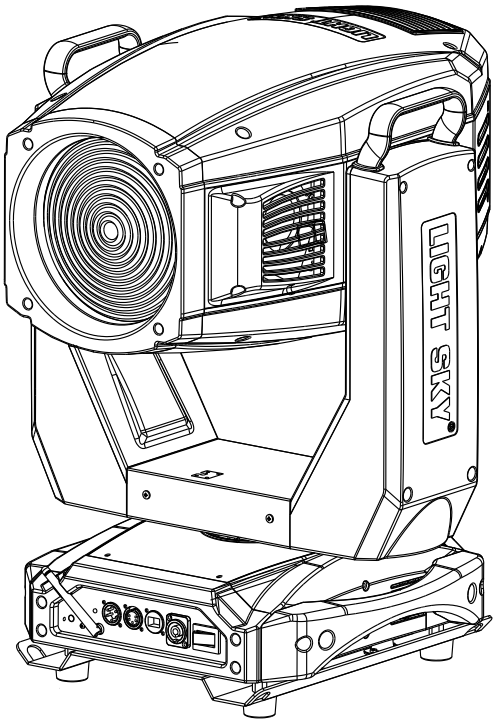
LIGHT SKY®

大黄蜂系列

F1000 WASH-50R
F1000R WASH-50R



USER MANUAL

Please read these user manual carefully before use

广州市升龙灯光设备有限公司

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

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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,这款产品和公司的其他产品一样,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

■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, so that, if the primary support system fails,the fitting falls as little as possible.
If the safety chain gets used, it needs to be replaced with a genuine spare.

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的。
安全绳索一定要恰当固定在安全的结构上。
当要更换安全绳索时,必须要用原装备用绳索替换。

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

The projector needs to be positioned so that the objects hit by the beam of light are at least 3 metres from the lens of the projector.
定位灯具时,光束照射的物体到投影镜头的距离至少为3米。

■Minimum distance from flammable materials 与易燃材料的最小距离

The projector must be positloned so that any flammable materials are at least 0.5 metres from every point on the surface of the fitting.
定位灯具放置点后,与附近的可燃物距离不能低于0. 5米。

■Mounting surfaces 安装面

It is permissible to mount the fitting on normally flammable surfaces.
必须安装在牢固物体的表面。

t_a 38℃

■Maximum ambient temperature 最高环境温度

Do not operate the fixture if the ambient temperature (Ta) exceeds 38℃.
如果环境温度(Ta)超过38℃，请勿操作此灯具。

■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EN 60598-1）。
另外,建议您使用适当大小的漏电电路断路器,保护灯具电源线以免其间接接地或对地短路。

■Connection to mains supply 电源供应

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.

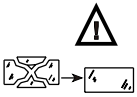
连接电源的总线必须由有资格的专业技术人员安装。
检测总线频率及电压是否与灯具上的标签上所标注的数值一致,即和灯具设计数值一致。
该标签还给出了输入功率,您需要参考计算电线所能够连接的最大灯具数量,以避免出现过载。
请勿使用绝缘层有损伤的电源线,发现灯具电源线有损伤时,必须由制造商或经销商或一个有专业资格的人员更换,以免发生危险。

t_c 120℃

■**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 120℃.

在热稳定的状态下,外表面的温度最高点可达120℃。



■**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, 必须切断供电电源。电源切断后, 为了避免烧伤, 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20分钟, 以免烧伤。

■**Lamp** 灯泡

The fitting mounts a high-pressure lamp that needs an external igniter. This igniter is fitted onto the apparatus.

Carefully read the "operating instructions" provided by the lamp manufacturer.

Immediately replace the lamp if damaged or deformed by heat.

灯具上装有一个需高压触发器的灯泡，此触发器安置在灯具上。
请仔细阅读灯泡制造商提供的“使用说明”。
如灯泡有损坏或热变形, 请立即更换灯泡。

■**Battery** 电池

This product contains a rechargeable lead-acid battery. To preserve the environment, please dispose the battery at the end of its life according to the regulation in force.

本产品包含一个可充电锂电池。为了保护环境,请根据规定处理寿命结束的电池。

CE

The products referred to in this manual conform to the European Community Directives to which they are subject:
Low Voltage 2006/95/CE
Electromagnetic Compatibility 2004/108/CE
该产品符合欧洲共同体要求，遵守：
低压2006/95/CE
电磁兼容性2004/108/CE

TECHNICAL INFORMATION

Model 型号 / Parameter参数	F1000 WASH-50R F1000R WASH-50R
Ballast 镇流器	E-ballast:original made in Germany ballast 镇流器:德国制造电子整流器
Voltage/Power 电压/功率	Voltage电压:AC100-240V 50/60Hz Power功率:1230W
Lamp 灯泡	HTI 1000/PS Lok-it 6500K 光源:德国制造Osram
Lam paverage life 灯泡平均寿命	750H
Color Temperature 色温	6200K-6500K
Control Mode 控制方式	Standard DMX512/Wireless DMX 512/RDM 国际标准DMX512信号或无线/RDM
Channel 通道	18/22 Channels 18/22通道
Soft lens 柔光镜	Zoom lens : double zoom lens 变焦镜片:2个开合式ZOOM镜片
Color 颜色盘	12 colors +2 white 2个颜色盘,各有6种颜色+白光
Color mixing system 混色系统	CMY+linear CTO CMY+线性CTO
Effect wheel 效果盘	2pcs beam gobo+1 pcs frost 2个光束造型镜+1个二级雾化镜
Beam angle 光束角度	Ⅰ:10-47 degree, Ⅱ:15-60 degree 一级:10-47度, 二级:15-60度

Model 型号 / Parameter参数	F1000 WASH-50R F1000R WASH-50R
Pan/Tilt 水平/垂直	Pan axis 540°, Tilt axis 270°, automatically accurate position 投射范围:X向540度, Y向270度, 可自动校正定位
Motor 电机数量	18pcs mute sound motor, 2pcs three phase motor,16 bit driver 共18个超静音电机,其中2个三相静音电机,16Bit驱动
X/Y time X/Y轴时间	X:3.6s;Y:2.1s X轴:3.6s；Y轴:2.1s
Strobe 频闪	Double lens strobe (0.5-12Hz) 双片式频闪(0.5-12Hz)
Size 灯具尺寸	450x373x738mm
N.W. 净重	34kg
Fly case (2in) 航空箱尺寸(2台装)	965x540x1010mm
N.W./G.W. 净重/毛重	68kg/122kg
Single fly case 航空箱尺寸(1台装)	772x527x863mm
N.W./G.W. 净重/毛重	34kg/74kg
IP rate 防护等级	IP42

◆Two side handles for transportation.
包括两个方便搬运和运输手把。

◆Device locking PAN and TILT mechanisms for transportation and maintenance.
X/Y轴锁定装置方便运输和维修。

◆Structure:Plastic
外观:PA66工程塑料

◆Feature:Remote control lamp's ON/OFF,Automati -cally adjust cooling fan speed and enter into ener -gy-saving mode when the strobe off.
其他功能:远程控制灯泡开关,风机自动调速,机械闭光自动开启节能模式(降低功率50%)

◆Automatic charging battery,without electricity.
内置长寿命电池,可自动充电,不需要接通灯具电源

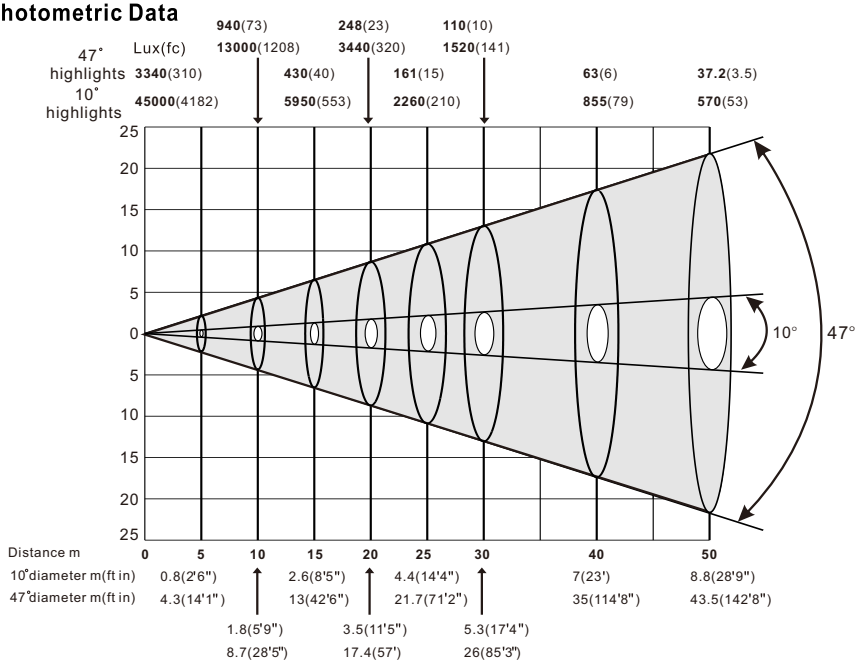
◆Protected against the entry of solid bodies larger than12mm.
防止大于12mm固体进入灯具。

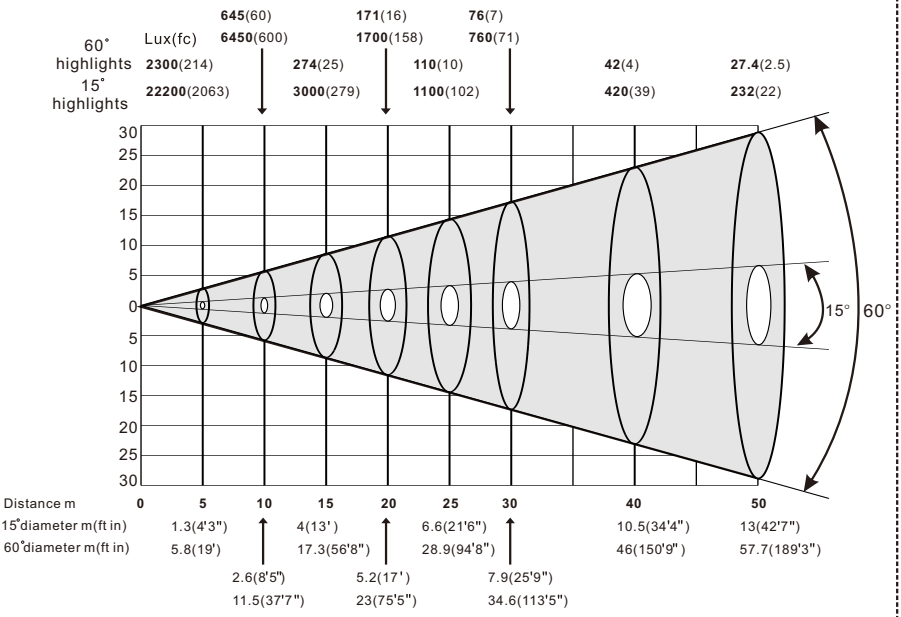
◆No protection against the entry of liquids.
禁止任何液体进入灯具

◆Bipolar circuit breaker with thermal protection.
过流和过热保护。

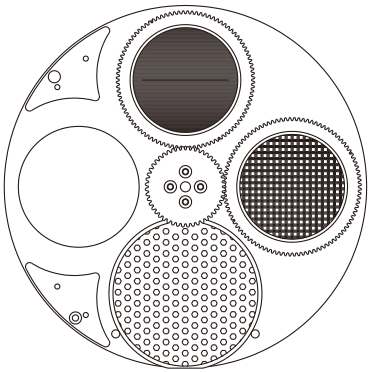
◆Automatic break in off lamp in case of overheating or failed operation of cooling system.
当过热或散热系统失效时自动熄泡。

Photometric Data

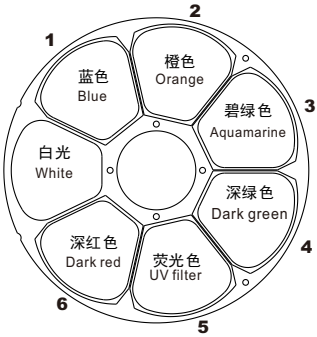




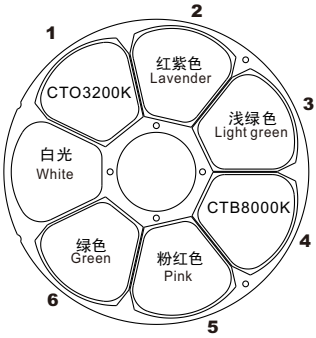
Effect wheel 效果盘



Color wheel1:颜色盘1

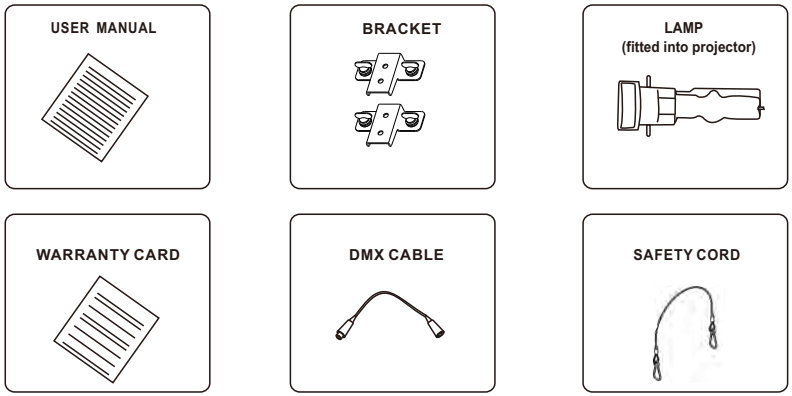


Color wheel2:颜色盘2



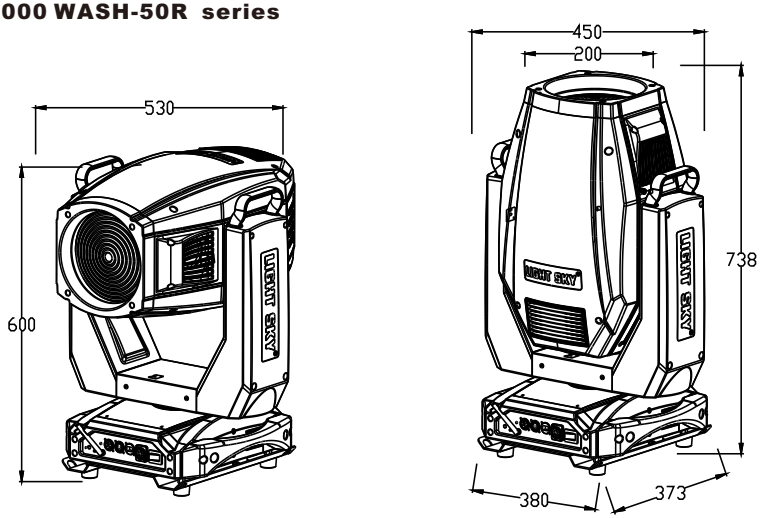
ATTACHMENT AND BODY SIZE

1



Attachment contents- Fig. 1

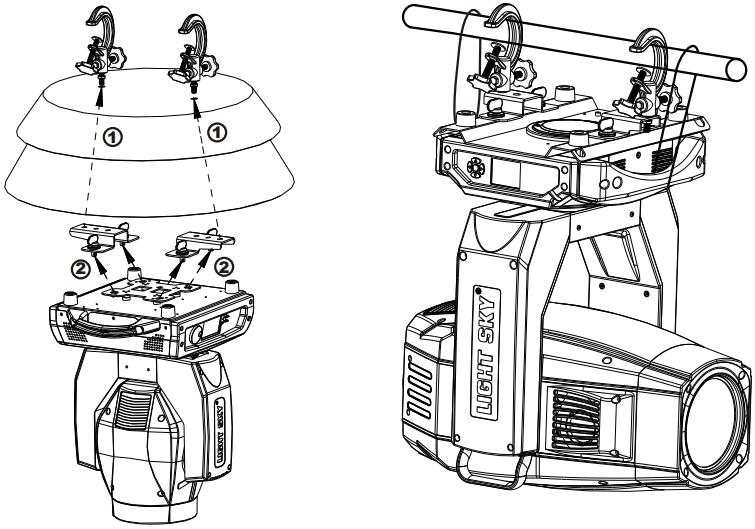
F1000 WASH-50R series



Body Size---Fig 2

INSTALLATION AND CONNECTING

3

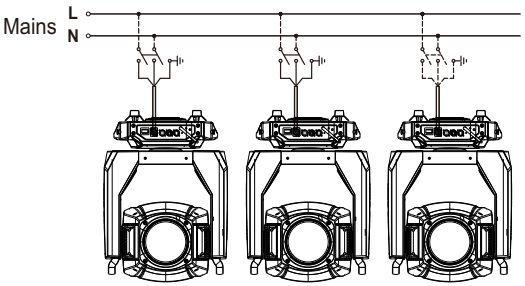


Installing the projector- Fig. 3

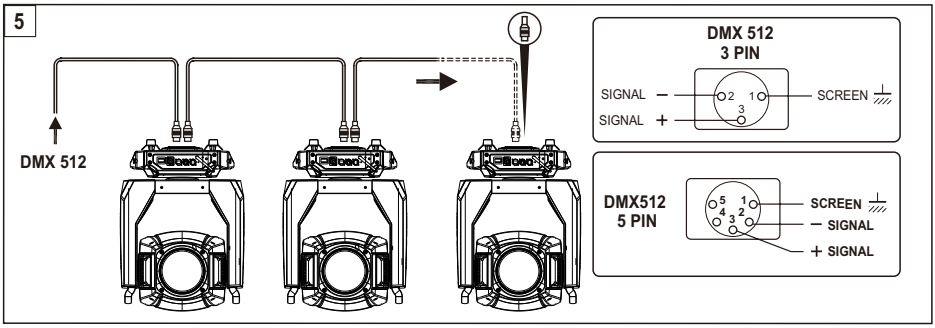
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.
WARNING:with the exception of when the projector is positioned on the floor, the safety cable must be fitted.
This must be securely fixed to the support structure of the projector and then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

灯具防雨罩的安装步骤及灯具可以安装在静止且铺有特殊橡胶垫的地板上, 或装在支架上、天花板及墙壁上。
警告：
除了灯具放置在地板上外, 其他的都需把安全绳索装上。
这要求安全绳索必须牢固地固定灯具的支架, 然后连接到底座的中心固定点上。

4



Connecting to the mains suppply ---Fig 4



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

◎ Please use the round 3 or 5-pin XLR plugs &sockets offered by menu facture to connect the first projector's output to the second projector' 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 pug 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 communicate cable is 2-cord 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).

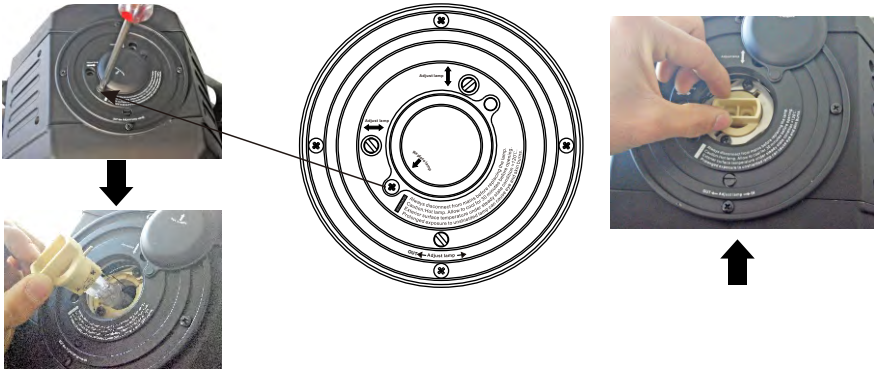
信号线进行接入或接出时,应使用与灯具一并提供的圆柱形**3**或**5**芯**XLR**插头。如果需要延长通讯电缆,在接线时,公母**3**或**5**芯**XLR**插头两端必须一一对应**(**即**1**对应**1**,**2**对应**2**,**3**对应**3),**否则易导致通讯中断。通讯线为两芯屏蔽线,阻抗特性为**75**Ω。**(**注意:每根通讯电缆线的线芯直径至少应为**0.5mm**,所有的**3**或**5**芯**XLR**的内部导线不应互相接触或接触到插头物体。**)**

◎Recommend to use the DMX signal terminator for the installation to avoid the electronic noise dama -ge 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 projec -tor 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。

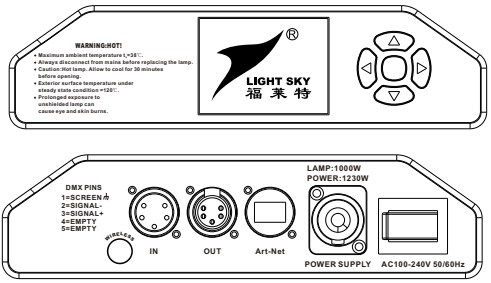
简单来说,**DMX**终端器是一个**XLR**连接器,在其**2**脚与**3**脚之间连有一个**120**欧姆**1/2W**的电阻,将它连到最后一台灯具的**OUT**插座上。

LAMP REPLACEMENT



CONTROL PANEL

6



Supply side

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):

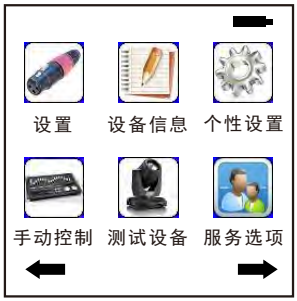
打开电源开关,液晶屏会显示公司的LOGO如下图7，按确认键后就显示菜单如图8，过10秒钟后就显示如图9和图10的信息(图9和图10,5秒切换一次)。

7

LIGHT SKY
福 莱 特

公司LOGO(以实物为准)
(please refer to the actual material)

8



中文菜单

ENGLISH MENU

9

DMX Address
***
LAMP power:***
DMX range:*-**

"*"号显示当前使用的信息
("*"Display the current use of information)

10

基本信息
1.亮泡时间: ***
2.灯泡功率: ***
3.RDM UID:****. ********
4.XY速度模式: ***
5.控制模式: ***
6.DMX地址: ***
7.DMX通道: ***

"*"号显示当前使用的信息

中文

BASIC INFORMATIO
1.LAMP ON TIME:***
2.LAMP POWER:***
3.RDM UID:****.********
4.PT SPEED MODE:***
5.CONTROL MODE:***
6.DMX ADDRESS:***
7.DMX RANGE:***

"*"Display the current use of information

ENGLISH

MENU SETTING(V1.0)

Ⅰ Menu	Ⅱ Menu	Ⅲ Menu	Ⅳ Menu	Function
SETTING 设置	DMX Address 设置地址码	001-512		
	Channel mode 通道模式	Standard(18CH) 标准模式(18CH)		
		Extended(22CH) 扩展模式(22CH)		
		Specific(22CH) 特定模式(22CH)		
	DMX input mode DMX输入模式	Wired input 有线		
		Wireless input 无线		
		Reset wireless 重置无线		
	Exit 退出			
INFO 设备信息	Fixture times 设备时间	Power on Time ****H 上电时间		
		Lamp on Time ****H 亮泡时间***H		
	Fixture temperatures 设备温度	1000_6M_U_TEMP***C 上板 1000_6M 温度***C		
		1000_6M_M_TEMP***C 中板 1000-6M 温度***C		
		1000_6M_D_TEMP***C 下板 1000-6M 温度***C		
		1000_XY_TEMP***C 1000-XY板温度***C		
		1000_DPY_TEMP***C 1000-DPY板 温度***C		
		LAMP_TEMP***C 灯泡测温板 温度***C		
	Fan speed 风机速度	Lamp fan L ****RPM fan R ****RPM 灯泡风机左 ****RPM 灯泡风机右 ****RPM		
		Head fan L ****RPM fan R ****RPM 头部风机左 ****RPM 头部风机右 ****RPM		
	RDM UID RDM地址	****:********		

Ⅰ Menu	Ⅱ Menu	Ⅲ Menu(ENGLISH)		Ⅲ Menu(中文)		Function
INFO 设备信息	DMX live 设备通道	1.Shutter	0-255	1. 频闪	0-255	
		2.Dimmer	0-255	2. 调光	0-255	
		3.Dimmer fine	0-255	3. 调光微调	0-255	
		4.Cyan	0-255	4. 青色	0-255	
		5.Magenta	0-255	5. 品红	0-255	
		6.Yellow	0-255	6. 黄色	0-255	
		7.C.T.O	0-255	7. 降色温	0-255	
		8.Colour wheel 1	0-255	8. 颜色盘1	0-255	
		9.Colour wheel 2	0-255	9. 颜色盘2	0-255	
		10.Macro colours	0-255	10. 颜色宏	0-255	
		11.Beam change	0-255	11. 效果盘	0-255	
		12.Beam rotation	0-255	12. 效果盘旋转	0-255	
		13.Zoom	0-255	13. 缩放	0-255	
		14.Pan	0-255	14. 水平	0-255	
		15.Pan fine	0-255	15. 水平微调	0-255	
		16.Tilt	0-255	16. 垂直	0-255	
		17.Tilt fine	0-255	17. 垂直微调	0-255	
		18.Function	0-255	18. 功能	0-255	
		19. Calibration	0-255	19. 校准	0-255	
		20.Pan-Tilt Time	0-255	20. 水平垂直时间	0-255	
		21.Colour Time	0-255	21. 颜色时间	0-255	
		22. Beam Time	0-255	22. 光束时间	0-255	

Ⅰ Menu	Ⅱ Menu	Ⅲ Menu	Ⅳ Menu	Function
INFO 设备信息	Version info. 版本信息	1000_6M_U_SOFT:V*.** 上板 1000_6M 软件:V*.**		
		1000_6M_M_SOFT:V*.** 中板 1000-6M 软件:V*.**		
		1000_6M_D_SOFT:V*.** 下板 1000-6M 软件:V*.**		
		1000_XY_SOFT:V*.** 1000-XY板软件:V*.**		
		1000_DPY_SOFT:V*.** 1000-DPY板软件:V*.**		
	Exit 退出			
PERSON 个性设置	Lamp on/off 灯泡开关	OFF 关	Default:默认	
		ON 开		
	Lamp power 灯泡功率	500-1000W		
	Dmx lamp off DMX控制灯泡	ON 开	Default:默认	
		OFF 关		
	Pan/Tilt X Y轴	PT swap XY 调换	OFF 关	Default:默认
			ON 开	
		Pan invert X轴反向	OFF 关	Default:默认
			ON 开	
		Tilt invert Y轴反向	OFF 关	Default:默认
			ON 开	
		Exit 退出		

Ⅰ Menu	Ⅱ Menu	Ⅲ Menu	Ⅳ Menu	Function
PERSON 个性设置	DMX reset DMX复位	ON 开	Default:默认	
		OFF 关		
	Reset 复位	Dimmer reset 调光复位		
		CMY.CTO reset CMY.CTO复位		
		Effects reset 效果复位		
		Pan/Tilt reset XY复位		
		System reset 系统复位		
		Exit 退出		
	Fan mode 风机模式	Silent mode 静音模式		
		Normal mode 正常模式	Default:默认	
		Hot mode 高温模式		
	Display 显示设置	Display language 语言选择	英文(English)	Default:默认
			中文(Chinese)	
		Display sleep 休眠时间	Light always 常亮	
			2 minutes 2分钟	Default:默认
			4 minutes 4分钟	
			6 minutes 6分钟	
		Display intensity 背光调节	10-100	
		Display rotation 屏幕旋转	Normal 正常	
			Rotate 180 旋转180度	
			Auto 自动	Default:默认
		TFT Calibration 屏幕校准		
		Exit 退出		
	Exit 退出			

Ⅰ Menu	Ⅱ Menu(ENGLISH)		Ⅱ Menu(中文)		Function
MANUAL 手动控制	1.Shutter	0-255	1. 频闪	0-255	
	2.Dimmer	0-255	2. 调光	0-255	
	3.Dimmer fine	0-255	3. 调光微调	0-255	
	4.Cyan	0-255	4. 青色	0-255	
	5.Magenta	0-255	5. 品红	0-255	
	6.Yellow	0-255	6. 黄色	0-255	
	7.C.T.O	0-255	7. 降色温	0-255	
	8.Colour wheel 1	0-255	8. 颜色盘1	0-255	
	9.Colour wheel 2	0-255	9. 颜色盘2	0-255	
	10.Macro colours	0-255	10. 颜色宏	0-255	
	11.Beam change	0-255	11. 效果盘	0-255	
	12.Beam rotation	0-255	12. 效果盘旋转	0-255	
	13.Zoom	0-255	13. 缩放	0-255	
	14.Pan	0-255	14. 水平	0-255	
	15.Pan fine	0-255	15. 水平微调	0-255	
	16.Tilt	0-255	16. 垂直	0-255	
	17.Tilt fine	0-255	17. 垂直微调	0-255	
	Exit		退出		

Ⅰ Menu	Ⅱ Menu	Ⅲ Menu	Ⅳ Menu	Function
TEST 测试设备	Test all 全部测试			
	Test pan/tilt X Y测试			
	Test effects 效果测试			
	Exit 退出			
SERVICE 服务选项	Error list 错误清单			
	Adjust 校准	Pan 水平	± 5.00%	
		Tilt 垂直	± 5.00%	
		Beam change 效果盘	± 5.00%	
		Beam rotation 效果盘旋转	± 5.00%	
		Beam move 效果盘移动	± 5.00%	
		Colour wheel 1 颜色盘1	± 5.00%	
		Colour wheel 2 颜色盘2	± 5.00%	
		Cyan 青色	± 5.00%	
		Magenta 品红	± 5.00%	
		Yellow 黄色	± 5.00%	
		C.T.O 降色温	± 5.00%	
		Dimmer 调光	± 5.00%	
		Zoom 缩放	± 5.00%	
		Frost 雾化	± 5.00%	
		Exit 退出		
	Fan clean 风扇清扫	OFF 关	Default:默认	
		ON 开		
	Factory 工厂设置			
	Updata 软件升级			
	Exit 退出			

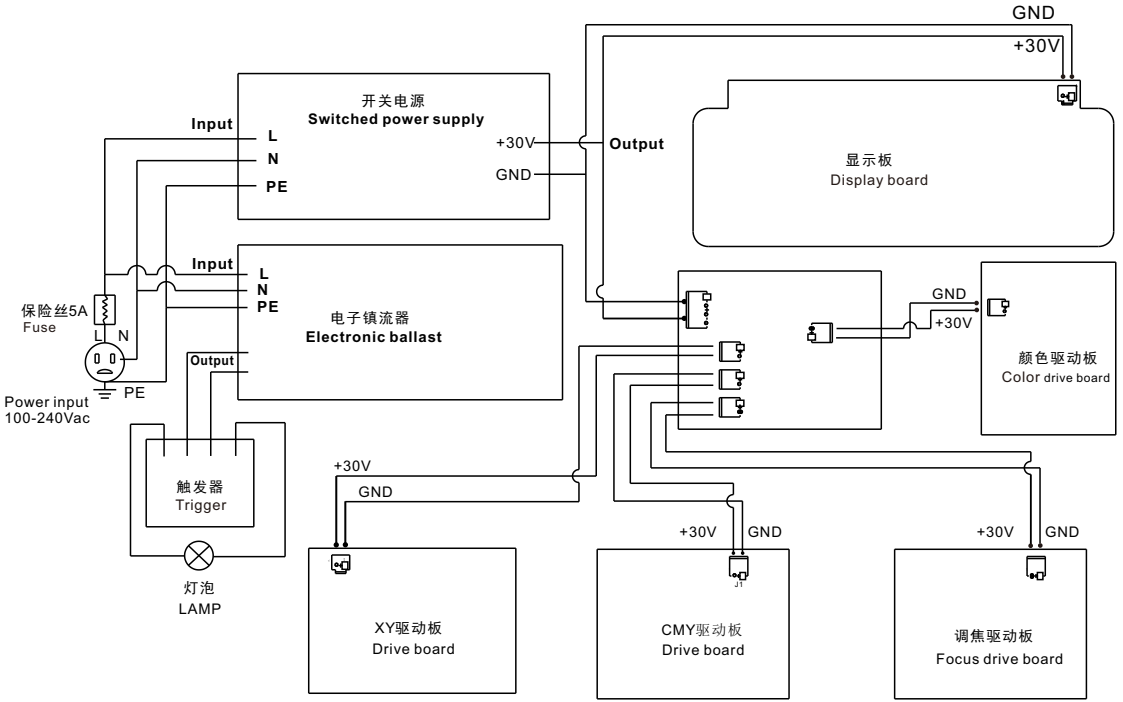
CHANNEL(V1.0)

Standard mode	Extended mode	Specific mode	DMX Value	Percent	Function
1	1	1			**STOP/STROBE** 频闪
			0-19	0-7	Shutter closed (lamp switches to 500 watt mode after shutter is closed for 2 seconds) 快门关(快门关闭2秒后，灯泡功率降至500w)
			20-49	8-19	Shutter open:快门开
			50-200	20-78	Strobe,slow → fast:频闪, 由慢到快
			201-210	79-82	Shutter open:快门开
			211-255	82-100	Random strobe,slow → fast:随机频闪, 由慢到快
2	2	2	0-255	0-100	**Dimmer fade(MSB)** 调光 Closed →open:关 → 开
	3	3	0-255	0-100	**Dimmer fade,fine (LSB):**调光微调
3	4	4	0-255	0-100	**CYAN** 青色 White→full cyan:白光→青色
4	5	5	0-255	0-100	**Magenta** 品红 White → full magenta:白光 → 品红
5	6	6	0-255	0-100	**Yellow** 黄色 White→ full yellow:白光→黄色
6	7	7	0-255	0-100	**CTO** 降色温 Open(6000 K)→warm(3200 K):打开(6000K→3200K)
7	8	8			COLOUR WHEEL 1 颜色盘1
			0-1	0	White:白光
			2-19	1-7.5	White→Blue:白光过渡到蓝色
			20-21	8	Blue:蓝色
			22-38	9-14.9	Blue→Orange:蓝色过渡到橙色
			39-40	15	Orange:橙色
			41-57	16-22	Orange→Aquamarine:橙色过渡到碧绿色
			58-59	23	Aquamarine:碧绿色
			60-76	23.5-29.8	Aquamarine→Dark Green:碧绿色过渡到深绿色
			77-78	30	Dark Green:深绿色
			79-96	31-37.6	Dark Green→UV Filter:深绿色过渡到荧光色
			97-98	38	UV Filter:荧光色
			99-116	39-45.5	UV Filter→Dark Red:荧光色过渡到深红色
			117-118	46	Dark Red:深红色
			119-127	47-49	Dark Red→White:深红色过渡到白光
			128-255	50-100	Slow-Fast Rotation 0.2-160rpm:由慢到快旋转0.2-160rpm

Standard mode	Extended mode	Specific mode	DMX Value	Percent	Function
8	**9**	**9**			COLOUR WHEEL 2 颜色盘2
			0-1	0	White:白光
			2-19	1-7.5	White→CTO 3200:白光过渡到色温3200
			20-21	8	CTO 3200:色温3200
			22-38	9-14.9	CTO 3200→Lavender:色温3200过渡到红紫色
			39-40	15	Lavender:红紫色
			41-57	16-22	Lavender→Light Green:红紫色过渡到浅绿色
			58-59	23	Light Green:浅绿色
			60-76	23.5-29.8	Light Green→CTB 8000:浅绿色过渡到色温8000
			77-78	30	CTB 8000:色温8000
			79-96	31-37.6	CTB 8000→Pink:色温8000过渡到粉红色
			97-98	38	Pink:粉红色
			99-116	39-45.5	Pink→Green:粉红色过渡到绿色
			117-118	46	Green:绿色
			119-127	47-49	Green→White:绿色过渡到白光
			128-255	50-100	Slow-Fast Rotation 0.2-160rpm:由慢到快旋转0.2-160rpm
9	**10**	**10**			**MACRO COLOURS** 颜色宏
			0	0	No Function:无功能
			1-185	0.5-72.9	Macro Colours:颜色宏
			186-255	73.0-100	No Function:无功能
10	**11**	**11**			**BEAM SHAPER CHANGE** 光束造形切换
			0-63	0.0-24.7	White:白光
			64-127	25.0-49.7	Beam shaper 1
			128-191	50.0-74.7	Beam shaper 2
			192-255	75.0-100	Beam shaper 3
11	**12**	**12**			**BEAM SHAPER ROTATION** 光束造形自转
			0	0.0	Position 0° :0度位置
			21	8.2	Position 90° :90度位置
			42	16.2	Position 180° :180度位置
			63	24.7	Position 270° :270度位置
			84	33.0	Position 360° :360度位置
			105	41.7	Position 450° :450度位置
			127	49.7	Position 540° :540度位置
			128-190	50.0-74.2	Fast-Slow Rotation(3-120rph):由快到慢旋转(3-120rpm)
			191-192	74.7-75.0	Stop:停止
			193-255	75.5-100	Slow-Fast Rotation(3-120 rpm):由慢到快旋转(3-120rpm)
12	**13**	**13**			**ZOOM** 缩放
			0-40	0-15.7	No frost→full frost:无雾化过渡到全雾化
			41-43	16-17	Keep the whole frost:保持全雾化
			44-255	18-100	Narrow→Wide Beam:小光束到大光束
13	**14**	**14**	0-65535	0-100	**Pan,16-bit(MSB and LSB)** 水平
14	**15**	**15**			Left→right(32768=neutral) 从左到右微动
15	**16**	**16**	0-65535	0-100	**Tilt,16-bit(MSB and LSB)** 垂直
16	**17**	**17**			Up→down(32768=neutral) 从上到下微动

Standard mode	Extended mode	Specific mode	DMX Value	Percent	Function
					FUNCTION 功能
			0-9	0-4	No function:无功能
			10-14	4-5	Reset all:所有功能复位
			15-19	6-7	Reset dimmer shutter:调光频闪复位
			20-24	8-9	Reset CMY CTO:CMY CTO复位
			25-29	10-11	Reset effects:效果复位
			30-34	12-13	Reset PT:XY轴复位
			35-39	14-15	Fan silent mode:风机静音模式
			40-44	16-17	Lamp on:开灯泡
			45-49	18-19	Lamp off:关灯泡
			50-79	20-31	No function:无功能
			80-84	31-33	Silent mode:静音模式
			85-89	33-35	Normal mode:正常模式
			90-94	35-37	Hot mode:高温模式
			95-99	37-39	Fan clean:风机清洁
			100-104	39-41	Backlight on:打开背光
			105-109	41-43	Backlight off:关闭背光
			110-114	43-45	Zoom open/close:缩放可开合
			115-119	45-47	Zoom close:缩放保持闭合状态
17	**18**	**18**	120-124	47-49	No function:无功能
			125-126	49	Ballast 100%:电子镇流器功率100%
			127-128	50	Ballast 90%:电子镇流器功率90%
			129-130	51	Ballast 80%:电子镇流器功率80%
			131-132	51-52	Ballast 70%:电子镇流器功率70%
			133-134	52-53	Ballast 60%:电子镇流器功率60%
			135-139	53-54	Smooth dimming:平滑调光线
			140-144	54-56	Average dimming:平均调光线
			145-149	57-58	Fast dimming:快速调光线
			150-179	58-70	No function:无功能
			180-184	70.6-72.2	Pan calibration enable
			185-189	72.6-74.1	Tilt calibration enable
			190-194	74.5-76.0	Effect calibration enable
			195-199	76.5-78.0	Effect rota calibration enable
			200-204	78.4-80.0	Effect move calibration enable
			205-209	80.4-82.0	Color wheel1 calibration enable
			210-214	82.4-84.0	Color wheel2 calibration enable
			215-219	84.3-85.9	Cyan calibration enable
			220-224	86.3-87.8	Magenta calibration enable
			225-229	88.2-89.8	Yellow calibration enable
			230-234	90.2-91.8	CTO calibration enable
			235-239	92.2-93.7	Strobe/shutter calibration enable
			240-244	94.1-95.7	Zoom calibration enable
			245-249	96.0-97.7	Frost calibration enable
			250-255	98.0-100	No function
18	**19**	**19**	0-255	0-100	**CALIBRATION** 校准
					PAN-TILT TIME XY轴运行时间
—	**20**	**20**	0	0	Normal speed:正常速度
			1-254	1-99	Fast-Slow Time:时间由快到慢
			255	100	Normal speed:正常速度
					COLOUR TIME 颜色运行时间
—	**21**	**21**	0	0	Normal speed:正常速度
			1-254	1-99	Fast-Slow Time:时间由快到慢
			255	100	Normal speed:正常速度
					BEAM TIME 光束切换运行时间
—	**22**	**22**	0	0	Normal speed:正常速度
			1-254	1-99	Fast-Slow Time:时间由快到慢
			255	100	Normal speed:正常速度

Circuit connecting diagram



CLEANING AND MAINTENANCES

●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 reg -ularly 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 maintenaceor 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

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 DMX 512 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接触不良；
◎Please check whether the connected point of the 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；
◎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。
◎Check the bottom box driver board "WK" socket if the resistance 0 between the two line.
检查底箱驱动板“WK”插座上的两位线之间的阻值是否为0。

■**The light beam is dark,not inhomogeneou** 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.
检查光学部件是否堆积有灰尘,清洗干净；
◎Please measure if the power supply is enough.
测量电力供应是否不足；
◎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,直至调出理想的光度。

■**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 machenical parts is jamging.After cleaning,please add some temperature -durable juice.
检查调焦系统的机械部份是否卡住，去尘埃后添加防冻、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.
检查风扇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.
检查电力供应是否不足，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 ongood 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 singal 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 75Ω)
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 deformating,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 responsled 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 mechanicalpart 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。

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◇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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