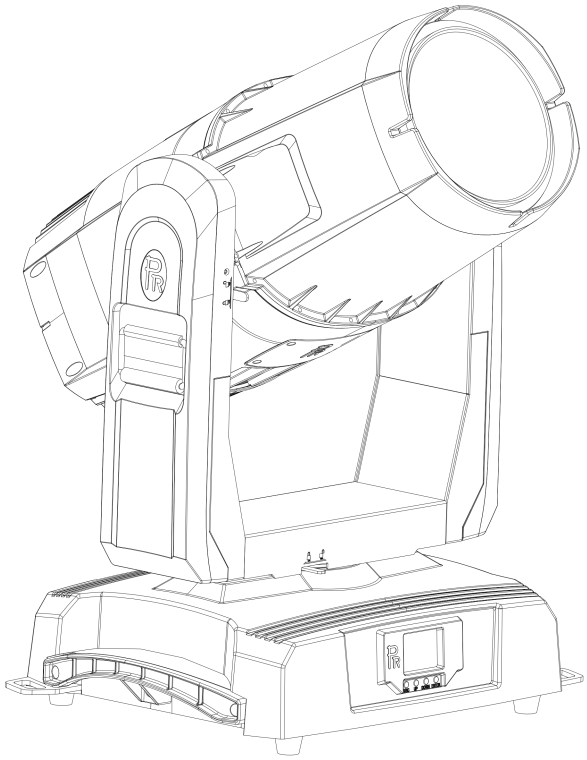


AQUA Laser 850 Beam

PR-8389

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 clamp	2	pc	
XLR connectors	1	Set	Male and female
Safety cord	2	Pc	
User manual	0	Pc	QR code
Ω Clamp	2	Pc	Optional
Power cord	1	pc	

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.

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 a projector. Should there be any damage caused by transportation, consult your dealer and do not use it.
●The manufacturer is not responsible for any loss caused by the user not following the manual or changing a projector as he/she likes.
●Please be noted that the damage caused by changing a projector at will is not warranted.
● Do not hesitate to contact the dealer or the manufacturer if any questions or advice.
●If a lamp is damaged or deforms because of heat, it should be replaced.(It applies only to traditional lamps)



● The projector is for indoor and outdoor use, IP66.
● It can be used in humid and dusty areas. And it can contact water and other non-corrosive 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 a projector to any type of dimmer pack.
●If the lamp, lens and screen protective cover of the a projector have obvious damage, i.e., to the extent that it hurts the performance like cracking or deformation. Please stop using it and replace them with the original parts, otherwise its performance will be compromised.
● For the installation location of a projector, it shouldn't be seen in the distance of less than 4 meters for a long time.



●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 like eye goggles , gloves and etc..



●Any electrical connection must be carried out by a qualified person .
●Before installation, please confirm the voltage supplied matches what is required for a 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 a 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.
●If a projector is not water and dust proof, while being operated it should not be under rains or in humidity to avoid short circuit.
●Do not switch on and off a 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 a 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 80°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 a projector has some defects.

●While it running, don't touch the metal housing to avoid being burned!



●Do not mount a projector directly on inflammable surface.
●Do not project the beam straightly on combustible items and the minimum distance between a projector and illuminated items is 80m.
●A projector should be installed with good ventilation and the minimum distance between a projector and a wall is 50cm. At the same time, please ensure the fans and air inlets and outlets are workable.
●Do not let the front lens under sunlight or other strong light sources at any angle, otherwise the danger of fire can be caused by the focused beam by the lens inside a projector.



● 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.



● If relative humidity ≥75%, the laser engine will be shut off while on and the display will show warning sign saying relative humidity is too high; After relative humidity ≤60%, the laser engine can be turned on and the warning sign will disappear.

2. INSTRUCTIONS

●CLEANING AND MAINTENANCE

Under normal running, the protective units of a projector should be inspected regularly like power fuse. If it is burned, please install a new one and ensure it is the same rating as the burned one. For a projector with an over-temperature protective unit, please inspect cooling units regularly like cooling fans, heat sink and other cooling parts. Please check if the fans run normally or fans and air inlets are blocked by dust. To keep air inlets /outlets clean, cooling fans should be cleaned every 15days.

For projectors with lens, reflectors and coated filters, the accumulation of oil, smoke and dust on them will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use. Internal and external lens, flat glass, reflector and coated filters 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. For a projector with high IP rating, if no damage inside, it is advised to clean the surfaces of its housing in principle. Keep lens clean and do not touch optical parts with bare hands.

SPECIAL NOTE:

It's normal phenomena that there will be mild water mist on the lens while the waterproof product is in use.



●Before any maintenance and cleaning, please ensure a project is off the power.
●Only a qualified person is allowed to do maintenance.



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

● 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 coated filters.

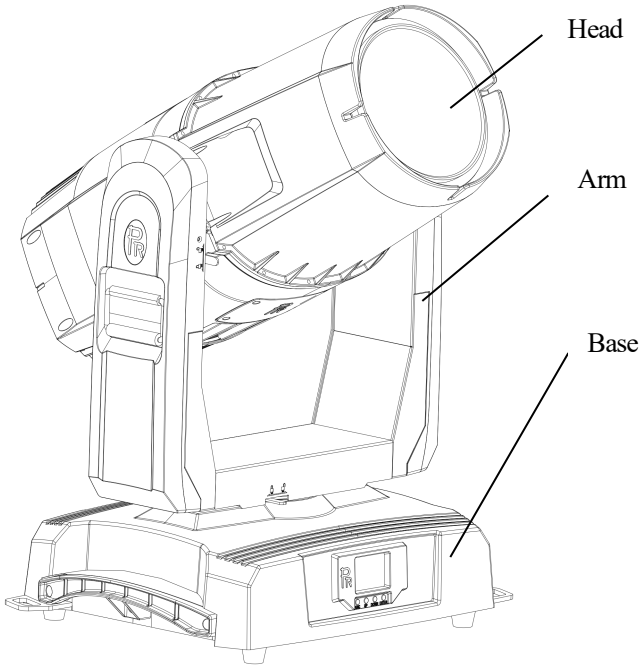
●LUBRICATION

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

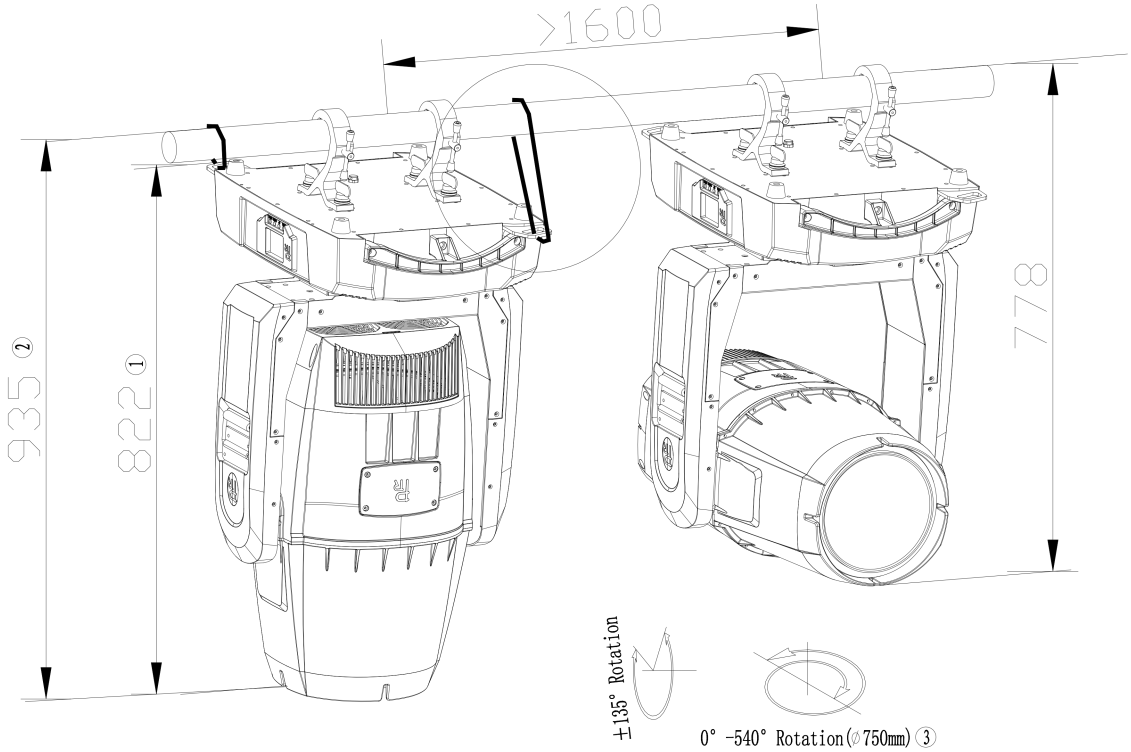
3. APPERANCE



4. INSTALLATION

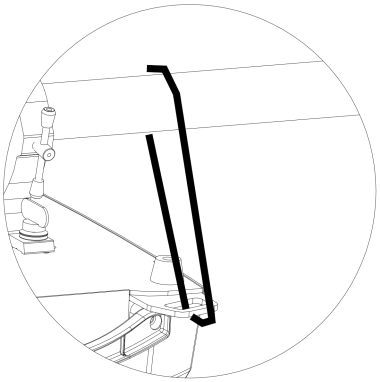
●RIGGING

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.



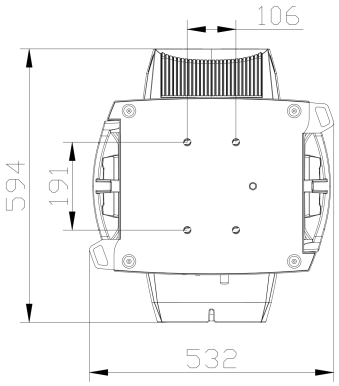
Remarks:

1. The distance between the top of the mounting bar and the top of the head;
2. The Distance between the top of the feet and the top the head;
3. The head's rotating diameter(the minimum distance between 2 neighboring projectors on the truss)



Warning!

For safety, please run the safety cord through its hole.



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



WARNING:

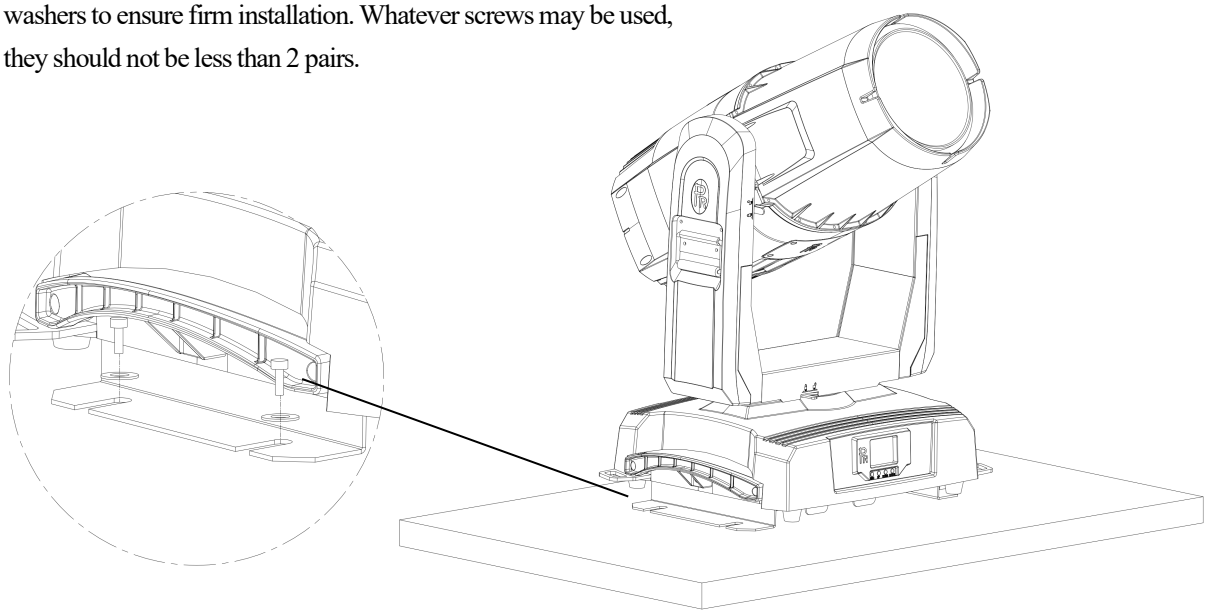
- The projector MUST be lifted or carried by the HANDLES instead of clamps.
- .For safety the safety cord should afford 10 times the Projector's weight.

●PLACED ON A FLAT SURFACE

While placing a projector on a flat surface, tighten the head after loosening its screw and adjusting its angle till desired. For the version with wireless control, while it is on a flat surface its antenna should face upward.

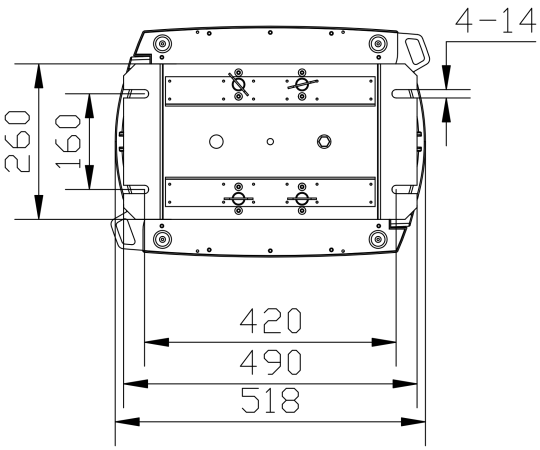
NOTE

It's advised to use hexagon screws coupled with anti-slipping washers to ensure firm installation. Whatever screws may be used, they should not be less than 2 pairs.



The size of the screws are to be decided by the customer based on the size of mounting holes in the arms, the following sizes in the table are only for reference.

NO	NAME	SIZE	QTY	REMARKS
1	Hexagon screws	M12	4	Prepared by the customer
2	Washer	Coupled with the screws	4	Prepared by the customer



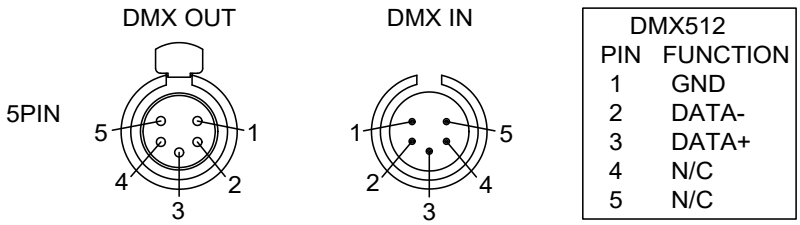
- **POWER CONNECTION**

  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:

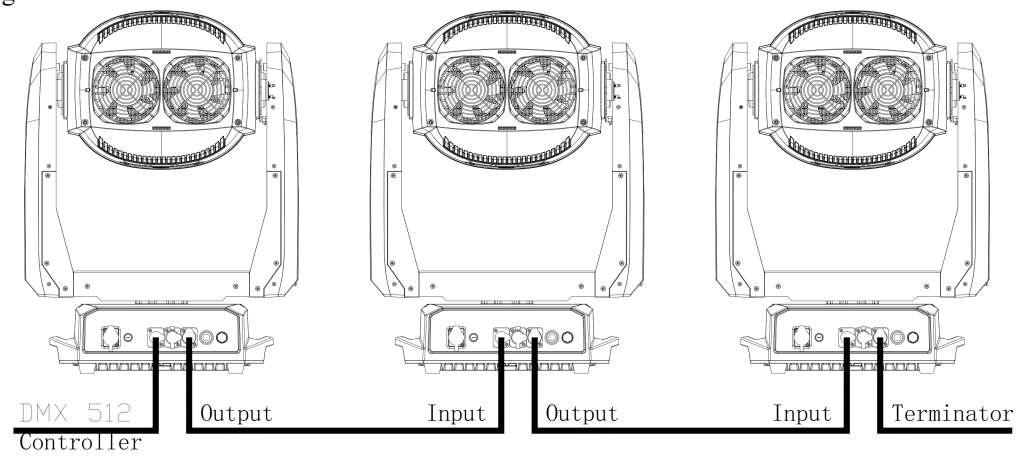


DMX512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+
4	N/C
5	N/C

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.

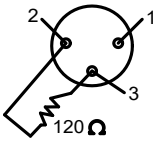
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. XLR plugs and sockets mustn't be connected in any way other than mentioned in the above figure. The Fixture accepts digital control signals in protocol DMX512 (1990).

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

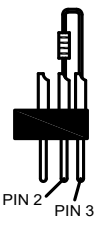


•DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.
The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.

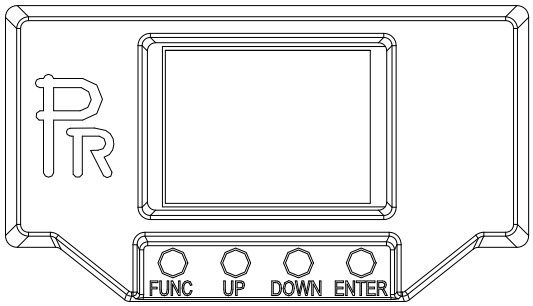


DMX TERMINATOR
CONNECTION
Connect a 120Ω (OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



5. SETUP AND CONFIGURATION

•FRONT PANEL OPERATION



To browse through or change the projector 's settings, press ENTER key for more than 3s(press ENTER key after power on) to unlock the screen , then press UP/DOWN key to enter the projector 's function menus. Each main menu has its sub-menus. And each menu stands for special function. For the details, please see the following 6th point "Operation Menu".:

1. At the page to set the fixture's functions, press UP or DOWN key to select the functions desired.

2. While menu operations, the FUNC key to escape, and ENTER key is used to confirm. Press ENTER key to save the changes or enter into the sub menus. Press UP or DOWN key to change the numbers(minus or plus).

   Press FUNC key to go to the uppler menu. If no key is pushed, the system will go back to initial status automatically.

• 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 2 DMX modes. There are RGB mode and CMY mode. For example RGB mode has 23 channels, so set the No. 1 projector's address 001, No. 2 projector's address 024, No. 3 projector's address 047,No. 4 projector's address 070, and so on.

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

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

Press UP or DOWN key for the DMX address desired.

Press ENTER key to confirm.

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

.

•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.

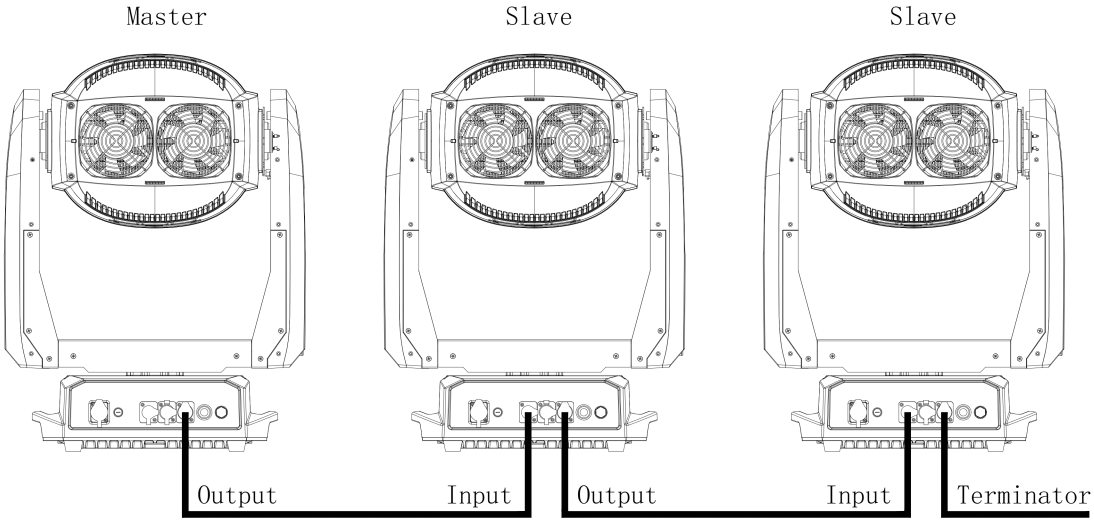
DMX address can be set at any number within 512.

•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



6.OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-490（RGB Mode/CYM Mode)		
	IP Address	Default IP Address	2.X.X.X /10.X.X.X	
		Custom IP Address	X.X.X.X	
	SubNet Mask	X.X.X.X		
	ArtNet ArtNet Universe	0-255		
	sACN universe	1-63999		
Reset	Total Reset	Really Reset? Confirm or Cancel		
	Pan&Tilt Reset	Really Reset? Confirm or Cancel		
	Fo. Pr. Reset	Really Reset? Confirm or Cancel		
Config Settings	DMX Channel Mode	RGB Mode 23CH		
		CMY Mode 23CH		
		View Selected Mode	Ch.01 Strobe Ch.02 Dimmer … Ch. XX control function	
	Signal Select (Only for fixtures with wireless control)	XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless In/XLR Out		

		Artnet Only		
		Artnet In/XLR Out		
		sACN only		
		sACN/XLR		
	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	
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Un-Link Wireless (Only for fixtures with wireless control)	Really Un-Link? Confirm or Cancel		
	Factory Defaults	Restore Defaults? Confirm or 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	Note: "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.
	Dimmer Settings	Dimmer Speed	Fast/Medium/Slow Speed	

	Defaults			
Information	View DMX Values	Channel Value Strobe XXX Dimmer XXX …… Control Function XXX		
	Lamp Hours	Lamp Hours=XXX H		
	Total Hours	Total Hours ××××H		
	Temperature	Display Board=×××C Pan board=×××C Tilt board=×××C Motor driver board=×××C Red Sensor =×××C Green Sensor =×××C Blue Sensor =×××C Head Sensor =×××C		
	Software Version	PCB board system boot Display Board xxx xxx Pan board xxx xxx Tilt board xxx xxx Motor drive r board xxx xxx Light source drive r board xxx xxx		
	Electronic SN	XXXXXX		
	RDM Device Label	ANSI E1.20 RDM		
	Fan Status	Fan Speed RSpeed Base fan 1 xxx on/off Base fan 2 xxx on/off Heat fan xxx on/off Driver fan xxx on/off Waterproof fan1 xxx on/off Waterproof fan2 xxx on/off		
	Lamp Fan Error	Fan DMX value Base fan 1 xxx Base fan2 xxx		
Service	Manual Effect Control	Channel Value Strobe XXX Dimmer XXX …… Pan XXX Tilt XXX		
	Factory Mode	XXX		
Operation Mode	DMX Mode	Change Operation Mode? Confirm or Cancel		
	Master Mode	Preset Memory	Change Operation Mode? Confirm or Cancel	
		User Memory 1	Change Operation Mode? Confirm or Cancel	
		User Memory 2	Change Operation Mode? Confirm or Cancel	
	Stand-Alone Mode	Preset Memory	Change Operation Mode? Confirm or Cancel	

		User Memory 1	Change Operation Mode? Confirm or Cancel	
		User Memory 2	Change Operation Mode? Confirm or Cancel	
	Static Scene	Change Operation Mode? Confirm or Cancel		
User Memorie	Edit User Memory	Edit User Memory 1 / Edit User Memory 2	（1~200Scenes） Scene XX （1~200 Scenes）	Strobe XXX Dimmer XXX …… Pan XXX Tilt XXX Hold time XXX Delay Time XXX Delay time unit ms/s/m Link to Step XXX
		Edit Static Scene	Paste? Confirm or Cancel	Strobe XXX Dimmer XXX …… Pan XXX Tilt XXX
	Init User Memory	Reset User Memory 1	Reset User Memory? Confirm or Cancel	
		Reset User Memory 2	Reset User Memory? Confirm or Cancel	
		Reset Static Scene	Reset Static Scene? Confirm or Cancel	

Note:

1. Fan errors detected by the projector will cause automatic light source off.
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.

NOTE: SIGNS OF THE TOUCH SCREEN

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

7. DMX CHART

RGB MODE 23CH	CMY MODE 23CH	FUNCTION	DMX	DESCRIPTION
1	1	Strobe	000	Close
			001-127	Pulse strobe from slow to fast
			128-225	Strobe speed from slow to fast
2	2	Dimmer	000-255	Linear dimming（0-100%）

3	3	Dimmer Fine	000-255	Dimmer in 16 bit
4	4	Color macro	000-007	No function
			008-009	Color Temperature 2700K
			010-011	Color Temperature 3000K
			012-013	Color Temperature 3500K
			014-015	Color Temperature 4000K
			016-017	Color Temperature 4500K
			018-019	Color Temperature 5000K
			020-021	Color Temperature 5700K
			022-023	Color Macro 1
			024-025	Color Macro 2
			026-027	Color Macro 3
			028-029	Color Macro 4
			030-031	Color Macro 5
			032-033	Color Macro 6
			034-035	Color Macro 7
			036-037	Color Macro 8
			038-039	Color Macro 9
			040-041	Color Macro 10
			042-043	Color Macro 11
			044-045	Color Macro 12
			046-047	Color Macro 13
			048-049	Color Macro 14
			050-051	Color Macro 15
			052-053	Color Macro 16
			054-055	Color Macro 17
			056-057	Color Macro 18
			058-059	Color Macro 19
			060-061	Color Macro 20
			062-063	Color Macro 21
			064-065	Color Macro 22
			066-067	Color Macro 23
			068-069	LEE 004 (Medium Bastard Amber)
			070-071	LEE 010 (Medium Yellow)
			072-073	LEE 019 (Fire)
			074-075	LEE 026 (Bright Red)
			076-077	LEE 058 (Lavender)
			078-079	LEE 068 (Sky Blue)
			080-081	LEE 071 (Tokyo Blue)
			082-083	LEE 079 (Just Blue)
			084-085	LEE 088 (Lime Green)
			086-087	LEE 090 (Dark Yellow Green)
			088-089	LEE 100 (Spring Yellow)
			090-091	LEE 101 (Yellow)

			092-093	LEE 102 (Light Amber)
			094-095	LEE 103 (Straw)
			096-097	Lee 104 (Deep Amber)
			098-099	LEE 105 (Orange)
			100-101	LEE 106 (Primary Red)
			102-103	LEE 111 (Dark Pink)
			104-105	LEE 115 (Peacock Blue)
			106-107	LEE 116 (Medium Blue-Green)
			108-109	LEE 117 (Steel Blue)
			110-111	LEE 118 (Light Blue)
			112-113	LEE 119(Deep Blue)
			114-115	LEE 120 (Dark Blue)
			116-117	LEE 121 (LEE Green)
			118-119	LEE 128 (Bright Pink)
			120-121	LEE 131 (Marine Blue)
			122-123	LEE 132 (Medium Blue)
			124-125	LEE 134 (Golden Amber)
			126-127	LEE 135 (Deep Golden Amber)
			128-129	LEE 136 (Pale Lavender)
			130-131	LEE 137 (Special Lavender)
			132-133	LEE 138 (Pale Green)
			134-135	LEE 139 (Primary Green)
			136-137	LEE 141 (Bright Blue)
			138-139	LEE 147 (Apricot)
			140-141	LEE 148 (Bright Rose)
			142-143	LEE 152 (Pale Gold)
			144-145	LEE 154 (Pale Rose)
			146-147	LEE 157 (Pink)
			148-149	LEE 158 (Deep Orange)
			150-151	LEE 162 (Bastard Amber)
			152-153	LEE 164 (Flame Red)
			154-155	LEE 165 (Daylight Blue)
			156-157	LEE 169 (Lilac Tint)
			158-159	LEE 170 (Deep Lavender)
			160-161	LEE 172 (Lagoon Blue)
			162-163	LEE 179 (Chrome Orange)
			164-165	LEE 180 (Dark Lavender)
			166-167	LEE 181 (Congo Blue)
			168-169	LEE 197 (Alice Blue)
			170-171	LEE 201 (Full C.T. Blue)
			172-173	LEE 202 (Half C.T. Blue)
			174-175	LEE 203 (Quarter C.T. Blue)
			176-177	LEE 204 (Full C.T. Orange)
			178-179	LEE 205 (Half C.T. Orange)

			180-181	LEE 206 (Quarter C.T. Orange)
			182-183	LEE 247 (LEE Minus Green)
			184-185	LEE 248 (Half Minus Green)
			186-187	LEE 281 (Three Quarter C.T. Blue)
			188-189	LEE 285 (Three Quarter C.T. Orange)
			190-191	LEE 352 (Glacier Blue)
			192-193	LEE 353 (Lighter Blue)
			194-195	LEE 715 (Cabana Blue)
			196-197	LEE 778 (Millennium Gold)
			198-199	LEE 793 (Vanity Fair)
			200-255	No function
5	5	Color temperature	000-007	No function
			008-255	Color temperature (8000K-2500K)
6		Red dimmer	000-255	Dimmer(0-100%)
7		Red dimmer fine	000-255	Dimmer in 16 bit
8		Green dimmer	000-255	Dimmer(0-100%)
9		Green dimmer fine	000-255	Dimmer in 16 bit
10		Blue dimmer	000-255	Dimmer(0-100%)
11		Blue dimmer fine	000-255	Dimmer in 16 bit
	6	Cyan	000-255	Cyan(0-100%)
	7	Cyan fine	000-255	Cyan in 16 bit (0-100%)
	8	Yellow	000-255	Yellow(0-100%)
	9	Yellow Fine	000-255	Yellow in 16 bit (0-100%)
	10	Magenta	000-255	Magenta(0-100%)
	11	Magenta fine	000-255	Magenta in 16 bit (0-100%)
12	12	Prism 1	000-050	Open
			051-100	Prism1
			101-150	Frost
			151-200	Prism2
			201-255	Prism3
13	13	Prism1 Rotation	000-127	Prism Indexing
			128	Stop
			129-191	Rotation(Clockwise from slow to fast)
			192	Stop
			193-255	Rotation(Anti- Clockwise from slow to fast)
14	14	Prism 2	000-016	White
			017-127	Prism4
			128-255	Prism5
15	15	Prism2 Rotation	000-127	Prism2 Indexing
			128	Stop
			129-191	Rotation(Clockwise from slow to fast)
			192	Stop
			193-255	Rotation(Anti- Clockwise from slow to fast)

16	16	Focus	000-255	Linear focus
17	17	Focus Fine	000-255	Focus in 16 bit precision
18	18	Pan	000-255	Pan(0°~540°)
19	19	Pan Fine	000-255	Pan in 16 bit
20	20	Tilt	000-255	Tilt(0°~270°)
21	21	Tilt Fine	000-255	Tilt in 16 bit
22	22	Pan & Tilt Speeds	000-255	Pan & Tilt Speed from Fast to Slow
23	23	Control	000-019	Reserved
			Keep in the DMX range for more than 5S	
			020-024	Graphic Display On
			025-029	Graphic Display Off
			030-052	Reserved
			053-054	Diming speed fast
			055-056	Diming speed Medium
			057-058	Diming speed slow
			059-089	Reserved
			090-094	Pan & Tilt Speed Mode
			095-099	Pan & Tilt Time Mode
			100-139	Reserved
			140-149	Pan & Tilt Reset
			150-179	Reserved
			180-189	Focus/Prism Reset
			190-199	Reserved
			200-209	Total Reset
			210-255	Reserved

8. 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
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
Fan	Error	Check if fan and its wiring are normal
Pan Board	Error	Check signal wire
Tilt Board	Error	Check signal wire
Motor Driver Board	Error	Check signal wire
Light source driver board	Error	Check signal wire

Acceleration Sensor	Error	Check signal wire
Lamp on	Timeout	Check if he lamp is damaged
Lamp Life	Timeout Warning	Replacement of a lamp
Lamp Off[Fan Error]	Error	Check if all fans are normal
Time IC	Error	

9. TECHNICAL DATA

Electric parameters

Input voltage: 180V~240V AC，50/60Hz

Power consumption: 1350W @ 220V

Rated current: 6.2A @ 220V

Power factor: PF>0.95

Light sources

Light sources： 850W RGB laser module

Rated life： 12000hrs

Prism/frost：

3 prisms (an 8-facet circular prism+ a 4-facet linear prism)+ (a 16-facet circular prism + a frost filter), prisms overlapped. Other prism options available.

Focus

DMX linear focus

Strobe/dimmer

Double flag strobe，0.3-25 Hz. / linear dimmer

Movements

Pan (0°-540°)，Tilt(0°-270°) with auto positioning correction function

Beam angle

Beam angle：0.5°- 1.5°

Control

International standard DMX 512 signal,5-pin XLR connectors

RDM protocol and DMX wireless control (optional Art-Net and sACN protocols)

RGB Mode23 channels and CMY Mode 23 channels

Self test mode

Other functions

Adjustable Pan & Tilt speeds

Light source's and fixture's hours displayed

Color Chinese/English menus and display invertible ,Intelligently controllable fans

Sensor diagnostic system ,Input signal isolated, modular construction for easy maintenance, DMX channel voltages monitoring

Non-touchable magnetic sensor for positioning, signal feedback, absolute position memory, auto-positioning after power-off or DMX

signal disrtuption

After shutters in, the projecotr will enter hibernation mode for energy saving

Firmware upgrade via DMX cable

Housing and ingress protection

Cast aluminum and high temperature and UV resistant ABS with IP66

Weight

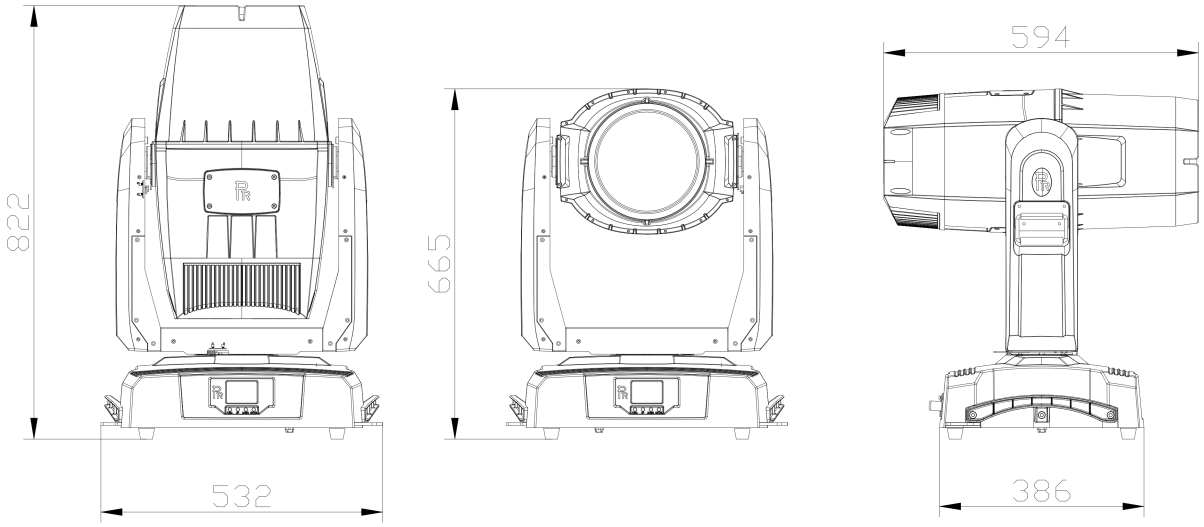
Net weight：50.6 Kg

Ambient temperature

-20 ℃ ~ 45 ℃

Note：If a fixture runs with the ambient temperature below 0 Celsius, it should be heated for some time(less than 20 minutes based on actual conditions) before turning on the laser module.

Sizes （unit：mm）



Base installation

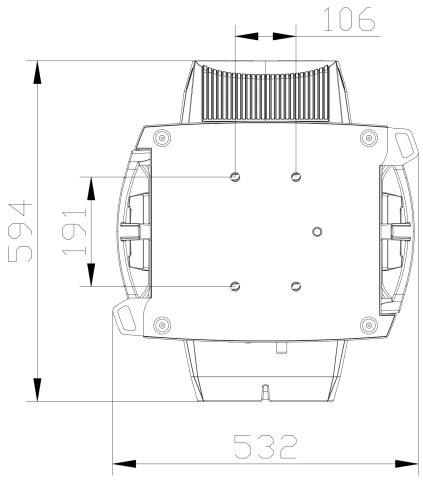
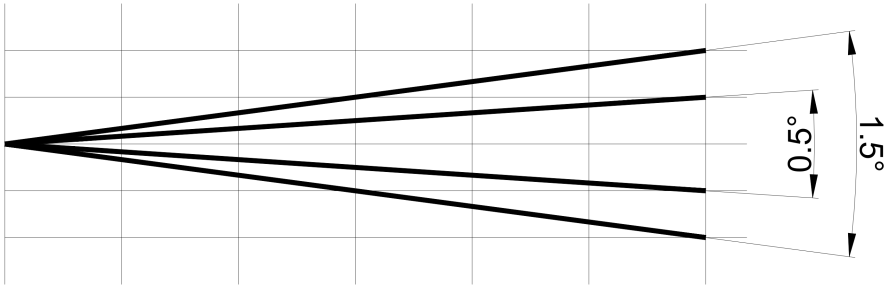


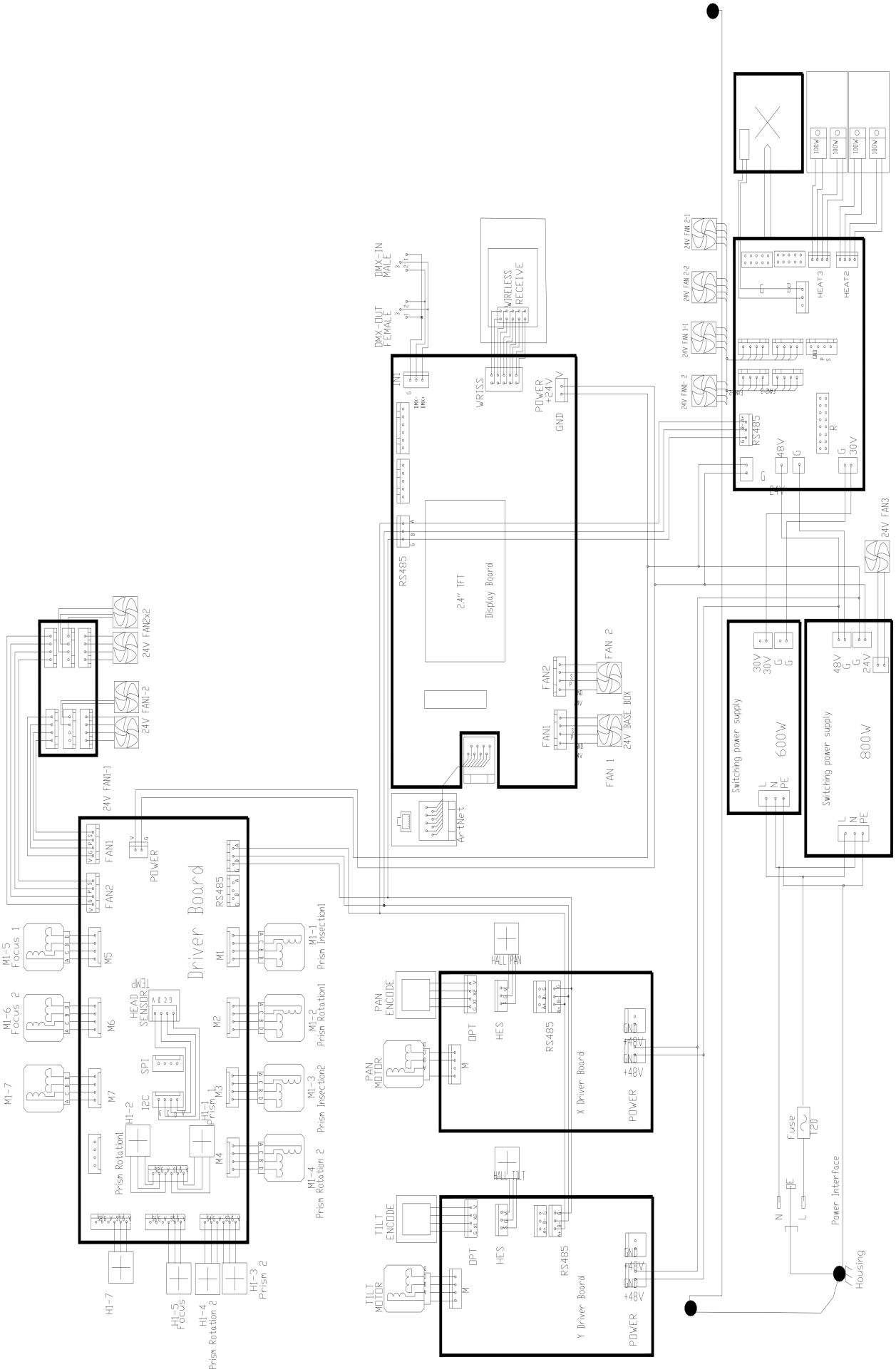
Photo electric

1.5 FLUX (lux)	126000	31500	14000	7875	5040	3500
0.5 FLUX (lux)	1228500	307125	136500	76781	49140	34125



DISTANCE(m)	20m	40m	60m	80m	100m	120m
0.5° DIAMETER(m)	∅ 0.16	∅ 0.32	∅ 0.49	∅ 0.65	∅ 0.81	∅ 0.97
1.5° DIAMETER(m)	∅ 0.54	∅ 1.08	∅ 1.62	∅ 2.16	∅ 2.70	∅ 3.24

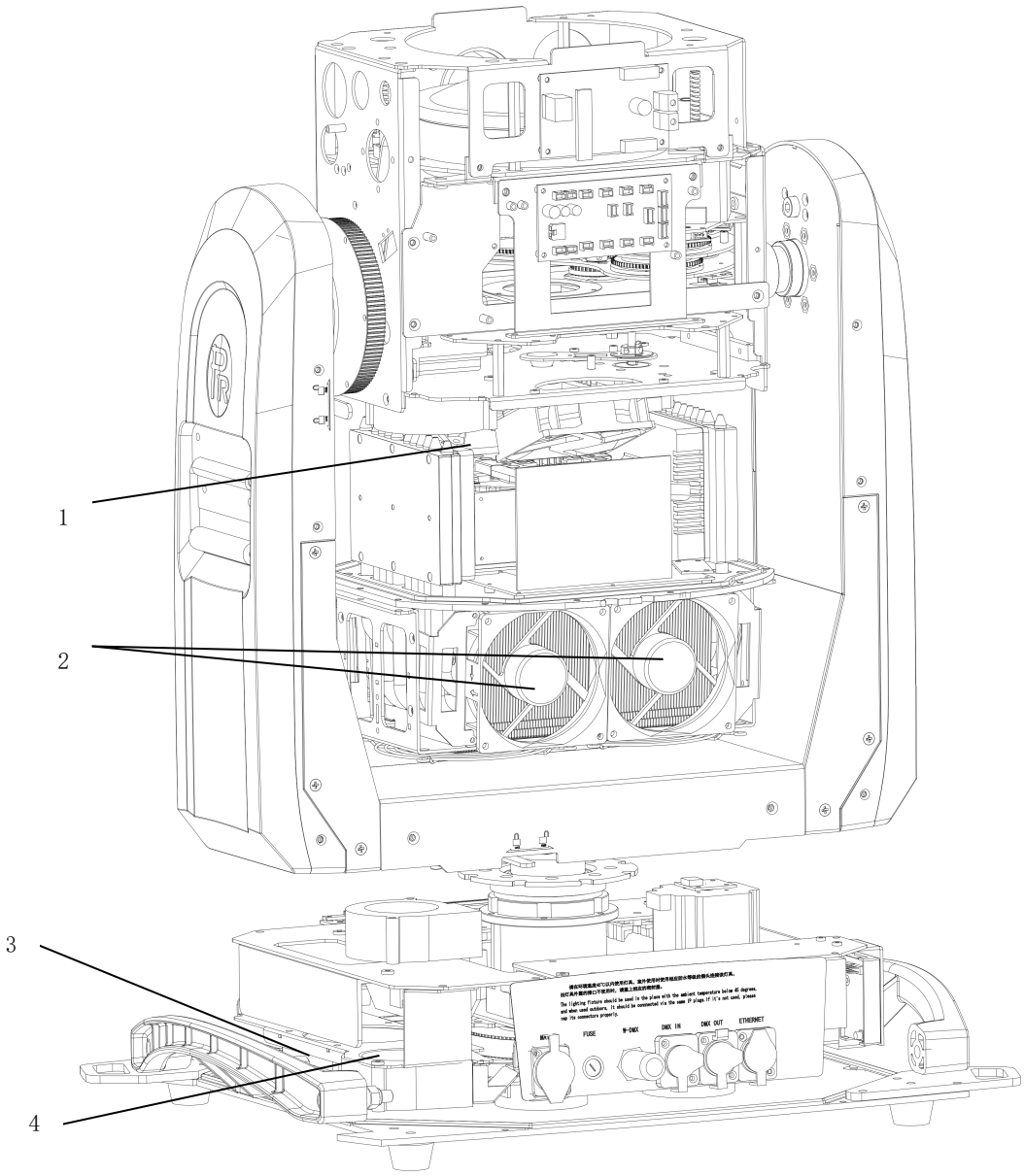
10. CIRCUIT DIAGRAM


DMX-IN MALE
DMX-OUT FEMALE
WIRELESS RECEIVE
WRISS
POWER +24V
GND
RS485
2.4" TFT
Display Board
ArtNet
FAN1
FAN2
FAN 1
FAN 2
24V BASE BOX
24V FAN3
24V FAN 2-1
24V FAN 2-2
24V FAN 1-1
24V FAN1- 2
HEAT3
HEAT2
100W
48V
30V
Switching power supply
600W
800W
L
N
PE
Fuse
T20
Power Interface
Housing
24V FAN2x2
24V FAN1-2
24V FAN1-1
Driver Board
POWER
RS485
M1-5 Focus 1
M1-6 Focus 2
M1-7
M5
M6
M7
M1
M2
M3
M4
M1-1 Prism Insection1
M1-2 Prism Rotation1
M1-3 Prism Insection2
M1-4 Prism Rotation 2
HEAD SENSOR
TEMP
SPI
I2C
H1-1 Prism 1
H1-2 Prism Rotation1
H1-3 Prism 2
H1-4 Prism Rotation 2
H1-5 Focus
H1-7
HALL PAN
PAN ENCODE
PAN MOTOR
OPT
HES
M
X Driver Board
HALL TILT
TILT ENCODE
TILT MOTOR
Y Driver Board
GND
+48V

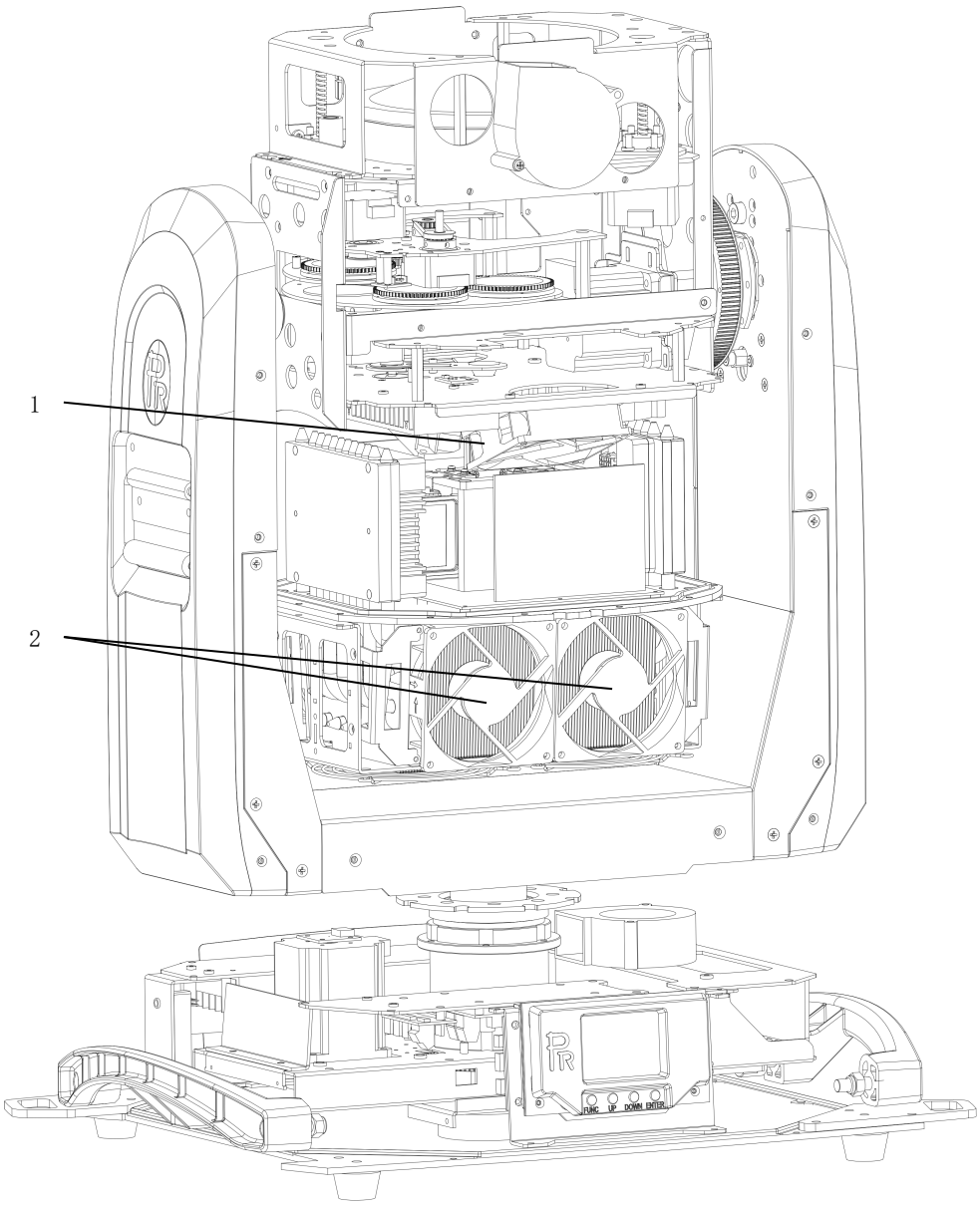
11. COMPONENT ORDER CODES

Name	Code No.	Qty.	Descriptions
Light source	150020362	1	
Switching power supply	192010239	1	600W
Switching power supply	192010240	1	
Base fan 1	030060121A	1	
Base fan 2	030060119	1	
Heat fan	030060119	1	
Driver fan	030060121A	2	
Waterproof fan 1	030060144	2	
Waterproof fan 2	030060144	2	
Fan for light source	030040252	1	
Pan motor	030040278B	1	
Tilt motor	030040243A	2	
Focus motor	030040095A	2	
Prism in/out motor	030040254	2	
Prism rotation motor	150020362	1	

12 .LIGHTING FAN INSTALLATION POSITION



No.	Code No.	Name	Remark	Fan Position
1	030060119	Heat Fan	PF75302B3-L03C-S99 24V 0.144A 3500	7-Channel Motor driver PCB FAN1
2	030060144	Waterproof fan 2	MGT9224ZB-W25 24V 0.23A 4500	Source driver driver PCB FAN 2-1, FAN 2-2
3	030060121A	Base Fan 1	MGT8024UB-W25 24V 0.45A 5500	Display driver PCB: FAN 1
4	030060119	Base Fan 2	PF75302B3-L03C-S99 24V 0.144A 3500	Display driver PCB: FAN 2



No.	Code No.	Name	Remark	Fan Position
1	030060121A	Driver Fan	MGT8024UB-W25 24V 0.45A 5500	7-Channel Motor driver PCB FAN1
2	030060144	Waterproof fan 1	MGT9224ZB-W25 24V 0.23A 4500	Source driver PCB FAN 1-1, FAN 1-2

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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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