AQUA Laser 120 BEAM
PR-8319

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

INDEX

ACCESSORIES

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

Name	Quantity	Unit	Remark
Safety cord	1	Pc	
User manual	0	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.
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●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 75°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.
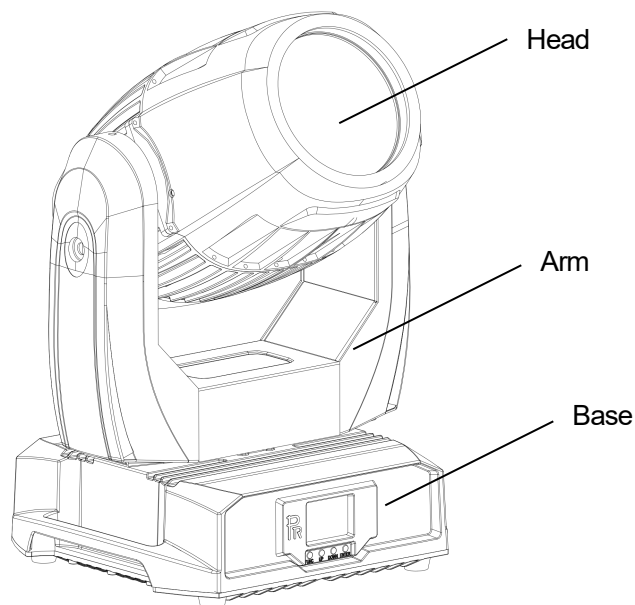
●LUBRICATION

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..
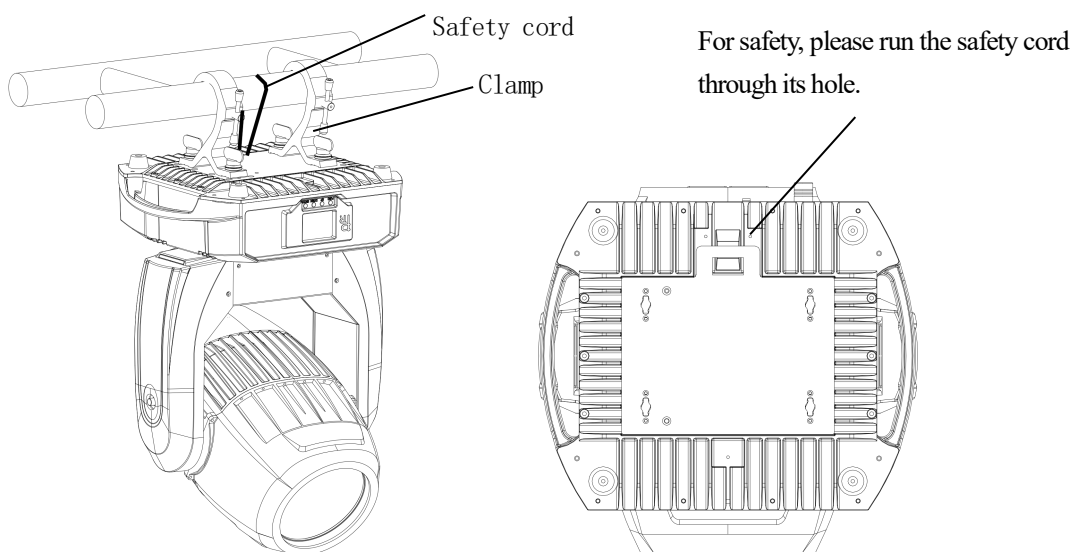
●TROUBLESHOOTING

| 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 light source is within its lifespan ➤ Remove dust or grease from the lenses.
The project image appears to have a halo	➤ Carefully clean the light source, 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

Head

Arm

Base

4. INSTALLATION

•RIGGING

Safety cord

Clamp

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

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.

>1000

733 ①

598 ②

±135° Rotation

0°－540° Rotation(∅450mm) ③
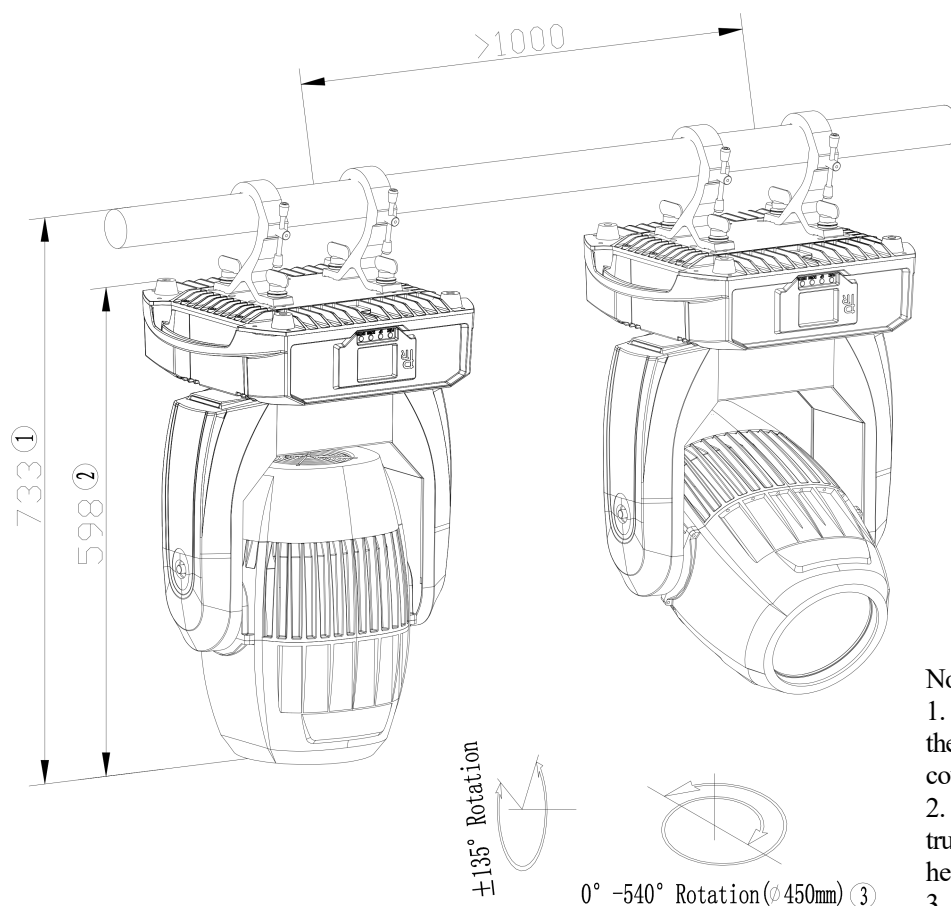
Note:
1. the distance between the foot of the base and the front lens cover(the head facing downward)
2. the distance between mounting truss and the front lens cover(the head facing downward)
3. The maximum diameter of the rotating head (minimum spacing between fixtures)

Take 2 clamps and 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.**

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.

DMX512 COMTROLLER   OUTPUT   INPUT   OUTPUT   INPUT   TERMINATOR
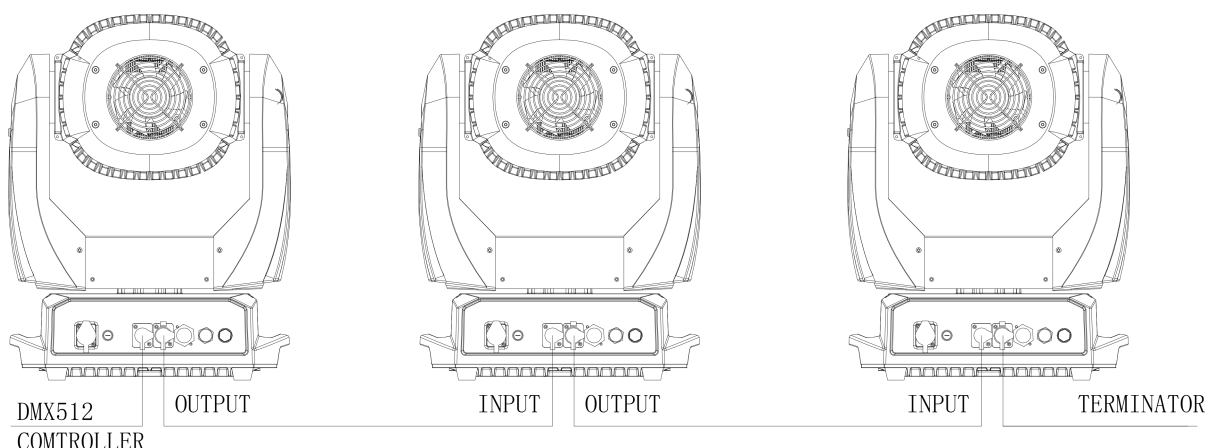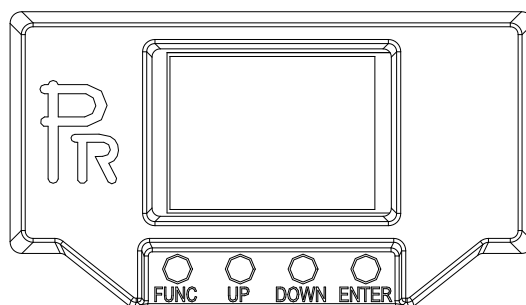
•**DMX TERMINATOR**

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.
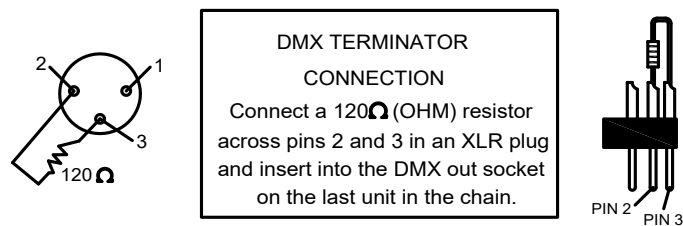
5. SETUP AND CONFIGURATION
•FRONT PANEL OPERATION

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 3 DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 17 channels, so set the No. 1 projector's address 001, No. 2 projector's address 018, No. 3 projector's address 035, No. 4 projector's address 052, 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.
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•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

MASTER   SLAVE   SLAVE

OUTPUT   INPUT   OUTPUT   INPUT   TERMINATOR
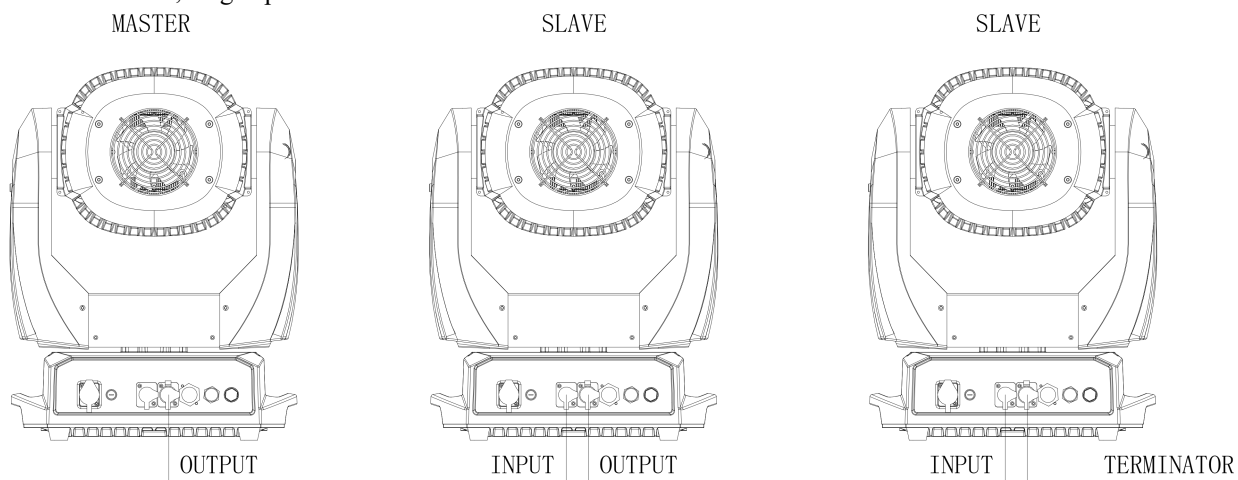
6. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-498(Short Mode) 1-496(Standard Mode) 1-495(Extend 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		
	Colour System Reset	Really Reset? Confirm or Cancel		
	Gobo Reset	Really Reset? Confirm or Cancel		
	Fo. Pr. Reset	Really Reset? Confirm or Cancel		
Config Settings	DMX Channel Mode	Short Mode 15CH		
		Standard Mode 17CH		
		Extended Mode 18CH		
		View Selected Mode	Ch.01 Strobe Ch.02 Dimmer … Ch. XX control function	

	Signal Select (Wireless control is only for a fixture with wireless reciever)	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 (Wireless control is only for a fixture with wireless reciever)	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	Gamma Curve	Gamma 2.0/2.2/2.4/2.6/Line	
		LED Refresh Rate	1200/2400/4800/10000/12000/15000/20000/25000 Hz	
		Dimmer Speed	Fast Speed/Medium Speed/Slow Speed	
	Fan Settings	Full Power/Standard/Theatre		
Information	View DMX Values	Channel Value Strobe XXX Dimmer XXX Color Wheel XXX FixedGoboWheelXXX Effect Wheel XXX Effect Wheel Rotation XXX Prism XXX Prism Rotation XXX Focus XXX Pan XXX Pan fine XXX Tilt XXX Tilt fine XXX Control Function XXX		
	Light source hours	XXX h		
	Total hours	XXXh		
	Temperature	Display Board=×××C Pan board=×××C Tilt board=×××C Motor driver board =×××C Light source driver board =×××C Light source==×××C		
	Software Version	PCB Sys. bootloader Display Board xxx xxx Pan board xxx xxx Tilt board xxx xxx Motordriverboard xxx xxx Lightsourcedriverboard x xx xx		
	Electronic SN	XXXXXX		
	RDM Device Label	AQUA Laser 120 Beam ANSI E1.20 RDM		
	Fan Status	Fan Speed RSpeed Head fan xxx on/off Lightsourcefan xxx on/off		

	Light source off by Fan Error	Fan　　　DMX channel Base fan　　xxx Front lens fan　xxx Head fan　　xxx Lightsource fan　xxx		
Service	Manual Effect Control	Channel　　　Value Strobe　　　XXX Dimmer　　　XXX Dimmer fine　　XXX Color Wheel　　XXX Color Wheel fine　XXX FixedGoboWheelXXX Effect Wheel　XXX Effect Wheel Rotation 　　XXX Prism　　　XXX Prism　Rotation　XXX Focus　　　　XXX Pan　　　XXX Pan fine　　XXX Tilt　　　XXX Tilt fine　　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 Memories	Edit User Memory	Edit User Memory 1 / Edit User Memory 2	（1~200 Scenes） Scene XX （1~200 Scenes）	Paste? Confirm or Cancel	Channel　　　Value Strobe　　　XXX Dimmer　　　XXX Color Wheel　　XXX FixedGoboWheelXXX Effect Wheel　　XXX Effect Wheel Rotation 　　XXX Prism　　　XXX Prism　Rotation　XXX Focus　　　XXX Pan　　　XXX Tilt　　　XXX Hold time　　XXX Delay Time　　XXX Delay time unit ms/s/m Link to next scene XXX
		Edit Static Scene	Paste? Confirm or Cancel		Channel　　　Value Strobe　　　XXX Dimmer　　　XXX Color Wheel　　XXX FixedGoboWheelXXX Effect Wheel　　XXX Effect Wheel Rotation

				XXX
				Prism XXX Prism Rotation XXX Focus 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 error can turn off the light source automatically.
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

⚠️	Error Messages	☰	Option Settings
🔘	Address	ℹ️	Information
🔄	Reset	🔧	Service
⚙️	Config Settings	👤	Operation Mode
📝	User Memories		

7. DMX PROTOCOL

Short mode	Standard Mode	Extended Mode	FUNCTION	DMX	DESCRIPTION
1	1	1	Strobe	000	Close
				001-127	Pulse strobe speed from slow to fast
				128-255	Strobe speed from slow to fast
2	2	2	Dimmer	000-255	Linear dimming（0-100%）
	3	3	Dimmer Fine	000-255	Dimmer in 16 bit
3	4	4	Color Wheel	000-063	Indexing(0-360degrees)
				064-067	Open
				068-070	Color1
				071-073	Color2
				074-076	Color3
				077-079	Color4
				080-082	Color5
				083-085	Color6
				086-088	Color7
				089-091	Color8

				092-094	Color9
				095-097	Color10
				098-100	Color11
				101-103	Color12
				104-106	Color13
				107-109	Color14
				110-112	Color15
				113-115	Color16
				116-118	Color17
				119-121	Color18
				122-127	Open
				128-191	Rotation ,Clockwise from slow to fast
				192-255	Rotation,Anti-clockwise from fast to slow
	5	5	Color Wheel Fine	0000-255	Color Wheel in 16 Bit
4	6	6	Fixed Gobo Wheel	000-011	Open
				012-015	Gobo1
				016-019	Gobo2
				020-023	Gobo3
				024-027	Gobo4
				028-031	Gobo5
				032-035	Gobo6
				036-039	Gobo7
				040-043	Gobo8
				044-047	Gobo9
				048-051	Gobo10
				052-055	Gobo11
				056-059	Gobo12
				060-063	Gobo13
				064-067	Gobo14
				068-071	Gobo15
				072-075	Gobo16
				076-079	Gobo17
				080-083	Gobo18
				084-087	Gobo19
				088-091	Gobo20
				092-095	Gobo21
				096-099	Gobo22
				100-103	Gobo23
				104-107	Gobo24
				108-111	Gobo25
				112-115	Gobo26
				116-119	Gobo27
				120-123	Gobo28
				124-127	Gobo29

				128-149	Clockwise rotation from slow to fast
				150-171	Anti Clockwise rotation from slow to fast
				172-174	Shake effect 1 from slow to fast
				175-177	Shake effect 2 from slow to fast
				178-180	Shake effect 3 from slow to fast
				181-183	Shake effect 4 from slow to fast
				184-186	Shake effect 5 from slow to fast
				187-189	Shake effect 6 from slow to fast
				190-192	Shake effect 7 from slow to fast
				193-195	Shake effect 8 from slow to fast
				196-198	Shake effect 9 from slow to fast
				199-201	Shake effect 10 from slow to fast
				202-204	Shake effect 11 from slow to fast
				205-207	Shake effect 12 from slow to fast
				208-210	Shake effect 3 from slow to fast
				211-213	Shake effect14 from slow to fast
				214-216	Shake effect 15 from slow to fast
				217-219	Shake effect 16 from slow to fast
				220-222	Shake effect 17 from slow to fast
				223-225	Shake effect 18 from slow to fast
				226-228	Shake effect19 from slow to fast
				229-231	Shake effect20 from slow to fast
				232-234	Shake effect21 from slow to fast
				235-237	Shake effect 22 from slow to fast
				238-240	Shake effect 23 from slow to fast
				241-243	Shake effect24 from slow to fast
				244-246	Shake effect25 from slow to fast
				247-249	Shake effect 26 from slow to fast
				250-252	Shake effect27 from slow to fast
				253-255	Shake effect 28 from slow to fast
5	7	7	Effect Wheel	000−063	Open
				064−127	Linear prism
				128−191	Frost
				192−255	Effect
6	8	8	Effect Wheel Rotation	000-127	Effect Indexing
				128	Stop
				129-191	Rotation(Clockwise from slow to fast)
				192	Stop
				193-255	Rotation(Anti- Clockwise from slow to fast)
7	9	9	Prism	000-016	White
				017-255	Frost in
8	10	10	Prism 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)
9	11	11	Focus	000-255	Linear focus
		12	Focus Fine	000-255	Focus in 16 bit precision
10	12	13	Pan	000-255	Pan(0°~540°)
11	13	14	Pan Fine	000-255	Pan in 16 bit
12	14	15	Tilt	000-255	Tilt(0°~270°)
13	15	16	Tilt Fine	000-255	Tilt in 16 bit
14	16	17	Pan & Tilt Speeds	000-255	Pan & Tilt Speed from Fast to Slow
15	17	18	Control	000-019	Reserved
				Stay within DMX range for more than 5S to activate the following functions.
				020-024	Graphic Display On
				025-029	Graphic Display Off
				030-052	Reserved
				045-046	Fan high light mode
				047-048	Fan standard mode
				049-050	Fan theater mode
				051-052	Fast Dimmer
				053-054	Medium Dimmer
				055-056	Slow Dimmer
				057-058	Gamma 2.0
				059-060	Gamma 2.2.
				061-062	Gamma 2.4
				063-064	Gamma 2.6
				065-066	Line curve
				067-068	LED refresh rate 1200Hz
				069-070	LED refresh rate 2400Hz
				071-072	LED refresh rate 4800Hz
				073-074	LED refresh rate 10000Hz
				075-076	LED refresh rate 12000Hz
				077-078	LED refresh rate 15000Hz
				079-080	LED refresh rate 20000Hz
				081-082	LED refresh rate 25000Hz
				083-089	Reserved
				090-094	Pan & Tilt Speed Mode
				095-099	Pan & Tilt Time Mode
				100-139	Reserved
				140-149	Pan & Tilt Reset
				150-159	Color System Reset
				160-169	Gobo Wheel Reset
				170-179	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
Color Wheel	Timeout/magnet Sensor	Check if wiring, positioning parts and motors are normal
Fixed gobo wheel	Timeout/magnet Sensor	Check if wiring, positioning parts and motors are normal
Dimmer	Timeout/magnet Sensor	Check if wiring, positioning parts and motors are normal
Prism	Timeout/magnet Sensor	Check if wiring, positioning parts and motors are normal
Prism Rotation	Timeout/magnet Sensor	Check if wiring, positioning parts and motors are normal
Focus	Timeout/magnet Sensor	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		
Acceleration Sensor	Error	Check signal wire
Light source on	Timeout	Check if he light source is damaged
Light source's Life	Timeout Warning	
Light source Off[Fan Error]	Error	Check if all fans are normal
Time IC	Error	

9. TECHNICAL DATA

Electric parameters

Input voltage: 100V~240V AC，50/60Hz

Power consumption:230W @ 220V

Rated current: 1.1 A /220V

Power factor: PF>0.9

Light sources

Light sources：120W laser module

Color temperature：9000K

CRI: Ra≥75

Rated life：12000hrs

Red
Light Green
Blue
Cyan
Yellow
Magenta
Orange
Green
Dark Blue
UV
Gold
Dark Yellow
Dark Red
Light Cyan
Char treuse
Light Magenta
CTO 1
CTO 2
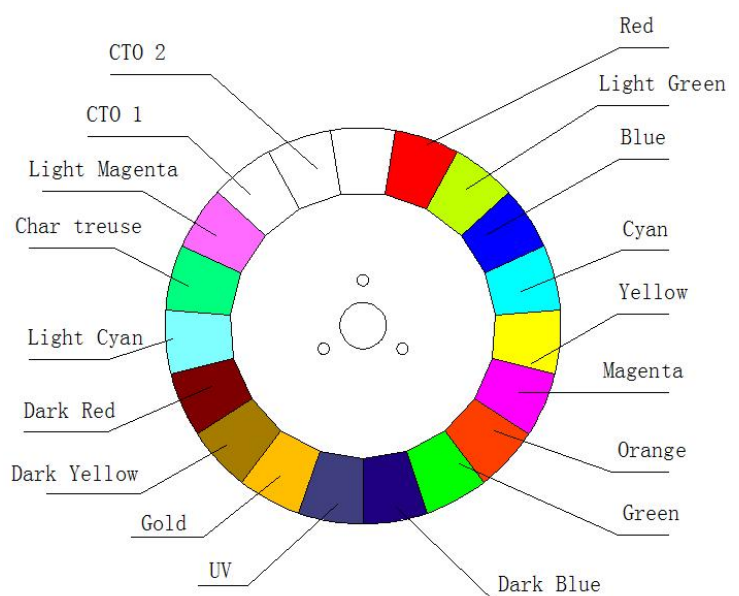
Colors

1 color wheel: 18 colors + open

Macros and bi-directional rainbow effects with variable speeds

Gobo wheels

1 fixed gobo wheel: 30gobos

Shakable at variable speeds and

bi-directional rotation at variable speeds

gobo1	gobo2	gobo3	gobo4	gobo5	gobo6	gobo7	gobo8
gobo9	gobo10	gobo11	gobo12	gobo13	gobo14	gobo15	gobo16
gobo17	gobo18	gobo19	gobo20	gobo21	gobo22	gobo23	gobo24
gobo25	gobo26	gobo27	gobo28	gobo29	gobo30		

Prism/frost：

3 prisms (an 8-facet circular prism+ a 4-facet linear prism) (a 16-facet circular prism + a frost filter)

prisms can be overlapped. Other prism options available.

Focus

DMX linear focus

Strobe/Dimmer

Double flag strobe，0.3-25Hz / linear dimmer

Movements

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

Beam angle

Beam angle：0.8°～5°

Control

International standard DMX 512 signal ,5-pin XLR connectors

Short Mode15 channels，standard Mode 17 channels, extended mode 18 channels

Self test mode

Other functions

Pan and Tilt speeds adjustable

Light source hours and fixture hours displayed

Modular construction easy for maintenance

Wireless receiver

Wireless transmitter (Optional)

ArtNet control(Optional)

Housing and ingress protection

Cast aluminum and high temperature and UV resistant ABS with IP66
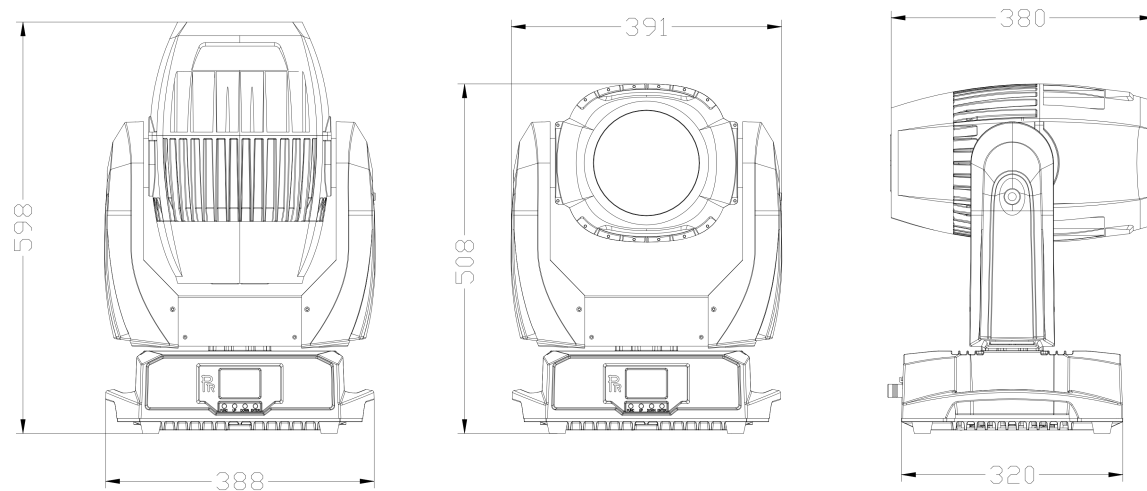
Weight
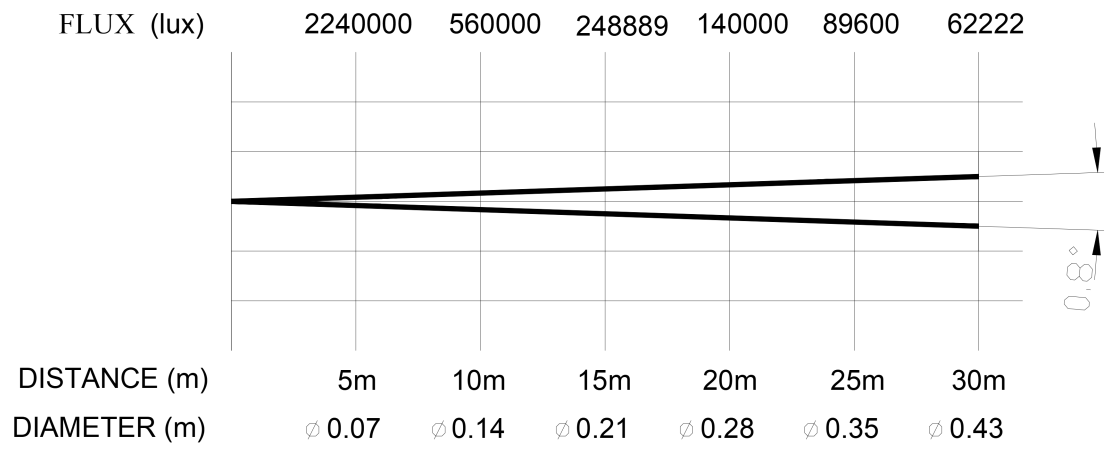
 Net weight：26 Kg

Ambient temperature

45 °C at maximum

 Note: If the ambient temperature is below 0°C, preheat the fixture for some time(less than 20 min based on actual situation normally) before striking the light source
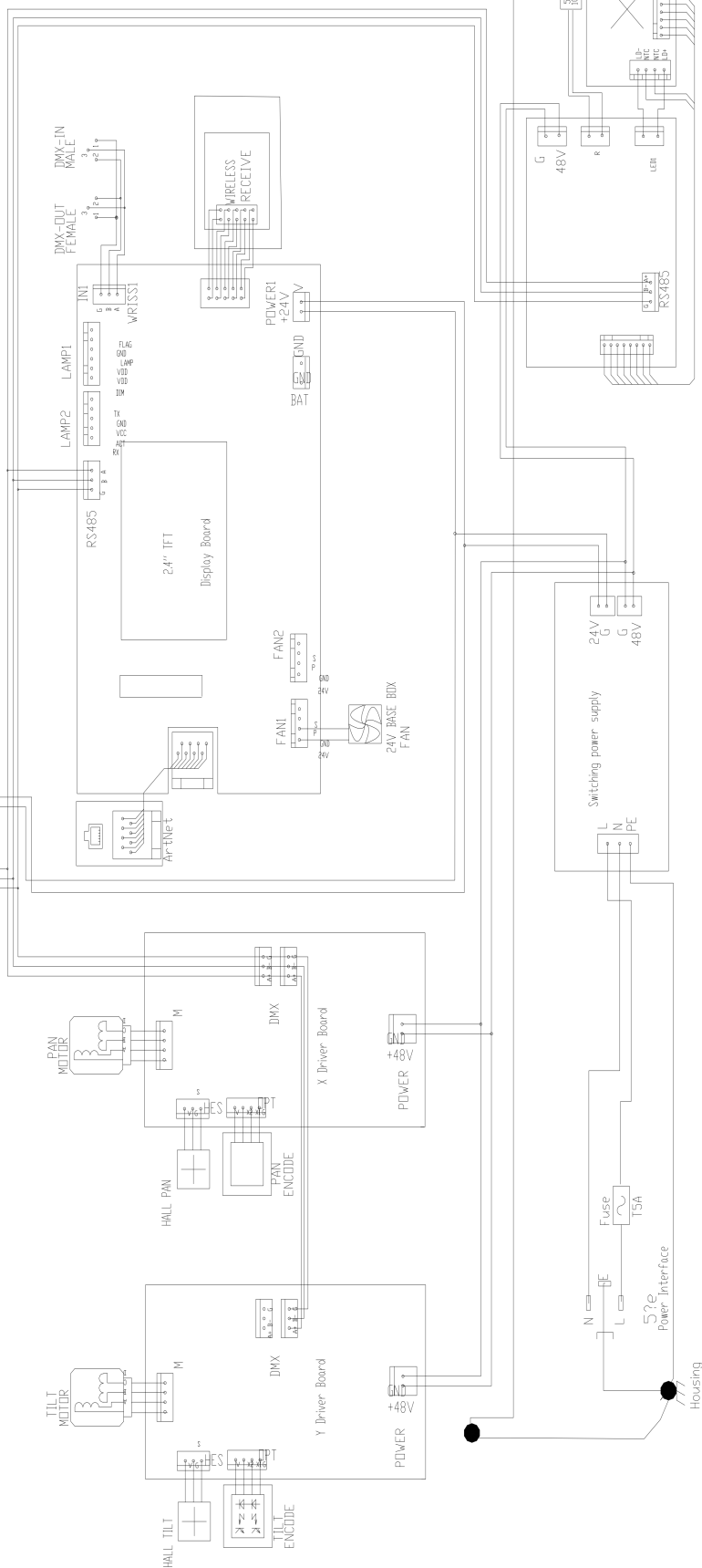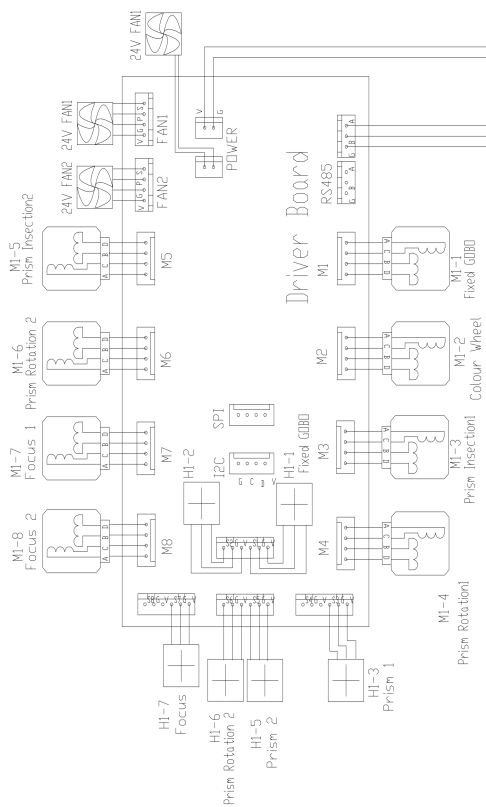
Sizes （unit：mm）

Light output

FLUX (lux)	2240000	560000	248889	140000	89600	62222

DISTANCE (m)	5m	10m	15m	20m	25m	30m
DIAMETER (m)	∅ 0.07	∅ 0.14	∅ 0.21	∅ 0.28	∅ 0.35	∅ 0.43

10. CIRCUIT DIAGRAM

11. COMPONENT ORDER CODES

NO	NAME	CODE NUMBER	QTY
SWITCHING POWER SUPPLY	192010240	1	
120W LASER LIGHT SOURCE	150020357	1	
HEAD FAN	030060116	1	
CHAMBER FAN	030060117	1	
LENS FAN	030060106	1	
LIGHT SOURCE FAN	030060121	1	
BASE FAN	030060075	1	
TILT BELT	030040246B	1	
PAN BELT	030040278B	1	
FOCUS MOTOR	030040243A	2	
FIXED GOBO WHEEL MOTOR	030040221C	1	
COLOR WHEEL MOTOR	030040221C	1	
PRISM IN/OUT MOTOR	030040221C	2	
PRISM ROTATION MOTOR	030040254	2	

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