



AQUA LED 600 SPOT PR-8178

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

PR LIGHTING LTD.
<http://www.pr-lighting.com>

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ACCESSORIES

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

Name	Quantity	Unit	Remark
G clamps	2	Pcs	Optional
XLR cable	1	Pc	With socket and plug
Safety cord	2	Pcs	
User manual	1	Pc	
Ω clamps	2	Pcs	

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 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 and outdoor use, IP65.

- Keep this unit away from excessive heat and places harsher than IP 65. Do not allow the contact with any 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 this device to any type of dimmer pack
- After lamp switched on, the minimum distance between the projector and illuminated surface is 5m
- 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°C.After stable operation , its temperature is 60°C.
- 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 combustibile items and the minimum distance between the projector and illuminated items is 10m.
- A projector should be installed with good ventilation and the minimum distance between the projector and walls is 50cm. At the same time, please ensure the fans and air inlets and outlets are workable.

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.

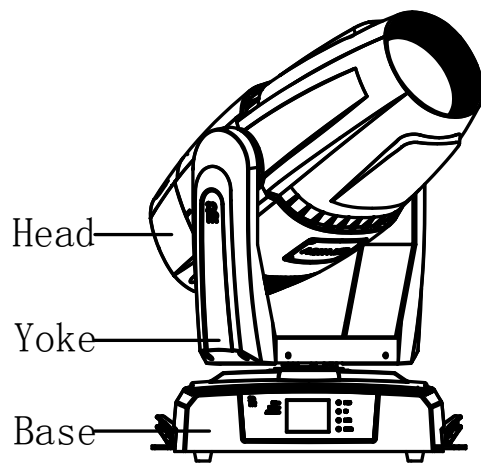
•LUBRICATION

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	<ul style="list-style-type: none"> ➤ Check the fuse on the power socket. ➤ Check the lamp.
The lamp is on but the projector doesn't respond to the controller	<ul style="list-style-type: none"> ➤ Make sure that the fixture's start address is right ➤ Replace or repair the XLR signal cable.
The projector functions intermittently	<ul style="list-style-type: none"> ➤ Make sure the fan is working well or fans and their shields are not blocked
Beam appears dim, Low in brightness	<ul style="list-style-type: none"> ➤ Make sure the lamp is within its lifespan ➤ Remove dust or grease from the lenses.
The project image appears to have a halo	<ul style="list-style-type: none"> ➤ Carefully clean the lamp, optical lenses and other components.
Heavily Defective Beam	<ul style="list-style-type: none"> ➤ Check if lens are in good condition(not cracked) ➤ Clean dust or grease on the lens.

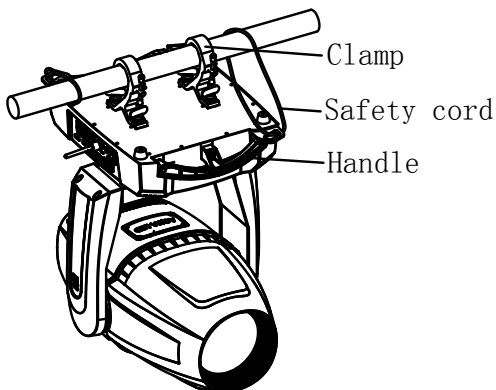
3. APPEARANCE



4. INSTALLATION

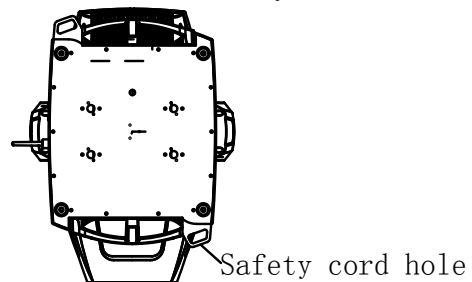
.RIGGING

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



Warning

Please run the safety cord through both safety cordholes for safety



Take 2 clamps and 2 safety cords out from the package and mount 2 clamps on the underside of fixture with 4 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the underside of the base as shown above) Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector is secure and is strong enough to support the weight of the fixture.



WARNING:

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

• POWER CONNECTION

Connect the power cord as follows:

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

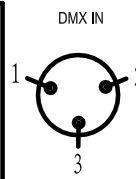
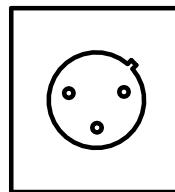
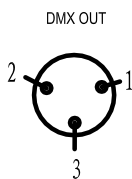
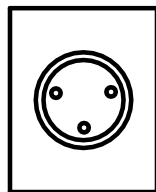
Before power connection, please ensure the power supplied must match what the nameplate says. It is recommended that each projector be connected with power separately so that they may be individually switched on and off.



- 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.

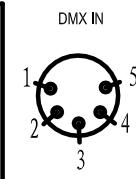
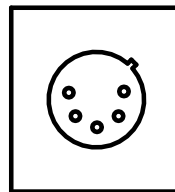
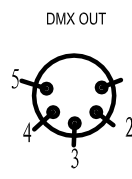
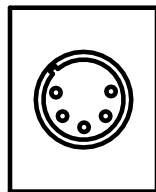
•DMX CONTROL CONNECTION

3-PIN



DMX 512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+

5-PIN

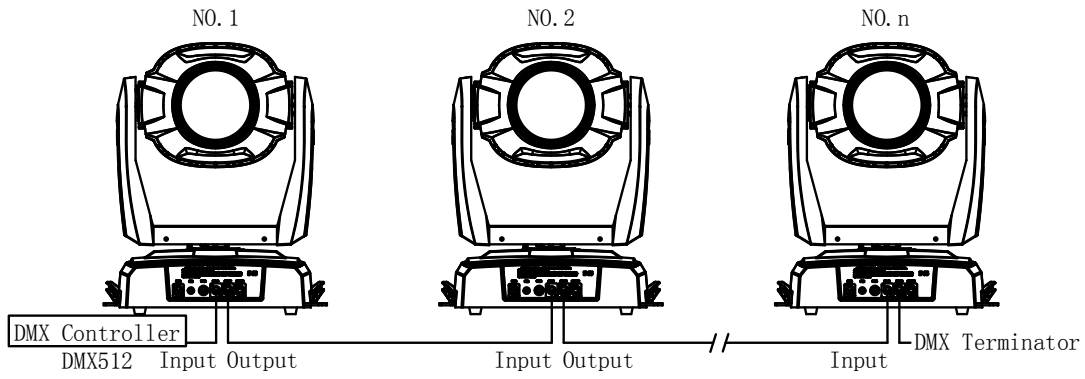


DMX 512	
PIN	FUNCTION
1	GND
2	DATA-
3	DATA+
4	N/C
5	N/C

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

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

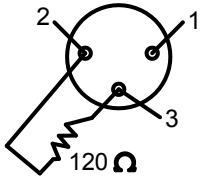
Connect the controller’s DMX output to the first fixture’s DMX input, and connect the first fixture’s DMX output to the second fixture’s DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture’s DMX output to a DMX terminator as shown in the figure below.



DMX TERMINATOR

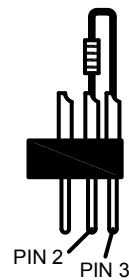
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.

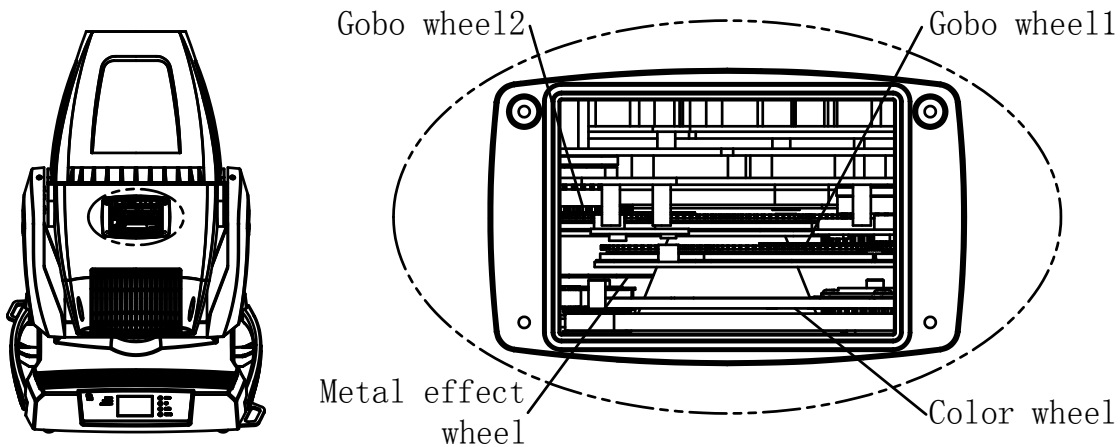


**DMX TERMINATOR
CONNECTION**

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.



REPLACEMENT OF GOBOS



Lock the tilt and unfasten 4 inner hexagon screws in the small cover of the head. Open the cover and you'll see the structures as the figures above.

For the replacement of color filters, use the fingers to remove the filters and place new ones.

For the rotating gobos: remove the rotator by hand; remove the gobo after the tightening spring for the gobo is taken out. Place a new gobo in the rotator and put back the spring. And ensure the spring is into the narrow end of the rotator, i.e., inner ring of the rotator. At last, use a proper tool to pull the tightening clip and put the rotator back to the wheel with the help of the other hand.

Note: Do not touch the color filters ,glass gobos with bare hand. There must be soft and clean paper or cloth between the hand and the glass gobo. Tighten the 6 fast fit screws after the cover is put back. Unlock the Tilt.

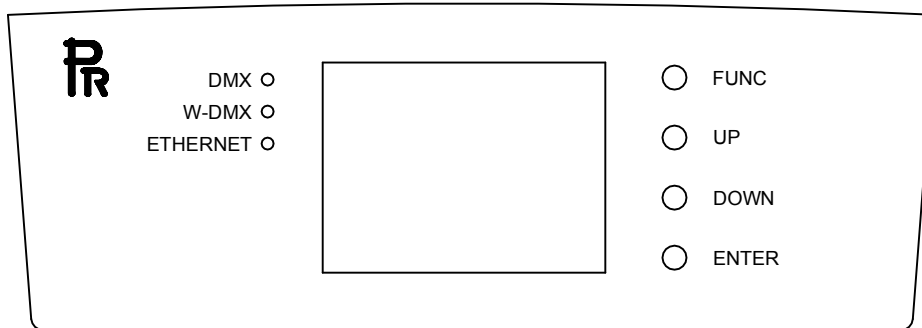


DANGER!

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

5. SETUP AND CONFIGURATION

●FRONT PANEL OPERATION



Projector configuration can be set conveniently via push buttons and touch screen.

Launch the projector and press button **ENTER** for more than 5 seconds to unlock the panel, the LCD will show the function menu of the projector, each main menu has its submenus and each submenu has a specific function. For details, please see the “OPERATION MENU” section.

Press button **UP** or **DOWN** if you want to browse through the various Setup Options.

Press button **ENTER** to save your settings or enter the submenu.

Press button **UP** or **DOWN** to change values(plus or minus)

Press button **FUNC**, it will return to the upper menu. If button **FUNC** not pressed, the default will show 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 3 DMX modes. There are short, standard and extended modes. For example standard mode has 31 channels, so set the No. 1 projector's address 001, No. 2 projector's address 032, No. 3 projector's address 063, No. 4 projector's address 094, and so on.

Launch the projector. Press button **ENTER** more than 2 seconds to unlock panel.

Press button **ENTER** to display DMX address;

Press button **UP** and **DOWN**, you can set the address;

Press button **ENTER** to confirm; after powered on next time, the default will be last value saved

Press button **FUNC**, it will return to the upper menu

●DMX WIRELESS CONTROL (If the projector has the function)

The projector has wireless control function with wireless receiver module and antenna for remote control.

The setup of it is below:

1. Enter into the projector's menu. Select the menu "Config Settings" via the bottoms of **UP** and **DOWN**
2. Select **DMX control Mode--- Wireless First** (Note: do not select **XLR ONLY**), then wireless indication in the front panel will be on, meaning wireless control function is activated.

Only after the projector is linked with a transmitter, can it receive wireless signal sent by the transmitter. If unlinking it, Press "Enter" for the menu of Unlink Wireless under the upper level menu of Config Settings .

•STAND-ALONE MODE

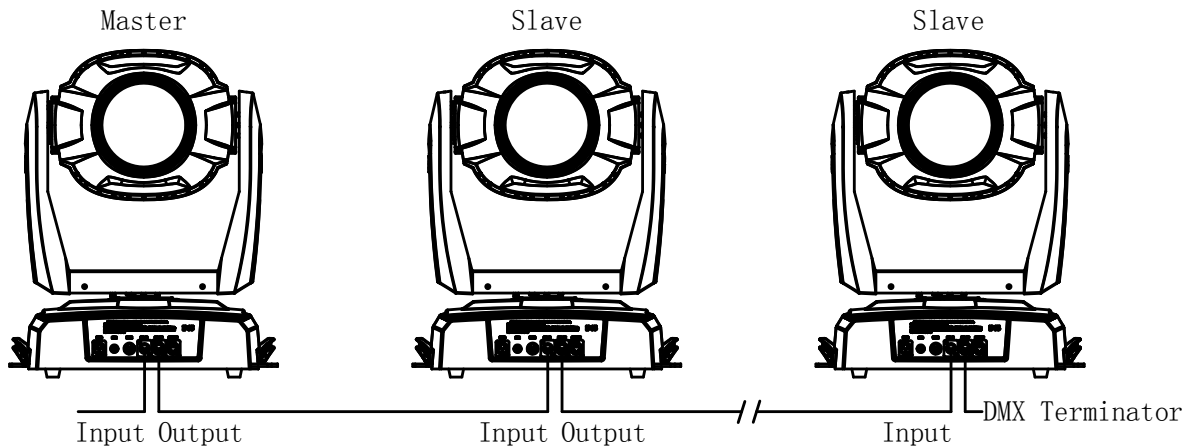
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.
DMX address can be set at any number within 512.

•MASTER/SLAVE MODE

Many projectors can run synchronously in the Master/Slave mode by linking them with each other. First, connect the first fixture's DMX output to the second fixture's DMX input using XLR-XLR control cable and then connect the second fixture's DMX output to the third fixture's DMX input, and so on until all projector are connected in this way. Eventually connect the last fixture's DMX output to a DMX terminator. Set 1st projector as the master and others are Slaves.

Start Addresses of all Slaves are 001; Operation mode of the Master can be set any mode for a Master' and Slaves' operation mode can be set accordingly.

After Powered on, the group will run in Master/Slave Mode



6. OPERATION MENU


1 st level Menu	2 nd level menu	3 rd level menu	4 th level menu	
PortSet 	DMX Address Set	1-512		
	Universe Set	0-5120		
	IP Address Set	IP1	0-255	
		IP2	0-255	
		IP3	0-255	
		IP4	0-255	
	Subnet Mask Set	Subnet Mask1	0-255	
		Subnet Mask 2	0-255	
		Subnet Mask 3	0-255	
		Subnet Mask 4	0-255	
	Gateway IP Set	Gateway IP1	0-255	
		Gateway IP2	0-255	
		Gateway IP3	0-255	
		Gateway IP4	0-255	
Reset		Are you Sure		
Config Set 	DMX mode	Standard 31		
		Short 25		
		Extended 38		
	Loss of DMX (Default: Normal Time Out)	Normal Time Out		
		Hold Last Value		
	signal Select (Default: XLR First, Wireless Optional)	XLR First		
		XLR Only		
		Wireless Only		
		Wireless First		
			Wireless to XLR	

	Master/Slave (Default: Slave)	Slave		
		Master		
	Display Mode (Default: Off After Delay)	Off After Delay		
		On Always		
	Display Contrast (Default: 16)	1-31		
	Pan Amend	0-255		
	Tilt Amend	0-255		
	Unlink Wireless	Yes		
	Reset Lamp Hours	Yes		
	Reset User Data	Yes		
	Reset Option Set	Yes		
	Factory Settings	Yes		
	Parameter Transm	Yes		
	Touch Regulate	Yes		
	Option Set	Color Positions (Default: Step)	Step	
			Linear	
		Pan DMX Invert (Default: Off)	Off	
			On	
		Tilt DMX Invert (Default: Off)	Off	
			On	
Pan Tilt Swap (Default: Off)		Off		
		On		
Dimmer Invert (Default: Off)		Off		
		On		
Iris Invert (Default: Off)		Off		
		On		
CYM Invert (Default: Off)		Off		
		On		
CTO Invert (Default: Off)		Off		
		On		
Zoom Invert (Default: Off)	Off			
	On			






Power On Hours	XXX	
Software Version	Main Board XXX	
	Pan & Tilt XXX	
	Driver 1 XXX	
	Driver 2 XXX	
	Driver 3 XXX	
	Fan Board X.XX	
Temperature	Head Sensor XX	XX
	Main Board XX	XX
	Pan & Tilt XX	XX
	Driver 1 XX	
	Driver 2 XX	
	Driver 3 XX	
	Fan Board X.X	
View DMX Value	Channel 1=0	
Electronic	SN=XXXXXX	
RDM Device Lable	Version XX	
Sensor Error View	X Optocoupler Ok/Er	
	Y Optocoupler Ok/Er	
	X Hall Ok/Er	
	Y Hall Ok/Er	
	Color Hall Ok/Er	
	CTO Hall Ok/Er	
	Cyan Hall Ok/Er	
	Yellow Hall Ok/Er	
	Magent Hall Ok/Er	
	R- gobo1 Hall Ok/Er	
	Gobo- R1 Hall Ok/Er	
	R- gobo2 Hall Ok/Er	
	Gobo- R2 Hall Ok/Er	
	Focus Hall Ok/Er	
	Zoom Hall Ok/Er	
Prism Hall Ok/Er		

		Prism-R Hall OK/Er	
Test Mode 	Self Test	Yes	
	Strobe	Open	
		Strobe1	
		Strobe2	
	Colour Wheel	White	
		Color1	
		Color2	
		Color3	
		Color4	
		Color5	
		Color6	
		Rotation	
	ReverseRotation		
	Iris	White	
		Iris 1	
		Iris 2	
		Iris 3	
	Rotating gobo1	White	
		R1-gobo1	
		R1-gobo2	
		R1-gobo3	
		R1-gobo4	
		R1-gobo5	
		R1-gobo6	
		Rotating	
		Reverse Rotating	
		R1G shake1	
		R1G shake2	
		R1G shake3	
		R1G shake4	
	R1G shake5		

	R1G shake6	
Gobo Rotating1	Stop	
	Rotating	
	Reverse Rotating	
Rotating gobo2	White	
	R2-gobo1	
	R2-gobo2	
	R2-gobo3	
	R2-gobo4	
	R2-gobo5	
	R2-gobo6	
	Rotating	
	Reverse Rotating	
	R2G shake1	
	R2G shake2	
	R2G shake3	
	R2G shake4	
	R2G shake5	
R2G shake6		
Gobo Rotating2	Stop	
	Rotating	
	Reverse Rotating	
Prism	NO	
	Have	
Prism Rotating	Stop	
	Rotating	
	Reverse Rotating	
Effect	No	
	Have	
Effect Rotation	Stop	
	Rotating	
	Reverse Rotating	
Frost	No	







		Have		
	Dimming	0-255		
	Cyan	0-255		
	Yellow	0-255		
	Magenta	0-255		
	CTO	0-255		
	Focus	0-255		
	Zoom	0-255		
	Pan Location	0-255		
	Tilt Location	0-255		
	Pan & Tilt Speed	0-255		
OperationMode	DMX Operation			
	Preset Memory			
	User Memory			
	Static Scene1-Static Scene16	CH1 Strobe	0-255	
		CH2 Diming	0-255	
		CH3 Dim Speed	0-255	
		CH4 CYM Maco	0-255	
		CH5 Cyan	0-255	
		CH6 Yellow	0-255	
		CH7 Magenta	0-255	
		CH8 CTO	0-255	
		CH9 Colour Wheel	0-255	
		CH10 Iris	0-255	
		CH11 Iris Maco	0-255	
		CH12 Rotating gobo1	0-255	
		CH13 Gobo Rotating1	0-255	
		CH14 Rotating gobo2	0-255	
		CH15 Gobo Rotating2	0-255	
		CH16 Prism	0-255	
		CH17 Prism Rotating	0-255	
CH18 Effect		0-255		

CH19	Effect Rotating	0-255
CH20	Frost	0-255
CH21	Focus	0-255
CH22	Zoom	0-255
CH23	Pan Location	0-255
CH24	Titl Location	0-255
CH25	X&Y Speed	0-255
CH26	Keep Time	0-255 X*40mS

Remark:

1. In the synchronous control of multiple projectors parameters can be transmitted from the master including: DMX mode, display setting, operation mode(user memory);
2. all projectors Accepting parameters will automatically be set to slave mode.

The descriptions of other icons:

Escape	Page Up/ Increase Number	Page Down/Decrease Number	Enter
			
Display Inversion	Chinese/English		
			

7. DMX PROTOCOL

Short Mode	Standard mode	Extended Mode	Function	DMX Value	Description
1	1	1	Strobe	000	No
				001-127	Pulse Strobe from slow to fast
				128-255	Strobe from slow to fast
2	2	2	Dimmer	000-255	Linear dimmer from dark to bright (0-100%)
	3	3	Dimmer Fine	000-255	Dimmer in 16 Bit
3	4	4	Dimmer Speed	000-255	From slow to fast
4	5	5	CYM Macro	000-016	White
				017-035	Yellow + Magenta = Red
				036-054	Yellow
				055-073	Yellow + Cyan = Green
				074-092	Cyan
				093-110	Cyan + Magenta = Blue
				111-128	Magenta
				129-255	CMY color mixing from slow to fast
5	6	6	CYM-Cyan	000-255	Linear Cyan from light to dark
		7	CYM-Cyan Fine	000-255	Cyan in 16 bit
6	7	8	CYM-Yellow	000-255	Linear Yellow from light to dark
		9	CYM-Yellow Fine	000-255	Yellow in 16 bit
7	8	10	CYM-Magenta	000-255	Linear Magenta from light to dark
		11	CYM-Magenta Fine	000-255	Magenta in 16 bit
8	9	12	CTO	000-255	Linear CTO from light to dark
		13	CTO Fine	000-255	CTO in 16 bit
9	10	14	Color Wheel	000-010	White
				011-019	White/color1
				020-028	Color1
				029-037	Color 1/color 2
				038-046	Color 2
				047-055	Color 2/Color 3
				056-064	Color 3
				065-073	Color 3/color 4
				074-082	Color 4
				083-091	Color 4/Color 5
				092-100	Color 5

				101-109	Color 5/Color 6
				110-118	Color 6
				119-127	Color 6/White
				128-191	Forward rainbow effect from slow to fast
				192-255	Reverse rainbow effect from slow to fast
10	11	15	Iris	000-255	Linear Iris from big to small
		16	Iris Fine	000-255	Iris in 16 Bit
11	12	17	Iris Macro	000-010	No Iris Macro
				011-072	Iris Macro 1:From big to small (speed from slow to fast)
				073-136	Iris Macro 2:From small to big (speed from slow to fast)
				137-206	Iris Macro 3: Iris ramp up from slow to fast
				207-214	Iris Macro 4
				215-222	Iris Macro 5
				223-230	Iris Macro 6
				231-255	Fully Open
12	13	18	Rotating Gobo Wheel 1	000-018	White
				019-036	Gobo1
				037-054	Gobo 2
				055-073	Gobo 3
				074-091	Gobo 4
				092-109	Gobo 5
				110-127	Gobo 6
				128-156	Forward rotation from slow to fast
				157-185	Reverse rotation from slow to fast
				186-196	Gobo1 shake from slow to fast
				197-208	Gobo2 shake from slow to fast
				209-220	Gobo3 shake from slow to fast
				221-232	Gobo4 shake from slow to fast
				233-244	Gobo5 shake from slow to fast
245-255	Gobo6 shake from slow to fast				
13	14	19	Gobo rotation 1	000-127	Gobo Indexing (0~ 540degrees)
				128	Stop
				129-188	Forward rotation from slow to fast
				189-195	Stop
				196-255	Reverse rotation from slow to fast
	15	20	Gobo rotation 1 Fine	000-255	Gobo Rotation 1 in 16 bit
14	16	21	Rotating Gobo Wheel	000-018	White
				019-036	Gobo1

			2	037-054	Gobo 2
				055-073	Gobo 3
				074-091	Gobo 4
				092-109	Gobo 5
				110-127	Gobo 6
				128-156	Forward rotation from slow to fast
				157-185	Reverse rotation from slow to fast
				186-196	Gobo1 shake from slow to fast
				197-208	Gobo2 shake from slow to fast
				209-220	Gobo3 shake from slow to fast
				221-232	Gobo4 shake from slow to fast
				233-244	Gobo5 shake from slow to fast
				245-255	Gobo6 shake from slow to fast
15	17	22	Gobo rotation 2	000-127	Gobo Indexing (0~ 540degrees)
				128	Stop
				129-188	Forward rotation from slow to fast
				189-195	Stop
				196-255	Reverse rotation from slow to fast
	18	23	Gobo rotation 2 Fine	000-255	Gobo Rotation 2 in 16 bit
16	19	24	Prism	000-016	White
				017-255	Prism In
17	20	25	Prism rotation	000-127	Prism Indexing
				128	Stop
				129-191	Forward rotation from slow to fast
				192	Stop
				193-255	Reverse rotation from slow to fast
18	21	26	Metal Effect Wheel	000-020	No
				021-255	Slow rotation of the wheel
19	22	27	Metal Effect Wheel Rotation	000-127	Forward rotation from slow to fast
				128-255	Reverse rotation from slow to fast
20	23	28	Frost	000-255	Linear Frost
21	24	29	Focus	000-255	Linear Focus(-100%)
		30	Focus Fine	000-255	Focus in 16 Bit
22	25	31	Zoom	000-255	Linear Zoom(0-100%)
		32	Zoom Fine	000-255	Zoom in 16 Bit
23	26	33	Pan	000-255	Pan Rotation
	27	34	Pan Fine	000-255	Pan in 16 bit
24	28	35	Tilt	000-255	Tilt Rotation
	29	36	Tilt Fine	000-255	Tilt in 16 Bit
	30	37	Pan & Tilt	000-255	Pan and Tilt speed from fast to slow

			speed		
25	31	38	Control	000-047	Reserved
				048-255	Reset (Stop for 5S)

Note:

1. The DMX channel priority from high to low: Focus, Zoom, Prism, Frost;
2. While the higher priority DMX channels are in use, lower ones won't work;

8. LED INDICATION

Green	On	DMX signal OK
	Off	No DMX signal
	Flash	DMX signal error
Blue	On	Wireless Signal OK
	Off	Not linked with any wireless transmitter
	Flash	Being unlinked with or linked with a wireless transmitter
Red	ON	Art-Net Signal OK
	Off	No Art-Net signal
	Flash	Bad Art-Net signal

Descriptions of the signs on the top right of the screen

□■	S	Slave
□□	M	Master
□□ □■	D	DMX512 Mode
	I	Preset Memory
	U	User Memory
	T	Test Mode
	P	Operation on Preset Memory Mode
■□ ■□	s	Magnet Sensor Error

9. TECHNICAL DATA

VOLTAGES:

100V~240V AC, 50/60Hz

POWER CONSUMPTION:

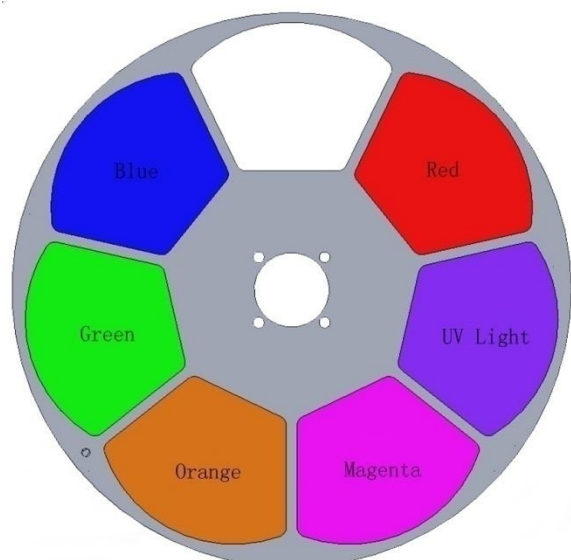
750W

LIGHT SOURCE:

POWER 600W
 Color Temperature 7000K
 Manufacturers Rated Lamp Life 20000hrs

COLORS:

CMY linear color mixing system with Macros
 1 color wheel: 6 exchangeable colors + white
 Half-color and variable speed and bi-directional rainbow effect
 Linear/Step color changing is available



CTO

0-100% linear CTO system

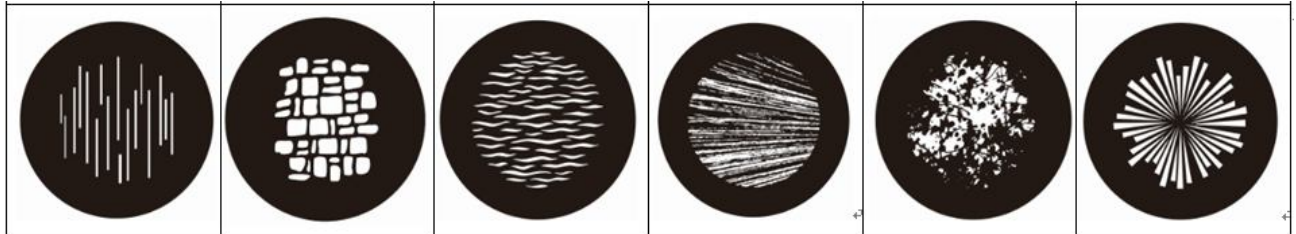
GOBOS:

2 rotating gobo wheels: each has 6 exchangeable gobos+ white, metal or glass gobos

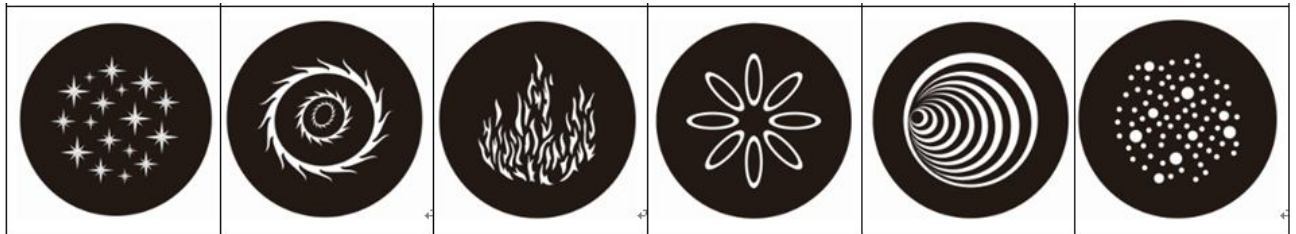
Bi-directional rotation with variable speeds, indexing function, shaking

At variable speeds, Bi-directional scrolling at variable speeds

Rotating gobo wheel1:



Rotating gobo wheel2:



Gobo's outer size: 37.5mm

Image size: 26mm

PRISM

1 4-facet prism, bi-directional rotation with variable speeds with indexing function(Optional: Color 4-facet prism)

FROST FILTER

0-100% linearly adjustable by DMX

EFFECT WHEEL

1 exchangeable graphic effect wheel, bi-directional rotation with variable speeds

FOCUS

0~100% Linear adjustment by DMX

DIMMING

0~100% linear adjustment

IRIS

5~100% linear adjustment

With Macros

STROBE

Electronic strobe,0.3-25 F.P.S.

MOVEMENT

Pan 0~540° Tilt 0~270°, with auto-positioning correction

BEAM ANGLE

Linear Zoom: 8°~ 56°, with 16 bit control

CONTROL

International standard DMX512 signal, 3 pin and 5 pin interfaces

RDM Protocol

ART-Net protocol

25 channels in short mode, 31 channels in standard mode, 38 channels in extended mode

Stand-alone mode

Self test mode

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed

Pan and Tilt Invert

Fixture time available

Pure color touch screen, English/Chinese menus, brightness and contrast adjustable

Fault analyzing sensor system

Built-in rechargeable battery for some settings via control panel

Version number display

Input signal isolated

Modular structure for easy maintenance

Art-Net interface

DMX 512 wireless receiver

Optional DMX 512 wireless transmitter

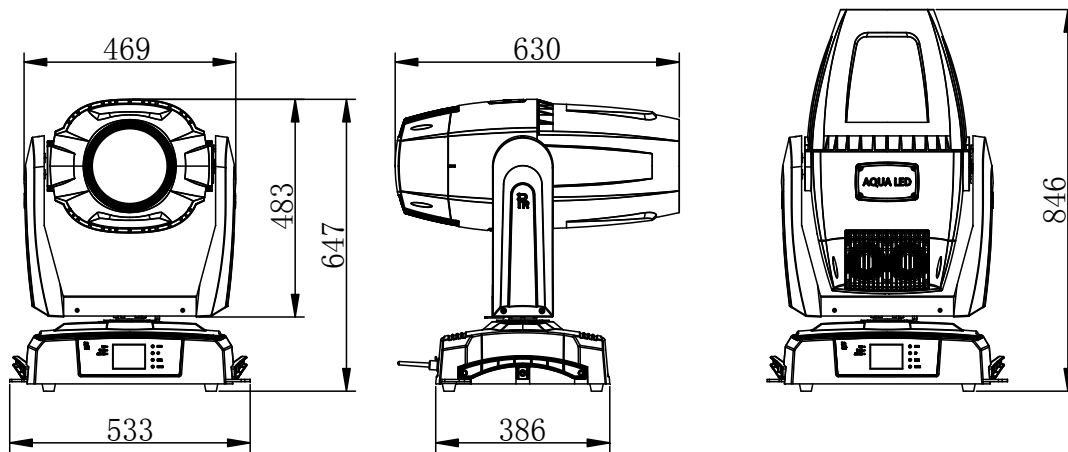
HOUSING:

High strength extruding aluminum+ High temperature ABS, IP65

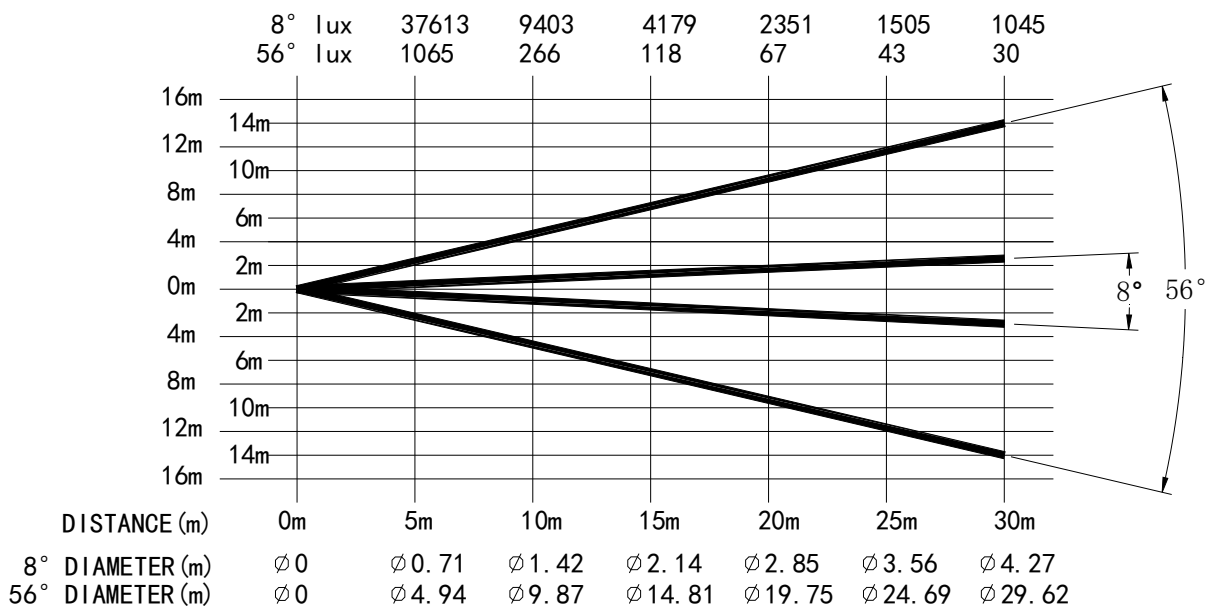
WEIGHT:

50Kg

SIZES:

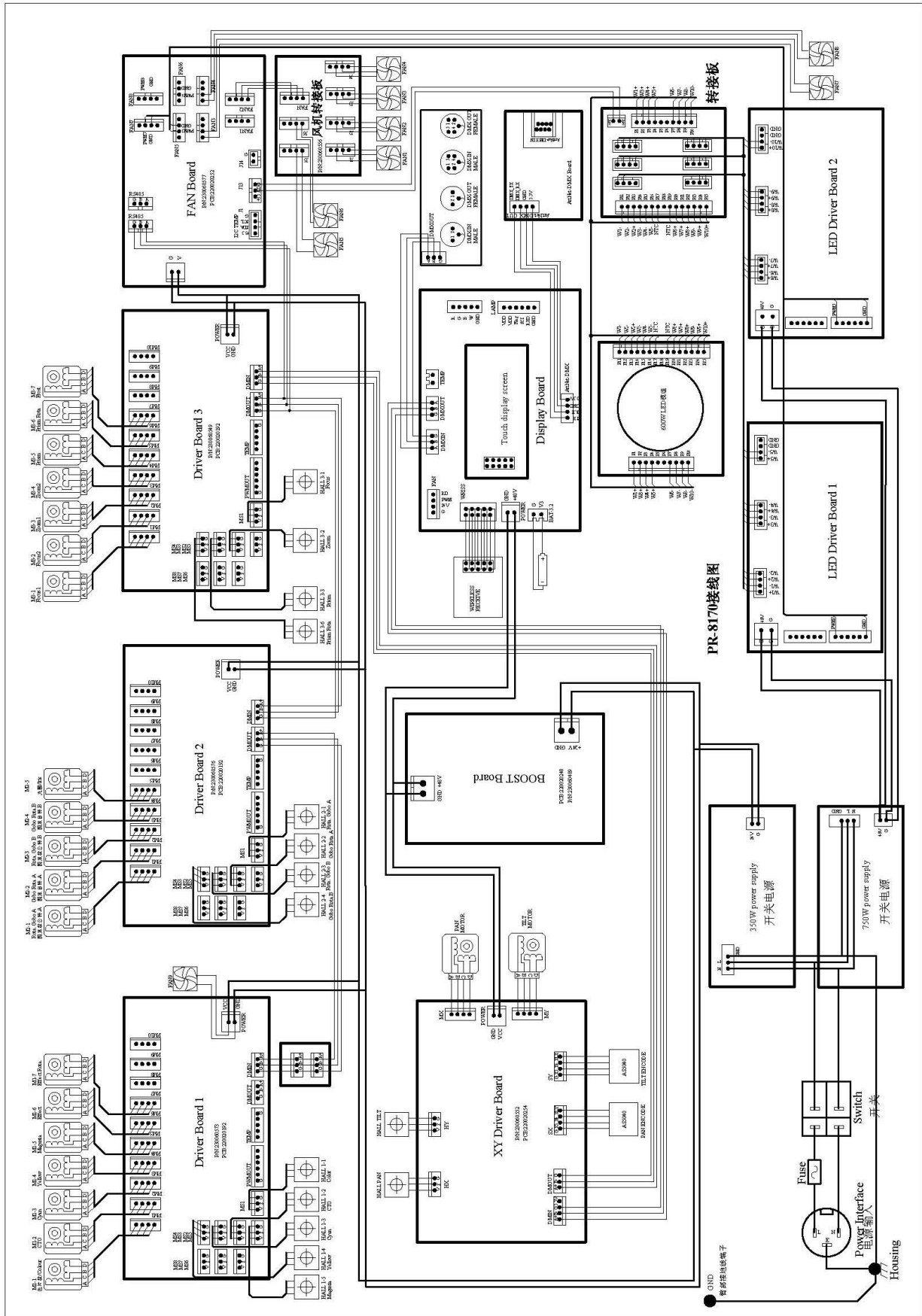


LIGHT OUTPUT:



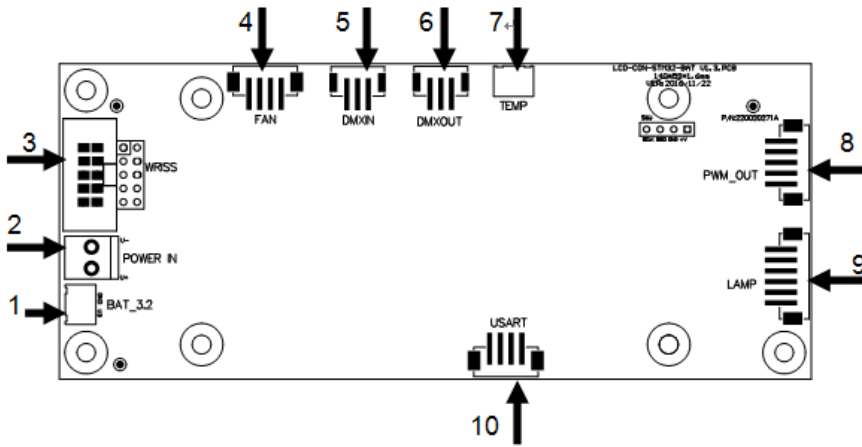
10. CIRCUIT DIAGRAM AND PCB CONNECTIONS

.CIRCUIT DIAGRAM



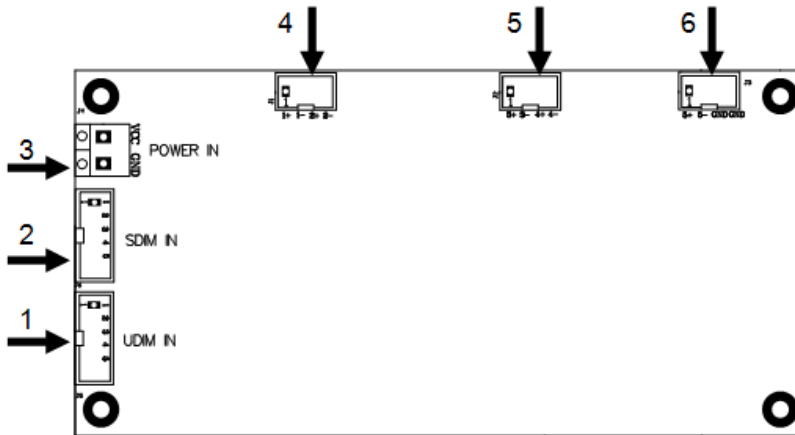
●PCB CONNECTIONS

Master Board of PR-8178



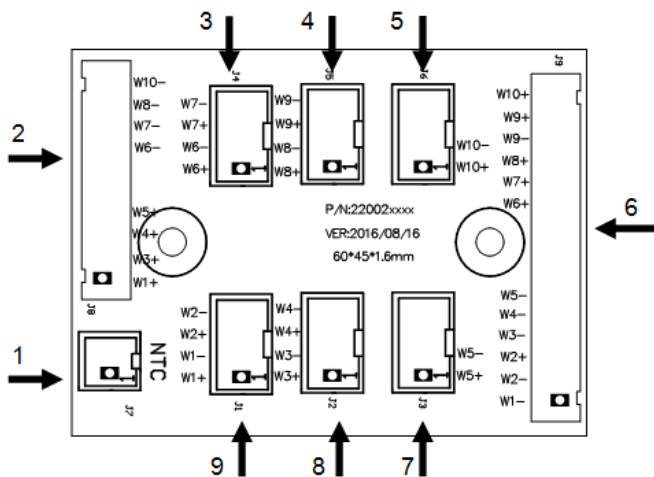
No	Name
1	Battery
2	Power
3	Wireless
4	Fan
5	Signal Input
6	Signal Output
7	Thermal Sensor (Reserved)
8	PWM Output
9	Lamp Striking signal output
10	Art-Net

LED Drive r Board of PR-8178



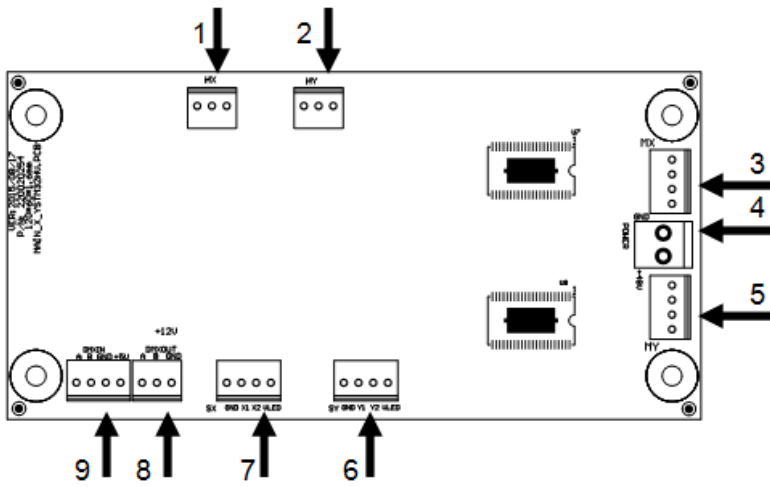
No	Name
1	PWM Dimming
2	FET Dimming
3	Power
4	Driver Output
5	Driver Output
6	Driver Output

Adaptor board for LED module of PR-8178



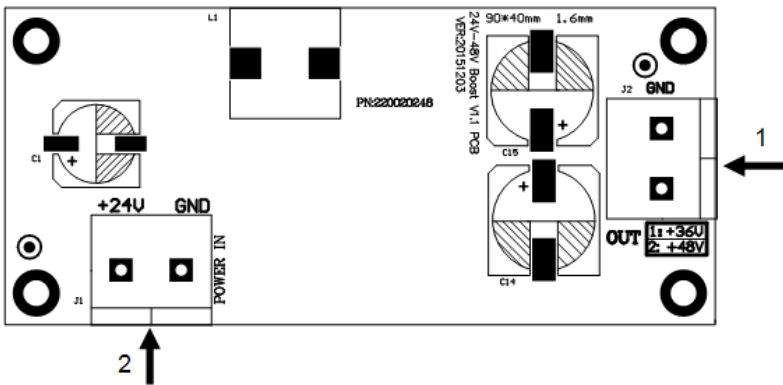
No	Name
1	NTC Module
2	LED Module
3	LED Driver
4	LED Driver
5	LED Driver
6	LED Module
7	LED Driver
8	LED Drive
9	LED Driver

Pan and Tilt Board of PR-8178



No	Name
1	Hall Sensor for Pan
2	Hall Sensor for Tilt
3	Pan Motor
4	Power
5	Tilt Motor
6	Tilt Encoder
7	Pan Encoder
8	Signal Output
9	Signal Input

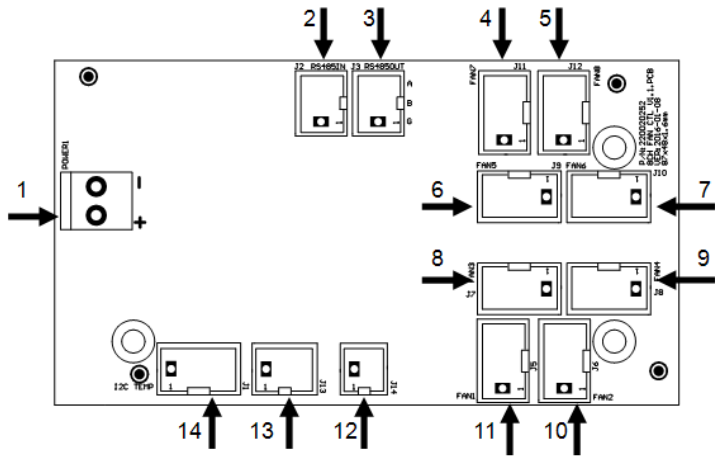
Voltage Increasing Board of PR-8178



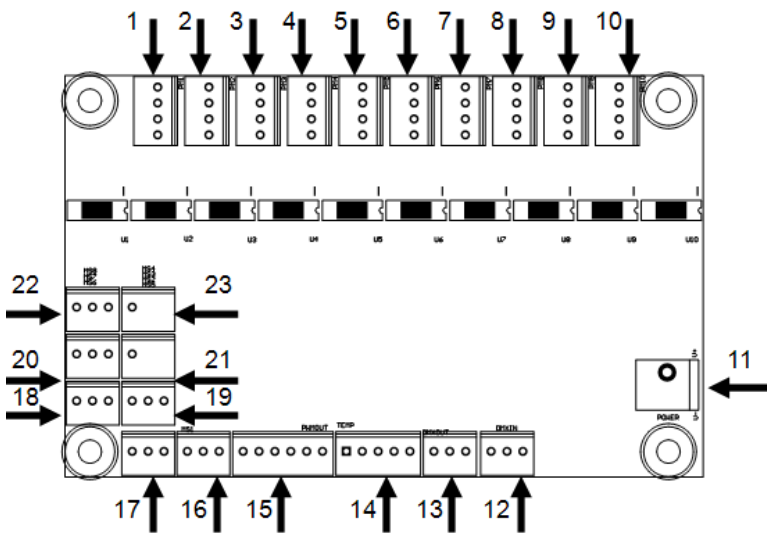
No	Name
1	48V output
2	24V Input

8 channel fan control board of PR-8178

No	Name
1	Power
2	Signal In
3	Signal Out
4-7	PWM Output
8-11	Fan Speed Control
12	Reserved
13	Interface for NTC moduel
14	Reserved



10 Channel Motor Driver Board of PR-8178



No.	Name
1-10	Motor Driver
11	Power
12	Signal In
13	Signal Out
14	Thermal Sensor
15	PWM Output
16-23	Hall Sensor

11. COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARK
POWER SWITCH	192010206	1	A350e-24P
POWER SWITCH	192010207	1	RSP-750-48
LED ENGINE MODULE	150020305	1	
LED ENGINE MODULE FAN	030060109	2	MGT9224MB-W32-IP68
COLOR WHEEL FAN	030040098	1	AB0524HB-DOF
BASE FAN	030060064	1	RBH7530B2
LED DRIVER BOARD FAN	030060084	4	MGA6024YB-O10
LENS FAN	030060050		AD0824UB-A71GL
PAN BELT	290151430	1	
TILT BELT		1	HTD-459-3M-12
FOCUS MOTOR	030040213A	2	
ZOOM MOTOR	030040154A	2	
PRISM IN/OUT MOTOR	030040253	1	
PRISM ROTATION MOTOR	030040203	1	
FROST MOTOR	030040073	1	
ROTATING GOBO WHEEL 1# MOTOR	030040215A	1	
GOBO ROTATION 1# MOTOR		1	
ROTATING GOBO WHEEL 2# MOTOR		1	
GOBO ROTATION 2# MOTOR		1	
IRIS MOTOR	030040244	1	
EFFECT WHEEL IN/OUT MOTOR	030040236 030040131	1	
EFFECT WHEEL ROTATING MOTOR		1	
COLOR WHEEL MOTOR		1	
CYM MOTOR	030040211A	3	
CTO MOTOR		1	
PAN MOTOR	030040252	1	
TILT MOTOR		1	
CONTROL BOARD	230060593	1	
PAN AND TILT BOARD	230060583	2	
POWER BOARD	230060489	1	
ART-NET BOARD	230060572	1	
LED ENGINE MODULE DRIVER BOARD	230060554	2	
FAN BOARD	230060577	1	
MOTOR DRIVER BOARD1	230020574	1	
MOTOR DRIVER BOARD2	230060576	1	
MOTOR DRIVER BOARD3	230060549	1	

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