

XPAR 354

PR-6209A

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
clamp	1	Pc	
Power cord	1	Pc	
XLR loop cable	2	pcs	
Safety cord	1	Pc	
User manual	1	Pc	
Transparent Cover+ seal+ screws ×6	1	Set	Optional
Bar door assembly+ frost board(optional)	1	set	Optional
Top hat	1	Set	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 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
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- 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 unit can be used indoors and outdoors with IP67.
- 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 1.5m
- lens and other optical parts shall be replaced immediately if they have deformed or been damaged, otherwise the light output will be compromised.



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



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



- While in stable status, the temperature of the housing (heat sink)will be 55°C;
- While the lamp is stricken for the first time, there will be smoke and strange smell. It's normal and does not mean the projector has some defects.
- While operated, do not touch the metallic housing. It is very hot during operation.



- Do not mount the projector directly on inflammable surface.
- Do not project the beam straightly on combustibile items and the minimum distance between the projector and illuminated items is 10m.
- A projector should be installed with good ventilation and the minimum distance between the projector and walls is 50cm. At the same time, please ensure the fans and air inlets and outlets are workable.



2. INSTRUCTIONS

•CLEANING AND MAINTENANCE

For the units with optical lens, because of the accumulation of the smoke, oil and dust on lens, the light output will be compromised. For the reliable use of the unit, it is very necessary to keep it clean. The unit is IP67 rating waterproof device. Unless approval by some professional technician for necessary internal component replacement, it's forbidden to dismantle the unit.

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. 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.

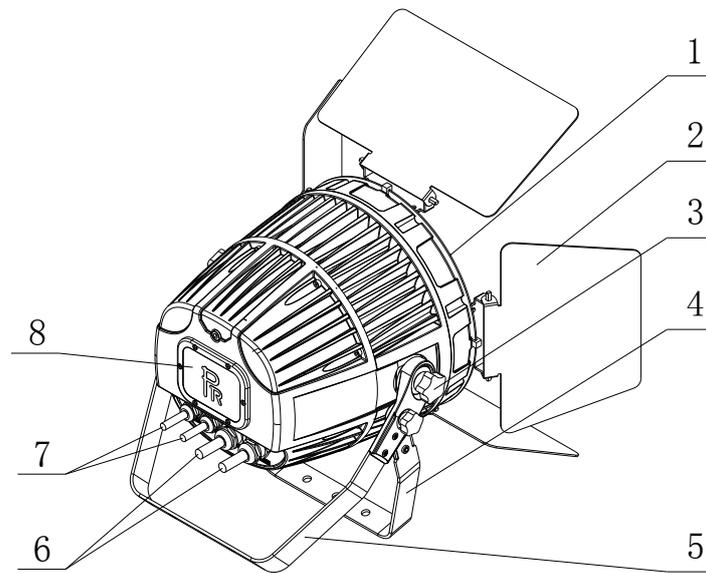
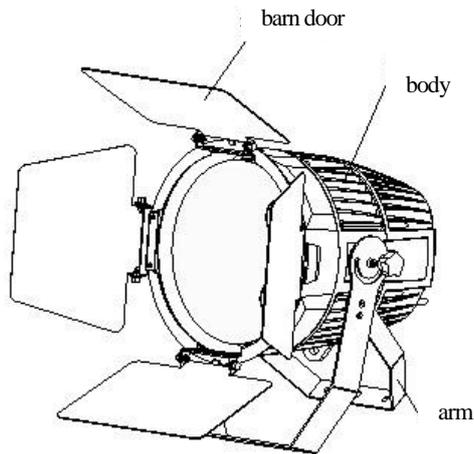


- To avoid internal damage, sun light or other light mustn't penetrate into the projector via front lens whether it runs or not
- Do not use alcohol or other organic solvent to clean the housing to avoid damage.

•TROUBLESHOOTING

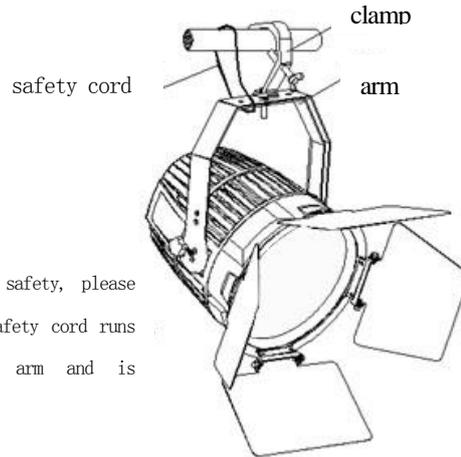
PROBLEM	ACTION
The projector doesn't switch on	<ul style="list-style-type: none"> ➤ Check the power cord connection ➤ Power Switch fails or is not connected well, call a professional technician for repairing and checking ➤ Control board is not connected normally, call a professional technician for repairing and checking ,
The project can be turned on, but the LED lamps can't be on	<ul style="list-style-type: none"> ➤ LED lamp board is not connected well, call a professional technician for repairing and checking
The LED lamps can be on, but not controlled by DMX	<ul style="list-style-type: none"> ➤ Check if DMX Start Address is properly set ➤ Check if XLR cable fails or not
The brightness decreases obviously	<ul style="list-style-type: none"> ➤ Ambient temperature is too hot which makes the projector too hot, please take appropriate ventilation measures

3. APPEARANCE



No.	Name	Remarks
1	Frost board (Optional)	Frost board must be used with barn door assembly
2	Barn door assembly (Optional)	
3	Allen screws	
4	Support	
5	Arm	
6	XLR cable	Small size
7	Power cable	Big size
8	Transparent (Optional)	For harsh places like under water or being dusty

4. INSTALLATION



Warning: For safety, please ensure the safety cord runs through the arm and is tightened

●RIGGING

Take 1 clamp and 1 safety cord out from the package and tighten the clamp with the arm, and then mount the whole unit on the truss, tighten the clamp's retainers to keep the unit stable. (See the **WARNING** on the underside of the base as shown above) **To pass the SAFETY CORD through the ARM for safety!** Always ensure that the unit is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the unit to is secure and strong enough to support the weight of the unit. Loosen the big knob and adjust the head's angle for the effect desired and then tighten it. The installation is completed. (if the unit is with wireless control, while being hung, the antenna should face down)

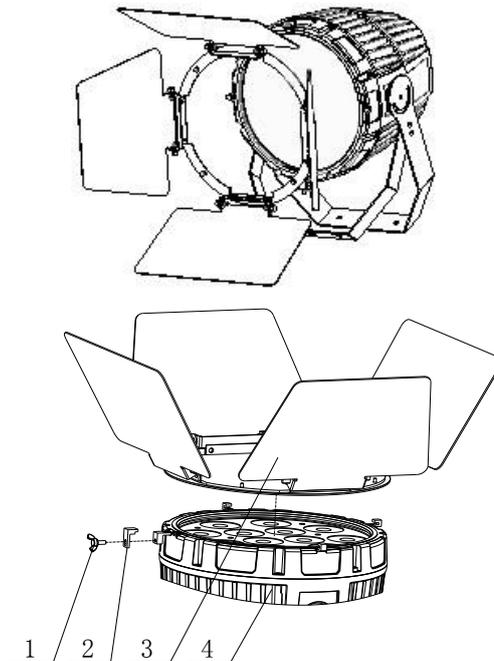
●PLACE A UNIT ON A FLAT SURFACE

Before placing a unit on a flat surface, loosen the small knob with the support and make the angle between the arm and the support 60 degrees. Tighten the small knob. Loosen the big knob and adjust the angle between the arm and unit as desired and then tighten it.

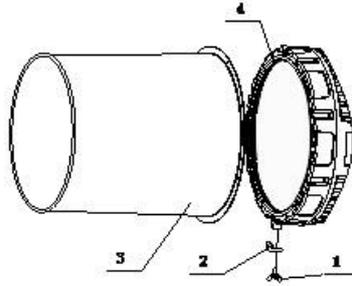
●INSTALLATION OF ACCESSORIES

If barn door selected, its installation is illustrated in the diagram below:

Loosen the screw in the shape of a butterfly in the front part of the unit, turn the clipping component in the shape of 7 by a little amount, then place the barn door. Turn the clipping component backward and tighten the butterfly screws. Hook the safety cord on the barn to the safety cord hole in the middle of the unit to finish the installation of the barn door. Turn the barn door, and open or close the barn door blades to reach the effect desired.

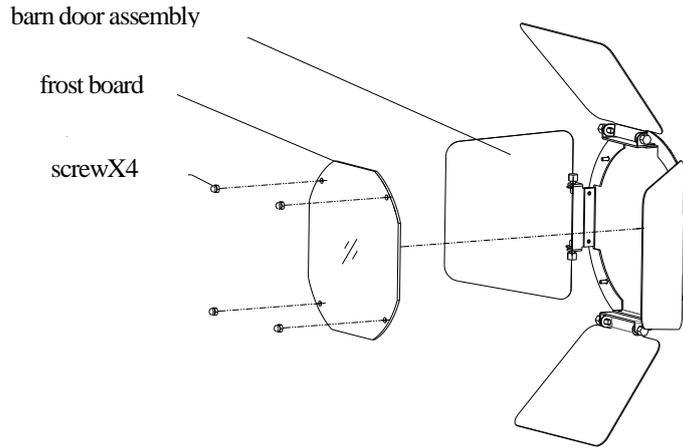


If top hat is selected, its installation is illustrated in the figure below:



Loosen the screws(1) in the shape of butterfly in the front of the projector(4),, slightly turn the clipping component (2) in the shape of 7,and install the top hat(3). Turn the clipping component opposite ,tighten the screws(1) in the shape of butterfly, run one end of the safety cord though safety cord hole of the light and the other through the hole of the top hat. At last, the top hat is installed.

If frost board is selected, it should be used with barn door assembly. And its installation is illustrated below:



●TRANSPORTATION

Before transportation, tighten both knobs after the arm and support are overlapped.



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

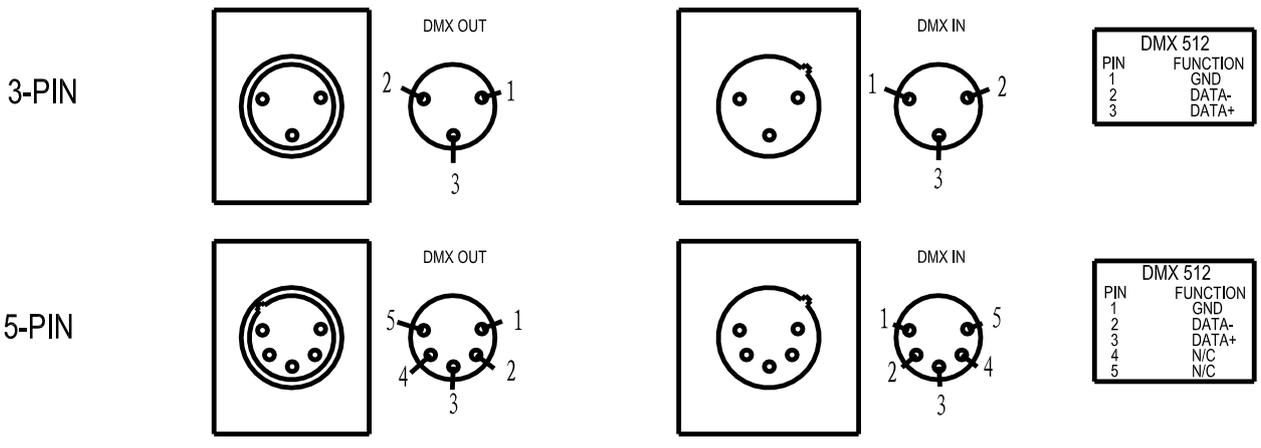
Before power connection, please ensure the power supplied must match what the nameplate says. It is recommended that each projector be connected with power separately so that they may be individually switched on and off.

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 2.5mm².



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

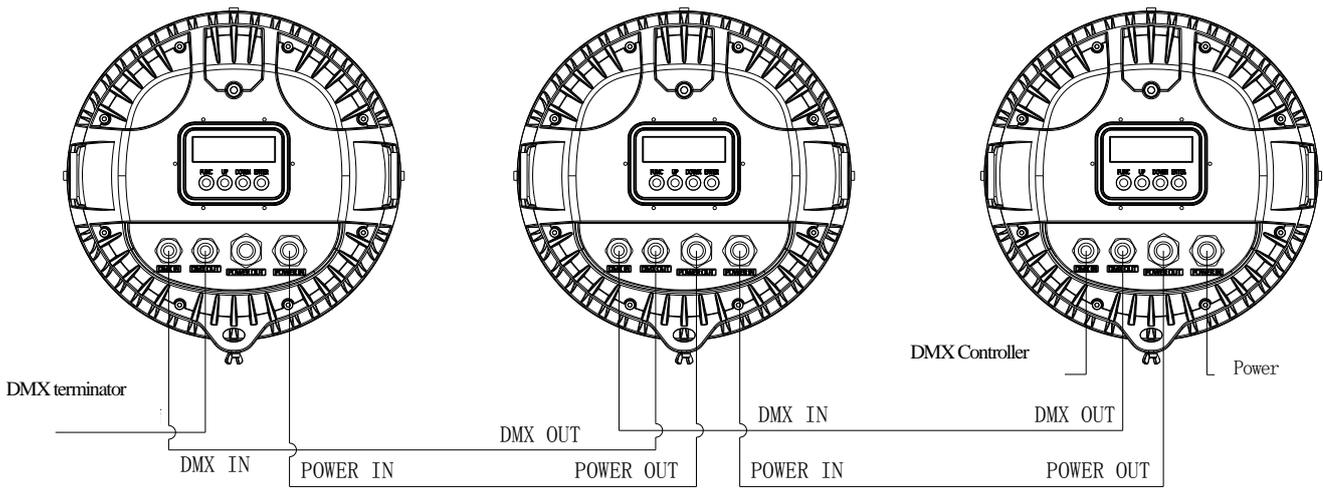
●DMX CONTROL CONNECTION:



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

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

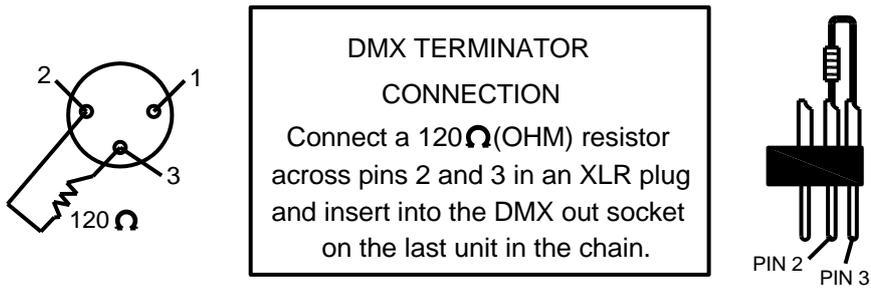
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



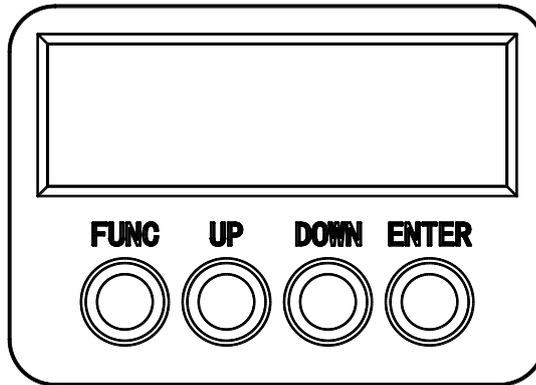
DMX TERMINATOR

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.



5. SETUP AND CONFIGURATION



●FRONT PANEL OPERATION

To browse through or modify the projector’s functions, press key **ENTER** for more than 3 seconds to unlock the control panel and enter the menus. To set or browse through the projector’s functions, press key **UP** or **DOWN**. Press the key **ENTER** to enter the submenus and the current parameters will be displayed while flashing. Press key **UP** or **DOWN** to change values(plus or minus) Press key **ENTER** to save your changes and enter into the upper level menu while flashings stop; Press key **FUNC**, it will return to the upper menu(parameters not saved) or browse through 1st level menus; Press key **FUNC** for 1 second or none key is pushed for 1minute, the menu will be escaped and current operation mode displayed.

●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 Unit has 2 DMX modes. There are standard and extended modes. For example standard mode has 6 channels, so set the No. 1 projector’s address 001, No. 2 projector’s address 007, No. 3 projector’s address 013, No. 4 projector’s address019, and so on.

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

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

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

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

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

If DMX signal is available, LED indication is on. Otherwise it is off.

●STAND-ALONE MODE

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

DMX address can be set at any number within 512.

●MASTER/SLAVE MODE

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

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

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

6. OPERATION MENU

1st level menu	2nd level menu	3rd level menu	4th level menu
DMX Address	Standard mode :001 - 507		
	Extended mode: 001-502		

		Standard 6	Default: Standard 6	
		Extended 11		
	MasterSlave		Slave	Default: Slave
			Master	
	Color Offset		Red	128 - 255
			Green	128 - 255
			Blue	128 - 255
	Language Setup		English	Default: English
			Chinese	
	Lcd Light Setup		On	The LCD backlight will be turned off 3minutes after none key is pushed.
			Off	
	Display Invert		Yes	
			No	
Factory Setting		Yes		
PRM Transmit		Yes		
clean Progra		Yes		
Information	LED Temperature	XX		
	Fixture use Time	XXXX		
	Software Version	X.X.X		
Test Mode	Red			
	Green			
	Blue			
	White			
	RGB			
	RWB			
	RGBW			
Operation Mode	DMX Mode	Yes		
	User Memory	Yes		
	Preset Memory (PR01~PR16)			
	User Progra Edit (ET01~ET16)	Dimmer		000 - 255
		Strobe		000 - 255
		Red		000 - 255
		Green		000 - 255
		Blue		000 - 255
White			000 - 255	
	Keep Time		000 - 200 (0- 20S)	

Note:

1. In one DMX chain, only one unit can be made as the master. Before master works, unplug its XLR cable connected with the console.
2. The parameters transmitted from the master include after several units are synchronized: DMX channel mode, DMX signal mode ,control setting, language status, backlight status of the LCD display, display invert, current timing, timer value, ambient brightness value, user memory. During parameter transmission, set the unit transmitting data as master and others as slave

7. DMX PROTOCOL

Standard mode	Extended mode	Function	DMX Value	Description
1	1	Dimmer	000-255	Linear dimmer in 16 bit
2	2	Strobe	000-007	No
			008-255	Strobe from slow to fast
	3	Colour Temperature	000	No
			001-255	Linear CT adjustment
	4	Macro	000-016	No
			017-024	White (CT 10000K)
			025-032	White (CT7200K)
			033-040	White (CT 5600K)
			041-048	White (CT 3200K)
			049-056	Cyan
			057-064	Yellow
			065-072	Magenta
			073-080	Red
			081-088	Green
			089-096	Blue
			097-104	Light blue
			105-112	Amber
			113-120	Orange
121-128	Pink			
129-255	Rainbow effect from slow to fast			
3	5	Red	000-255	Linear adjustment from dark to bright
4	6	Green	000-255	Linear adjustment from dark to bright
5	7	Blue	000-255	Linear adjustment from dark to bright
6	8	White	000-255	Linear adjustment from dark to bright
	9	Preset Memory	000	No
			001-015	Preset Memory 1
			016-031	Preset Memory 2
			032-047	Preset Memory 3
			048-063	Preset Memory 4
			064-079	Preset Memory 5
			080-095	Preset Memory 6
			096-111	Preset Memory 7
			112-127	Preset Memory 8
			128-143	Preset Memory 9
			144-159	Preset Memory 10
			160-175	Preset Memory 11
			176-191	Preset Memory 12
			192-207	Preset Memory 13
			208-223	Preset Memory 14
224-239	Preset Memory 15			

			240-255	Preset Memory 16
	10	User Memory	000	No
			001-015	User Memory 1
			016-031	User Memory 2
			032-047	User Memory 3
			048-063	User Memory 4
			064-079	User Memory 5
			080-095	User Memory 6
			096-111	User Memory 7
			112-127	User Memory 8
			128-143	User Memory 9
			144-159	User Memory 10
			160-175	User Memory 11
			176-191	User Memory 12
			192-207	User Memory 13
			208-223	User Memory 14
			224-239	User Memory 15
			240-255	User Memory 16
	11	Preset Memory Speed	000-015	Speed1, fastest
			016-031	Speed 2
			032-047	Speed 3
			048-063	Speed 4
			064-079	Speed 5
			080-095	Speed 6
			096-111	Speed 7
			112-127	Speed 8
			128-143	Speed 9
			144-159	Speed 10
			160-175	Speed 11
			176-191	Speed 12
			192-207	Speed 13
			208-223	Speed 14
			224-239	Speed 15
			240-255	Speed 16, slowest

Note: DMX channel priority: Preset memory > user memory > Macros > CT > RGBW dimming
While higher priority channels are in use, lower priority channels don't work.

8. TECHNICAL DATA

ELECTRIC SPECIFICATIONS

Input voltage: 100V~240V AC, 50/60Hz

Input power: 180W @ 220V

Input current: AC 0.8A@220V

Power factor: PF > 91%

LIGHT SOURCE SPECIFICATIONS

Qty	54pcsX3W RGBW light source
Power Consumption	162W
Manufacturers Rated Lamp Life	50000hours

COLORS

R/G/B/W, options(R/G/B/A(Amber), R/G/B/L(Lime))

DIMMER

Linear Dimmer from 0-100%

STROBE

Electronic Strobe 0.5-33FPS

BEAM ANGLE

Beam Angle(1/2peak) $\theta_{1/2}$ 9°(options: 7°;10°;20°;40°)

CONTROL

International standard DMX512 signal control protocol
Standard mode 6channels , extended mode 11 channels
Master/Slave synchronized Mode
3 operation modes(DMX mode, user memory, preset memory)
Test mode

OTHER FUNCTIONS

LCD screen and its brightness adjustable
DMX channel mode and setting display
LCD display and menus invertible
Backlight of LCD display automatically turns off after some delay
Control mode and other information can be transmitted via synchronization

HOUSING

High tensile cast Aluminum alloy , IP67

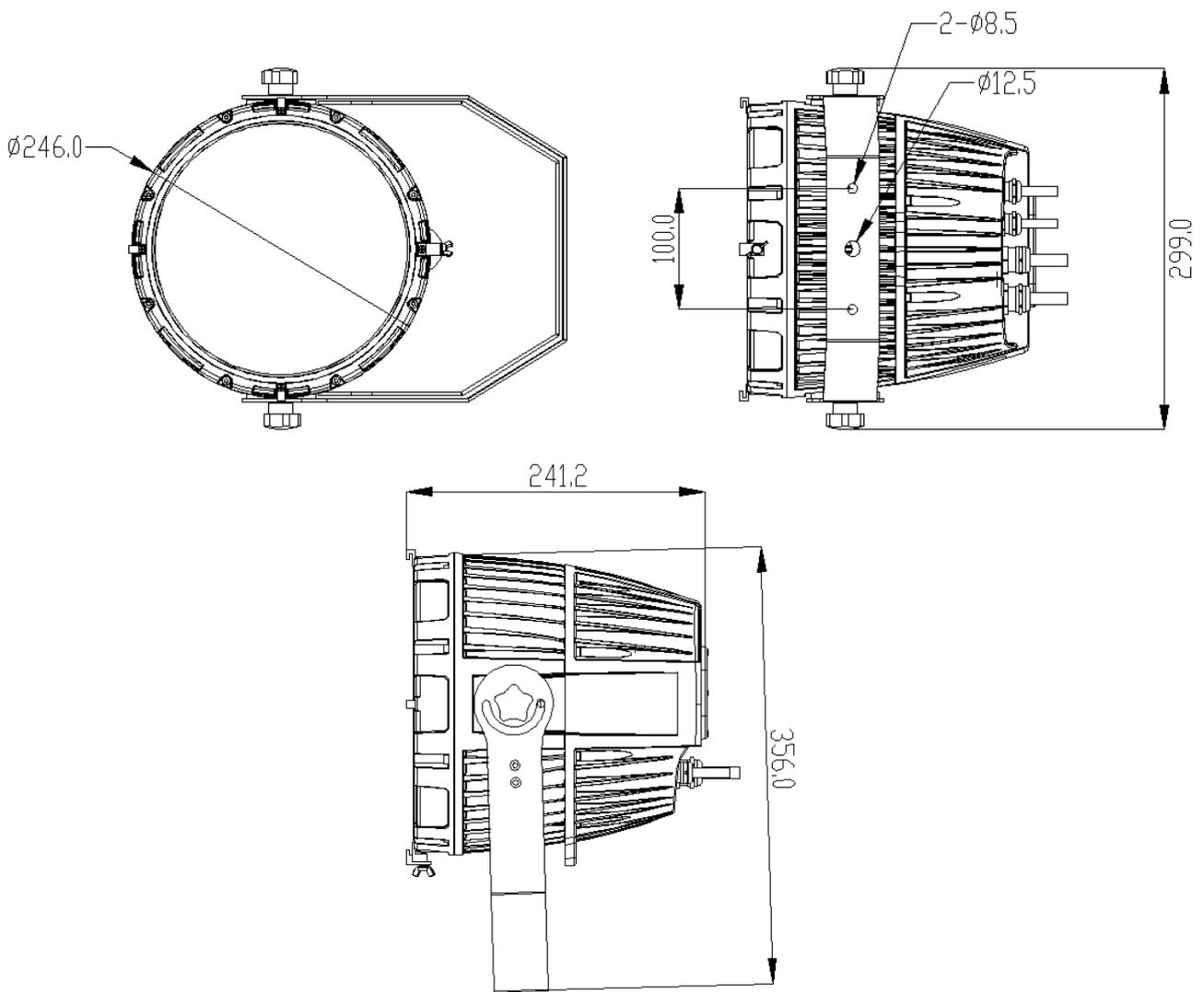
NET WEIGHT

10Kg

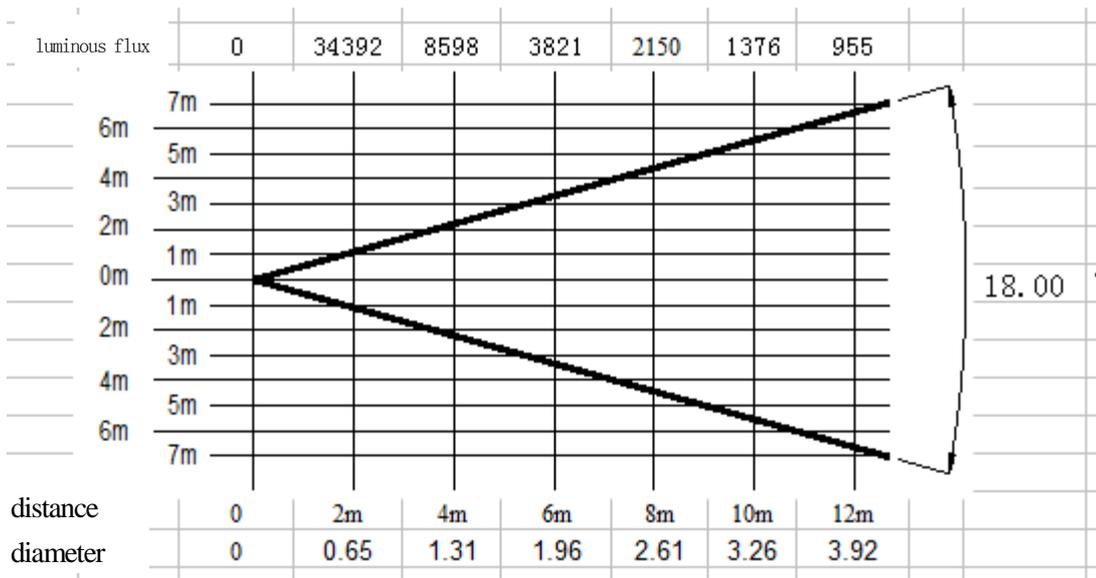
OPERATION TEMPERATURE

Maximum ambient temperature: 40 °C

SIZES:

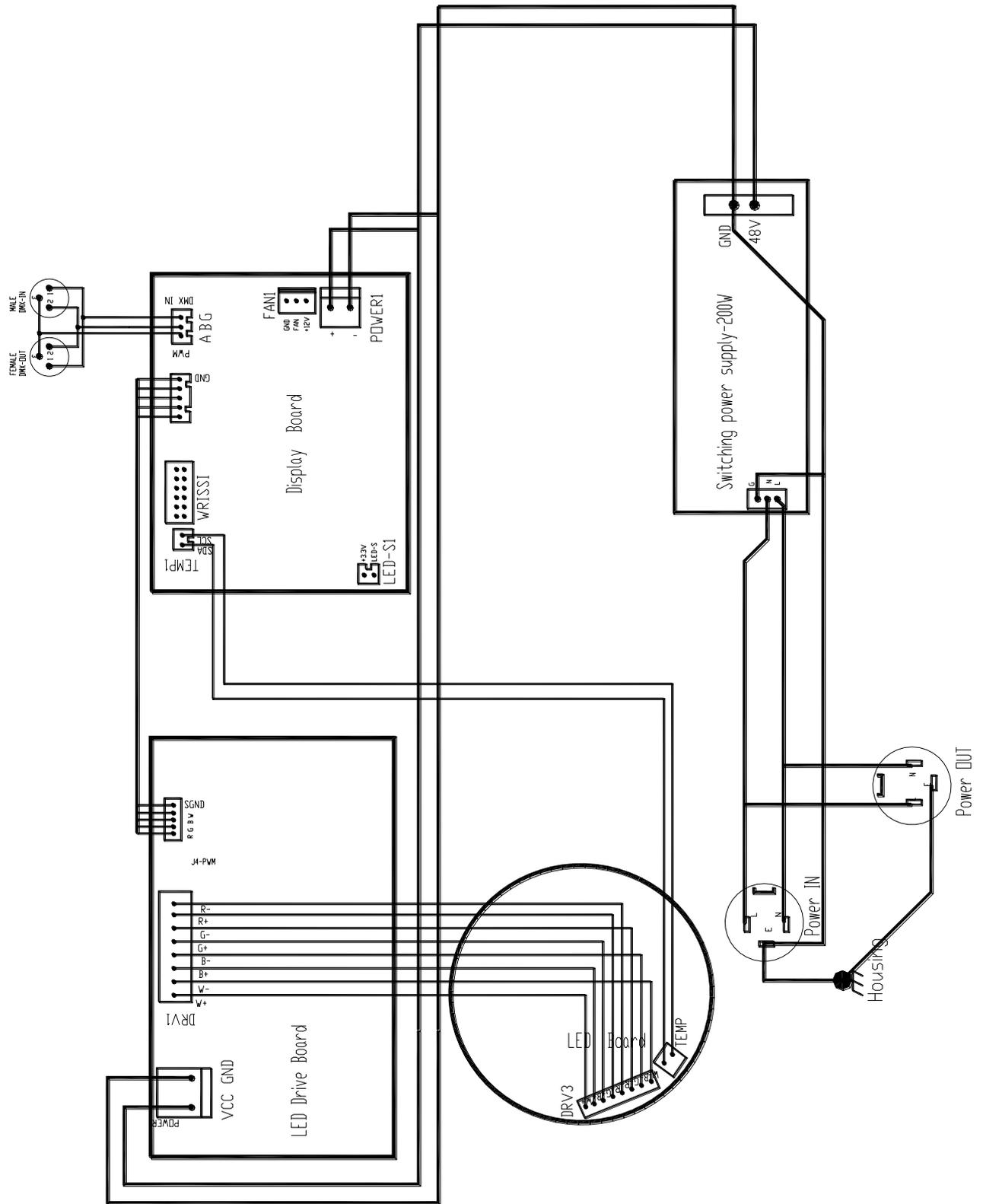


LIGHT OUTPUT:



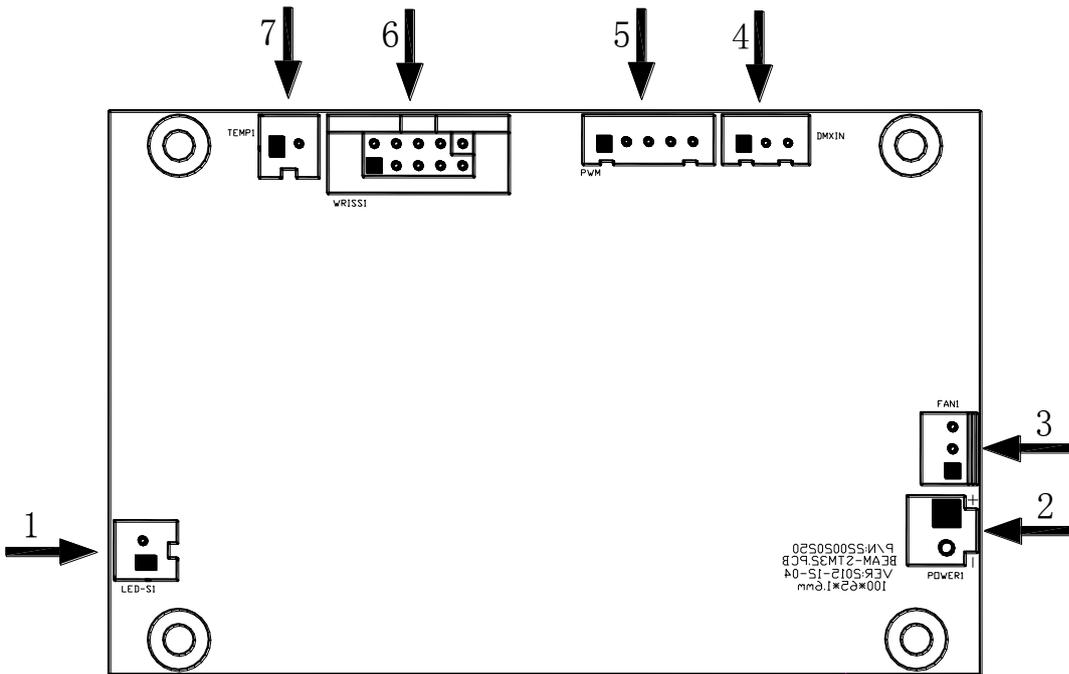
9. CIRCUIT DIAGRAM AND PCB CONNECTIONS

●CIRCUIT DIAGRAM



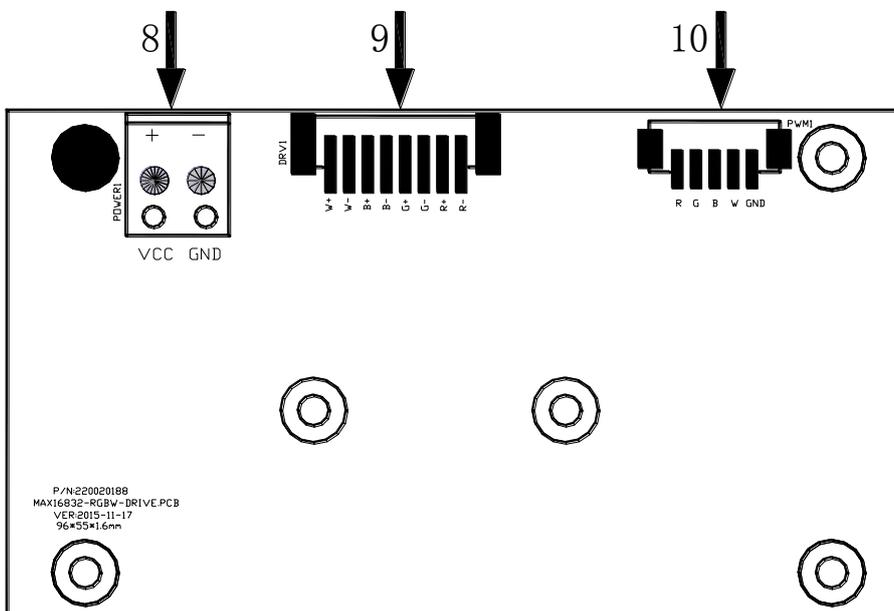
●PCB CONNECTIONS

Master Board (230060120)



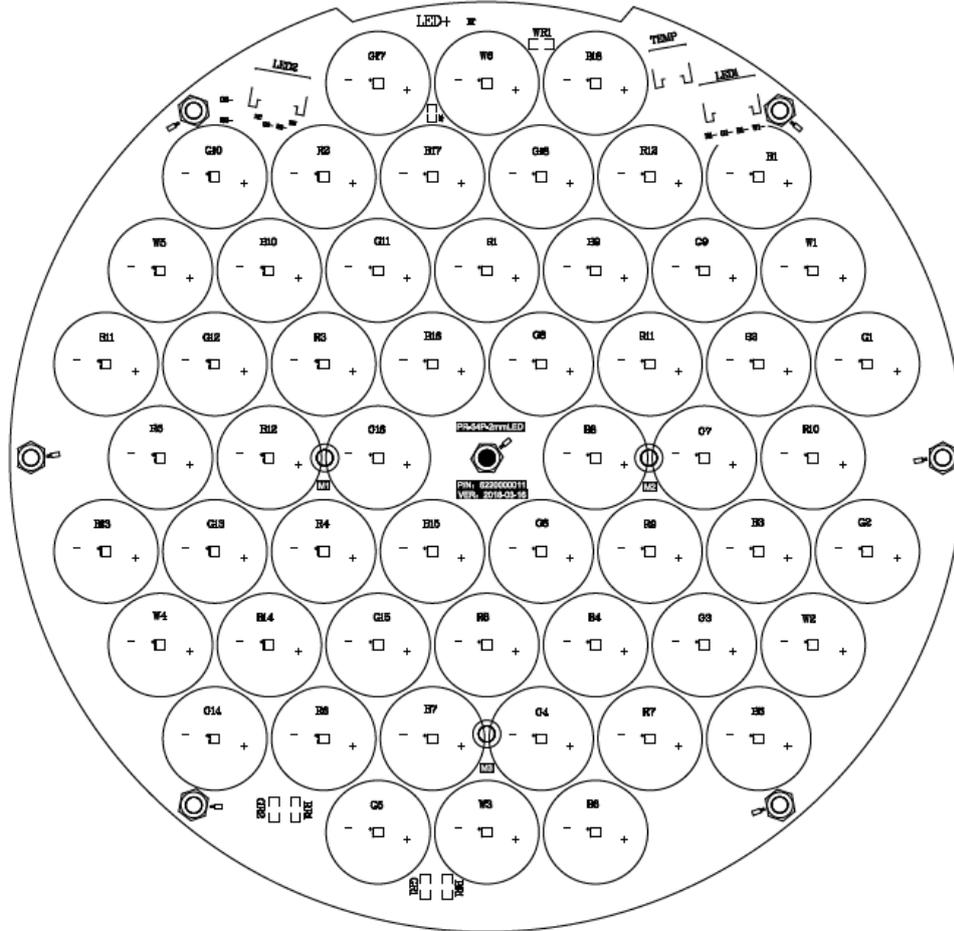
No	Name
1	Optical sensor
2	Power
3	Fan
4	Signal input
5	PWM signal
6	Wireless control
7	Thermal sensor

LED driver board (6230000031):



No	Name
8	Power
9	LED driver
10	PWM signal input

Lamp board (623000043)



10. COMPONENT ORDER CODES

No.	Name	Code No.	Qty	Remarks
1	SWITCHING POWER SUPPLY	619000005	1	
2	LED LIGHT SOURCES	623000043	1	
3	LED DRIVER BOARD	623000031	1	
4	MASTER BOARD	230060120	1	
5	FRONT GLASS	080090115	1	
6	TRANSPARENT COVER	290190109	1	Optional
7	SEAL OF TRANSPARENT COVER	290019142	1	Optional

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PR lighting will try its best to offer accurate and overall information about a product's technical data. Any changes won't be notified if necessary. Patented Products.
Counterfeiting Will be Prosecuted!

P/N: 6320000057
Version: 20181010