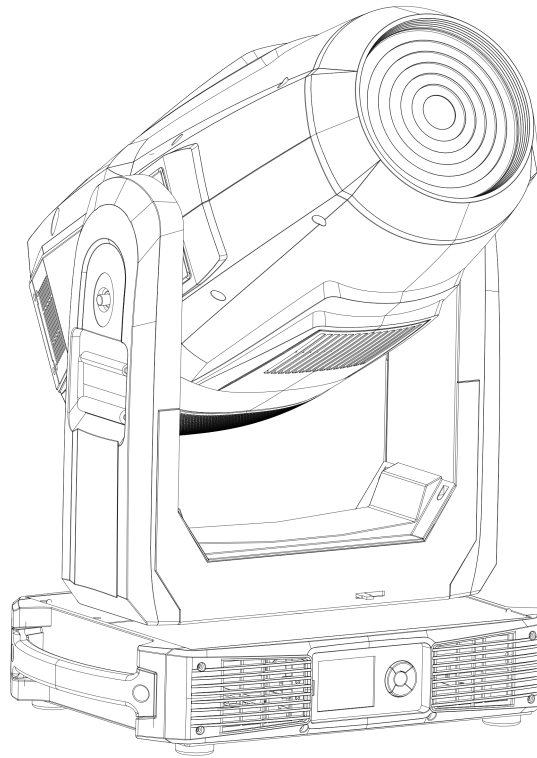




XRLED 3500-W Wash/Framing PR-8846

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	Pcs	
User manual	0	Pc	QR Code
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.
- The projector is not for a user for any replacements and the user shouldn't open the projector for repair and maintenance.





- 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.
- If the lamp, lens and screen protective cover of the a lighting fixture have obvious damage, i.e., to the extent that it hurts the performance like cracking or deformation. Please stop use it and replace them with the original parts, otherwise its performance will be compromised.
- For the location of a lighting fixture, it shouldn't be seen in the distance of less than 4 meters.



- 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 stable operation under normal ambient temperature ,the temperature of the external surface of the housing of the LED lighting fixture (the surface of the heat sink) is 65°C after the stable running.
- 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.

- While projector running, do not touch the metal housing with bare hand, otherwise get burned.



- 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 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.

- To avoid sunlight or other light penetrating into the head via the front lens, resulting in high temperature internally causing damages to the projector. Before power-off, please use Tilt channel to move the head and make it facing downward.



- The product meets The General Technical Requirements and Standards for Recycle and Use Of Expired Appliance and Electronic Products.
- When the product meets disposal standards and needs to be disposed, a client needs to dispose and recycle it.

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.



- 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.

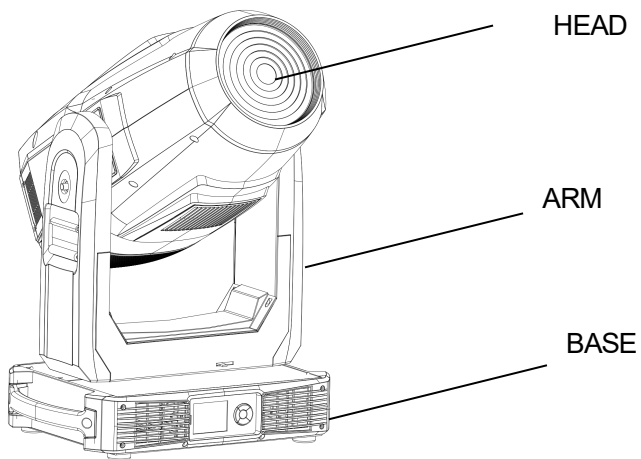
•LUBRICATION

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 can't be switched on	➤ 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	➤ 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	➤ 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	➤ 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	➤ Carefully clean the LED 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.

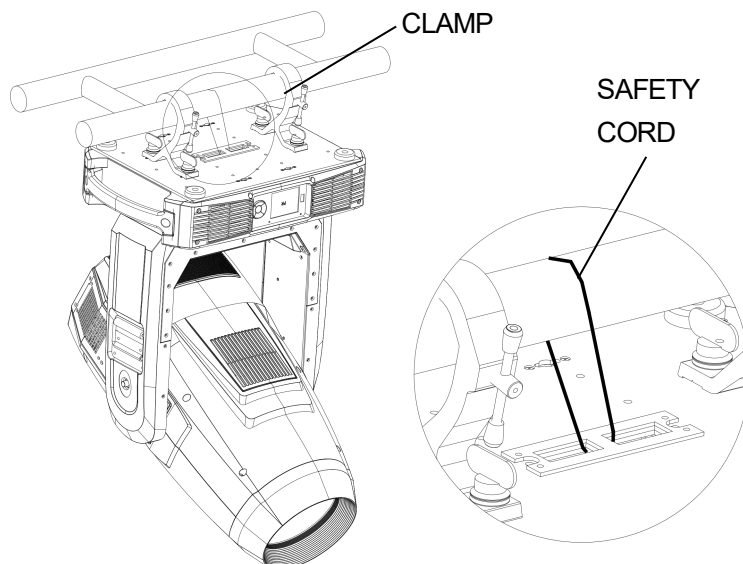
1. APPEARANCE



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

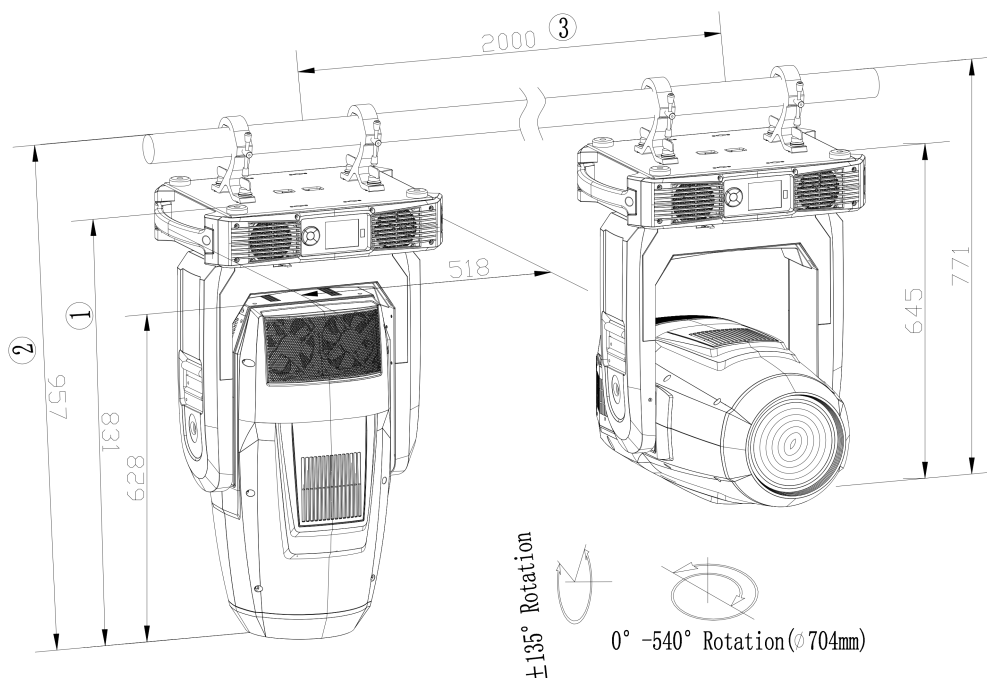


WARNING

Please run safety cord through the safety hole circled in the diagram for safety

Note:

1. the distance between the foot of the base and the front lens cover(the head facing downward)
2. the distance between mounting truss and the front lens cover(the head facing downward)
3. The maximum diameter of the rotating head (minimum spacing between fixtures)



Take 2 clamps and 2 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.

• POWER CONNECTIONS

Connect the power cord as follows:

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

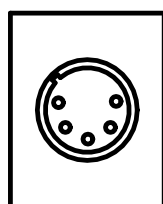
Before power connection, please ensure the power supplied must match what the nameplate says. It is recommended that each projector be connected with power separately so that they may be individually switched on and off.



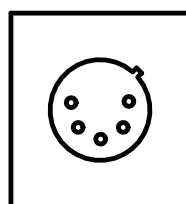
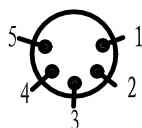
- The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.
- If any questions about the electrical installation, do not continue but consult a qualified electrician.

•DMX CONTROL CONNECTION

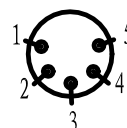
5-PIN



DMX OUT



DMX IN



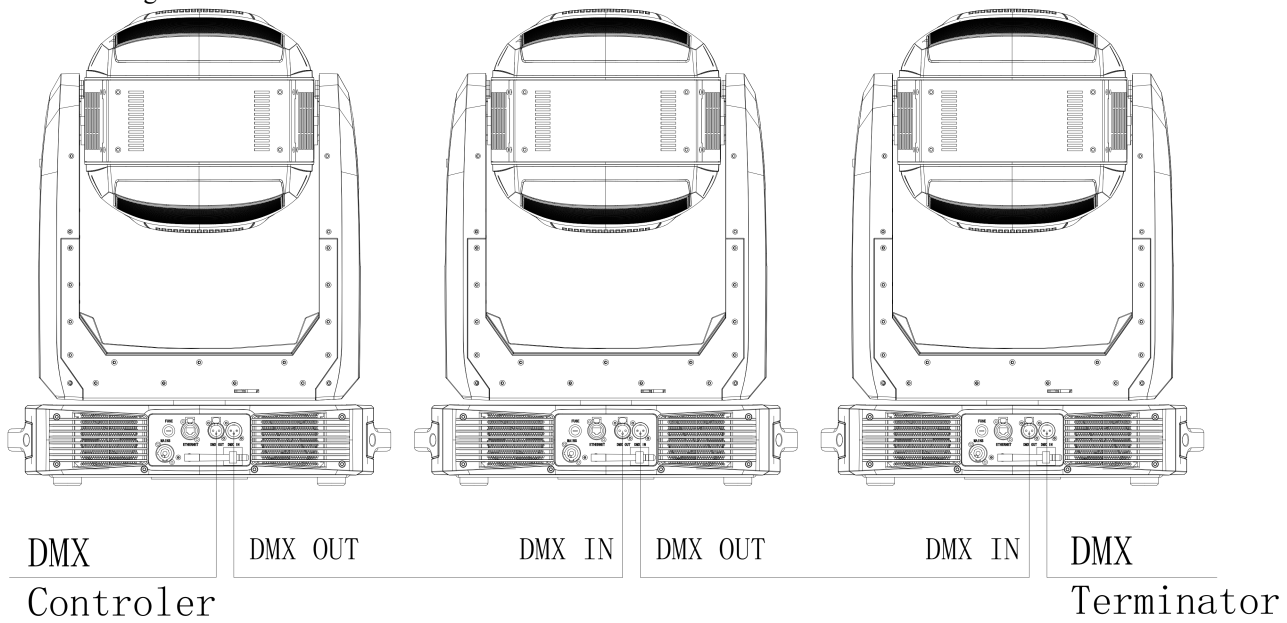
DMX 512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+
4	N/C
5	N/C

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).

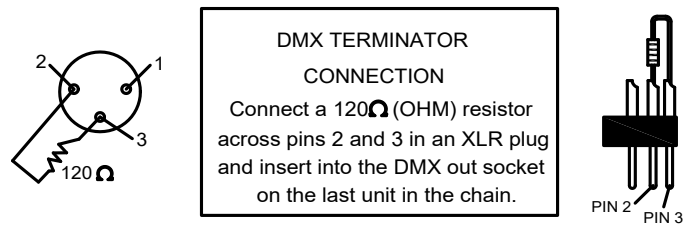
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



DMX TERMINATOR

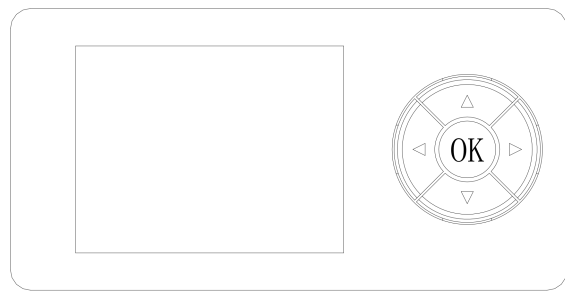
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

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



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 35 channels, so set the No. 1 projector's address 001, No. 2 projector's address 036, No. 3 projector's address 071, No. 4 projector's address 106, and so on.

Launch the projector. Press key OK 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 OK 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.

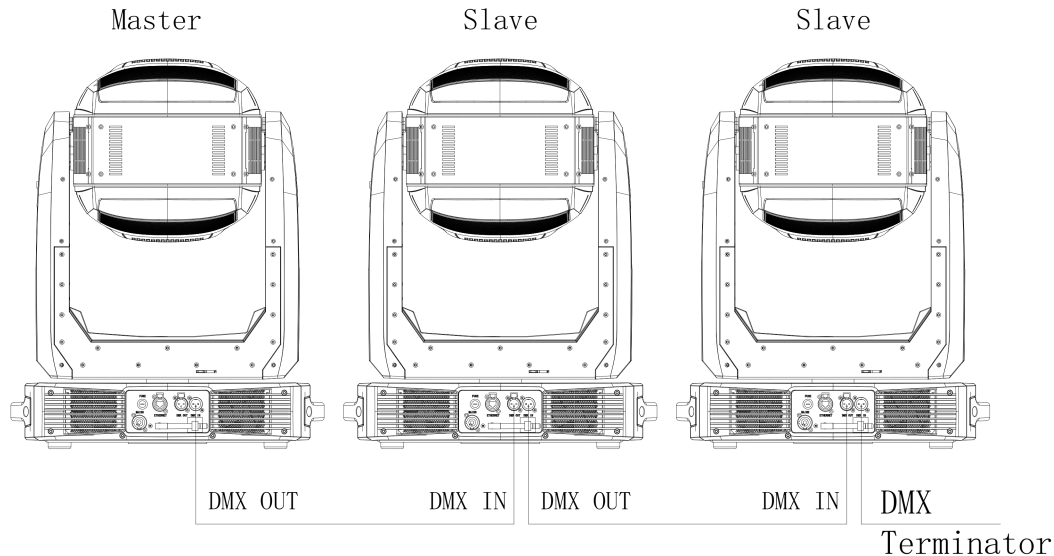
•MASTER/SLAVE MODE

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 projector 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



FIRMWARE UPGRADE VIA USB PORT

After the .PRS files for upgrade copied to the U flash drive and then it plugged into USB port, the name of the file or its folder will be seen under the menu of Service/USB Firmware Upgrade . Select the needed PRS file and push the upgrade button, the system will show Please Waiting while the file being copied into the system. Then the display will show Bootloader interface and within the countdown of 10S, push both UP and DOWN buttons together, the system will enter into upgrade interface. During the upgrade, do not disrupt the power. If both bottoms are not pushed within 10s, it won't enter into firmware upgrade interface.

.TO SET UP COLOR TEMPERATURE AND COLOR MACRO

A projector has 7 color temperature macros and 89 standard color macros. Color temperatures are for respective 2700K,3000K,3500K,4000K,4500K,5000K and 5700K. Under the DMX channel of CMY macro, color macro and its color temperature macro can be selected.

.TO SET UP DIMMER CURVE AND LED REFRESH FREQUENCY

A projector has 4 gamma dimmer curves: gamma 2.0, gamma 2.2, gamma 2.4 and gamma 2.6.

It has 8 LED refresh frequency: LED refresh frequency 1200Hz, LED refresh frequency 2400Hz, LED refresh frequency 4800Hz, LED refresh frequency 10000Hz, LED refresh frequency 12000Hz, LED refresh frequency 15000Hz, LED refresh frequency 20000Hz and LED refresh frequency 25000Hz.

It has fast, medium and slow dimmer speeds.

Its setups are as follows:

1. Hold the **OK** button for more than 3s to unlock the control panel and then push **▶** button to enter into the menus and select "Option Settings".
2. Select "Dimmer Settings" and select any mode of gamma curve /LED frequency /dimmer speed for adjustment.

.FAN SPEED MODES

It has standard and theater modes. Theater mode is quiet mode.

Its setups are as follows:

1. Hold the **OK** button for more than 3s to unlock the control panel and then push **▶** button to enter into the menus and select "Option Settings".
2. Select either of Standard and theater modes after the menu of Fan Settings.

•BRIGHTNESS CALIBRATION

For brightness calibration function, a controller can be used on the projectors in a DMX chain or a projector be done individually. After running for some time, the projectors need to be recalibrated in brightness for conformity with the help of LED brightness calibration channel via controller. The function has the following characteristics:

1. LED brightness calibration channel has 50 levels for adjustment with each level meaning power consumption decreases by 1%.
2. Calibration can be done on projectors in a DMX chain or a single one. After calibration done on a lot of projectors in a DMX chain, it can be done individually also if needed.
3. To avoid erroneous operation, after the fader of a DMX controller is at proper place for LED BRIGHTNESS CALIBRATION channel, the fader for channel of LED BRIGHTNESS CALIBRATION CONFIRMATION channel should be at right DMX value range to save parameters. The calibration is completed after the desired parameters are stored into the projectors.

•CRI MODE

It has HIGH CRI MODE and select it via DMX controller to activate it. The mode ensures high CRI optical effect.

6. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-482 (Short Mode) 1-478 (Standard Mode) 1-464 (Extended Mode)		
	IP Address	Default IP Address	2.X.X.X/10.X.X.X	
		Custom IP Address	X.X.X.X	
	Sub Net Mask	X.X.X.X		
	ArtNet Universe	0-255		
	sACN Universe	1-63999		
Reset	Total Reset	Really Reset?	Confirm/Cancel	
	Pan&Tilt Reset	Really Reset?	Confirm/Cancel	
	Colour System Reset	Really Reset?	Confirm/Cancel	
	Zoom Focus Reset	Really Reset?	Confirm/Cancel	
	Other Reset	Really Reset?	Confirm/Cancel	
Config Settings	DMX Channel Mode	Short 31CH		
		Standard 35CH		
		Extended 49CH		
		View Selected Mode	Strobe ...	
	Signal Select	XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless In/XLR Out		
		ArtNet Only		
		ArtNet In/XLR Out		
		sACN Only		
		sACN 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	0-999	
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Un-Link Wireless	Really Un-Link?	Confirm/Cancel	
	Factory 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	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		
	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		
		Blade Board XX°C/F		
		Fan Board XX°C/F		

		Led Sensor XX°C/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	Sys= XXX Boot=XXX	
		Driver Board 3	Sys= XXX Boot=XXX	
		Blade Board	Sys= XXX Boot=XXX	
		Fan Board	Sys= XXX Boot=XXX	
	Electronic SN	Electronic SN= *****		
	RDM Device Label	XRLED 3500-W W/Framing ANSI E1.20 RDM		
	Fan Status	Base Fan1 Base Fan2 Color Fan Framing Fan1 Framing Fan2 LED Fan1 LED Fan2 LED Fan3 LED Fan4 LDriver Fan1 LDriver 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 MS/S/MIN 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	Function Description	Decimal Low	Decimal High
1	1	1	Strobe		
			Close	0	
			Pulse strobe speed from slow to fast	1	127
			Strobe speed slow to fast	128	255
2	2	2	Dimmer		
			Close	0	0
			Non-linear dimmer from dark to bright (0-100%)	1	255
	3	3	Dimmer Fine		
			Dimmer in 16 bit	0	255
3	4	4	CYM Macro		
			The following functions will disable CMY ,CTO		
			No Function	0	7
			Colour Temperature 2700K	8	9
			Colour Temperature 3000K	10	11
			Colour Temperature 3500K	12	13
			Colour Temperature 4000K	14	15
			Colour Temperature 4500K	16	17
			Colour Temperature 5000K	18	19
			Colour Temperature 5700K	20	21
			Colour Macro 1	22	23
			Colour Macro 2	24	25
			Colour Macro 3	26	27
			Colour Macro 4	28	29
			Colour Macro 5	30	31
			Colour Macro 6	32	33
			Colour Macro 7	34	35
			Colour Macro 8	36	37
			Colour Macro 9	38	39
			Colour Macro 10	40	41
			Colour Macro 11	42	43
			Colour Macro 12	44	45
			Colour Macro 13	46	47
			Colour Macro 14	48	49
			Colour Macro 15	50	51
			Colour Macro 16	52	53
			Colour Macro 17	54	55
			Colour Macro 18	56	57
			Colour Macro 19	58	59

Colour Macro 20	60	61
Colour Macro 21	62	63
Colour Macro 22	64	65
Colour Macro 23	66	67
LEE 004 (Medium Bastard Amber)	68	69
LEE 010 (Medium Yellow)	70	71
LEE 019 (Fire)	72	73
LEE 026 (Bright Red)	74	75
LEE 058 (Lavender)	76	77
LEE 068 (Sky Blue)	78	79
LEE 071 (Tokyo Blue)	80	81
LEE 079 (Just Blue)	82	83
LEE 088 (Lime Green)	84	85
LEE 090 (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 (Deep Blue)	112	113
LEE 120 (Dark 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		
			Open	64	67
			Open/Color1(Red)	68	71
			Color1(Red)	72	75
			Color1(Red)/Color 2(Green)	76	79
			Color 2(Green)	80	83
			Color 2(Green)/Color 3(Blue)	84	87
			Color 3(Blue)	88	91
			Color 3(Blue)/ Color 4(Orange)	92	95
			Color 4(Orange)	96	99
			Color 4(Orange)/Color 5(Pink)	100	103
			Color 5(Pink)	104	107
			Color 5 (Pink) /Color 6 (Light cyan)	108	111
			Color 6(Light cyan)	112	115
			Color6(Light cyan)/ Open	116	119
			Open	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 1 Fine		
			Color Continual positioning in 16 Bit precision	0	255
9	11	15	Colour Wheel 2		
			Continual positioning		
			index 0-360°	0	63
			positioning		
			Open	64	67
			Open/Color1(Dark Red)	68	71
			Color1(Dark Red)	72	75
			Color1(Dark Red)/Color 2(Amber)	76	79
			Color 2(Amber)	80	83
			Color 2(Amber)/Color 3(Tea red)	84	87
			Color 3(Tea red)	88	91
			Color 3(Tea red)/ Color 4(Apple Green)	92	95
			Color 4(Apple Green)	96	99
			Color 4(Apple Green) /Color 5(Dark magenta)	100	103
			Color 5(Dark magenta)	104	107
			Color 5 (Dark magenta) /Color 6 (UV)	108	111
			Color 6(UV)	112	115
			Color 6(UV)/ Open	116	119
			Open	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
	12	16	Color Wheel 2 Fine		
			Color Continual positioning in 16 Bit precision	0	255
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)	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
	22	34	Framing module rotation in 16 bit		

			Framing module fine rotation	0	255
19	23	35	Focus		
			Linearly focusing	0	255
		36	Focus Fine		
			Focus in 16 precision	0	255
20	24	37	Zoom		
			Linearly zooming	0	255
		38	Zoom Fine		
			Zoom in 16 Bit precision	0	255
21	25	39	Pan		
			Pan movement	0	255
22	26	40	Pan Fine		
			Pan movement in 16 bit precision	0	255
23	27	41	Tilt		
			Tilt movement	0	255
24	28	42	Tilt fine		
			Tilt movement 16 bit precision	0	255
25	29	43	Pan/Tilt speed		
			Fast Speed Mode	0	1
			Pan & Tilt speed from fast to slow	2	255
26	30	44	CRI MODE		
			Normal mode	0	127
			High CRI mode	128	255
27	31	45	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 1500Hz	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 reset	180	189
			Others(Framing module) reset	190	199
			Total reset	200	209
			Reserved	210	229
			Reserved	240	255
28	32	46	LED brightness calibration		
			No	0	127
			LED brightness 50%-100%, linear calibration	128	255
29	33	47	LED brightness calibration confirmation		
			Ready to store calibrated value	0	200
			Store calibrated value in the fixture(stay in the DMX range for more than 5s)	201	209
			No	210	255
30	34	48	Reserved	0	255
31	35	49	Reserved	0	255

Remarks:

1. Fan error can shut off light source.
2. "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.
3. LED brightness standard with adjusting range between 50% and 100%. After completion, the desired parameters will be stored into the fixtures without repeated operations.

Procedures:

Step1: DMX value range for Channel LED brightness calibration is between 128 and 255 with according brightness range between 50% and 100%.

Step2:DMX value range for Channel LED brightness calibration confirmation is between 0 and 200. If the fader is moved between 201 and 209 and stays there for more than 5s, the desired brightness value will be stored into fixtures.

Step 3:Move the faders for DMX channels LED brightness calibration and LED brightness calibration confirmation respectively to zero.

If 100% brightness needed, move the fader for channel LED brightness calibration at 255 for Step 1 and repeat Step 2 and 3.

Under the menu, confirm Defaults/Restore default, LED brightness will go back to 100%.

8. SIGNS OF THE TOUCH SCREEN

	Config Settings		Option Settings
	Address		Information
	Error Messages		Service
	Reset		Operation Mode
	User Memories		

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 Wheel2	Timeout	Check if wiring, positioning parts and motors are normal
Dimmer	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
Pan Board	Error	Check signal wire
Tilt Board	Error	Check signal wire
Driver Board 1	Error	Check signal wire
Driver Board 2	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Blade board	Error	Check signal wire

Fan board	Error	Check signal wire
Lamp Off[Fan Error]	Error	Check if all fans are normal
Time IC	Error	Contact the manufacturer

10. TECHNICAL DATA

ELECTRICAL PARAMETERS

Input Voltage: 100V-240V AC, 50/60Hz
 Input Power: 1900W@220V
 Power factor: PF>0.95
 Current at maximum:: 9.0A @ 220V

OPTICAL SYSTEM

Light sources : 1500W white LED module
 Colour Temperature : 6500K
 CRI: $R_a \geq 95$ 、 $R_9 \geq 95$
 Manufacturers Rated Lamp Life : ≥ 20000 hrs

COLORS

CMY linear coloring mixing system with macros

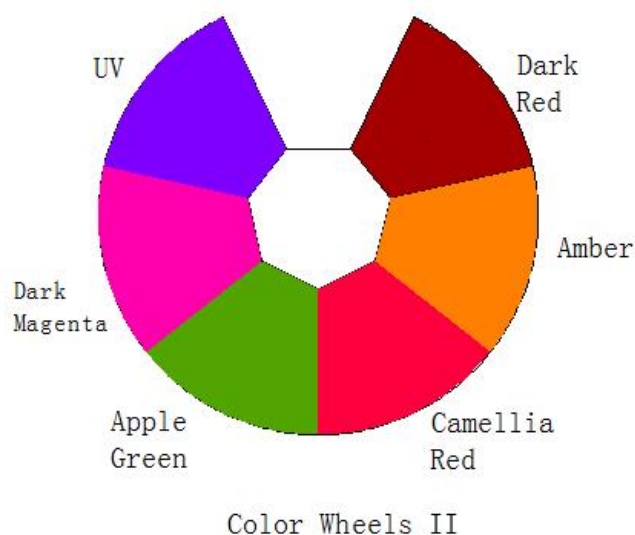
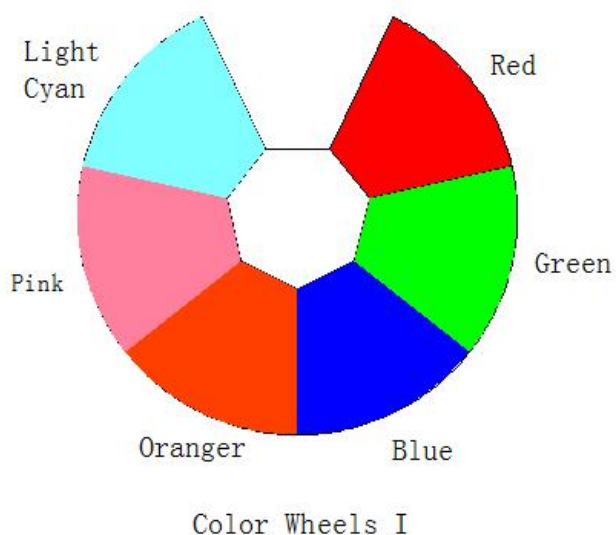
2 Color Wheels:

Color Wheels 1: Red, Green, Blue, Orange ,Pink, Light cyan,+ open

Color Wheels 2: Dark Red, Amber, Tea red, Apple green, Dark magenta,UV+ open

Full color/half color/linear color

Bi-directional rainbow effect with variable speeds



CTO

Linear CTO system(0-100%, 1800K-6500K)

FRAMING

1 Framing module: 4 framing blades to make graphics with different sizes and shapes

Framing module rotates bi-directionally up to 360 °and continually, each framing blade produces full curtain effect

BEAM ANGLE

1/20 (peak) :7°~ 40°, with 16 bit precision

1/100 (peak) :12°~ 60°, with 16 bit precision

FOCUS

DMX linear focus

DIMMER

Linear electronic dimmer 0-100% with 16 bit control

3 dimmer speeds

4 dimmer gamma curves

Dimmer frequency(1.2K-25K) adjustable, suitable for 4K high speed video camera

STROBE

Electronic strobe, 0.3~25 F.P.S, optional synchronized or non-synchronized strobe

HEAD MOVEMENT

Pan 540°, Tilt 270° with auto position correction and 16 bit control

Advanced macros

Color temperature macros: optional 2700K,3000K,3500K,4000K,4500K,5000K,5700K

Standard color macros: 89 color options based on standard color chart.

Fan mode

Standard mode and theater modes. Theater mode is quiet mode

Brightness calibration function

With brightness calibration function to calibrate initial brightness for a single fixture or multiple ones and store brightness values into the fixtures

CRI mode

Running at high CRI mode via DMX channel to ensure high CRI optical effect.

CONTROL

International standard DMX512 signal and RDM function

31channels in short mode, 35channels in standard mode,49channel in extended mode

DMX512 wireless control, Art Net protocol (optional) , sACN protocol(optional)

CONTROL INTERFACE

DMX512 ports (5-pin)

Ethernet port RJ45

OTHER FUNCTIONS

Pan and Tilt speeds adjustable

Pan and Tilt swappable and invertible

High precision magnet sensor for positioning

3.2-inch touch color screen, Chinese and English menus, Screen automatic lock –up while standby

Error diagnostic system with sensors

Smart fan cooling system

Display of fixture hours and software versions

Modular construction for easy maintenance

Isolated input signals

Firmware update via DMX cable

IP RATING

IP20

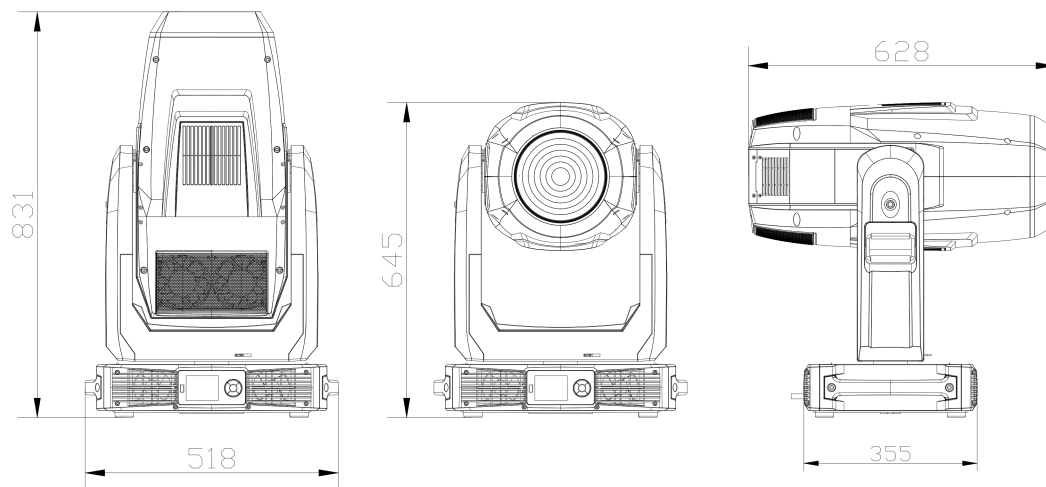
OPERATION TEMPERATURE

Ambient temperature at maximum: 45°C

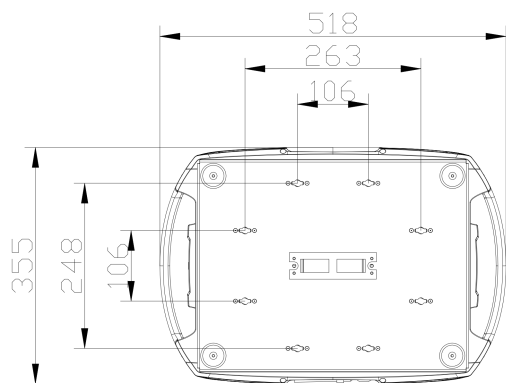
WEIGHT

Net weight 43.5 KG

SIZES



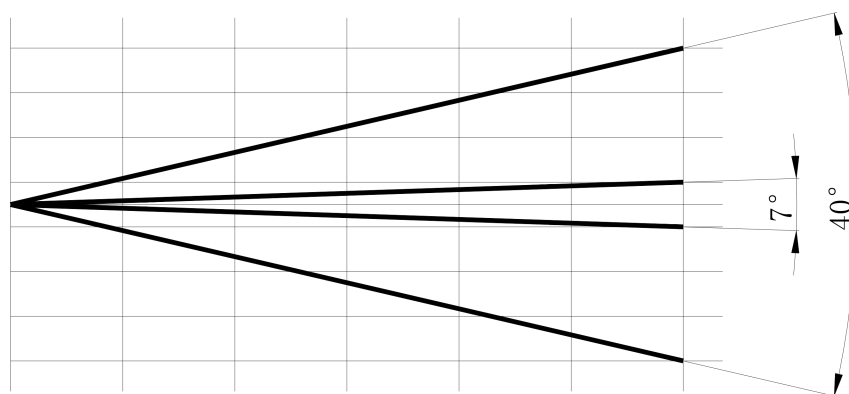
BASE INSTALLATION



LIGHT OUTPUT

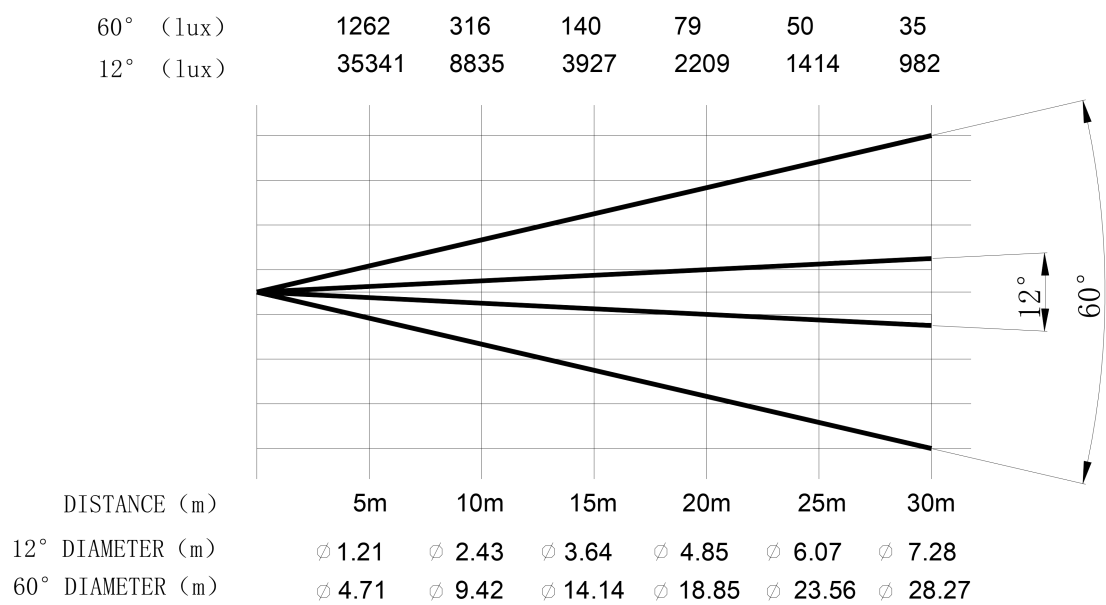
Beam angle:

40° (lux)	1398	350	155	87	56	39
7° (lux)	37771	9443	4197	2361	1511	1049

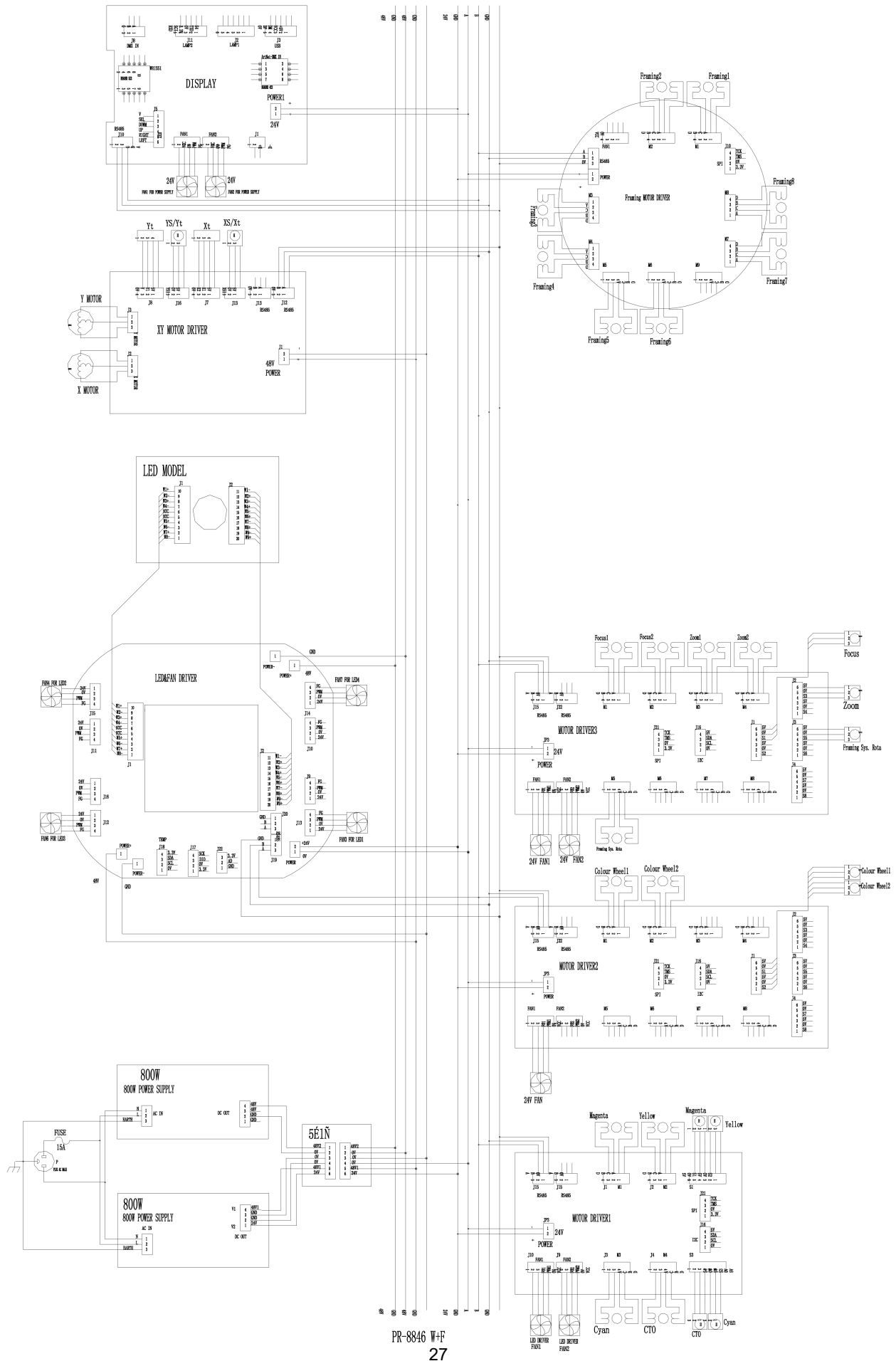


DISTANCE (m)	5m	10m	15m	20m	25m	30m
7° DIAMETER (m)	Ø 0.69	Ø 1.37	Ø 2.06	Ø 2.74	Ø 3.43	Ø 4.12
40° DIAMETER (m)	Ø 3.25	Ø 6.49	Ø 9.74	Ø 12.99	Ø 16.42	Ø 19.48

File angle:



11. CIRCUIT DIAGRAM



12. COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARK
SWITCHING POWER SUPPLY	192010228A	1	
SWITCHING POWER SUPPLY	192010215B	1	
LED LIGHT SOURCES (HIGH CRI)	150020334	1	
FUSE IN CERAMIC TUBE	270041098	1	
PAN MOTOR	030040262	1	
TILT MOTOR	030040262	1	
COLOR WHEEL MOTOR	030040219A	2	
CMY MOTOR	030040210A	2	
	030040211A	2	
FOCUS MOTOR	030040291	2	
ZOOM MOTOR	030040261A	2	
FRAMING MODULE ROTATING MOTOR	030040158	1	
FRAMING BLADE MOTOR	030040283	8	
BASE FAN	030060121	2	
LED FAN	030060116	4	
DRIVER FAN	030060122	2	
GOBO FAN	030060115	1	
FRAMING MODULE FAN	030060120	2	

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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!

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Version:20231128