# PR

# XLED 2007 BEAM

## PR-8123

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

# INDEX

Every ex-company fixture is tested completely and packed properly by the manufacturer. The use explanations and warnings in this manual must be strictly followed .Any damage caused by improper use will not be covered by the manufacturer and / or dealer.

If any technical data changes, further notice won't be offered.

# ACCESSORIES

These items are packed together with the product, please check them:

| Name | Quantity | Unit | Remark |
|---|---|---|---|
| XLR connector | 2 | PCS | 1 male and 1 female, 5-pin |
| Safety cord | 1 | PCS | |
| This manual | 1 | PCS | |
| G clamp | 1 | SET | Standard |
| Ω clamp | 1 | SET | Optional |
| Wireless receiver | 1 | SET | Optional |
| Frost Panel | 1 | PCS | Optional |

# SAFETY INFORMATION AND WARNINGS

After receiving product, please unpack and check if there are any damages caused by transportation. Do not use the fixture if transportation damages occur and contact the manufacturer or the dealer as soon as possible.

The product is only for indoor use, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow its contact with water or any other liquids .

The unit is only intended for installation, operation and maintenance by qualified personnel.

The product must be installed in a location with good ventilation, at least 50cm from adjacent wall surfaces. Be sure that no fans and ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 1.3m. ◁ 1.3m ⋿

Avoid looking into the light from the fixture directly (especially to **Epileptic Patients)**. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the product in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the fixture .

It is essential that each fixture is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. If the fixture is not in use or before it being cleaned, please hold the plug and unplug the power cord . Never pull out the plug by tugging the power-cord.

The fixture should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in "installing the unit" section.   At the back cover of the base, there is a safety hole for the safety cord, for safety installation, please run the safety cord supplied with the fixture through the safety hole to support the safe installation.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches.
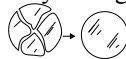
Exterior surface temperatures of the luminaire after 5 minutes operation is 45℃, when steady, it achieves 50℃,

There is no user repairable parts inside the fixture, do not open the housing and never operate the unit with the covers removed. Before the use of the fixture, please check if the covers are fixed well and all screws are fastened.

If any questions, don't hesitate to consult your dealer or the manufacturer.


**Important: Always disconnect from Power Supply, when the device is not in use or before cleaning or any maintenance work!**

SAFETY CORD

CLAMP

WARNING:
Please run the safety cord through
safety hole and make sure that the
cord is property secured.
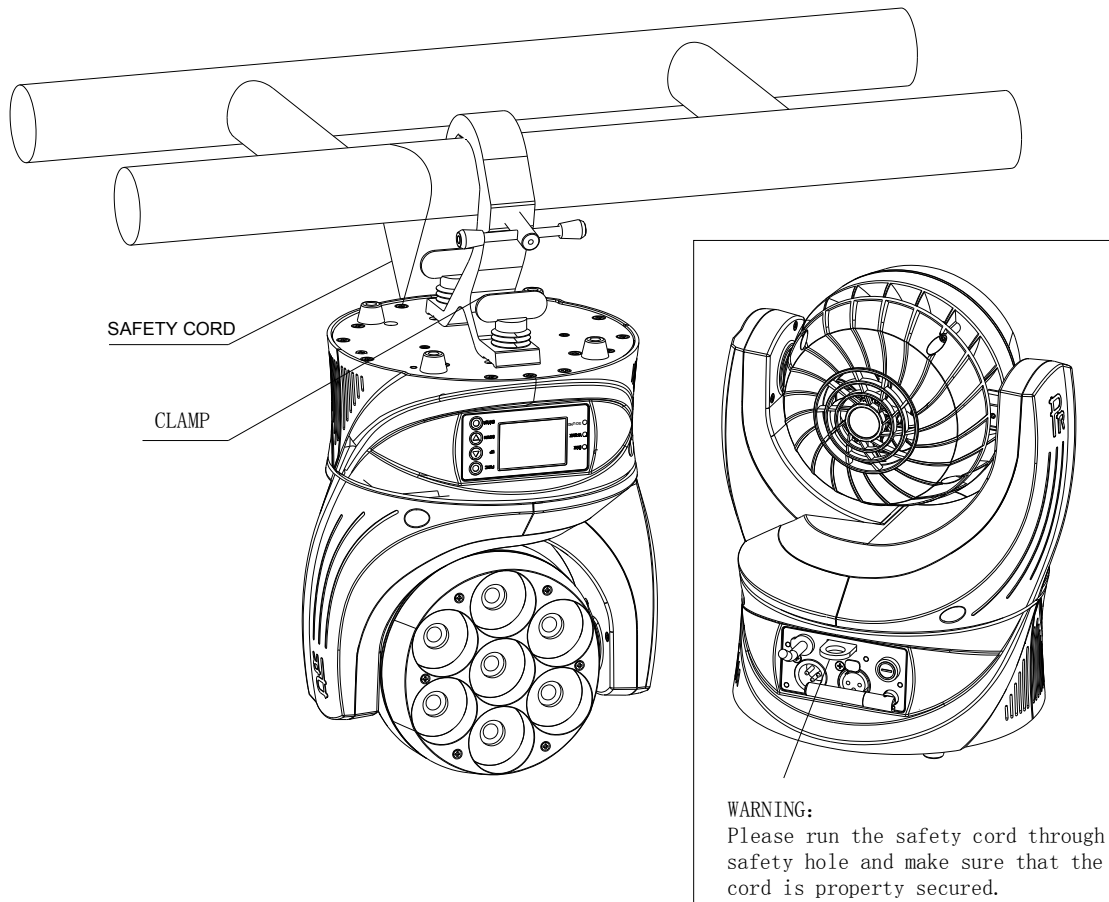
Take 1 clamp and 1 the safety cord out from the package and mount 1 clamp on the BOTTOM of fixture with 2 retainers attached to the clamp. Hang the fixture on the steel truss and fasten the retainers attached to the clamp. Always ensure that the location that you are going to mount the unit is secure and is strong enough to support the weight of the unit (See the **WARNING** as shown above) **To pass SAFETY CORD through the SAFETY HOLE on the back cover of the base of the fixture for safety!** Always ensure that the unit is firmly anchored to avoid vibration and slipping whilst functioning.

**WARNING:**
**1. The unit MUST be lifted or carried by the HANDLES instead of clamps.**
**2. For safety the safety cord should bear 10 times of the unit's weight .**

# POWER SUPPLY CONNECTIONS

Connect the power cord as follows:

    L (live) =brown

    E (earth) =yellow/green

    N (neutral) =blue

Please be advised to notice power supply's voltage and frequency meet what are described on the nameplate of the product. It is recommended that each unit be power connected separately so that they may be individually switched on and off.

**IMPORTANT**

**It is essential that each unit(yellow/green twin wire) is correctly earthed and the electrical installation conforms to all relevant standards.**

# DMX CONTROL CONNECTION



5-PIN

| DMX 512 | |
|---|---|
| PIN | FUNCTION |
| 1 | GND |
| 2 | DATA- |
| 3 | DATA+ |
| 4 | N/C |
| 5 | N/C |
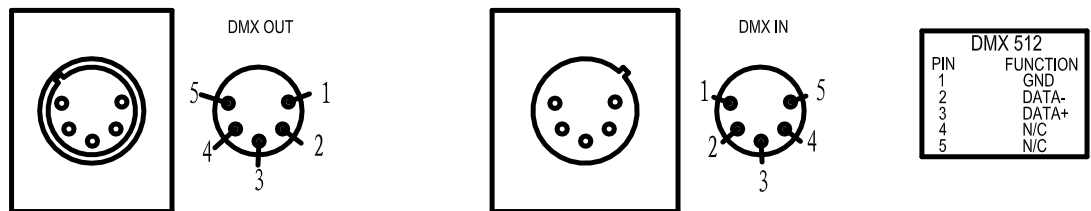
Connection between controller and unit and between one unit and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to the DMX512 input and output ports of the unit is via 5 pin XLR plugs and sockets(which are included with the unit). The XLR's plugs and sockets are connected with wires 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's plug and socket must not be connected with XLR control wire in any way other than shown as above. The fixture accepts digital control signals in protocol DMX512 (1990).
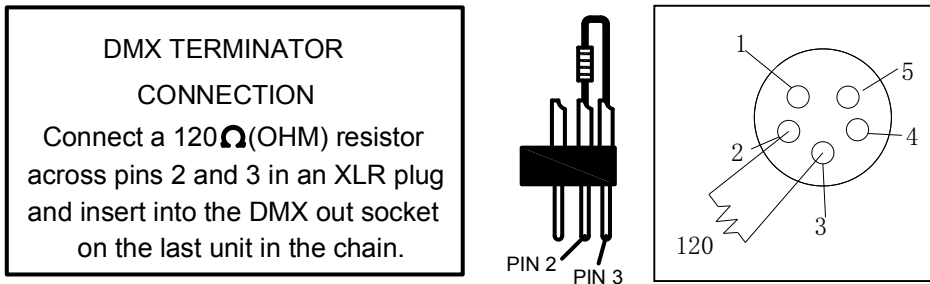
Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.



MASTER      SLAVE      SLAVE

DMX IN FROM CONTROLLER    DMX OUT      DMX IN    DMX OUT      DMX IN    TERMINATOR
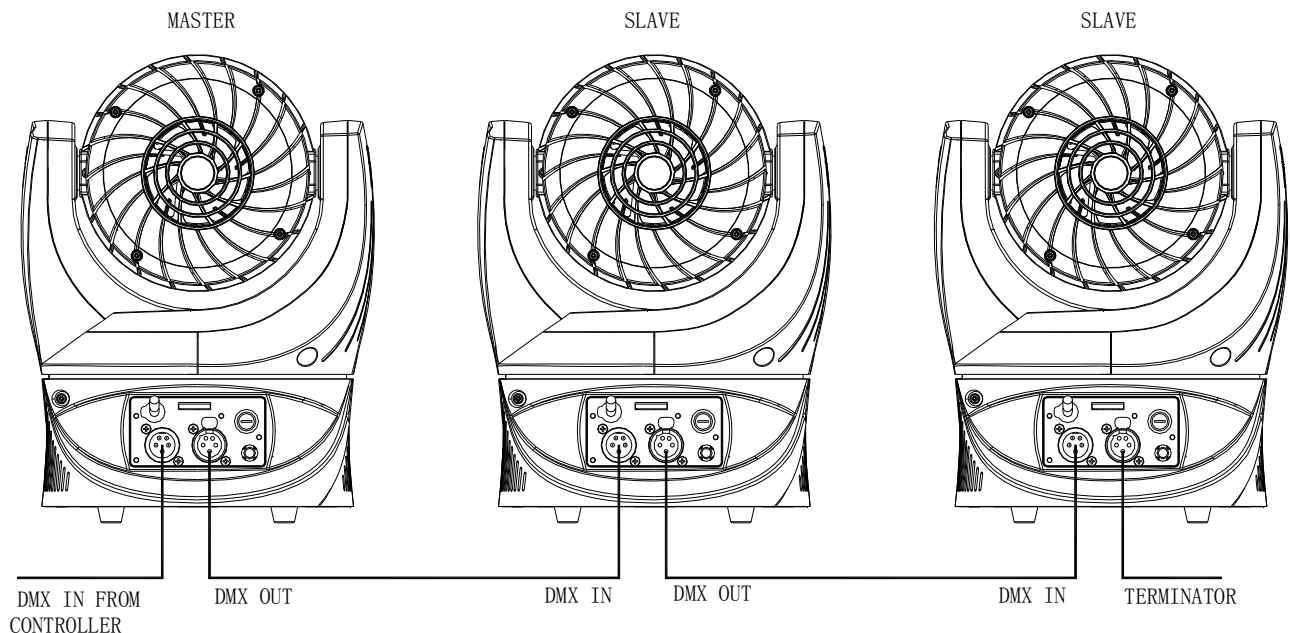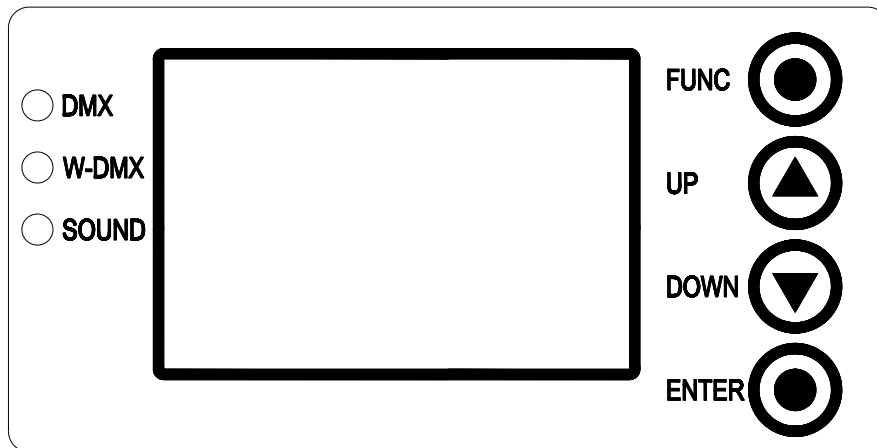
## DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX512 control signals.

The DMX terminator is simply a Canon connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last fixture 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

1    5
2    4
120    3

## PRODUCT FUNCTION SETUP

DMX
W-DMX
SOUND

FUNC
UP
DOWN
ENTER

Fixture's address and function code configuration can be set conveniently via Touch Key and LCD display. Press button ENTER more than 3 seconds to unlock panel. LED display shows the fixture's function menu. Each Option of the main menu has its own sub-menu. Each menu stands for specified function of the fixture, please see the details in the following:

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

Press button ENTER to save your settings or enter the sub-menus.

Press button UP or DOWN to change the parameters (increase or decrease the numbers)

Press button FUNC, it will return to the upper menu one by one. If the button not pressed, the system will go back to display status automatically.

## TO SET THE DMX START ADDRESS

If many fixtures are controlled by the controller, each fixture should be set with a start address to receive signals sent by the controller and respond to it. The fixture have 2 DMX modes. There are standard mode and extended mode, For example standard mode has 17 channels, so set the No. 1 Fixture's address 001, No. 2 Fixture's address 018, No. 3 Fixture's address 035 and so on.

Switch on the Fixture. Press button ENTER more than 3 seconds to unlock panel.

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

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

Press button ENTER to confirm; when powered on next time, it will show the latest number you saved.

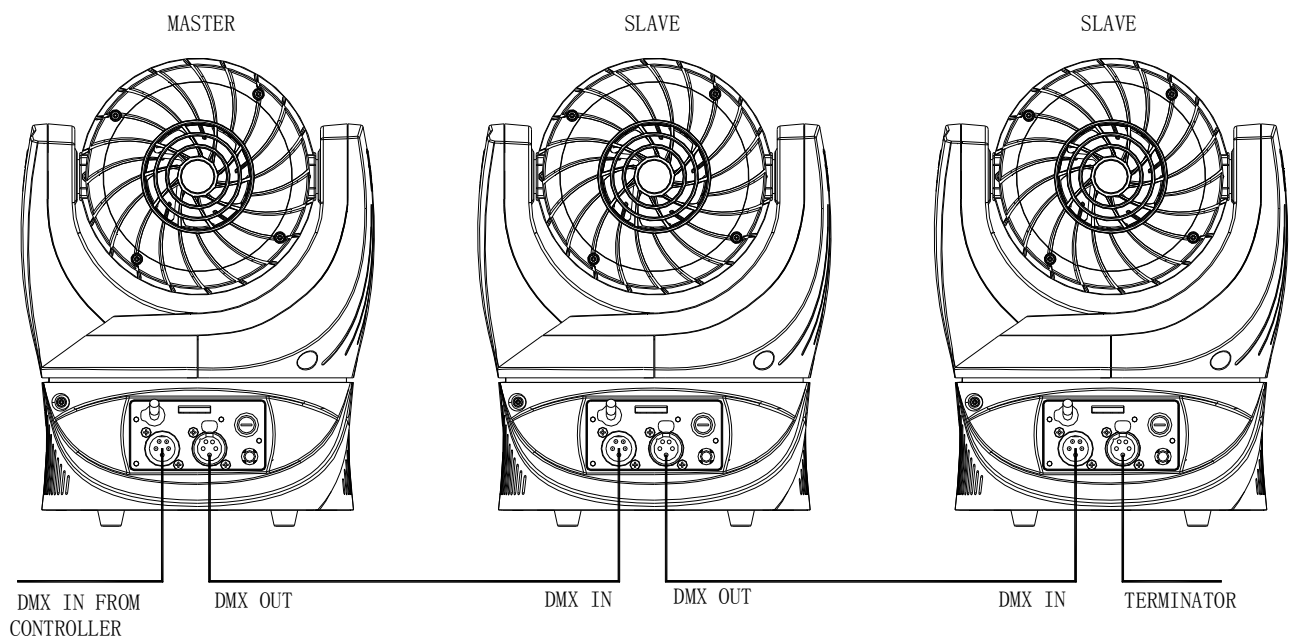Press button FUNC, it will return to the upper menu one by one.

# STAND-ALONE MODE

Operate the fixture without connecting a controller, enable the master mode in the operation panel, the fixture will run in Stand-Alone mode automatically.

# MASTER/SLAVE MODE

If many fixtures are connected under Master/Slave mode, use XLR-XLR control cable to connect the first fixture's DMX output port with the second fixture's DMX input port, then to connect the second fixture's output port with the third fixture's input port and so on until all the fixtures are connected, the last thing is to plug the terminator at the last fixture's output port.    In this case, the first fixture is the master, others are slaves

Set the master's address at 001, Master can be set at any mode(STD mode or extended mode) and slave should be set at same mode as the master's.
After powered on, the group will run under Master/Slave mode.



MASTER                          SLAVE                          SLAVE

DMX IN FROM        DMX OUT          DMX IN      DMX OUT          DMX IN        TERMINATOR
CONTROLLER

# SOUND OPERATION

To select different level(0-100) of sound sensitivity based on different operating environment under sound operation under Operation Mode. There are several different(0-6) sound effects for different operating environment under Sound Operation.
Note: If several fixtures in series under Master/Slave mode, Only Master responds to external sound.

# OPTIONS MENU

| Level 1 | Level 2 | Level 3 | Level 4 |
|---------|---------|---------|---------|
| DMX Address | 1~498 | | |
| Reset | Are You Sure | | |
| Config Settings | DMX ChannelMode （Default is：STd） | Standard 17 | |
| | | Extended 30 | |
| | Pan Tilt Swap （Default is OFF） | OFF | |
| | | ON | |
| | Pan & Tilt Invert （Default is OFF） | OFF | |
| | | ON | |
| | Pan angle Range （Default is 360） | 360 | |
| | | 720 | |
| | DMX Mode * （Default：XLR First） | XLR First | |
| | | XLR Only | |
| | | Wireless Only | |
| | | Wireless First | |
| | | Wireless To XLR | |
| | Unlink Wireless * | YES | |
| | MasterSlaveSelec Default：Slave） | Slave | |
| | | Master | |
| | SoundSensitivit | 0～100 | |
| | Factory Settings | YES | |
| | Parameter Transm | YES | |
| | Display Options | Language | Chinese |
| | | | English |
| | | Display Mode | Off After Delay |
| | | | On Always |
| | | Display Reverse | OFF |
| | | | ON |
| | | Display Contrast (Default:9) | 0~18 |
| Information | Power On Hours | XXXX Display time | |
| | Software Version | X.X.X | |

| | | | | |
|---|---|---|---|---|
| | Self Test | YES | | |
| Test Mode | Manual Test | Lamp | OFF | |
| | | | Red | |
| | | | Green | |
| | | | Blue | |
| | | | White | |
| | | | Red + Green | |
| | | | Green + Blue | |
| | | | Red + Blue | |
| | | | Red +Green + Blue | |
| | | | ON | |
| | | Pan Location | 0-255 | |
| | | Pan | 0-255 | |
| | | Tilt Location | 0-255 | |
| | | Tilt | 0-255 | |
| | | Pan&Tilt Speed | 0-255 | |
| Operation Mode | DMX Operation | YES | | |
| | Sound Operation | 0~6 | 0: All Audio effect 1～6: Single Audio effect | |
| | Preset Memory | YES | | |
| | User Process | YES | | |
| | Memory Edit | Static Scene 1～16 | CH1 Strobe | 000 (NO Strobe) |
| | | | | 001-129(Plus Strobe) |
| | | | | 130-255(Strobe) |
| | | | CH2 Red | 0-255 |
| | | | CH3 Green | 0-255 |
| | | | CH4 Blue | 0-255 |
| | | | CH5 White | 0-255 |
| | | | CH6 Pan Location | 0-255 |
| | | | CH7 Pan | 0-255 |
| | | | CH8 Tilt Location | 0-255 |

| | | CH9 Tilt | 0-255 |
|---|---|---|---|
| | | CH10 P&T Speed | 0-255 |
| | | CH11 Holding Time | 0.1s~25s |

Note:

1. There is only one projector to be set as a Master in a signal cable if Master's functions used, Please disable DMX control signal.

2. When multiple projectors' work together in synchronous control state, Parameters can be transmitted from the master projector to the slave projector such as DMX channel mode, Display setting status ( Contrast setting exclude ) and operation mode ( User memory data is include ) . Before parameters transmitted, the projector which will send parameters should be set as a Master and others be as Slaves.

3. Mark " * " content applies only to the wireless receiving function effective use.

## DMX PROTOCOL

| Standard | Extended | Functions | DMX | Descriptions |
|---|---|---|---|---|
| 1 | 1 | Strobe | 000 | No Strobe |
| | | | 001-129 | Pulse from slow to fast |
| | | | 130-255 | Strobe from slow to fast |
| 2 | 2 | Dimmer | 000-255 | Linear Dimming from dark to bright |
| | 3 | Dimming in 16 bit | 000-255 | Dimming in 16 bit precision |
| 3 | 4 | Color Temp | 000 | No |
| | | | 001-255 | Linear color Temp adjustment from low to high |
| 4 | 5 | Animation | 000 | No |
| | | | 001-255 | Animation effect |
| 5 | 6 | Color Macro | 000 | No |
| | | | 001-031 | Red |
| | | | 032-063 | Green |
| | | | 064-095 | Blue |
| | | | 096-127 | Red + Green |
| | | | 128-159 | Green + Blue |
| | | | 160-191 | Red + Blue |
| | | | 192-223 | Red +Green + Blue |
| | | | 224-255 | Rainbow effects (Speed from slow to fast between 224 and 255 in DMX value |
| 6 | 7 | Area 1 Red | 000-255 | Linear adjustment in Red from light to dark of Area 1 |
| | 8 | Area 2 Red | 000-255 | Linear adjustment in Red from light to dark of Area 2 |
| | 9 | Area 3 Red | 000-255 | Linear adjustment in Red from light to dark of Area 3 |
| | 10 | Area 4 Red | 000-255 | Linear adjustment in Red from light to dark of Area 4 |
| 7 | 11 | Area 1 Green | 000-255 | Linear adjustment in Green from light to dark of Area 1 |
| | 12 | Area 2 Green | 000-255 | Linear adjustment in Green from light to dark of Area 2 |
| | 13 | Area 3 Green | 000-255 | Linear adjustment in Green from light to dark of Area 3 |
| | 14 | Area 4 Green | 000-255 | Linear adjustment in Green from light to dark of Area 4 |
| 8 | 15 | Area 1 Blue | 000-255 | Linear adjustment in Blue from light to dark of Area 1 |
| | 16 | Area 2 Blue | 000-255 | Linear adjustment in Blue from light to dark of Area 2 |
| | 17 | Area 3 Blue | 000-255 | Linear adjustment in Blue from light to dark of Area 3 |

| | 18 | Area 4 Blue | 000-255 | Linear adjustment in Blue from light to dark of Area 4 |
|---|---|---|---|---|
| 9 | 19 | Area 1 White | 000-255 | Linear adjustment in White from light to dark of Area 1 |
| | 20 | Area 2 White | 000-255 | Linear adjustment in White from light to dark of Area 2 |
| | 21 | Area 3 White | 000-255 | Linear adjustment in White from light to dark of Area 3 |
| | 22 | Area 4 White | 000-255 | Linear adjustment in White from light to dark of Area 4 |
| 10 | 23 | Pan | 000-255 | Pan (0~360°) |
| 11 | 24 | Pan in 16 bit | 000-255 | Pan in 16 bit precision |
| 12 | 25 | Pan | 000-127 | Pan Stop |
| | | | 128-191 | Pan Speeds in CCW from slow to fast |
| | | | 192-255 | Pan Speeds in CW from slow to fast |
| 13 | 26 | Tilt | 000-255 | Tilt(0~270°) |
| 14 | 27 | Tilt in 16 bit | 000-255 | Tilt in 16 bit precision |
| 15 | 28 | Tilt | 000-127 | Tilt Stop |
| | | | 128-191 | Tilt Speeds in CCW from slow to fast |
| | | | 192-255 | Tilt Speeds in CW from slow to fast |
| 16 | 29 | Pan & Tilt Speeds | 000-255 | Pan & Tilt Speeds from fast to slow |
| 17 | 30 | Control function | 000-049 | Reserved |
| | | | 050-255 | Reset |

Remarks: DMX Priority sequence from high to low: Macro, Animation, CT, single color dimming of RGBW, Pan Continuous rotation, Tilt continuous rotation

## INDICATION OF LED DIGITAL TUBE

LED Indications:

| | ON | DMX Signal OK |
|---|---|---|
| DMX Indication | OFF | NO DMX Signal |
| W-DMX Indication | ON | Wireless DMX Signal available |
| | OFF | Not linked to any transmitter |
| | Flash | Lose link with a transmitter or being linked with one |
| SOUND Indication | ON | Sound Operation on |
| | OFF | Sound Operation off |

Explanations for logo on top-right of the LCD display:

| S | Slave |
|---|---|
| M | Master |
| D | DMX512 Mode |
| I | Preset Memory |
| U | User's Memory |
| T | Test Memory |
| Lock Logo | Buttons are Locked, buttons are unlocked and lock logo disappears after "Enter" button pressed more than 3 seconds |

## MAINTENANCE

If the Fixture does not function, check if the fuses on the power socket of the unit is broken or not, if broken, they should only be replaced by fuses of the same specification. Should there be damaged call a qualified technician before replacement. The fixture has thermal protection device that will switch off the unit in case of overheating. Should any case like this happen, check if the fans work well or fans and fan screens are blocked, restart the fixture before the problems have been found and resolved.

**Any maintenance work should only be carried out by qualified technicians.**

## PRODUCT CLEANING

To ensure the reliability of the fixture it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens should also be regularly cleaned to maintain an optimum light output. **Do NOT use any type of solvent containing chemical elements.**

Cleaning intervals depends on the environment in which the fixture operates and use frequency.   A soft cloth and typical glass cleaning products should be used in cleaning the fixtures. It is recommended to clean the external optical system at least once every 20 days.

**Do not use any organic solvent, e.g. alcohol, to clean the housing of the apparatus to avoid damages**

## TROUBLE SHOOTING

| PROBLEM | ACTION |
|---|---|
| The fixture can not start | ➢ Check if the fuse on the power socket is broken or not . <br> ➢ Check the status of the fuse |
| The lamp works normal but the fixture doesn't respond to the controller | ➢ Check if the fixture's start address is set properly <br> ➢ Check if XLR signal cable is broken or not |
| The fixture only functions intermittently | ➢ Make sure the fans work normally and if dirt blocks fans and fan screens. |
| The beam appears dim and brightness decreases apparently | ➢ Check if the lamps reach the end of their lives <br> ➢ Check if external and internal optical systems are clean or not. |

## TECHNICAL DATA

**VOLTAGES:**

100V~240V AC,50/60Hz

**LIGHT SOURCE:**

 TYPE: OSRAM OSTAR LED

POWER: 15W    EACH (RGBW, Four in One)

QUANTITY: 7 Pcs

LIFE SPAN: 50,000 Hrs

**POWER CONSUMPTION:**

170W@220V

**HEAD MOVEMENT:**

Pan: 720°or Endless,    Tilt : 270°or Endless

Pan Tilt Swap and Invert Function ; Auto-position correction and magnet positioning function

**COLOR SYSTEM:**

RGBW linear color mixing with macro

**COLOR TEMPERATURE CORRECTION:**

Linear color temperature correction from 2700K to10000K.

**STROBE:**

Electronic strobe, 0-25 F.P.S

**LENS ANGLE:**

Beam Angle(1/2 Maximum) :　　6°

Field Angle(1/10 Maximum):　　12°

**CONTROL:**

DMX512, 5 pin interfaces

17channels in standard mode, and 30 channels in extended mode.

Master/slave mode

Stand-alone mode, Preset mode, Self test mode, Single Scene mode

**OTHER FUNCTIONS:**

Pan: 720°or　360° and Endless,　Tilt : 270°and Endless

Pixel Control in the form of 2- 2-2-1

Touch Key

LCD display, brightness and contrast adjustable

Sound operation

Wireless control (optional)

Pan & Tilt speeds adjustable

Firmware upgradable via DMX Port

Over temperature protection

Fixture time and DMX512 values display
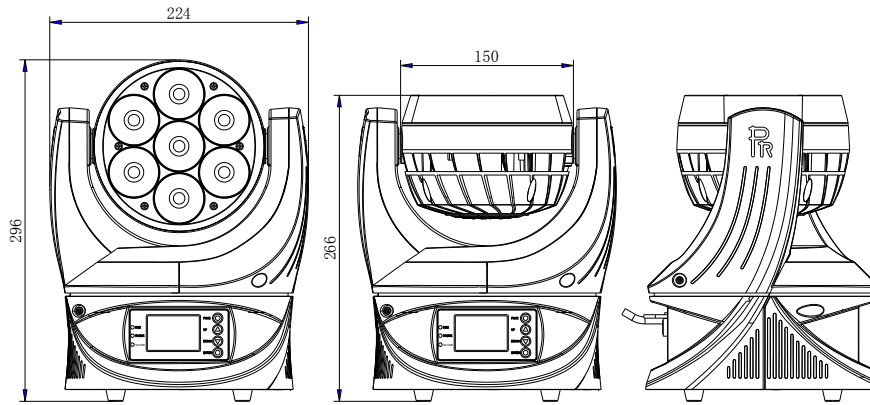
Software Version display, Display Invert

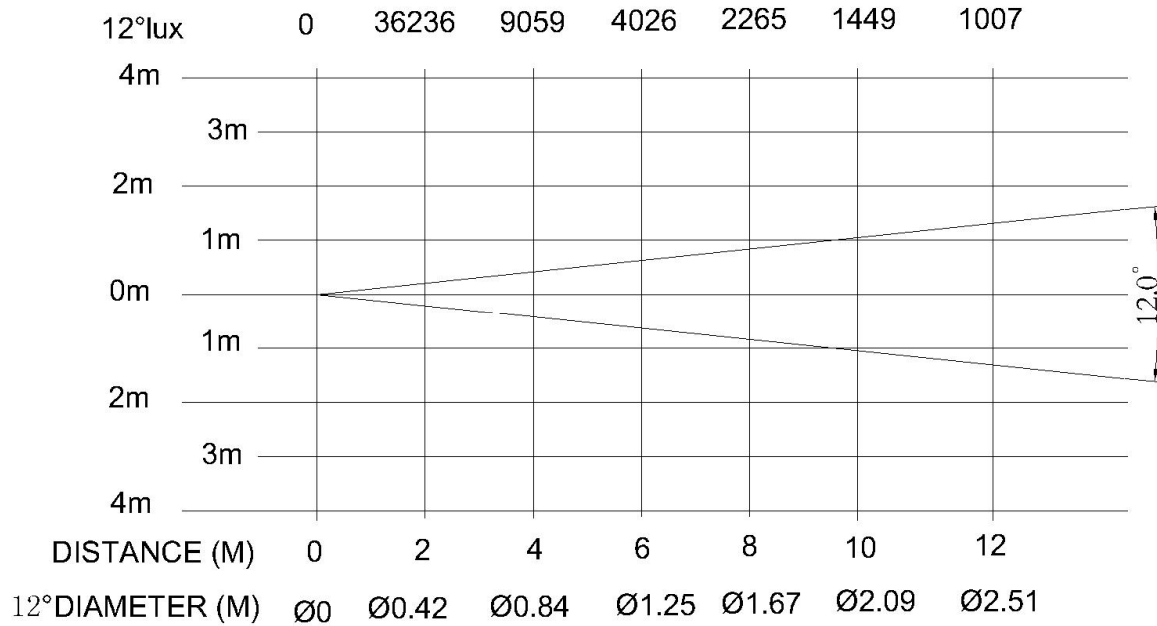**HOUSING:**

High temperature engineering-plastic, IP20

**WEIGHT:**

4.36 Kg

**SIZES:**

**LIGHT OUTPUT :**



| 12°lux | 0 | 36236 | 9059 | 4026 | 2265 | 1449 | 1007 |

| DISTANCE (M) | 0 | 2 | 4 | 6 | 8 | 10 | 12 |
| 12°DIAMETER (M) | Ø0 | Ø0.42 | Ø0.84 | Ø1.25 | Ø1.67 | Ø2.09 | Ø2.51 |

## COMPONENT ORDER CODES

| NO | NAME | PART NO. | QUANTITY | REMARK |
|---|---|---|---|---|
| 1 | POWER SUPPLY | 192010180 | 1 PCS | HQ255-2W02 |
| 2 | 15W LED ASSAMBLY | 230060278 | 1 PCS | |
| 3 | FIXED FOCUS LENS | 071100053 | 7 PCS | |
| 4 | FUSE | 270041037 | 1 PCS | 5x20   3.15A |
| 5 | TILT/ PAN BELT | 290151337 | 2 PCS | HTD-297-3M |
| 6 | 7015 FAN | 030060087 | 1 PCS | MGT7012HB-W20 |
| 7 | 4010 FAN | 030060093 | 1 PCS | HA4010V4-000C-999 |
| 8 | PAN/TILT   MOTOR | 030040175 | 2 PCS | |
| 9 | PAN/TILT MOTOR DRIVE BOARD | 230060264 | 1 PCS | |
| 10 | LED DRIVER PCB | 230060277 | 1 PCS | |
| 11 | DISPLAY PCB | 230060279 | 1 PCS | |
| 12 | WIRELESS ANTENNA | W006512 | 1 PCS | |
| 13 | WIRELEES RECEIVER | W006511 | 1 PCS | |

# CIRCUIT DIAGRAM
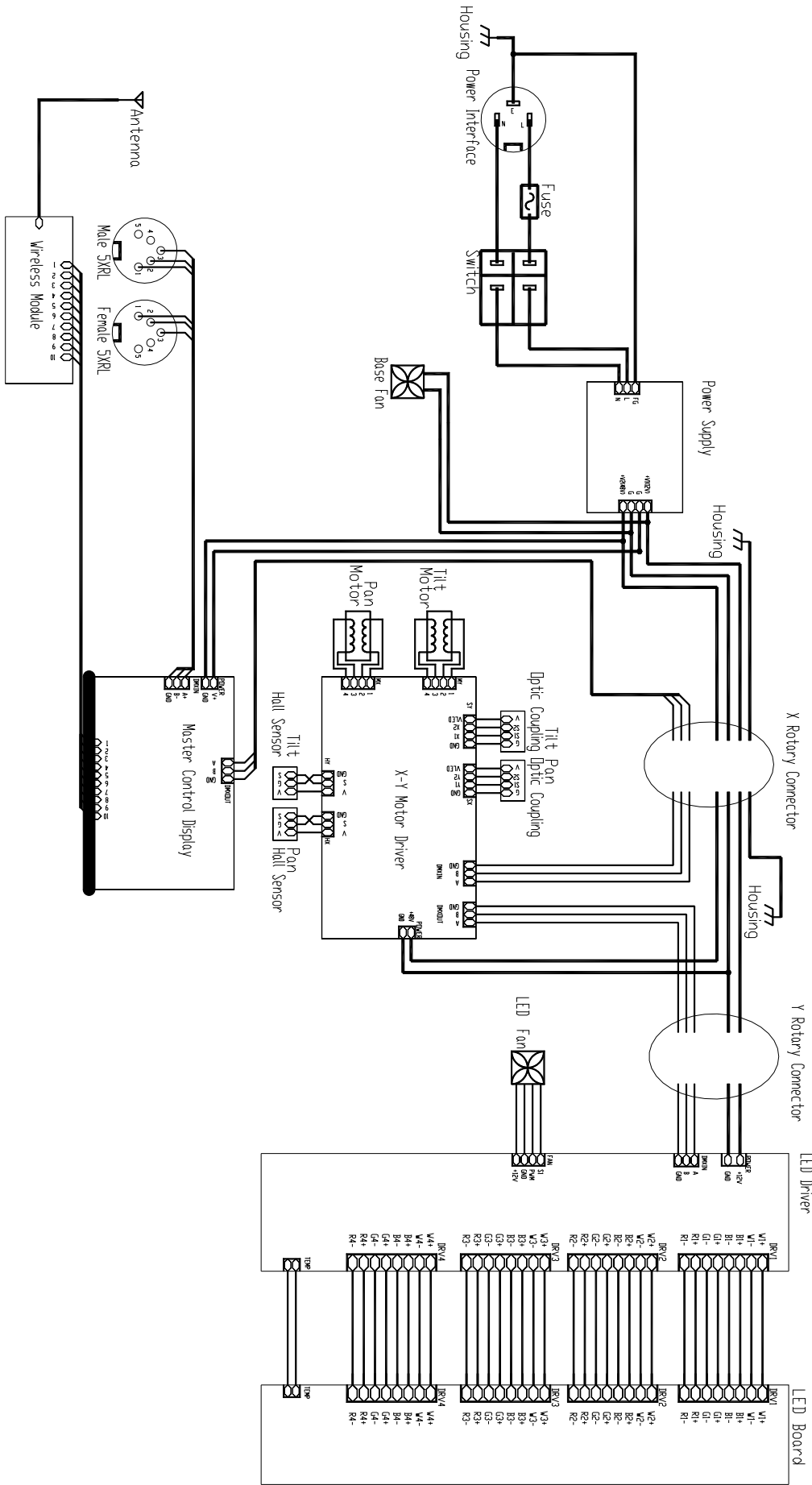
# PR LIGHTING LTD.

1582 Xingye Avenue, Nancun Panyu
Guangzhou, 511442 China
TEL: +86-20-3995 2888
FAX: +86-20-3995 2330