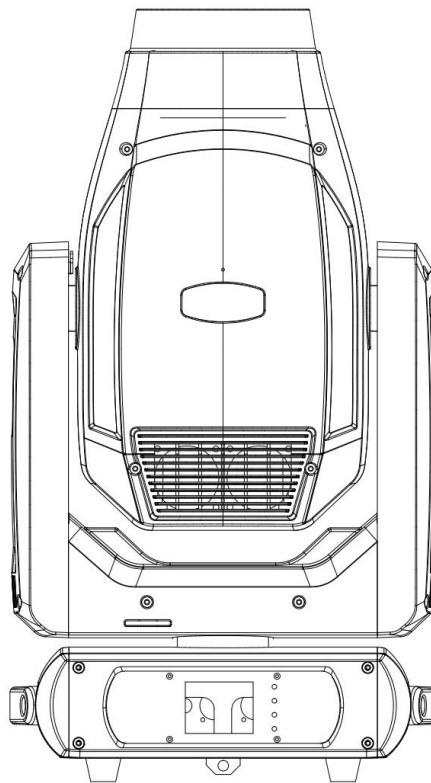


ALED BSW 480 CMY

User Manual



Guangzhou Mitek Light Co.,LTD

Email: info@miteklight.com

Website: www.miteklight.com

Add: No. 21 Dongfeng Avenue, Automobile Industry Base, Huadu District, Guangzhou

TECHNICAL PARAMETERS

Light source

Input voltage: AC110V-240V/50-60HZ

Power consumption: 600W

Light source specification: Imported new LED Module engine 480W

Light source life: 50000 hours

Lumen illuminance: 5 meters 100,000 lm

Color temperature: 8000K CRI>85

Optical

Dimming system: 0-100% linear adjustment

Focusing system: linear adjustment from 4 meters to 50 meters

Frost: 1 independent frost filter, soft and natural light spot

Spot zoom angle: 4-35 degrees

Wash angle: 10-50 degrees

High-speed strobe: 0-30 times/sec. Adjustable speed strobe effect. Strobe macro function.

Controls

Channel mode: 28 channels

Display mode: LCD display, key operation mode

Control signal: International standard DMX512. With RDM function, online software upgrade is available, dial address code

Effect

Color: 8 colors + open. Color half-color function

Color mixing system: linear CMY+CTO color mixing system

Fixed gobos: 12 fixed patterns + open

Rotating gobos: 8 glass patterns, each glass pattern can be independently forward and reverse

Prism system: 2 prisms, each prism can be independently forward and reverse

Macro function: console reset function, self-propelled mode, master-slave mode

Construction

Horizontal scan: 540 degrees (16bit precision scan) electronic error correction

Vertical scanning: 270 degrees (16bit precision scanning) electronic error correction

Cooling method: Adopt axial fan to enhance cooling

Safety device: with electronic temperature control overheating protection, electronic temperature control automatic power-off protection when the overheating system fails

Appearance material: high temperature resistant plastic

Working environment: -20 degrees - 40 degrees

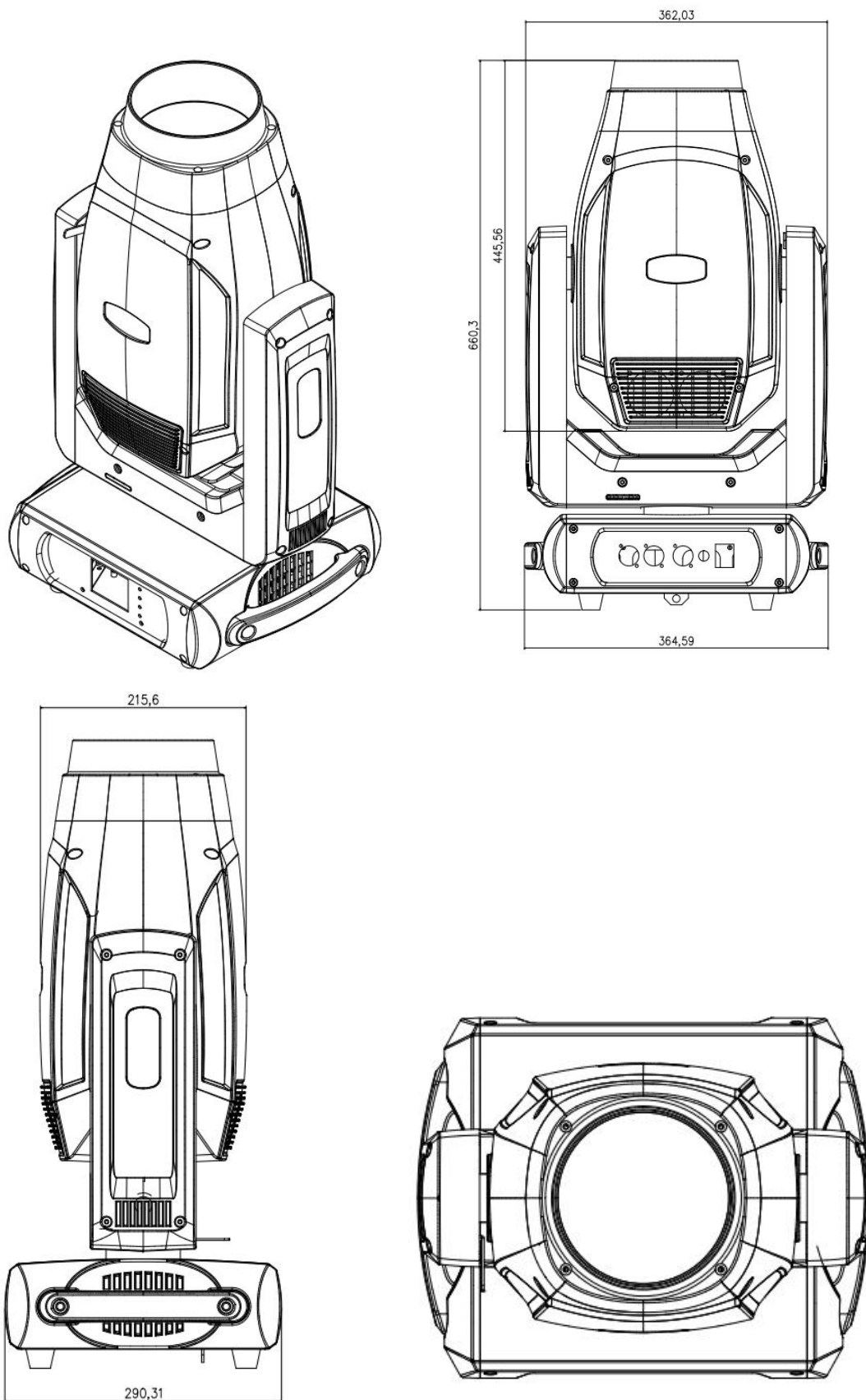
Protection level: IP20

Weight&Dimension

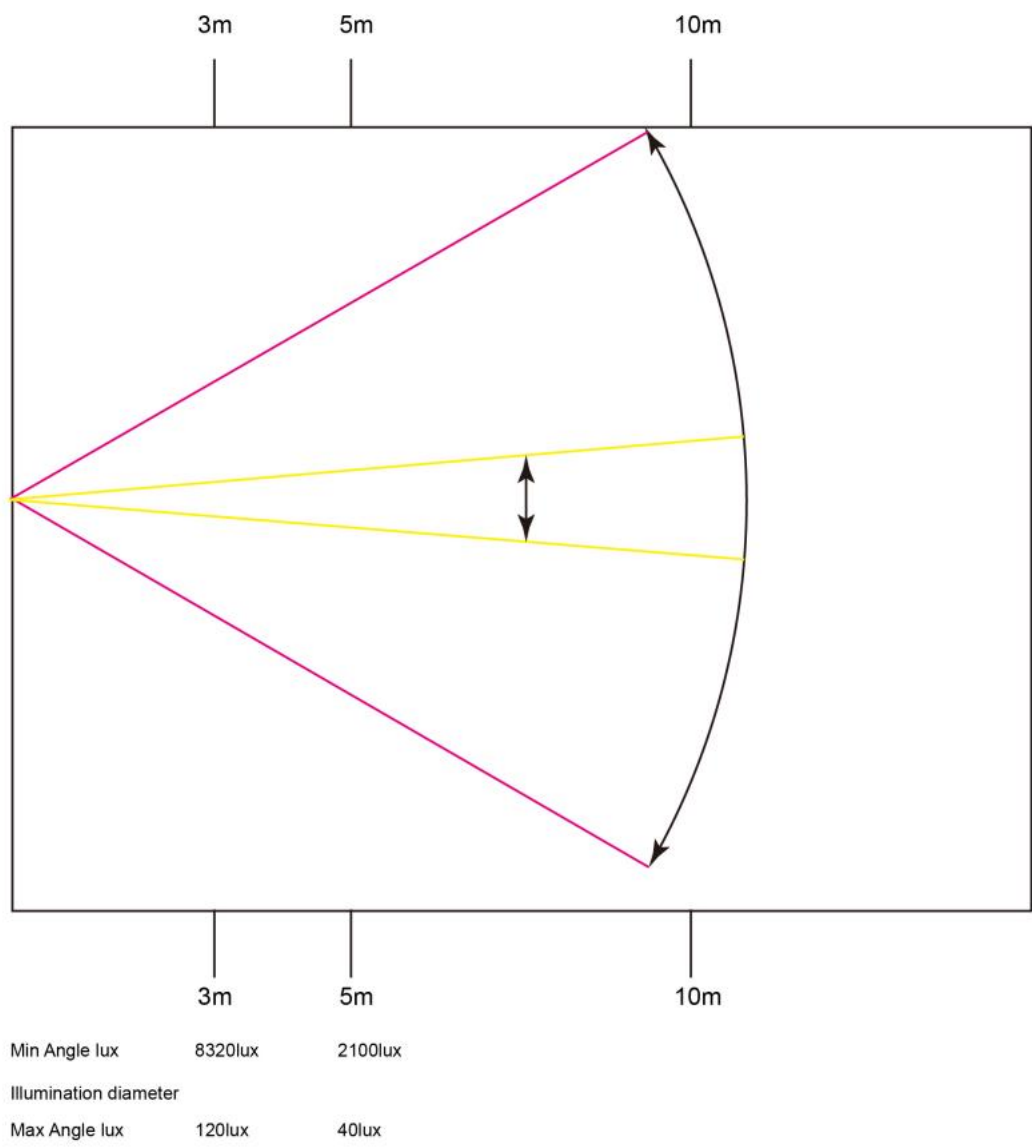
Product net weight: 22.5KG

Product size: 36*29*66CM (L*W*H)

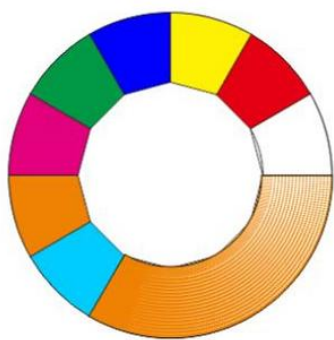
SIZE DRAWING



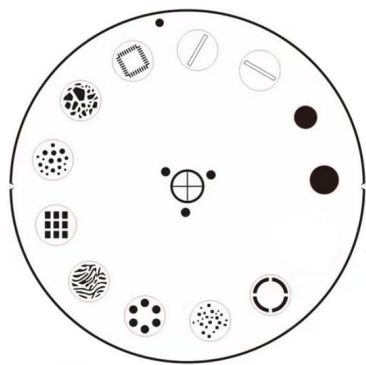
LUX Date



COLOR WHEEL



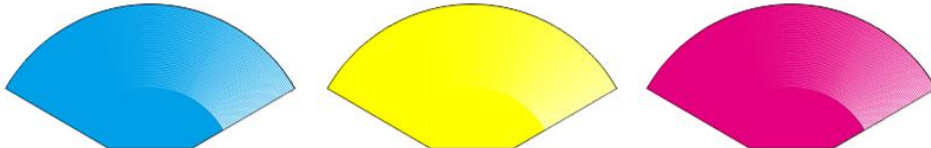
FIXED GOBO WHEEL



ROTATING GOBOS



CMY FILTER



Thank you for your patronage!

We are confident that our excellent products and service can satisfy you.

For your own safety, please read this user manual carefully before installing the device.

In order to install, operate, and maintain the lighting safety correctly.

We suggest that the installation and operation should be done by the verified technician and follow the instruction strictly.



CAUTION!

Keep this device away from rain and moisture!



CAUTION!

Unplug mains lead before device's installation, cleaning and maintenance!

Every person involved with the installation, operation and maintenance of this device has to:

-be qualified

-follow carefully the instructions of this manual

INTRODUCTION

Thank you for having chosen this professional moving head.

You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the carton box you should find:

1. One power in cable
2. One 3 Pin DMX cable(5 Pin optional)
3. Two mounted brackets
4. One safety rope
5. One English user manual

(Flight case, Clamps are optional, please contact your dealer)

Please check carefully that there is no damage caused by transportation. Should there be any questions, please consult your dealer and don't install this device.

GENERAL GUIDELINES

This device is a lighting effect for a professional use on stages, TV, in discotheques, theaters, etc., The device was designed for indoor use only.

This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in 6th page of this manual.

Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. Please don't project the beam onto combustible substances. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.

For safety reasons, please be aware that all modifications on the device are forbidden. If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, crash, etc.

SAFETY INSTRUCTIONS



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.

1. In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.

2. Always mount this unit in safe and stable matter.

The qualified professionals are allowed to carry out the lamp installation, operation and maintenance, but they must guarantee to operate in strict accordance with the instructions referred to.

▲ 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 temperatures.

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.

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



CAUTION!

Never touch the device during operation!
The housing may heat up!



CAUTION!

Never look directly into the light source,
As sensitive persons may suffer an epileptic shock.

Please be aware that damages caused by manual modifications to be the device are not subject to warranty. Keep away from children and non-professionals.

CLEANING AND MAINTENANCE

1. To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
2. Do not spill water or other liquids into or on to your unit.
3. During long periods of non-use, disconnect the unit's main power.
4. It should be installed in a well-ventilated place, at a distance of 50 centimeters or more with the walls. At the same time, please check if the fan and ventilation holes are unobstructed.

The following points have to be considered during the inspection

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on the housing. Fixations and installations spots(ceiling, suspension, trussing).
- 3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 4) The electric power supply cables must not show any damage, material fatigue or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.



CAUTION!

Disconnect from mains before starting maintenance operation!

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

- 1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- 2) Clean the fan each week.
- 3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents.

Cable connection (DMX)

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics

differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ω (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

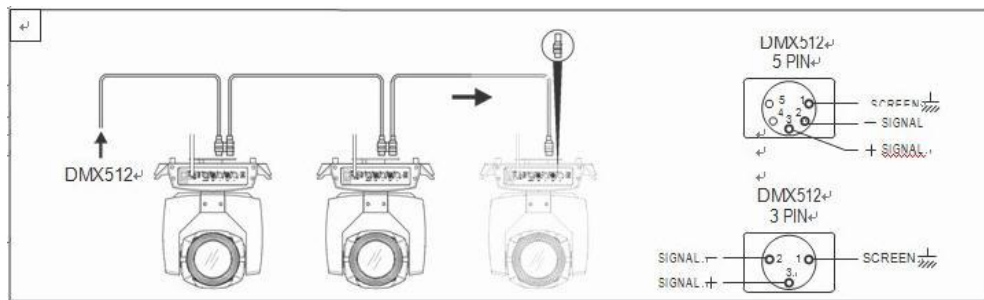


Figure 1 DMX Cable connection

Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.

Attention! Two clamps is needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.

Attention! Fasten a safety string to the additional hole of side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

- Check if rigging clamp (not including the one inside) damaged or not? If stand ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipments, clamps, wirings and other additional fixtures.
- Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to clamp bracket, and then screw the nuts.
- Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.
- Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.
- Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.

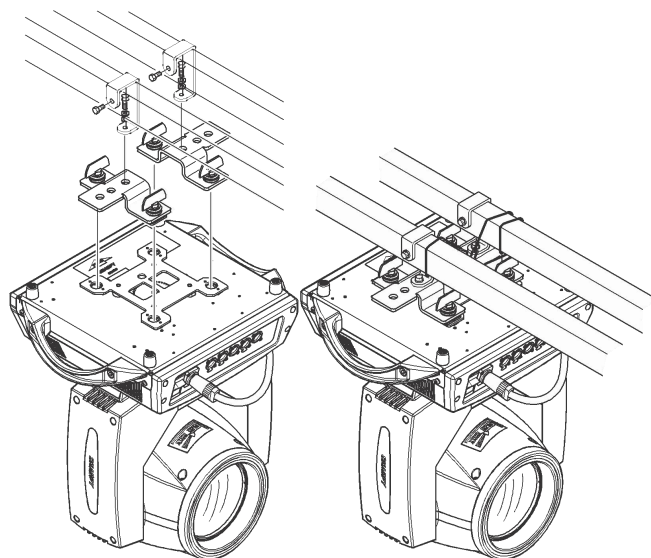


Figure 2 Installation

Brief

The light panel diagram show as Figure 3, Left area is TFT Displayer, support touch, and right area is KEY, both of touch and KEY can operate light and setting.

Display & operation just like 'Android operation system', touch the item will set or modify setting.

Note: Prevent damage the touch or TFT displayer, Can not use sharp objects chick displayer.

LCD display home page Introductions

1		2	
			3
			4
			5
6	空		7
8	9		

1 — Customer logo display area.

2 — Shows current DMX address in big font size.

3 — DMX signal frame rate (FPS).

4 — Display the channels mode, and the figures shows current channels number.

5 — temperature/Fan speed display. (select whether to display according to the lighting conditions)

6 —Current mode (Master or slave).

7 — Current operating mode (DMX512, self-propelled, user).

8 — error information. It turns yellow if has some errors when self-test.(Press the down key to view specific error messages)

9 — Temperature display or other(according to lamp configuration).

Since the product model is numerous, the function is different, and often upgrades, causes the menu content to change frequently, this manual instruction is hard to update in time, therefore only lists part of the important menu items here.

DMX Addr: Use the menu to set desired fixture address setting

Channel Mode: Use the menu to select desired DMX channel mode. The numbers on the menu represents the number of control channels.

Reset Operating: Reset Motors

Reset all
PAN TILT
DIM

.....

Run:Use the menu to select operational mode

Manual control: Adjust the DMX channel values of the lighting fixtures through buttons

Operation settings: master-slave mode setting

XY axis setting:

User Program: manual / record / clear all

When there is no signal : power on / RUN Time

Advanced:

Fine Adj: This is the factory adjustment function locked with password.

Display: Display flip setting.

Language: Use the menu to select desired system language

Ignore Errors: Some error reports may not affect the final use effect, or for the general purpose of the product, you can choose to turn off some meaningless error reports.

FactorySetting: Show Logo.

Information:

DMX value
product code
Error
Lamp usage time

CHANNEL LIST

Channel	DMX	Description
1		Pan
	0-255	Pan Rotation
2		Pan Fine Adjustment
	0-255	Pan Trim
3		Tilt
	0-255	Tilt rotation
4		Tilt Fine
	0-255	Tilt Fine
5		Pan/Tilt Speed
	0	Maximum speed
		In Speed Mode
	1-255	Speed from fast to slow
		In time mode
	1-255	Time from 0.1s to 25.5s
6		Dimming
	0-255	Dimming from 0% to 100%
7		Dimming trim
	0-255	Fine adjustment
8		Strobe/Shutter
	0-3	Off
	4-103	Strobe slow to fast
	104-107	Open
	108-207	Fast out, slow on, fast to slow
	208-212	Open
	213-251	Strobe random, slow to fast
	252-255	Open
9		Cyan
	0-255	Color saturation from small to large
10		Magenta
	0-255	Color saturation from small to large

11		Yellow
	0-255	color saturation from small to large
12		Color Palette
	1-84	Selecting colors (see also table)
	84-168	Rainbow effect from fast to slow
	169-170	Rainbow effect stops
	171-255	Rainbow effect slow to fast
13		CTO
	0-255	Color saturation from large to small
14		Pattern
	0-4	Open
	5-102	Select pattern (see also table)
	103-199	Select pattern and dither, slow to fast (see also table)
	200-201	Open
	202-227	Pattern scrolls positively, fast to slow
	228-229	Stop scrolling
	230-255	Pattern scrolls in reverse, slow to fast
15		Rotating Pattern
	0-5	Open/Hole
	6-75	Open/Hole
	76-199	Pattern Jitter
	200-201	Empty
	202-227	Positive pattern flow effect: fast to slow
	228-229	Prism 1 stops rotating
	230-255	Reverse pattern flow effect: slow to fast
16		Rotary Pattern Transpose and Rotation
	0-127	Rotating pattern transposition
	128-190	Forward pattern rotation: fast to slow
	191-192	Stop
	193-255	Reverse Pattern Rotation: Slow to Fast
17		Rotary Pattern Fine Tuning
	0-255	Rotary Pattern Fine Tuning
18		Prism 1
	0-127	No Prism
	128-255	Prism 1 insertion

19		Prism 1 positioning and rotation
	0-127	Prism 1 positioning and rotation
	128-190	Prism 1 reverse rotation, fast to slow
	191-192	Prism 1 stops rotating
	193-255	Prism 1 forward rotation, slow to fast
20		Prism 2
	0-75	No prism
	76-255	Prism 2 insertion
21		Prism 2 positioning and rotation
	0-127	Prism 2 positioning and rotation
	128-190	Prism 2 reverse rotation, fast to slow
	191-192	Prism 2 stops rotating
	193-255	Prism 2 forward rotation, slow to fast
22		Atomization
	0-64	Empty
	65-255	atomization
23		Zoom
	0-255	Zoom: beam angle from small to large
24		Zoom Trim
	0-255	Fine adjustment
25		Zoom (Focus)
	0-255	Continuous adjustment from far to near
26		Zoom (Focus) fine adjustment
	0-255	Fine adjustment
28		Reset
		To achieve the following effects, push the DMX value to the corresponding position and stand still for at least 4 seconds
	0-199	Empty
	200-209	Pan/Tilt Reset
	210-219	Effect Reset
	220-229	All Reset
	230-255	Empty

Test mode:

1. Common fault handling

The lamp contains professional components such as microcomputer circuit board and high-voltage power supply. For your safety and product life, non-professionals should not disassemble the lamp and related accessories without authorization.

The bulb does not light up (except LED light source)

Possible cause: The bulb is not completely cooled, or the bulb has reached the end of its life, the treatment is as follows:

- Due to abnormal operation, the bulb is not completely cooled down, so let the lamp body cool down for more than 10 minutes to make the inside completely return to normal state, and then turn on the power again.;
- Check whether the bulb has reached the end of its life, and replace it with a new one;
- Check whether the bulb and the lighter circuit are leaking, falling off, or having poor contact;
- Replace with a new lighter.

The light beam appears dim

Possible cause: The bulb has been used for a long time or the light path is not clean, the treatment is as follows:

- Check whether the bulb has reached the end of its life, and replace it with a new one;
- Check whether the optical components or bulbs are clean, and whether there is dust on the bulbs and other optical components. Regular cleaning and maintenance of the bulbs and components in the lamps are required.

Fuzzy pattern projection

- Check whether the electronic focus channel value is suitable for the current projection distance.

The lamps work intermittently

Possible cause: The internal circuit enters the protection state, and the treatment is as follows:

- Check whether the fan is operating normally or whether it is dirty, causing the internal temperature of the lamp to rise;
- Check whether the internal temperature control switch is closed;
- Check whether the bulb has reached the end of its service life, and replace it with a new one.

After the lamp is reset normally, it does not accept the control of the console

Possible cause: signal line failure or abnormal lamp parameter setting, the treatment is as follows:

- Check the start address code and check the connection of the DMX signal line (whether the signal line cable is intact, and whether the connection of the head is loose);
- Add signal amplifier, add 120 ohm terminal resistance;

The lamp can't start

Possible cause: bad power line, the treatment is as follows:

- Check whether the fuse on the power input socket is fused, replace the fuse;
- Lamps have poor line contact due to vibration during long-distance transportation
- Check the input power, computer board and other plug-in devices.

Precautions for use

- Check whether the local power supply meets the requirements of the rated voltage of the product, and the leakage protector, overcurrent protector, etc. meet the requirements of the load;
- Do not use power cords with damaged insulation, and do not overlap power cords with other wires;

- The lamp adopts strong air cooling, which is easy to accumulate dust. It must be cleaned once a month, especially the heat dissipation vent, otherwise it will be blocked by the accumulation of dust, resulting in poor heat dissipation and abnormalities in the lamp.
- When installing the lamp, the fixing screws must be fastened, with safety cables, and regular inspections;
- When installing and positioning the luminaire, keep a minimum distance of 10 meters between any point on the surface of the luminaire and any flammable and explosive object, and the distance from the irradiated object is 2.5 meters. Please do not install the luminaire directly on the surface of combustible materials.;
- It is recommended that the continuous working time of the lamp should not exceed 10 hours, and the interval between continuous starting of the lamp should not be less than 10 minutes, otherwise it will not be triggered normally due to the lamp overheating protection;
- The closing time using the on-off valve should not exceed 5 minutes. If you need to close the light for a long time, you should use the console (lighting control channel) to turn off the light.;
- In order to ensure that multiple luminaires better comply with the scene effect, the luminaire should not be in the unfinished current scene all the time, that is, start the next scene action, it is best not to exceed 3 minutes in this state to ensure that multiple luminaires can run simultaneously;
- During use, if there is an abnormality in the lamp, stop using the lamp in time to prevent other malfunctions.

Precautions for using RDM

RDM is an extended version of the DMX512-A protocol. It is a 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 multi-point, half-duplex protocol. Only allowed at the same time One port is the output of the host, so, pay attention to the following points when using RDM:

- To use a console or host device that supports the 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 search for lamps and lanterns;
- All lamps 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 terminals 2 and 3 of the terminal plug. When the signal line is relatively long, the use of differential signals will be more stable when the signal line is relatively long, which is conducive 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.

REMARK

The product has perfect performance and integrity packing.

All users should be strictly comply with the warning and operating instructions as stated.

Or we aren't in charge of any result by misusing.

Any damage resulting by misuse is not within the Company's warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.