XR 1700 Wash
PR-2885

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

PR LIGHTING LTD.

http://www.pr-lighting.com

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ACCESSORIES

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

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
XLR connector	1	Set	Male and female
Safety cord	2	Pcs	
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 is 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 changes in the user manual won't be with any further 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 80℃.
- 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(Details vary with different projectors)**

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 Fresnel lens

② Front Cover of
   the head

③ front and back covers
   of the head

④ U arm cover

⑤ Pan Lock

⑥ handle in the base

⑦ Front side cover of
   the head

⑧ Tilt lock

⑨ Back side cover of the head

⑩ lamp cove
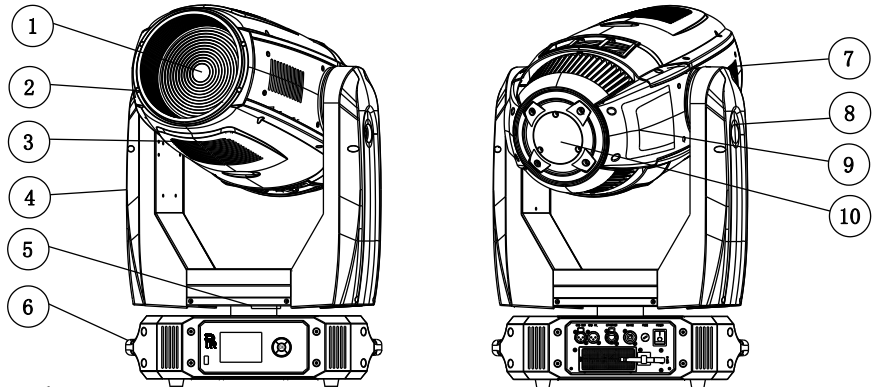
During transportation, the head should be locked-Pan lock (5) and Tilt Lock(6) should be in LOCK position. Before operation, both need to be unlocked.

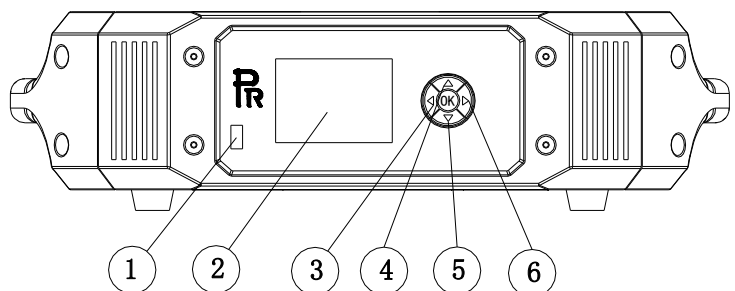### .Back panel of the base
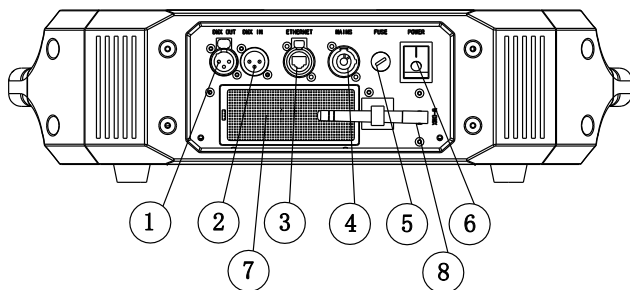
① 3-pin XLR socket(Female)

② 3-pin XLR socket(Male)

③ Ethernet Port

④ Power socket

⑤ Fuse holder

⑥ Power switch

⑦ Air inlet

⑧ Wireless Receiver(Only for the lighting fixture with wireless control function)
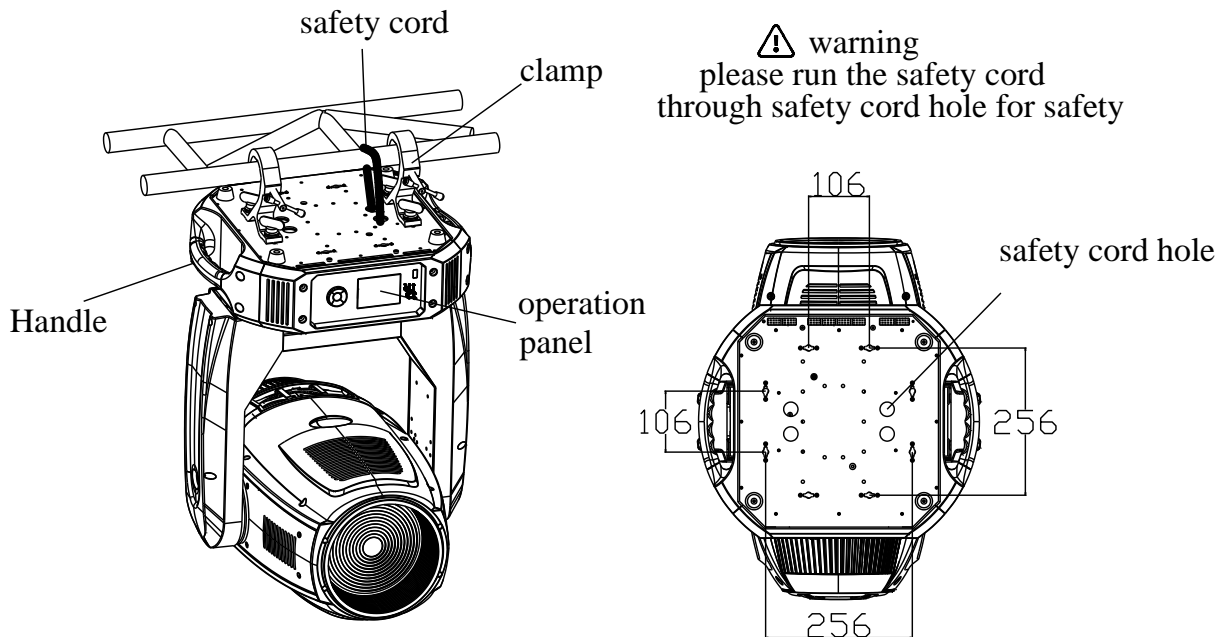
Front panel of the base

① USB interface

② Touch screen

③ Escape key/ left key

④ up key

⑤ down key

⑥ 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.

Note: If projectors are connected in series, please connect POWERIN port of the 1st projector with the Power Mains, then connect its POWER OUT with POWER IN of the 2nd projector, and so on till all fixtures are connected. If the voltage supplied is 200V-240V, the maximum projectors connected is 8pcs, if it is 100V-120V, the maximum is 4pcs. The diameter of the cores of the wires for the Power in/out cables must be equal or bigger than 2.5mm^{2}.

●**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:
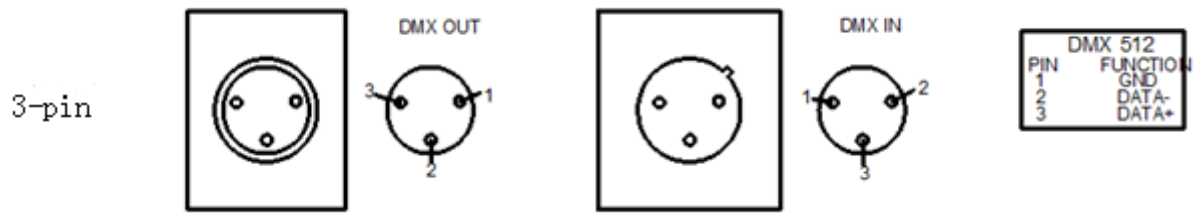
Connection between controller and projector and between one projector and another must be made with a twin-screened cable, with each wire having at least a 0.5mm in diameter. Connection to and from the projector is via cannon 3 pin (which are included with the projector) or 3 pin XLR plugs and sockets. 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.
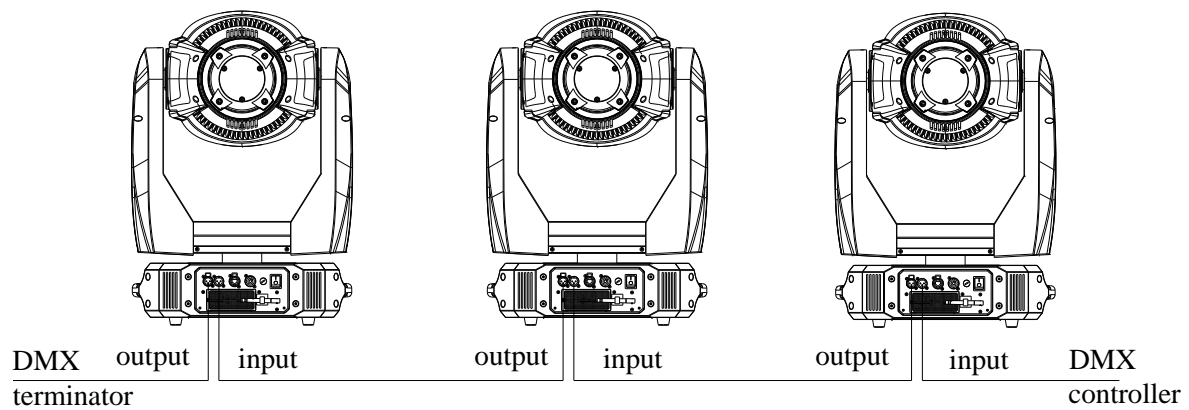
● **DMX TERMINATOR**

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.

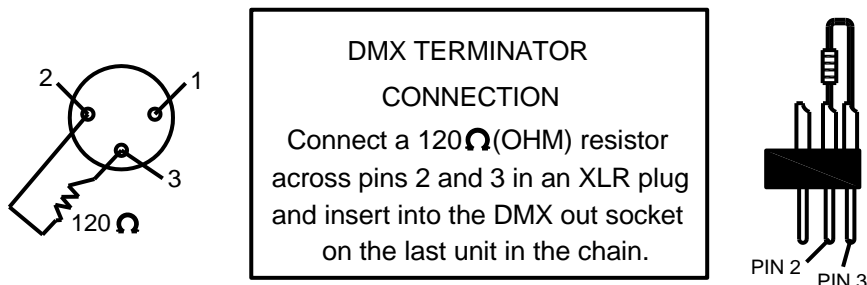The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.

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.

PIN 2   PIN 3

● **ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP**

Before installation/replacement/alignment of a lamp, disconnect the unit from the power and let it cool first.

Lock Tilt in the figure below and open the lamp cover after its 4 screws are loosened.

After removal of the lamp cover, turn the lamp anti-clockwise and take it out of the ceramic stand..

Insert a new lamp. Note: while placing a new lamp, do not touch the burner of the lamp with bare hands, otherwise the light output will be compromised.

Fasten the 4 fast-fit screws after the lamp cover is on

Important: The unit uses high voltage discharge lamp with external igniter(⚠E). While using the lamp, please carefully read "INSTRUCTIONS" packed with the lamp.

Lamp cover

fast fit screw
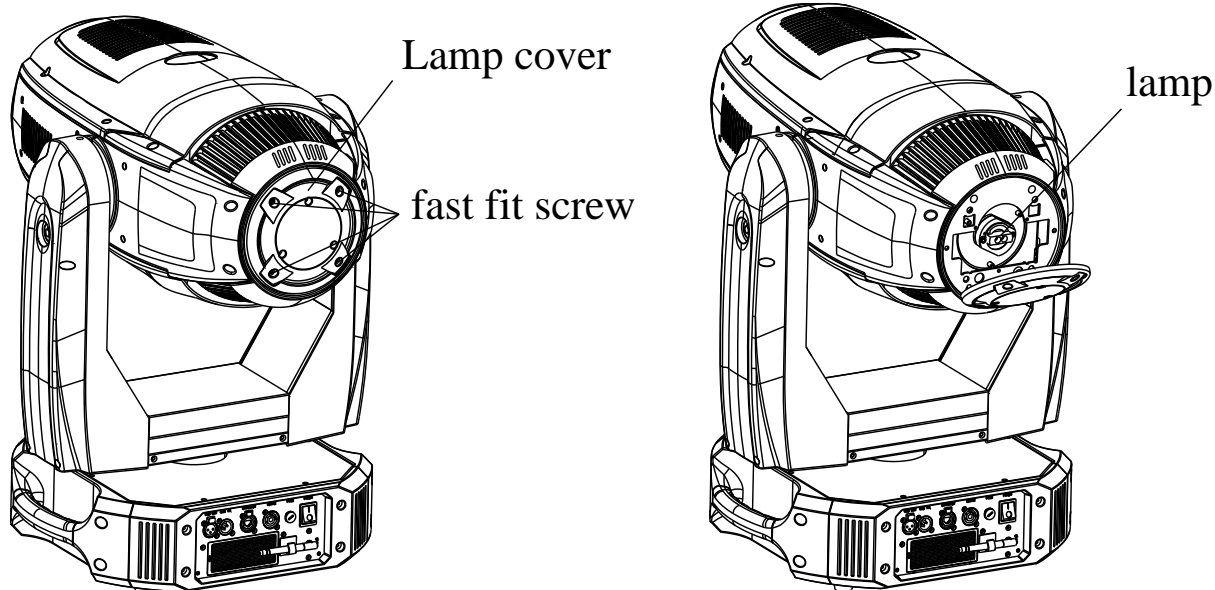
lamp

● 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

5. SETUP AND CONFIGURATION

•**FRONT PANEL OPERATION**
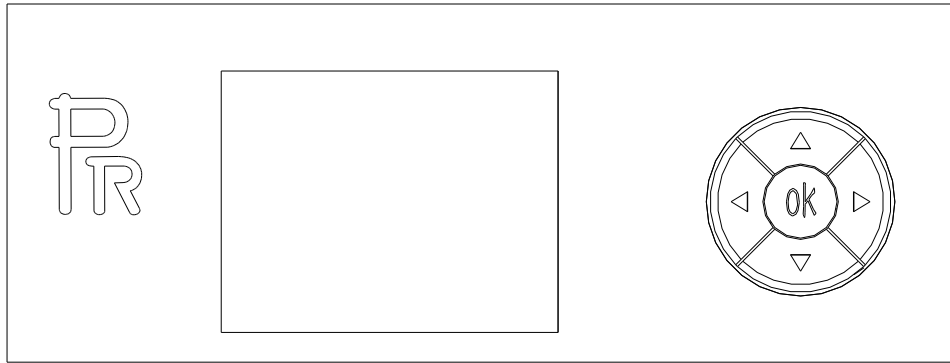
The projector configuration can be set conveniently via push buttons and color touch screen.

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 4 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 19 **c**hannels, so set the No. 1 projector's address 001, No. 2 projector's address 020, No. 3 projector's address 039,No. 4 projector's address 058, and so on.

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.
.
•**DMX WIRELESS CONTROL**

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

Slave	Slave	Master
output input	output input	output input
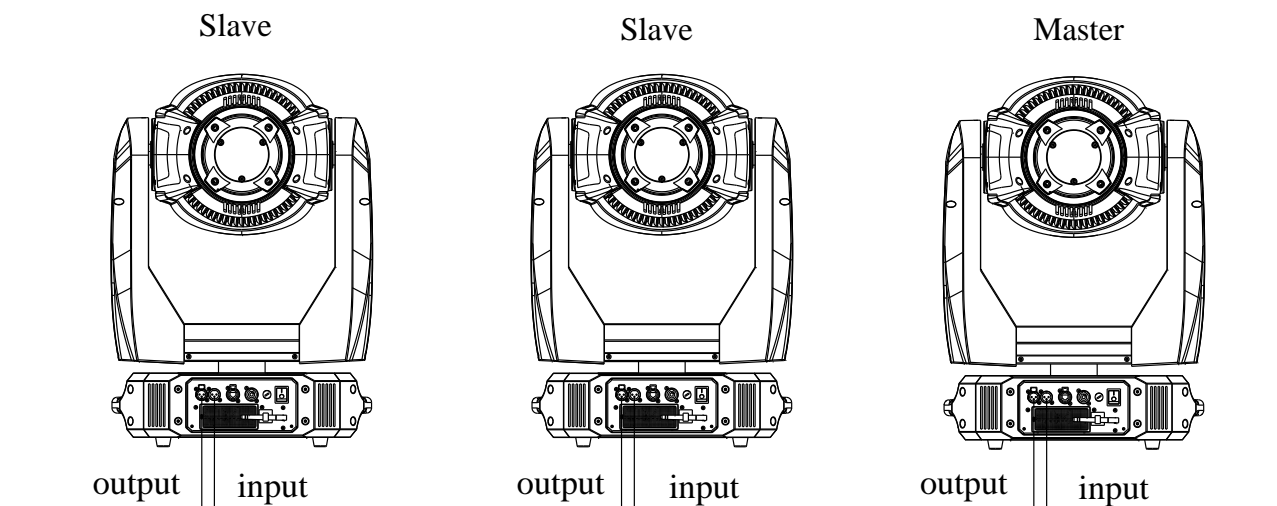
6. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-512		
	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		
Reset	Total Reset	Really Reset?		
	Pan&Tilt Reset	Really Reset?		
	Colour System Reset	Really Reset?		
	Dimmer/Shutter reset	Really Reset?		
	Zoom reset	Really Reset?		
Config Settings	DMX Channel Mode	Short Mode		
		Standard Mode		
		Extended Mode		
		View Selected Mode		
	Lamp Control	Lamp Control	OFF/ ON	
		On By Power On	OFF/ ON	
		Control By DMX	OFF/ ON	
		Lamp Power	1500/ 1700	
	Signal Select	XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless 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?		
	Defaults	Restore Defaults?		
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	
		CMY Invert	OFF/ ON	
		CTO Invert		
	Dimmer Curve	Linear/ inverse Square Law		
	Defaults	Restore Defaults?		

Information	View DMX Values			
	Lamp Hours	Reset Lamp Hours		
	Total Hours			
	Temperature			
	Software Version			
	Electronic SN			
	RDM Device Label			
	Fan Status			
	Encoder			
Service	Manual Effect Control	Strobe XXX		
		Dimmer XXX		
		…		
	Position Calibrations	Input Password	Pan XXX	
			Tilt XXX	
			…	
	Product type	Input Password		
	USB Update Software			
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
				…
				Delay Time XXX
				Delay Unit
				Link To Step XXX
		Edit Static Scene	Strobe XXX	
			Dimmer XXX	
			…	
	Init User Memory	Reset User Memory 1	Reset User Memory?	
		Reset User Memory 2	Reset User Memory?	
		Reset Static Scene	Reset Static Scene?	

7.DMX PROTOCOL

Basic mode	Standard mode	Extended mode	Function	DMX Value	Function Description
1	1	1	Strobe	000-010	Close(Lamp Switches to 1200 watt mode after shutter is closed for 5seconds)
				011-025	Open
				026-225	Strobe speed from slow` to fast
				226-246	Macro effect
				247-255	Open
2	2	2	Dimmer	000-000	Close
				001-255	Dimmer from dark to light (0-100%)
	3	3	Dimmer in 16 bit	000-255	Dimmer Fine
3	4	4	CMY macro	000-007	Reserved
				008-009	Colour Macro 1
				010-011	Colour Macro 2
				012-013	Colour Macro 3
				014-015	Colour Macro 4
				016-017	Colour Macro 5
				018-019	Colour Macro 6
				020-021	Colour Macro 7
				022-023	Colour Macro 8
				024-025	Colour Macro 9
				026-027	Colour Macro 10
				028-029	Colour Macro 11
				030-031	Colour Macro 12
				032-033	Colour Macro 13
				034-035	Colour Macro 14
				036-037	Colour Macro 15
				038-039	Colour Macro 16
				040-041	Colour Macro 17
				042-043	Colour Macro 18
				044-045	Colour Macro 19
				046-047	Colour Macro 20
				048-049	Colour Macro 21
				050-051	Colour Macro 22
				052-053	Colour Macro 23
				054-055	Colour Macro 24
				056-057	Colour Macro 25
				058-059	Colour Macro 26
				060-061	Colour Macro 27
				062-063	Colour Macro 28
				064-065	Colour Macro 29
				066-067	Colour Macro 30

					068-069	Medium Bastard Amber
					070-071	Medium Yellow
					072-073	Fire
					074-075	Bright Red
					076-077	Lavender
					078-079	Sky Blue
					080-081	Tokyo Blue
					082-083	Just Blue
					084-085	Lime Green
					086-087	Dark Yellow Green
					088-089	Spring Yellow
					090-091	Yellow
					092-093	Light Amber
					094-095	Straw
					096-097	Deep Amber
					098-099	Orange
					100-101	Primary Red
					102-103	Dark Pink
					104-105	Peacock Blue
					106-107	Medium Blue-Green
					108-109	Steel Blue
					110-111	Light Blue
					112-113	Dark Blue
					114-115	Deep Blue
					116-117	LEE Green
					118-119	Bright Pink
					120-121	Marine Blue
					122-123	Medium Blue
					124-125	Golden Amber
					126-127	Deep Golden Amber
					128-129	Pale Lavender
					130-131	Special Lavender
					132-133	Pale Green
					134-135	Primary Green
					136-137	Bright Blue
					138-139	Apricot
					140-141	Bright Rose
					142-143	Pale Gold
					144-145	Pale Rose
					146-147	Pink
					148-149	Deep Orange
					150-151	Bastard Amber
					152-153	Flame Red
					154-155	Daylight Blue

				156-157	Lilac Tint
				158-159	Deep Lavender
				160-161	Lagoon Blue
				162-163	Chrome Orange
				164-165	Dark Lavender
				166-167	Congo Blue
				168-169	Alice Blue
				170-171	Full C.T. Blue
				172-173	Half C.T. Blue
				174-175	Quarter C.T. Blue
				176-177	Full C.T. Orange
				178-179	Half C.T. Orange
				180-181	Quarter C.T. Orange
				182-183	LEE Minus Green
				184-185	Half Minus Green
				186-187	Three Quarter C.T. Blue
				188-189	Three Quarter C.T. Orange
				190-191	Glacier Blue
				192-193	Lighter Blue
				194-195	Cabana Blue
				196-197	Millennium Gold
				198-199	Vanity Fair
				200-255	CMY colour mixing from slow to fast
4	5	5	Cyan	000-255	Cyan (Linear 0-100%)
		6	Cyan in 16 bit	000-255	Cyan in 16 Bit precision
5	6	7	Yellow	000-255	Yellow (Linear 0-100%)
		8	Yellow in 16 bit	000-255	Yellow in 16 Bit precision
6	7	9	Magenta	000-255	Magenta (Linear 0-100%)
		10	Magenta in 16 bit	000-255	Magenta in 16 Bit precision
7	8	11	CTO	000-255	Linear adjust from high to low
		12	CTO in 16 bit	000-255	CTO in 16 Bit precision
8	9	13	Color wheel1	000-063	index 0-360 °
				064-067	White
				068-071	White/Red
				072-075	Red
				076-079	Red/ Yellow
				080-083	Yellow
				084-087	Yellow/ Blue
				088-091	Blue
				092-095	Blue / Green
				096-099	Green
				100-103	Green / Pink
				104-107	Pink
				108-111	Pink/ Orange

				112-115	Orange
				116-119	Orange / UV
				120-123	UV
				124-127	UV/ White
				128-191	Rainbow rotation speed from slow to fast
				192-255	Rainbow reverse rotation speed from slow to fast
	10	14	Color wheel1 fine	000-255	Colour Continual positioning in 16 Bit precision
9	11	15	Color wheel2	000-063	index 0-360 °
				064-067	White
				068-071	White/Deep Red
				072-075	Deep Red
				076-079	Deep Red/Deep Magenta
				080-083	Deep Magenta
				084-087	Deep Magenta/ Light Magenta
				088-091	Light Magenta
				092-095	Light Magenta/Light yellow
				096-099	Light Yellow
				100-103	Light Yellow/Light green
				104-107	Light green
				108-111	Light green / Deep cyan
				112-115	Deep cyan
				116-119	Deep cyan/　light cyan
				120-123	Light cyan
				124-127	Light cyan 7/white
				128-191	Rainbow rotation speed from slow to fast
				192-255	Rainbow reverse rotation speed from slow to fast
	12	16	Color wheel2 fine	000-255	Colour Continual positioning in 16 Bit precision
10	13	17	Zoom	000-255	Linearly zooming
		18	Zoom Fine	000-255	Zoom in 16 Bit precision
11	14	19	Pan	000-255	Pan movement
	15	20	Pan Fine	000-255	Pan movement in 16 bit precision
12	16	21	Tilt	000-255	Tilt movement
	17	22	Tilt Fine	000-255	Tilt　movement 16 bit precision
13	18	23	Pan &Tilt Speed	000-001	Speed Mode
				002-255	Pan &Tilt speed from fast to slow
14	19	24	Power/Special functions	000-019	Reserved
					1.To activate following functions, stay in DMX value for at least 5 s
					2.The lamp is allowed to be turned off 5 minutes after the lamp is on. And the lamp is allowed to be turned on 5 minutes after the lamp is off.
					3. Before the lamp on or lamp off, set "control by DMX"/Lamp Control/Config Setting s as ON via control panel.
				020-024	Graphic display On
				025-029	Graphic display Off

					030-034	Reserved
					035-039	Lamp power 1500W
					040-044	Lamp power 1700W
					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	Colour system reset
					160-169	Reserved
					170-179	Dimmer/Shutter reset
					180-189	Zoom 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. ICONS OF THE TROUCH SCREEN

	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
CTO	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel1	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel12	Timeout	Check if wiring, positioning parts and motors are normal
Dimmer	Timeout	Check if wiring, positioning parts and motors are normal
Strobe	Timeout	Check if wiring, positioning parts and motors are normal
Zoom	Timeout	Check if wiring, positioning parts and motors are normal
Angle lens	Timeout	Check if wiring, positioning parts and motors are normal
Lamp Fan1	Error	Check if fan and its wiring are normal
Lamp Fan2	Error	Check if fan and its wiring are normal
CMY Fan1	Error	Check if fan and its wiring are normal
CMY Fan 2	Error	Check if fan and its wiring are normal
Base Fan1	Error	Check if fan and its wiring are normal
Base Fan2	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Motor Driver Board 1	Error	Check signal wire
Motor Driver Board2	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	
Use hours Setting	successfully	

10. TECHNICAL DATA

INPUT VOLTAGES

Input voltage 200V~240V AC，50/60Hz

Input power 2100W @ 220V

Current at maximum   AC10A

Power factor   PF>90%

LAMP   SPECIFICATIONS

Lamp	lok-it 1700W/PS
Color Temperature	5600K
Ceramic Stand	Single-ended
Manufacturers Rated Lamp Life	750hours

COLORS

CMY linear color mixing system with macros

2Color wheels: 7colors+ Open, half-color effect, bi-directional rainbow effect with variable speeds,
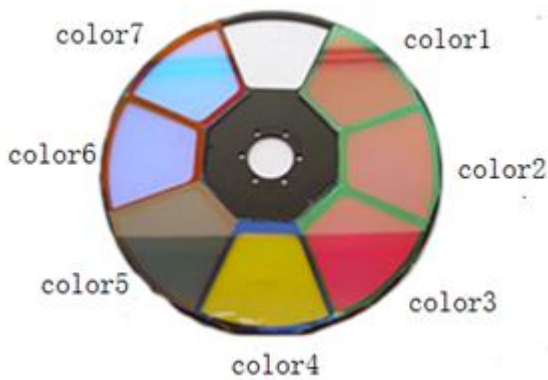
Stepping/linear color changing

Color Wheel 1

No.	Code No.	Colors	Wave Length
1	090070041A	Red	λ=620±5nm
2	090070044A	Yellow	λ=510/545±5nm
3	090070043A	Blue	λ=500±5nm
4	090070042A	Green	λ=540±5nm
5	090070045A	Pink	λ=490/585±5nm
6	090070046A	Orange	λ=600±5nm
7	090070047A	UV light	λ=460/690±5nm

Color Wheel2

No.	Code No.	Colors	Wave Length
1	090070034A	Deep Red	λ=645±5nm
2	090070037A	Deep Magenta	λ=450/630±5nm
3	090070040A	Light Magenta	λ=445/620±5nm
4	090070039A	Light Yellow	λ=520±5nm
5	090070035A	Light Green	λ=485/525±5nm
6	090070036A	Deep Cyan	λ=575±5nm
7	090070038A	Light Cyan	λ=590±5nm

CTO:

0-100% Linear CTO system

ZOOM

DMX linear zoom

DIMMER

 0-100% Linearly adjustable

STROBE

Double blade strobe, 0.3-25 F.P.S .

HEAD MOVEMENT

Pan 540 °, Tilt 270 °with auto position correction

BEAM ANGLE

Highly bright mode 12 °

Linear zoom 20 °~ 62 °with 16bit adjustment

CONTROL

DMX512, 3 pin interfaces

RDM control protocol

14channels in basic mode, 19channels in standard mode , 24channels in extended mode

Self-test mode

OTHER FUNCTIONS

Adjustable Pan & Tilt speeds

Lamp's and fixture's hours displayed

Color touch screen, Chinese and English menus, brightness and contrast adjustable

Input signal isolated

Modular Structure for easy maintenance

Ethernet interface

DMX512 wirless reciever

Optional DMX512 Wireless Transmitter   littr
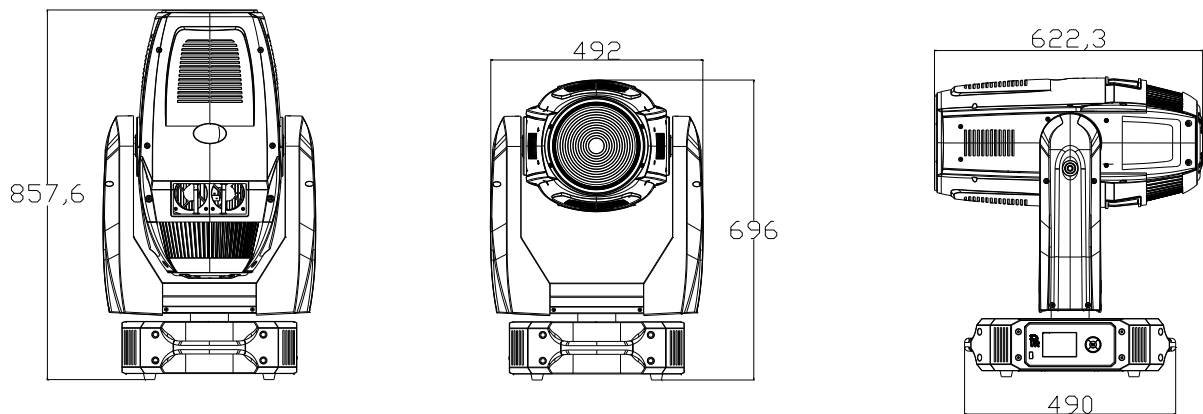
HOUSING

High temperature ABS, IP20
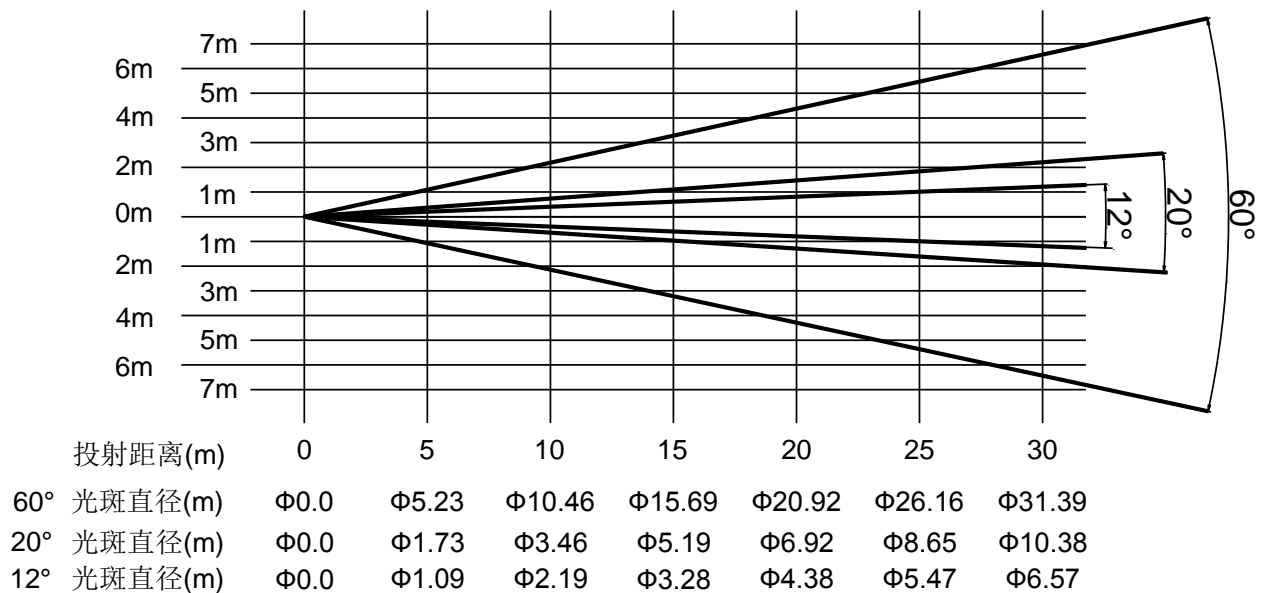
WEIGHT

46Kg

OPERATION TEMPERATURE:

Maximum ambient temperature: 40 ℃

1. **SIZES:**

857,6

492

696

622,3

490

2. LIGHT OUTPUT:

60° lux	0	3396	849	377	212	136	94
20° lux	0	27417	6854	1430	1714	1097	762
12° lux	0	105365	26341	11707	6585	4215	2927

投射距离(m)	0	5	10	15	20	25	30
60° 光斑直径(m)	Φ0.0	Φ5.23	Φ10.46	Φ15.69	Φ20.92	Φ26.16	Φ31.39
20° 光斑直径(m)	Φ0.0	Φ1.73	Φ3.46	Φ5.19	Φ6.92	Φ8.65	Φ10.38
12° 光斑直径(m)	Φ0.0	Φ1.09	Φ2.19	Φ3.28	Φ4.38	Φ5.47	Φ6.57

11. CIRCUIT DIAGRAM AND PCB CONNECTIONS
.CIRCUIT DIAGRAM

PCB CONNECTION

8 channel motor driver board P/N 230060855
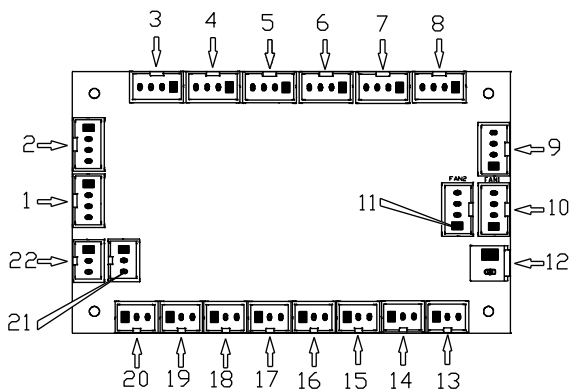
8 channel motor driver board			
1	M1-1motor	12	24V power input
2	M1-2 motor	13	Reserved
3	M1-3 motor	14	Reserved
4	M1-4 motor	15	Reserved
5	M1-5 motor	16	Reserved
6	M1-6 motor	17	HALL1-4 magnet sensor
7	M1-7 motor	18	HALL1-3 magnet sensor
8	M1-8 motor	19	HALL1-2 magnet sensor
9	Thermal sensor	20	HALL1-1 magnet sensor
10	Lamp fan1	21	Signal output
11	Lamp fan2	22	Signal input

6 channel motor driver board
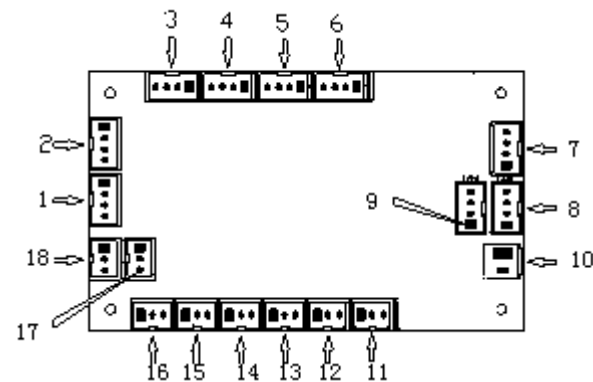
6 channel motor driver board			
1	M2-1 motor	10	24V power input
2	M2-2 motor	11	Reserved
3	M2-3 motor	12	HALL2-5 magnet sensor
4	M2-4 motor	13	Reserved
5	M2-5 motor	14	HALL2-3 magnet sensor
6	M2-6 motor	15	HALL2-2 magnet sensor
7	Reserved	16	HALL2-1 magnet sensor
8	CYM Fan1	17	Signal output
9	CYM Fan2	18	Signal input

XY diver board
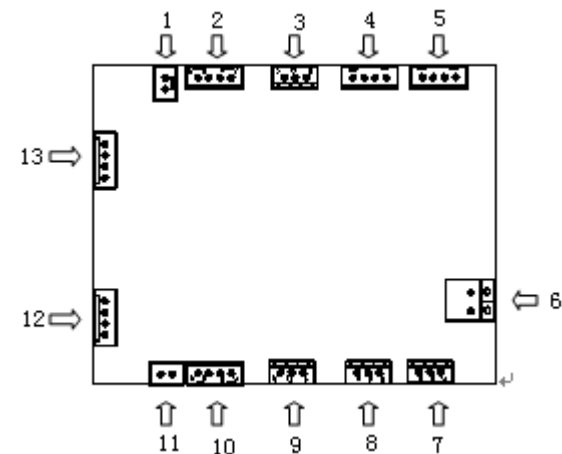
XY driver board			
1	Reserved	8	Signal input
2	TILT ENCODE	9	SX magnet sensor
3	SY magnet sensor	10	PAN ENCODE
4	Reserved	11	XY driver board fan
5	Reserved	12	PAN motor
6	36V power input	13	TILT motor
7	Signal input		

12. COMPONENT ORDER CODES

NAME	PART NO.	QTY	REMARK

PAN MOTOR	030040262	1	
TILT MOTOR	030040262	1	
STORE MOTOR	030040095A	2	
DIMMER MOTOR	030040186A	2	
COLOR WHEEL1 MOTOR	030040095A	1	
COLOR WHEEL2 MOTOR	030040215A	1	
CMY MOTOR	030040114A	4	
ZOOM MOTOR	030040221A	2	
ANGLE LENS MOTOR	030040116A	2	
FAN	030060104	2	BASE FAN1
FAN	030060089A	1	BASE FAN2
TURBO FAN	030060107	2	COOLING LAMP
TURBO FAN	030060094	1	BLOWING STROBE BLADES
FAN	030060095B	4	HEAD FAN
SMALL FAN	030060093	1	PAN & TLT BOARD
LAMP BALLAST	040070133	1	
POWER SWITCH	230020689	1	
POWER FILTER	193020014	1	
IGNITER	040090066	1	
LAMP	100050085	1	
COLOR WHEEL ACCESSORY 1	120110877	1	
COLOR WHEEL ACCESSORY 1	120600042A	1	
MAIN BOARD	230060748	1	
8 CHANNEL MOTOR DIVER BOARD	230060749	1	
6 CHANNEL MOTOR DIVER BOARD	230060750	1	
PAN & TILT BOARD	230060747	1	
FUSE	270041065	1	
PAN BELT	290151205	1	
TILT BELT	290151204	1	
ZOOM BELT	290151206	2	
ANGLE LENS BELT	290151427	2	
COLOR WHEEL BELT	290151320	2	
CMY BELT	290151341	4	

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