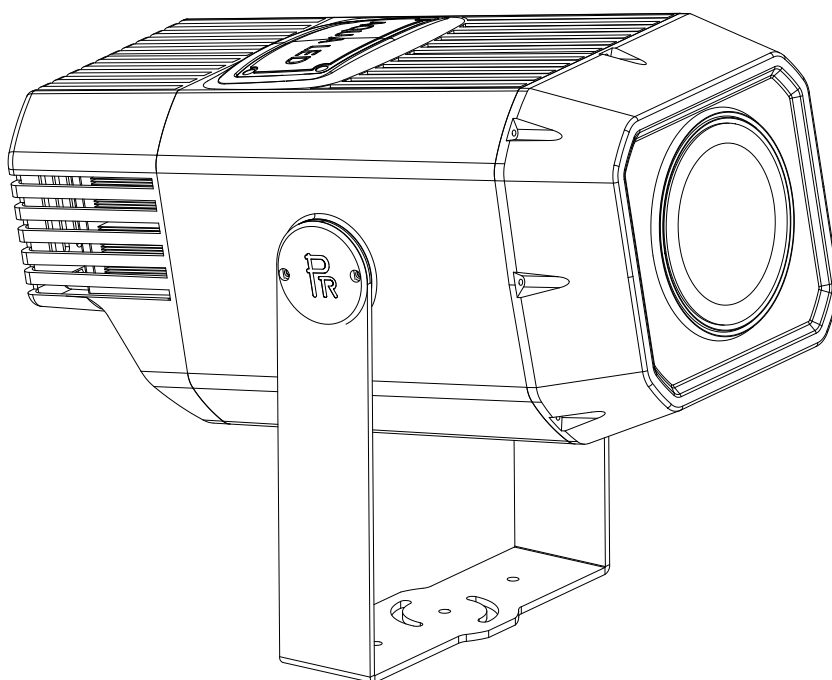




CUBIX 600

PR-6602

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
Safety cord	1	Pc	
User manual	1	Pc	

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 units 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



- 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 and for its IP rating .please refer to Technical Data section of this user manual.
- 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.
- It's forbidden to make the unit with lower protection level directly or indirectly contact water or 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 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
- 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.



- Under normal temperature, after being stable, the unit's surface temperature 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 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

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 IP65 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.

SPECIAL NOTE

While water-proof projectors are in use, it's normal there will be some minor mist on the front lens.



- 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.

•TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	➢ 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	➢ 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	➢ Check if DMX Start Address is properly set ➢ Check if XLR cable fails or not

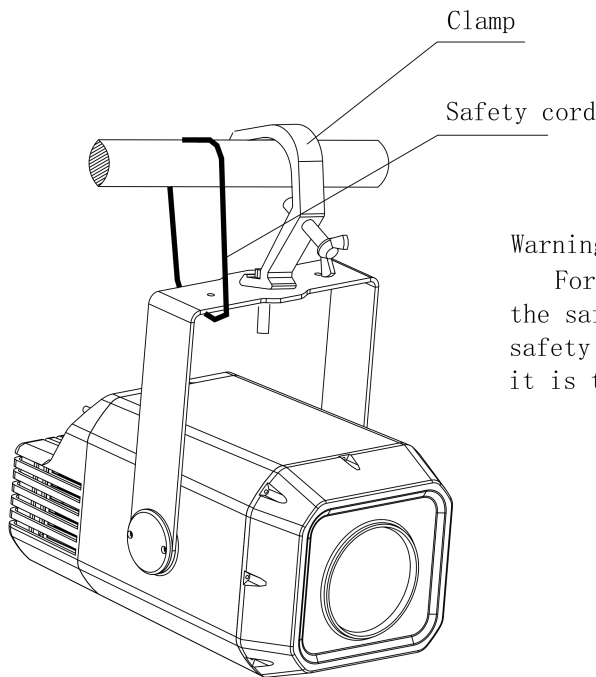
The brightness decreases obviously

➤ Ambient temperature is too hot which makes the projector too hot, please take appropriate ventilation measures

3. INSTALLATION

●RIGGING (with an optional clamp)

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)



Warning:

For safety, please run the safety cord through the safety cord hole and ensure it is tightened

●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 60degrees. Tighten the small knob. Loosen the big knob and adjust the angle between the arm and unit as desired and then tighten it. (If the unit is with wireless control, after the unit is placed on a flat surface the antenna should face up)

●TRANSPORTATION

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



WARNING:

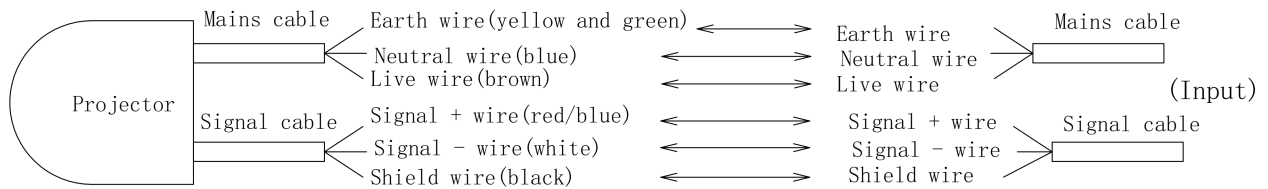
- The projector **MUST** be lifted or carried by the HANDLES instead of clamps.
- For safety the safety cord should afford 10 times the Projector's weight.

●POWER CONNECTION

Connect the power cord as follows:

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

Diagram for a Projector wiring



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.



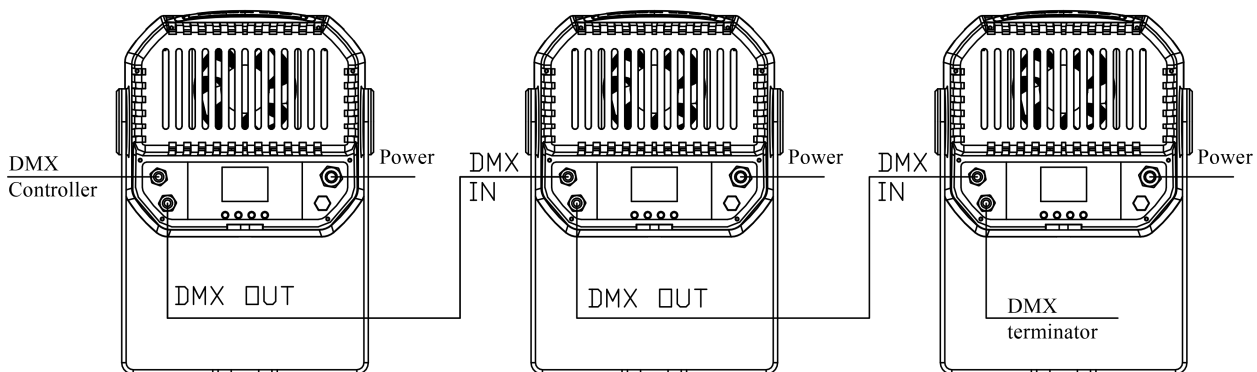
- The earth wire(yellow/green) must be connected to the ground. And electrical connection must be in accordance with the standards concerned.
- If any questions about the electrical installation, do not continue but consult a qualified electrician.

•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 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).

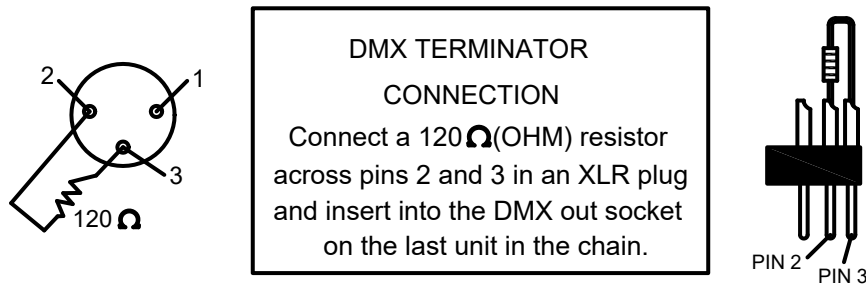
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



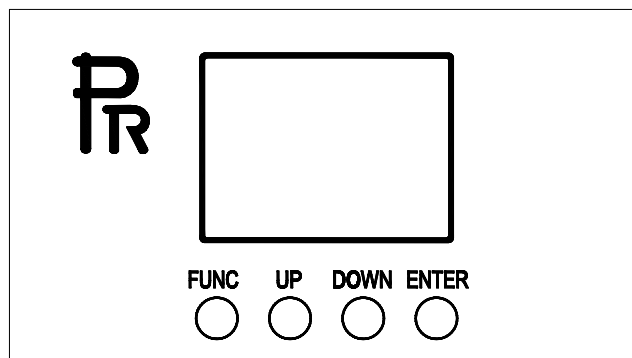
•DMX TERMINATOR

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.



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

●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 of short, and standard. For standard mode ,it has 19 channels, 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.

Launch the projector. Press button **ENTER** more than 3seconds 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

●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.

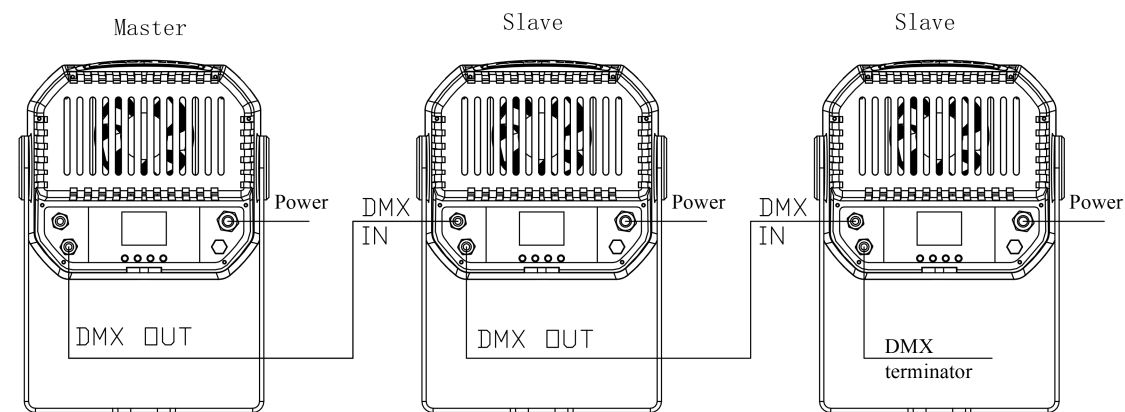
DMX address can be set at any number within 512.

●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



5. OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	1-XXX		
Reset	Total Reset	Really Reset?	Confirm or Cancel	
	Color System Reset	Really Reset?	Confirm or Cancel	
	Gobo Reset	Really Reset?	Confirm or Cancel	
	Zo. Fo. Fr. Pr. Reset	Really Reset?	Confirm or Cancel	
	Effect reset	Really Reset?	Confirm or Cancel	
Config Settings	DMX Channel Mode	Short Mode		
		Standard Mode		
		Extended Mode		
		View Selected Mode	Strobe(starting with) ...	
	Loss of DMX	Normal time out		
		Hold Last Value		
	Display Config	Display Mode	Off After Delay	
			On Always	
		Display Invert	Invert OFF	
			Invert ON	

		Language Setting	Invert Auto	
			English	
			Chinese	
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Factory Defaults	Restore Defaults?	Confirm or Cancel	
Option Settings	Invert Settings	Zoom Invert	OFF/ON	
	Dimmer curve Mode	Dimmer Curve 1		
		Dimmer Curve 2		
		Dimmer Curve 3		
		Dimmer Curve 4		
Information	View DMX Values			
	Total Hours	Reset total hours		
	Temperature	Display Board=xxx°C		
		Driver Board1=xxx°C		
		Driver Board 2=xxx°C		
		LED Sensor=xxx°C		
	Software Version	PCB board Sys Boot		
		Display Board xxx xxx		
		Driver Board1 xxx xxx		
		Driver Board 2 xxx xxx		
	Electronic SN	XXXXXX		
	RDM Device Label	ANSI E1.20 RDM		
	Fan Status	Fan Speed Status Head Fan xxx on/off		
Service	Manual Effect Control	Strobe XXX Dimmer XXX		

	Factory Mode			
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	(1~200Scenes) Scene XX (1~200 Scenes)	Strobe XXX
				Dimmer XXX
				
				Fade Time XXX
				Hold Time XXX
				Delay Time XXX
				Delay Unit XXX ms/s/m
				Link to Step XXX
	Edit Static Scene		Strobe XXX	
			Dimmer XXX	
				
	Init User Memory	Reset User Memory 1	Reset User Memory?	Input Password 123
		Reset User Memory 2	Reset User Memory?	Input Password 123
		Reset Static Scene	Reset Static Scene?	Input Password 123

6. DMX PROTOCOL

Short mode	Standard mode	Function	DMX Value	Description
1	1	Strobe	000	Close
			001-127	Pulse strobe from slow to fast
			128-255	Strobe from slow to fast
2	2	Dimmer	000-255	Linear dimmer form dark to bright (0-100%)
	3	Dimmer Low	000-255	Dimmer in 16 bit
3	4	Color wheel	000-063	positioning(0-360 degrees)
			064-067	Open/Color1
			068-071	Color 1
			072-075	Color 1/ Color 2
			076-079	Color 2
			080-083	Color 2/ Color 3
			084-087	Color 3
			088-091	Color 3/ Color 4
			092-095	Color 4
			096-099	Color 4/ Color 5
			100-103	Color 5
			104-107	Color 5/ Color 6
			108-111	Color 6
			112-115	Color 6/ Color 7
			116-119	Color 7
			120-123	Color 7/Open
			124-127	Open
			128-191	Clockwise rotation from slow to fast
			192-255	Anti-clockwise rotation from fast to slow
	5	Color wheel Low	000-255	Color wheel in 16 bit
4	6	Rotating gobo wheel	000-019	Open
			020-037	Gobo1
			038-055	Gobo 2
			056-073	Gobo 3
			074-091	Gobo 4
			092-109	Gobo 5
			110-127	Gobo 6
			128-161	Clockwise rotation from slow to fast
			162-195	Anti-clockwise rotation from slow to fast
			196-205	Gobo1shake from slow to fast
			206-215	Gobo2shake from slow to fast
			216-225	Gobo3shake from slow to fast
			226-235	Gobo4shake from slow to fast

			236-245	Gobo5shake from slow to fast
			246-255	Gobo6shake from slow to fast
5	7	Gobo Rotation	000-128	Gobo Indexing(0-360degrees)
			129-188	Clockwise rotation from slow to fast
			189-195	Stop rotation
			196-255	Anti-clockwise rotation from slow to fast
	8	Gobo Rotation Low	000-255	Gobo rotation in 16 bit
6	9	Effect Wheel	000-020	No
			021-255	Effect Wheel In
7	10	Effect Wheel Rotation	000-127	Clockwise rotation from slow to fas
			128	Stop rotation
			129-255	Anti-clockwise rotation from slow to fast
8	11	Prism	000-016	White
			017-255	Prism in
9	12	Prism Rotation	000-128	Prism Rotation Indexing
			129-191	Clockwise rotation from slow to fast
			192	Stop
			193-255	Anti-clockwise rotation from slow to fast
10	13	Frost	000-009	No
			010-255	Frost in
11	14	Focus	000-255	Linear focus
	15	Focus Low	000-255	Focus in 16 bit
12	16	Zoom	000-255	Linear Zoom
	17	Zoom Low	000-255	Zoom in 16 bit
13	18	Dimmer Curve Mode	000-029	Dimmer Curve 1
			030-059	Dimmer Curve 2
			060-089	Dimmer Curve 3
			090-119	Dimmer Curve 4
			120-255	Default to Unit Setting
14	19	Control function	000-019	Reserved
			The following function to be activated after it stays in DMX value between for more than 5s. And after power off, the set-up won't be stored.	
			020-024	Graphic display On
			025-029	Graphic display Off
			030-149	Reserved
			150-159	Colour system reset
			160-169	Gobo wheels reset
			170-179	Dimmer/Strobe reset
			180-189	Zoom/focus/prism reset
			190-199	Effect wheel reset
			200-209	Total reset
			210-255	Reserved

Note: Fan errors can cause LED lamps off.

7. LOGOS ON THE TOUCH SCREEN

	Lamp Control		Option Settings
	Chinese/English		Information
	Error Messages		Service
	Address		Operation Mode
	Reset		User Memories
	Config Settings		

8. 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
Color wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Rot. Gobo Rotation	Timeout	Check if wiring, positioning parts and motors are normal
Prism	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
Zoom	Timeout	Check if wiring, positioning parts and motors are normal
Effect Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Effect wheel rotation	Timeout	Check if wiring, positioning parts and motors are normal
Driver Board 1	Error	Check signal wire
Driver Board2	Error	Check signal wire
Lapsed Time	Timeout	
Time IC	Error	
Lapsed time	X days	
Use hours Setting	successfully	

9. TECHNICAL DATA

ELECTRIC SPECIFICATIONS

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

Input power: 400W @ 230V

Current at maximum: 4.7A

Power factor: PF>0.9

LIGHT SOURCE SPECIFICATIONS

LED 300W , White

Power Consumption 300W

Manufacturers Rated Lamp Life 20000hours

Color temperature: 8000K

COLORS

1pc color wheel(6colors+CTO+Open),

Half color, bi-directional rainbow effect with variable speeds

Stepping /linear color selection

DIMMER

Linear Dimmer from 0-100%

STROBE

Electronic Strobe 0-25FP.S. with pulse macors

PRISM

1pc 4-facet circular prism

EFFECT WHEEL

1 fire effect wheel(bi-directional rotation with variable speeds)

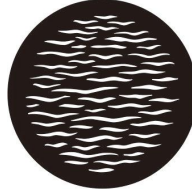
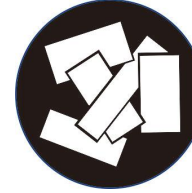
Fire gobo exchangeable

ROTATING GOBO WHEEL

1pc of rotating gobo wheel:6 gobos +open

Shake with variable speeds, bi-directional scrolling with variable speeds

Gobo exchangeable

					
1# 110010259	2# 110010286	3# 110010269	4# 110010267	5# 110010262	6# 110010270

FOCUS

DMX linear focus

ZOOM

DMX linear zoom

BEAM ANGLE

Beam angle (1/20peak): linear focus 7°~ 45°(open hole)

FROST

1 frost filter

CONTROL

International standard DMX512 signal control protocol

DMX512 5pin interfaces

14channels in short mode and 19channels in standard mode

Master/Slave synchronized Mode

Stand alone mode, preset mode, user memory

OTHER FUNCTIONS

Color touch screen and its brightness adjustable

DMX 512 port for firmware upgrade, a convenient and quick way for firmware upgrade via DMX cable

Over temperature protection

Fixture time, DMX512 channel value and software version will be displayed

Display can be inverted

Quick replacement of gobos

HOUSING

Cast Aluminum , high temperature resistant/anti-UV ABS, IP65

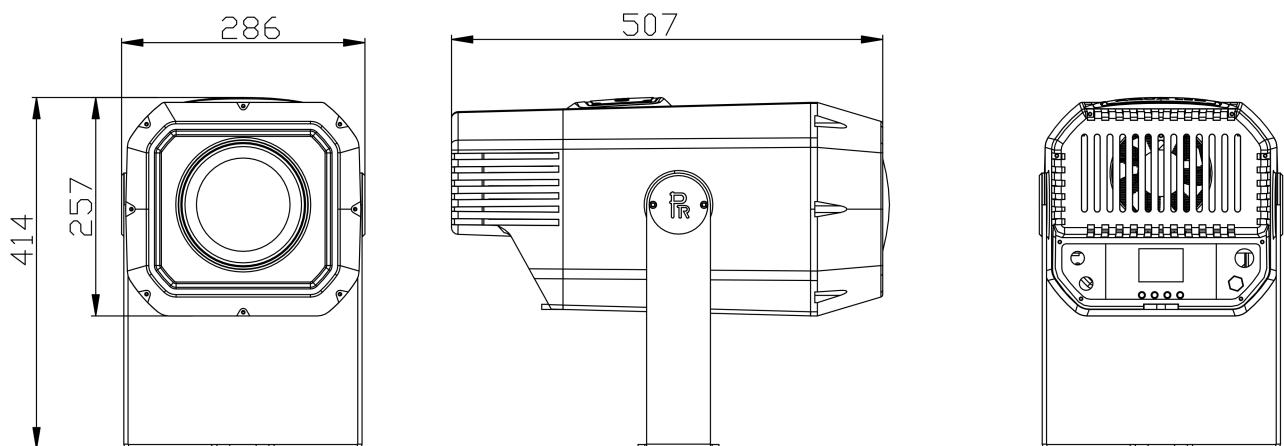
NET WEIGHT

21.4Kg

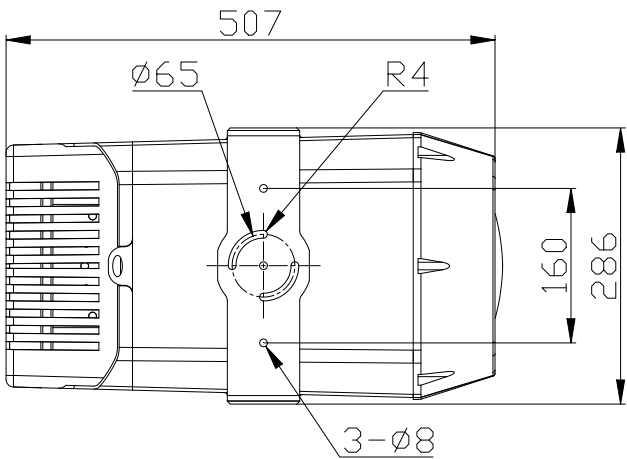
OPERATION TEMPERATURE:

Maximum ambient temperature 45 °C

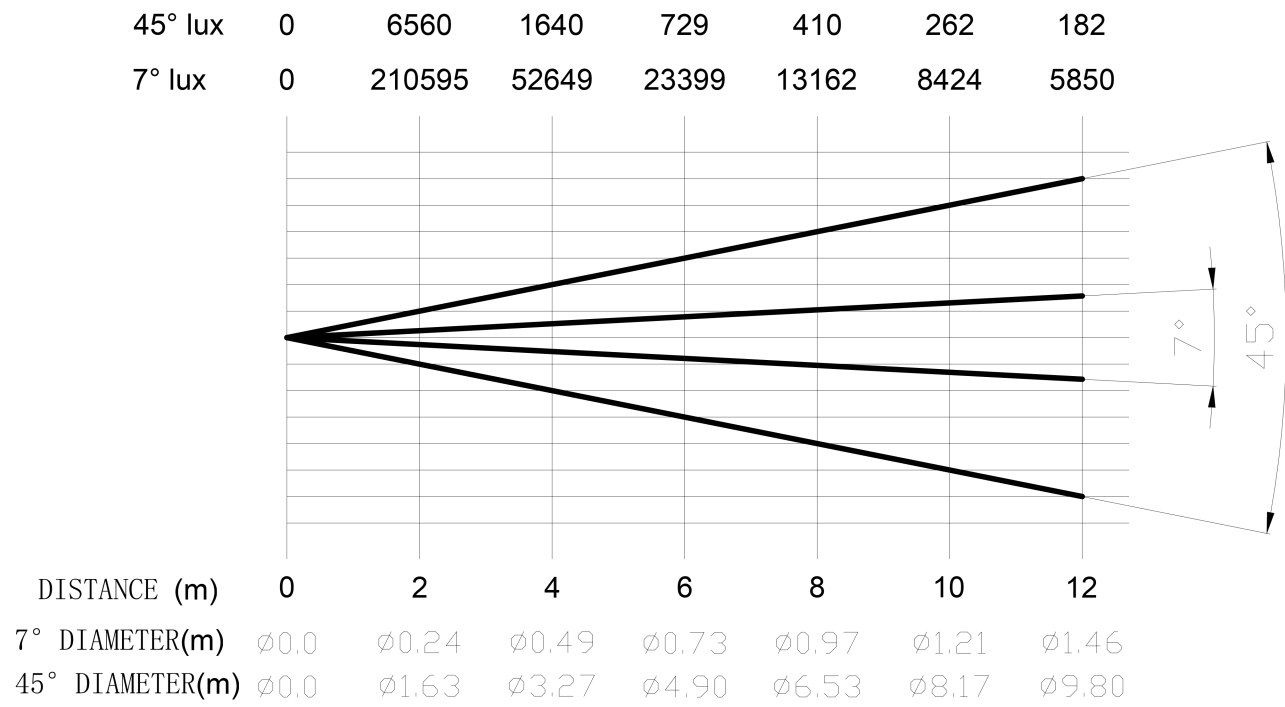
SIZES:



INSTALLATION DIAGRAM:



LIGHT OUTPUT



10. COMPONENT ORDER CODES

NO	NAME	CODE NO.	QTY	REMARKS
1	HEAT SINK FAN	030060116	1	
2	DRIVER BOARD FAN	030060079	2	
3	INTERNAL AIR RECYCLE BLOWER	030060119	2	
4	LED DRIVER BOARD	6230000177	1	
5	LED LIGHT SOURCE	6150000007	1	
6	8 CHANNEL MOTOR BOARD	6230000176	1	
7	6 CHANNEL MOTOR BOARD	6230000175	1	
8	LCD MASTER BOARD	6230000178A	1	
9	COLOR WHEEL MOTOR	030040248	1	
10	ROTATING GOBO WHEEL MOTOR	030040221	1	
11	GOBO ROTATION MOTOR	030040221	1	
12	EFFECT WHEEL MOTOR	030040251	1	
13	PRISM IN MOTOR	030040221A	1	
14	PRISM ROTATION MOTOR	030040203	1	
15	FROST MOTOR	030040257A	1	
16	ZOOM/FOCUS MOTOR	030040213A	2	
17	COLOR WHEEL BELT	290151396	1	
18	ROTATING GOBO WHEEL BELT	290151265	1	
19	GOBO ROTATION BELT	290151375	1	
20	EFFECT WHEEL BELT	290151253	1	
21	FOCUS BELT	290151386	1	
22	ZOOM BELT	290151318	1	
23	AIR MEMBERANE	290010481	1	
24	COVER SEAL	290190115	1	
25	ROTATING GOBO WHEEL ACCESSORY	6120110062	1	
26	PRISM ACCESSORY	120110815	1	
27	COLOR WHEEL ACCESSORY	6120110061	1	
28	EFFECT WHEEL	6110000000	1	
29	SWITCHING POWER SUPPLY	6190000017	1	
30	HEAT SINK	6060020001	1	
31	HEAD SEAL	6290000033	1	

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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:
Version: 20240524