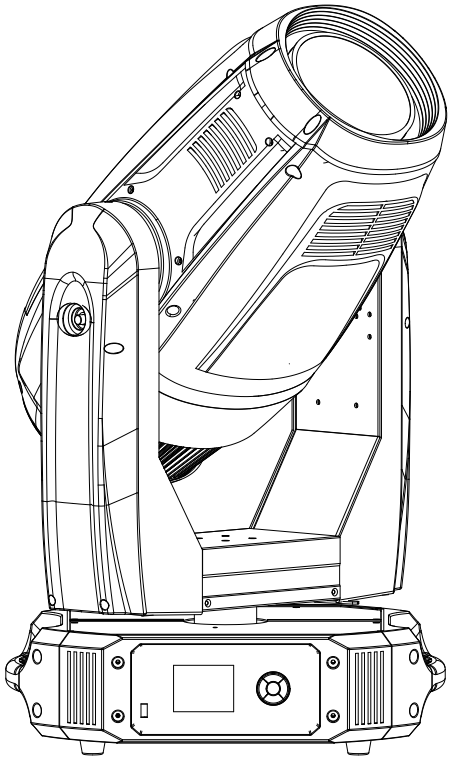


PR-6000 Spot(1400W)

PR-2920

The user manual contains important information about the safe installation and use of a projector. Please read and follow these instructions carefully and keep the manual in a safe place for future reference.

PR LIGHTING LTD.
http://www.pr-lighting.com

INDEX

ACCESSORIES

The following items are supplied with the projector and please check:

Name	Quantity	Unit	Remark
Clamps	2	Pcs	
XLR Connector	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.

● 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℃ 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.

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

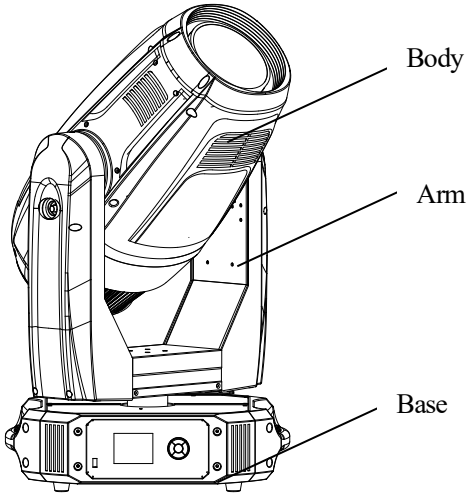
To ensure smooth movement of gobos and zoom and focus lens, it's advised rotators' bearings and 2 sliding bars for zoom and focus

lens be lubricated every 2 months. High quality and high temperature lubricant/grease is advised..

.TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	➢ Check the fuse on the power socket. ➢ Check the lamp.
The lamp is on but the projector doesn't respond to the controller	➢ Make sure that the fixture's start address is right ➢ Replace or repair the XLR signal cable.
The projector functions intermittently	➢ Make sure the fan is working well or fans and their shields are not blocked
Beam appears dim, Low in brightness	➢ Make sure the lamp is within its lifespan ➢ Remove dust or grease from the lenses.
The project image appears to have a halo	➢ Carefully clean the lamp, optical lenses and other components.
Heavily Defective Beam	➢ Check if lens are in good condition(not cracked) ➢ Clean dust or grease on the lens.

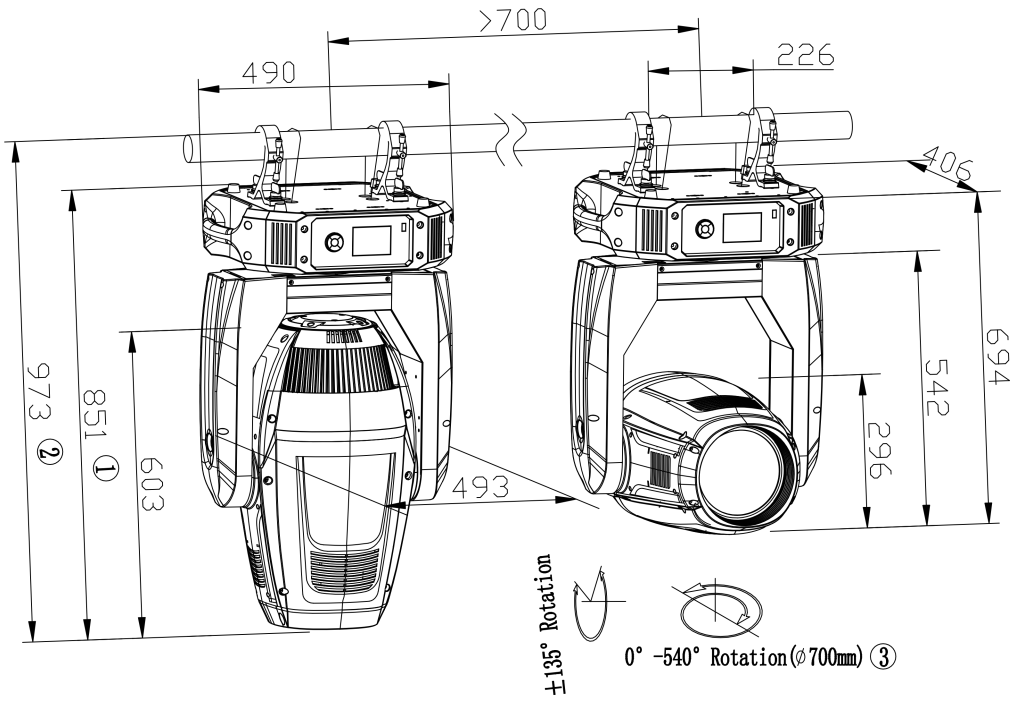
3.APPEARANCE



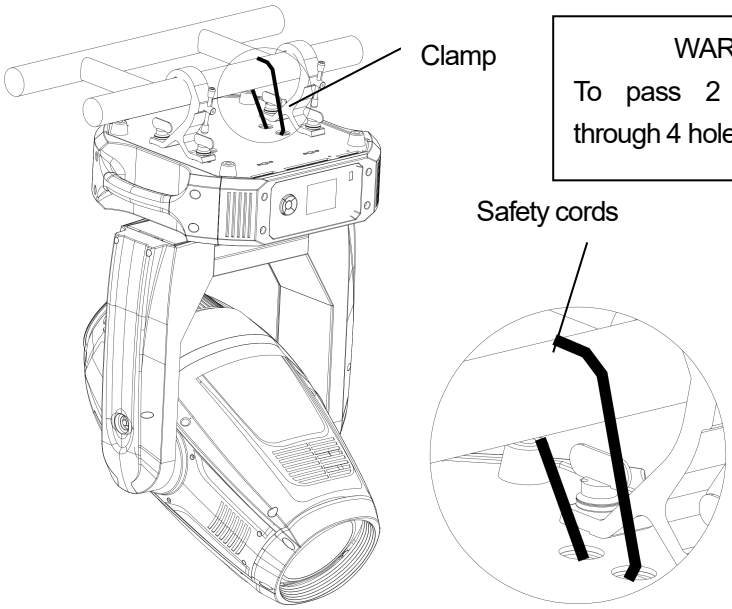
4.INSTALLATION

.RIGGING

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



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

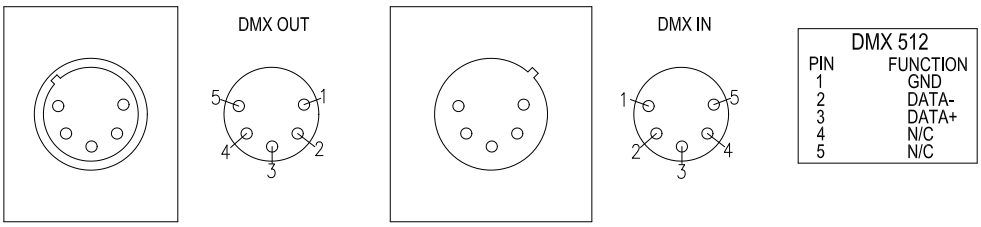
Connect the power cord as follows:
L (live) =brown
E (earth) =yellow/green

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.

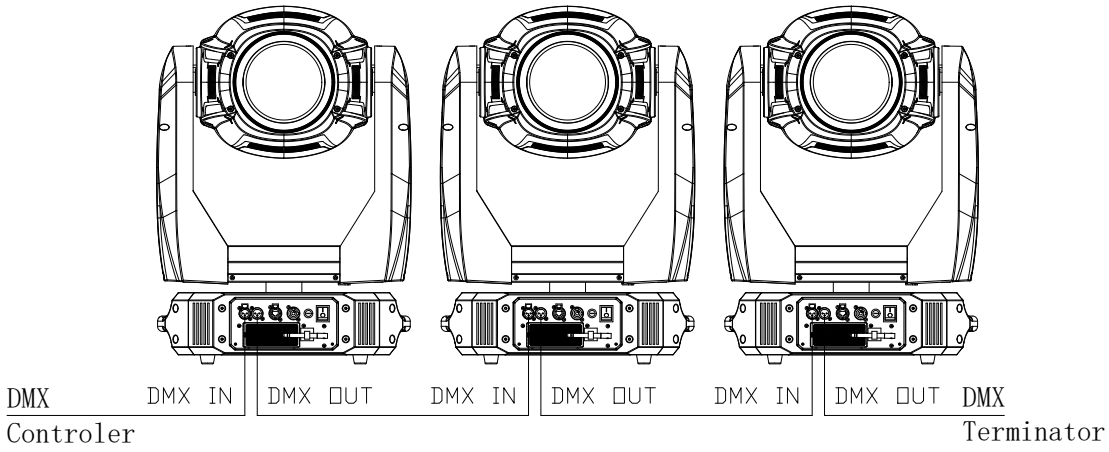
. DMX CONTROL CONNECTION:



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.

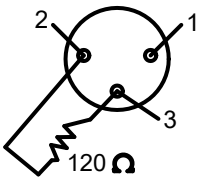
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. XLR plugs and sockets mustn't be connected in any way other than mentioned in the above figure. The Fixture accepts digital control signals in protocol DMX512 (1990).

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

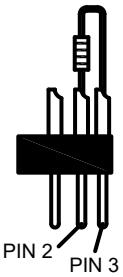
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.
The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.



DMX TERMINATOR

CONNECTION

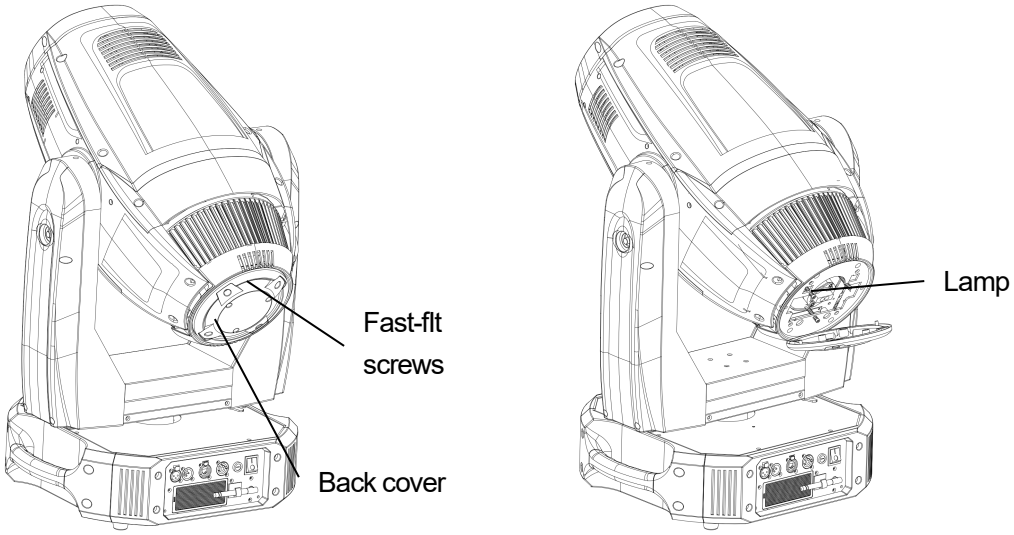
Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



•ALIGNMENT/INSTALLATION/REPLACEMENT OF A LAMP

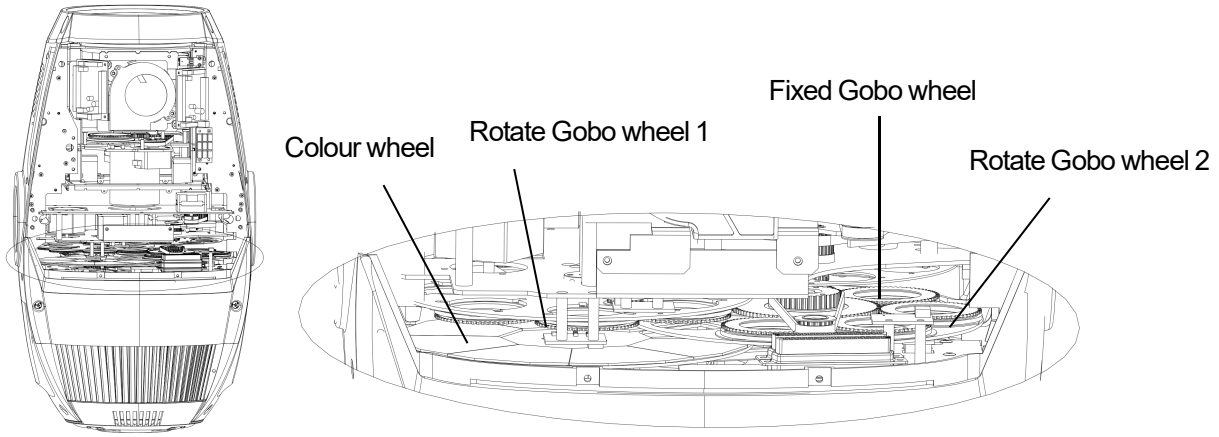
Before installation/replacement/alignment of a lamp, disconnect the unit from the power and let it cool first.
Lock Tilt in the figure below and open the lamp cover after its 4 screws are loosened.
After removal of the lamp cover, take out the lamp while the 2 screws at both ends of the lamp are loosened.
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(⚠E). While using the lamp, please carefully read "INSTRUCTIONS" packed with the 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 REPLACEMENT



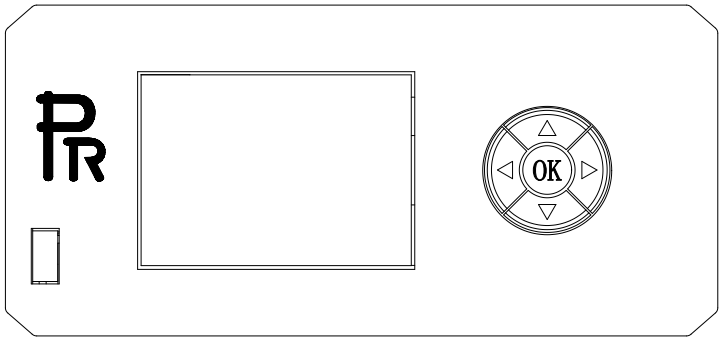
Lock the tilt and loosen the 6 fast-fit screws on the upper cover ,After removing the cover, you will see the structures as the figure below.
Before replacing a gobo on the fixed gobo wheel, use your finger to remove the spring tightening it and take the old one out with due care. At last put the new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



Projector configuration can be set conveniently via push button and LCD display.
Launch the projector and press button ENTER for more than 5 seconds to unlock the panel, the LCD will show the function menu of the projector, each main menu has its submenus and each submenu has a specific function. For details, please see the "OPERATION MENU" section.
Press button ENTER to save your settings or enter the submenu.
Press button UP or DOWN to change values(plus or minus)
Press button FUNC, it will return to the upper menu. If button FUNC not pressed, the default will show display status automatically.
Shortcut key: Press UP and DOWN buttons together to invert the screen; Press DOWN and ENTER together to change between English and Chinese menus.

. DMX START ADDRESS

Each unit 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 3 DMX modes. There are standard mode ,short mode and extended mode. For example standard mode has 32 **c**hannels, so set the No. 1 projector's address 001, No. 2 projector's address 033, No. 3 projector's address 065, and so on.

Launch the projector. Press button ENTER more than 5seconds 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

.

.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. Enter into the projector's menu. Select the menu "Config Settigns" via the bottoms of UP and DOWN
2. Select **DMX control Mode---- Wireless First** (Note: do not select **XLR ONLY),**then wireless indication in the front panel will be on, meaning wireless control function is activated.

   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 Unlink Wireless under the upper level menu of Config Settigns .

.STAND-ALONE MODE

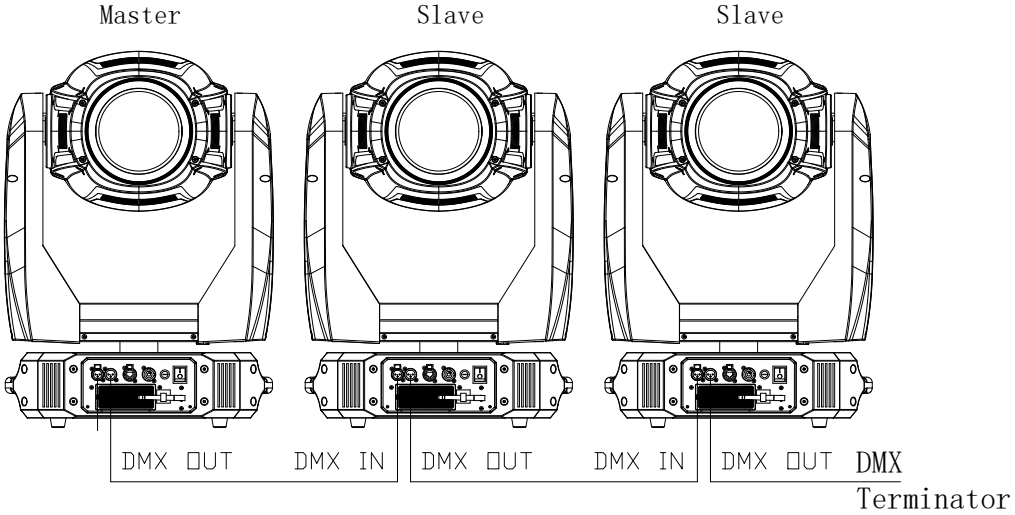
Operate the projector without connecting with a controller, enable the master mode through the operation panel, the projector will run in Stand-Alone mode automatically.
DMX address can be set at any number within 512.

.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 地址 DMX Address	Short mode 1-489 Standard mode 1-480 Extend mode 1-473		
	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 28CH		
		Standard Mode 32CH		
		Extended Mode 39CH		
		View Selected Mode		
	Lamp Control	Lamp Control	OFF/ ON	
		On By Power On	OFF/ ON	
		Control By DMX	OFF/ ON	
		Lamp Power	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	
		Zoom Invert	OFF/ ON	
		Iris Invert	OFF/ ON	

		CYM Invert	OFF/ ON	
		CTO Invert	OFF/ ON	
	Dimmer Curve	Linear/ Square Law		
	Defaults	Restore Defaults?		
Information	View DMX Values	Channel Value Strobe XXX Dimmer XXX Dimmer Fine XXX CYM Macro XXX Cyan XXX Yellow XXX Magenta XXX CTO XXX Colour Wheel XXX Colour Wheel Fine XXX Iris XXX Iris Macro XXX FGobo Wheel XXX Rot. Gobo Wheel XXX Rot. Gobo Rotation XXX Rot. Gobo Rotation F XXX Rot. Gobo Wheel 2 XXX Rot. Gobo 2 Rotation XXX Rot. Gobo 2 Rotation F XXX Prism XXX Prism Rotation XXX Effect Wheel XXX Effect Wheel Rn XXX Frost XXX Focus XXX Zoom XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX Power/Special Fun. XXX		
	Lamp Hours	Lamp Hours=××××h Reset Lamp Hours		
	Total Hours	Total Hours=××××h		
	Temperature	Display Board XX°C/F		
		Driver Board 1 XX°C/F		
		Driver Board 2 XX°C/F		
		Driver Board 3 XX°C/F		
		Driver Board 4XX°C/F		
		Pan and Tilt XX°C/F		
		Head Sensor XX°C/F		
	Software Version	Display Board	Sys= XXX Boot =XXX	
		Driver Board 1	Sys= XXX Boot =XXX	
		Driver Board 2	Sys= XXX Boot =XXX	
		Driver Board 3	Sys= XXX Boot =XXX	
		Driver Board 4	Sys= XXX Boot =XXX	
		Pan and Tilt	Sys= XXX Boot =XXX	
	Electronic SN	Electronic SN= **********		
	RDM Device Label	PR-6000 Spot 1400W updated ANSI E1.20 RDM Version XXX		

	Fan Status	Fan Speed Status Base Fan XXX XXX Ballsat Fan XXX XXX Lamp T Fan1 XXX XXX Lamp T Fan2 XXX XXX Head Fan1 XXX XXX Strobe Fan XXX XXX CYM Fan XXX XXX Head Fan2 XXX XXX Lamp R Fan1 XXX XXX Lamp R Fan2 XXX XXX		
	XY Encoder	X Encoder XXXX Y Encoder XXXX		
	Lamp Fan Error	Fan Error Count Base Fan XXX Ballsat Fan XXX Lamp T Fan1 XXX Lamp T Fan2 XXX Head Fan1 XXX Strobe Fan XXX CYM Fan XXX Head Fan2 XXX Lamp R Fan1 XXX Lamp R Fan2 XXX		
Service	Manual Effect Control	Strobe XXX Dimmer XXX Dimmer Fine XXX CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX CTO XXX CTO Fine XXX Colour Wheel XXX Colour Wheel Fine XXX Iris XXX Iris Fine XXX Iris Macro XXX FGobo Wheel XXX Rot. Gobo Wheel XXX Rot. Gobo Rotation XXX Rot. Gobo Rotation F. XXX Rot. Gobo Wheel 2 XXX Rot. Gobo 2 Rotation XXX Rot. Gobo 2 Rotation F. XXX Prism XXX Prism Rotation XXX Effect Wheel XXX Effect Wheel R XXX Frost XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX		
	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）	Paste ? Confirm Cancel	Strobe XXX Dimmer XXX Dimmer Fine XXX CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX CTO XXX CTO Fine XXX Colour Wheel XXX Colour Wheel Fine XXX Iris XXX Iris Fine XXX Iris Macro XXX F Gobo Wheel XXX Rot. Gobo Wheel XXX Rot. Gobo Rotation XXX Rot. Gobo Rotation F. XXX Rot. Gobo Wheel 2 XXX Rot. Gobo 2 Rotation XXX Rot. Gobo 2 Rotation F. XXX Prism XXX Prism Rotation XXX Effect Wheel XXX Effect Wheel R XXX Frost XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX Fade Time XXX Hold Time XXX Delay Unit MS/S/MIN Link to Step XXX
		Edit Static Scene	Paste ? Confirm Cancel		Strobe XXX Dimmer XXX Dimmer Fine XXX CYM Macro XXX Cyan XXX Cyan Fine XXX Yellow XXX Yellow Fine XXX Magenta XXX Magenta Fine XXX CTO XXX CTO Fine XXX Colour Wheel XXX Colour Wheel Fine XXX

				Iris XXX Iris Fine XXX Iris Macro XXX F Gobo Wheel XXX Rot. Gobo Wheel XXX Rot. Gobo Rotation XXX Rot. Gobo Rotation F. XXX Rot. Gobo Wheel 2 XXX Rot. Gobo 2 Rotation XXX Rot. Gobo 2 Rotation F. XXX Prism XXX Prism Rotation XXX Effect Wheel XXX Effect Wheel R XXX Frost XXX Focus XXX Focus Fine XXX Zoom XXX Zoom Fine XXX Pan XXX Pan Fine XXX Tilt XXX Tilt Fine XXX Pan/Tilt Speed & Time XXX
	Init User Memory	Reset User Memory 1	Reset User Memory?	Input Password123
		Reset User Memory 2	Reset User Memory?	Input Password123
		Reset Static Scene	Reset Static Scene?	Input Password123

Note:

1. The parameters transmitted from the mater if multiple units are synchronized include: DMX channel mode ,Display setting, operation mode including user memory
2. The unit which receives the parameters sent is automatically set as the Slave

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 1000W 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		
			White /Color1(X color)	64	67
			Color 1(X color)	68	71
			Color1(X color)/Color2(X color)	72	75
			Color2(X color)	76	79
			Color2(X color)/Color3(X color)	80	83
			Color3(X color)	84	87
			Color3(X color)/Color4(X color)	88	91
			Color4(X color)	92	95
			Color4(X color)/Color5(X color)	96	99
			Color5(X color)	100	103
			Color5(X color)/Color6(X color)	104	107
			Color6(X color)	108	111

			Color6(X color)/ Color7(X color)	112	115
			Color7(X color)	116	119
			Color7(X color)/White	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 16bit		
			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		
			White	0	15
			Gobo1	16	31
			Gobo2	32	47
			Gobo3	48	63
			Gobo4	64	79
			Gobo5	80	95
			Gobo6	96	111
			Gobo7	112	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	183
			Gobo2 shakes from slow to fast	184	195
			Gobo3 shakes from slow to fast	196	207
			Gobo4shakes from slow to fast	208	219
			Gobo5shakes from slow to fast	220	231
			Gobo6shakes from slow to fast	232	243
			Gobo7shakes from slow to fast	244	255
12	14	19	Rotating gobo wheel 1		
			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 1		
			Indexing 0-360°	0	127
			Stop	128	128
			Anti-Clockwise rotation from slow to fast	129	188
			Stop	189	195
			clockwise rotation from slow to fast	196	255
	16	21	Gobo rotation 1 in 16bit		
			Gobo rotation 1 16 bit adjustment	0	255
14	17	22	Rotating gobo wheel 2		
			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
15	18	23	Gobo rotation 2		
			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
	19	24	Gobo rotation 2 in 16bit		
			Gobo rotation2 16bit adjustment	0	255
16	20	25	Prism		

			No	0	16
			Prism in	17	255
17	21	26	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
18	22	27	Effect wheel		
			No	0	19
			Effect wheel in	20	255
19	23	28	Effect wheel rotation		
			Clockwise rotation from fast to slow	0	127
			Anti-clockwise rotation from slow to fast	128	255
20	24	29	Frost		
			Linear frost 0% - 100%	0	255
21	25	30	Focus		
			Linear focus	0	255
		31	Focus in 16 bit		
			Focus 16 bit adjustment	0	255
22	26	32	Zoom		
			Linear Zoom	0	255
		33	Zoom in 16 bit		
			Zoom 16 bit adjustment	0	255
23	27	34	Pan		
			Pan movement	0	255
24	28	35	Pan in 16 bit		
			Pan movement in 16 bit	0	255
25	29	36	Tilt		
			Tilt movement	0	255
26	30	37	Tilt in 16 bit		
			Tilt movement in 16 bit	0	255
27	31	38	Pan & Tilt speed		
			Time mode	0	1
			Speed mode (speed from fast to slow)	2	255
28	32	39	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	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）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
CT	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. GoboRotation	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 T Point Fan1	Error	Check if fan and its wiring are normal
Lamp T Point Fan2	Error	Check if fan and its wiring are normal
Head Fan 1	Error	Check if fan and its wiring are normal
Head Fan 2	Error	Check if fan and its wiring are normal
Strobe Fan	Error	Check if fan and its wiring are normal
CMY Fan	Error	Check if fan and its wiring are normal
Lamp R Point Fan1	Error	Check if fan and its wiring are normal
Lamp R Point Fan2	Error	Check if fan and its wiring are normal
Pan and Tilt Board	Error	Check signal wire
Driver Board 1	Error	Check signal wire
Driver Board2	Error	Check signal wire
Driver Board 3	Error	Check signal wire
Driver Board4	Error	Check signal wire
Lamp on	Timeout	Check if he lamp is damaged
Lamp Life	Timeout Warning	Replacement of a lamp
Lamp Off[Fan Error]	Error	Re-strike a lamp and check if all fans are normal
Time IC	Error	

10.TECHNICAL DATA

ELECTRIC PARAMETERS

Input voltage : 200V~240V AC，50/60Hz

Input power : 1800W@220V

Power factor: PF>0.9

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

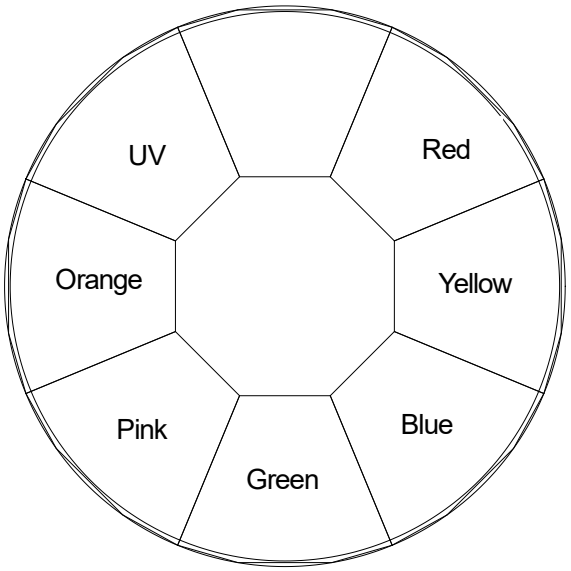
OSRAM : **lok-it 1400/PS**

Color temperature : 6000K

CRI : >95

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

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

Bi-directional Rotation with variable speeds

With Indexing Function

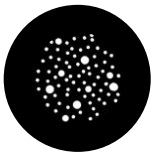
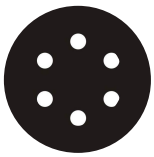
Gobo Shake Effect with Variable Speeds

Bi-directional Scrolling with Variable Speeds

Rotating Gobo Wheel 1:

					
1. 120150130	2#. 120150088	3#. 110010473	4#. 120150131	5#. 110010474	6#. 110010475

Rotating gobo Wheel2

					
1#. 120150140	2#. 110010478	3#. 110010477	4#. 120150139	5#. 110010479	6#. 090070960

Gobo outer size:37.5mm

Gobo image size: 23mm

1 fixed gob wheel: 7 replaceable gobos+ White

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

						
1#. 110010206	2#. 110010207	3#. 110010208	4#. 110010209	5#. 110010210	6#. 110010211	7#. 110010212

Gobo outer size:36.3mm

Gobo image size: 23mm

PRISM

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

FROST

1pc frost filter, linear frost effect

EFFECT WHEEL

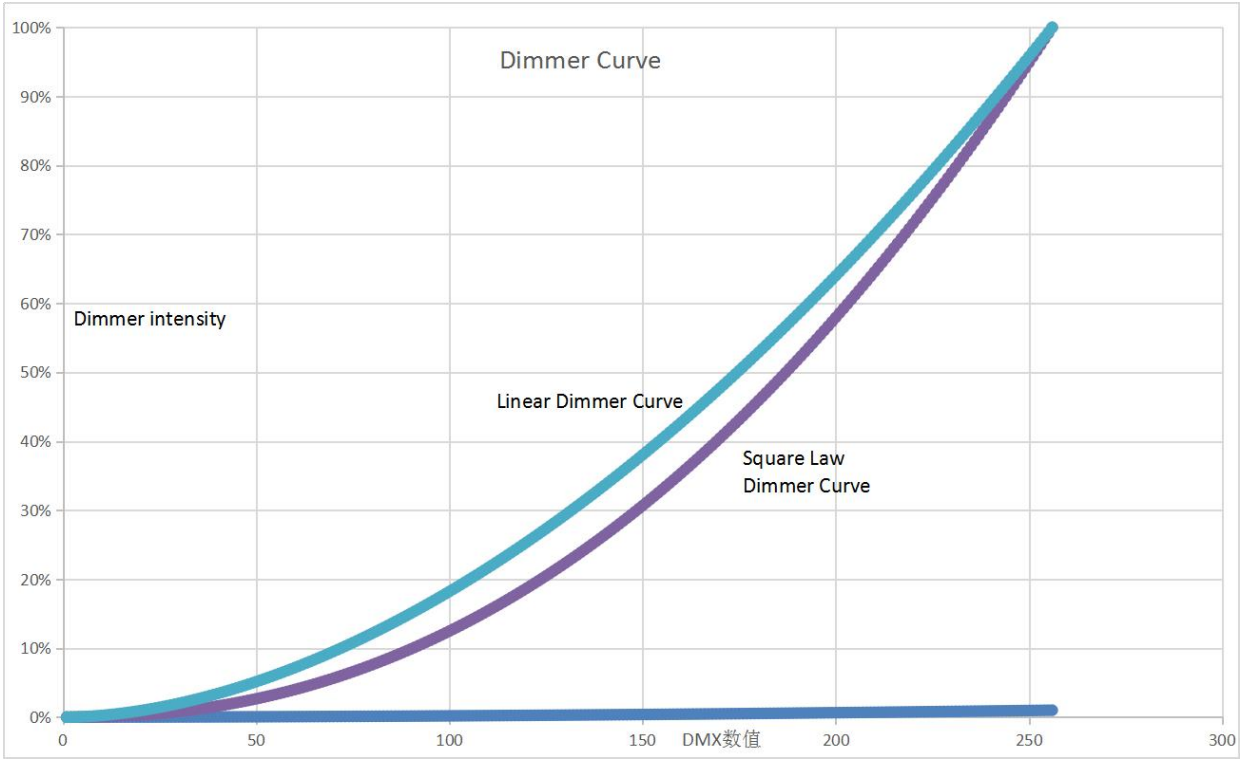
1pc, replaceable, bi-directional rotation with variable speeds

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 540º, Tilt 270º with auto position correction

BEAM ANGLE

linear zoom 6°～ 55°with 16 bit function

CONTROL

DMX512, 5 pin interfaces
RDM control protocol
28channels in short mode, 32channels in standard mode and 39channels in extended mode
Self-test mode

OTHER FUNCTION

Adjustable Pan & Tilt speed
Lamp and Total hours displayed
Touch screen 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 wireless reciever

DMX512 Transmitter (Optional)

ArtNet and sACN (Optional)

HOUSING

High temperature ABS, IP20

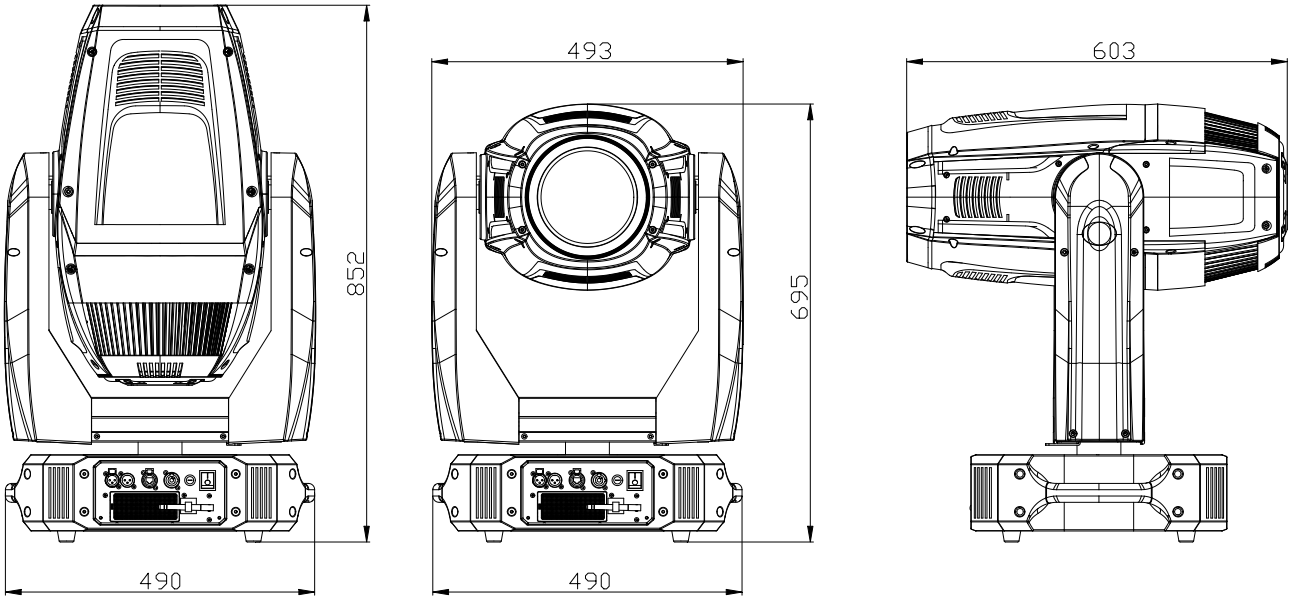
NET WEIGHT

48Kg

OPERATION TEMPERATURE

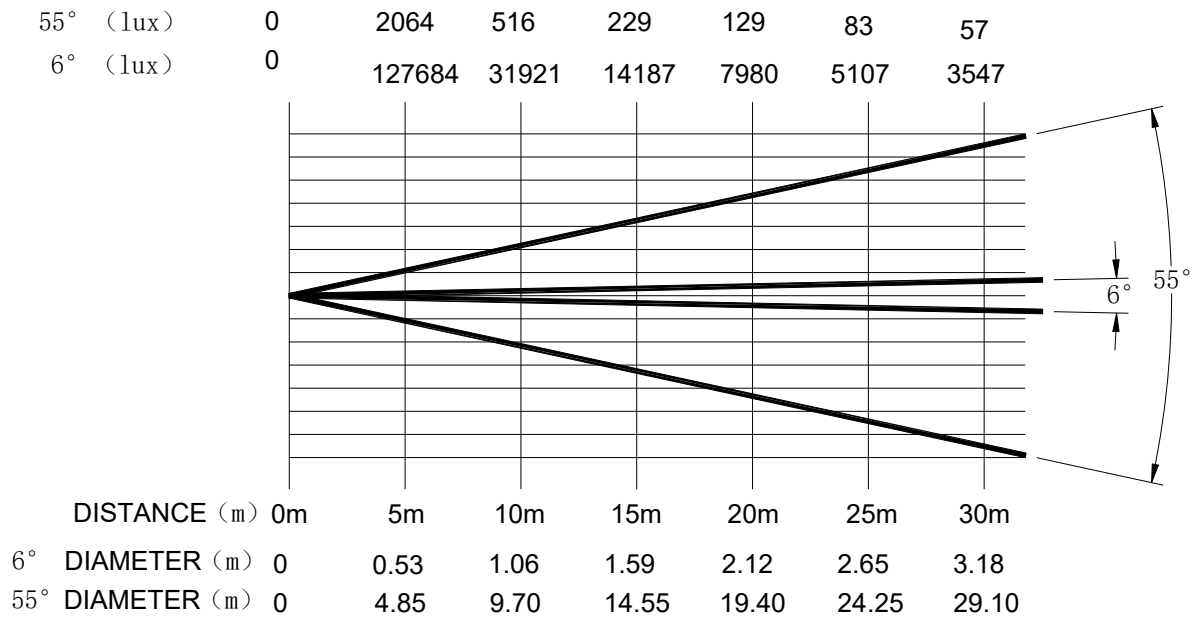
Ambient temperature at maximum：40°C

SIZES: (Unit: m m)

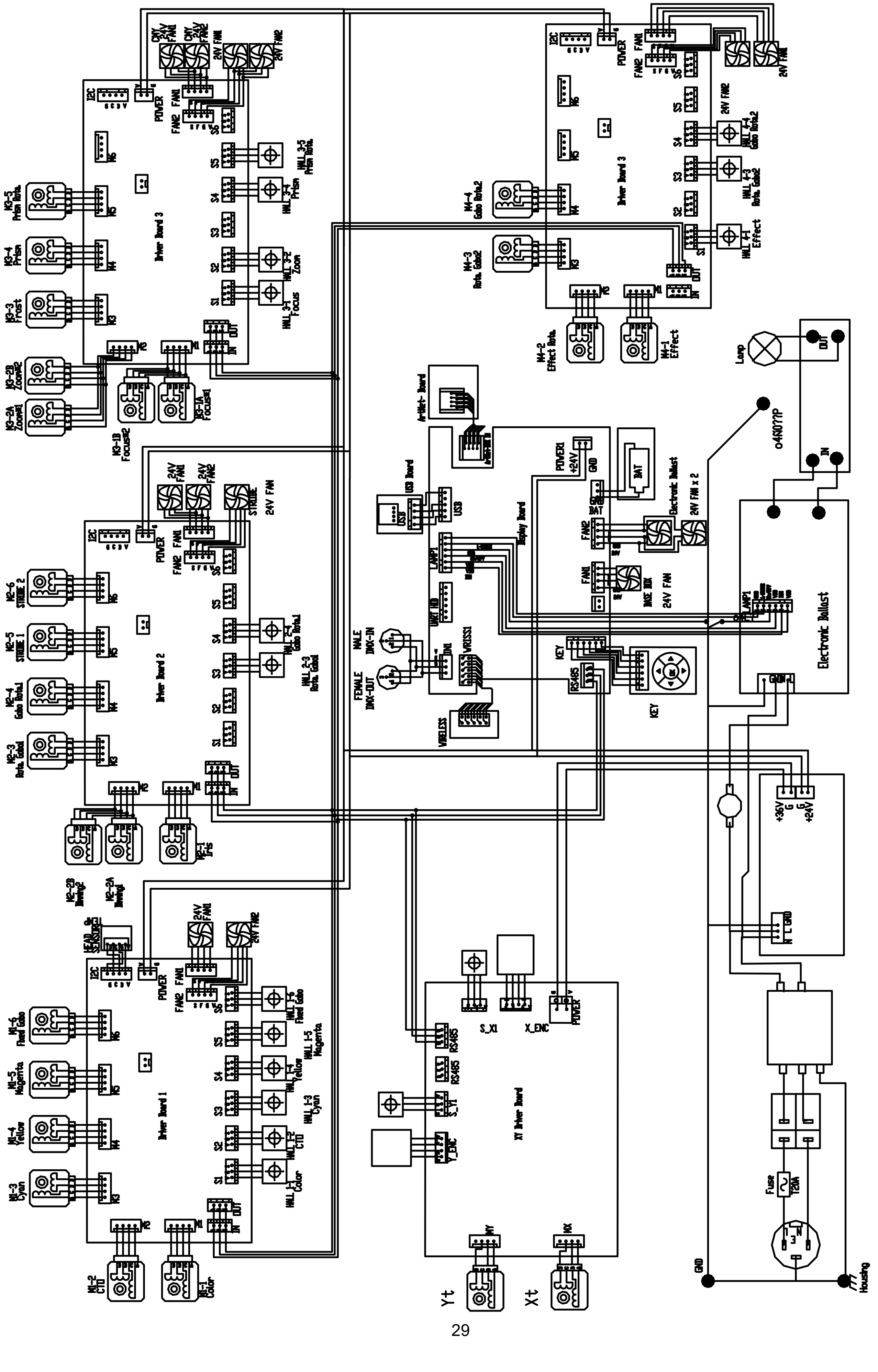


LIGHT OUTPUT:

The light output diagram of 1400W lamp, ballast and igniter



11.CIRCUIT DIAGRAM


Driver Board 1
Driver Board 2
Driver Board 3
XY Driver Board
Display Board
Electronic Ballast
KEY
Lamp
Fuse
GND
Housing
Yt
Xt

12.COMPONENT ORDER CODES

NAME	CODE NUMBER	QTY	REMARKS
POWER SWITCH	230020689	1	
POWER FILTER	230061131	1	
THERMAL SWITCH	190010206	1	
ELECTRONIC BALLAST （1400W）	040070144	1	
IGNITER (1400W)	100070047	1	LOK-IT！1400W/PS OSRAM
LAMP （OSRAM 1400W）	040090066A	1	
TILT BELT	290151205	1	
PAN BELT	290151207	1	
LAMP FAN1	030060117	2	
LAMP FAN 2	030060119	2	
HEAD FAN	030060119	2	
STROBE FAN	030060117	1	
CMY FAN	030060119	2	
SIDE FAN	030060119	2	
BASE FAN	030060121	2	
BALLAST FAN	030069005	1	
FOCUS MOTOR	030040073	2	
ZOOM MOTOR	030040073	2	
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 IN/OUT MOTOR	030040221	1	
ROTATING GOBO WHEEL 1 MOTOR	030040095	1	
GOBO ROTATION 1 MOTOR	030040220A	1	
ROTATING GOBO WHEEL 2 MOTOR	030040095A	1	
GOBO ROTATION 2 MOTOR	030040220A	1	
EFFECT WHEEL IN/OUT MOTOR	030040221	1	
EFFECT WHEEL ROTATION WHEEL	0300400073D	1	
FROST MOTOR	030040221	1	
CYM MOTOR	030040114A	3	
CTO MOTOR	030040114A	1	
DIMMER MOTOR	030040186	2	
FIXED GOBO WHEEL MOTOR	030040221	1	

Appendix: 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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