

PR-6000 FRAMING (1400W)

PR-2927

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
Clamps	2	Pcs	
XLR Connectors	1	Set	Male and female
Safety cord	2	Pc	
User manual	0	Pc	QR Code

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 a projector. Should there be any damage caused by transportation, consult your dealer and do not use it.
- The manufacturer is not responsible for any loss caused by the user not following the manual or changing a projector as he/she likes.
- Please be noted that the damage caused by changing a 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 deformed by heat or damaged, please replace it with a new one.



- A projector with IP20 can only be used indoors.
- For a projector with IP20, keep it away from rain and moisture, excessive heat, humidity and dust. Do not allow its contact with water or any other liquids.
- A projector should be kept away from high temperature, fire, electrical surge, vibration and strong light while running.
- Any maintenance and repair of a projector shouldn't be carried out by a user and the user shouldn't open it for any repair work.



- 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 like eye goggles, gloves and etc..



- Any electrical connection must be carried out by a qualified person .
- Before installation, please confirm the voltage supplied matches what is required for a 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 a 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.
- If a projector is not water and dust proof, while being operated it should not be under rains or in humidity to avoid short circuit.
- Do not switch on and off a 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 a projector is disconnected from power mains.



- While running normally under normal ambient temperature, the temperature of the external surface of the metal housing of a projector including that of the heat sink may reach 170°C at maximum.
- While the lamp is stricken for the first time, there will be smoke and strange smell. It's normal and does not mean a projector has some defects.
- While it running, don't touch the metal housing to avoid being burned!



- Do not mount a projector directly on inflammable surface.
- Do not project the beam straightly on combustible items and the minimum distance between a projector and illuminated items is 5m.
- A projector should be installed with good ventilation and the minimum distance between a projector and a wall 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

If a projector can't start. Please check if the fuse is blown up. If it does, replace it with a new fuse with same ratings. And the projector has over-temperature protective device. If the temperature is too high, the protective device will be triggered to shut the projector off. When it happens, please check if the fans run normally or fan shield is blocked by dust. After the issue is solved, restart the projector.

The accumulation of oil, smoke and dust on the lens will compromise the light output. Cleaning a projector is very necessary to ensure a reliable use of it. Cooling fans need to be cleaned every 15days. Internal lens, reflector and hot mirror need to be cleaned periodically to optimize light output.

Cleaning frequency is to be decided by operations and its environment. Use soft cloth and normal detergent for glass for cleaning work. It's advised external optical system be cleaned every 20days and internal optical systems every 30/60days. Keep lens clean and do not touch optical parts with bare hands.



- Before any maintenance and cleaning, please ensure the project is off the power
- Only qualified person is allowed to do maintenance
- During maintenance and before maintenance, the projector must be off power.



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

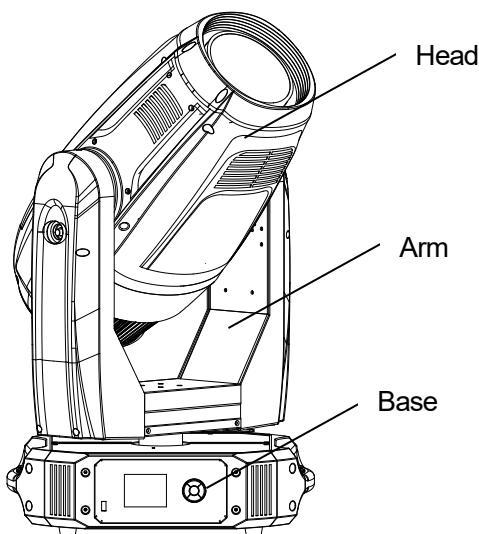
●LUBRICATION

To ensure smooth movement of gobos and zoom and focus lens, it's advised rotators' bearings and 2 sliding bars for zoom and focus lens be lubricated every 2 months. High quality and high temperature lubricant/grease is advised.

●TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	<ul style="list-style-type: none"> ➤ Check the fuse on the power socket. ➤ Check the lamp.
The lamp is on but the projector doesn't respond to the controller	<ul style="list-style-type: none"> ➤ Make sure that the fixture's start address is right ➤ Replace or repair the XLR signal cable.
The projector functions intermittently	<ul style="list-style-type: none"> ➤ Make sure the fan is working well or fans and their shields are not blocked
Beam appears dim, Low in brightness	<ul style="list-style-type: none"> ➤ Make sure the lamp is within its lifespan ➤ Remove dust or grease from the lenses.
The project image appears to have a halo	<ul style="list-style-type: none"> ➤ Carefully clean the lamp, optical lenses and other components.
Heavily Defective Beam	<ul style="list-style-type: none"> ➤ Check if lens are in good condition(not cracked) ➤ Clean dust or grease on the lens.

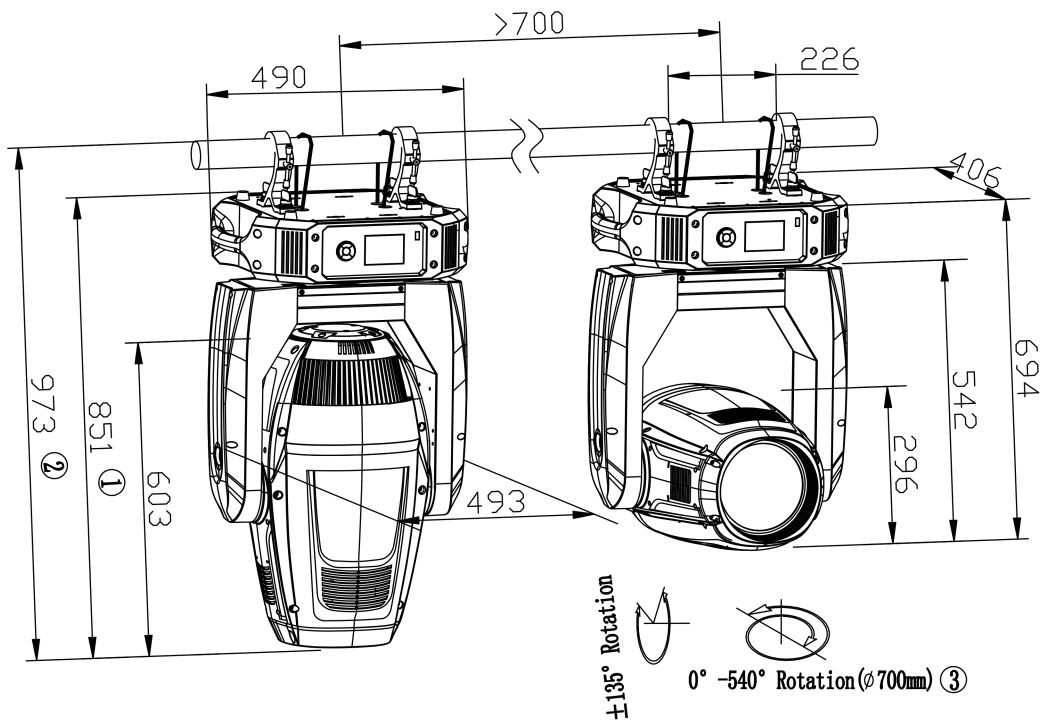
3. APPEARANCE



4. INSTALLATION

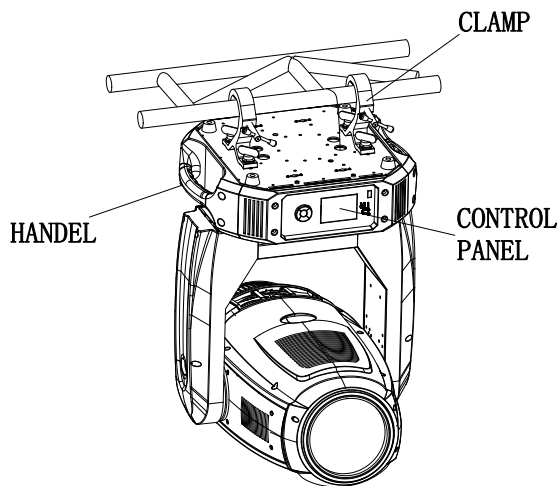
●RIGGING

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

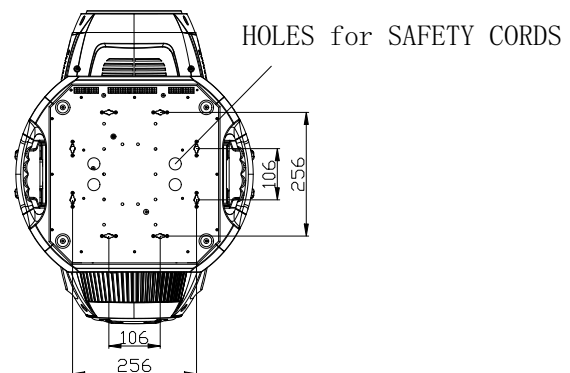


Note:

1. the distance between the foot of the base and the front lens cover (the head facing downward)
2. the distance between mounting truss and the front lens cover (the head facing downward)
3. The maximum diameter of the rotating head (minimum spacing between fixtures)



⚠ WARNING
TO pass 2 SAFETY CORDS
through 4 HOLES for safety



Take 2 clamps and the safety cord out from the package and mount 2 clamps on the underside of fixture with 2 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the underside of the base as shown above) **To pass the SAFETY CORD through the HOLES for safety!** Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector to is secure and strong enough to support the weight of the unit.



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

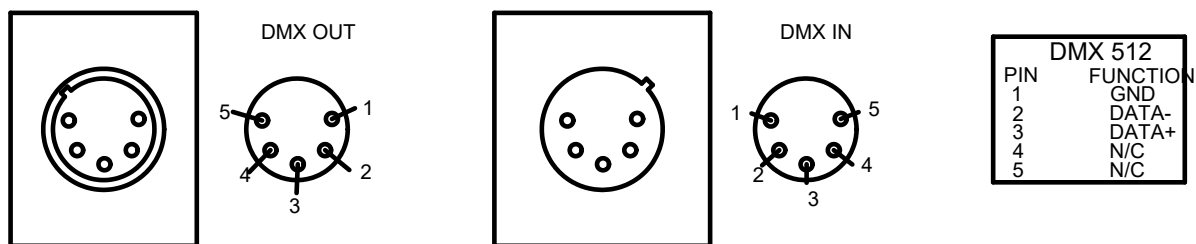
N (neutral) = blue

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.



.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.

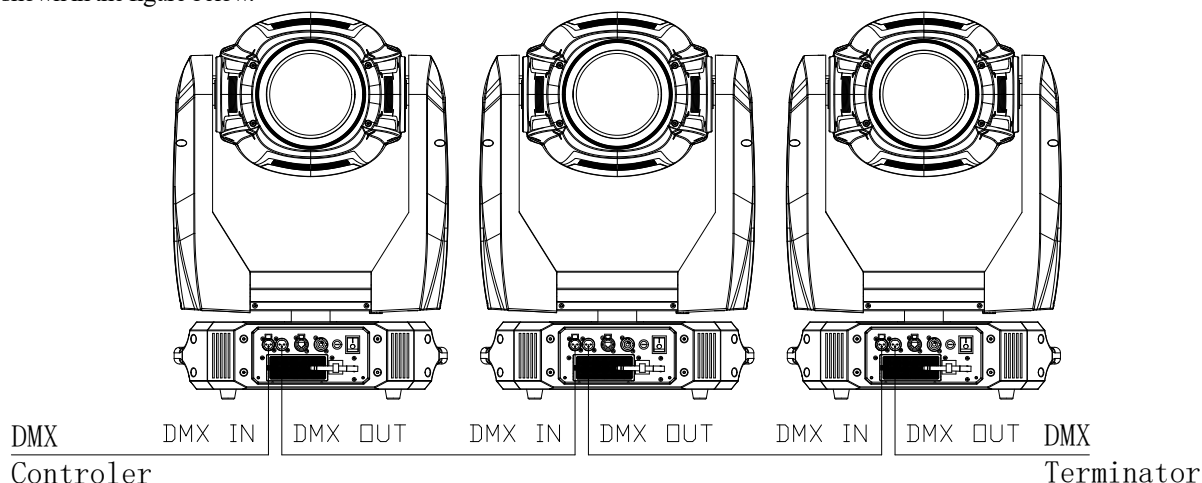
●DMX CONTROL CONNECTION:



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 Fixture accepts digital control signals in protocol DMX512 (1990).

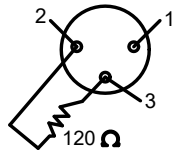
Connect the controller's DMX output to the first fixture's DMX input, and connect the first fixture's DMX output to the second fixture's DMX input and connect the rest fixtures in the same way. Eventually connect the last fixture's DMX output to a DMX terminator as shown in the figure below.



●DMX TERMINATOR

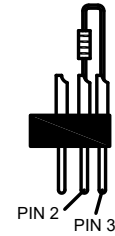
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

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 120 Ω (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

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

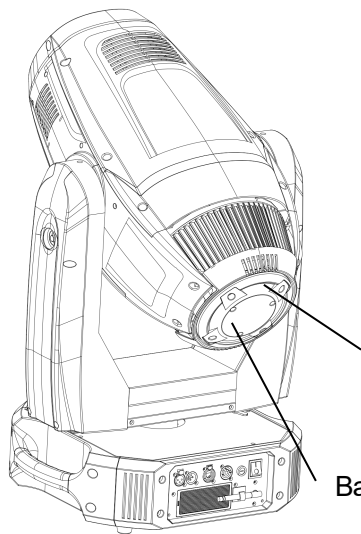
Lock Tilt in the figure below and open the lamp cover after its 4 screws are loosened.

After removal of the lamp cover, take out the lamp while the 2 screws at both ends of the lamp are loosened.

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

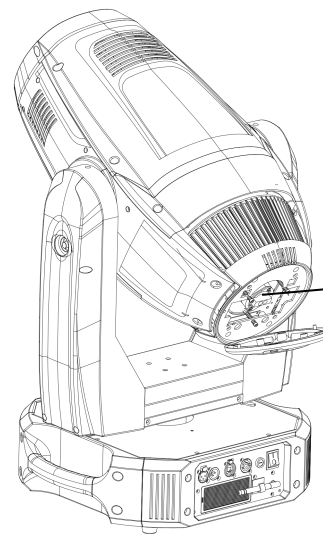
Fasten the 4 fast-fit screws after the lamp cover is on

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



Fast-fit
screws

Back cover

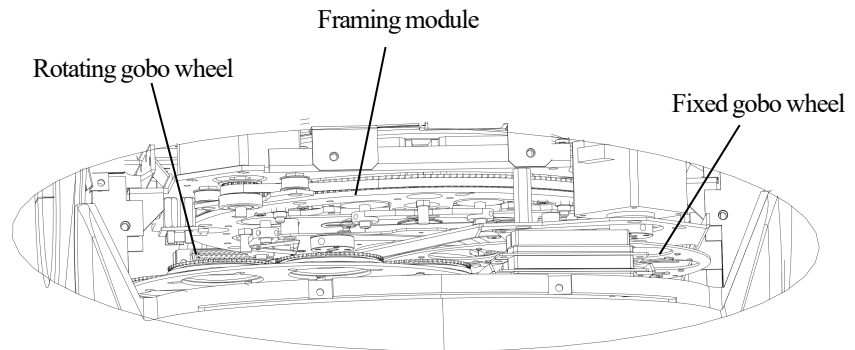
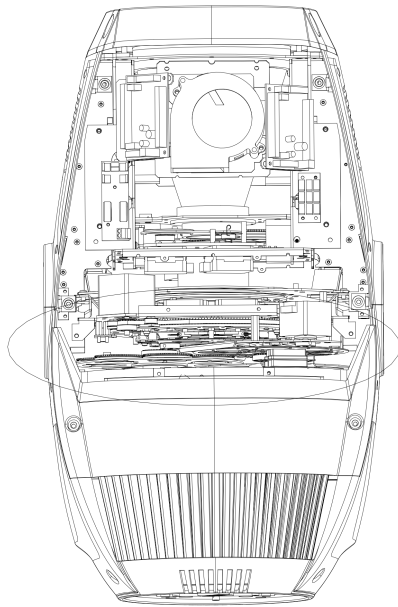


Lamp



- Don't touch the internal surface of the reflector and the burner of the lamp with bare hands so as not to impair the beam output. While lamp's installation, do not damage the metal wire around the burner.
- Please read "Instructions" enclosed with the lamp
- Do operate the projector while adjusting the lamp

● GOBO /COLOR FILTER REPLACEMENT



Lock the tilt and loosen the 6 fast-fit screws on the upper cover. After removing the cover, you will see the structures as the figure below. Before replacing a gobo on the fixed gobo wheel, use your finger to remove the spring tightening it and take the old one out with due care. At last put the new into the wheel.

To replace a gobo on the rotating gobo wheel: take the rotator from the wheel, take the gobo out from the rotator by removing the tightening spring. Put the new gobo back to the rotator, then tighten it with the spring. Please ensure the spring is in the narrow location of the rotator, which is the internal ring of it and flatten it. At last, pull up the spring strip using proper tool and put the rotator back to the wheel with the assistance by another hand.

Note: Do not touch the glass gobo with bare hand. Place clean and soft paper or cloth between hand and glass gobos. Tighten 6 fast-fit screws after the cover is on. Unlock the tilt.

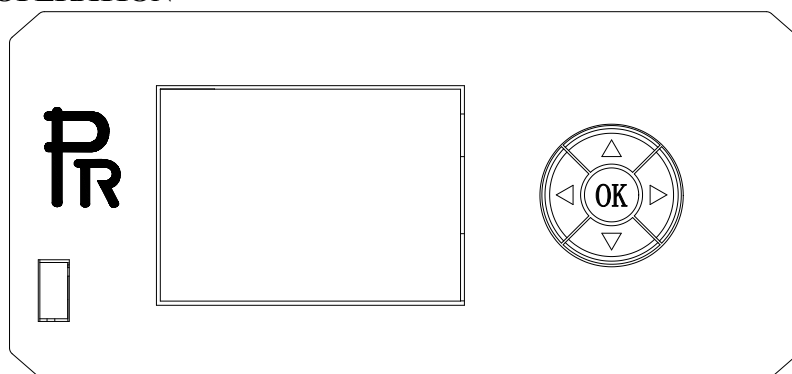


DANGER!


Before replacement of gobos, the projector must be off the power.

5. SETUP AND CONFIGURATION

•FRONT PANEL OPERATION



The projector configuration can be set conveniently via push buttons and color touch screen.

To browse through or change the projector's settings, touch the white area of the touch screen or press OK button for more than 3s (Only powered by the battery, pressing the OK button) to unlock the screen, then press  key to enter the projector's function menus. Each main menu has its sub-menus. And each menu stands for special function. For the details, please see the following 6th point "Operation Menu".

1. At the page to set the fixture's functions, press keys or their respective icons to select the functions desired.
2. While at 2nd, 3rd and 4th level of menus, the key is for ESCAPE, but key won't work, and key is used for ENTER. Press key to save the changes or enter into the sub menus. Press or keys to change the numbers(minus or plus). Or touch the option needed for change.

Shortcut keys: After the Function Menu is entered into, there are all options for the functions on the top of the screen. On the right there are 4 shortcut keys like Lamp Control and English/Chinese.

●DMX START ADDRESS

Each projector must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The projector has 3DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 36 channels, so set the No. 1 projector's address 001, No. 2 projector's address 037, No. 3 projector's address 073, and so on.

Switch on the Projector . Press key more than 3 seconds to unlock panel, then press key to enter into the fixture's operation menus.

Select DMX Address icon and press OK key or touch the icon directly on the display and select DMX address at the 2nd level menu for the address setting.

Press or keys or touch < , > displayed for the DMX address desired.

Press OK key to confirm.

Press the key to go back to the upper level menu.

●DMX WIRELESS CONTROL (If the projector has the function)

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

The setup of it is below:

1. Press for more than 3s to unlock the control panel, then press key to enter into the operation menu and select "Config Settings".
2. Select "Wireless First" or "Wireless Only" from the menu of "Signal Select".

Only after the projector is linked with a transmitter, can it receive wireless signal sent by the transmitter. If unlinking it, Press "Enter" for the menu of Un-link Wireless under the upper level menu of Config Settings , then the fixture is unlinked with the wireless transmitter.

●STAND-ALONE MODE

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

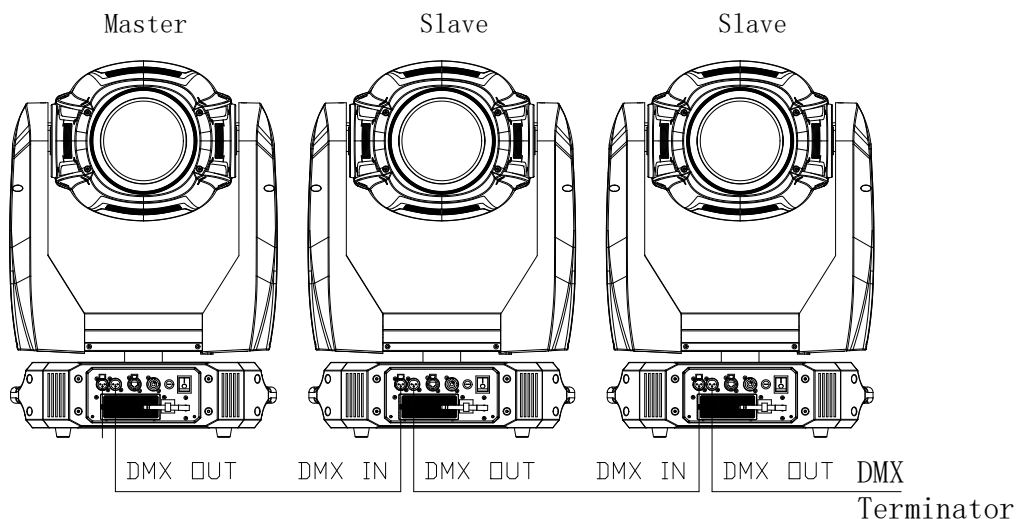
DMX address can be set at any number within 512.

●MASTER/SLAVE MODE

Many projectors can run synchronously in the Master/Slave mode by linking them with each other. First, connect the first fixture's DMX output to the second fixture's DMX input using XLR-XLR control cable and then connect the second fixture's DMX output to the third fixture's DMX input, and so on until all 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	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL
Address	DMX Address	Short Mode 1-480 Standard Mode 1-477 Extended Mode 1-461		
	IP Address	Default IP Address	2.X.X.X / 10.X.X.X	
		Custom IP Address	X.X.X.X	
	SubNet Mask	X.X.X.X		
	ArtNet Universe	0-255		
	sACN Universe	1-63999		
Reset	Total Reset	Really Reset?		
	Pan&Tilt Reset	Really Reset?		
	Colour System Reset	Really Reset?		
	Gobo Reset	Really Reset?		
	Dimmer/Strobe reset	Really Reset?		
	Zo.Fo.Fr.Pr. Reset	Really Reset?		
	Other Reset	Really Reset?		
Config Settings	DMX Channel Mode	Short Mode		
		Standard Mode		
		Extended Mode		
		View Selected Mode		
	Lamp Control	Lamp Control	OFF/ ON	
		On By Power On	OFF/ ON	
		Control By DMX	OFF/ ON	
		Lamp Power (W)	1200/1400	
	Signal Select	XLR Only		
		XLR First		
		Wireless Only		
		Wireless First		
		Wireless In/XLR Out		
		ARTNET Only		
		ARTNET/XLR Out		
		sACN Only		
		sACN In/XLR Out		
	Loss of DMX	Normal time out		
		Hold Last Value		
	Display Config	Display Mode	Off After Delay	
			On Always	

		Display Invert	Invert OFF	
			Invert ON	
			Invert Auto	
		Language Setting	English	
			Chinese	
		Touch Calibration	Input Password123	
	Temperature Unit	Celsius Degree		
		Fahrenheit Degree		
	Un-Link Wireless	Really Un-Link?		
	Factory Defaults	Restore Defaults?		
Option Settings	Pan/Tilt Settings	Pan DMX Invert	OFF/ON	
		Tilt DMX Invert	OFF/ON	
		Pan Tilt Swap	OFF/ON	
		XY Feedback	OFF/ON	
		Pan/Tilt mode	Speed/Time	
	Invert Settings	Dimmer Invert	OFF/ON	
		Iris Invert	OFF/ON	
		Zoom Invert	OFF/ON	
		CYM Invert	OFF/ON	
		CTO Invert	OFF/ON	
	Dimmer Curve	Linear/ Square Law		
	Fan Mode	Standard/Theatre		
	Defaults	Restore Defaults?		
Information	View DMX Values			
	Lamp Hours	Reset Lamp Hours		
	Total Hours			
	Temperature	Display Board XX°C/F		
		Pan and Tilt XX°C/F		
		Driver Board 1 XX°C/F		
		Driver Board 2 XX°C/F		
		Driver Board 3 XX°C/F		
		Framing Board XX°C/F		
		Head Sensor XX°C/F		
	Software Version	Display Board	System= XXX Boot =XXX	
		Pan and Tilt	System= XXX Boot =XXX	
		Driver Board 1	System= XXX Boot =XXX	
		Driver Board 2	System= XXX Boot =XXX	
		Driver Board 3	System= XXX Boot =XXX	
		Framing Board	System= XXX Boot =XXX	
	Electronic SN	Electronic SN= *****		
	RDM Device Label	RDM Device Label ANSI E1.20 RDM Version X.X		

	Fan Status					
	XY Encoder					
	Lamp Fan Error					
Service	Manual Effect Control	Strobe XXX				
		Dimmer XXX				
		...				
	USB Update Software					
	Factory Test					
Operation Mode	DMX Mode	Change Operation Mode?				
	Master Mode	Preset Memory	Change Operation Mode?			
		User Memory 1	Change Operation Mode?			
		User Memory 2	Change Operation Mode?			
	Stand-Alone Mode	Preset Memory	Change Operation Mode?			
		User Memory 1	Change Operation Mode?			
		User Memory 2	Change Operation Mode?			
	Static Scene	Change Operation Mode?				
User Memories	Edit User Memory	Edit User Memory 1 Edit User Memory 2	Scene XX (1~200 Scenes)	Strobe XXX		
				Dimmer XXX		
				...		
				Delay Time XXX		
				Delay Unit		
		Link To Step XXX				
		Edit Static Scene	Strobe XXX Dimmer XXX ...			
				Init User Memory		
	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		

7. DMX PROTOCOL

Short mode	Standard mode	Extended mode	Description	Decimal low	Decimal High
1	1	1	Strobe		
			Close (The lamp's power changes into 1200W after strobe blades close.)	0	10
			Open	11	25
			Strobe from slow to fast	26	225
			Strobe macros (Strobe at random from fast to slow)	226	246
			Open	247	255
2	2	2	Dimmer		
			Close	0	0
			Linear dimmer (0-100%)	1	255
	3	3	Dimmer in 16 bit		
			Dimmer in 16 bit adjustment	0	255
3	4	4	CYM macros		
			The following functions will disable CMY,CTO,color wheel		
			No function	0	7
			Color macro1	8	9
			Color macro2	10	11
			Color macro3	12	13

Color macro4	14	15
Color macro5	16	17
Color macro6	18	19
Color macro7	20	21
Color macro8	22	23
Color macro9	24	25
Color macro10	26	27
Color macro11	28	29
Color macro12	30	31
Color macro13	32	33
Color macro14	34	35
Color macro15	36	37
Color macro16	38	39
Color macro17	40	41
Color macro18	42	43
Color macro19	44	45
Color macro20	46	47
Color macro21	48	49
Color macro22	50	51
Color macro23	52	53
Color macro24	54	55
Color macro25	56	57
Color macro26	58	59
Color macro27	60	61
Color macro28	62	63
Color macro29	64	65
Color macro30	66	67
Color macro31	68	69
Color macro32	70	71
Color macro33	72	73
Color macro34	74	75
Color macro35	76	77
Color macro36	78	79
Color macro37	80	81
Color macro38	82	83
Color macro39	84	85
Color macro40	86	87
Color macro41	88	89
Color macro42	90	91
Color macro43	92	93
Color macro44	94	95
Color macro45	96	97
Color macro46	98	99
Color macro47	100	101

Color macro48	102	103
Color macro49	104	105
Color macro50	106	107
Color macro51	108	109
Color macro52	110	111
Color macro53	112	113
Color macro54	114	115
Color macro55	116	117
Color macro56	118	119
Color macro57	120	121
Color macro58	122	123
Color macro59	124	125
Color macro60	126	127
Color macro61	128	129
Color macro62	130	131
Color macro63	132	133
Color macro64	134	135
Color macro65	136	137
Color macro66	138	139
Color macro67	140	141
Color macro68	142	143
Color macro69	144	145
Color macro70	146	147
Color macro71	148	149
Color macro72	150	151
Color macro73	152	153
Color macro74	154	155
Color macro75	156	157
Color macro76	158	159
Color macro77	160	161
Color macro78	162	163
Color macro79	164	165
Color macro80	166	167
Color macro81	168	169
Color macro82	170	171
Color macro83	172	173
Color macro84	174	175
Color macro85	176	177
Color macro86	178	179
Color macro87	180	181
Color macro88	182	183
Color macro89	184	185
Color macro90	186	187
Color macro91	188	189

			Color macro92	190	191
			Color macro93	192	193
			Color macro94	194	195
			Color macro95	196	197
			Color macro96	198	199
			CMY color mixing fade from slow toast	200	255
4	5	5	Cyan		
			Cyan (Linear 0-100%)	0	255
		6	Cyan in 16 bit		
			Cyan 16 bit adjustment	0	255
5	6	7	Yellow		
			Yellow (Linear 0-100%)	0	255
		8	Yellow in 16 bit		
			Yellow 16bit adjustment	0	255
6	7	9	Magenta		
			Magenta (Linear 0-100%)	0	255
		10	Magenta in 16bit		
			Magenta 16 bit adjustment	0	255
7	8	11	CTO		
			Linear CTO from high t low	0	255
		12	CTO in 16 bit		
			CTO 16 bit adjustment	0	255
8	9	13	Color wheel		
			Continuous positioning		
			Indexing 0-360°	0	63
			Positioning		
			Open/Color1(Red)	64	67
			Color 1(Red)	68	71
			Color1(Red)/Color2(Yellow)	72	75
			Color2(Yellow)	76	79
			Color2(Yellow)/Color3(Blue)	80	83
			Color3(Blue)	84	87
			Color3(Blue)/Color4(Green)	88	91
			Color4(Green)	92	95
			Color4(Green)/Color5(Pink)	96	99
			Color5(Pink)	100	103
			Color5(Pink)/Color6(Orange)	104	107
			Color6(Orange)	108	111
			Color6(Orange)/ Color7(UV)	112	115
			Color7(UV)	116	119
			Color7(UV)/Open	120	123
			Clockwise rainbow effect from slow to fast	124	191
			Anti-clockwise rainbow effect from slow to fast	192	255
	10	14	Color wheel in 16bit		

			Color wheel continuous positioning ,16bit adjustment	0	255
9	11	15	Iris		
			Linear iris from big to small	0	255
		16	Iris in 16 bit		
			Iris 16 bit adjustment	0	255
10	12	17	Iris macros		
			Disable iris macro	0	10
			Iris macro1: Iris from big to small (speed from slow to fast)	11	74
			Iris macro2: Iris from small to big (speed from slow to fast)	75	138
			Iris macro3 : Iris contracts from slow to fast	139	202
			Iris macro4(Macro1 at random) (from slow to fast)	203	210
			Iris macro5(Macro2 at random) (from slow to fast)	211	218
			Iris macro 6(Macro3 at random) (from slow to fast)	219	226
			Open	227	255
11	13	18	Fixed gobo wheel		
			Open	0	23
			Gobo1	24	49
			Gobo2	50	75
			Gobo3	76	101
			Gobo4	102	127
			Clockwise rotation from slow to fast	128	149
			Anti-clockwise rotation from slow to fast	150	171
			Gobo1 shakes from slow to fast	172	188
			Gobo2 shakes from slow to fast	189	205
			Gobo3 shakes from slow to fast	206	222
			Gobo4 shakes from slow to fast	223	239
			Effect wheel		
			Move back and forth from slow to fast	240	255
12	14	19	Rotating gobo wheel		
			White	0	31
			Gobo1	32	47
			Gobo2	48	63
			Gobo3	64	79
			Gobo4	80	95
			Gobo5	96	111
			Gobo6	112	127
			Clockwise rotation from slow to fast	128	143
			Anti-clockwise rotation from slow to fast	144	159
			Gobo1 shakes from slow to fast	160	175
			Gobo2 shakes from slow to fast	176	191
			Gobo3 shakes from slow to fast	192	207
			Gobo4shakes from slow to fast	208	223
			Gobo5shakes from slow to fast	224	239
			Gobo6shakes from slow to fast	240	255

13	15	20	Gobo rotation		
			Indexing 0-360°	0	127
			Stop	128	128
			Clockwise rotation from slow to fast	129	188
			Stop	189	195
			Anti-clockwise rotation from slow to fast	196	255
	16	21	Gobo rotation in 16bit		
			Gobo rotation 16bit adjustment	0	255
14	17	22	Framing blade 1left		
			Linear Framing Blade1 Left Change 0%-100%	0	255
		23	Framing Blade 1 Left change in 16 bit		
			Framing Blade 1 Left change in 16 bit precision	0	255
15	18	24	Framing Blade 1 right		
			Linear Framing Blade1 Right Change 0%-100%	0	255
		25	Framing Blade 1 right change in 16 bit		
			Framing Blade 1 right change in 16 bit precision	0	255
16	19	26	Framing Blade 2 Left		
			Linear Framing Blade2 Left Change 0%-100%	0	255
		27	Framing Blade 2 Left change in 16 bit		
			Framing Blade 2 Left change in 16 bit precision	0	255
17	20	28	Framing Blade 2 Right		
			Linear Framing Blade2 Right Change 0%-100%	0	255
		29	Framing Blade 2 right change in 16 bit		
			Framing Blade 2 right change in 16 bit precision	0	255
18	21	30	Framing Blade 3 Left		
			Linear Framing Blade3 Left Change 0%-100%	0	255
		31	Framing Blade 3 Left change in 16 bit		
			Framing Blade 3Left change in 16 bit precision	0	255
19	22	32	Framing Blade 3 Right		
			Linear Framing Blade3 Right Change 0%-100%	0	255
		33	Framing Blade 3 right change in 16 bit		

			Framing Blade 3right change in 16 bit precision	0	255
20	23	34	Framing Blade 4 Left		
			Linear Framing Blade4Left Change 0%-100%	0	255
		35	Framing Blade 4 Left change in 16 bit		
			Framing Blade 4Left change in 16 bit precision	0	255
21	24	36	Framing Blade 4 Right		
			Linear Framing Blade4Right Change 0%-100%	0	255
		37	Framing Blade 4 right change in 16 bit		
			Framing Blade 4right change in 16 bit precision	0	255
22	25	38	Framing Module continual rotation		
			Framing Module Indexing(0-360degrees)	0	127
			Stop	128	
			Framing Module forward rotation from slow to fast	129	188
			Stop	189	195
			Framing Module forward rotation from slow to fast	196	255
		39	Framing Module continual rotation in 16 bit		
			Framing Module continual rotation in 16 bit	0	255
23	26	40	Prism		
			No	0	16
			Prism in	17	255
24	27	41	Prism rotation		
			Prism indexing	0	127
			Stop	128	128
			Clockwise rotation from slow to fast	129	191
			Stop	192	192
			Anti-clockwise rotation from slow to fast	193	255
25	28	42	Frost		
			Linear frost 0% - 100%	0	255
26	29	43	Focus		
			Linear focus	0	255
		44	Focus in 16 bit		
			Focus 16 bit adjustment	0	255
27	30	45	Zoom		
			Linear Zoom	0	255
		46	Zoom in 16 bit		

			Zoom 16 bit adjustment	0	255
28	31	47	Pan		
			Pan movement	0	255
29	32	48	Pan in 16 bit		
			Pan movement in 16 bit	0	255
30	33	49	Tilt		
			Tilt movement	0	255
31	34	50	Tilt in 16 bit		
			Tilt movement in 16 bit	0	255
32	35	51	Pan & Tilt speed		
			Time mode	0	1
			Speed mode (speed from fast to slow)	2	255
33	36	52	Special function		
			No function	0	4
			Reserved	5	19
			The following function must stay in the DMX range for more than 5s to activate it		
			2.The lamp can be turned off 5minutes after it is on, And the lamp can be turned on 5 minutes after it is off.		
			3.to turn on or turn off the lamp, keep lamp control-DMX control signal as ON		
			Display on	20	24
			Display off	25	29
			Reserved	30	34
			Lamp power 1200W	35	39
			Lamp power 1400W	40	44
			Reserved	45	46
			Standard fan mode	47	48
			Theater fan mode	49	50
			Reserved	51	89
			Pan and tilt speed mode	90	94
			Pan and tilt time mode	95	99
			Reserved	100	129
			Lamp on	130	139
			Pan and tilt reset	140	149
			Color system reset	150	159
			Gobo wheel reset	160	169
			Dimmer/ strobe reset	170	179
			Zoom/Focus/Frost/Prism reset	180	189
			Other (Iris/Framing module) reset	190	199
			Total reset	200	209
			Reserved	210	229
			Lamp off	230	239
			Reserved	240	255












Remark:

1. The projector can't be turned on within 5 minutes 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 THE TOUCH SCREEN

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

9. ERROR MESSAGE

The system can detect some errors during the reset, if  displayed, touch  to view the error.
The error messages are as follows:

Name	Type	Correction
Pan	Timeout/magnet Sensor/Encoder	Check if wiring, positioning parts and motors are normal
Tilt	Timeout/magnet Sensor/Encoder	Check if wiring, positioning parts and motors are normal
Cyan	Timeout	Check if wiring, positioning parts and motors are normal
Yellow	Timeout	Check if wiring, positioning parts and motors are normal
Magenta	Timeout	Check if wiring, positioning parts and motors are normal
CTO	Timeout	Check if wiring, positioning parts and motors are normal
Color Wheel	Timeout	Check if wiring, positioning parts and motors are normal
Fixed gobo 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
Dimmer	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
Lamp Fan T	Error	Check if fan and its wiring are normal
Lamp Fan R	Error	Check if fan and its wiring are normal

Head Fan 1	Error	Check if fan and its wiring are normal
Strobe Fan	Error	Check if fan and its wiring are normal
Head Fan 2	Error	Check if fan and its wiring are normal
CMY Fan	Error	Check if fan and its wiring are normal
Base Fan	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Driver Board 1	Error	Check signal wire
Driver Board 2	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Driver Board 4	Error	Check signal wire
Lamp on	Timeout	Check if the lamp is damaged
Lamp Life	Timeout Warning	
Lamp Off[Fan Error]	Error	Check if all fans are normal
Time IC	Error	

10. TECHNICAL DATA

ELECTRIC PARAMETERS

Input voltage: 208V-240V AC, 50/60Hz

Rated power :1800W@220V

Max. Current : 8.2A @ 220V

Power factor: PF>0.9

THE SPECIFICATIONS OF THE LIGHT SOURCE(WITH 1400W BALLAST AND IGNITER)

OSRAM	lok-it 1400/PS
Color temperature	6000K
CRI	> 90
lamp stand	single ended
rated life	750hrs

COLORS

CMY linear mixing system with macros

1 color wheel: 7colors+ Open, Half Color effect,

Rainbow effect with bi-directional and variable speeds,

Stepping/linear color changing

CTO

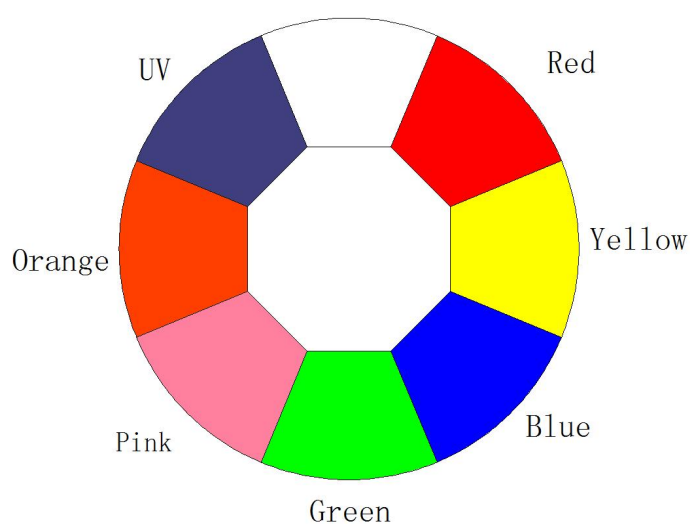
0-100% linear CTO

GOBO/FRAMING

1 Rotating Gobo Wheel: 6 replaceable gobos+ White, Glass or Metal Gobo

Bi-directional Rotation with variable speeds

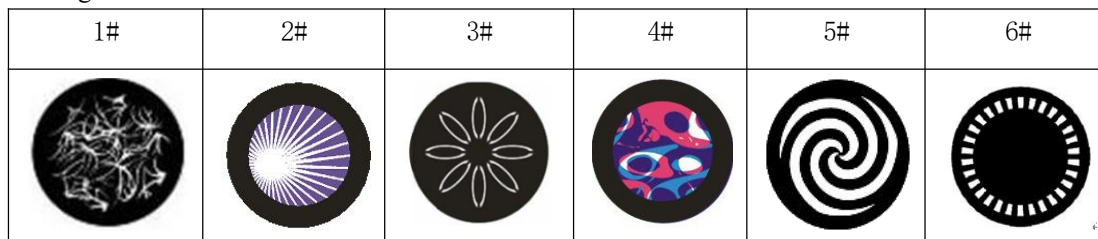
With Indexing Function



Gobo Shake Effect with Variable Speeds

Bi-directional Scrolling with Variable Speeds

Rotating Gobo Wheel :



Gobo outer size: 37.5mm

Gobo image size: 23mm

1 fixed gob wheel: 4 replaceable gobos+ Dynamic effect+open

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

Dynamic waves and fire effects combined with rotating gobos

1 Framing Module: 4 Framing Blades

Framing Module continual rotation with many graphics of different sizes and shapes

4 Framing blades to make full curtain effect



PRISM

1pc of 3 facet prism , Bi-directional rotation with variable speeds and indexing function

FROST

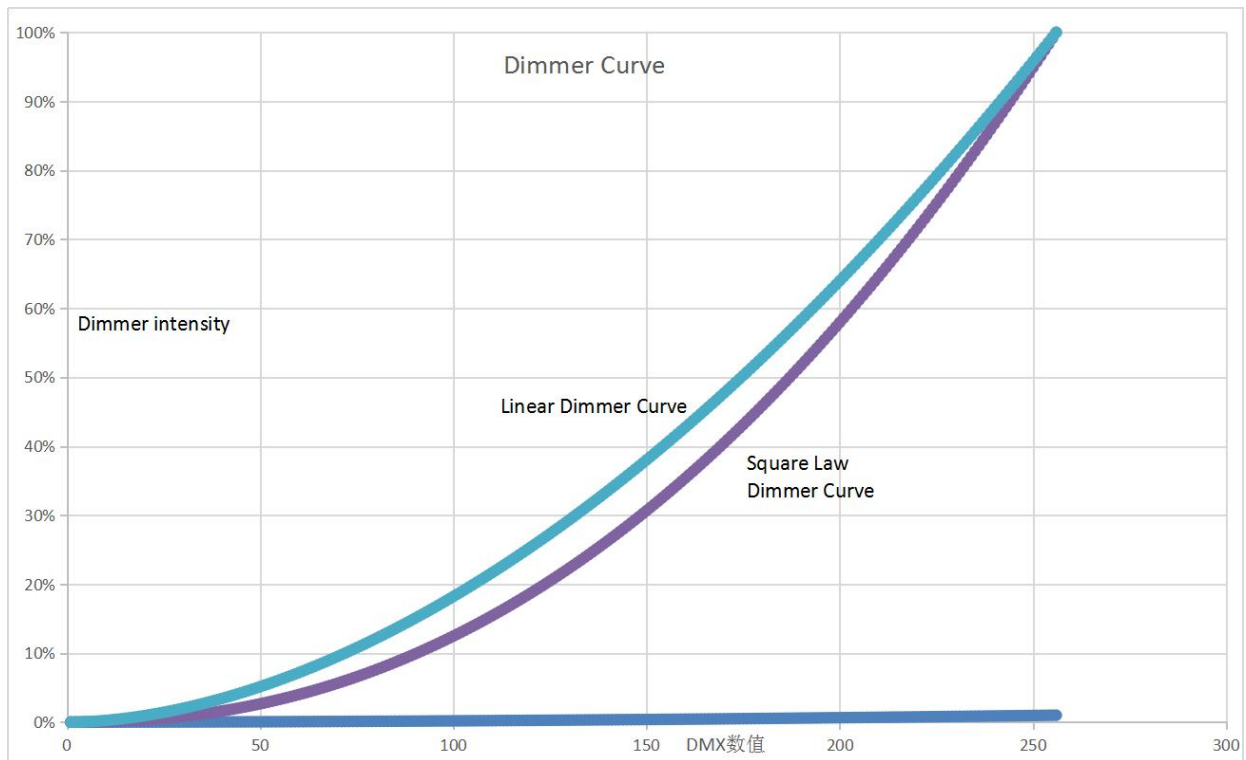
1pc frost filter, linear frost effect

FOCUS

DMX linear Focusing

DIMMER

0-100% Linear adjustment



There are 2 dimming curves: 1. Linear dimming curve; 2. Inverse square law dimming curve. For blackout application, the inverse dimming curve has wider dimming range and is much more smooth.

IRIS

5-100% linear adjustment with macros

STROBE

Double shutter blades, 0.3~25 F.P.S

HEAD MOVEMENT

Pan 540°, Tilt 270° with auto position correction

BEAM ANGLE

linear zoom $6^{\circ} \sim 55^{\circ}$ with 16 bit function

CONTROL

DMX512 5 pin interfaces

RDM control protocol

33channels in short mode, 36channels in standard mode and 52channels in extended mode

Self-test mode

OTHER FUNCTIONS

Adjustable Pan & Tilt speed

Lamp and Total hours displayed

LCD English and Chinese Display with Contrast and brightness adjustable

Energy saving ballast

Built-in sensor diagnostic system

Input signal isolation

- Modular Structure for easy maintenance
- Ethernet Interface
- DMX512 wirless reciever
- DMX512 Transmitter (Optional)
- ArtNet and sACN (Optional)
- Fan mode: Standard/ Theater

HOUSING

High temperature ABS, IP20

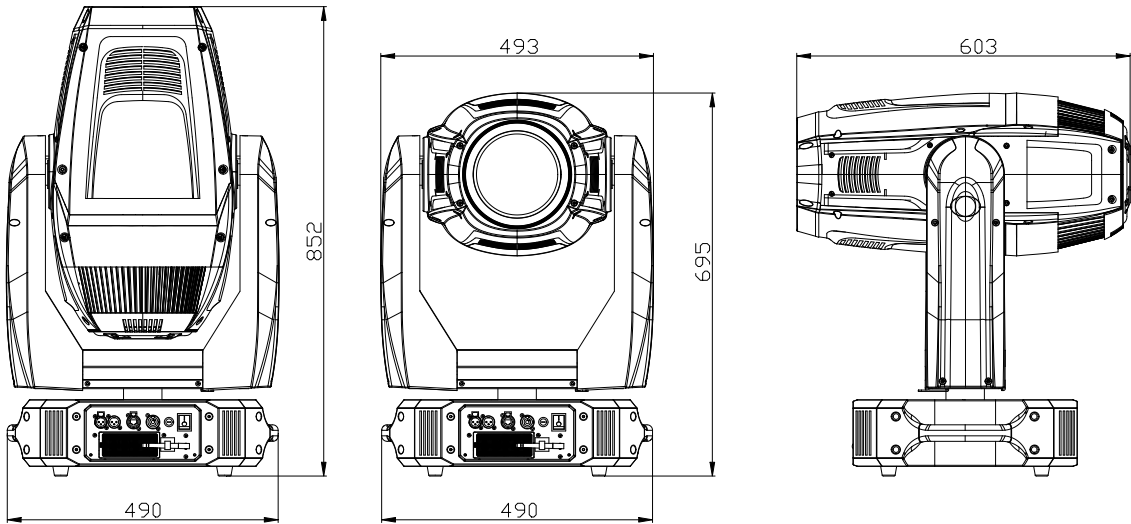
NET WEIGHT

48 Kg

OPERATION TEMPERATURE:

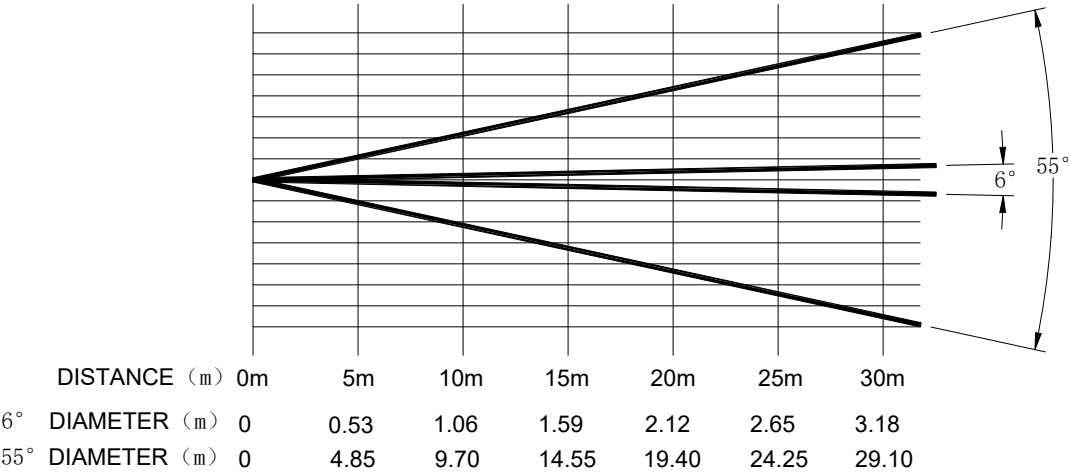
Highest ambient temperature 40°C

SIZES: (Unit: mm)

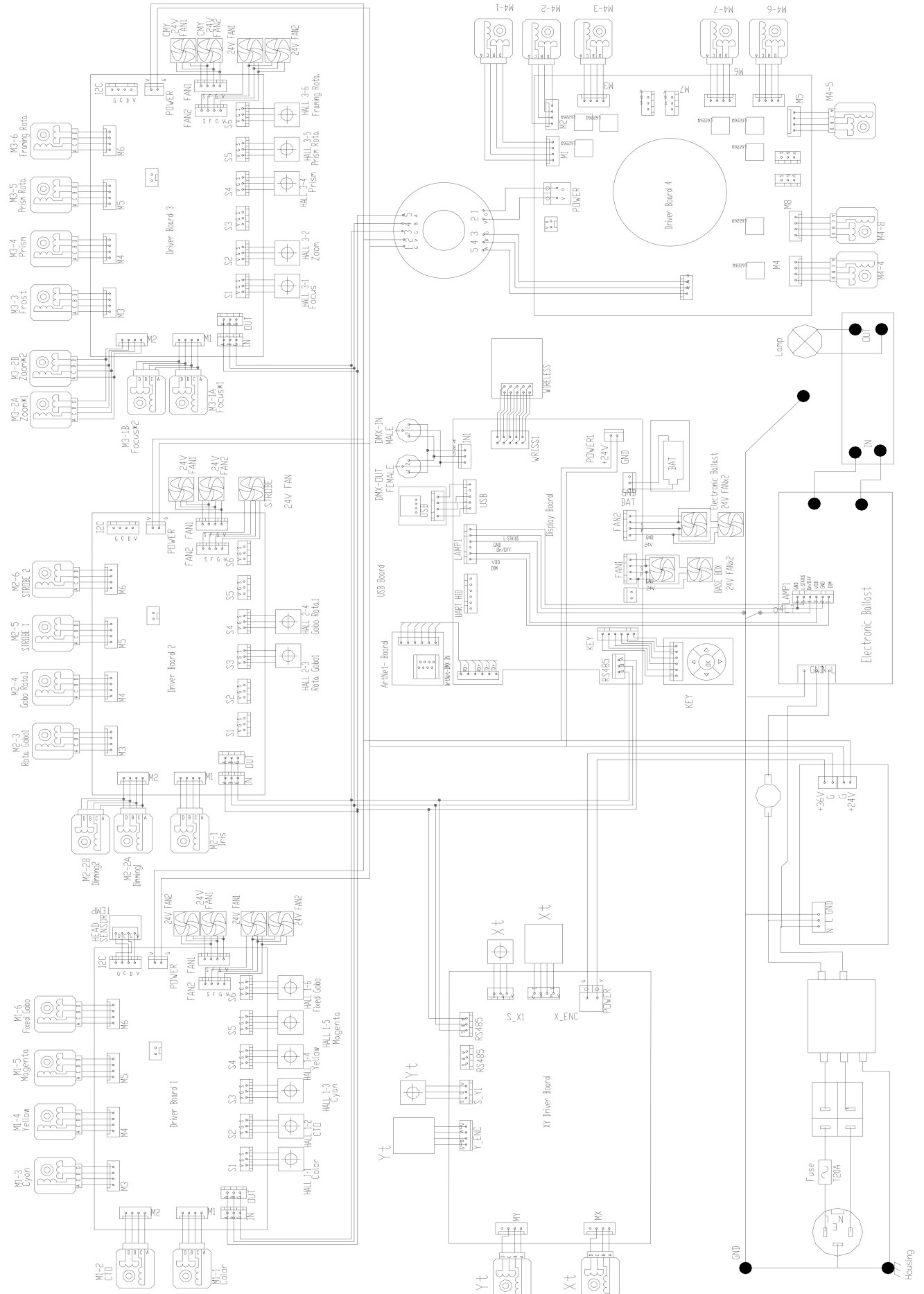


LIGHT OUTPUT:

55° (lux)	0	2064	516	229	129	83	57
6° (lux)	0	127684	31921	14187	7980	5107	3547



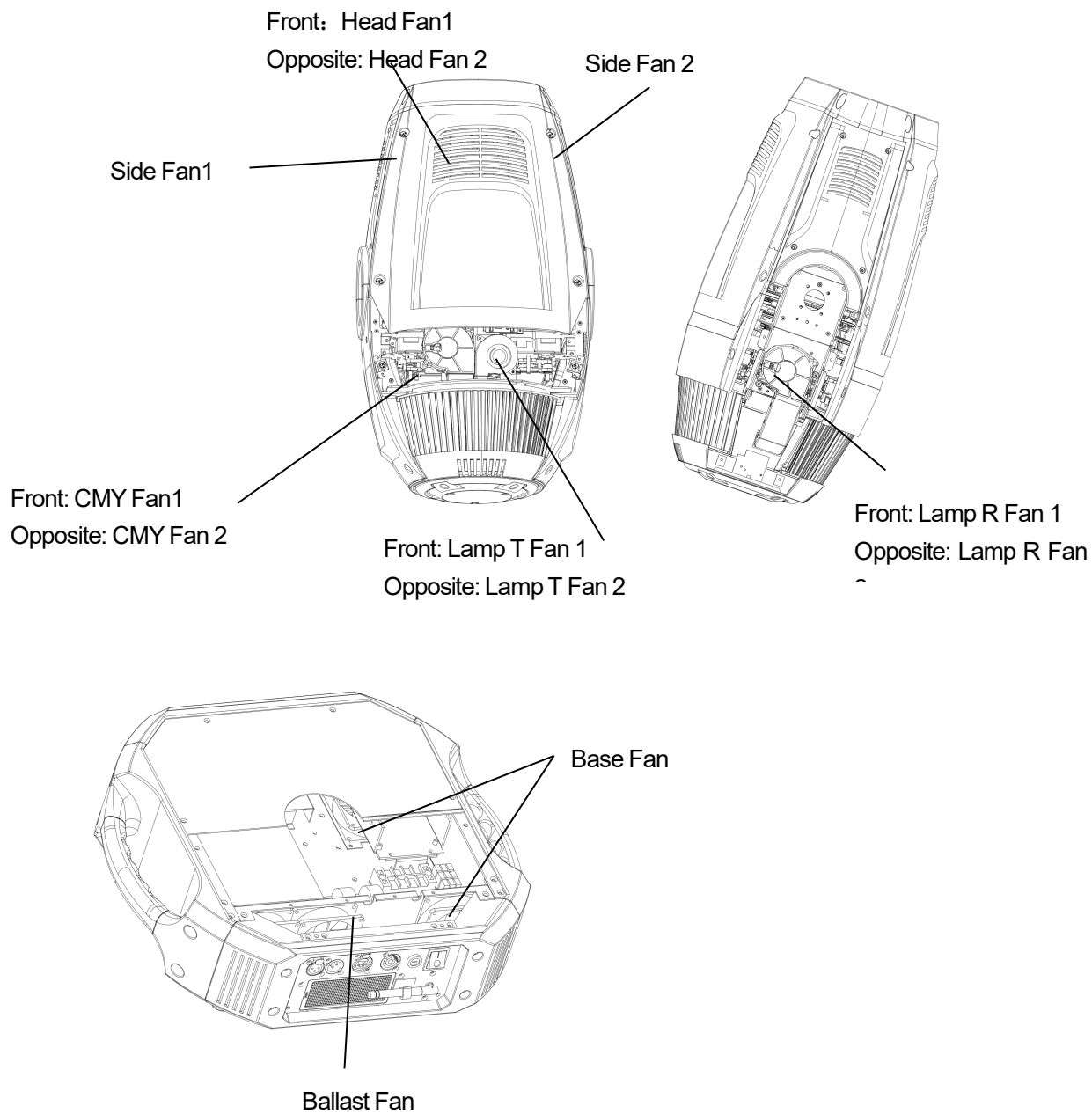
11. IRCUIT DIAGRAM



12.COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARKS
POWER SWITCH	192010136	1	
POWER FILTER	193020014	1	
THERMAL SWITCH	190010206	1	
ELECTRONIC BALLAST (1400W)	040070140	1	
LAMP (OSRAM 1400W)	100070047	1	LOK-IT! 1400W/PS OSRAM
IGNITER(1400W)	040090066	1	
TILT BELT	290151205	1	
PAN BELT	290151207	1	
LAMP FAN	030060117	2	
LAMP CERAMIC STAND FAN	030060119	2	
HEAD CHAMBER FAN	030060119	2	
STROBE FAN	030060117	1	
CMY FAN	030060119	2	
SIDE FAN	030060119	2	
BASE FAN	030060122	2	
BALLAST FAN	030069005	1	
FOCUS MOTOR	030040073	2	
ZOOM MOTOR	030040073	2	
ROTATING GOBO MOTOR	030040220A	1	
IRIS MOTOR	030040088	1	
PAN MOTOR	030040262	1	
TILT MOTOR	030040262	1	
STROBE MOTOR	030040214	2	
COLOR WHEEL MOTOR	030040214	1	
PRISM ROTATION MOTOR	030040220A	1	
PRISM REVOLUTION MOTOR	030040221	1	
ROTATING GOBO WHEEL MOTOR	030040095	1	
FRAMING ROTATING MOTOR	030040247	1	
FRAMING ,MOTOR	030040158	8	
FROST FILTER MOTOR	030040226	1	
CYM MOTOR	030040114A	3	
CTO MOTOR	030040114A	1	
DIMMER MOTOR	030040186	2	
FIXED GOBO WHEEL MOTOR	030040217A	1	

Appendix: 1.Fan positions



2.SOME ITEMS REQUIRING ATTENTION AS FOR THE USE OF DISCHARGE LAMP

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., 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.

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