

Color Mix 5000A

user manual



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➤ INTRODUCTION

Thank you for selecting the COLOR MIX 5000A. This manual will tell you how to use the fixture correctly. We will provide one year maintenance warranty. For more information about this and other SHOWCO products, please visit the SHOWCO web site at : www.showco.com.mx

◆ Safety information

WARNING !

This product is for professional use only. It is not for household use.

This product presents risks of lethal or severe injury due to fire and heat, electric shock, ultraviolet radiation, lamp explosion, and falls. **Read this manual** before powering or installing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture.

Protecting against electric shock

- Disconnect the fixture from AC power before removing or installing the lamp, fuses, or any part, and when not in use.
- Always ground (earth) the fixture electrically.
- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.
- Do not expose the fixture to rain or moisture.
- Refer any service operation not described in this manual to a qualified technician.

Protecting against UV radiation and lamp explosion

- Never operate the fixture without covers.
- When replacing the lamp, allow the fixture to cool for at least 15 minutes before opening the fixture or removing the lamp. Protect your hands and eyes with gloves and safety glasses.
- Do not stare directly into the light. Never look at an exposed lamp while it is lit.
- Replace the lamp if it becomes defective or worn out, or before usage exceeds the maximum service life.

Protecting against burns and fire

- Never attempt to bypass the thermostatic switch or fuses. Always replace defective fuses with ones of the specified type and rating.
- Keep all combustible materials (for example fabric, wood, paper) at least 1 meter away from the fixture.
- Do not illuminate surfaces within 2 meter of the fixture.
- Provide a minimum clearance of 0.3 meters around fans and air vents.
- Never place anything on the fixture.
- The exterior of the fixture can get very hot. Allow the fixture to cool for at least 5 minutes before handling.
- Do not modify the fixture or install other than genuine PASEF parts.
- Do not operate the fixture if the ambient temperature exceeds 40°C (104° F).

Protecting against injury due to falls

- When suspending the fixture, verify that the structure can hold at least 10 times the weight of all installed devices. And should hang it from the bottom part not the top.
- Verify that all external covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.
- Make sure nobody below the work area whenever installing or removing the fixture.

➤ INSTALL THE FIXTURE

Important! Release the transport locks and take out the sponge before operating the fixture.

Included items check

- Color Mix 5000A
- User manual
- Accessories

Preparing work

1. Open the flight case, take out the fixture and the accessories.
2. Check the integrity of the fixture, contact us if there are any damages.

3. Open the top cover. Check Bulb and Color wheel position.

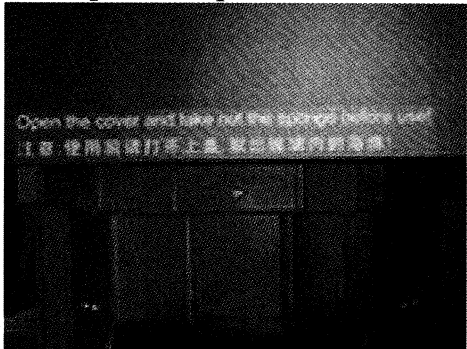


Fig. 1

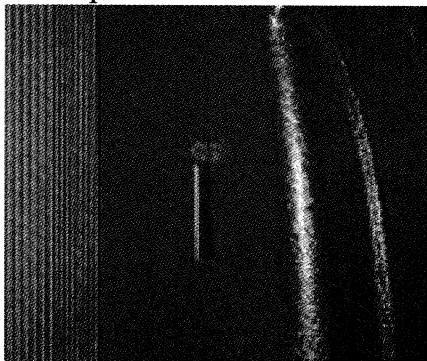


Fig. 2

Warning: To move and transport the fixture each time, should pay attention to the protection of the glass and lock the fixture (Fig.1,2). Before each transportation, please confirm the glass has been protected by the sponge and in the state shown in Fig. 2.

◆ Power connection

WARNING!

For safety, use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault protection.

You may need to install a cord cap that fits your supply on the power cable. A 3-prong grounding-type plug must be installed following the manufacturer's instructions. The table shows some possible pin identification schemes; if the pins are not clearly identified, or if you have any doubts about proper installation, consult a qualified electrician. To apply power, set the power switch on the base to the "ON" position.

Wire color	Pin
red	Phase wire
green	Neutral wire

Check AC voltage and AC frequency

Check the power supply is it accord to the parameter given at the panel of the Power Unit. Unmatched power supply may damage the fixture.

◆ Lamp replacement

Warning! Disconnect the fixture from power before operating. Let the bulb to cool for at least 15 minutes, operator had better wear safety glasses.

Warning! Install only XHM5000 lamp. Installing any other lamp may create a safety hazard or damage the fixture!

Important! Do not touch the quartz bulb with bare fingers.

Let the lamp cool, then disconnect the power switch, open the top cover, unload the three poles carefully, then unload the cable which connect to the lamp, rotate the lamp and take it out carefully finally (Fig. 3-8). It is opposite to take the steps of installing the lamp.

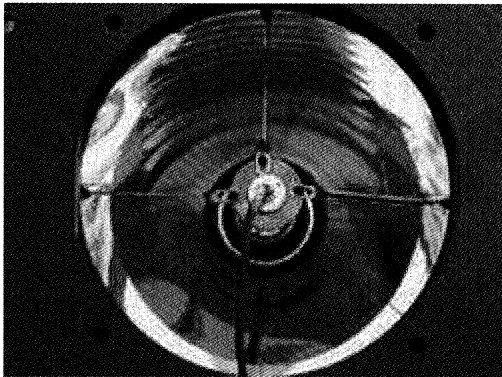


Fig. 3

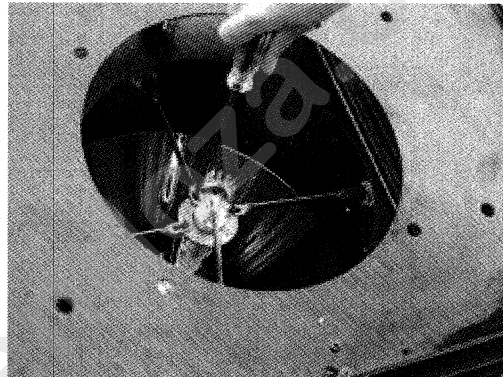


Fig. 4

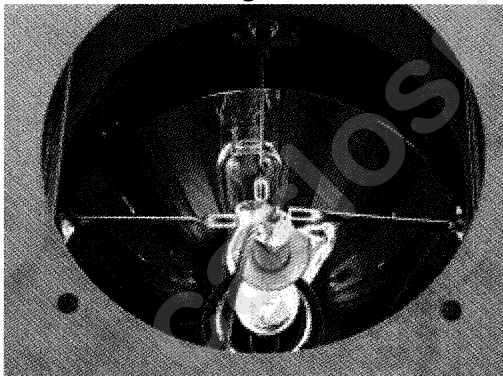


Fig. 5

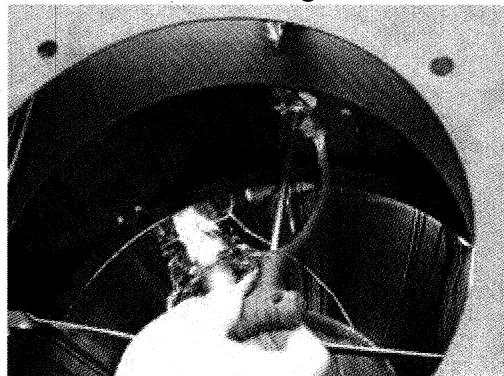


Fig. 6

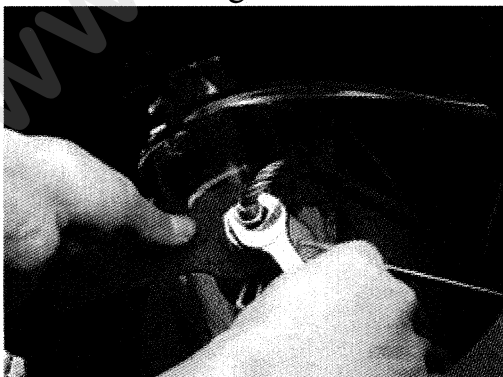


Fig. 7

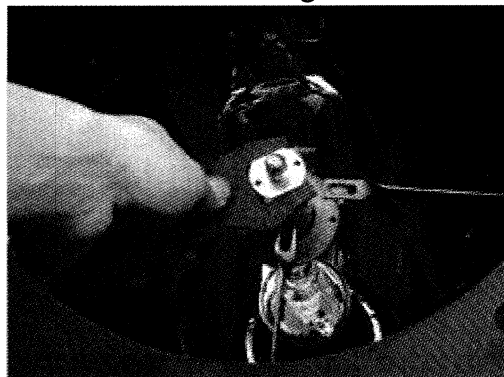


Fig. 8

◆ Connecting fixtures

Important! Never connect more than 1 data input and 1 data output.

The Color Mix 5000A has both 3-pin and 5-pin XLR sockets for DMX input and output. The pin-out on all sockets is pin 1 to shield, pin 2 to cold (-), and pin 3 to hot (+). There is no connection to pins 4 and 5. The sockets are wired in parallel: both inputs connect to both outputs. For reliable data transmission and to avoid damage to the fixture, however, use one input and one output!

1. Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters. 22 AWG cable is suitable for runs up to 500 meters. Heavier gauge cable and/or an amplifier is recommended for longer runs.
2. Never use both outputs to split the link. To split the serial link into branches use a opto-isolated splitter or amplifier.
3. Do not overload the link. Up to 32 devices may be connected on a serial link.
4. Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120 ohm, 0.25 watt resistor soldered between pins 2 and 3, “soaks up” the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

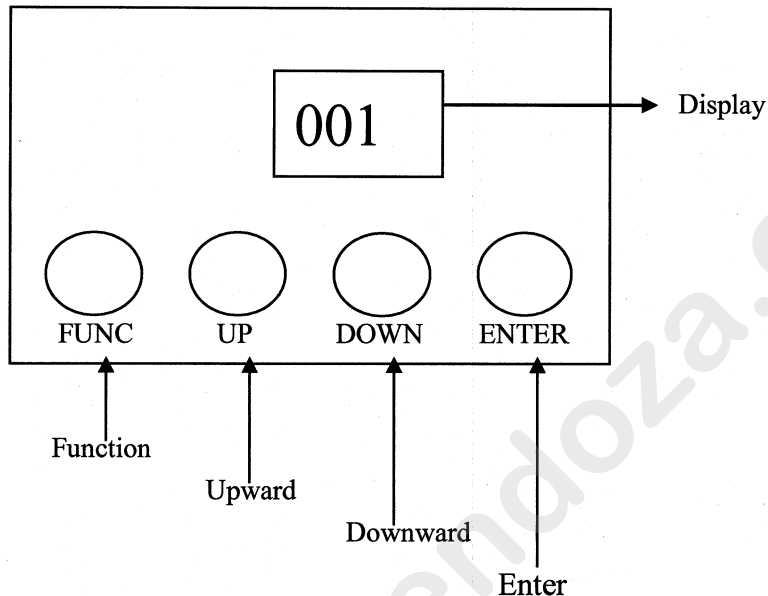
Connecting the Data Link

1. Connect the DMX data input from the controller to the Color Mix 5000A 3-pin or 5-pin input (male) socket.
2. Using the sockets that match your data cable, connect the output of the fixture closest to the controller to the input of the next fixture.
3. Insert a male 120 Ω XLR termination plug in the 3-pin or 5-pin output of the last fixture on the link.

➤ CONTROL PANEL

The LED control panel is used to set the address and running mode .There are four keystroke for operating.

◆ Control panel layout



1. EH0: DMX signal control (press function key to choose EH0, then press ENTRY)
2. EH2 : Tilt change direction. (Press FUN set "EH2" , then press ENTRY)
3. EH3 : Pan change direction. (Press FUN set "EH3" , then press ENTRY)
4. EH4 : Auto Move without strobe effect(Press FUN set "EH4" , then press ENTRY)
5. EH5 : Auto Move with strobe effect(Press FUN set "EH5" , then press ENTRY)
6. EH6 : Auto Move without strobe effect(Press FUN set "EH6" , then press ENTRY)
7. EH7 : Auto Move with strobe effect(Press FUN set "EH7" , then press ENTRY)
8. Address code :Choose Up or Down ,then press ENTRY

Color Mix 5000A DMX address is set as below :

Depends on different controller. Such as PERAL Controller. the I Unit address code is 001, the II Unit address code is 015, the III Unit address code is 029,....

◆ Signal indication

Green Indicator Light: when the data is standard DMX512 signal, DMX512 LED Green Indicator Light is on.

➤ MAINTENANCE

WARNING!

Disconnect the fixture from power before operating. Let the circuit board to cool for at least 3 minutes.

◆ Cleaning

To keep the light not to be weaker, it is needed to clean the part that is easy to attached by dust and oil regularly.

You need to do the cleaning work as below:

1. Use a soft cloth with some glass cleaner to erase the dust attached at the color filters.
Warning! Not to use alcohol or other organic solvent.
2. We suggest that using a brush and vacuum cleaner to clean the inside of the of the fixture.

◆ Focus adjustments

If find the fixture has bad focus or the beam off center, it is necessary to turn on the back cover of the light to adjust the search light.

1. The size of the beam is AUTO adjustment.
2. The center of the beam is fixed, adjusted by controller.

◆ FAQ and solution

Suggestion! When the fixture is not work well, please verify the power supply setting first.

- (1) If the POWER SWITCH jump to [OFF] automatically.

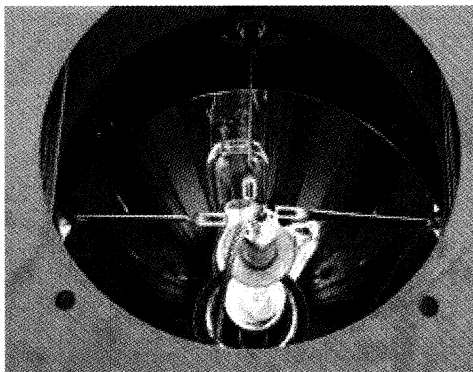
- Check Power supply wire or POWER SWITCH overload.
- (2) If the lamp is not on.
Check the ASSY IGNITER,DIMMER UNIT or LAMP.
- (3) If the light darkle.
Check the ASSY BALLAST POWER SUPPLY.
- (4) If signal is connect, but the LED on the P.C.B MENU DISPLAY not display.
Check the P.C.B MENU DISPLAY.
- (5) If the power is on,the fan is working, and the P.C.B MENU DISPLAY work well,but the fixture not do self check.
Check the P.C.B MAIN CONTROLLER or P.C.B MOTOR DRIVE AU.
- (6) If the pan axis part can do self check,the lamp is on,but the color filter not do self check..
Check the IC on the P.C.B MOTOR DRIVE AU.IC No.89C52RC
- (7) When the power is on,the fixture stop before the self check is complete.
Check the P.C.B MOTOR SENOR,P.C.B MAIN CONTROLLER/P.C.B MOTOR DRIVE AU,or 5-pin wire.
- (8) If then PAN/TILT STEPPING MOTOR is not work..
Check the housing screw on the belt wheel.

➤ **PRODUCT COMPONENT REPLACEMENT WARNING**

For Color Mix 5000A is a high-power product,when the lamp achieve its useful life limit,it is difficult for the ignitor to ignite the lamp.There may be hidden safety trouble when up to its useful life limit.For good performance effect and safety consideration,the component of the product must be replaced when up to its useful life limit.Call our after-service Dep. for more information of replacement.

■ **Lamp replacement**

- **Useful life limit:**
500~600 hour
- **Place position:**
Show as besides
- **Replace reason:**
when the lamp achieve its useful life limit,it is more difficult for the ignitor to ignite the lamp



◆ **DMX Channel assignment**

DMX Channel	DMX Level	Function	Specification
Channel 1	0~127	Lamp Off	Delay 2 second
	128~255	Lamp On	Heat restart
Channel 2	0~127	Dimmer	From Dark to Bright
	128~255	Strobe	1~12 f/s
Channel 3	0~255	Apolar Ad.	Magenta Adjustment
Channel 4	0~255	Apolar Ad.	Yellow Adjustment
Channel 5	0~255	Apolar Ad.	Cyan Adjustment
Channel 6	0~255	Soft light	Soft light effect
Channel 7		CMY Speed	CMY speed adjustment
Channel 8	0~255	Pan	Pan clockwise 360 ° adjustment
Channel 9	0~255	Pan tiny Ad.	12bit tiny Pan adjustment
Channel 10	0~255	Tilt	Tilt clockwise 230 ° adjustment
Channel 11	0~255	Tilt tiny Ad.	12bit tiny Tilt adjustment
Channel 12		Pan/Tilt Tiny Ad.	Linearly adjust
Channel 13		Focus	
Channel 14	0~127	No Function	
	128~255	Reset	Reset

◆ TECHNICAL SPECIFICATION

■ FUNCTION:

- ✧ Quick dichroic color changer, six full saturation base + color mixing capability with percentage control by DMX value
- ✧ Variable beam shaping from spot to flood
- ✧ Electronic dimming of the lamp
- ✧ Electronic high-speed strobe up to 12Hz
- ✧ Stepping motors control the pan and tilt movements with ensuring absolute precision

■ CONTROL:

- ✧ DMX 512 USITT '90 standard protocol
- ✧ Pan/Tilt auto alignment in feedback

■ OPTICS:

- ✧ Quartz cold type reflector dissipating treatment through dichroic infrared finishing diameter 410 mm

■ HOUSING:

- ✧ Unit dimensions (L×W×H): :790mm×690mm×1400mm
- ✧ Weight: 130kg
- ✧ Iron and Aluminum composite shell

■ LAMP INFORMATION:

- ✧ Xenon lamp XHM5000
- ✧ Average life 600 hours
- ✧ Color temperature 6500° K
- ✧ Luminous flux 155,000 lumen

■ POWER SUPPLY:

- ✧ Electronic switching power supply
- ✧ Single phase
- ✧ 5500W 27A 220V 50/60Hz

We keep the right to amend the content of this manual without notice.