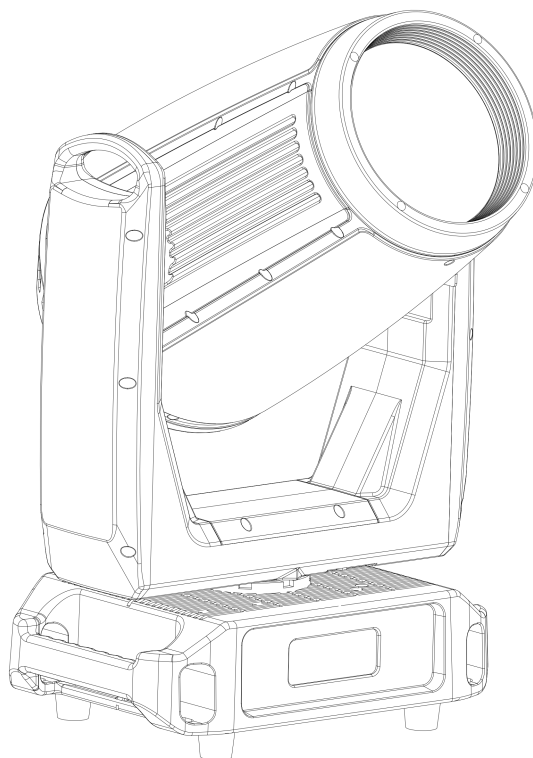




AQUA LASER 300 RGB BEAM

PR-8335

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
Safety cord	1	Pc	
User manual	0	Pc	QR CODE

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, IP65.
- 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 50°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 18m.
- 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.

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.

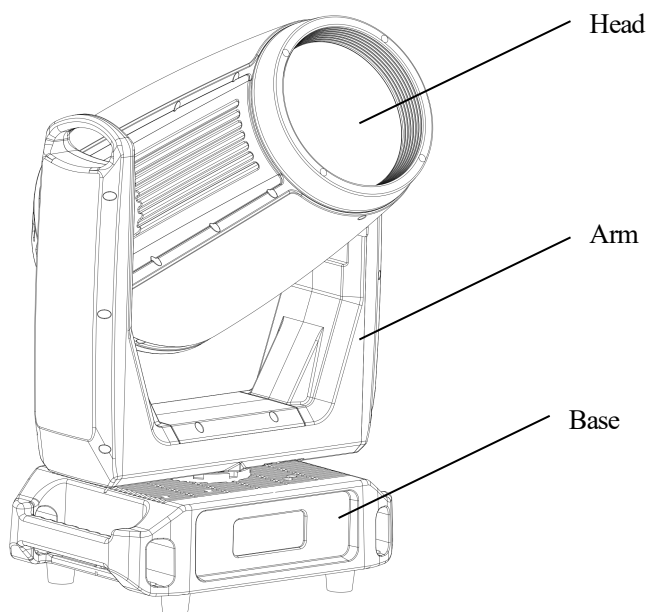
●LUBRICATION

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.

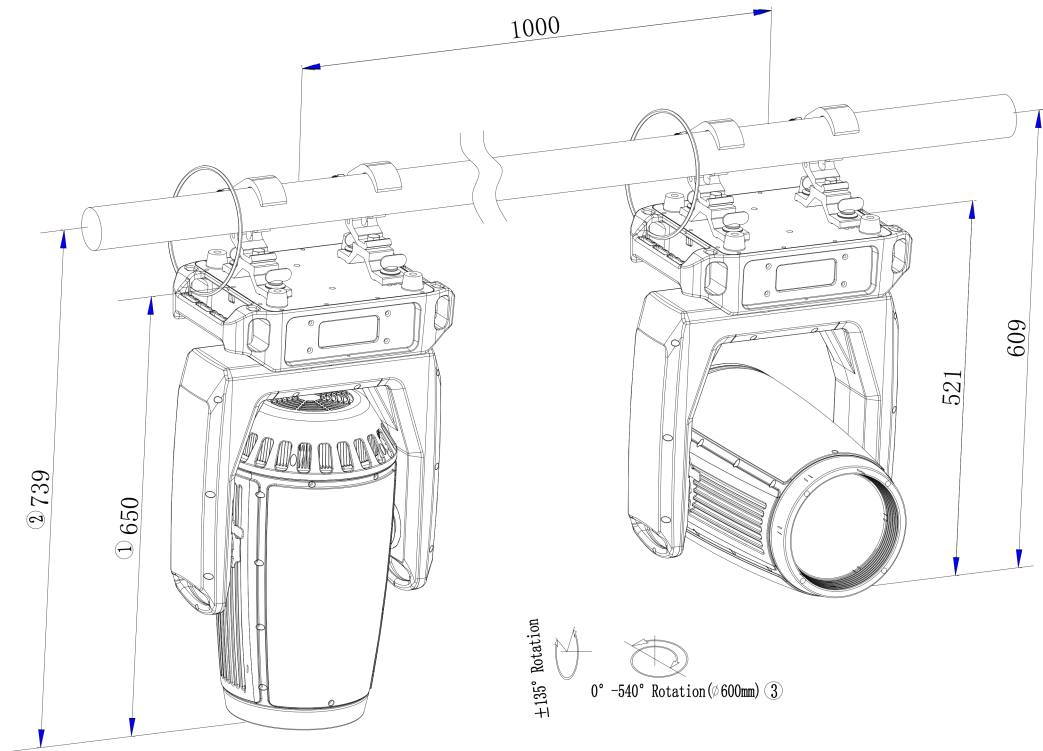
3.APPEARANCE



4.INSTALLATION

●RIGGING

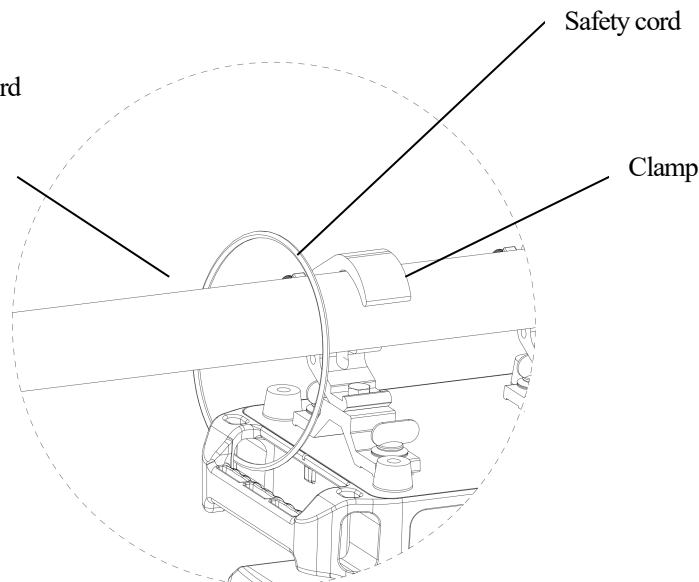
Before moving a projector, Please lock Pan and Tilt. Before its operation, please unlock them. It's forbidden to run a projector with power while it is locked.



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.

• POWER CONNECTION

Connect the power cord as follows:

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

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



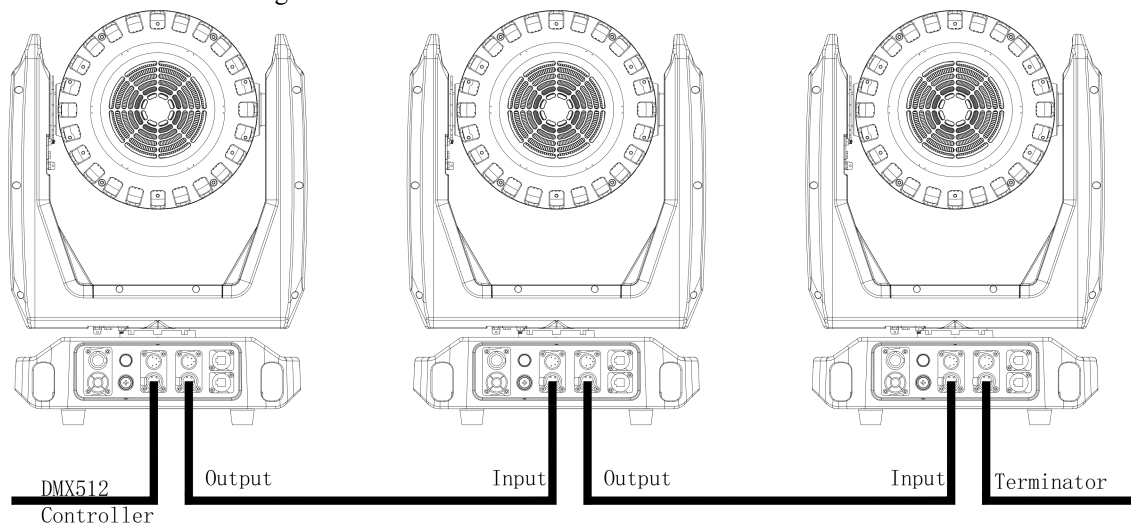
- The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.
- If any questions about the electrical installation, do not continue but consult a qualified electrician.

•DMX CONTROL CONNECTION:

Connection between controller and projector and between one projector and another must be made with a twin-screened cable, with each wire having at least a 0.5mm in diameter. Connection to and from the projector is via cannon 5 pin (which are included with the projector) or 5 pin XLR plugs and sockets. The XLR's are connected as shown in the figure above.

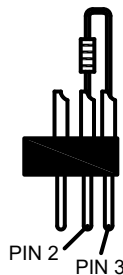
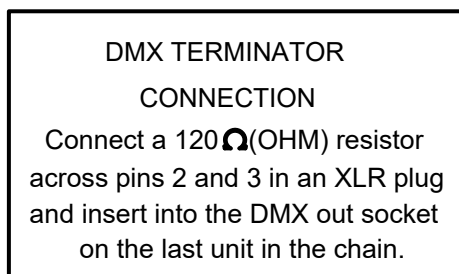
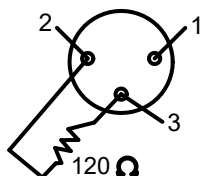
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. XLR plugs and sockets mustn't be connected in any way other than mentioned in the above figure. The fixture accepts digital control signals in protocol DMX512 (1990).

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**

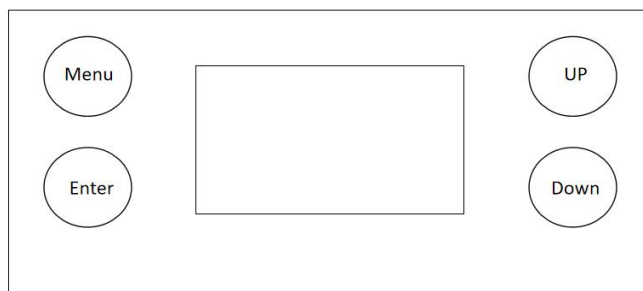
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

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.



5. SETUP AND CONFIGURATION

•FRONT PANEL OPERATION



To browse through or change the function setup, press button **ENTER** more than 3 seconds to unlock the screen (after power-on, press ENTER key). Then press MENU key to enter the menus. Each main menu has its own sub-menu. Each menu stands for specified function of the fixture, please see the details in the following SECTION 6- OPERATION MENU:

1. Press button **UP** or **DOWN** to select the function desired in the page of function setup menus.
2. Press **MENU** button to escape. Press button **ENTER** to confirm and save the changes made or enter the sub-menus..

Press button **UP** or **DOWN** to change the values (increase or decrease the numbers)

Press button **MENU**, it will return to the upper menu, otherwise the system will go back to display 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 1DMX modes, please set the No. 1 projector’s address 001, No. 2 projector’s address 020, No. 3 projector’s address 039, No. 4 projector’s address 058, and so on.

Press button **ENTER** more than 3 seconds to unlock the display and press **MENU** to enter menus desired .

Select DMX address icon and press **ENTER** to enter. Press button **UP** or **DOWN** to the value desired

Press button **MENU**, it will return to the upper menu, otherwise the system will go back to display status automatically.

•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.

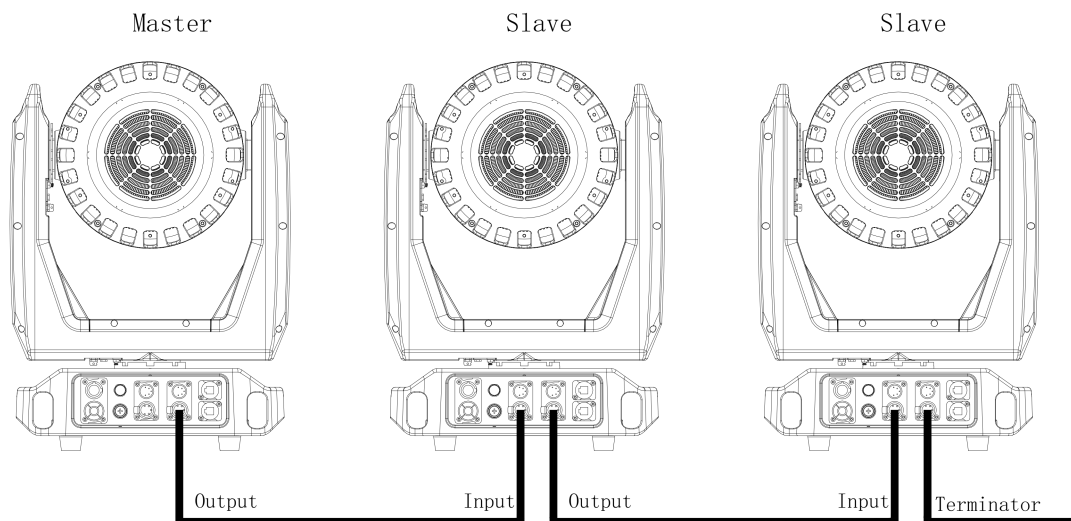
DMX address can be set at any number within 512.

•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

Menu	Sub-menu	Option/Value	Option/Value
DMX address	001~512		
DMX channel	19CH		
Config.	Control Mode	DMX	
		Artnet	
		sACN	
	Fan mode	Auto	
		Low speed	
		High speed	
	Calibration	Pan inversion	
		Tilt inversion	
		Motor	
	Languages	Chinese	
		English	
	Display inversion	Off	
		On	
	Signal on	Off	
		On	
	Screen lock-up	Off	
		On	
	Factory defaults	NO/YES	
Ethernet	Ethernet	IP:002.000.000.001	
		MS:255.000.000.000	
	Data package	Net(0-127):000-127	
		Sub_Uni:000-255	
Manual	Pan	000~255	
	Pan Fine	000~255	
	Tilt	000~255	

	Tilt fine	000~255	
	Strobe	000~255	
	Dimmer	000~255	
	Laser switch	000~255	
	Red	000~255	
	Green	000~255	
	Gobo	000~255	
	Frost	000~255	
	Prism1	000~255	
	Prism1 rotation	000~255	
	Prism 2	000~255	
	Prism 2 rotation	000~255	
	Focus	000~255	
	Reset	000~255	
Reset	Effect motor reset		
	Pan and Tilt motor reset		
	All motor reset		

7. DMX CHART

DMX channel	DMX value	Function	Description
1CH	0-255	Pan	0°-540°
2CH	0-255	Pan fine	0°-2°
3CH	0-255	Tilt	0°-270°
4CH	0-255	Tilt fine	0°-1°
5CH	0-255	Pan and Tilt speed	From fast to slow
6CH	0-3	Strobe	Shutter closed
	4-99		Synchronized strobe
	100-149		Pulse strobe
	150-199		Lightning strobe
	200-249		Random strobe
	250-255		Shutter opened
7CH	0-255	Dimmer	0-100% dimmer
8CH	0-127	Laser switch	Off
	128-255		On
9CH	0-255	Red	Red 0-100% dimmer
10CH	0-255	Green	Green 0-100% dimmer
11CH	0-255	Blue	Blue 0-100% dimmer
12CH	0-7	Fixed gobo wheel	Open
	8-14		Gobo1
	15-21		Gobo2
	22-28		Gobo3

	29-35		Gobo4
	36-42		Gobo5
	43-49		Gobo6
	50-56		Gobo7
	57-63		Gobo8
	64-70		Gobo9
	71-77		Gobo10
	78-84		Gobo11
	85-91		Gobo12
	92-98		Gobo13
	99-105		Gobo1 shaking from slow to fast
	106-112		Gobo2 shaking from slow to fast
	113-119		Gobo3 shaking from slow to fast
	120-126		Gobo4 shaking from slow to fast
	127-133		Gobo5 shaking from slow to fast
	134-140		Gobo6 shaking from slow to fast
	141-147		Gobo7 shaking from slow to fast
	148-154		Gobo8 shaking from slow to fast
	155-161		Gobo9 shaking from slow to fast
	162-168		Gobo10 shaking from slow to fast
	169-175		Gobo12 shaking from slow to fast
	176-182		Gobo13 shaking from slow to fast
	183-189		Anti-clockwise rotation from fast to slow
	190-221		Stop
	224-255		clockwise rotation from slow to fast
13CH	0-127	Frost	Open
	128-255		Frost in
14CH	0-127	Prism 1	Open
	128-255		Prism 1 in
15CH	0-127	Prism 1 rotation	0°-400°
	128-189		Forward rotation from fast to slow
	190-193		Stop
	194-255		Reverse rotation from f slow to fast
16CH	0-127	Prism 2	Open
	128-255		Prism 2 in
17CH	0-127	Prism 2 rotation	0°-400°
	128-189		Forward rotation from fast to slow
	190-193		Stop
	194-255		Reverse rotation from f slow to fast
18CH	0-255	Focus	Linear focus
19CH	230-235	Reset	Effect motors reset more than 5s
	240-245		Pan and Tilt motors reset more than 5s
	246-255		All motors reset more than 5s

8. ERROR MESSAGES

If any big problems, please stop using the fixture immediately and ask professional technicians for help.

Problems	Possible causes
Inaction after power on	A if the power cable is connected properly or not
	B、fuse blown up
	C、switching power supply down
Not controlled by DMX signal	A、Main board down
	B、DMX signal board down
Laser not on	A、laser engine down
	B、optical fiber down

9. TECHNICAL DATA

Electric parameters

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

Power consumption: 450W @ 220V

Rated current: 5 A @ 220V

Power factor: PF>0.9

Light sources

Light sources	300 W RGB laser engine
Color temperature	7500K
Rated life	≥20000hrs
Lumens	≥10000lm
Nominalwavelengthofredlaser	638nm
Nominalwavelengthofgreenaser	520nm
Nominalwavelengthofbluelaser	450nm
Initial beam's diameter	80~120mm

Fixed gobo wheel

1 fixed gobo wheel: 13gobos + open

Shakable at variable speeds and bi-directional rotation at variable speeds

gobo1	gobo2	gobo3	gobo4	gobo5	gobo6	gobo7	gobo8
							
gobo9	gobo10	gobo11	gobo12	gobo13			
							

Prism:

2 set prism

.

Frost

1 pc of frost filter

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: 0.6°

Control

International standard DMX 512 signal,3pin XLR connectors(optional 5-pin)

Other functions

Pan and Tilt speeds adjustable

DMX, Art-Net and sACN protocols

Housing and ingress protection

Cast aluminum and high temperature and UV resistant ABS with IP65

Weight

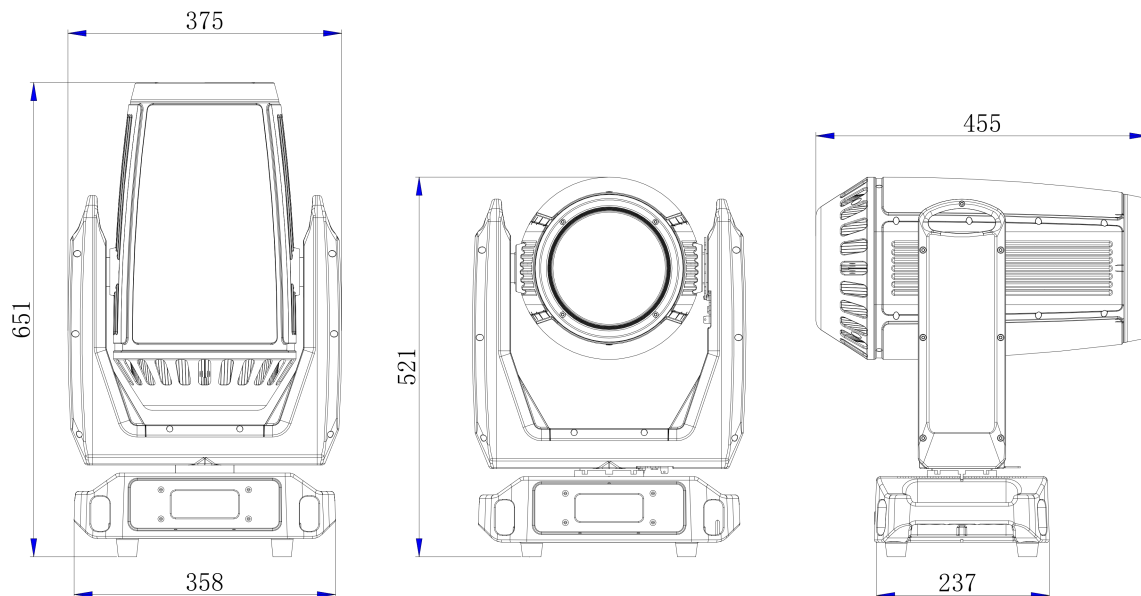
Net weight: 21Kg

Ambient temperature

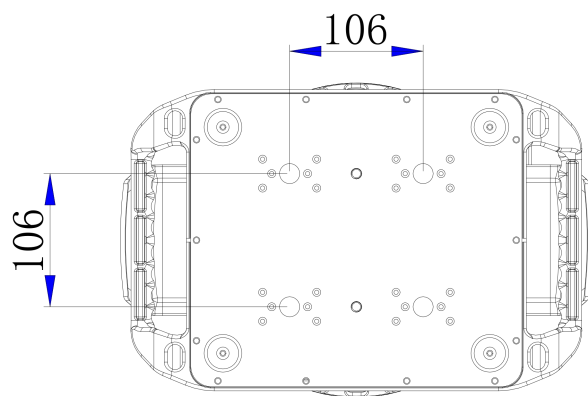
45 °C at maximum

Note: while ambient temperature below zero, please preheat a fixture for some time(normally less than 20 minutes) based on actual temperature before turning on the laser engine.

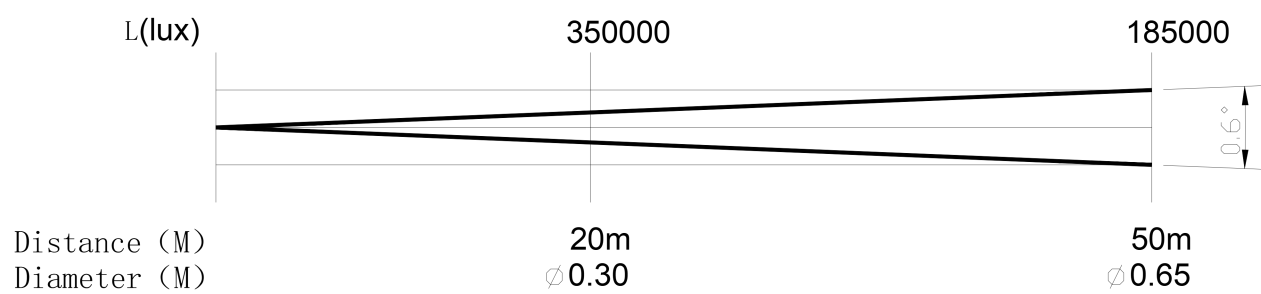
Sizes (unit: mm)



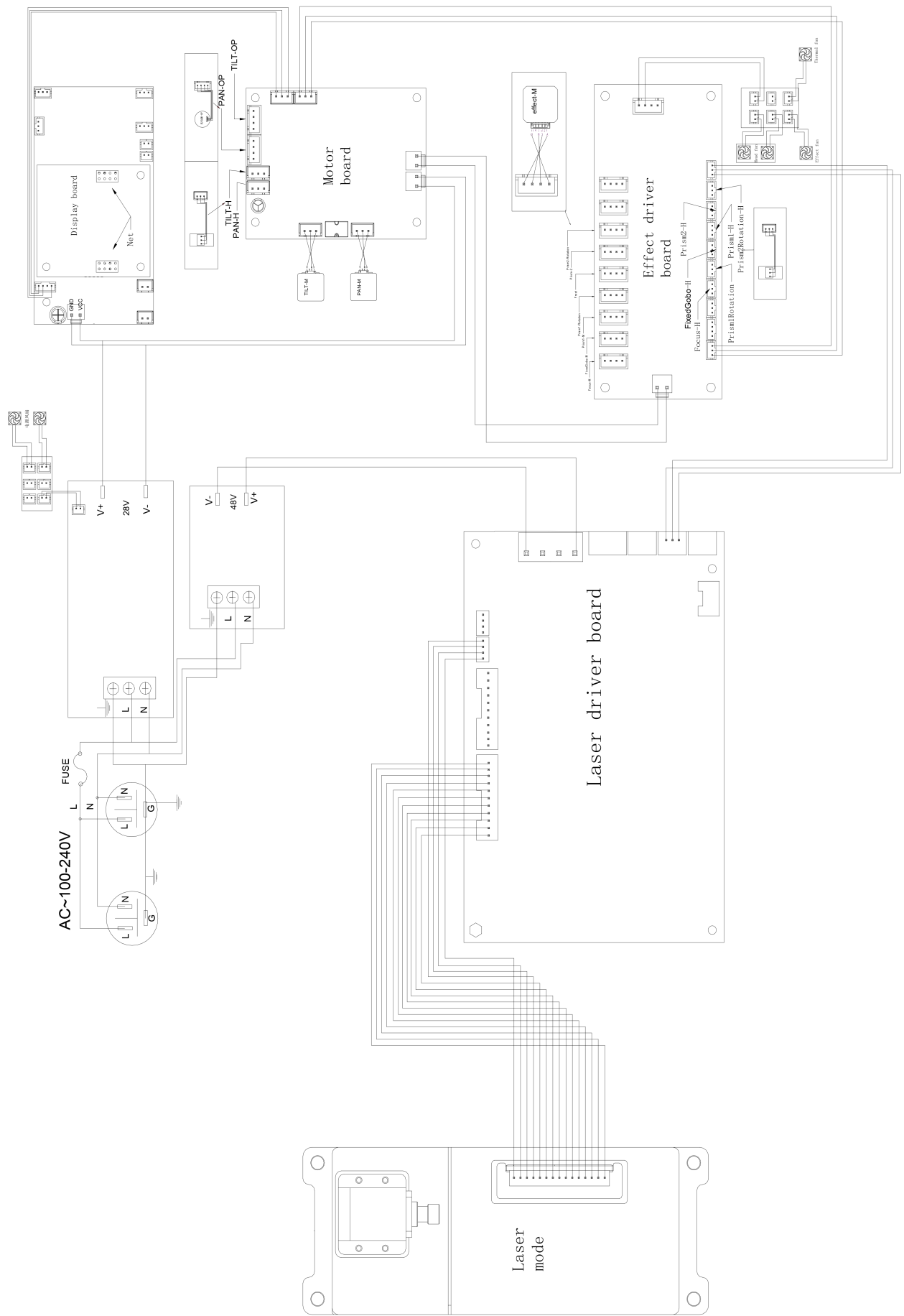
Base installation:(unit: mm)



Photometric



9. CIRCUIT DIAGRAM



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

P/N: 320021672
Old Version:20241211
New Version:20250226