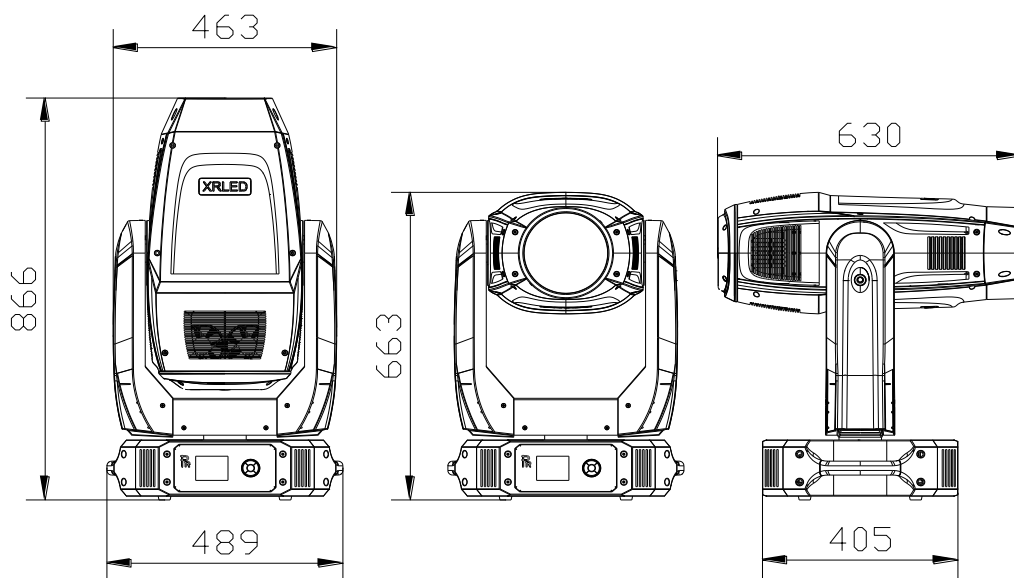
WEIGHT

44Kg

AMBIENT TEMPERATURE

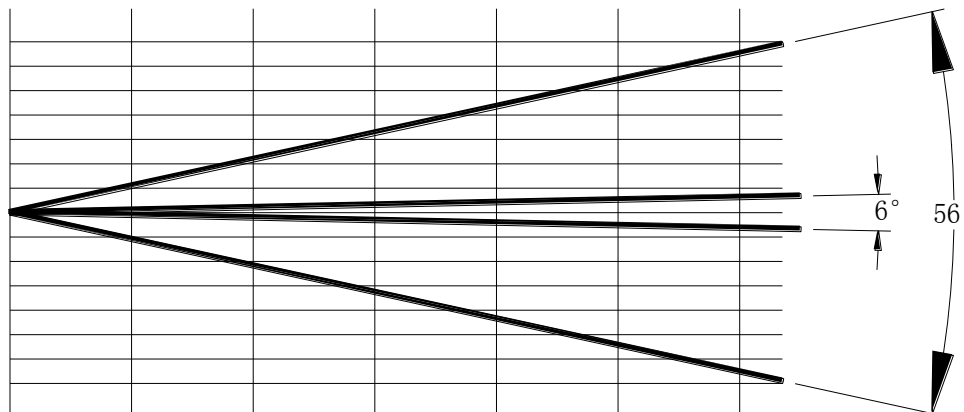
-20°C~45°C

SIZES:



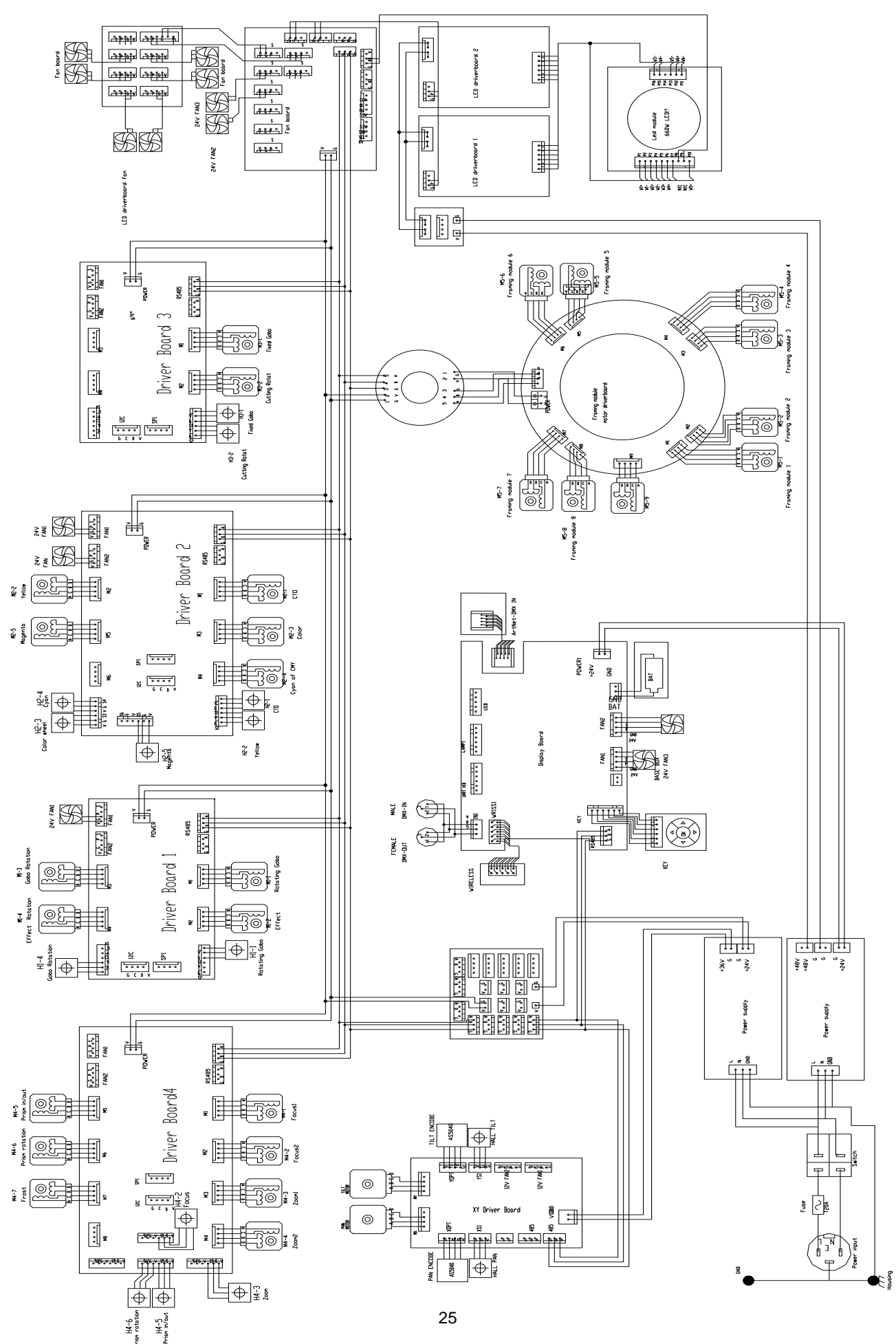
LIGHT OUTPUT:

56° (lux)	0	1882	470	209	117	75	52
6° (lux)	0	68560	17690	7862	4422	2830	1966



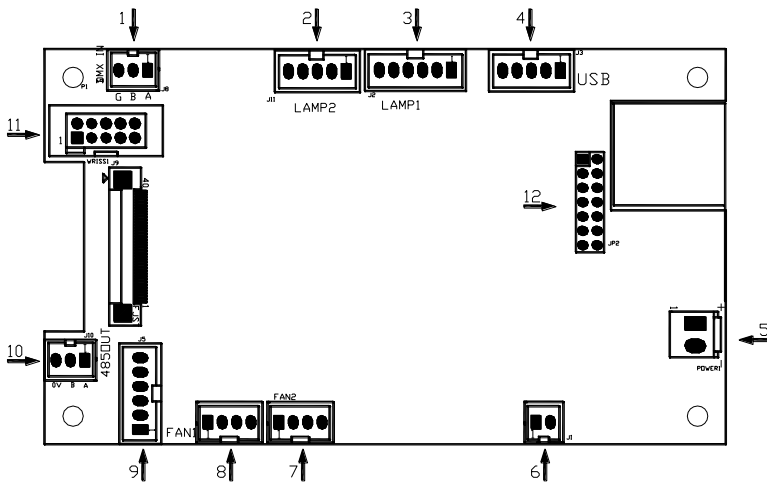
Distance (m)	0m	5m	10m	15m	20m	25m	30m
6° Diameter (m)	0	0.6	1.19	1.79	2.38	2.98	3.57
56° Diameter (m)	0	4.90	9.79	14.69	19.59	24.49	29.38

9. CIRCUIT DIAGRAM



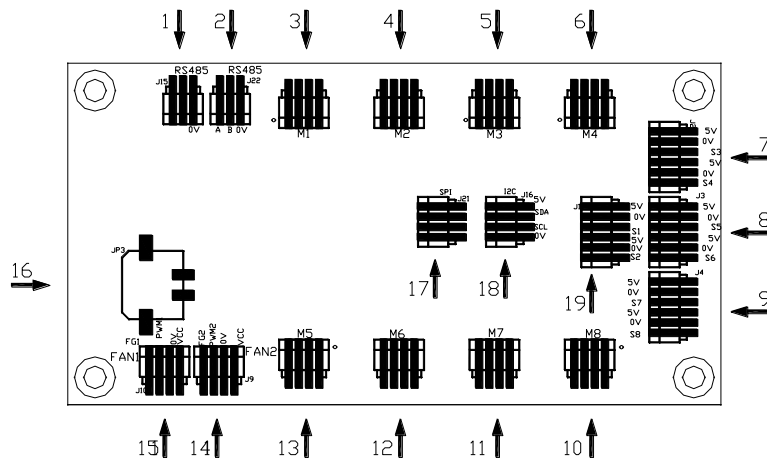
PCB CONNECTIONS

•Master board



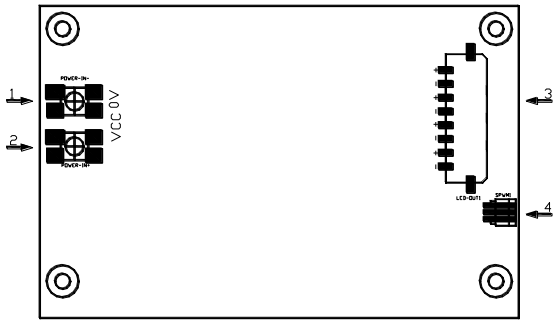
No	Name
1	DMX512 signal input
2	Reserved
3	Reserved
4	Reserved
5	Power input
6	Reserved
7	Fan
8	Fan
9	Key
10	485 signal input
11	Wireless signal input
12	Ethernet module interface

• 8-channel driver board1



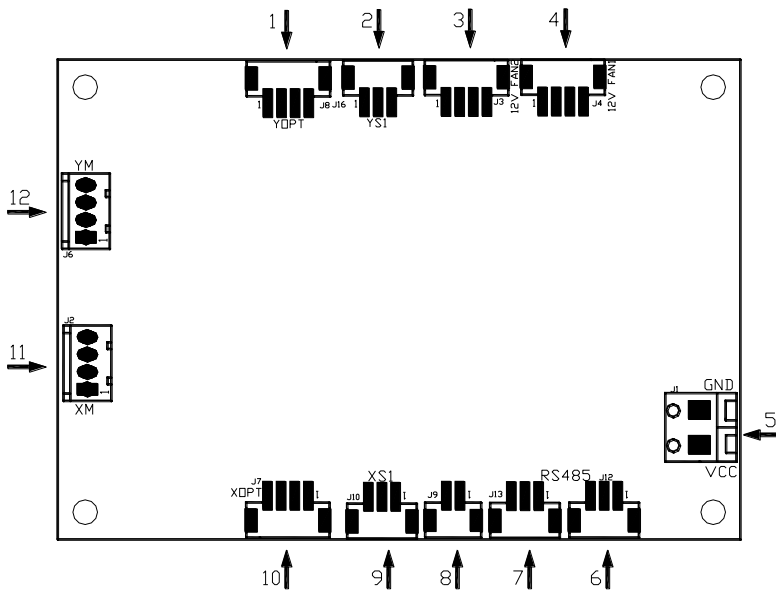
No	Name
1	485 signal input
2	485 signal output
3	Focus 1
4	Focus 2
5	Zoom 1
6	Zoom 2
7	Magnet sensor for zoom
8	Magnet sensor for prism/prism rotation
9	Reserved
10	Reserved
11	Frost filter
12	Prism rotation
13	Prism
14	Reserved
15	Reserved
16	Power input
17	Reserved
18	Reserved
19	Magnet sensor for focus

•LED driver board



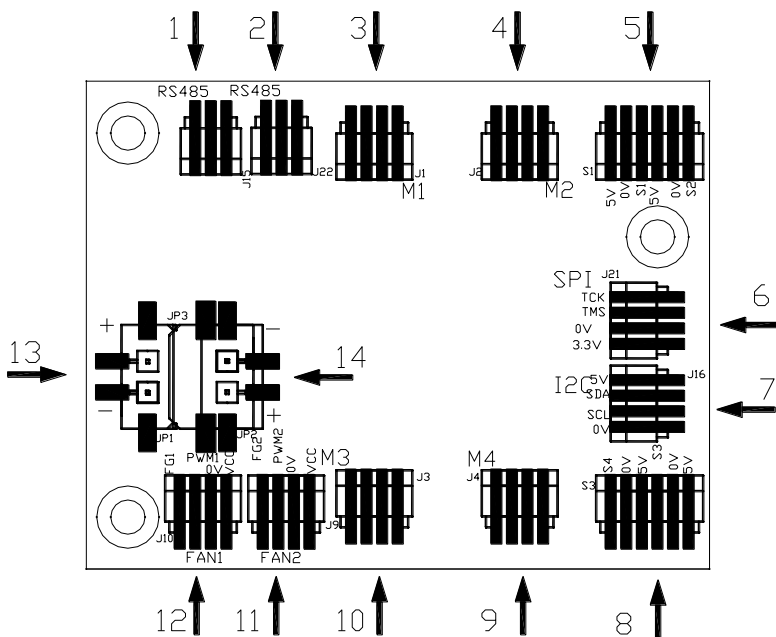
No	Name
1	Power input –negative
2	Power input positive
3	LED output
4	PWM input

•Pan /Tilt driver board



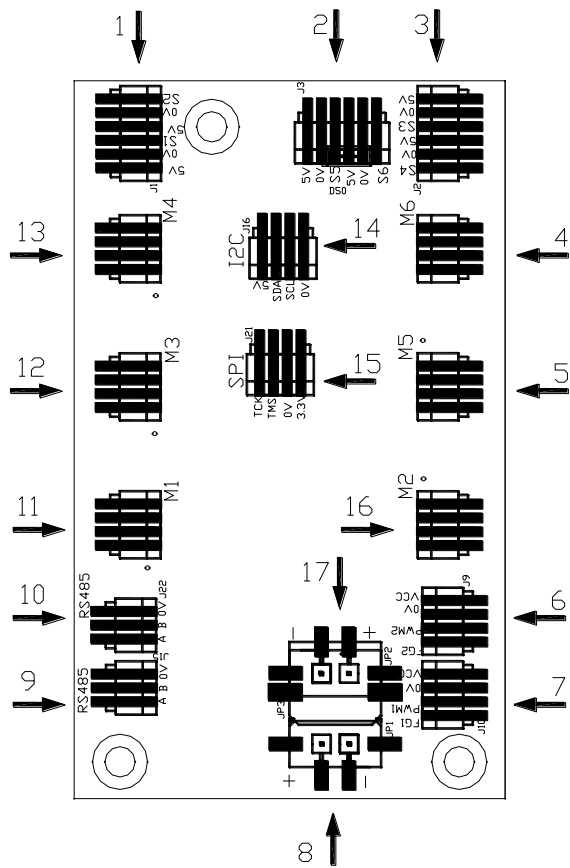
No	Name
1	Optical sensor for Tilt
2	Magnet sensor for Tilt
3	Reserved
4	Reserved
5	Power input
6	485 signal output
7	485 signal input
8	Reserved
9	Magnet sensor for Pan
10	Optical sensor for Pan
11	Pan motor
12	Tilt motor

• 4-channel driver board



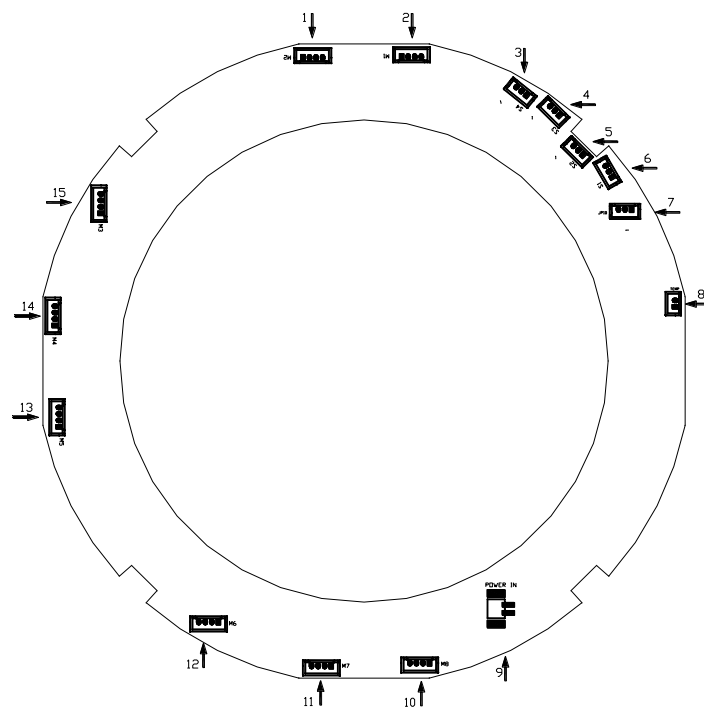
No	Name
1	485 signal input
2	485 signal output
3	Gobo wheel rotation
4	Effect wheel
5	Magnet sensor for gobo wheel rotation
6	Reserved
7	Reserved
8	Magnet sensor for gobo rotation
9	Effect wheel rotation
10	Gobo rotation
11	Reserved
12	Fan
13	Reserved
14	Power input

•6-channel driver board



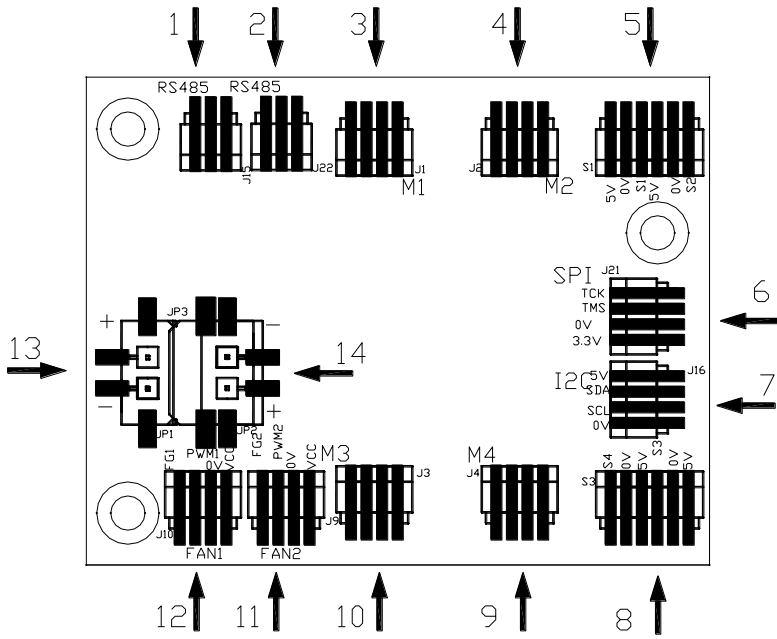
No	Name
1	Magnet sensor for magenta/CTO
2	Magnet sensor for yellow flag
3	Magnet sensor for color filters/cyan flag
4	Reserved
5	Yellow
6	Fan
7	Fan
8	Reserved
9	485 signal input
10	485 signal output
11	Magenta
12	Color wheel
13	Cyan
14	Reserved
15	Reserved
16	CTO
17	Power input

•Framing module driver board



No	Name
1	Framing blade motor2
2	Framing blade motor1
3	Program flashing interface
4	Framing blade motor8
5	Framing blade motor7
6	Iris
7	Framing blade motor6
8	Framing blade motor5
9	Framing blade motor4
10	Framing blade motor3
11	Reserved

• 2-channel driver board



No	Name
1	485 signal input
2	485 signal output
3	Gobo wheel
4	Framing module rotation
5	Framing module rotation/ fixed gobo wheel magnet sensor
6	Reserved
7	Reserved
8	Reserved
9	Reserved
10	Reserved
11	Reserved
12	Reserved
13	Power input
14	Power input

10. COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARK
SWITCHING POWER SUPPLY	192010215	1	
SWITCHING POWER SUPPLY	192010226	1	
LED ENGINE MODULE	150020323	1	
LED ENGINE MODULE FAN	030060074C	4	
HEAD FAN	030040119	2	
TILT BELT	290151207	1	
PAN BELT	290151240	1	
FOCUS MOTOR	030040213A	2	
ZOOM MOTOR	030040154A	2	
PRISM IN/OUT MOTOR	030040253	1	
PRISM ROTATION MOTOR	030040203	1	
FROST MOTOR	030040073	1	
ROTATING GOBO WHEEL MOTOR	030040152	1	
GOBO ROTATION MOTOR	030040131	1	
FIXED GOBO WHEEL MOTOR	030040154A	1	
FRAMING ROTATING MOTOR	030040158	1	
FRAMING BLADE MOTOR	030040247	8	
IRIS MOTOR	030040088	1	
EFFECT WHEEL IN/OUT MOTOR	030040149	1	
EFFECT WHEEL ROTATING MOTOR	030040061	1	
COLOR WHEEL MOTOR	030040131	1	
CYM MOTOR	030040211A	3	
CTO MOTOR		1	
PAN MOTOR	030040246A	1	
TILT MOTOR		1	

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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.
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P/N: 320020991
Old Version: 20200928
New Version:20201030