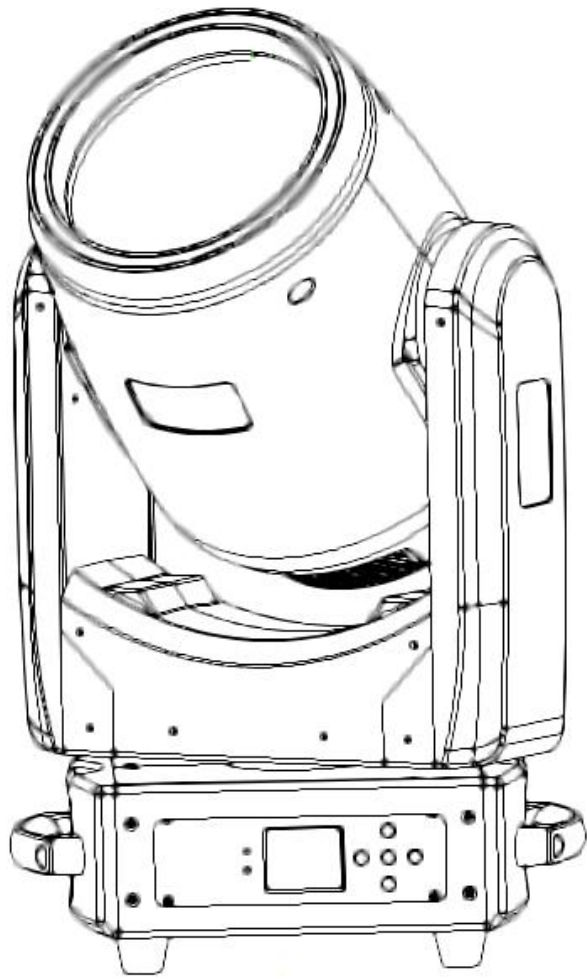


LED 198W module Beam Moving Head



B198

User Manual

1.SAFETY INSTRUCTIONS / 安全守则



CAUTION

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching wires!

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



IMPORTANT

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device.

Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

The device shall only be used with rated voltage and frequency.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it.

Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

Please don't project the beam onto combustible substances.

Fixtures cannot be installed on combustible substances, keep more than 50cm distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer of his service agent or a similar qualified person in order to avoid a hazard

该设备出厂时完好无损。为了保持这种状态并确保安全操作，用户绝对有必要遵守本用户手册中的安全说明和警告说明。

如果设备因环境变化而受到温度变化的影响，请勿立即开启。产生的冷凝可能会损坏设备。保持设备关闭，直到它达到室温。

此设备属于 I 级保护。因此，设备必须接地。

电气连接必须由合格人员进行。

该设备只能在额定电压和频率下使用。

确保可用电压不高于本手册末尾所述的电压。

确保电源线不会被锋利的边缘卷曲或损坏。如果是这种情况，则必须由授权经销商更换电缆。

设备不使用时或清洁前，请务必断开电源，仅通过插头处理电源线。切勿通过拉扯电源线拔出插头。

在初始启动期间，可能会出现一些烟雾或气味或气味。这是一个正常过程，并不一定意味着设备有缺陷，应该逐渐减少。

请不要将光束投射到可燃物质上。

灯具不能安装在可燃物质上，与墙壁保持 50cm 以上的距离，以保证空气流通顺畅，因此不应有风扇和热辐射通风的遮蔽物。

如果本灯具的外部软电缆或软线损坏，应由其服务代理的制造商或类似的合格人员专门更换，以避免发生危险

2.UNPACKING / 开包装

Thank you for choosing our LED 198W moving head light. For your own safety, please read this manual before installing the device. This manual covers the important information on installation and applications. Please install and operate the fixture with following instructions. Meanwhile, please keep this manual well for future needs.

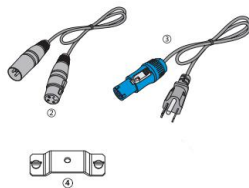
The LED 198W is made of a new type of high temperature strength of engineering plastic and cast aluminum casing with nice outlook. The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. It's available independently controlled and linkable with each other for operation. And it is applicable for large-scale live performances, theater, studio, nightclubs and discos.

The 198W Moving head light which features high brightness and stability. Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:

感谢您选择我们的 LED 198W 摇头灯。为了您的安全，请在安装设备前阅读本手册。本手册涵盖了有关安装和应用的重要信息。请按照以下说明安装和操作灯具。同时，请妥善保管本手册以备日后使用。

LED 198W 采用新型高温强度工程塑料和铸铝外壳，外形美观。灯具严格按照 CE 标准设计制造，符合国际标准 DMX512 协议。可独立控制并可相互联动运行。适用于大型现场演出、剧院、演播室、夜总会和迪斯科舞厅。

150W 摇头灯，亮度高，稳定性好。收到灯具时请小心拆开包装，并检查是否在运输过程中损坏。并请检查包装盒内是否包含以下物品：



①	Moving Head	1PC
②	Signal Cable	1PC
③	Power Cable	1PC
④	Omega Clamp	1PC
⑤	User Manual	1PC

3.OPERATION INSTRUCTIONS / 使用说明

The moving head is for spot effect for on-site decoration purpose.

Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.

This light should be keep away from strong shaking during any transportation or movement.

Don't pull up the light by only the head, or it might cause damages to the mechanical parts.

Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And don't lay any power cables on the floor. Or it might cause electronics shock to the people.

Make sure the installation place is in good safety condition before installing the fixture.

Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.

Make sure the lens are in good condition. It's recommended to replace the units if there are any damages or severe scratch.

Make sure the fixture is operated by qualified personnel who know the fixture before using.

Keep the original packages if any second shipments is needed.

Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.

It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock, lamp broke, etc.

摇头灯用于现场装饰的现场效果。

如果灯具在运输后经历过剧烈的温差,请勿打开灯具,因为它可能会因环境变化而损坏灯具。所以一定要操作灯具直到它处于正常温度。

在任何运输或移动过程中,此灯应远离强烈晃动。

不要只用头部拉灯,否则可能会损坏机械部件。

安装时不要将灯具暴露在过热、潮湿或灰尘过多的环境中。并且不要在地板上铺设任何电源线。否则可能会对人们造成电子电击。

安装灯具前,请确保安装场所处于良好的安全状态。

安装夹具时一定要放好安全链,并检查螺丝是否拧紧。

确保镜头状况良好。如果有任何损坏或严重划痕,建议更换单元。

使用前,请确保灯具由熟悉灯具的合格人员操作。

如果需要第二次发货,请保留原包装。

未经制造商或指定维修机构的任何指示,请勿尝试更换固定装置。

因未按使用说明书操作而造成的故障或任何非法操作,如电击短路、触电、灯坏等,不在保修范围内。

4.INSTALLATIONS / 安装

installations Note: In order to increase protection, please install the lamp on the sidewalk, outside the seating area, or an area where unauthorized persons may touch the lamp
Before installing the fixture on any surface, make sure that the installation area can bear the minimum point load above 10 points of the weight of the equipment. The installation of the fixing device must always be fixed with auxiliary safety accessories (such as a suitable safety rope)

Do not stand directly under the equipment when installing, removing, or servicing fixtures From the ceiling or set on a flat surface (see the picture below). Ensure that this fixture is kept at least 0.5m (1.5 feet) away from any flammable materials (decorations, etc.)

Be sure to use and install the supplied safety rope to ensure safety and prevent accidental damage and/or injury in case the fixture is damaged

Installation point: Overhead installation requires a wealth of experience, including calculation of working load limits, in-depth understanding of the installation materials used, and regular safety inspections of all installation materials and fixtures. If you do not have these qualifications, please do not try to install it yourself. Improper installation can cause personal injury

Before connecting the main power cord to an appropriate wall outlet, make sure to complete all assembly and installation procedures

Lamp installation: LED shaking head provides a unique mounting bracket assembly, which integrates the bottom of the base and the fixing point of the safety cable into one unit (see the figure below). When installing the fixture to the truss, make sure to use the appropriate tools to fix it on the attached bracket, and use the M10 screw that passes through the center hole of the "bracket" to fix it. As an additional safety measure, make sure to use at least one safety cable integrated in the base assembly to connect at least one appropriately rated safety cable to the fixture.

注意：为了增加保护，请将灯具安装在人行道，座位区以外的地方，或未经授权的人员可能接触灯具的区域。

在将固定装置安装到任何表面上之前，请确保安装区域可承受设备重量的 10 点以上的最小点载荷。

固定装置的安装必须始终使用辅助安全附件（例如适当的安全绳）进行固定。

安装，拆卸或维修固定装置时，切勿站在设备正下方。

从天花板上或设置在平坦的表面上（请参见下图）。确保此固定装置与任何易燃材料（装饰等）保持至少 0.5m（1.5 英尺）的距离。

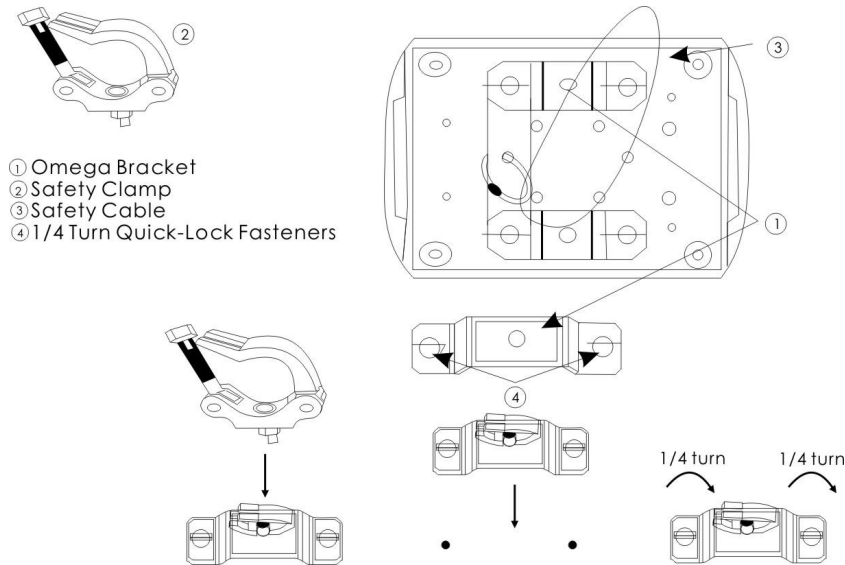
请务必使用并安装随附的安全绳，以确保安全，以防止万一夹具损坏而造成意外损坏和/或伤害。

安装点：架空安装需要丰富的经验，其中包括计算工作负载极限，对所用安装材料的深入了解以及对所有安装材料和固定装置的定期安全检查。如果您没有这些资格，请不要尝试自己进行安装。安装不当会导致人身伤害。

将主电源线连接到适当的壁装电源插座之前，请确保完成所有装配和安装过程。

灯具安装：LED 摇头提供了独特的安装支架组件，该组件将底座的底部和安全电缆的固定点集成在一个单元中（请参见下图）。当将该固定装置安装到桁架上时，请确保使用适当的工

具 将其固定在随附的支架上，并使用穿过“支架”中心孔的 M10 螺钉进行固定。作为一项附加的安全措施，请确保使用集成在基础组件中的安全索架上的至少一根，将至少一根适当额定的安全缆线连接到固定装置。



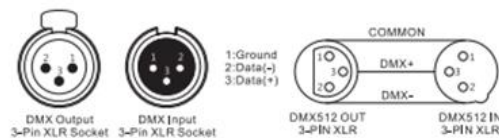
Regardless of the rigging option you choose for your LED moving head, always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

无论您为 LED 摇头选择哪种安装方式，请始终确保使用安全电缆固定灯具。固定装置为吊架上的安全电缆提供了一个内置的固定点，如上所述。确保仅使用安全索的指定固定点，切勿将安全索固定在提手上。

5.DMX-512 CONNECTIONS / MDX512 连接

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

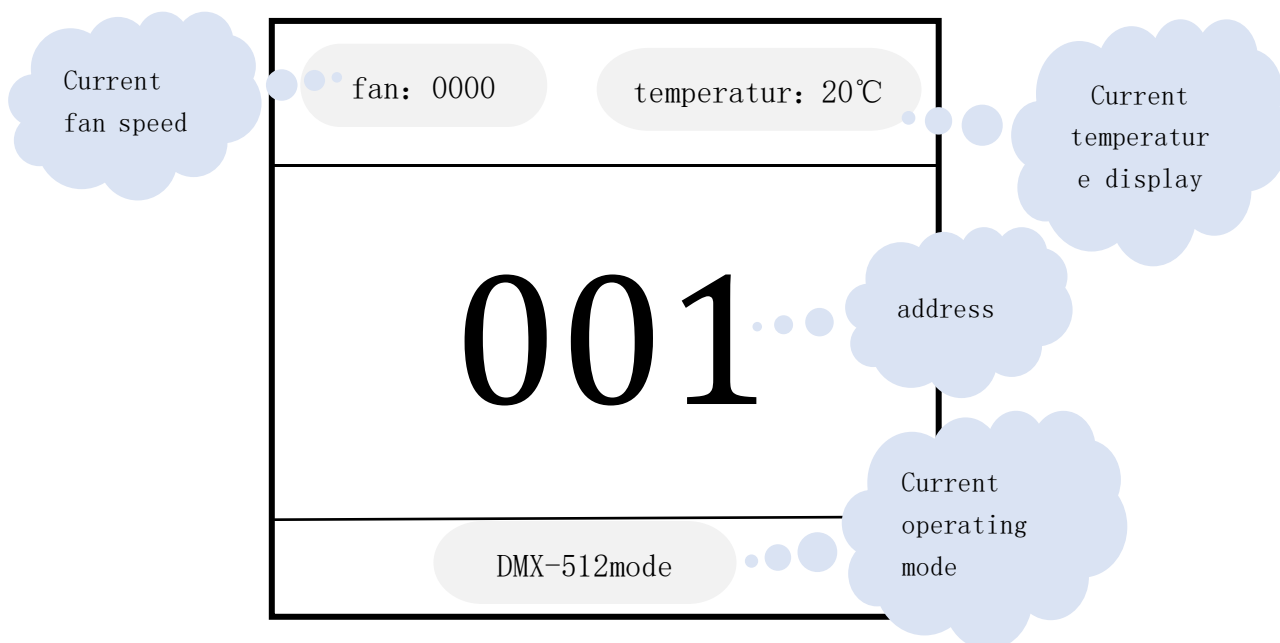
将提供的 XLR 电缆连接到控制器的 3 针 XLR 母头输出，另一端连接到摇头的 3 针 XLR 母头输入。您可以通过串行链接将多个摇头链接在一起。所需的电缆应该是带有 XLR 输入和输出连接器的两芯屏蔽电缆。请参考下图。



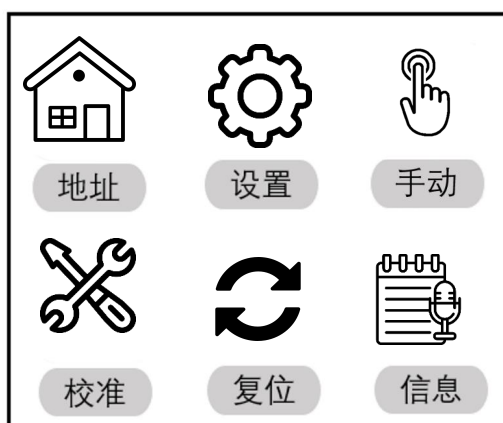
For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.

对于 DMX 电缆必须长距离运行或在嘈杂的电气环境中（例如在迪斯科舞厅中）的安装，建议使用 DMX 终结器。这有助于防止电噪声损坏数字控制信号。DMX 终结器只是一个 XLR 插头，在引脚 2 和 3 之间连接了一个 120 Ω 电阻，然后将其插入链中最后一个灯具的输出 XLR 插座。请参见下面的插图。

6. MENU OPERATIONS / 菜单操作



7. Menu top interface 菜单首界面



Address: Click to enter the address code setting

Settings: Click to enter the system settings

Manual: Click to enter manual mode

Calibration: Click to enter the password to enter the system calibration mode

Reset: Click to enter the system reset mode

Information: Click to enter to view system information

地址：点击进入地址码设置

设置：点击进入系统设置

手动：点击进入手动模式

校准：点击输入密码，进入系统校准模式

复位：点击进入系统复位模式

信息：点击进入查看系统信息

8. Menu structure 菜单结构

Main menu	Secondary menu	Three-level menu/parameter
address	001-512	(Add the number of channels each time, subtract the normal)
System settings	Operating mode	DMX/sound control/self-propelled 1/self-propelled 2
	Channel mode	17CH
	Horizontal reversal	switch
	Vertical reverse	switch
	Hall error correction	switch
	Optocoupler error correction	switch
	Signal hold	switch
	screen protector	switch
	Screen flip	On/off/auto
	Synchronization Update	switch
	Language	Medium/EN
Manual mode	reset	
	Color wheel	000-255
	Strobe	000-255
	Dimming	000-255
	Picture plate	000-255
	Reserved	000-255
	Reserved	000-255
Atomization	000-255	

	focusing	000-255
	X axis	000-255
	X-axis fine adjustment	000-255
	Y axis	000-255
	Y-axis fine adjustment	000-255
	Reserved	000-255
	Reset	000-255
	Reserved	000-255
	Reserved	000-255
	Reserved	000-255
	Reserved	000-255
	Reserved	000-255
	Reserved	000-255
System calibration	X axis motor	000-255
	Y axis motor	000-255
	Color wheel motor	000-255
	Pattern motor	000-255
	Reserved motor	000-255
	Focus motor	000-255
	Atomization motor	000-255
	power	010-255
	MIC sensitivity	000-255
	change Password	Enter a new password
System reset	Effect motor reset	
	Scan motor reset	
	All motors reset	
system message	Reset information	Display specific information content
	DMX data detection	Display specific DMX detection content
	Sensor information	Display specific information of optocoupler and Hall
	hardware version	
	Software version	

主菜单	次级菜单	三级菜单/参数
地址	001 - 512	(每次加通道数, 减正常)
系统设置	运行模式	DMX/声控/自走 1/自走 2
	通道模式	17CH
	水平反转	开/关
	竖直反转	开/关
	霍尔纠错	开/关
	光耦纠错	开/关
	信号保持	开/关
	屏幕保护	开/关
	屏幕翻转	开/关/自动
	同步更新	开/关
	语言	中/EN
	恢复出厂设置	
手动模式	色盘	000-255
	频闪	000-255
	调光	000-255
	图盘	000-255
	预留	000-255
	预留	000-255
	雾化	000-255
	调焦	000-255
	X 轴	000-255
	X 轴微调	000-255
	Y 轴	000-255
	Y 轴微调	000-255
	预留	000-255
	复位	000-255
	预留	000-255
	预留	000-255
	预留	000-255
	预留	000-255
系统校准	X 轴电机	000-255
	Y 轴电机	000-255
	色盘电机	000-255
	图案电机	000-255
	预留电机	000-255
	调焦电机	000-255

	雾化电机	000-255
	功率	010-255
	MIC 灵敏度	000-255
	修改密码》	输入新密码
系统复位	效果电机复位	
	扫描电机复位	
	全部电机复位	
系统信息	复位信息	显示具体信息内容
	DMX 数据检测	显示具体 DMX 检测内容
	传感器信息	显示光耦、霍尔具体信息
	硬件版本	
	软件版本	

Automatic screen rotation function

The system can automatically rotate the screen according to the direction of gravity without manual rotation. You can also turn off the automatic rotation function.

Manual control

This interface is used to control the current fixture.

Press the "OK" key to enter the editing state. Press the "up" and "down" keys to change the channel value. Press "OK" again to save the modified value and exit the editing. Press "Exit" to exit the editing without saving the modified value.

屏幕自动旋转功能

系统能自动根据重力方向，自动旋转屏幕，无需手动旋转。也可以关闭自动旋转功能。

手动控制

此界面用于控制当前灯具。

按“确定”键进入编辑状态。按“上”“下”键改变通道值。再按一次“确定”保存修改值，退出编辑，按“退出”则不保存修改的值，直接退出编辑。

System calibration

Set a layer of password here to prevent misuse by non-professionals. Press the "OK" button to verify the password

Option	Description
Initial position calibration	After entering the sub-interface, you can adjust the reset position of the X-axis, Y-axis and other motors to compensate for the error in the hardware installation. The adjustment range is 0~255, and 127 means no adjustment.
Stroke calibration	After entering the sub-interface, you can adjust the X-axis,

	Y-axis and other motor strokes, the adjustment range is 0~255, 127 means no adjustment.
Force calibration	After entering the sub-interface, you can adjust the force of the X-axis, Y-axis and other motors, the adjustment range is 0~255, 127 means no adjustment.
Speed calibration	After entering the sub-interface, you can adjust the speed of the X-axis, Y-axis and other motors, the adjustment range is 0~255, 127 means no adjustment.
Fan control	Set control fan mode
Other calibration	Voice control sensitivity calibration, and change the password
Advanced calibration	Reserved function
Synchronization Update	Select the above modification to update to other lamps and lanterns simultaneously, "On" means to update the content

系统校准

这里设置一层密码，防止非专业人员误操作。按“确定”键进行密码验证。

选项	说明
初始位置校准	进入子界面后，可调整 X 轴、Y 轴等电机的复位位置，以弥补硬件安装上的误差，调整范围 0~255，127 表示没有调整。
行程校准	进入子界面后，可调整 X 轴、Y 轴等电机的行程，调整范围 0~255，127 表示没有调整。
力度校准	进入子界面后，可调整 X 轴、Y 轴等电机的力度，调整范围 0~255，127 表示没有调整。
速度校准	进入子界面后，可调整 X 轴、Y 轴等电机的速度，调整范围 0~255，127 表示没有调整。
风扇控制	设置控制风扇方式
其他校准	声控灵敏度校准，以及修改密码
高级校准	预留功能
同步更新	选择以上修改同步更新至其他灯具，“开”则表示要更新内容

Reset

Press the "up" and "down" keys to switch the reset mode, and press "OK" to reset directly.

Option	Description
head	Reset effect panel except XY
XY	Only XY axis reset
all	Fixture reset

复位

按“上”“下”键切换复位模式，按“确定”后直接复位。

选项	说明
头部	除 XY 以外的效果盘复位
XY	仅 XY 轴复位
全部	灯具复位

system message

Option	Description
Reset error message	If the red ERR indicator is on, it means that the lamp is running wrong, and you can enter the sub-interface to view the details.
DMX data monitoring	This enters the sub-interface to display the channel value numerically for viewing
Sensor information	Real-time monitoring of the status of various photoelectric switches and Hall sensors on the lamp
Hardware version number	Lamp hardware information
Software version number	Lighting software version
Total usage time	Cumulative use time (accurate to the minute)

系统信息

选项	说明
复位错误信息	如果红色 ERR 指示灯发亮，说明灯具运行出错，详细情况可由此进入子界面查看。
DMX 数据监控	由此进入子界面，以数值显示通道值以供查看
传感器信息	实时监测灯上各种光电开关、霍尔等传感器状态
硬件版本号	灯具硬件信息
软件版本号	灯具软件版本
总计使用时间	累计使用时间（精确到分钟）

9. Product parameter introduction 产品参数介绍

Input voltage: AC100-240V 50-60HZ

Light source: 198W module high output white light LED

Light strip: 30pcs 0.2W RGB5050LED

Service life: 50,000 hours service life, low power consumption

Color temperature: 7500K

Beam angle: 1.6° beam angle, focusing function

Color: 10 colors + white, variable direction and speed

Fixed gobos: 18 fixed gobos + white light, rotation and jitter

Prism: 16 prism, variable speed bidirectional rotation

With fog and colorful function

Strobe: high-speed strobe effect, 1-25 flashes per second

Channel: 17 CH

Control mode: DMX 512, master-slave, voice control, self-propelled

With remote RDM function

Auto focus function

Display mode: color liquid crystal display

Horizontal scan: 540 degrees (160bit precision scan) electronic error correction.

Vertical scanning: 270 degrees (160bit precision scanning) electronic error correction.

Temperature protection function, when the internal temperature reaches 40°C, the fan starts to work, when the internal temperature reaches 70°C and the brightness is reduced by half.

输入电压：AC100-240V 50-60HZ

光源：198W 模组高输出白光 LED

灯带：30 颗 0.2W RGB5050LED

使用寿命：50,000 小时使用寿命，低功耗

色温：7500K

光束角：1.6°光束角，聚焦功能

颜色：10 色+白色，方向和速度可变

固定图案：18 个固定图案+白光，旋转和抖动

棱镜：16 棱镜，变速双向旋转

带雾化和七彩功能

频闪：高速频闪效果，每秒 1-25 次闪烁

通道：17 CH

控制模式：DMX 512，主从，声控，自走

带远程 RDM 功能

自动对焦功能

显示方式：彩色液晶显示

水平扫描:540 度(160bit 精度扫描)电子纠错.

垂直扫描:270 度(160bit 精度扫描)电子纠错.

温度保护功能，当内部温度达到 40℃时，风扇开始工作，当内部温度达到 70℃且亮度降低一半时。

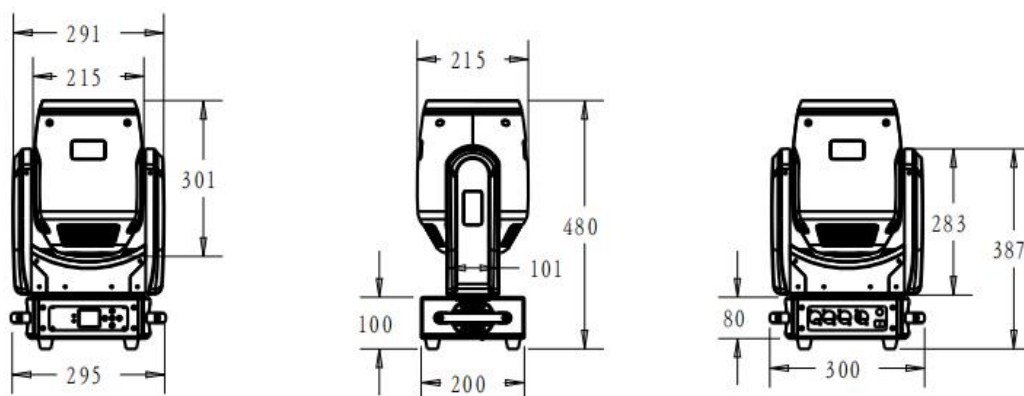
Features:

The appearance of the product is simple and exquisite, light weight, suitable for use in multiple places, using high-brightness LED module light source, the light is sharp and the spot is clear, using a two-in-one high-precision lens, the minimum light-emitting angle reaches 1.6 degrees, a variety of stroboscopic effects, equipped with Atomization and colorful functions, high standard constant current solution, strong uniformity of low brightness, stable linear dimming, auto focus function, support RMD remote dialing function, the light strip is equipped with 20 static effects and 51 dynamic effects. When dialing the address code, press the up button in the menu to automatically increase the number of channels, without calculating the address code of the next lamp, the lamp automatically monitors the photocoupler and Hall data function, and has a temperature self-check function, the lamp temperature reaches 40 degrees, the fan starts, The power is reduced to 70 degrees to protect the life of the lamp beads.

特点:

产品外观简洁精致，重量轻便，适合多场所使用，采用高亮 LED 模组光源，出光锐利光斑清晰，采用二合一高精度镜头，最小出光角度，达到 1.6 度，多种频闪效果，配有雾化和七彩功能，高标准恒流方案，低亮度统一性强，线性调光稳定，拥有自动对焦功能，支持 RMD 远程拨码功能，灯带配有 20 种静态效果和 51 个动态效果，在拨地址码时，按菜单上键可自动增加通道数，无需计算下一台灯地址码，灯具自动监测光耦和霍尔数据功能，并且带温度自检功能，灯具温度达到 40 度，风扇启动，达到 70 度功率降低，保护灯珠使用寿命。

10.Lighting size 灯具尺寸



10. DMX512Channel DMX512 通道

17CH			
NO.	Channel function	Value	Description
1	X	0-255	0--540°
2	X fine-tuning	0-255	X axis 16bit
3	Y	0-255	0--270°
4	Y fine-tuning	0-255	Y axis 16bit
5	XY speed regulation	0-255	speed
6	Dimming	0-255	0%-100% dimming
7	Strobe	0-3	Lights off
		4-99	Synchronous strobe
		100-149	Pulse strobe
		150-199	Strobe
		200-250	Random strobe
		251-255	Light up
8	colour	0-1	White
		2-7	Color 1
		8-13	Color 2
		14-19	Color 3
		20-25	Color 4
		26-31	Color 5
		32-37	Color 6
		38-43	Color 7
		44-49	Color 8
		50-55	Color 9
		56-61	Color 10
		62-67	White light + color 1
		68-73	Color 1+color 2
		74-79	Color 2+color 3
		80-85	Color 3+color 4
		86-91	Color 4+color 5
		86-97	Color 5+color 6
		93-103	Color 6+color 7
100-109	Color 7+color 8		
107-115	Color 8+color 9		
114-121	Color 9+color 10		

		121-127	Color 10+white light
		128-189	Flowing water counterclockwise from fast to slow
		190-193	Stop water flow
		194-255	Flow clockwise from slow to fast
9	pattern	0-9	White light
		10-12	Gobo1
		13-15	Gobo2
		16-18	Gobo3
		19-21	Gobo4
		22-24	Gobo5
		25-27	Gobo6
		28-30	Gobo7
		31-33	Gobo8
		34-36	Gobo9
		37-39	Gobo10
		40-42	Gobo11
		43-45	Gobo12
		46-48	Gobo13
		49-51	Gobo14
		52-54	Gobo15
		55-57	Gobo16
		58-60	Gobo17
		61-63	Gobo18
		64-70	Gobo 1 jitters from slow to fast
		71-77	Gobo 2 jitters from slow to fast
		78-84	Gobo 3 jitters from slow to fast
		85-91	Gobo 4 jitters from slow to fast
		92-98	Gobo 5 jitters from slow to fast
		99-105	Gobo 6 jitters from slow to fast
		106-112	Gobo 7 jitters from slow to fast
		113-119	Gobo 8 jitters from slow to fast
		120-126	Gobo 9 jitters from slow to fast
		127-133	Gobo 10 jitters from slow to fast
		134-140	Gobo 11 jitters from slow to fast
141-147	Gobo 12 jitters from slow to fast		
148-154	Gobo 13 jitters from slow to fast		
155-161	Gobo 14 jitters from slow to fast		
162-168	Gobo 15 jitters from slow to fast		
169-175	Gobo 16 jitters from slow to fast		
176-182	Gobo 17 jitters from slow to fast		
183-189	Gobo 18 jitters from slow to fast		

		190-221	Flowing water counterclockwise from fast to slow
		222-223	Stop water flow
		224-255	Flow clockwise from slow to fast
		128-190	Fast to slow rotation counterclockwise
		191-192	stop
		193-255	Slow to fast rotation clockwise
10	Colorful atomization	0-200	Atomization linear cut
		201-255	Colorful
11	Prism	0-127	Prism cut out
		128-255	Prism cut
12	Prism rotation	0-127	Angle adjustment
		128-189	Fast to slow clockwise rotation
		190-193	stop
		194-255	Slow to fast rotation counterclockwise
13	focusing	0-255	Linear focus
14	Light strip strobe	0-3	Lights off
		4-255	Synchronous strobe
		251-255	Light up
15	Light strip macro function	0-51	Built-in colors
		52-55	Effect 1
		56-59	Effect 2
		...	One effect for every 4 numbers
		252-255	Effect 51
16	Light strip effect speed	0-255	From slow to fast
17	Reset	0-199	Invalid area
		200-205	Reset all
		206-255	Invalid area

17CH			
序号	通道功能	数值	描述
1	X	0-255	0--540°
2	X 微调	0-255	X 轴 16bit
3	Y	0-255	0--270°
4	Y 微调	0-255	Y 轴 16bit
5	XY 调速	0-255	快---慢
6	调光	0-255	0%-100%调光

7	频闪	0-3	灭灯
		4-99	同步频闪
		100-149	脉冲频闪
		150-199	爆闪
		200-250	随机频闪
		251-255	亮灯
8	颜色	0-1	白色
		2-7	颜色 1
		8-13	颜色 2
		14-19	颜色 3
		20-25	颜色 4
		26-31	颜色 5
		32-37	颜色 6
		38-43	颜色 7
		44-49	颜色 8
		50-55	颜色 9
		56-61	颜色 10
		62-67	白光+颜色 1
		68-73	颜色 1+颜色 2
		74-79	颜色 2+颜色 3
		80-85	颜色 3+颜色 4
		86-91	颜色 4+颜色 5
		86-97	颜色 5+颜色 6
		93-103	颜色 6+颜色 7
		100-109	颜色 7+颜色 8
		107-115	颜色 8+颜色 9
114-121	颜色 9+颜色 10		
121-127	颜色 10+白光		
128-189	由快到慢逆时针流水		
190-193	停止流水		
194-255	由慢到快顺时针流水		
9	图案	0-9	白光孔
		10-12	图案 1
		13-15	图案 2
		16-18	图案 3
		19-21	图案 4
		22-24	图案 5
		25-27	图案 6
		28-30	图案 7
		31-33	图案 8
		34-36	图案 9

		37-39	图案 10
		40-42	图案 11
		43-45	图案 12
		46-48	图案 13
		49-51	图案 14
		52-54	图案 15
		55-57	图案 16
		58-60	图案 17
		61-63	图案 18
		64-70	图案 1 由慢到快抖动
		71-77	图案 2 由慢到快抖动
		78-84	图案 3 由慢到快抖动
		85-91	图案 4 由慢到快抖动
		92-98	图案 5 由慢到快抖动
		99-105	图案 6 由慢到快抖动
		106-112	图案 7 由慢到快抖动
		113-119	图案 8 由慢到快抖动
		120-126	图案 9 由慢到快抖动
		127-133	图案 10 由慢到快抖动
		134-140	图案 11 由慢到快抖动
		141-147	图案 12 由慢到快抖动
		148-154	图案 13 由慢到快抖动
		155-161	图案 14 由慢到快抖动
		162-168	图案 15 由慢到快抖动
		169-175	图案 16 由慢到快抖动
		176-182	图案 17 由慢到快抖动
		183-189	图案 18 由慢到快抖动
		190-221	由快到慢逆时针流水
		222-223	停止流水
		224-255	由慢到快顺时针流水
		128-190	逆时针快到慢旋转
		191-192	停止
		193-255	顺时针慢到快旋转
10	七彩雾化	0-200	雾化线性切入
		201-255	七彩
11	棱镜	0-127	棱镜切出
		128-255	棱镜切入
12	棱镜自转	0-127	角度调节
		128-189	顺时针快到慢旋转
		190-193	停止
		194-255	逆时针慢到快旋转

13	调焦	0-255	线性调焦
14	灯带频闪	0-3	灭灯
		4-255	同步频闪
		251-255	亮灯
15	灯带宏功能	0-51	内置颜色
		52-55	效果 1
		56-59	效果 2
		...	每 4 个数一个效果
		252-255	效果 51
16	灯带效果速度	0-255	由慢到快
17	复位	0-199	无效区域
		200-205	全部复位
		206-255	无效区域

11.Calculation method of lamp start address code:

The starting address code of the current fixture is equal to (the starting address code of the previous fixture) + (the number of channels of the fixture)

1: The starting address code value of the first lamp is A001.

2: The number of basic channels of the controller should be greater than or equal to the total number of channels used by the lamp.

3: Note: When using any controller, each lamp must have its own start address code. The start address code of one lamp is set to A001, and the number of channels of the lamp is 17CH; then the start address code of the second lamp is Set to A018; the start address code of the third lamp is set to A035; and so on, (this setting method also needs to (Different consoles are available)

灯具起始地址码计算方法:

当前灯具的起始地址码等于(上一台灯具的起始地址码)+(灯具的通道数目)说明:

1: 第一台灯具的起始地址码值A001.

2: 控制器的基本通道数应大于或等于灯具总的使用通道数目.

3: 注意: 当使用任何的控制器, 每一台灯具都应必须有它自己的起始地址码, 假如第一台灯具的起始地址码设定A001, 灯具道通数为17CH; 那么第二台灯具的起始地址码就设置为 A018; 第三台灯具的起始地址码就设置为A035; 如此类推, (此设置方式还需要据不同的控台来定)

12.Maintenance and maintenance:

Shutdown operation: before each shutdown, turn off the LED for 10 minutes in advance. Let the heat dissipation fan quickly discharge the heat generated in the lamp during use, which can extend the life of the accessories in the lamp, especially the LED! In order to ensure that the lamp can operate stably, it should be kept clean. Before disassembling the lamp for repair or starting maintenance work, confirm whether the power supply is disconnected. It is very important to keep the lamp clean and clean. Please clean it regularly, not only Maintain the maximum brightness output, and can also extend the service life of the lamp. It is recommended to use high-quality glass cleaner and a clean soft cloth to clean it. The dust inside the lamp is cleaned at least once every six months.

维护及保养：

关机操作：每次关机断电前，提前先把LED关闭10分钟。让散热风机把灯具内使用时产生的热量，快速排出，这样能延长灯具内的配件，特别是LED的使用寿命！为确保灯具可以稳定地运行，应该使其保持清洁，拆开灯具进行维修或开始保养工作这前确认电源是否断开，保持灯具干净、清洁是十分重要的，请你要定期进行清洁，不但保持最大亮度输出，而且还可以延长灯具的使用寿命，建议使用优质的玻璃清洗剂和用清洁的软布来清洗，灯具内部灰尘至少半年清洁一次。

13.Precautions for the use of RDM RMD 使用注意事项

RDM is an extended version of the DMX512-A protocol. It is a remote device management (Remote Device Management) protocol. The traditional DMX512 protocol communication is one-way communication. The protocol is based on the RS-485 bus. RS-485 is a time-sharing multipoint, half-duplex protocol. , Only one port is allowed to output from the host at the same time, so, pay attention to the following points when using RDM:

To use a console or host device that supports RDM protocol host;

To use a two-way signal amplifier, the traditional one-way signal amplifier is not suitable for the RDM protocol, because the RMD protocol requires feedback data, and the use of a one-way amplifier will block the returned data, resulting in the failure to search for the lamps;

The lamp must be set to DMX mode to ensure that there is only one host on the signal line;

A 120ohm impedance matching resistor must be inserted between the terminals 2 and 3 of the terminal plug. When the signal line is relatively long, the use of differential signals is more stable and beneficial, which is beneficial to the quality of communication;

When it appears that the lamp accepts DMX control, but cannot search for the lamp by RDM, first check the signal amplifier, and then check whether there is a bad connection between the 2 and 3 lines of the

signal line.

RDM 是 DMX512-A 协议的扩展版本，是远程设备管理（Remote Device Management）协议，传统 DMX512 协议通信是单向通信，协议基于 RS-485 总线，RS-485 为分时多点、半双工协议，同一时间只允许一个端口为主机输出，所以，使用 RDM 时要注意以下几点：

要使用支持 RDM 协议主机的控制台或主机设备；

要使用双向信号放大器，传统单向信号放大器不适用 RDM 协议，因为 RMD 协议需要反馈数据，使用了单向放大器会阻隔返回的数据，导致搜索不到灯具；

灯具必须设置为 DMX 模式，保证信号线上只有一台主机；

终端插头的端子 2 和 3 之间必须插入一个 120ohm 的阻抗匹配电阻，当信号线比较长时，会使用差分信号更稳利，有利于通信的质量；

当出现灯具接受 DMX 控制，但不能 RDM 搜索灯具，先排查信号放大器，再排查信号线的 2、3 线是否有条线接触不良。