

LED 400 CMY

USER MANUAL

KEEP THIS USER MANUAL FOR FUTURE NEEDS

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 cord
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/Folding 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 exte  ible cable or cord of this luminaire is damaged, it shall be exclusively replaced b  anufacturer or his service agent or a similar qualified person in order to avoid a ha

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 sedir  Further instructions depending on the installation spot and usage have to be ac  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.

TECHNICAL PARAMETERS

Input voltage: AC90V-240V/50-60HZ

Power consumption: 430W

Dimming system: 0-100% linear adjustment

Channel mode: 22/26 channels

Display mode: LCD touch screen display with display flip

Control signal: International standard DMX512

Color: 8 colors + open

Color mixing system: linear CMY+CTO color mixing system

Fixed gobos: 12 fixed patterns + ioen

Rotating gobos: 7 glass patterns

Macro function: DMX / voice / self

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

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

Cable connection (DMX)

Use a cable conforming to specifications EIA-485: 2-pole twisted, shielded, 120 Ohm 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 120 Ohm (minimum 1/4W) 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.

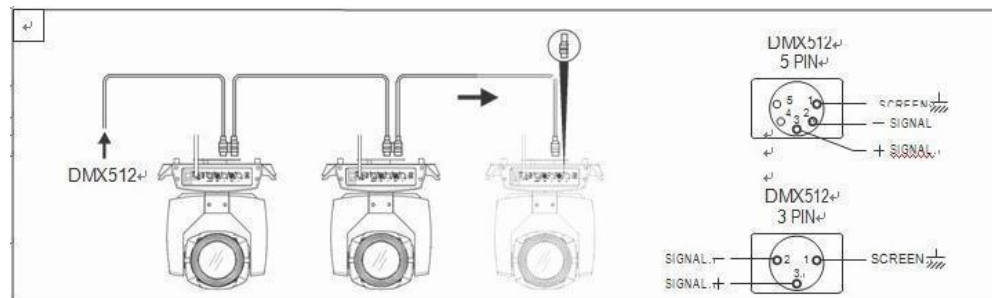


Figure 1 DMX Cable connection

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.

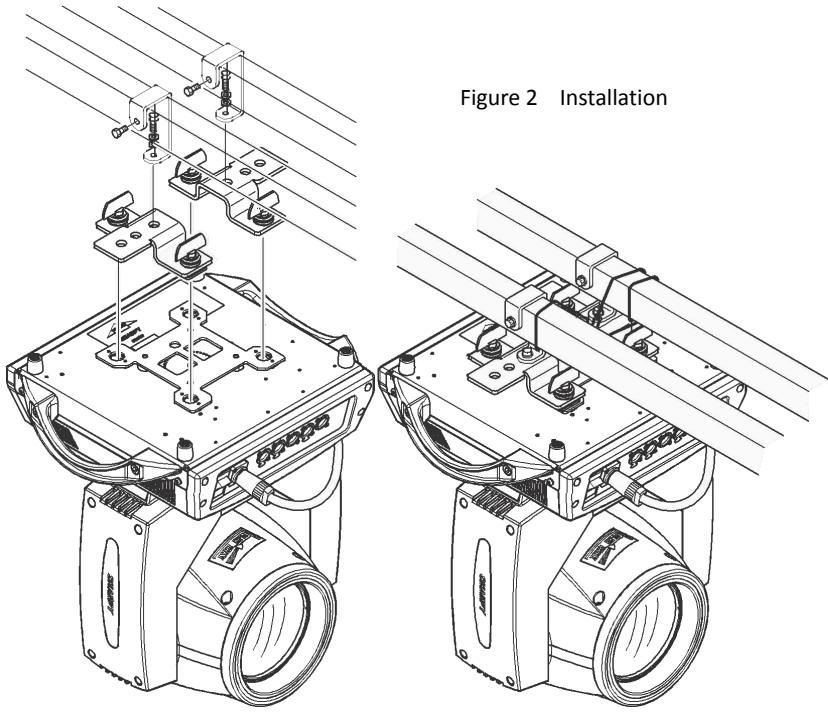


Figure 2 Installation

Menu instructions

primary menu	Sublevel menu	Three-level menu / parameter	
Shortcut menu	Address : 001 - 512	Add or subtract one at a time	
	Chinese/EN	Language change	
	Invert	Screen display flip	
	Set up	Enter setup mode	
System Settings	Run mode	DMX / voice / self1/self2	
	Channel mode	23CH	
	Fixture ID	0-255	
	Default position of X axis	0-255	
	Default position of Y axis	0-255	
	X axis reversal	Open / close	
	Y axis reversal	Open / close	
	XY axis exchange	Open / close	
	P/T Speed Mode	Open / close	
	No signal keep	Open / close	
	Linear color	Open / close	
	Encoder correct	Open / close	
	Hall correct	Open / close	
	Backlighting time	15S/30S/60S/Often bright	
	Screen brightness	0-100	
	Load default	Confirm / cancel	
Manual mode	Current channel mode channel	0-255	
System calibration	enter password	Lighting calibration	
System reset	Head reset		
	XY reset		
	All reset		
lamp bulb	Turn on the light	Open / close	
	Manual lighting	Open / close	
	half-power	Open / close	
	Clear the record	Confirm / cancel	
	Light time		
	The number of lights		
system information	Reset the error message	Display the reset error message	
	And DMX data monitoring	Channel values for the receiver console	
	sensor information	Hall information	
		X-light coupling information	
		Y light coupling information	
	Software version	Displays the software version	
	Hardware version	Displays the hardware version	
Usage time	Displays the bulb service duration		

Screen automatic 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 lamps.

Press OK to enter the edit state. Press Up and Down to change the channel value. Press OK again to save the modified value, exit editing, and press Exit not to save the modified value, and directly exit editing.

System calibration

Enter the password "0000" and press " OK to enter.

Reset
Press
Up and
Down
to
switch
the
reset
mode,
and
press
OK to
reset

option	illustrate
Initial position	After entering the sub-interface, the initial position of the X-axis, Y-axis, color disk, gobo, gobo rot, frost, prism, focus, zoom motor can be adjusted. The adjustment range of 0~255,127 means that there is no adjustment.
Travel calibration	After entering the sub-interface, the stroke of frost, prism, focus, zoom motor can be adjusted, and the adjustment range of 0~255,127 means that there is no adjustment.
Power	After entering the sub-interface, the lamp power can be adjusted, and the adjustment range is 0-255, 255 value indicates the maximum power.
MIC	Acoustic sensitivity, and the adjustment range of 0~255,127 means that there is no adjustment.
Touch adjust	Click four dots in sequence.
Logo	None
Passworg	Change password.

directly.

System

option	instruction
Head reset	Effect motor reset except for XY(Such as gobo, color and other motor reset)
XY reset	XY axis reduction
Full reset	Lamps reset

information

option	instruction
Reset information	If the red ERR indicator shines, the lamp is running wrong, and details can be viewed in the subinterface
And DMX data monitoring	This enters the subinterface to display channel values for viewing
Sensor information	Real-time monitoring of the light coupling, hall and other sensors on the lamp state
Hardware version number	Lighting hardware information
Software version number	Lamp software version
Usage time	Displays the bulb service duration

CHANNEL LIST

23CH	FUNCTION	VALUE	DESCRIPTION
CH1	Pan	0-255	0-540 Degrees

CH2	Pan fine	0-255	0-2 Degrees
CH3	Tilt	0-255	0-270 Degrees
CH4	Tilt fine	0-255	0-1 Degrees
CH5	P/T Speed	0-255	From fast to slow
CH8	Dimmer	0-255	0-100% Dimmer
CH7	Strobe	0-3	Close
		4-99	Simultaneous stroboscopic
		100-149	Pulse stroboscopic
		150-199	Explosion-flash
		200-249	Random stroboscopic
		250-255	Open
CH8	CTO	0-255	0-100%
CH9	Color C	0-255	0-100%
CH10	Color M	0-255	0-100%
CH11	Color Y	0-255	0-100%
CH12	Color	0-8	White
		9-15	Color 1
		16-22	Color 2
		23-29	Color 3
		30-36	Color 4
		37-43	Color 5
		44-50	Color 6

		51-57	Color 7
		58-64	Color 8
		65-71	White+Color 1
		72-78	Color 1+Color 2
		79-85	Color 2+Color 3
		86-92	Color 3+Color 4
		93-99	Color 4+Color 5
		100-106	Color 5+Color 6
		107-113	Color 6+Color 7
		114-120	Color 7+Color 8
		121-127	Color 8+White
		128-189	Flow counterclockwise from fast to slow
		190-193	Stop
		194-255	Flow clockwise from slow to fast
CH13	Gobo	0-9	White
		10-16	Gobo 1
		17-23	Gobo 2
		24-30	Gobo 3
		31-37	Gobo 4
		38-44	Gobo 5
		45-51	Gobo 6

		52-58	Gobo 7
		59-65	Gobo 8
		66-72	Gobo 9
		73-79	Gobo 10
		80-86	Gobo 11
		87-93	Gobo 12
		94-101	Gobo 1 shaking slow to fast
		102-109	Gobo 2 shaking slow to fast
		110-117	Gobo 3 shaking slow to fast
		118-125	Gobo 4 shaking slow to fast
		126-133	Gobo 5 shaking slow to fast
		134-141	Gobo 6 shaking slow to fast
		142-149	Gobo 7 shaking slow to fast
		150-157	Gobo 8 shaking slow to fast
		158-165	Gobo 9 shaking slow to fast
		166-173	Gobo 10 shaking slow to fast
		174-181	Gobo 11 shaking slow to fast
		182-189	Gobo 12 shaking slow to fast
		190-221	Flow counterclockwise from fast to slow
		222-223	Stop
		224-255	Flow clockwise from slow to fast

CH14	Rot gobo	0-14	White		
		15-29	Gobo 1		
		30-44	Gobo 2		
		45-59	Gobo 3		
		60-74	Gobo 4		
		75-89	Gobo 5		
		90-104	Gobo 6		
		105-119	Gobo 7		
		120-129	Gobo 1 shaking slow to fast		
		130-139	Gobo 2 shaking slow to fast		
		140-149	Gobo 3 shaking slow to fast		
		150-159	Gobo 4 shaking slow to fast		
		160-169	Gobo 5 shaking slow to fast		
		170-179	Gobo 6 shaking slow to fast		
		180-189	Gobo 7 shaking slow to fast		
		190-221	Flow counterclockwise from fast to slow		
		222-223	Stop		
		224-255	Flow clockwise from slow to fast		
		CH15	Gobo rotation	0-127	0-400 degrees
				128-190	Fast to slow positive rainbow
191-192	Stop				

		193-255	Slow to fast negative rainbow
CH16	Prism 1	0-127	Prism cut out
		128-255	Prism cut in 1
CH17	Prism 1 rotation	0-127	0-400 degrees
		128-191	Fast to slow positive rainbow
		191-193	Stop
		193-255	Slow to fast negative rainbow
CH18	Prism 2	0-127	Prism cut out
		128-255	Prism cut in 2
CH19	Prism 2 rotation	0-127	0-400 degrees
		128-191	Fast to slow positive rainbow
		191-193	Stop
		193-255	Slow to fast negative rainbow
CH20	Frost	0-127	None
		128-255	Frost cut in
CH21	Focus	0-255	From far to near
CH22	Zoom	0-255	From small to big
CH23	Reset	200-215	X/Y reset
		220-235	Effect reset
		240-255	All reset

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.

1. 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.

2. 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.

3. Fuzzy pattern projection

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

4. 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.

5. 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;

6. 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.

2. 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.

3. 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.

