XR380 BWS

PR-2393

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
G clamps	2	Pcs	
XLR connector	1	Set	Male and female
Safety cord	1	Pc	
User manual	1	Pc	
Ω clamps	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 change in the user manual won't be with any notice.

Note For the products made by Guangzhou PR lighting Ltd, the warranty for the whole product is one year starting from the delivery date but the light source is not within the warranty.

1. SAFETY AND WARNINGS

NOTE

Before a projector's installation, power-on, operation and maintenance, please carefully read the safety information hereinafter!

The following safety signs are used in the user manual.

						
Warning	**User Manual**	**Electrical shock**	**Goggles**	**Protective Gloves**	**Flames**	**High Temperature**

- **When unpacking , check if there is transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use it**.
- The manufacture is not responsible for loss caused by the user not following the manual or changing the projector as he/she likes.
- Please be noted that the damage caused by changing the projector at will is not warranted.
- Do not hesitate to contact the dealer or the manufacturer if any questions or advice.

- The projector is for indoor use only, IP20.
- Use only in dry locations. Keep this unit away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.
- The projector should be kept away from high temperature, fire, electrical surge, vibration and strong light while being operated.
- The projector is only intended for installation, operation and maintenance by qualified personnel. And the operation must strictly follow the procedures in the manual.
- No repairable parts in the projector and do not open covers for maintenance by yourself.

- Don't look straightly into the light sources especially for epileptics, otherwise eyes will be burned..
- Do not connect this device to any type of dimmer pack.
- After lamp switched on, the minimum distance between the projector and illuminated surface is 10m.
- lens and other optical parts shall be replaced immediately if they have deformed or been damaged, otherwise the light output will be compromised.

- Before operation, please confirm that all covers(housing) are on and screws tightened. It's forbidden to use a projector while covers(housing)are off .
- Keep the lamp clean and do not touch it with bare hands.
- While operating it, wear protective items.

- Any electrical connection must be carried out by a qualified person .
- Before installation, please confirm the voltage supplied matches what is required for the projector.
- Each projector must be properly earthed and installed as per related electrical standards.
- Do not use power cord with its insulator damaged and connect the power cord with other cables.
- If the projector is not used or under cleaning,, please hold the plug and unplug it. Do not unplug it forcefully or by pulling the power cable.
- All power cords must conform to related safety and regulations.
- 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 running for 30minutes, the temperature of the housing of the projector is 45℃.After stable operation , its temperature is 90℃.
•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.

•Do not mount the projector directly on inflammable surface.
•Do not project the beam straightly on combustible 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.

2. INSTRUCTIONS

•CLEANING AND MAINTENANCE

If a projector can't start. Please check if the fuse is blown up. If it does, replace it with a new fuse with same ratings. And the projector has over-temperature protective device. If the temperature is too high, the protective device will be triggered to shut the projector off. When it happens, please check if the fans run normally or fan shield is blocked by dust. After the issue is solved, restart the projector.

The accumulation of oil, smoke and dust on the lens will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use of it. Cooling fans need to be cleaned every 15days. Internal lens, reflector and hot mirror need to be cleaned periodically to optimize light output.

Cleaning frequency is to be decided by operations and its environment. Use soft cloth and normal detergent for glass for cleaning work. It's advised external optical system be cleaned every 20days and internal optical systems every 30/60days. Keep lens clean and do not touch optical parts with bare hands.

•Before any maintenance and cleaning, please ensure the project is off the power.
•Only qualified person is allowed to do maintenance.
•During maintenance and before maintenance, the projector must be off power.

•To avoid internal damage, sun light or other light mustn't penetrate into the projector via front lens whether it runs or not.
•Do not use alcohol or other organic solvent to clean the housing to avoid damage.
•Do not use any solvent with chemical elements to clean color filters or hot mirror.

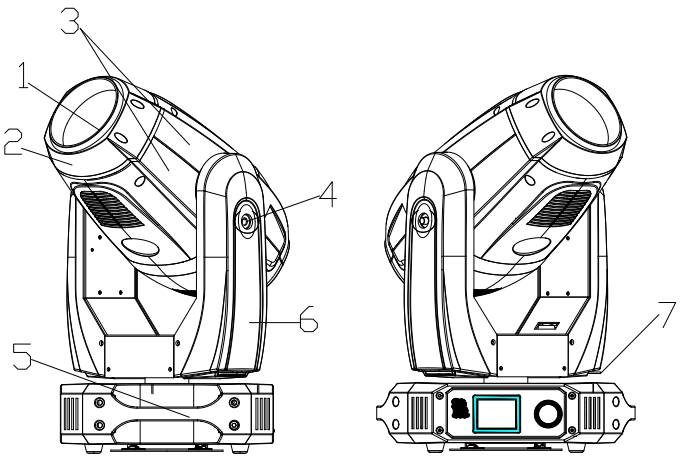
•LUBRICATION

To ensure smooth movement of gobos and 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 doesn't switch on	➢ Check the fuse on the power socket. ➢ Check the lamp.
The lamp is on but the projector doesn't respond to the controller	➢ Make sure that the fixture's start address is right ➢ Replace or repair the XLR signal cable.
The 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.

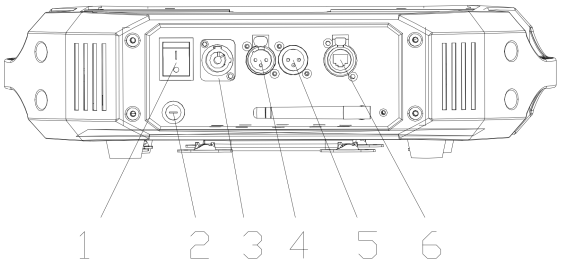
3. APPEARANCE



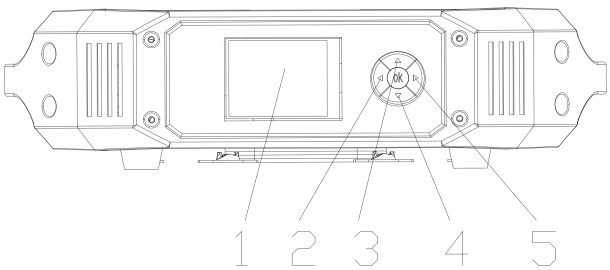
1. Front Lens
2. Lens Cover
3. Head Cover
4. Tilt Lock
5. Handle
6. Arm Cover
7. Pan Lock

While transportation, the head should be locked-Tilt Lock(4) and Pan Lock(6) should be at locking positions. Before the use of the projector, unlock both.

Rear Panel of the Base



1. Power Switch
2. Fuse Holder
3. Power Socket
4. 5-Pin XLR Socket(Male)
5. 5-Pin XLR Socket(Female)
6. ArtNet

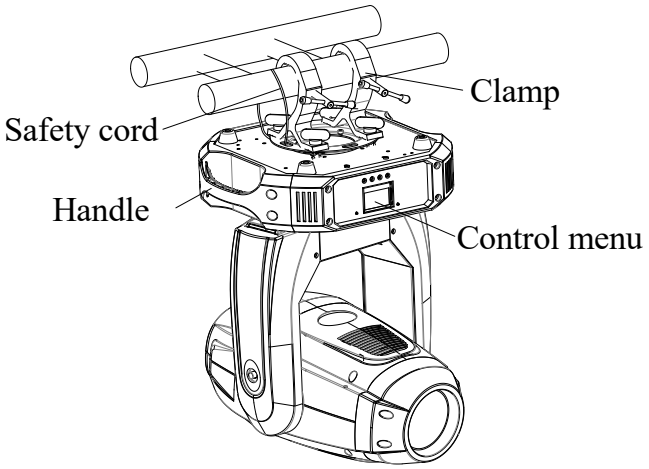


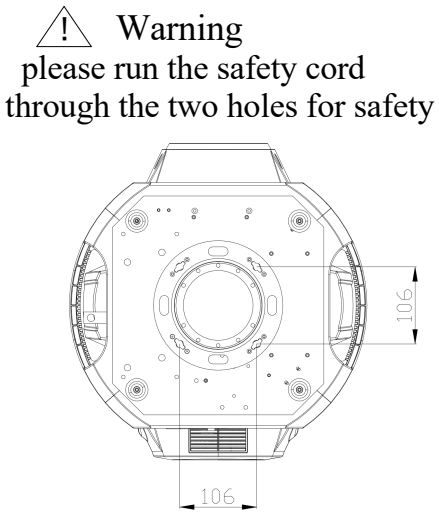
1. Touch Screen
2. Escape/Left Key
3. Up Key
4. Down Key
5. Right Key

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.





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.

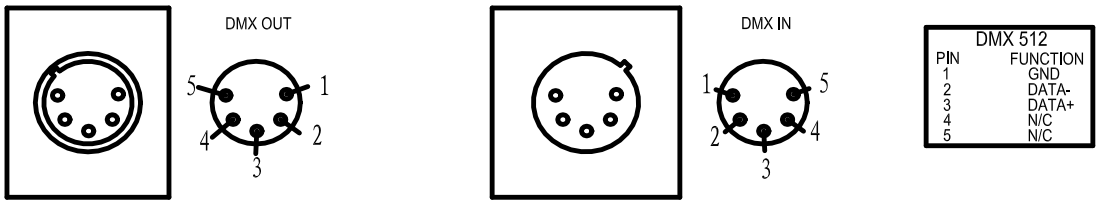
• POWER CONNECTION

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.

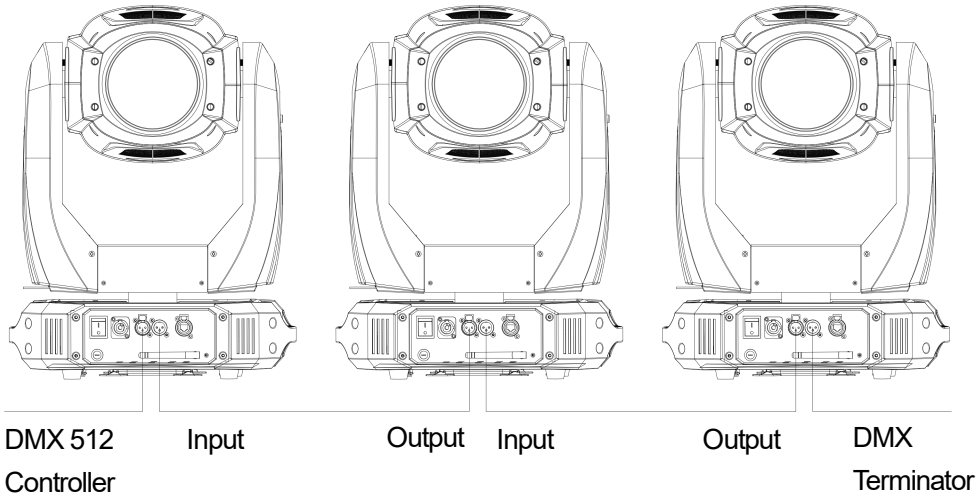
•DMX CONTROL CONNECTION



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).

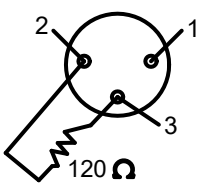
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



•DMX TERMINATOR

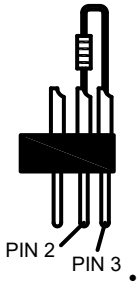
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

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.



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.



ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP

Lock the yoke before fitting/replacingthe lamp. Just as Shown by Figure 1, after Opening the cover at the rear of the projector by loosening 8 fastfit screws, you can open the head. To adjust the lamp as per Figure 2. Take out the lamp as per the figure 3.
Before lamp installation, tighten its power wires well. Lamp in and out are opposite orders

- Don't touch the internal surface of the reflector and the burner of the lamp with bare hands so as not to impair the beam output. While lamp's installation, do not damage the metal wire around the burner.
- Please read "Instructions " enclosed with the lamp
- Do operate the projector while adjusting the lamp

Figure1:Loosen 8pcs of fastfit screws

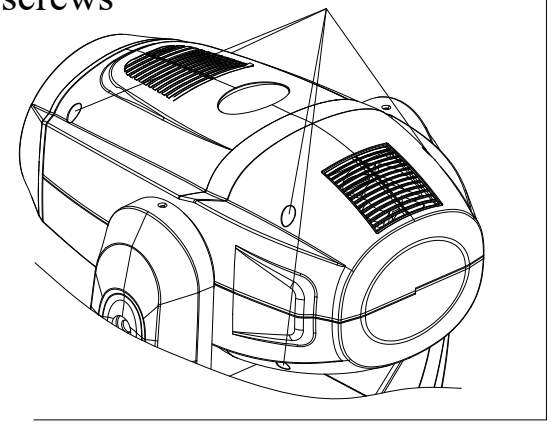
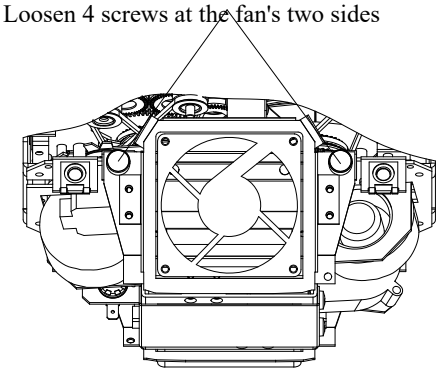
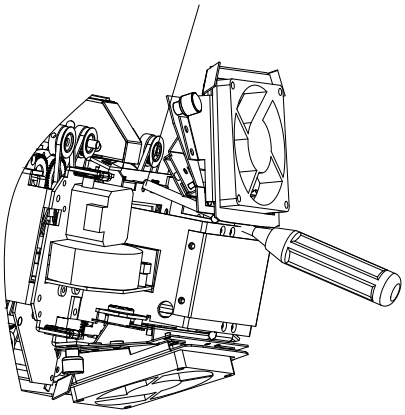


Figure2： Lamp adjustment

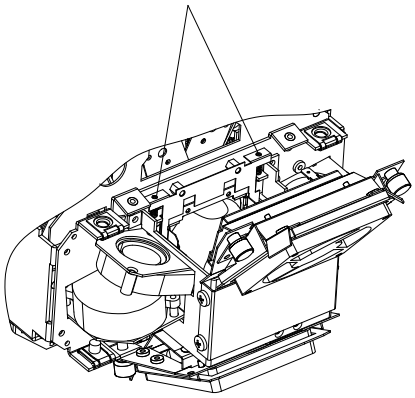
1. Loosen 4 screws at the fan's two sides



2. Loosen a tightening screw by a cross screw driver at the lamp's side



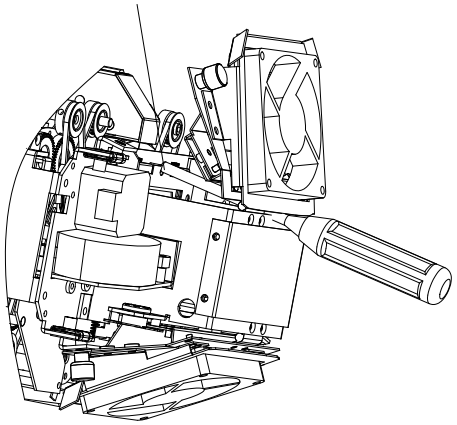
3. To adjust the two screws by a cross screw driver to change the lamp's position



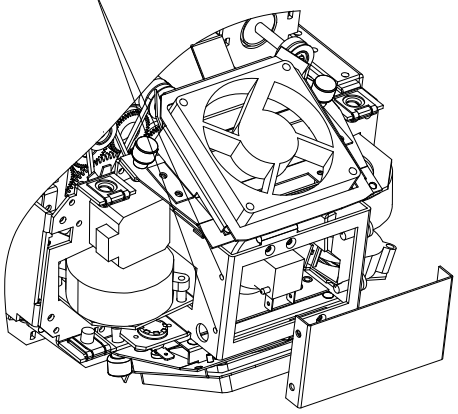
4. After the lamp is aligned well, use cross screwdriver to tighten the tightening screws at one side of the lamp to avoid itbeing loosened based on procedure 2

Figure3： Removal of lamp

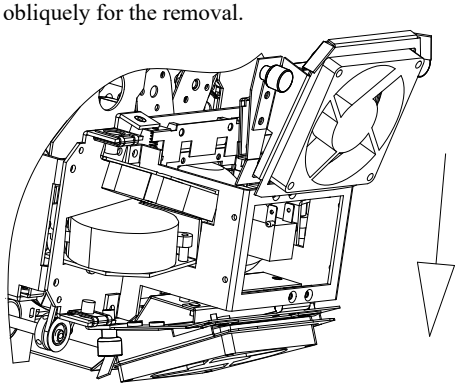
1.Loosen a tightening screw at the lamp's side



2.Remove the cover after its 4 screws are loosened by a cross screwdriver



2. Remove the lamp's two wires and push it obliquely for the removal.



4.Connect the lamp wires after a new lamp is in place, and align and tighten the lamp as per figure2

•GOBO REPLACEMENT

Gobo replacement

1. As shown in figure1, disconnect a projector from power. Unfasten the 4 fastfit screws of the cover to remove the cover, and unfasten the 2 screws of the fan assembly and remove the assembly.

2.Pull out the rotator from the rotating gobo wheel forcefully by fingers as shown in figure2 After replacing the gobo or the rotator, put the rotator back to the holder.

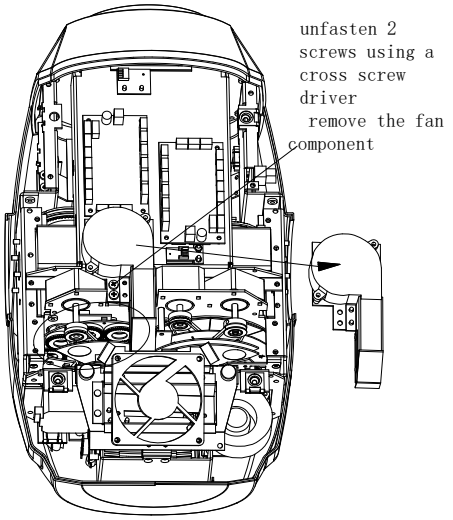


Figure 1

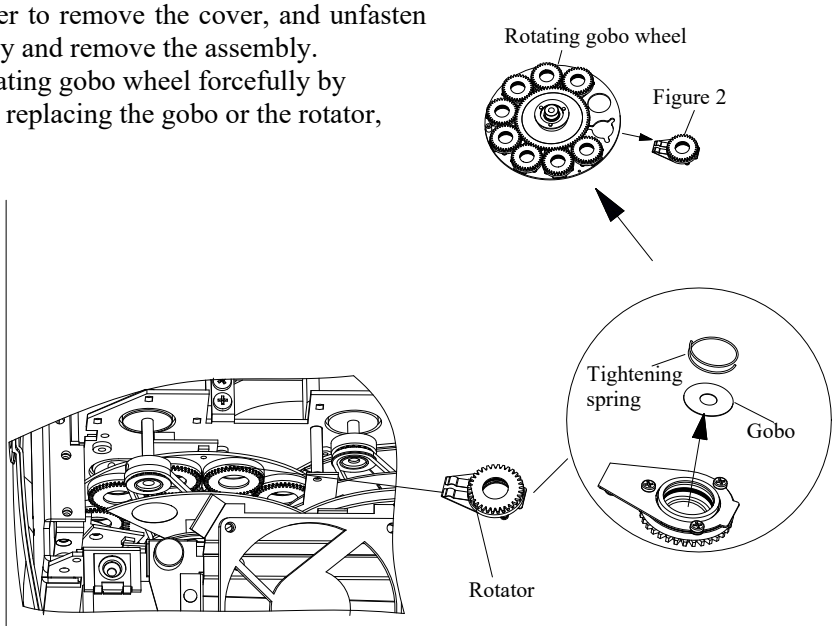


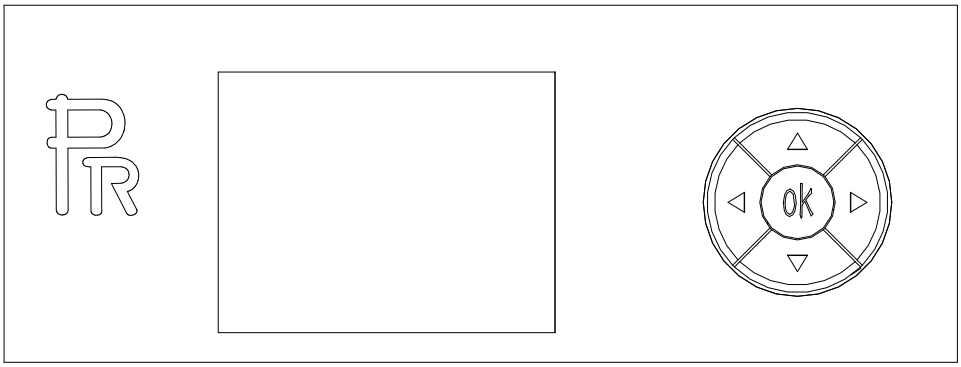
Figure 2

DANGER!

Before replacement of gobos, the projector must be off the power.

5. SETUP AND CONFIGURATION

•FRONT PANEL OPERATION



The projector configuration can be set conveniently via push buttons and color touch screen.

To browse through or change the projector 's settings, touch the white area of the touch screen or press OK button for more than 3s(Only powered by the battery, pressing the OK button) to unlock the screen , then press ▶ 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 ◀,▶,▲,▼ keys or their respective icons to select the functions desired.

2. While at 2nd,3rd and 4th level of menus, the◀ key is for ESCAPE, but ▶ key won't work, and OK key is used for ENTER. Press OK key to save the changes or enter into the sub menus. Press ▲or ▼ keys to change the numbers(minus or plus). Or touch the option needed for change.

   Shortcut keys After the Function Menu is entered into, there are all options for the functions on the top of the screen. On the right there are 3 shortcut keys like ↩,Lamp Control and English/Chinese.

• 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 3DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 28channels, so set the No. 1 projector's address 001, No. 2 projector's address 029, No. 3 projector's address 057,No. 4 projector's address 085, and so on.

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

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

Press▲ or ▼ keys or touch<、>displayed for the DMX address desired.

Press OK key to confirm.

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

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•DMX WIRELESS CONTROL

The wireless control is optional. If fitted with wireless DMX module and the antenna, the fixture can achieve remote control and do as commanded.

The setup of it is below

1. Press OK for more than 3s to unlock the control panel, then press ▶ key to enter into the operation menu and select "Config Settings".
2. Select "Wireless First" or "Wireless Only" from the menu of "Signal Select".

   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 Un-link Wireless under the upper level menu of Config Settigns , then the fixture is unlinked with the wireless transmitter.

•STAND-ALONE MODE

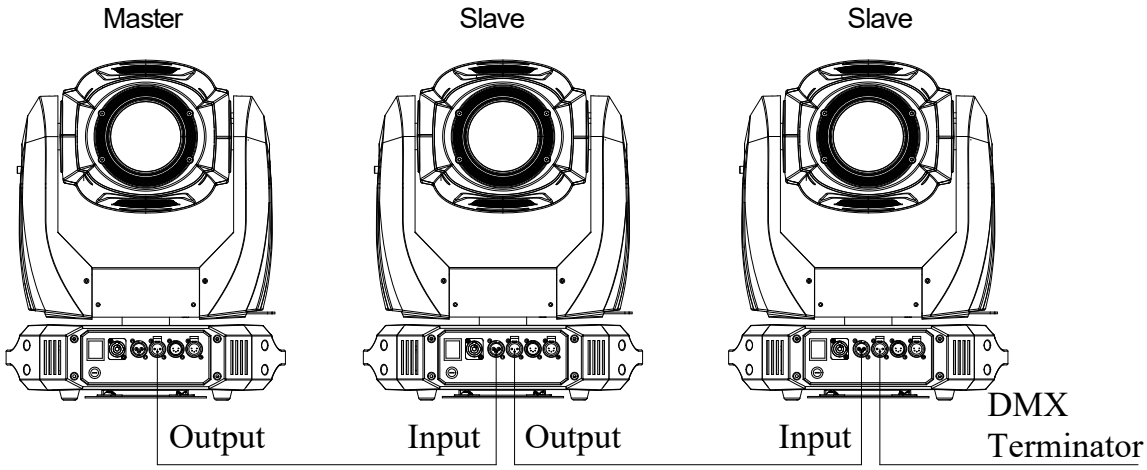
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.
DMX address can be set at any number within 512.

•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
DMX Address	1-488（Short Mode） 1-484（Standard Mode） 1-479（Extended 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 Universe	0-255	
	sACN Universe	1-63999	
Reset	Total Reset	Really Reset?	
	Pan&Tilt Reset	Really Reset?	
	Colour System Reset	Really Reset?	
	Gobo Reset	Really Reset?	
	Dimmer/Shutter reset	Really Reset?	
	Zoom/focus/frost/prism reset	Really Reset?	
	DMX Channel Mode	Short Mode 24CH	
		Standard Mode 28CH	

Config Settings		Extended Mode 33CH	
		View Selected Mode	Ch.01 Strobe Ch.02 Dimmer ... Ch.XX Power/Special Fun. XXX
	Lamp Control	Lamp Control	OFF/ ON
		On By Power On	OFF/ ON
		Control By DMX	OFF/ ON
		ECO Power	OFF/ ON
	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	
	Temperature Unit	Celsius Degree	
		Fahrenheit Degree	
	Un-Link Wireless	Really Un-Link?	
	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	Dimmer Invert	OFF/ ON
		Zoom Invert	OFF/ ON
		CYM Invert	OFF/ ON
	Gobo Move In Black	OFF / ON	
	Defaults	Restore Defaults?OFF	
Information	View DMX Values	Channel Value Strobe XXX Dimmer XXX Dimmer Fine XXX CYM Macro XXX Cyan XXX Yellow XXX Magenta XXX Colour Wheel XXX Colour Wheel Fine XXX Fixed Gobo Wheel XXX	

		Rot. Gobo Wheel 1 XXX Rot. Gobo 1 Rotation XXX Rot. Gobo 1 Rotation F. XXX Prism1 XXX Prism1 Rotation XXX Prism2 XXX Prism2 Rotation XXX Frost XXX Effect Wheel XXX Focus XXX Zoom XXX Diffuser XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX Power/Special Fun. XXX	
	Lamp Hours	Lamp Hours =XXX H Reset Lamp Hours	Input Password
	Total Hours	Total Hours= XXX H	
	Temperature	Display Board=×××C Pan & Tilt board=×××C Driver Board1=×××C Driver Board 2=×××C Driver Board 3=×××C Head Sensor=×××C	
	Software Version	PCB Sys Boot Display Board xxx xxx Pan & Tilt board xxx xxx Driver Board1 xxx xxx Driver Board 2 xxx xxx Driver Board 3 xxx xxx	
	Electronic SN	**********	
	RDM Device Label	XR380 BWS ANSI E1.20 RDM	
	Fan Status	Fan Speed Status Lamp Fan xxx on/off Head Fan xxx on/off Head Fan2 xxx on/off Basic Fan xxx on/off CYM Fan xxx on/off	
	Acceleration Sensor	X Axis: XXX Y Axis: XXX Z Axis: XXX Position: XXX XXX	
	Lamp Fan Error	Fan Count Lamp Fan xxx Lamp Fan2 xxx Head Fan xxx Head Fan2 xxx Ceremic Fan xxx Basic Fan xxx CYM Fan xxx	
Service	Manual Effect Control	Strobe XXX Dimmer XXX CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX	

		Colour Wheel XXX Colour Wheel Fine XXX Fixed Gobo Wheel XXX Rot. Gobo Wheel 1 XXX Rot. Gobo 1 Rotation XXX Rot. Gobo 1 Rotation F. XXX Prism1 XXX Prism1 Rotation XXX Prism2 XXX Prism2 Rotation XXX Frost XXX Effect Wheel XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Diffuser XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX		
	Factory Test	XXX		
Operation Mode	DMX Mode	Change Operation Mode?		
	Master Mode	Preset Memory	Change Operation Mode?	
		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 CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX Colour Wheel XXX Colour Wheel Fine XXX Fixed Gobo Wheel XXX Rot. Gobo Wheel 1 XXX Rot. Gobo 1 Rotation XXX Rot. Gobo 1 Rotation F. XXX Prism1 XXX Prism1 Rotation XXX Prism2 XXX Prism2 Rotation XXX Frost XXX Effect Wheel XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Diffuser XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX

				Fade Time XXX Hold Time XXX Delay Unit XXX Link to Step XXX
		Edit Static Scene	Strobe XXX Dimmer XXX CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX Colour Wheel XXX Colour Wheel Fine XXX Fixed Gobo Wheel XXX Rot. Gobo Wheel 1 XXX Rot. Gobo 1 Rotation XXX Rot. Gobo 1 Rotation F. XXX Prism1 XXX Prism1 Rotation XXX Prism2 XXX Prism2 Rotation XXX Frost XXX Effect Wheel XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Diffuser XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX	
	Init User Memory	Reset User Memory 1	Input Password	
		Reset User Memory 2	Input Password	
		Reset Static Scene	Input Password	

7. DMX PROTOCOL

Short mode	Standard mode	Extended Mode	FUNCTION	DMX	DESCRIPTION
1	1	1	Strobe	000-010	Close
				011-025	Open
				026-225	Strobe speed from slow to fast
				226-246	Macros from slow to fast
				247-255	Open
2	2	2	Dimmer	000-035	Close
				036-255	Linear dimming（0-100%）
	3	3	Dimmer Fine	000-255	Dimmer in 16 bit
3	4	4	CYM Macro	000-016	White
				017-035	Yellow+ Magenta=Red
				036-054	Yellow
				055-073	Yellow +Cyan=Green

				074-092	Cyan
				093-111	Cyan + Magenta= Violet
				112-130	Magenta
				131-255	CYM color mixing from slow to fast
4	5	5	Cyan	000-255	Cyan (linear 0~100%)
		6	Cyan Fine	000-255	Cyan in 16 Bit
5	6	7	Yellow	000-255	Yellow (linear 0~100%)
		8	Yellow Fine	000-255	Yellow in 16 Bit
6	7	9	Magenta	000-255	Magenta (linear 0~100%)
		10	Magenta Fine	000-255	Magenta in 16 Bit
7	8	11	Color Wheel	000-064	Indexing(0-360degrees)
				065-069	Deep Red
				070-074	Deep blue
				075-079	Yellow
				080-084	Green
				085-089	Plum
				090-094	Sky Blue
				095-099	Red
				100-104	Deep Green
				105-109	Deep Yellow
				110-114	Blue
				115-119	Orange
				120-124	CTO
				125-127	UV
				128-191	Rotation ,Clockwise from slow to fast
				192-255	Rotation, Anti-clockwise from slow to fast
8	9	12	Color wheel Fine	0-255	Color Wheel in 16 Bit
9	10	13	Fixed Gobo Wheel	0-19	White
				20-31	Gobo1
				32-43	Gobo2
				44-55	Gobo3
				56-67	Gobo4
				68-79	Gobo5
				80-91	Gobo6
				92-103	Gobo7
				104-115	Gobo8
				116-127	Gobo9
				128-146	Clockwise rotation from slow to fast
				147-165	Anti Clockwise rotation from slow to fast
				166-175	Shake effect 1 from slow to fast
				176-185	Shake effect 2 from slow to fast
				186-195	Shake effect 3 from slow to fast
				196-205	Shake effect 4 from slow to fast
				206-215	Shake effect 5 from slow to fast

				216-225	Shake effect 6 from slow to fast
				226-235	Shake effect 7 from slow to fast
				236-245	Shake effect 8 from slow to fast
				246-255	Shake effect 9 from slow to fast
10	11	14	Rotating Gobo Wheel	000	White(Beam mode angle XX-XX degrees)
				001-012	Big Hole (Highly Bright mode or Spot Mode XX-XX degrees)
				013-025	Gobo1
				026-038	Gobo 2
				039-051	Gobo 3
				052-064	Gobo 4
				065-077	Gobo 5
				078-090	Gobo 6
				091-103	Gobo7
				104-116	Gobo8
				117-127	Gobo 9
				128-155	Rotation （clockwise From slow to Fast）
				156-183	Reverse Rotation（anti-clockwise From slow to Fast）
				184-191	Shake of Gobo 1 from slow to fast
				192-199	Shake of Gobo 2 from slow to fast
				200-207	Shake of Gobo 3 from slow to fast
				208-215	Shake of Gobo 4 from slow to fast
				216-223	Shake of Gobo 5 from slow to fast
				224-231	Shake of Gobo 6 from slow to fast
				232-239	Shake of Gobo 7 from slow to fast
				240-247	Shake of Gobo 8 from slow to fast
				248-255	Shake of Gobo 9 from slow to fast
11	12	15	Gobo Rotation	000-128	Gobo Indexing(0~540degrees)
				129-188	Rotation （Clockwise From slow to Fast）
				189-195	Stop
				196-255	Rotation （Anti-Clockwise From slow to Fast）
	13	16	Gobo Rotation Fine	000-255	Gobo Rotation in 16 Bit
12	14	17	Prism 1	000-016	Open
				017-127	Prism1
13	15	18	Prism1 Rotation	000-128	Prism Indexing
				129-191	Rotation(Clockwise from slow to fast)
				192	Stop
				193-255	Rotation(Anti- Clockwise from slow to fast)
14	16	19	Prism 2	000-016	White
				017-255	Prism2
15	17	20	Prism2 Rotation	000-128	Prism2 Indexing
				129-191	Rotation(Clockwise from slow to fast)
				192	Stop

				193-255	Rotation(Anti- Clockwise from slow to fast)
16	18	21	Frost	0-255	Linear Frost
17	19	22	Effect Wheel	000-010	No
				011-020	Effect Wheel In
				21-255	Effect Wheel rotation from slow to fast
18	20	23	Focus	000-255	Linear Focus
		24	Focus Fine	000-255	Focus in 16 bit precision
19	21	25	Zoom	000-255	Linear Zoom
		26	Zoom Fine	000-255	Zoom in 16 bit precision
20	22	27	Diffuser	000-016	Open
				17-255	Linear Diffuser
21	23	28	Pan	000-255	Pan(0°~540°)
	24	29	Pan Fine	000-255	Pan in 16 bit
22	25	30	Tilt	000-255	Tilt(0°~270°)
	26	31	Tilt Fine	000-255	Tilt in 16 bit
23	27	32	Pan & Tilt Speeds	000-255	Pan & Tilt Speed from Fast to Slow
24	28	33	Control	000-019	Reserved
				020-024	Display On
				025-029	Display Off
				030-034	Reserved
				035-039	Lamp Half Power
				040-044	Lamp Full Power
				045-089	Reserved
				090-094	Pan & Tilt Speed Mode
				095-099	Pan & Tilt Time Mode
				100-129	Reserved
				130-139	Lamp On
				140-149	Pan & Tilt Reset
				150-159	Color System Reset
				160-169	Gobo Wheel Reset
				170-179	Dimmer/Shutter Reset
				180-189	Zoom/Frost/Focus/Prism Reset
				190-199	Reserved
				200-209	Total Reset
				210-229	Reserved
				230-239	Lamp Off
				240-255	Reserved

1. The projector can't be turned on within 1 minute after the lamp-off.
2. Fan error can cause lamp-off.
3. "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.

8. TOUCH SCREEN'S LOGOS

	Lamp Control		Option Settings
	Chinese/English		Information
	Error Messages		Service
	Address		Operation Mode
	Reset		User Memories
	Config Settings		

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
Color Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Fixed gobo wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo1Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Dimmer	Timeout	Check if wiring, positioning parts and motors are normal
Prism 1	Timeout	Check if wiring, positioning parts and motors are normal
Prism 1 Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Prism 2	Timeout	Check if wiring, positioning parts and motors are normal
Prism 2 Rotation	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
Ceramic Fan	Error	Check if fan and its wiring are normal
CMY Fan	Error	Check if fan and its wiring are normal
Head Fan	Error	Check if fan and its wiring are normal
Head Fan 2	Error	Check if fan and its wiring are normal
Base Fan	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire

Driver Board 1	Error	Check signal wire
Driver Board2	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Acceleration Sensor	Error	Check signal wire
Lamp on	Timeout	Check if he lamp is damaged
Lamp Life	Timeout Warning	
Lamp Off[Fan Error]	Error	Check if all fans are normal
Lapsed Time	Timeout	
Time IC	Error	
Lapsed time	X days	
Working hours Setting	successfully	

10. TECHNICAL DATA

ELECTRONIC PARAMETERS

Input voltage100V~240V AC，50/60Hz

Input power: 570W@220V

Max. current: 6.0 A

Power factor PF>0.9

LAMP SPECIFICATIONS

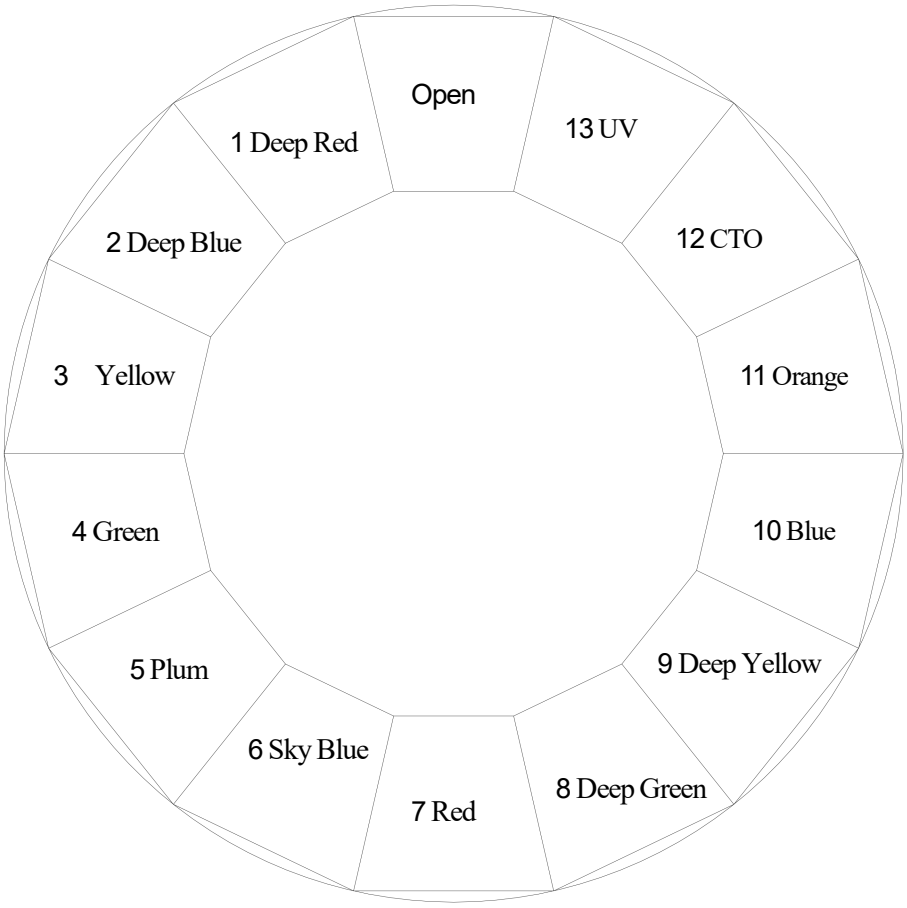
PHILIPS : MSD Platinum Flex 300S

Color Temperature : 7800K+/-300K

Manufacturers Rated Lamp Life : 6000 Hrs

COLORS

1 color wheel 13colors(plus 1CTO)+ Open, rainbow effect with bi-directional and variable speeds, Stepping/linear color changing



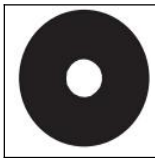
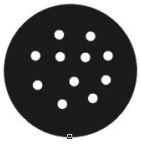
CMY COLOR MIXING SYSTEM

CMY linear color mixing with macros

FIXED GOBO WHEEL

1 fixed gobo wheel 10 gobos +open+ animation effect

bi-directionally rotatable, and shakable at variable speeds, 2channels to control gobos and shift between animation effects.

					
Gobo1	Gobo 2	Gobo 3	Gobo 4	Gobo 5	Gobo 6
					
Gobo 7	Gobo 8	Gobo 9	Gobo 10		

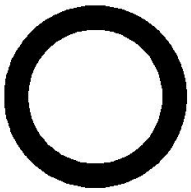
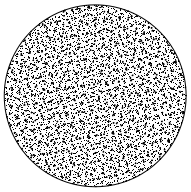
ROTATING GOBO WHEEL

1 Rotating gobo wheel

9 interchangeable gobos+white

bi-directionally rotatable, and shakable at variable speeds

Gobo Replaceable, Gobo diameter Φ15.9mm ,Gobo image diameter Φ12.5mm, 1.1mm thick

	P/N：120150004	P/N：120150007	P/N：120150003	P/N：120150004
				
Gobo 1	Gobo 2	Gobo 3	Gobo 4	Gobo 5
P/N：120150001	P/N：120150006	P/N：080090121	P/N：120150002	P/N：120150008
				
Gobo 6	Gobo 7	Gobo 8	Gobo 9	Gobo 10

PRISM

2pcs,(STD 8-facet and 16 facet Prisms) Bi-directional rotation with variable speeds(options 3facet, 16 facet, liner prism, gradient prism)

DIFFUSER

1pcs of independent diffuser

Optional even beam mode

FROST

1pc frost filter

FOCUS

DMX linear Focus

ZOOM

DMX linear Zoom

DIMMER/STROBE

0-100% linearly adjustable/ Double shutter blades, 0.3~25 F.P.S

HEAD MOVEMENT

Pan 540º, Tilt 270º with auto position correction

BEAM ANGLE

Beam 2.3°-- 10°, Linear Adjustment

Spot 2.3°-- 40°, Linear Adjustment

Wash 5°-- 50°, Linear Adjustment

CONTROL

DMX512 and 5 pin interfaces

24channels in short mode, 28channels in standard mode , 33channels in extended mode

Self-test mode

OTHER FUNCTIONS

Adjustable Pan & Tilt speed

Lamp's and fixture's hours displayed

Modular Structure for easy maintenance

DMX512 wirless reciever

DMX512 Transmitter (Optional)

ArtNet and sACN (Optional)

HOUSING

High temperature ABS, IP20

NET WEIGHT 22.2Kg

GROSS WEIGHT

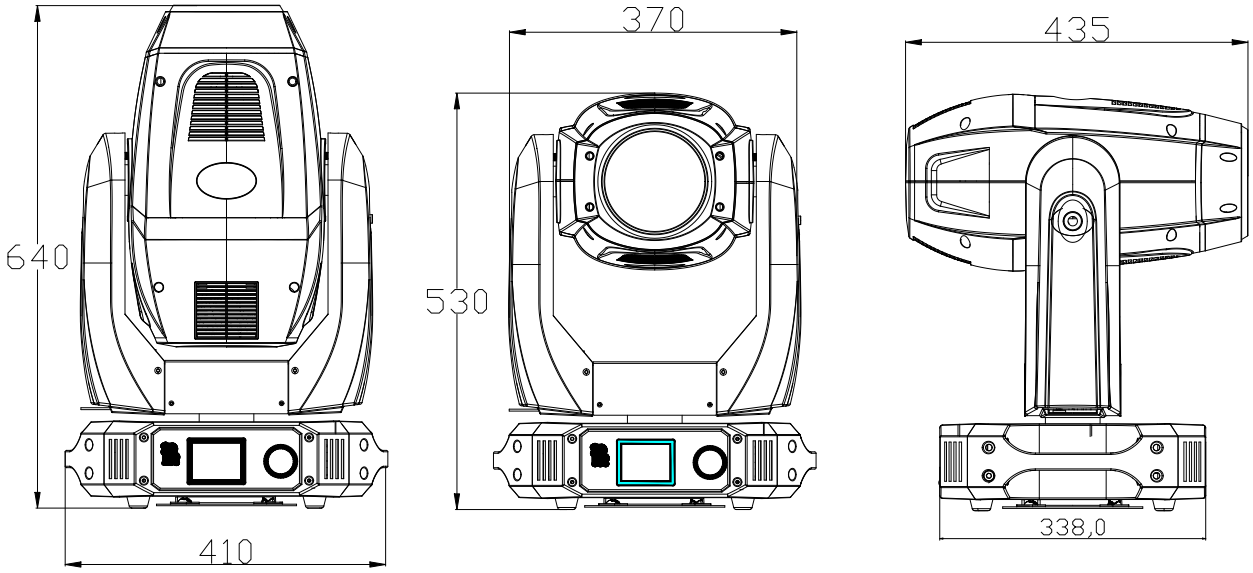
79Kg in flight case(2pcs/case) and accessories

26.5Kg in carton(1pc/ctn) and accessories

OPERATION TEMPERATURE

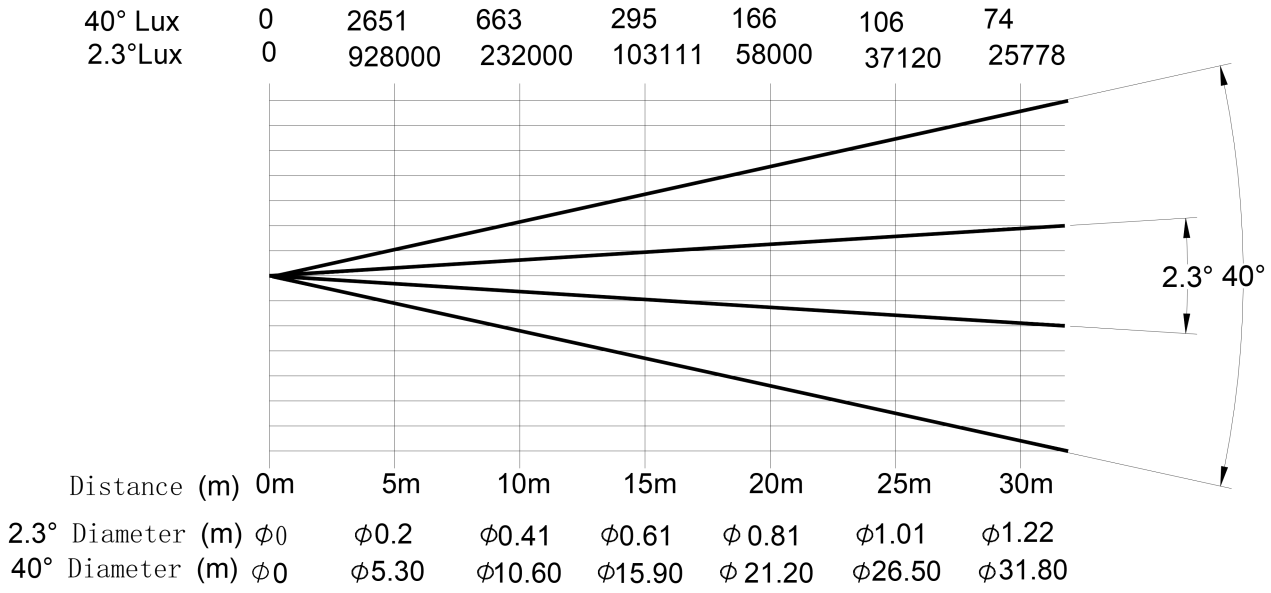
Maximum ambient temperature 40°C

SIZES （mm）

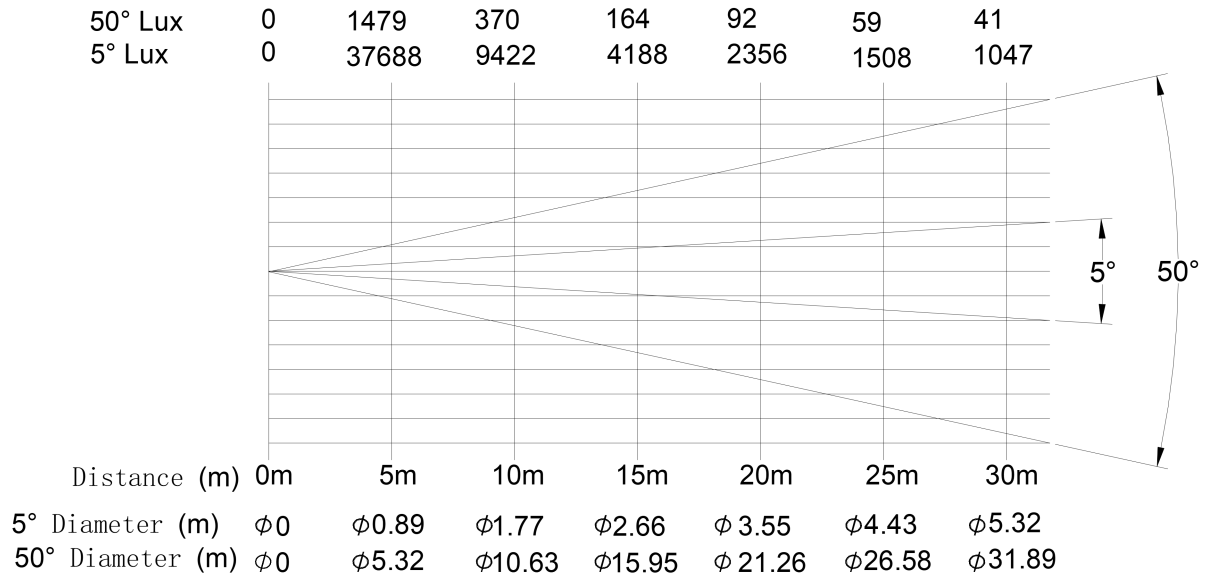


LIGHT OUTPUT

BEAM & SPOT MODE

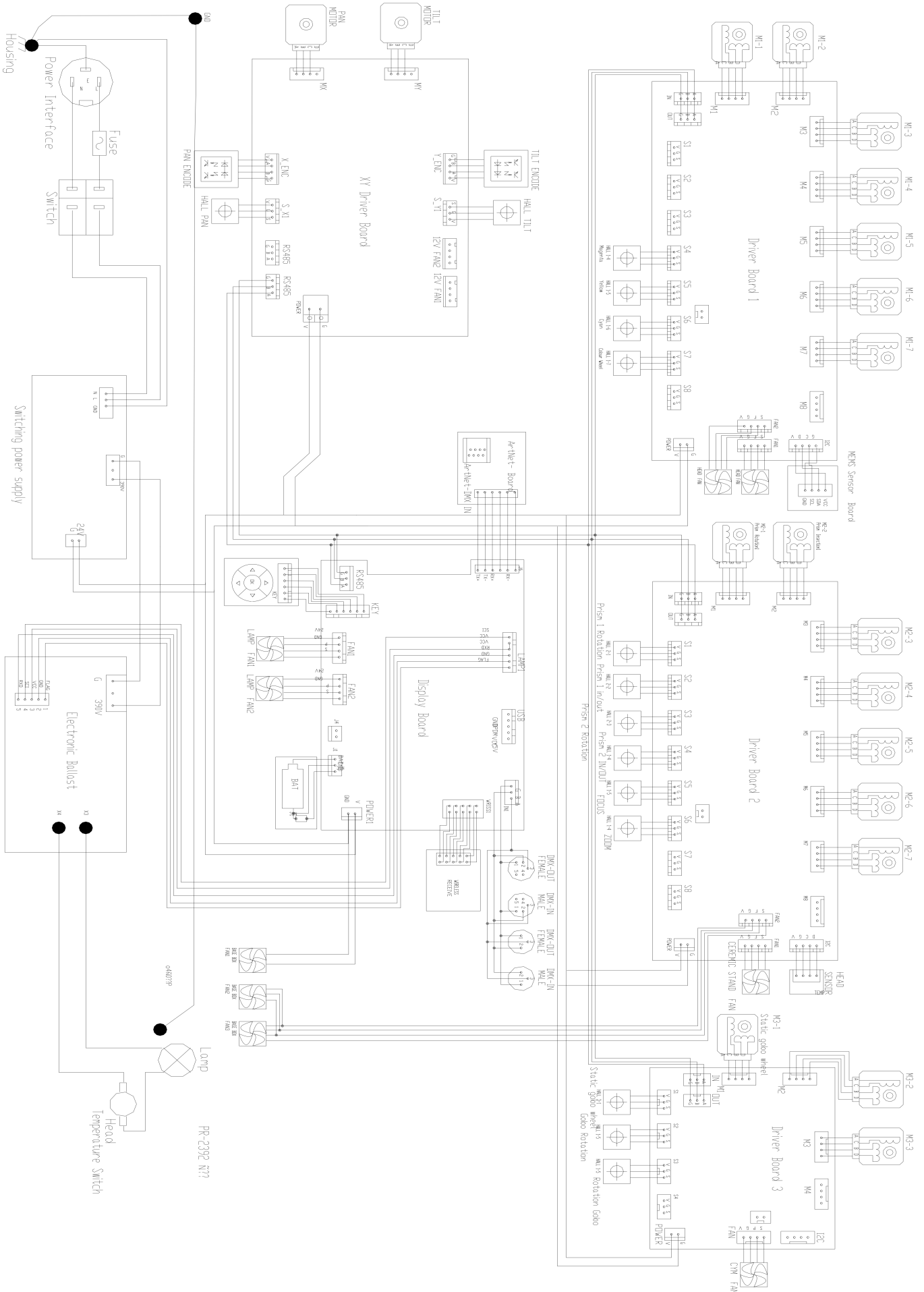


WASH MODE



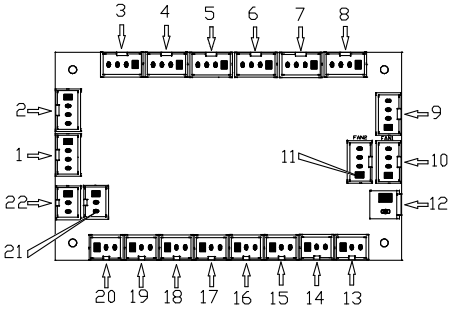
11. CIRCUIT DIAGRAM AND PCB CONNECTIONS

•CIRCUIT DIAGRAM


Housing
Power Interface
Fuse
Switch
GND
PAN MOTOR
TILT MOTOR
PAN ENCODE
TILT ENCODE
HALL PAN
HALL TILT
XY Driver Board
X_ENC
Y_ENC
S_X1
S_Y1
RS485
12V FAN2
12V FAN1
POWER
Switching power supply
24V
Electronic Ballast
Display Board
KEY
LAMP FAN1
LAMP FAN2
USB
BAT
POWER1
WIRELESS RECEIVE
DMX-OUT FEMALE
DMX-IN MALE
DMX-OUT FEMALE
DMX-IN MALE
Art-Net- Board
Art-Net-DMX IN
Driver Board 1
Driver Board 2
Driver Board 3
MEMS Sensor Board
HEAD SENSOR
CERAMIC STAND FAN
CYM FAN
Prism 1 Rotation
Prism 1 In/out
Prism 2 Rotation
Prism 2 IN/OUT
FOCUS
ZOOM
Static Gobo Wheel
Gobo Rotation
Lamp
Head Temperature Switch
PR-2392 N??

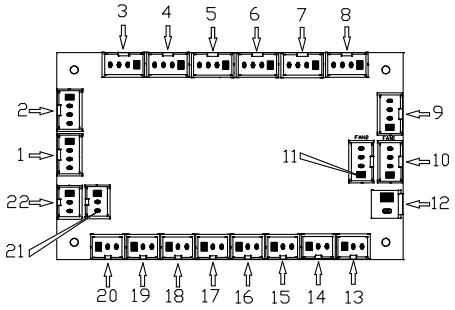
•PCB CONNECTIONS

1.8 Channel Driver board ： P/N230060430



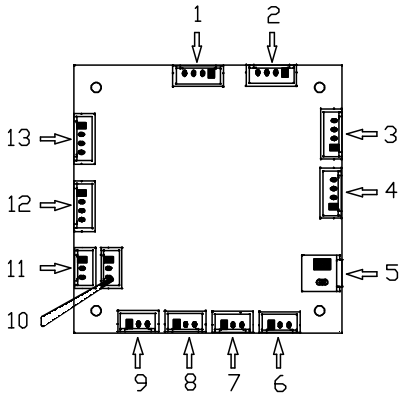
7 Channel Driver Board 1			
1	M1-1 Motor	12	24V Input
2	M1-2 Motor	13	Reserved
3	M1-3 Motor	14	HALL1-7Magnet Sensor
4	M1-4 Motor	15	HALL1-6Magnet Sensor
5	M1-5 Motor	16	HALL1-5 Magnet Sensor
6	M1-6 Motor	17	HALL1-4 Magnet Sensor
7	HALL1-7Magnet Sensor	18	HALL1-3 Magnet Sensor
8	Reserved	19	HALL1-2 Magnet Sensor
9	Gravity Sensor	20	HALL1-1 Magnet Sensor
10	Head Fan 1	21	Signal output
11	Head Fan 2	22	Signal input

2.SLAVE2：P/N230060431



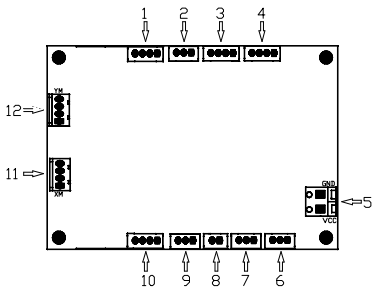
7 Channel Driver Board 2			
1	M2-1 Motor	12	24V Input
2	M2-2 Motor	13	Reserved
3	M2-3 Motor	14	Reserved
4	M2-4 Motor	15	HALL2-6 Magnet Sensor
5	M2-5 Motor	16	HALL2-5 Magnet Sensor
6	M2-6 Motor	17	HALL2-4 Magnet Sensor
7	M2-7 Motor	18	HALL2-3 Magnet Sensor
8	Reserved	19	HALL2-2 Magnet Sensor
9	Thermal Sensor	20	HALL2-1 Magnet Sensor
10	Ceramic Fan	21	Signal output
11	Fan 4	22	Signal input

3.SLAVE3：P/N230060432



3 Channel Driver Board 3			
1	M3-3 Motor	8	HALL3-2 Magnet Sensor
2	Reserved	9	HALL3-1 Magnet Sensor
3	Gravity Sensor	10	Signal input
4	FAN	11	Signal UP
5	24V Input	12	M3-1 Motor
6	Reserved	13	M3-2 Motor
7	HALL3-3 Magnet Sensor		

4.XY BOARD：P/N230060470



Pan & Tilt Board			
1	TILT ENCODER	7	Signal output
2	SY Magnet Sensor	8	Reserved
3	Reserved	9	SX Magnet Sensor
4	Reserved	10	PAN ENCODER
5	24V Input	11	J1PAN Motor
6	Signal input	12	TILT Motor

12. COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
LAMP BALLAST	040070150	1	
LAMP	100070056	1	
PAN MOTOR	030040233A	1	
TILT MOTOR	030040233A	1	
DIMMER/STROBE MOTORS	030040250	2	
CYM MOTOR	030040114B	3	
ROTATING GOBO WHEEL MOTOR	030040213A	1	
FIXED GOBO MOTOR	030040224A	1	
COLOR WHEEL MOTOR	030040220A	1	
DIFFUSER MOTOR	030040214	1	
GOBO ROTATION MOTOR	030040224B	1	
FOCUS MOTOR	030040213A	1	
FROST MOTOR	030040219A	1	
ZOOM MOTOR	030040213A	1	
8FACET/16FACET PRISM ROTATION MOTOR8FACET/16FACET PRISM-IN/OUT MOTOR	030040251	2	
FAN	030060075	4	
TURBO- FAN	030060102	2	
FAN	030060089	2	
LAMP BALLAST	040070148	1	
LAMP	100070052	1	
ROTATING GOBO WHEEL ACCESSORY	120110817	1	
COLOR WHEEL ACCESSORY	120110823	1	
FIXED GOBO WHEEL ACCESSORY	120110818	1	
SWITCHING POWER SUPPLY	192010223	1	

Appendix: Advice on the Use of Platinum Lamps

Dear Client,

The platinum lamps favored by the lighting sector have high color temperature, high brightness, high CRI, pure light beam and other advantages. For their use, some advice is offered for your reference:

1. After lamp on, it shouldn't be turned off in a very short while. Frequent lamp on and offs will wear out its electrodes, thus resulting in lower brightness and lumen decrease.

2. It's advised to turn off the lamp by controller, but not by shutting off the mains power which can stop the cooling system from working immediately, shortening the lamp's lifespan and may cause short circuit between the electrodes.

3. In case of emergent blackout, do not strike the lamp immediately after mains power recovers. The lamp can be re-stricken successfully 10-15minutes after lamp-off while the fixture's temperature is lower than the start one.

4. The metal vapor in the lamp can cause aging and harm to the place of the burner where it accumulates after the head is fixed at certain position for a long time, resulting in whitening of the burner glass, cracking in it and even damage, thus shortening of its life. It's advised to let the head move in slow speed after shutters closed while the fixture is idle to avoid the head at fixed angle for a long time.

Thank you for your trust and patience.

PR LIGHTING LTD.

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Guangzhou, 511442 China
TEL +86-20-3995 2888

P/N :320021035
Old Version:20230519
New Version:20230612