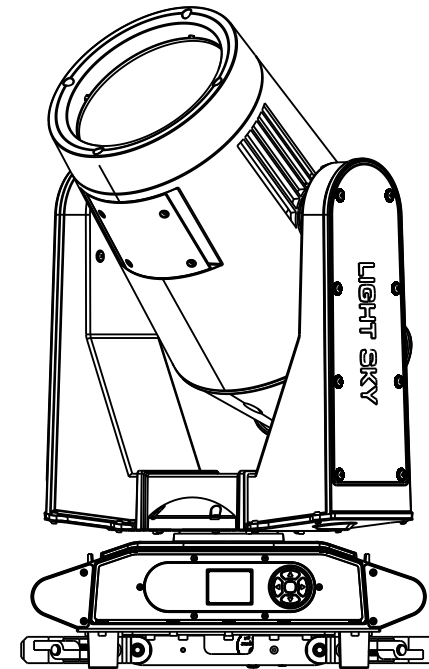


LIGHT SKY®

广州市升龙灯光设备有限公司
FLY DRAGON LIGHTING EQUIPMENT CO.,LTD



AQUABEAM400LL-E

使用说明书

USER MANUAL

Please read these user manual carefully before use!
使用前请仔细阅读本产品使用说明书!

LIGHT SKY®

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LIGHT SKY®



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Congratulations on choosing our company product! We thank you for your custom.

- ◆Please note that this product, as all the others in the rich my company range, has been designed and made with total quality to ensure excellent performance and best meet your expectations and requirements.
- ◆Carefully read this user manual in its entirety and keep it safe for future reference. It is essential to know the information and comply with the instructions given in this manual to ensure the fitting is installed, used and serviced correctly and safely.
- ◆My company disclaims all liability for damage to the fitting or to other property or persons deriving from installation, use and maintenance that have not been carried out in conformity with this user manual, which must always accompany the fitting.
- ◆My company reserves the right to modify the characteristics stated in this user manual at any time and without prior notice.

感谢您选用我们公司的产品。

请记住, 这款产品和其他产品一样, 坚持以人为本的设计制造理念, 以产品质量为根本。

我们把客户的利益放在第一位, 尽最大的努力满足客户的要求。

请仔细阅读完这本使用说明书并妥善保管, 以便日后参考。在充分了解产品信息的情况下, 严格遵守使用说明书进行操作, 这样才能确保产品正确安全地安装、使用与服务。

我们公司不承担所有由于个人在安装、使用、维修时没有按照说明书操作而损坏灯具或其他性能的责任。

我们公司保留在任何时间和没有提前通知的情况下修改说明书权利。

SAFETY INFORMATION/安全信息



- This lighting fixture is for professional use only - it is not for household use.
此灯具仅供专业人士使用-不适合家居使用

- **Installation 安装**

Make sure all parts for fixing the projector are in a good state of repair.
Make sure the point of anchorage is stable before positioning the projector.
The safety chain must be properly hooked onto the fitting and secured to the framework.
When suspending the fixture, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all the devices they support.

确保固定灯具的所有零部件都完好无损。

在固定灯具之前请确保固定物是牢固稳定的。

安全绳索一定要恰当的固定在安全的结构上。

在吊装灯具时，确保支撑结构和所使用的所有配件至少可以保持10倍于他们支持的所有设备的重量。



- **Mounting surface and fire protection 安装面与防火**

Please do not install the fixture onto combustible surface.

请不要将灯具直接安装在可燃物物质的表面上。

Keep all combustible materials at least 1 m away from the fixture.

保持所有易燃材料远离灯具至少1米

Ensure a minimum clearance of 0.5m around the cooling fans and ventilation.

灯具上的风扇或通风处至少在0.5m范围内不能有障碍物。

Do not expose the front glass to sunlight or other strong light source from any angle.

Lenses can focus the sun's rays inside the fixture, creating a potential fire hazard.

不要从任何角度将前玻璃暴露在阳光下或其他强光源上。

镜头可以将太阳光线聚焦在灯具里，从而产生潜在的火灾隐患。



- **Maximum ambient temperature 最高环境温度**

The fixture is intended for indoor and outdoor application.

Do not operate the fixture if the ambient temperature (Ta) exceeds 40°C

本灯具适用于室内和室外，如果环境温度 (Ta) 超过40°C请勿操作此灯具。

ta40°C

- **Protection against electrical shock 电击防护**

Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1).

It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

电源供应系统的地线必须有效接地 (标准EN60598-1)

另外，建议您使用适当大小的漏电电路断路器，保护灯具电线以免其间接接地或短路。



- **Connection to mains supply 电源供应**

The double insulation between the LV power supply and the control conductor on the fixture.

Connection to the electricity mains must be carried out by a qualified electrical installer.

Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.

This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

Don't use the power cable when the insulation is damaged.

It must be the manufacturer or distributor or the professional person to change the damaged power cable in order to avoid any dangerous.



灯具上的LV电源和控制导体之间采用的双重绝缘；

连接电源的总线必须由有资格的专业技术人员安装；

检测总线频率及电压是否与灯具上的标签所标注的数值一直，即和灯具设计值一致；

该标签还给出了输入功率，您需要参考计算电线所能够连接的最大灯具数量，以免出现过载。

请勿使用绝缘层有损伤的电源线，发现灯具电源线有损伤时，必须由制造商或经销商或一个有专业资格的人员更换，以免发生危险。

t_e 100°C

■ **Temperature of the external surface 外表面最高温度**

The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 100°C.

在热稳定的状态下，灯具外表面的温度最高点可达100°C

■ **Maintenance 维护**

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply. After switching off, do not remove any parts of the fitting, to avoid getting burnt for at least 30 minutes. After this time the likelihood of the lamp exploding is virtually nill.

The fitting is designed to hold in any splinters produced by a lamp exploding.

The lenses must be mounted and, if visibly Damaged, they have to be replaced with genuine spares.

在开始任何维修工作或清洁灯具之前，必须切断灯具供电电源。

电源切断后，为避免烧伤，10分钟内不可拆卸灯具中的任何一个零部件。

冷却过后灯泡爆炸的可能性几乎为零。

如果需要更换灯泡，则需再等待30分钟，以免烧伤。

■ **Lamp 灯泡**

The fitting mounts a high-pressure lamp that needs an external .

Immediately replace the lamp if damaged or deformed by heat.

The light source in this fixture shall be replaced by the manufacturer or its service agent or similar qualification.

Always disconnect from mains before replacing the lamp.

灯具上装有一个需高压触发的灯泡。

如灯泡有损坏或热变形，请立即更换灯泡。

此灯具内的光源应由制造商或其服务代理商或有类似资格的人来更换

更换灯泡前，请始终切断电源

■ **Minimum distance of illum inated objects 与照射物体的最小距离**

When the luminaire projects an object, the minimum distance of the luminaire to the flammable object is 12 meters.

当灯具照射物体时，灯具出光口到被照射易燃物体的最小距离为12米

■ **Protection against explosion 预防炸裂**

The protection screen, lens or ultraviolet screen on the lamp can be damaged to the degree of failure if visible damage, such as a crack or deep mark, should be replaced.

灯具上的保护屏、透镜或紫外线屏如果产生可见的损坏，即损坏到失效程度，如产生裂缝或深痕时，应更换。

■ **Protection optical radiation 光辐射保护**

Never look directly into the light source. You risk injury to your retina, which may induce blindness.

请不要眼睛对看光源，它对眼睛网膜的损害可能会导致视盲。

Do not stare directly into the light output. Never look at an exposed lamp while it is lit.

禁止直视点着的暴露灯泡以免紫外线伤害眼睛。



本产品执行标准：GB 7000.1-2015 GB7000.217-2008

The products referred to in this manual conform to the European Community Directives to which they are subject:

Low Voltage 2014/35/EU

Electromagnetic Compatibility 2014/30/EU

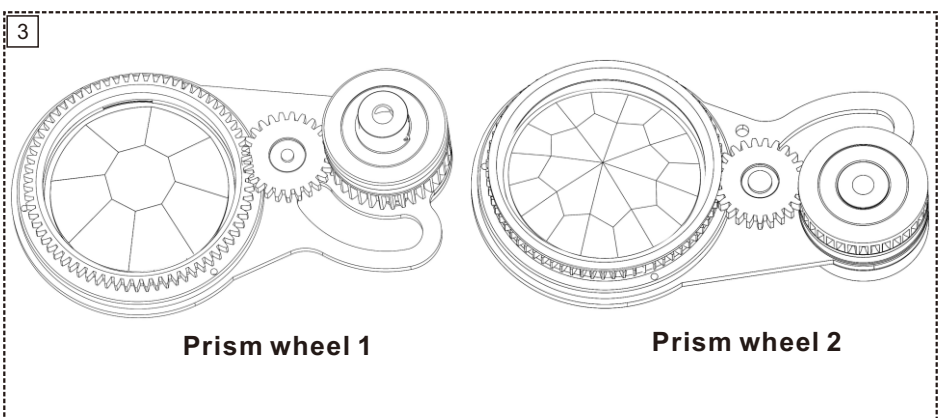
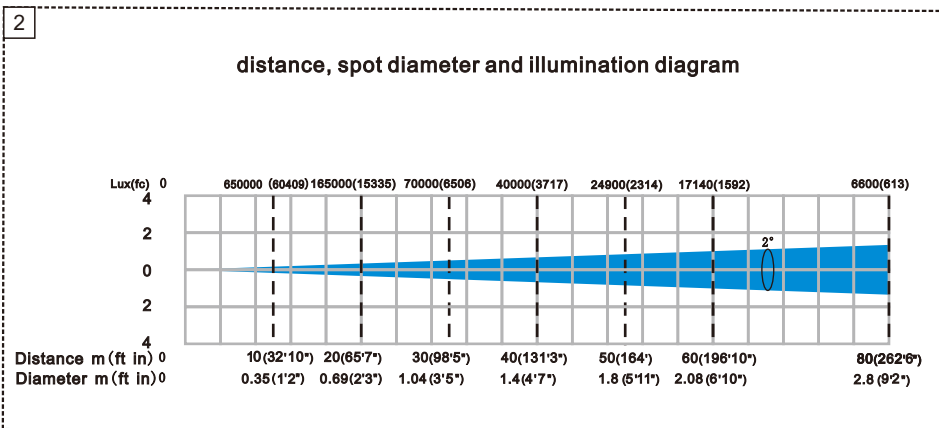
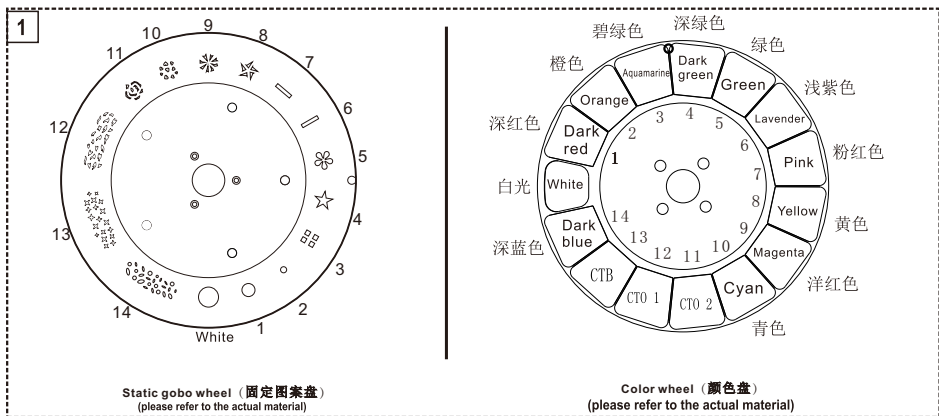
该产品符合欧洲共同体要求，遵守：

低压2014/35/EU

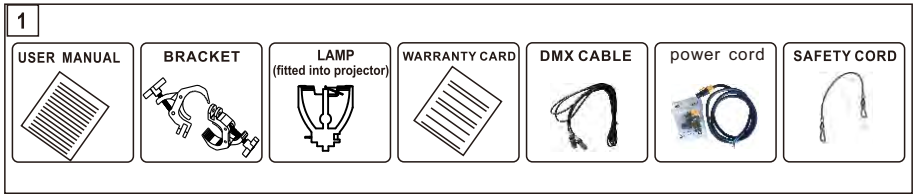
电磁兼容性2014/30/EU

TECHNICAL INFORMATION / 技术信息

- **Power supplies available** 电压选配范围：
 - 100-240V ~ /50-60Hz
- **Power** 功率/功率因数：
 - 530W PF≥0.98
- **Lamp** 灯泡：
 - Brand 品牌：USHIO NSL400L
 - Lamp power 功率：400W
 - Averagelife 平均寿命：6000H
 - Color Temperature 灯泡色温：7300K
- **Ballast** 镇流器：
 - 400W Electrical ballast/400W 电子镇流器。
- **Color** 颜色：
 - 14colors+white , Built-in2500K,3200K color temperature tablets,Bi-direction rainbow effect. 14种颜色+白光,内置2500K、3200K色温片,可双向旋转彩虹效果。
- **Static gobo wheel** 固定图案盘：
 - 11Gobo+1 White+3 animation range Bi-direction flow water animation effect 11个图案+白光+3种(动画效果图案)可双向抖动、动画、流水效果
- **Prism** 棱镜：
 - 8+16双棱镜盘及多种棱镜组合效果。
 - 8+16 double prism disc and multiple prism combination effect.
- **Beamangle**光束角度：2°
- **Washangle**柔光角度
 - 6-45°independentWasheffect
 - 6-45° 独立柔光效果
- **Dimming** 调光：
 - 0-100% linear dimming.
 - 0-100%线性调光。
- **Lens** 镜头：
 - Diameter 168 optical lens,high precision multi-groupgluingopticalstructure.
 - 直径φ 168光学镜头,高精度多组胶合光学结构
- **Strobe** 频闪：
 - 1-9Hz synchronization,pulse,random stroboscopic.
 - 1-9Hz同步、脉冲、随机频闪。
- **ControlMode** 控制方式：DMX512
- **X/Y Travel**(X/Y行程)：540°/270°
- **X/Y Resolution**(X/Y微调)：2.11°/1.05°
- **X/Y Speed**(X/Y速度)：2.9S/1.2S
- **Channel** 通道模式：Standard 标准14CH
- **Software upgrade** 软件升级：
 - Upgrade via DMX interface. 通过DMX接口上传升级文件。
- **Display Menu** 显示菜单：
 - The display panel adopts a 2.0-inchLCD12864 screen, which is used in both Chinese and English languages to facilitate quick operation and browse menus. 显示面板采用2.0英寸LCD12864液晶屏,采用中英文两种语言文字,方便快捷操作和浏览菜单;
 - Display board can record device's using time , show device's temperature, channel data and software version . 菜单可记录设备使用时间和发光时间,显示设备温度、通道数据及软件版本信息;
- **Magnetic encoder** 磁编码定位：
 - non-touch magnetic rotation encoder ,100% correct position memory. 非触式磁旋编码器定位,信号反馈,绝对位置记忆。
- **Cooling** 冷却
 - Forced ventilation with axial fans. 用轴流式风机强制通风。
- **Structure** 外观：
 - plastic cover parts are made of engineering plastic UV resistant, high temperature resistance, anti-aging characteristics. 外壳塑料件全部采用高强工程塑料,抗UV处理,耐高温,抗老化。
- The vertical direction of the use of hidden locking device, convenient transportation and maintenance. 垂直方向采用隐藏式锁紧装置,运输保养方便。
- **IP RATE/IP**防护等级：IP54
- **Lighting Size** 灯具尺寸：410X300X635MM
- **Box Size** 纸箱尺寸(1台装)：450X430X750MM
N.W.净重：24.2kg , G.W.毛重：29.5kg
- **Flycase Size** 航空箱尺寸(2台装)：940X635X845MM
N.W.净重：48.4kg , G.W.毛重：100.0kg

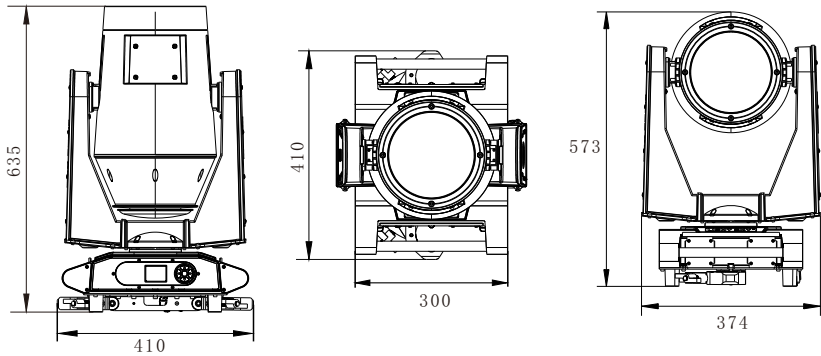


ATTACHMENT AND BODY SIZE/附件与包装尺寸

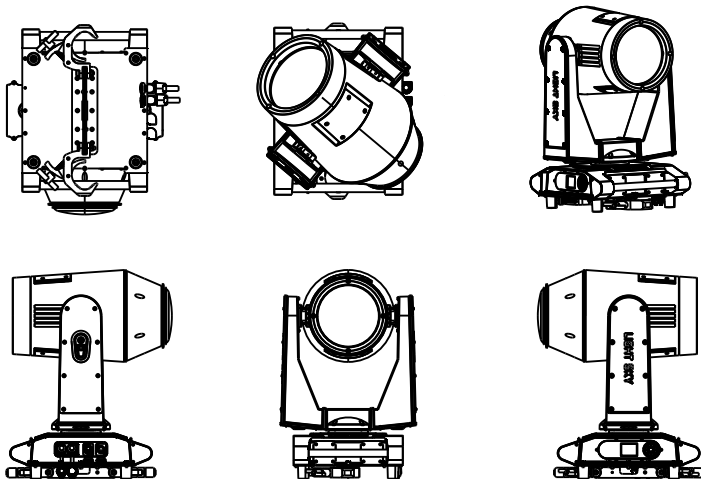


Attachment contents- Fig. 1

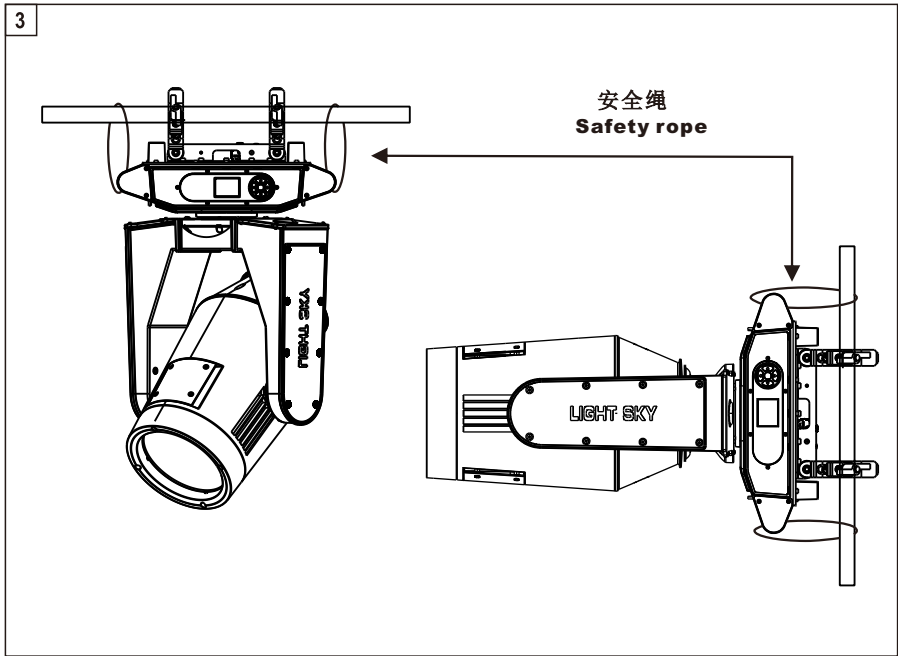
2-1



2-2



INSTALLATION AND CONNECTING/安装与连接



Installing the projector- Fig. 3

The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.
WARNING:with the exception of when the projector is positioned on the floor, the safety rope must be fitted.
This must be securely fixed to the support structure of the projector and then connected to the base handle.

灯具可通过橡胶机脚放置在地板上、或安装在桁架、天花板或墙壁上。

警告：除非灯具放置在地板上，否则必须安装安全绳。

要求安全绳必须牢固地固定在灯具支架上，然后连接到底座提手上。

Make sure all parts for fixing the projector are in a good state of repair.

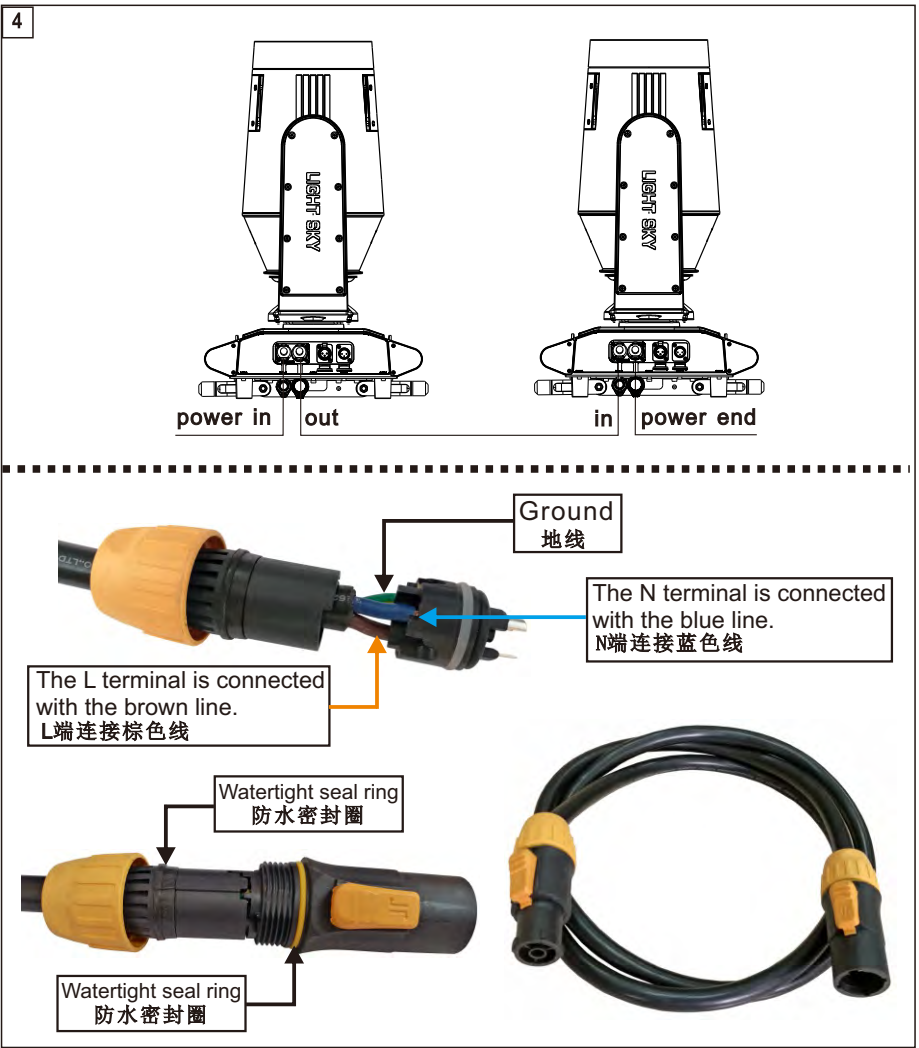
Make sure the point of anchorage is stable before positioning the projector.

When suspending the fixture, ensure that the supporting structure and all hardware used can hold at least 10 times the weight of all the devices they support.

确保固定灯具的所有零部件都完好无损。

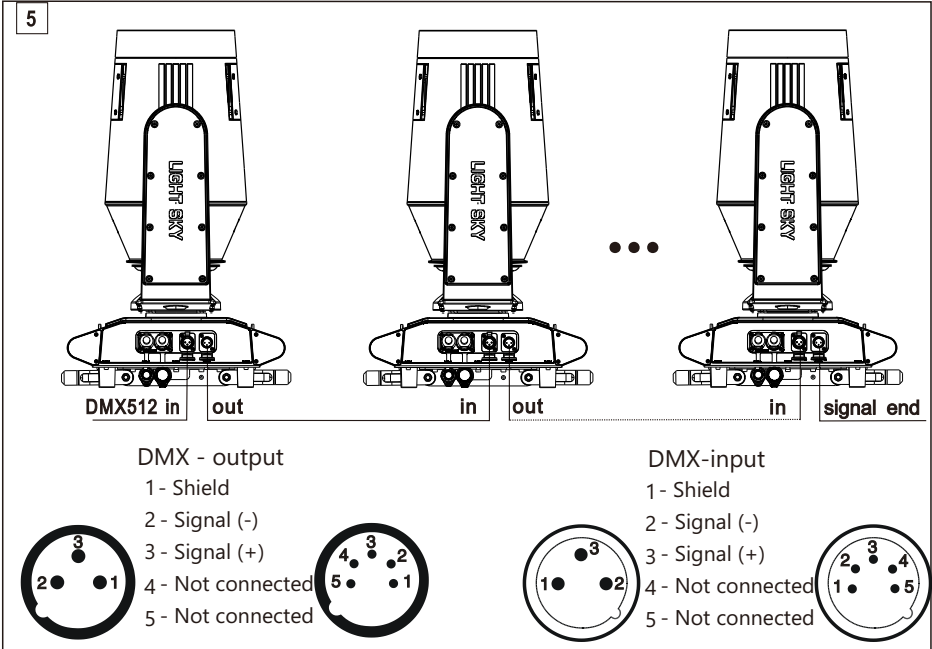
在固定灯具之前请确保固定物是牢固稳定的。

在吊装灯具时，确保支撑结构和所使用的所有配件至少可以保持10倍于他们支持的所有设备的重量。



Connecting to the mains supply ---Fig 4

- The stage lighting delivers a three-core waterproof plug.
本舞台灯具配送了一个三芯防水电源插头；
- The stage lighting power supply can not be more than 2pcs pre line.
- 本舞台灯具电源串联不能超过2台；
- Connection to the electricity mains must be carried out by a qualified electrical installer.
- 连接电源的总线必须由有资格的专业技术人员安装；
- After doing the above operation and making sure all the devices had been installed with natural operate, press the power switch to check whether everything is working normally.
- 在完成上述全部操作并确保已安装好之后，才可以上电对灯具进行操作。



Connecting to the control signal line (DMX) - Fig. 5

© Please use the round 3 or 5-pin XLR plugs & sockets offered by menu factory to connect the first projector's output to the second projector's input and connect the second projector's output to the third projector's input. And in the same way for the rest, eventually connect the last projector's output, all the projectors are together.

主灯的输出端与子灯的输入端之间的连接,可以采用由厂商提供的圆柱形3或5芯XLR电缆。将主灯的OUT插座与子灯底座上的IN插座相连,然后再将OUT插座与下一个子灯的IN插座相连,如此类推直到所有子灯都被连接在一起。

© The projectors's control signal output or input by using the 3 or 5-pin XLR plug and socket. If need to lengthen the communication cable, please make sure the both side of 3 or 5-pin plug is one to one. (one to one, two to two, three to three). Otherwise, the communication cable will be interrupted. The communication cable is 2-core screened cable 75Ω resistance with each core is at least a 0.5mm diameter. (Caution: All the inside leading wire of 3 or 5-pin XLR plug couldn't touch each other or plinth).

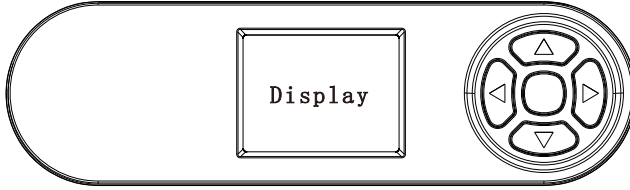
信号线进行接入或接出时,应使用与灯具一并提供的圆柱形3或5芯XLR插头。如果需要延长通讯电缆,在接线时,公母3或5芯XLR插头两端必须一一对应(即1对应1,2对应2,3对应3),否则易导致通讯中断。通讯线为两芯屏蔽线,阻抗特性为75Ω。(注意:每根通讯电缆线的线芯直径至少应为0.5mm,所有的3或5芯XLR的内部导线不应互相接触或接触到插头体。)

© Recommend to use the DMX signal terminator for the installation to avoid the electronic noise damage the digital control signal. Simply speaking, DMX terminator is an XLR connector with a 120Ω 1/2W resistor connected across pin 2 and 3. Which is then plugged into the output socket on the last projector in the chain. Refer to the connection.

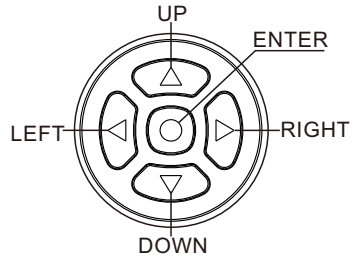
在安装灯具时建议使用DMX信号终端器;它可以避免由电噪声而导致干扰数字控制信号。简单来说,DMX终端器是一个XLR连接器,在其2脚与3脚之间连有一个120欧姆1/2W的电阻,将它连到最后一台灯具的OUT插座上。

CONTROL PANEL/控制面板

6



- Up arrowhead : page up
- Down arrowhead : page down
- Left arrowhead : reduce
- Right arrowhead : increase
- Enter : OK function
- Exit : in the choice screen



- Press the switch. The projector starts resetting the effects. At the same time, the following information scrolls on the display (please refer to the actual material)
- 设备上电后，灯具复位自检。
- 与此同时，显示屏滚动显示下面的信息。
- (具体以实物显示为准)

7



DMX: DMX Address
001 /DMX地址



Information
/基本信息



Personal
/个性设置



Manual control
/手动控制



Service
/服务选项



Lamp/灯泡



Language
/语言



Reversal
/屏幕旋转

MENU SETTING(V1.0)

Menu/ 主菜单	I Main/一级菜单	II Main/二级菜单	III Main/三级菜单
DMX Address/ 设置DMX地	Address/DMX地址:001-512 →		
	Return (ESC) /退出		
Information/ 基本信息查看	Checksum Error/实时错误信息查看 →		
	Power Hours/上电时间 →	Total Hours/总上电时间: ****H Rst Hours/上电时间: ****H	
	Lamp Hours/亮泡时间 →	Total Hours/总亮泡时间: ****H Rst Hours/亮泡时间: ****H	
	Lamp Strikes/灯泡启动次数 →	Total Strikes/总启动次数: **** Rst Strikes/启动次数: ****	
	Temperature/温度 →	E-ballast/镇流器:000.0	
	Logged temperature/温度记录 →	E-ballast/镇流器温度	Cur TEMP: ***
		Return (ESC) /退出	Max TEMP: *** Min TEMP: ***
	Fan information/风机信息 →	Lamp fan/灯泡鼓风机	→ 1. Power/电压: **.*V 2. Speed/转速: **.*% 3. Speed/转速: ****R
		Big fan/尾部大风机	→ 1. Power/电压: **.*V 2. Speed/尾风机: **.*% 3. Speed/尾风机: ****R
		Buttom fan/底箱风机	1. SP-Fan1/底箱风机 1: ****R
			2. SP-Fan2/底箱风机 2: ****R
		3. SP-Fan3/底箱风机 3: ****R	
		4. SP-Fan4/底箱风机 4: ****R	
		Return (ESC) /退出	
RDM UID/RDM地址 →			
DMX live/设备通道 →	1. Colour/颜色盘 (***)		
	2. Shutter/频闪 (***)		
	3. Dimmer/调光 (***)		
	4. Gobo/固定图案 (***)		
	5. Prism/棱镜选择 (***)		
	6. PrismROTA./棱镜自转 (***)		
	7. PrismMacro/棱镜宏 (***)		
	8. Frost/雾化 (***)		
	9. Focus/调焦 (***)		
	10. Pan/水平 (***)		
	11. Pan Fine/水平微调 (***)		
	12. Tilt/垂直 (***)		
	13. Tilt Fine/垂直微调 (***)		
	14. Function/功能 (***)		
System version/版本信息 →	XY/XY板 : V*. **		
	Gobo/图案板 : V*. **		
	Color/Color板 : V*. **		
	Fan /风机板 : V*. **		
	Display /显示板: V*. **		

Menu/ 主菜单	I Main/一级菜单	II Main/二级菜单	III Main/三级菜单	
	Return(ESC)/退出			
Personal/ 个性设置	Display lock/界面显示密码	→ OFF/关 ON/开		
	Auto lamp on/自动打开灯泡	→ OFF/关 ON/开		
	P/T invert/水平垂直反向	Pan invert/水平反向	→ OFF/关 ON/开	
		Tilt invert/垂直反向	→ OFF/关 ON/开	
		Return(ESC)/退出		
	Display/显示设置	Backlight/背光		→ Always on/常亮 Auto off (15s)/自动关(15S)
		Rotate/屏幕旋转		→ Normal/正常 Rotate 180/旋转180度
		Backlight blink/背光闪烁		→ ON/打开 OFF/关闭
		Return(ESC)/退出		
		Return(ESC)/退出		
Manual control /手动控制	Channel control	→ 1. Colour/颜色盘 (***)		
		→ 2. Shutter/频闪 (***)		
		→ 3. Dimmer/调光 (***)		
		→ 4. Gobo/固定图案 (***)		
		→ 5. Prism/棱镜选择 (***)		
		→ 6. PrismROTA./棱镜自转 (***)		
		→ 7. PrismMacro/棱镜宏 (***)		
		→ 8. Frost/雾化 (***)		
		→ 9. Focus/调焦 (***)		
		→ 10. Pan/水平 (***)		
		→ 11. Pan Fine/水平微调 (***)		
		→ 12. Tilt/垂直 (***)		
		→ 13. Tilt Fine/垂直微调 (***)		
		→ 14. Function/功能 (***)		
		Return(ESC)/退出		
Reset/复位	→ System reset/整机系统复位			
	→ Pan/Tilt reset/水平垂直复位			
	→ Gobo reset/图案系统复位			
	→ Color reset/颜色系统复位			
	→ Dimmer reset/调光复位			
Test/测试灯具	→ Focus reset/调焦系统复位			
	→ Return(ESC)/退出			
	→ Test P/T/测试水平垂直			
	→ Test effect/测试头部效果			
Return(ESC)/退出	→ Test all/整体测试			
	→ Return(ESC)/退出			
	→ Return(ESC)/退出			
Error information/故障信息	→ Error list/历史故障信息			
	→ Empty list/清除故障信息		→ NO/保留 YES/清除	
	→ Return(ESC)/退出			
	→ Pan/水平 000-255			

Menu/ 主菜单	I Main/一级菜单	II Main/二级菜单	III Main/三级菜单		
Service/ 工厂服务	Calibration/校准	Tilt/垂直 000-255			
		Dimmer1 /调光1 000-255			
		Dimmer2 /调光2 000-255			
		Color /颜色盘 000-255			
		Static gobo/固定图案 000-255			
		Focus/调焦 000-255			
		Frost/雾化 000-255			
		Prism 1 /棱镜1 000-255			
	Prism 2 /棱镜2 000-255				
	Return(ESC)/退出				
	Reset Timers/清除时间	Reset Power Hours/清除设备时间	→ NO/保持 YES/清除		
		Reset Lamp Hours/清除灯泡时间	→ NO/保持 YES/清除		
		Reset Lamp Strikes/清除启动次数	→ NO/保持 YES/清除		
		Return(ESC)/退出			
	Factory/工厂设置	Load default/工厂默认			
		Reset Total timers/清除总时间	→ Total Power hours Total Lamp hours Total Lamp Strikes Return(ESC)		
		Clear logged temperature/清除记录温度			
		Developer/开发人员	Machine type/机型设		
			Auto Machine/Auto Machine		
			Easy control/快捷操作		
			Test tilt/Y轴测试		
			Test Pan/X轴测试		
			Manual fan Vol/调节风机电压		
			FanSpeedToLamp/风速不关联熄炮		
			Manual OR DMX/手动或DMX		
			Lamp Power/灯泡功率选择		
			Set Power/设置灯泡功率		
			Power ON/OFF/手动降灯功率		
			Load font/升级字库		
			Set LOGO/LOGO选择		
UP LOGO/升级LOGO					
Language/语言					
5Min Lamp off/5分钟自动熄灭炮					
Return(ESC)					
Firmware update/软件升级					

Menu/ 主菜单		I Main/一级菜单		II Main/二级菜单		III Main/三级菜单
				Return(ESC)/退出		
		Return(ESC)/退出				
Lamp/灯泡 控制	→	Off/关闭				
		On/打开				
Language/ 语言选择	→	English/英文				
		Chiness/中文				
Rotate display/ 显示屏旋		Normal/正常				
	→	Rotate 180/旋转180度				

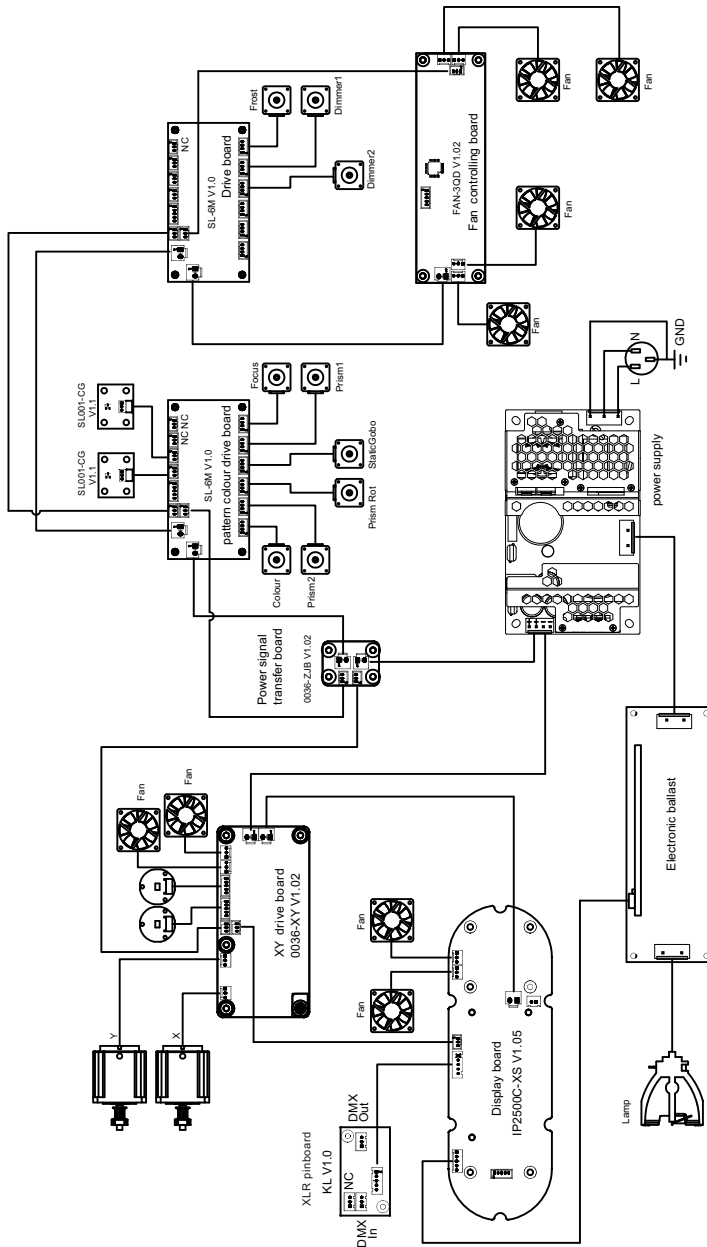
CHANNEL FUNCTION(V1.0)/ 通道功能

通道	DMX	百分比	功能	备注
1			Colour/颜色	
			Colour/颜色	
	0-4	0-1.56	White/白光	
	5-8	1.96-3.14	White+Red/白光+红色	
	9-12	3.53-4.71	Red/红色	
	13-17	5.10-6.67	Red+Orange/红色+橙色	
	18-21	7.06-8.24	Orange/橙色	
	22-25	8.63-9.80	Orange+Aquamarine/橙色+碧绿色	
	26-29	10.2-11.4	Aquamarine/碧绿色	
	30-34	11.8-13.3	Aquamarine+Green/碧绿色+深绿色	
	35-38	13.7-14.9	Green/深绿色	
	39-42	15.3-16.5	Green+Light Green/深绿色+绿色	
	43-46	16.9-18.0	Light Green/绿色	
	47-51	18.4-20.0	Light Green+Lavender/绿色+浅紫色	
	52-55	20.4-21.6	Lavender/浅紫色	
	56-59	22.0-23.1	Lavender+Pink/浅紫色+粉红色	
	60-63	23.5-24.7	Pink/粉红色	
	64-68	25.1-26.7	Pink+Yellow/粉红色+黄色	
	69-72	27.0-28.2	Yellow/黄色	
	73-76	28.6-29.8	Yellow+Magenta/黄色+品红色	
	77-81	30.2-31.8	Magenta/品红色	
	82-85	32.2-33.3	Magenta+Cyan/品红色+青色	
	86-89	33.7-34.9	Cyan/青色	
	90-93	35.3-36.5	Cyan+CT0 260/青色+CT02	
	94-98	36.9-38.4	CT0 260/CT02	
	99-102	38.8-40.0	CT0 260+CT0 190/CT02+CT01	
	103-106	40.4-41.6	CT0 190/CT01	
	107-110	42.0-43.1	CT0 190+CTB 8000/CT01+CTB	
	111-115	43.5-45.1	CTB 8000/CTB	
	116-119	45.5-46.7	CTB 8000+Blue/CTB+深蓝色	
120-123	47.1-48.2	Blue/深蓝色		
124-127	48.6-49.8	Blue+White/深蓝色+白光		
128-191	50.2-74.9	CCW, Fast→Slow Rotation/由快到慢, 逆时针旋转		
192-255	75.3-100	CW, Slow→Fast Rotation/由慢到快, 顺时针旋转		
2			Strobe/频闪	
	0-3	0-1.2	Closed/关闭	
	4-103	1.6-40.4	Slow-Fast Strobe/由慢到快频闪	
	104-107	40.8-42.0	Open/开光	
	108-157	42.4-61.6	Opening pulses in sequences from slow fast/由慢到快, 快关慢开	
	158-207	62.0-81.2	Closing pulses in sequences from fast slow/由慢到快, 快开慢关	
	208-212	81.6-83.1	Open/开光	
	213-251	83.5-98.4	Random Slow-Fast Strobe/由慢到快随机频闪	
252-255	99.8-100	Open/打开		
3	0-255	0-100	Dimmer/调光	

通道	DMX	百分比	功能	备注
4			Gobo/图案	
	0-3	0-1.2	White/白光	
	4-7	1.6-2.7	Gobo1/图案1	
	8-11	3.1-4.3	Gobo2/图案2	
	12-15	4.7-5.9	Gobo3/图案3	
	16-19	6.3-7.5	Gobo4/图案4	
	20-23	7.8-9.0	Gobo5/图案5	
	24-27	9.4-10.6	Gobo6/图案6	
	28-31	11.0-12.2	Gobo7/图案7	
	32-35	12.5-13.7	Gobo8/图案8	
	36-39	14.1-15.3	Gobo9/图案9	
	40-43	15.7-16.9	Gobo10/图案10	
	44-47	17.3-18.4	Gobo11/图案11	
	48-51	18.8-20.0	Gobo12/图案12	
	52-55	20.4-21.6	Gobo13/图案13	
	56-59	22.0-23.1	Gobo14/图案14	
	60-69	23.5-27.1	Gobo1 Shake Slow-Fast Speed/图案1由慢到快摆动	
	70-79	27.5-31	Gobo2 Shake Slow-Fast Speed/图案2由慢到快摆动	
	80-89	31.4-34.9	Gobo3 Shake Slow-Fast Speed/图案3由慢到快摆动	
	90-99	35.3-38.8	Gobo4 Shake Slow-Fast Speed/图案4由慢到快摆动	
	100-109	39.2-42.7	Gobo5 Shake Slow-Fast Speed/图案5由慢到快摆动	
	110-119	43.1-46.7	Gobo6 Shake Slow-Fast Speed/图案6由慢到快摆动	
	120-129	47.1-50.6	Gobo7 Shake Slow-Fast Speed/图案7由慢到快摆动	
130-139	51-54.5	Gobo8 Shake Slow-Fast Speed/图案8由慢到快摆动		
140-149	54.9-58.4	Gobo9 Shake Slow-Fast Speed/图案9由慢到快摆动		
150-159	58.8-62.4	Gobo10 Shake Slow-Fast Speed/图案10由慢到快摆动		
160-169	62.7-66.3	Gobo11 Shake Slow-Fast Speed/图案11由慢到快摆动		
170-179	66.7-70.2	Gobo12 Shake Slow-Fast Speed/图案12由慢到快摆动		
180-189	70.6-74.1	Gobo13 Shake Slow-Fast Speed/图案13由慢到快摆动		
190-199	74.5-78	Gobo14 Shake Slow-Fast Speed/图案14由慢到快摆动		
200-225	78.4-88.2	Fast-Slow Rotation/由快到慢顺时针旋转		
226-229	88.6-89.8	Stop/停止		
230-255	90.2-100	Slow-Fast Rotation/由慢到快逆时针旋转		
5			Prism/棱镜选择	
	0-63	0-24.7	Unused Range/不在使用范围	
	64-127	25-49.8	Prism1/棱镜1	
	128-191	50.2-74.9	Prism2/棱镜2	
	192-255	75.3-100	Prism1+Prism2/棱镜1+棱镜2	
6			Prism Rotation/棱镜自转	
	0	0	Unused Range/不在使用范围	
	1-63	0.4-24.7	角度线性调节	
			三种棱镜效果选择: 设置棱镜(棱镜1、棱镜2或棱镜1+2)在第5通道;	
	64-127	25.1-49.8	CCW, Fast → Slow/由快到慢, 逆时针旋转	
128-191	50.2-74.9	CW, Slow → Fast/由慢到快, 顺时针旋转		

通道	DMX	百分比	功能	备注
	192-207	75.3-81.2	由慢到快, 90° 来回旋转	
	208-223	81.6-87.5	由慢到快, 180° 来回旋转	
	224-239	87.8-93.7	由慢到快, 270° 来回旋转	
	240-255	94.1-100	由慢到快, 360° 来回旋转	
7			Prism Macro/棱镜宏	
	0-15	0-5.9	Unused Range/不在使用范围	
	16-55	6.3-21.6	由快到慢, 8棱镜自由切换	
	56-95	22.0-37.3	由快到慢, 16棱镜自由切换	
	96-135	37.6-52.9	由快到慢, 8棱镜+16棱镜同时自由切换	
	136-175	53.3-68.6	由快到慢, 8棱镜选中+16棱镜自由切换	
	176-215	69.0-84.3	由快到慢, 16棱镜选中+8棱镜自由切换	
	216-255	84.7-100	由快到慢, 8棱镜与16棱镜互锁切换	
8	0-255	0-100	Frost/雾化	
9	0-255	0-100	Focus/调焦	
10	0-255	0-100	Pan/水平	
11	0-255	0-100	Pan Fine/水平微调	
12	0-255	0-100	TILT/垂直	
13	0-255	0-100	TILT Fine/垂直微调	
14			Function/功能	
	0-25	0-9.8	Unused Range/不在使用范围	
	26-30	10.2-11.8	Effects Reset/头部电机复位	
	31-35	12.2-13.7	PAN/TITL Reset/XY轴复位	
	36-40	14.4-15.7	Complete Reset/整机复位	
	41-180	16.1-70.6	Unused Range/不在使用范围	
	181-200	71.0-78.4	Lamp OFF/关闭灯泡	
	201-220	78.8-86.3	Unused Range/不在使用范围	
	221-255	86.7-100	Lamp ON/打开灯泡	

CIRCUIT CONNECTING DIAGRAM/电器连接图



CLEANING AND MAINTENANCES/清洁与保养

● In order to ensure the projector could work normally. It should be kept clean always. It is recommended that the fans and ventilation in let should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. Do not use any type of solvent on dichroic colour filters. It will damage the projector.

为确保灯具能够正常稳定的运行,应该保持灯具的清洁,建议每隔15天清理一次机体及风扇与进风槽。对于镜头及分色滤光器也应定期进行清理,以保证最佳的光线效果。在清理分色滤光器时,注意不要使用任何溶解性清洁剂,以免对灯具造成损害。

● Suggestion: The continue usage of the light don't exceed 4 hours. Or it will shorter the usage of the lamp. Please use the alternative operation to solve this problems.

灯具在连续使用时,建议每次不要超过4小时,否则会大大缩短灯具的使用寿命,可采用轮换休息法解决上述问题。

● Please disconnect the power supply when begin to maintenace or takedown the light. Please let the parts cool down 10 minute at least then begin to install. If need to replace the lamp, please wait 10 minute again at least to let the lamp cool down completely or which maybe burned down.

灯具在进行维护拆卸之前,一定要断开电源的连接,不能带电操作。断开电源之后,灯具的零件都要冷却10分钟左右才能拆装。如果需更换灯泡,需再等20分钟以上,让灯泡完全冷却,以免烫伤。

● Please inspect the lens or other moving parts timing and keep them clear and static. If find anything damaged or losseness, must change a lamp or fix the lamp in order to avoid the accident.

灯具的镜片或镜头和其它转动件必须定期检查,使其保持清洁和稳定性,如果出现明显的损坏或松动,必须及时对其进行更换或加固,以防发生意外事故。

● The light use the strong cool system. It is easy for the dirty to be collected. Please do clear the hot-sak one time two week at least.

灯具产品采用强风制冷,容易积尘,每二周至少清洁一次,尤其是散热进出风口处。

● After you use the light, please check the intake place whether there are some wastepaper, please clean it up, or the windmill will break down and causing fire.

灯具在有彩纸表演后,要检查进出风口处是否卡有或吸入纸屑,应清除干净,否则易损坏风机和引发火警。

TROUBESHOOTING/疑难处理

It is recommended some solution for some normal trouble shooting. Any unsolutioned problems should always be handle by the professional person. Disconnect the power supply before maintenance the light.

以下是灯具的常见故障及对应的处理方法。不能自行维修的故障工作应由具有专业资质的人员进行处理。维修保养时要断开灯具电源。

■ Lamp off 灯泡不亮:

◎ Please check if install the suitable lamp.

检查是否安装了与灯具相匹配的灯泡;

◎ Please check the connection of the power supply or switch is ok.

检查灯具供电电源连接处或控制开关是否接触不良;

◎ Please check whether the lamp will reach the end of their life can explode, please replace a same description lamp.

检查灯泡是否已达到使用寿命或已经损坏,更换同规格优质灯泡;

◎ Please measure if the power supply is enough.

测量电力供应是否不足;

◎ Please check if the operation is correct. Please wait 30 minutes at least till the lamp cool down enough, then could the connect the power supply, which could be normal work.

是否因非正常操作,灯泡未完全冷却。让灯具冷却15分钟以上,使灯泡冷却,恢复到正常可启动范围之内后,再次接通电源即可正常使用;

- ◎ Please check whether the DMX512 controller pass the “turn on” order.
检查DMX512控制器是否发送了开灯泡指令；
- ◎ Please check the connection of the trigger circuit is loose contact.
检查灯泡与触发线路是否有脱落或解除不良；
- ◎ Please check whether the connected point of he trigger point is loose contact, faster the connect cable.
检查内部触发器上的接线端子是否接触不良,紧固好插头；
- ◎ Check menu “information” →fan speed/voltag→fan1, fan2, fan3” , Whether the fan speed in 500RPM above, below 500RPM the lamp does not light, replace with the specifications of the fan.
检查菜单“基本信息”中“风机速度电压, 查看FAN1FAN2FAN3的转速是否在500RPN以上, 低于500RPM灯泡不会亮, 更换同规格风机。
- ◎ Please check if the switch of the temperature is damaged.
检查灯具内部超温保护温度开关是否损坏。
- ◎ Enter the menu “information” select “temperature” to see whether the temperature display board is too high or no temperature display.
进入菜单“基本信息”选择“设备温度”查看测温板是否显示温度过高或无温度显示。
- **The light beam dark, not inhomogeneous.**光束显得暗淡不均匀。
 - ◎ when the lamp is to the usage life , the light is not enough, please change a new one for the same description.
灯泡可能已经达到使用寿命, 发光不足, 更换同规格的灯泡。
 - ◎ Please check the reflector parts is dirty.Keep them clear.
检查光学部分是否堆积有灰尘, 清洗干净。
 - ◎ Please measure if the power supply is enough.
测量电力是否供应不足；
 - ◎ Small adjusting is suitable for change height or screw system till get a ideal light beam.
细微调整用于变化灯泡高度的螺丝装置, 直至调出理想的光。
 - ◎ Enter the menu “service options” to choose “calibration” to enter the “Color” and “Gobo” adjustment, the center can be modulated.
进入菜单“服务选项”选择“校准”进入颜色和图案调节, 可调至中心。
- **The light shadow is fogging**投射出来的影像模糊。
 - ◎ Please check the data on the DMX 512 controller is suitable for the electric focus.
检查电子对焦系统对应的DMX512控制器通道数值是否合适现在的投射距离。
 - ◎ Please check the machanical parts is jamging.After cleaning,please add some temperature -durable juice.
检查调焦系统的机械部分是否卡住, 去尘埃后添加防冻和耐温润滑油。
- **The light works interruptly**灯具灯泡间歇性地工作
 - ◎ Please check if the fan works normally or mote clogging.
检查风机是否正常运转或有尘埃和纸屑堵塞。
 - ◎ Please check whether the abstract heat have the mote clogging.
检查进出散热风口是否有尘埃堵塞。
 - ◎ Please check if the lamp is to the usage life.
检查灯泡是否已达到使用寿命。
 - ◎ Please check if the power supply is enough,the connection of the power supply or the circuit are good.
检查电力是否供应不足, 电源开关及线路是否接触不良与老化。
 - ◎ Please check if the switch of the sup-temperature is good.
检查灯具内部超温保护温度开关是否损坏。

■ **Though the light is lighting, but it couldn't accept the control order:**

虽然发光,但是灯具不接受控制器的指令:

- ◎ Please check the start code address and the function option are correct.
检查灯具数字起动地址数值和功能选项是否正确;
- ◎ Please check whether the communicate control cable is on good connection or the cable is too long or interrupt.
检查通讯控制线路的连接情况是否正确、通讯线路过长或已经中断;
- ◎ Please check the control system is not valid, check the signal amplifier of chain connected is valid.
检查控制设备是否失效, 检查串连接入的信号放大器是否失效;
- ◎ Please check whether the communicate cable is too long or the other equipment is mutually conjugate.
检查通讯线路是否过长或有其它设备相互干扰;
- ◎ Please arrange the wire well, Shorter the signal cable, put the high voltage cable and low voltage cable separately.
优化布线, 缩短控制信号线的长度, 高压与低压线路分开布线;
- ◎ Add the signal amplify isolator.
添加信号放大隔离器;
- ◎ Signal cable is used the excellent screening doublet (Resistance 75 Ω)
信号线采用优质屏蔽双绞线(阻抗特性为75Ω);
- ◎ The end of the light end and the end resistance.
在灯具末端连接信号终端电阻;
- ◎ When the lamp don't cool down enough but do the incorrect operation will let the trigger up to super-high voltage leak. It will damage the electric circuit and communicate IC or CPU. Under this condition, please change the PCB board.
检查因为灯泡在未完全冷却时, 执行了非正常操作, 使触发器产生的瞬时超高电压泄漏, 而导致电路板通讯IC或CPU烧坏, 更换PCB板。

■ **the light can't move** 灯具不能启动:

- ◎ Please check if the power supply is suitable for the light voltage data.
检查供电电源参数是否与灯具相符;
- ◎ Please check the fuse of input voltage is defective.
检查灯具电源输入处的保险丝是否熔断;
- ◎ Please check the light if they are deforming, inside parts is broken, become wet... etc will lead the loose contact.
检查灯具在长途运输过程中因挤压变形、内部零件震动、潮湿等原因, 而导致接触不良或脱落;
- ◎ Please check if the inside lead wire and the connector is loose.
检查灯具内部导线及接插器件是否脱焊、松动;
- ◎ Please check the electric parts (such as the switch, transformer, ballast, electric capacity, piezoresistor, filter, PCB board, controller to motor) is short-circuit or burn down.
检查灯具电器元件(如电源开关、变压器、镇流器、电容、压敏电阻、滤波器、电源供电PCB板、电机控制PCB板等)是否有松动、短路、烧坏等现象。

■ **Part of the projector couldn't be responded to the controlling order:**

灯具部分功能不能接受控制器指令:

- ◎ Please check the order is correct to the moving.
检查控制设备是否发送了对这些功能的正确动作指令;
- ◎ Please check the mechanical part is deformation or loose.
检查这些功能对应的机械部份, 是否松动变形;
- ◎ Please check the function to the motor socket is loose or drive chip is burn down.
检查这些功能对应的电机插座是否有松动或相应驱动芯片已烧坏;
- ◎ Please check the wire of the motor is cut at zig point.
检查这些功能对应的电机电线在转弯处是否折断;
- ◎ Please check these function to the motor is damaged.
检查这些功能对应的电机是否损坏。

■ **On working, the pan & tilt couldn't work normally:**

工作时,灯具的X或Y方向的动作不正常:

◎Please check according to the above step by step.

按上一步聚逐个检查;

◎Please check the belt of the X.Y is broken.

检查灯具内X、Y方向对应的传动皮带是否脱落和断裂;

◎Please check the X/Y direction data to the receiver is damage.

检查灯具内X、Y方向对应的数据反馈接收器(光电传感器)是否损坏;

◎Re-projector reset.

重新开机复位一次。

DUTY EXONERATIVE AND COPYRIGHT PROTECTION

◇The lamp belongs to consumption products that is not guarantee to keep it in good repair.

灯泡属于消耗产品,不在保修范围内;

◇Any products broken that didn't according to the instruction is not guarantee to keep it in good repair.

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