XR-230 BEAM

PR-2207

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 Clamp	2	Pc	
XLR Connectors	1	Set	Male and Female
Safety Cord	1	Pc	
User manual	0	Pc	QR code
Ω Clamp	2	Pc	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.

• If a lamp is damaged or deforms because of heat, it should be replaced.

• 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 a projector to any type of dimmer pack.

• If the lamp, lens and screen protective cover of the a projector have obvious damage, i.e., to the extent that it hurts the performance like cracking or deformation. Please stop using it and replace them with the original parts, otherwise its performance will be compromised.

• For the installation location of a projector, it shouldn't be seen in the distance of less than 4 meters for a long time.

• Before operation, please confirm that all covers(housing) are on and screws tightened. It's forbidden to use a projector while covers(housing)are off

• Keep the lamp clean and do not touch it with bare hands.

• While operating it, wear protective items.

• 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 stable operation under normal situation , 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.

●While it running, don't touch the metal housing to avoid being burned!

●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 18m.

●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.

●Do not let the front lens under sunlight or other strong light sources at any angle, otherwise the danger of fire can be caused by the focused beam by the lens inside a projector.

● The product meets The General Technical Requirements and Standards for Recycle and Use Of Expired Appliance and Electronic Products.

● When the product meets disposal standards and needs to be disposed, a client needs to dispose and recycle it.

2.　INSTRUCTIONS

●**CLEANING AND MAINTENANCE**

Under normal running, the protective units of a projector should be inspected regularly like power fuse. If it is burned, please install a new one and ensure it is the same rating as the burned one.

For a projector with an over-temperature protective unit, please inspect cooling units regularly like cooling fans, heat sink and other cooling parts. Please check if the fans run normally or fans and air inlets are blocked by dust. To keep air inlets /outlets clean, cooling fans should be cleaned every 15days.

For projectors with lens, reflectors and coated filters, the accumulation of oil, smoke and dust on them will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use. Internal and external lens, flat glass, reflector and coated filters need to be cleaned periodically to optimize light output.

Cleaning frequency is to be decided by operations and its environment. Use soft cloth and normal detergent for glass for cleaning work. It's advised external optical system be cleaned every 20days and internal optical systems every 30/60days. For a projector with high IP rating, if no damage inside, it is advised to clean the surfaces of its housing in principle. Keep lens clean and do not touch optical parts with bare hands.

●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**
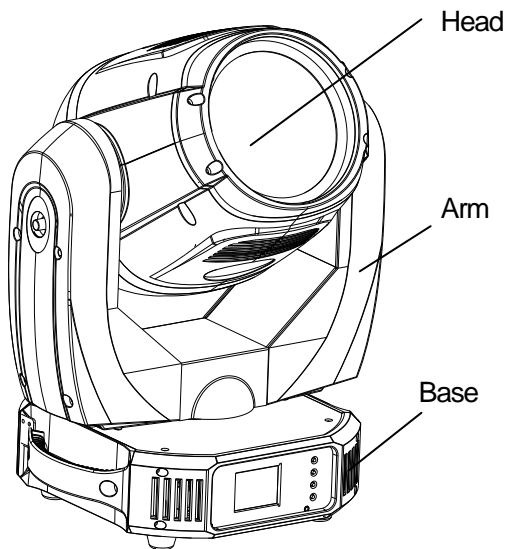
4. **INSTALLATION**

● RIGGING

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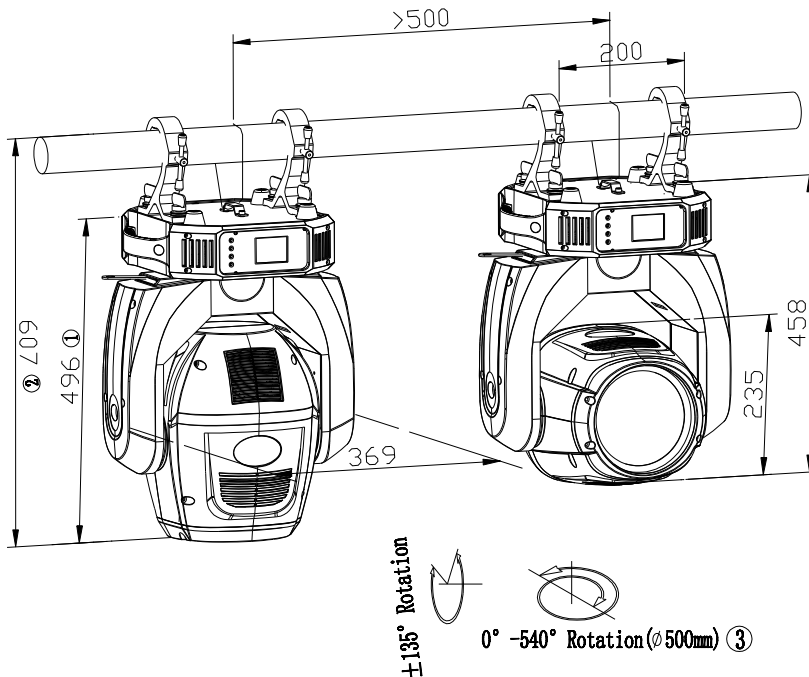
Remarks:

1. The Distance between the top of the feet and the top the head;
2. The distance between the top of the mounting bar and the top of the head;
3. The head's rotating diameter(the minimum distance between 2 neighboring projectors on the truss)

Warning!

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

±135° Rotation

0° -540° Rotation(∅500mm) ③

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.

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.

I

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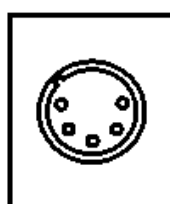
● **The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.**
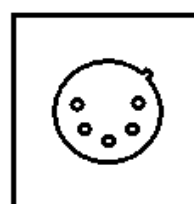● **If any questions about the electrical installation, do not continue but consult a qualified electrician.**
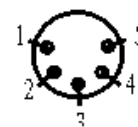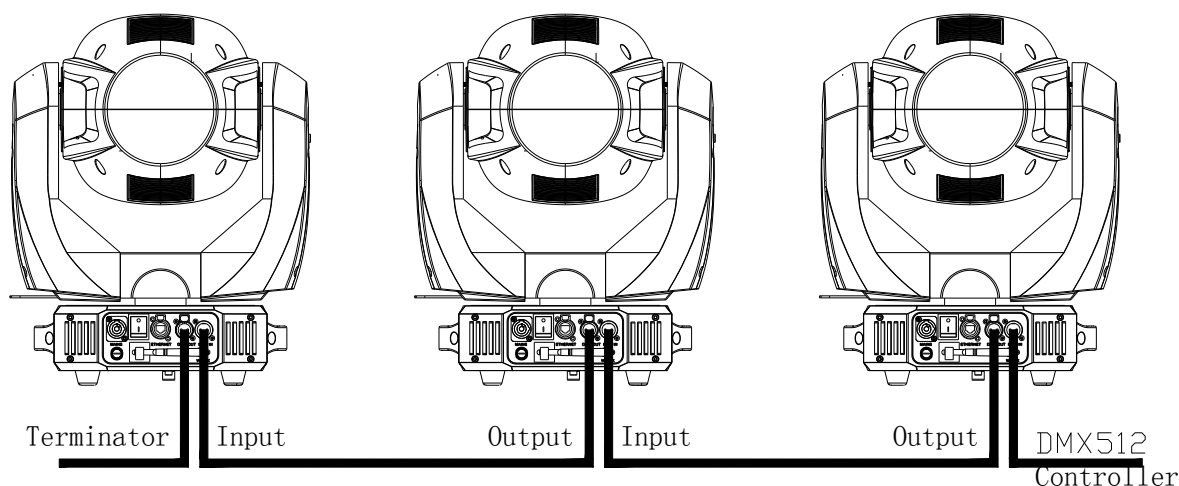
●**DMX CONTROL CONNECTION**

5-PIN

P N	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 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.


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Terminator   Input        Output   Input        Output   DMX512
                                                          Controller
```

●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.
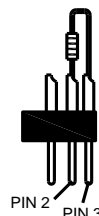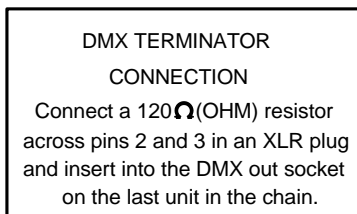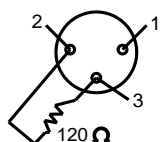
● ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP

Lock the yoke before fitting/replacing/adjusting the lamp. Just as Shown by Figure 1, Open the lamp chamber cover by loosening 4 fastfit screws,.
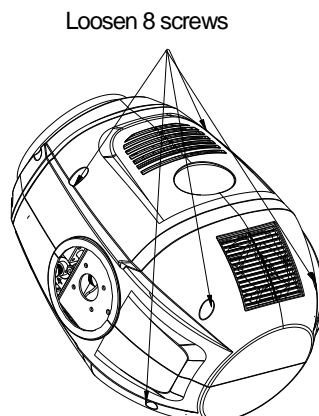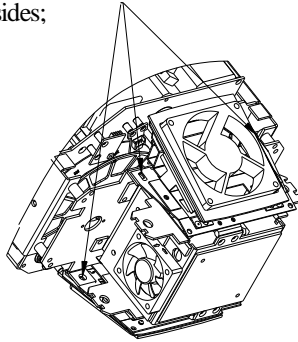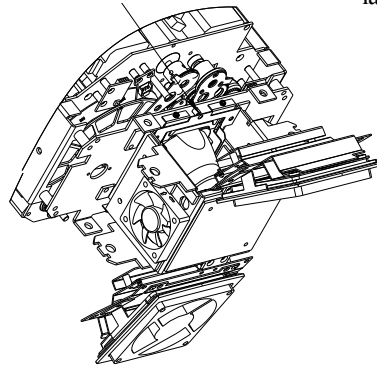
Removal/Installation of a lamp as figure2
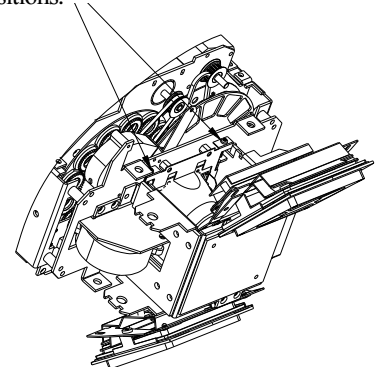
Loosen 8 screws

Figure2: lamp adjustment

1.Use a cross-screwdriver to remove the screws of fans on its both sides;

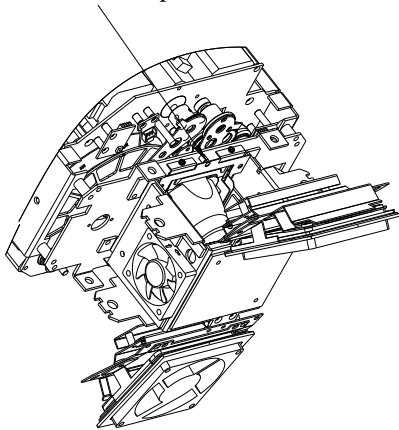2. Use a cross-screw driver to loosen the tightening screw on one side of the lamp;

3. Use cross-screw driver to adjust both screws to adjust the lamp's positions.
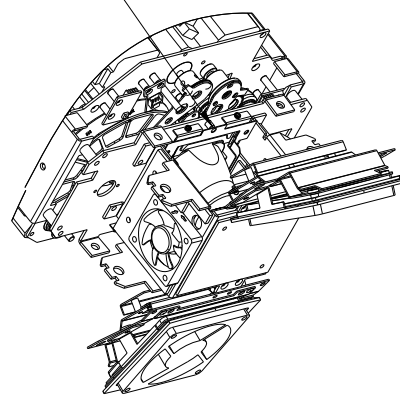
To adjust the lamp as per Figure 3.

1. Loosen the tightening screw on one side of the lamp.;

2. Unplug both lamp wires, push the lamp upward and remove it obliquely

Before the removal of a lamp, unplug both lamp wires. Plug both lamp wires after its installation.

●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 carefully while installing lamp.
●Do not operate the projector while adjusting the lamp.

5. SETUP AND CONFIGURATION
●FRONT PANEL OPERATION
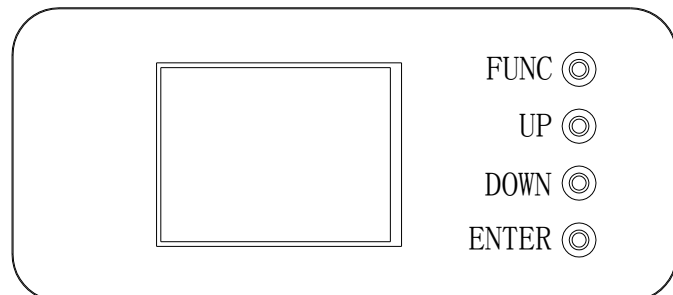
FUNC ◎
UP ◎
DOWN ◎
ENTER ◎

DMX address and Functions can be set simply and conveniently via buttons and LCD display.
To browse through or change the projector 's settings, press ENTER key for more than 5s to unlock the screen to show its function menus. Each main menu has its sub-menus. And each menu stands for special function. For the details, please see below:

To set or browse through its functions, press UP or DOWN key.

Press ENTER key to save the changes or enter into the sub menus. Press UP or DOWN key to change the numbers(minus or plus).

Press FUNC key to go to the upper menu. If FUNC key is not pushed, the system will go back to initial status automatically.

● **DMX START ADDRESS**

Each projector must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The projector has 3DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 14 channels, so set the No. 1 projector's address 001, No. 2 projector's address 015, No. 3 projector's address 029,No. 4 projector's address 43, and so on.

Switch on the Projector . Press ENTER key more than 5 seconds to unlock the control panel,
Press ENTER to show DMX address
Press UP or DOWN key for the DMX address desired.
Press ENTER key to confirm it. After power on next time, the value saved last time will be displayed.
Press the FUNC key to go back to the upper level menu.
.

● **DMX WIRELESS CONTROL(Only for fixtures with 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 UP or DOWN key to enter into the operation menu and select "Config Settings".
2. Select "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

Slave · Slave · Master

Terminator | Input · Output | Input · Output
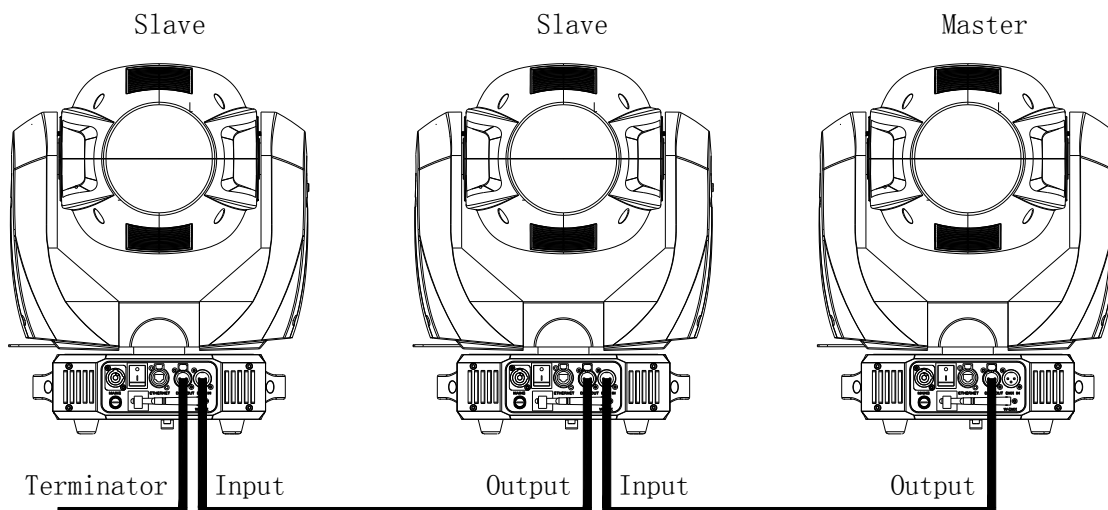
6. OPERATION MENU

1st level menu	2nd level menu	3rd level menu	4th level menu	5th level menu
Address	DMX Address	1-500（Short Mode） 1-499（Standard Mode） 1-497（Extended Mode）		
Reset	Total Reset	Really Reset? Confirm or Cancel		
	Pan&Tilt Reset	Really Reset? Confirm or Cancel		
	Colour System Reset	Really Reset? Confirm or Cancel		
	Gobo Reset	Really Reset? Confirm or Cancel		
	Dimmer/Strobe Reset	Really Reset? Confirm or Cancel		
	Fo.Fr.Pr. Reset	Really Reset? Confirm or Cancel		
Config Settings	DMX Channel Mode	Short 13CH		
		Standard 14CH		
		Extended 16CH		
		View Selected Mode	CH01　Strobe CH02　Dimmer … CHXXX Control function	
	Lamp Control	Lamp Control	OFF/ON	
		On By Power On	OFF/ON	
		Control By DMX	OFF/ON	
		ECO Power	OFF/ON	

	Signal Select （Wireless control is only available for the fixtures with wireless control module）	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	
		Language Setting	English\Chinese	
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Un-Link Wireless （Wireless control is only available for the fixtures with wireless control module）	Really Un-Link? Confirm or Cance		
	Factory Defaults	Restore Defaults? Confirm or Cance		
Option Settings	Pan/Tilt Settings	Pan DMX Invert	OFF/ ON	
		Tilt DMX Invert	OFF/ ON	
		Pan Tilt Swap	OFF/ ON	
		XY Feedback	OFF/ ON	
		Pan/Tilt Mode	Speed/Time	Note: "Speed Mode" means Pan and Tilt will move from Point A to Point B at their respective maximum speeds."Time Mode" means both Pan and Tilt will arrive at designated point at the same time. It's advised Time Mode be used if the projector runs circles or in oblique lines.
	Invert Settings	Dimmer Invert	OFF/ ON	
	Color Positions	Step/Linear		

Information	View DMX Values	Channel　　　Value Strobe　　　　××× …　　　　　　… …　　　　　　…		
	Lamp Hours	Lamp Hours＝××××H Reset Lamp Hours		
	Total Hours	Total Hours=××××H		
	Temperature	Display Board　＝×××C Pan&Tilt Board　＝×××C Driver Board　＝×××C Head Sensor　　＝×××C		
	Software Version	PCB Board　　Sys　　Boot Display Board ××× ××× Pan&Tilt Board××× ××× Driver Board ××× ×××		
	Electronic SN	×××××××××××		
	RDM Device Label	ANSI E1.20 RDM		
	Fan Status	Fan　　　　Speed　RSpeed Lamp Fan　　××× ××× Basic Fan　　××× ××× Strobe Fan　　××× ××× Head Fan　　××× ×××		
	Fan Error	Fan　　　　　Error Count Lamp Fan　　××× Basic Fan　　××× Strobe Fan　　××× Head Fan　　×××		
	Acceleration Sensor	X Axis：　　××× Y Axis：　　××× Z Axis：　　××× Position：　　×××		
Service	Manual Effect Control	Strobe　　　××× Dimmer　　　××× …　　　　　… …　　　　　…		
	Factory Test	×××		
Operation Mode	DMX Mode	Change Operation Mode? Confirm or Cancel		
	Master Mode	Preset Memory	Change Operation Mode? Confirm or Cancel	

		User Memory 1	Change Operation Mode? Confirm or Cancel	
		User Memory 2	Change Operation Mode? Confirm or Cancel	
	Stand-Alone Mode	Preset Memory	Change Operation Mode? Confirm or Cancel	
		User Memory 1	Change Operation Mode? Confirm or Cancel	
		User Memory 2	Change Operation Mode? Confirm or Cancel	
	Static Scene	Change Operation Mode? Confirm or Cancel		
User Memories	Edit User Memory	Edit User Memory 1 / Edit User Memory 2	Scene XX （1~200 Scenes）	Strobe ××× Dimmer ××× … … … … Fade Time ××× Hold Time ××× Delay Unit ms/s/min Link to Step ×××
		Edit Static Scene	Strobe ××× Dimmer ××× … … … …	
	Init User Memory	Reset User Memory 1	Reset User Memory? Confirm or Cancel	
		Reset User Memory 2	Reset User Memory? Confirm or Cancel	
		Reset Static Scene	Reset Static Scene? Confirm or Cancel	

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 (Strobe at random)
				247-255	Open
2	2	2	Dimmer	000-008	Close
				009-255	Linear dimming（0-100%）
	3	3	Dimmer Fine	000-255	Dimmer in 16 bit
3	4	4	Color Wheel	000-011	Open
				012-015	Open/Color1(Red)
				016-019	Color 1(Red)
				020-023	Color 1/ Color 2(Red/Green)
				024-027	Color 2(Green)
				028-031	Color 2/ Color 3(Green/Blue)
				032-035	Color 3(Blue)
				036-039	Color3/Color4(Blue/Dark Yellow)
				040-043	Color4(Dark Yellow)
				044-047	Color 4/ Color 5(Dark Yellow /Pink)
				048-051	Color 5(Pink)
				052-055	Color 5/ Color 6(Pink /Orange)
				056-059	Color 6(Orange)
				060-063	Color 6/ Color 7(Orange /Cyan)
				064-067	Color 7(Cyan)
				068-071	Color 7/ Color 8(Cyan/UV)
				072-075	Color 8(UV)
				076-079	Color 8/ Color 9(UV/Light Red)
				080-083	Color 9(Light Red)
				084-087	Color 9/ Color 10(Light Red /light Green)
				088-091	Color 10(light Green)
				092-095	Color 10/ Color 11(light Green /Dark Blue)
				096-099	Color 11(Dark blue)
				100-103	Color 11/ Color 12(Dark blue /Yellow)
				104-107	Color 12(Yellow)
				108-111	Color 12/ Color 13(Yellow/Light Cyan)
				112-115	Color 13(Light Cyan)
				116-119	Color 13/ Color 14(Light Cyan /Dark Purple)
				120-123	Color 14(Dark Purple)
				124-127	Color 14/Open(Dark Purple /Open)
				128-191	Rotation ,Clockwise from slow to fast
				192-255	Rotation ,Anti-clockwise from slow to fast
4	5	5	Color wheel Fine	0-255	Color Wheel in 16 Bit

				000-021	White
				022-027	Gobo1
				028-033	Gobo2
				034-039	Gobo3
				040-045	Gobo4
				046-051	Gobo5
				052-057	Gobo6
				058-063	Gobo7
				064-069	Gobo8
				070-075	Gobo9
				076-081	Gobo10
				082-087	Gobo11
				088-093	Gobo12
				094-099	Gobo13
				100-105	Gobo14
				106-111	Gobo15
				112-119	Gobo16
			Fixed Gobo Wheel	118-123	Gobo17
				124-127	Open
				128-157	Clockwise rotation from slow to fast
				158-187	Anti Clockwise rotation from slow to fast
				188-191	Shake effect 1 from slow to fast
				192-195	Shake effect 2 from slow to fast
				196-199	Shake effect 3 from slow to fast
				200-203	Shake effect 4 from slow to fast
5	6	6		204-207	Shake effect 5 from slow to fast
				208-211	Shake effect 6 from slow to fast
				212-215	Shake effect 7 from slow to fast
				216-219	Shake effect 8 from slow to fast
				220-223	Shake effect 9 from slow to fast
				224-227	Shake effect 10 from slow to fast
				228-231	Shake effect 11 from slow to fast
				232-235	Shake effect 12 from slow to fast
				236-239	Shake effect 13 from slow to fast
				240-243	Shake effect 14 from slow to fast
				244-247	Shake effect15 from slow to fast
				248-251	Shake effect 16 from slow to fast
				252-255	Shake effect 17 from slow to fast
				000-063	Open
5	5	7	Prism	064-159	Prism
				160-255	Frost
				000-127	Indexing
6	6	8	Prism Rotation	128	Stop
				129-188	Rotation(Anti-Clockwise from slow to fast)

				189-195	Stop
				196-255	Rotation(Clockwise from slow to fast)
7	7	9	Focus	000-255	Linear Focus
	8	10	Focus Fine	000-255	Focus in 16 bit precision
8	9	11	Pan	000-255	Pan(0°~540°)
9	10	12	Pan Fine	000-255	Pan in 16 bit
10	11	13	Tilt	000-255	Tilt(0°~270°)
11	12	14	Tilt Fine	000-255	Tilt in 16 bit
12	13	15	Pan & Tilt Speeds	000-255	Pan & Tilt Speed from Fast to Slow
13	14	16	Control	000-019	Reserved
					Keep in the DMX range for more than 5S to activate the following functions. If power-off, the following are invalid.
				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	Focus/Prism Reset
				190-199	Reserved
				200-209	Total Reset
				210-229	Reserved
				230-239	Lamp Off
				240-255	Reserved

Remarks:
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. SIGNS ON TOUCH 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
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
Dimmer	Timeout	Check if wiring, positioning parts and motors are normal
Prism wheel	Timeout	Check if wiring, positioning parts and motors are normal
Prism Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Focus	Timeout	Check if wiring, positioning parts and motors are normal
Lamp Fan	Error	Check if fan and its wiring are normal
Base Fan	Error	Check if fan and its wiring are normal
Head Fan 1	Error	Check if fan and its wiring are normal
Head Fan2	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Driver Board 1	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

ELECTRIC PARAMETERS

Input voltage ：100V~240V AC，50/60Hz

Input power ： 350W@220V

Power factor： PF>0.90

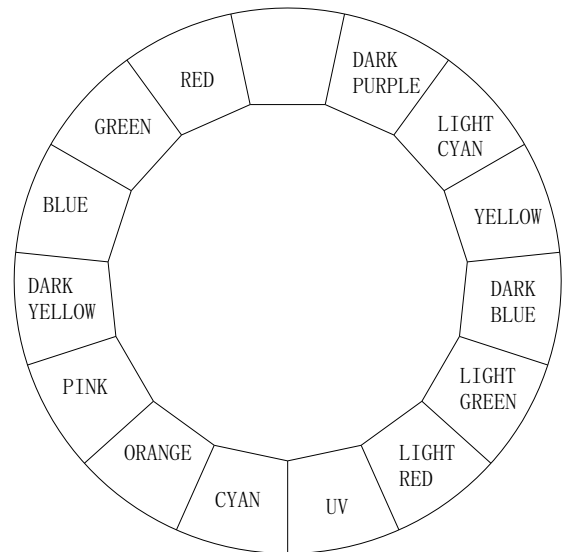MAX. Current：1.5A @ 220V

THE SPECIFICATIONS OF THE LAMP

Osram	SIRIUS HRI 231W
Color temperature	7900K
Rated life	2000hrs
Energy save mode	2500hrs

COLORS

1color wheel: 14colors+ Open

rainbow effect with bi-directional and variable speeds,

Stepping/linear color changing

FIXED GOBO WHEEL

1 fixed gobo wheel: 17gobos+open

bi-directionally rotatable, and shakable at variable speeds,

1	2	3	4	5	6

7	8	9	10	11	12

13	14	15	16	17	

PRISM/FROST

1 8-facet prism(bi-directional rotation with variable speeds)+frost filter+open

3-24 facet prism (Optional)

FOCUS

DMX linear focus

DIMMER/STROBE

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

HEAD MOVEMENT

Pan 540 °, Tilt 270 °with 16 bit control

BEAM ANGLE

0 °～ 3.6 °

CONTROL

International standard DMX 512 protocol, 5-pin interface

13channels in short mode ,14channels in standard mode and16 channels in extended mode

Adjusting mode

OPERATION TEMPERATURE

Maximum ambient temperature 40 ℃

OTHER FUNCTIONS

Adjustable Pan & Tilt speed

Lamp's and fixture's hours displayed

Modular Structure for easy maintenance
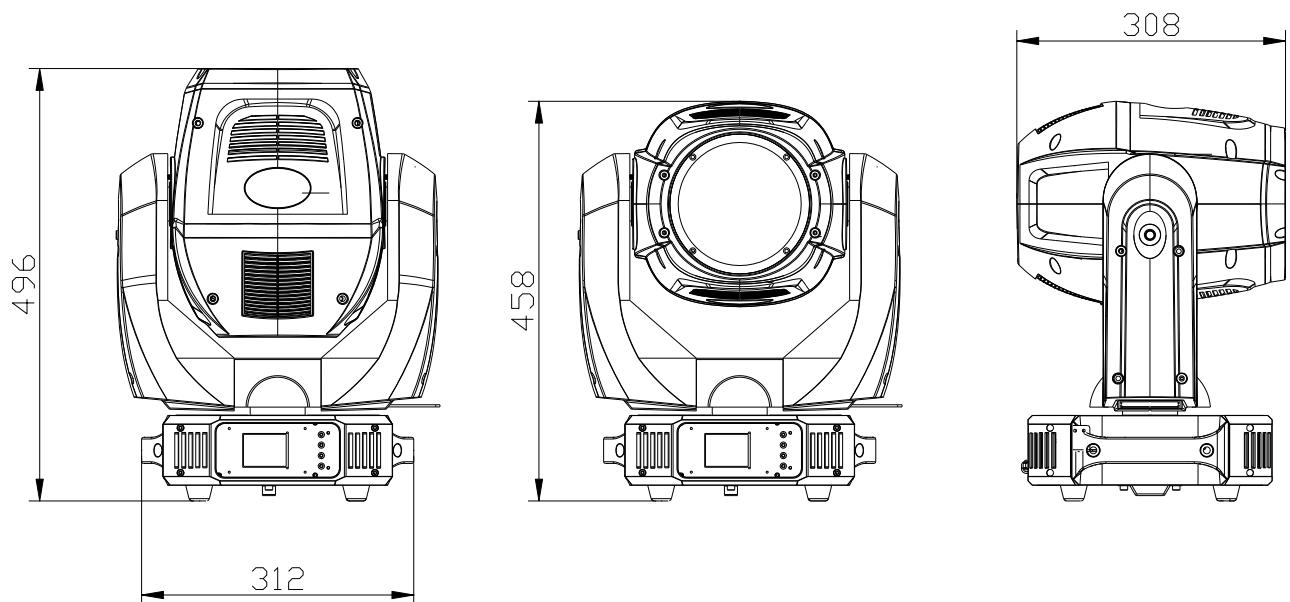
DMX512 wirless reciever

Optional DMX512 Transmitter

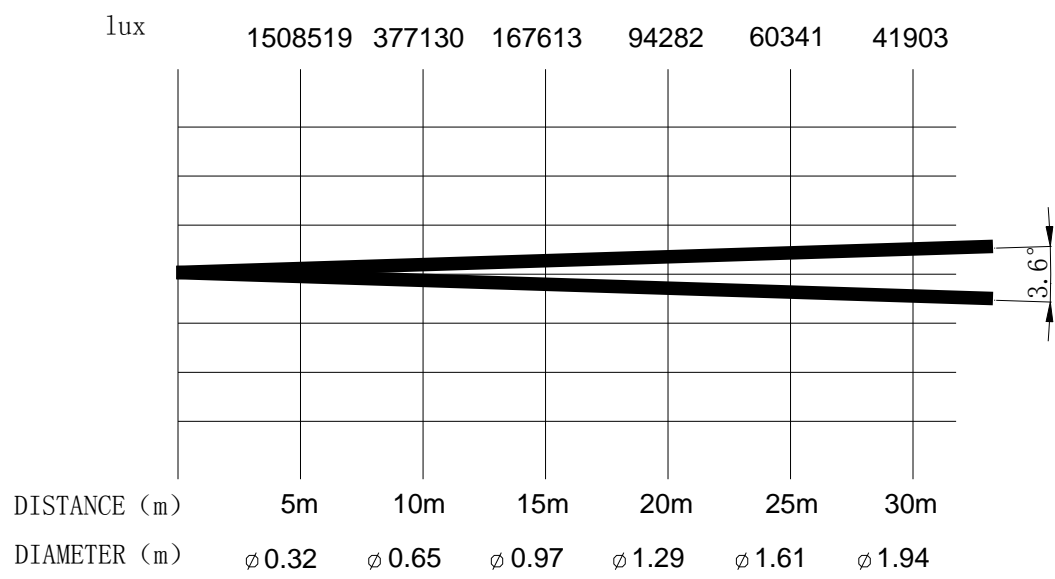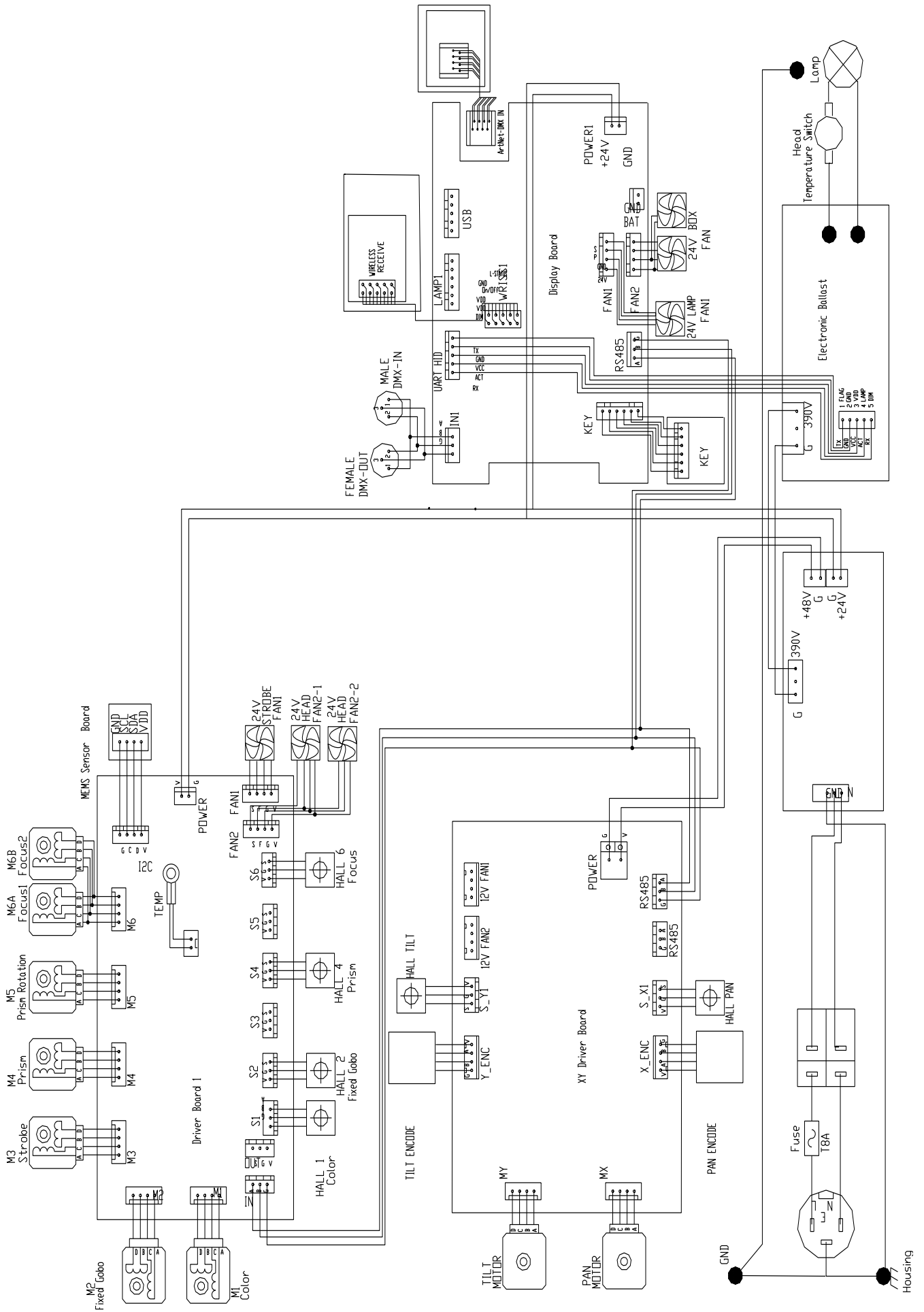**HOUSING**

High temperature ABS, IP20

WEIGHT

14.5 kg

SIZES

LIGHT OUTPUT

lux   1508519 377130 167613   94282   60341   41903

DISTANCE（m）	5m	10m	15m	20m	25m	30m
DIAMETER（m）	∅0.32	∅0.65	∅0.97	∅1.29	∅1.61	∅1.94

3.6°

11.CIRCUITDIAGRAM

21

12.COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
230W BALLAST	040070112	1	
231W LAMP	100070048	1	
SWITCHING POWER SUPPLY	192010238	1	
FAN	030060069	1	
FG+PWM SPEED ADJUSTING FAN	030060122	3	
FG+PWM SPEED ADJUSTING FAN	030060115	1	
FG+PWM SPEED ADJUSTING FAN	030060126	1	
BLOWER	030060072A	1	
PAN MOTOR	030040160A	1	
TILT MOTOR		1	
PRISM WHEEL IN/OUT MOTOR	030040307	1	
GOBO WHEEL MOTOR	030040154A	1	
COLOR WHEEL MOTOR		1	
FOCUS MOTOR	030040073B	2	
STROBE MOTOR		1	

APPENDIX: Some Advice on the Use of a Projector

For the effective extension of the lifespan of discharge lamp, some factors impacting its lifespan are specially listed below, based on manufacturing technology and working mechanism of discharge lamps, i.e., physical attributions of the lamps including lamp striking theory(ignited by focused high voltage---highly pressurized air broken down and burning---lamp on at high temperature with thermal protection--- stable running) and lamp off theory(lamp off power ---lamp off at high temperature and thermal protection-highly pressurized air vaporizing evenly----completion of lamp off.

1. The sequence of lamp striking: Power on→lamp striking by controller(advised not to strike lamp via power on), the sequence of lamp off: lamp off by controller→mains power shut off (advised not to turn off lamp by shutting off mains power)

2. Within 1 min after lamp striking, it shouldn't re-strike it frequently. ONLY more than 10 min after the projector is cooled after lamp off, can the lamp be re-stricken again.

3. Within 5 min after lamp striking, it can't be turned off. During the lamp striking process, it's forbidden to turn off lamp via shutting off mains power, but via controller. More than 5 min after the projector is cooled after lamp off, can the mains power be shut off.

4. The projector is advised not to point to the same point for long time, i.e., it shouldn't be used for long time at a fixed angle.

5. The projector is advised not to use double colors for long time, i.e., it shouldn't use 2 or more colors for long time.

6. The projector is advised not to keep shutters closed while lamp on for long time, i.e., it should be less than 1 hr after shutters closed after lamp on.

7. It is advised not to use lamp half power function for long time.

PR LIGHTING LTD.

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