

250W MOVING HEAD WASH

(RG-M09)

USER MANUAL

RIGE LIGHTING & AUDIO EQUIPMENT CO., LTD.

Catalogue

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1. Installation of computer light.

Using eight M10 size bolts, through making use of bracket that owned by computer light install. Make sure the firmness of installation, in case swing or glide happen when it works. Each weight of computer light is 20.5KG more or less.

Before installation, it should be ensure if frame can support the weight. For safety, a safe chain should be through the side handle of lighting body.

Notice: please don't use the die down yoke of computer light to rise, to lower, and move it.

2. Installation of lamp.

loosen plastic body which locate in luffing structure of computer lighting body, and strengthen screw of right-and-left cover shell, then open the cover forth gently, at the tail of shine lamp, screw off four coppery screw and move metallic gobo flag and heat guard of two sides, then can replace lamp. When install it, please use OSRAM or PHILIPS MSD250W modulator tube. Pay attention to screw down the screw of two sides of lamp, or it cause high voltage short circuit and discharge for poor contact. It influence service life of lamp, and damage components of circuit board. After finish it, please strengthen the metallic gobo flag and heat guard of two sides of lamp firstly. Then using adhesive tape to fold covering shell, and strengthen screws of right-and-left of it.

MSD light products are provided with high voltage modulator tube what has exterior igniter. When operate these modulator tubes, it must be careful, and should read the instruction of modulator tube that offer by manufacturer before operation.

Warning 1: Don't forget install metallic gobo flag and heat guard that beside the lamp or thermal radiation is easy to bake the plastic shell distortion. Seriously, it will raise fire alarm. Manufacturer will not responsible for these losses.

Warning 2: Modulator tube will reach to a high temperature when it works, and the trait of gas discharge lamp can not intermittent power supply. It must cool at least 15 minutes to work again after power supply cut off, or it will induce high pressure discharge, short circuit, and even burn out parts of computer control panel.

3. Power supply.

Using appropriate plug connect computer light and power main lead. Pay attention to consistent of voltage, frequency and supply source of backboard of computer light. Suggest each computer light to use a separate power supply, so each light can be turn on and turn off at will.

L=Brown E=Yellow/Green N=Blue

Important matters:

Each computer light should be earthed and whole electro assembling must accord with standard demand.

Monitoring restoration system:

After computer light switch on power, circuitry will be install. This function makes lamp cobra moving to a limiting position, and it will turn interior color and superimposed wheel of pattern. Thus the control system of microprocessor can login all place of electrical machines which controlled by it. It will bring electric noise in computer interior, when modulator tube damage or burnout. Maybe it will disturb normal operation of MPU. Computer light has an electronic monitoring system that can watch operation of MPU, and ensure that will start up reinstallation function when it is disturbed. After it finish, computer light can accept new control instruction and operate without a hitch.

4. Connection of control communication wire

Connection of controller and computer light or connection between each computer light should use two-core shielded cable, and diameter of each core should be 0.5MM at least. When it joined in or come out, it should be used cylindrical three-legged XLR plug and outlet which supplied along with computer light. Connection of XLR can refer to the list below. Attention: every line should not touch each other or touch plug. Computer light can accept data control signal of DMX512 (1990) format. Control signal connect with panel which earmarked "DIGITAL IN", then connect socket which earmarked "DIGITAL THRU" with socket of next computer light which earmarked "DIGITAL IN". After receive signal of DMX512, the status lamps close to switch of address code will fulgurate. Or it will extinguish. If it always in shine, it means DMX signal is false.

DMX512 PIN FUNCTION 1 GND 2 DATA- 3 DATA+

Suggest to use DMX signal terminal, it can avoid the breakage of data control signal. Cause by electric noise. In simple terms, DMX terminal is a XLR linker in which has a $120\ \Omega$ resistance between two-legged and three-legged plug. And the resistance should be connected with “DIGITAL THRU” socket of the last computer light of computer light chain. The connection can refer to table below.

The connection of DMX terminal connect a $120\ \Omega$ resistance between two-legged and three-legged of XLR plug, and connect it to DIGITAL THRU socket of the last computer light of computer light chain.

5. Corrective maintenance

If lens of computer light be damaged or broken, please replace a new one, and the same to modulator tube. If light turn dark, it means service life of modulator tube is up, should be replaced in time. The old modulator tube can explode. When computer light works out of order, fuse in back panel should be checked. Notice: If it need replace, using same spec fuse that earmarked in back panel. In the computer light, circuit board has a 3AT fuse. If the fuse has blown, it need replaced by professional. Computer light also have two heat protectors, they should cut off power supply when the temperature is too high. If it happened, fan should be checked whether there is a barrage or not. If fan is dirty, please switch on the power supply after clean it. Examine operation of fans, if it doesn't work, please mend it by professional.

6. Cleanly maintenance

In order to computer light operate steadily, it should keep clean. Suggest clean lighting body and fan every 15 days. Lens and dichroic filter should be cleaned at stated time to assure the best light effect. Don't use any deliquescent cleaner to clean dichroic filter.

7. Warning

- Don't dismounting or refit computer light.

- Don't touch water and other kind of liquid and metal substance (IP20).

Don't install in a high wettest condition.

Problem	The way to solve
Computer light can't start.	Check fuse of back-panel.
Though it shine, computer light don't accept dictate of control.	Check data startup address (see section 5), and check connection of communication control line (see section 4).
Computer light works only in intermittence.	Check fan, if it operate normally.
Shadow has halo.	Check the number of electro-focus channels if it suit current range of the projection.
Beam looks gray.	Maybe service life of modulator tube is over, it must be replaced. Check optical component if it is clean.
Lamp is not bright.	<ol style="list-style-type: none"> 1. Because of improper operation, lamp not completely cool. The fan in the lighting body must be cool 10 minutes, cut off power supply at least 5 minutes, makes internal inductor renew completely, then switch on power supply. 2. Check if service life of lamp is over. 3. Check lamp and trigger line if it is creepage, desquamation or poor contact. 4. Replace a new trigger.

- Don't illuminate on tinderbox, computer light must keep 5M away from tinderbox.
- Computer light should keep 0.5M away the surface of adjacent object.
- Don't look beam in the face, or it may injure your eyes.

Notice: modulator tube will reach to a high temperature when it works. It must be completely cool at least 15 minutes before operate again.

8. Difficulty disposal

9. Qualification

Power supply: 220-230V, 50Hz

Power consumption: 300VA (220VA)

Modulator tube: NSD250W/GS

Service life: 700 hours

Colors: 7 dichroic filters have white-light effect.

Color turn-plate can rotate continuously. And every direction has iridescent effect.

Pattern: 6 rotation metal patterns, a hyaline effect pattern and a rotundity pattern which can rotate, reverse, repose and auto-timing effect.

Dimmer and strobe: Quick-acting dimmer can intermit beam rapidly, and can realize strobe effect 1-7 times each second.

Prism and prism rotation effect: A prism can rotate, reverse, speed adjust and repose.

Automatic focus function: Electro-focus, be able to adjust definition of pattern.

Electrical machine: It is composed of 9 precision stepper motor which are controlled by a set-in MPU.

Control: MPU: Adopt CPU of high stability and high anti-jamming capability.

Numerical control: DMX512

Auto-mode: It makes 4 computer lights constitute a combination and operate according to built-in program.

Activation of audio frequency: It makes 4 computer lights constitute a combination and operate according to built-in program of activation of audio frequency.

Lighting body: It is compose of plastic shell. And streamline form design

Size and weight: 494*420*535mm

Weight: 26kg

Operating specification of control display panel

The list of control display panel designed specially for many types of computer

light, and equipped multifunctional control mode, it is simple to control. A few functions not equipped in some types of computer light, and the corresponding option of list set inefficacy.

I. DMX512 (address enactment)

The function can change address enactment.

1. Press “ESC” once or more, until it display “A.001”. At this time, press “UP” or “DOWN” can browse the function table.
2. Press “ENTER”, letter “A” will extinguish, using “UP” or “DOWN” choose address code “001-512”. Press “ENTER” to confirm and exit, or press “ESC” to give up and exit.
3. When accepting host computer in-phase, address must be set “001”.
4. When display address code, if equip connectionless DMX control, video screen will twinkle. If equip connection DMX control, video screen will not twinkle, but DMX signal lamp twinkle because it has signal.

II. DN. Pr. (DMX presupposition)

The function permit choose different control mode.

1. Press “UP” or “DOWN” browse the function table.
2. Press “ENTER” to put in. Press “UP” or “DOWN” to choose “nod.1” or “nod.2”. Press “ENTER” to save and exit, or press “ESC” to give up and exit.
Nod.1: Control of natural number of channels.
Nod.2: Control of the lesser channels.
3. When accepting host computer in-phase, DMX presupposition should set “nod.1”.

III. Test program

This function permit execute inner demonstration program without in an extension control state. The setting should be saved. Every startup enter test program automatically, when it is not exit.

Press “UP” or “DOWN” to browse the other function table. Press “ENTER” to enter.

1. nod.1: test program

Press “UP” or “DOWN” to choose other mode. Press “ENTER” to enter. Display “RUN” to test operation. Press “ESC” to exit.

2. NAST: (host computer control)

The function permitted that if it is necessary for host computer to send DMX synchronizing signal to secondary computer.

When it is operating test program, press “UP” or “DOWN” to choose the

other mode, press “ENTER” to enter. Display “ON” to send signal as host computer, and DMX signal lamp is on. Display “OFF” not send signal, and DMX signal lamp is off. Press “ENTER” to save and exit. Press “ESC” to exit. After set it “ON”, the connection of external DMX control must be intermitted, and two host computers that have the same settings cannot be on a line.

IV. AUDI: music handle

The function permit kindle test program by using voice.

1. Press “UP” or “DOWN” to browse the other function table.
2. Press “ENTER” to enter. Press “UP” or “DOWN” to choose “ON” or “OFF” which decide if it use music kindle. “ON” express using music kindle while “OFF” express not. It is controlled automatically by test program. After set “ON”, the audio signal lamp will twinkle to the music when operate test program.

V. R.PAN.

The function permit that reverse horizontally.

Press “ENTER” to enter. Press “ON” to reverse. Press “OFF” to stop reversing. Press “ENTER” to save and exit, and press “ESC” to exit.

VI. R.TILT.

The function permit that reverse vertically.

Press “ENTER” to enter. Press “ON” to reverse. Press “OFF” to stop reversing. Press “ENTER” to save and exit, and press “ESC” to exit.

VII. RESET

The function can restart to primary standard positioning. Press “ENTER” to confirm.