

LED-MS700 PE

User Guide

Professional Entertainment Technology

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1. Safety Instruction



WARNING

Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction 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.

- Unpack and check carefully that there is no transportation damage before using the unit.
- The unit is for indoor use only. Use only in a dry location.
- Do install and operate by qualified operator.
- Do not allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Maximum ambient temperature $T_a:40^{\circ}\text{C}$. Don't operate it when the temperature is higher.
- Don't connect the device to any dimmer pack.
- 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, and it will

decrease gradually within 15 minutes.

- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.
- Examine the power wires carefully, replace them immediately if there is any damage.
- Unit's surface temperature may reach up to 85°C . Don't touch the housing bare-handed during its operation, and allow about 15 minutes for cooling the unit down before replacing bulb or maintenance as it could be very hot.
- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut off the mains power immediately.
- Do not operate in dirty or dusty environment, do clean fixtures regularly.
- Do not touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together twist other cables.
- The minimum distance between light output and the illuminated surface must be more than 12 meters.
- Disconnect mains power before fuse/lamp replacement or servicing.
- Replace fuse/lamp only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- Do not open the unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect the mains power if the fixture is has not been used for a long time.
- Do use the original packing materials before transporting it again.

Caution

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- Hot lamp explosion hazard. Do not open the unit within 15 minutes after switching off.
- Do replace the bulb once it is damaged, deformed or life-expired.
- Do not look directly at the light while the bulb is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- Do not start on the unit without bulb enclosure or when housing is damaged.

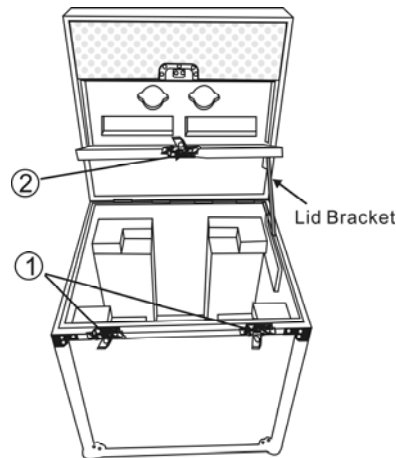
Product Items

- User manual
- 2 x Omega clamps

2. Installations

Unpacking the fixture (for flight case pack only)

1. Stop the flight case via the brake sheet above the wheels.
2. Unlock the lock modules (1) and open the cover board.
3. Prop the cover board with lid bracket.
4. Take out the fixture.
5. Unlock the lock module (2) take out omega clamps.



Installations:

1. Bolt each clamp (1) to the Omega holder with screw and lock nut through the hole in the holder.

2. Fasten the omega holders (2) on the bottom of the base by inserting quick-lock fasteners (3) into the holes of the base and tighten fully clockwise.
3. Hang the fixture to the support (4) through clamp and fasten the screws (5). Fasten the safety cable (6) through the bottom of the base and over the support.

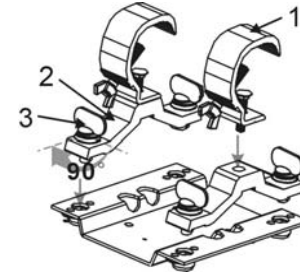


Fig.1

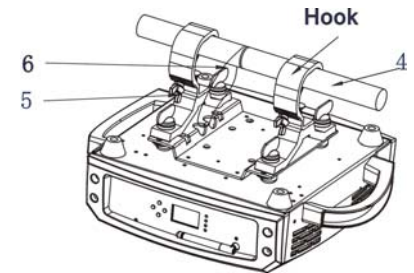


Fig.2

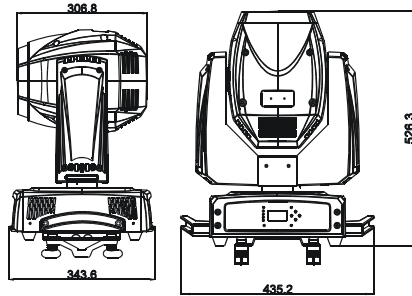
Attention:

- Always ensure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight without any harming deformation.
- Make absolute sure that the unit is firmly fixed in way that no vibrating or slipping would occur during operation.
- The equipment must be installed beyond the areas where persons may walk by or be seated.
- The rigging has to be operated by or under the guide of the skilled person.

3. Technical Specifications

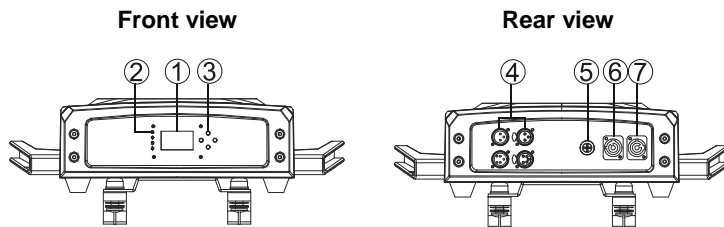
- DMX Channels: 16&17 channels
- Great built-in lighting shows under Master/Slave mode triggered by music
- Smooth 0~100% dimming and variable strobe speeds
- Motorized focus by DMX control
- Automatic Pan/Tilt position correction
- Excellent ventilation, ensuring reliable operation

- **Voltage:** AC 100-240V~50/60Hz
- **Power consumption:** 330W
- **Light Source:** 1 x180W LED
- **Fuse:** 10A
- **Dimension:** 435 x 344 x 526mm
- **Weight:** 17Kgs



4. How To Set The Unit

4.1 Control Panel



- ① **Display:**
To show the various menus and the selected functions

② **LED:**

| | | |
|--------|----------|-------------------|
| DMX | On | DMX input present |
| MASTER | On | Master Mode |
| SLAVE | On | Slave Mode |
| SOUND | Flashing | Sound activation |

③ **Button:**

| | |
|-------|--|
| MENU | To select the programming functions |
| DOWN | To go backward in the selected functions |
| UP | To go forward in the selected functions |
| ENTER | To confirm the selected functions |

④ **DMX input/output:**

For DMX512 link, use 3/5-pin XLR plug cable to link the unit together.

⑤ **Fuse (T 10A):**

Protect the unit from damage of over current.

⑥ **Mains input:**

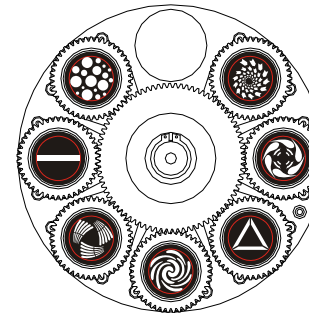
Connect to supply mains power.

⑦ **Mains output:**

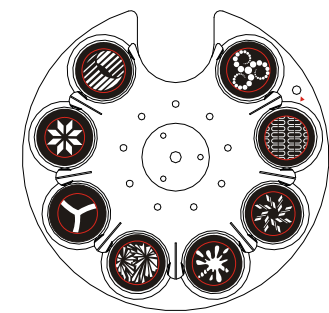
Connect to supply mains power for the next unit.

4.2 Gobo Wheel

GOB01



GOB02



DANGER!
*Install the gobos with the device switched off only.
Unplug from mains before changing gobos!*

4.3 Power On Display

Every time you turn on the unit, it will run built-in program to reset all motors to their home position, the display will show as following Fig1, you may hear some noises for about 20 seconds. It will show warning sign if it goes wrong during resetting and you can press the MENU button to view the error information. After that the unit will be ready to receive DMX signal and the display will show as Fig2:

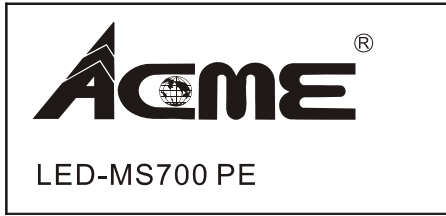


Fig1.

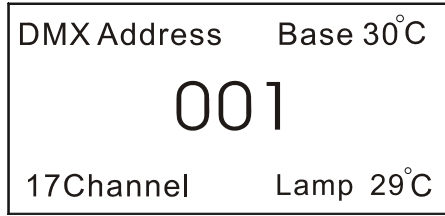


Fig2.

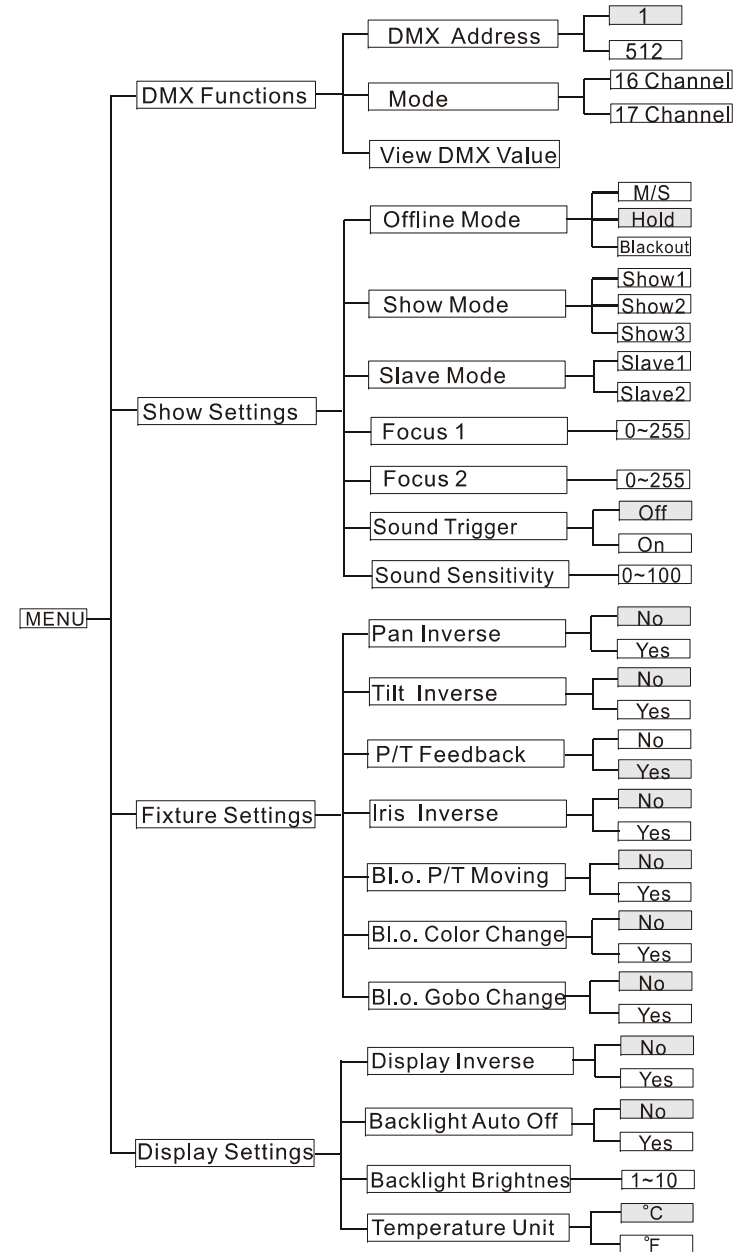
Explanation:

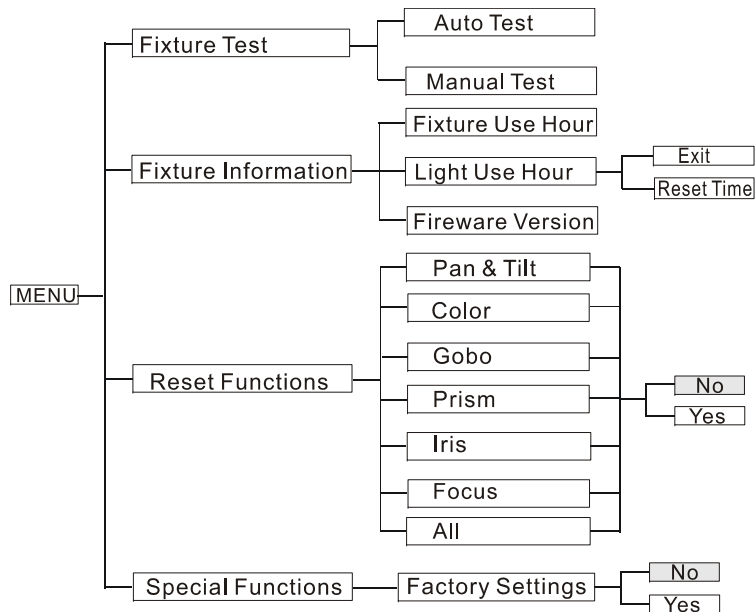
| | |
|------------|--------------------------------------|
| 001 | Show start address |
| 17 Channel | Show channel mode is 17channels mode |
| Base 30°C | Show temperature of base is 30°C |
| Lamp 29°C | Show temperature of lamp is 29°C |

4.4 Main Function

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the mode. Once the required mode has been selected, Press **ENTER** button to store. Back to the main functions without any change press the **MENU** button or wait for 8 seconds. Hold **MENU** button to quit menu mode, the unit will run the built-in program you selected.

The main functions are shown below:





DMX Functions

Enter menu mode, select **DMX Functions**, press **ENTER** button to confirm, use **UP/DOWN** button to select **DMX Address**, **Mode** or **View DMX Value**.

DMX Address—DMX512 address setting

Select **DMX Address**, press **ENTER** button to confirm, the present address will blink on the display, use **UP/DOWN** button to adjust the address from 0 to 512, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Mode—Mode setting

Select **Mode**, press **ENTER** button to confirm, the present channel mode will blink on the display, use **UP/DOWN** button to choose the channel mode(**16 channel mode** or **17 channel mode**), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

View DMX Value

Select **View DMX Value**, press **ENTER** button to confirm. Channel function and its value will show on the display, use **UP/DOWN** button to view other DMX value. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Show Settings

Enter menu mode, select **Show Settings**, press **ENTER** button to confirm, use **UP/DOWN** button to select **Offline Mode**, **Show Mode**, **Slave Mode**, **Focus 1**, **Focus 2**, **Sound Trigger** or **Sound Sensitivity**.

Offline Mode

Select **Offline Mode**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select **M/S** (Master/ Slave Mode), **Hold** or **Blackout**, once selected, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Show Mode

Select **Show Mode**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select **Show 1**, **Show 2** or **Show 3**, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Slave Mode

Select **Slave Mode**, press **ENTER** button to confirm, present mode will blink on the display, press **UP/DOWN** button to select **Slave 1** or **Slave 2**, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Focus 1

Select **Focus 1**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to adjust the value from 0 to 255, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Focus 2

Select **Focus 2**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to adjust the value from 0 to 255, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Sound Trigger—Sound Mode

Select **Sound Trigger**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select **Off** (Sound Mode off) or **On** (Sound Mode On), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Sound Sensitivity

Select **Sound Sensitivity**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to adjust the sound sensitivity from 0 to 100 , press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Settings

Enter menu mode, select **Fixture Settings**, press **ENTER** button to confirm, use **UP/DOWN** button to select **Pan Inverse**, **Tilt Inverse**, **P/T Feedback**, **Iris Inverse**, **BL.O. P/T Moving**, **BL.O. Color Change**, **BL.O. Gobo Change**.

Pan Inverse

Select **Pan Inverse**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal) or Yes (pan inverse), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Tilt Inverse

Select **Tilt Inverse**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal) or Yes (tilt inverse), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one

minute to exit menu mode.

P/T Feedback — pan/tilt Feedback

Select **P/T Feedback**, press **ENTER** button to confirm, present mode will blink on the display, press **UP/DOWN** button to select No (Pan or tilt's position will not feedback while out of step.) or Yes (Feedback while pan/tilt out of step.), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Iris Inverse

Select **Iris Inverse**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal) or Yes (iris inverse), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O. P/T Moving—Blackout while pan/tilt moving

Select **BL.O. P/T Moving**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal while pan/tilt moving) or Yes (blackout while pan/tilt moving), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O. Color Change—Blackout while change color

Select **BL.O. Color Change**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal while changing color) or Yes (blackout while changing color), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O. Gobo Change—Blackout while change gobo

Select **BL.O. Gobo Change**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal while changing gobo) or Yes (blackout while changing gobo), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Display Settings

Enter menu mode, select **Display Settings**, press **ENTER** button to confirm, use **UP/DOWN** button to select **Display Inverse**, **Backlight Auto Off**, **Backlight Intensity** or **Temperature unit** and **Language**..

Display Inverse

Select **Display Inverse**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (normal display) or Yes (inverse display), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Backlight Auto Off

Select **Backlight Auto Off**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select No (display always on) or Yes (display goes off one minute after exiting menu mode), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Backlight Intensity

Select **Backlight Intensity**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to adjust backlight intensity from 1 (dark) to 10 (bright), press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Temperature Unit

Select **Temperature Unit**, press **ENTER** button to confirm, present mode will blink on the display, use **UP/DOWN** button to select °C or °F, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Test

Enter menu mode, select **Fixture Test**, press **ENTER** button to confirm, use **UP/DOWN** button to select Auto Test or Manual Test

Auto Test

Select **Auto Test**, press **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, color, gobo, gobo rotation, prism, prism rotation, frost. Press **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press **ENTER** button to confirm, the present channel will show on the display, use **UP/DOWN** button to select channel, press **ENTER** button to confirm, then use **UP/DOWN** button to adjust the value, press **ENTER** button to store, the fixture will run as the channel value indicates. Press **MENU** button back to the last menu or exit menu mode let the unit idle one minute.

Fixture Information

Enter menu mode, select **Fixture Information**, press **ENTER** button to confirm, use **UP/DOWN** button to select **Fixture use time**, **LED use time** or **Firmware Version**.

Fixture use time

Select **Fixture use time**, press **ENTER** button to confirm, fixture use time will show on the display, press **MENU** button to exit.

LED use time

Select **LED use time**, press **ENTER** button to confirm, lamp on time will show on the display, press **ENTER** button to confirm, use **UP/DOWN** button to select **Exit** or **Reset Time**, press **ENTER** button to confirm. Press **MENU** button back to the last menu or exit menu mode let the unit idle one minute.

Firmware Version

Select **Firmware Version**, press **ENTER** button to confirm, firmware version will show on the display, press **MENU** button back to exit.

Reset Functions

Enter menu mode, select **Reset Functions**, press **ENTER** button to confirm, use

UP/DOWN button to select **Pan/Tilt, Color, Gobo, Prism, Iris, Focus** or **All**.

Pan/Tilt—Reset Pan/Tilt

Select **Pan/Tilt**, Press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset pan and tilt to their home positions) or No, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Color—Reset Color

Select **Color**, Press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset color wheel to their home positions) or No, press **ENTER** button to store. Press **MENU** button to exit.

Gobo—Reset Gobo

Select **Gobo**, Press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset gobo wheel) or No, then press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Prism—Reset Prism

Select **Prism**, press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset prism) or No, press **ENTER** button to store. Press **MENU** button to exit.

Iris—Reset Iris

Select **Iris**, press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset iris to its home positions) or No, press **ENTER** button to store. Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Focus—Reset Focus

Select **Focus**, press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset focus to its home positions) or No, press **ENTER** button to store. Press **MENU** button to exit.

All—Reset All

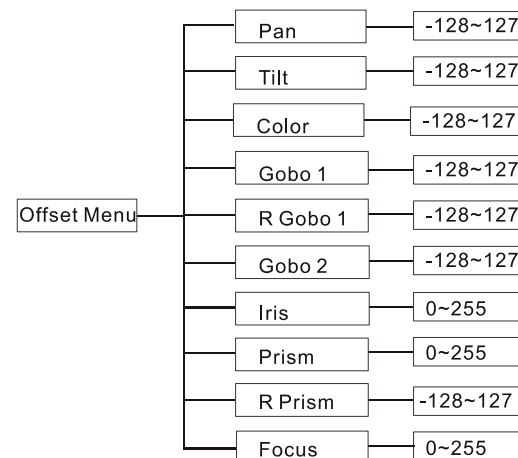
Select **All**, press **ENTER** button to confirm, use **UP/DOWN** button to select Yes (the unit will run built-in program to reset all motors to their home positions) or No, press **ENTER** button to store. Press **MENU** button to exit.

Special Functions

Enter menu mode, select **Special Functions**, press **ENTER** button to confirm, the **Factory Setting** will show on the display, press **ENTER** button to confirm, then use **UP/DOWN** button to select Yes (the unit will run build-in program to reset to factory settings) or No. Press **MENU** button to exit.

4.5 Home Position Adjustment

Press **MENU** button into menu mode, then press the **ENTER** button for about 3 seconds into offset mode to adjust the home position. Select the function by **ENTER** button. Use **UP** and **DOWN** button to choose the submenu, press the **ENTER** button to store and automatically return to the last menu. Press **MENU** button to exit.



Pan—pan home position adjust

Enter offset mode, Select **Pan**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Tilt—Tilt home position adjust

Enter offset mode, Select **Tilt**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Color—Color home position adjust

Enter offset mode, Select **Color**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Gobo1—Gobo1 home position adjust

Enter offset mode, Select **Gobo1**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

RGobo1—Gobo1 rotation home position adjust

Enter offset mode, Select **RGobo1**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Gobo2—Gobo2 home position adjust

Enter offset mode, Select **Gobo 2**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Iris—Iris home position adjust

Enter offset mode, Select **Iris**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from 0 to 255, press **ENTER** button to store. Press **MENU** button to exit.

Prism—Prism home position adjust

Enter offset mode, Select **Prism**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from 0 to

255, press **ENTER** button to store. Press **MENU** button to exit.

R Prism—Prism rotation home position adjust

Enter offset mode, Select **R Prism**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from -128 to 127, press **ENTER** button to store. Press **MENU** button to exit.

Focus—Focus home position adjust

Enter offset mode, Select **Focus**, press **ENTER** button to confirm, the present position will blink on the display, use **UP/DOWN** button to offset the value from 0 to 255, press **ENTER** button to store. Press **MENU** button to exit.

4.6 Error Information

Lamp Startup Fail

It appears when there is no lamp or some wires are damaged.

Temperature Sense Error

It appears when temperature check board is damaged.

Lamp Too Hot Power Off

It appears when temperature is detected higher than 110°C. Check if the unit is properly ventilated, or fans or temperature check board may is damaged.

Lamp Too Hot Low Power

It appears when temperature is detected higher than 105°C, the unit will run on a low power level.

Maintenance Fixture

It appears when the maintenance remaining time becomes 0S, please enter menu mode and reset the time.

Lamp On Over 700 Hour

It appears when the lamp has been on over 700 hours, please turn off the lamp.

Memory Initial Fail

It appears when the memory IC is damaged.

CPU-B Error, CPU-C Error, CPU-D Error

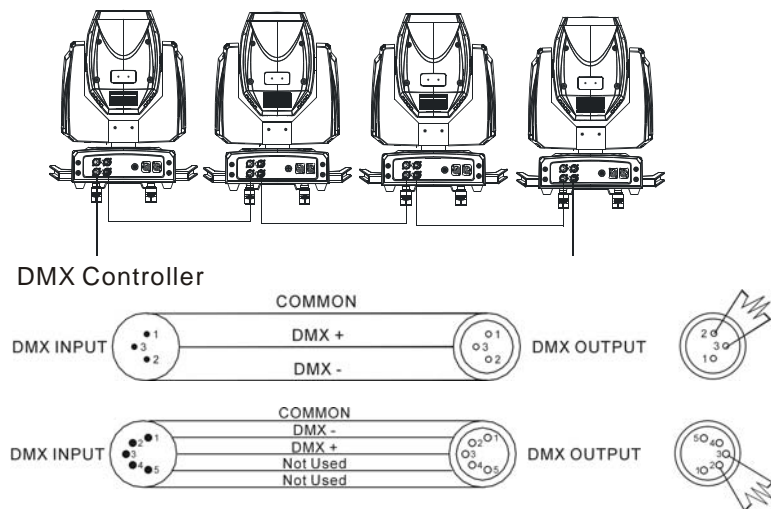
They appear when board P.C or some wires are damaged.

Pan Reset Error, Pan Encode Error, Tilt Reset Error, Tilt Encode Error, Shutter Reset Fail, Dimmer Reset Fail, Color Reset Fail, Gobo Reset Fail, and Frost Reset Fail

They may appear when turning on or resetting the unit, for some parts such as board P.C are damaged. Please contact the qualified maintenance.

5. Control By Universal DMX Controller

5.1 DMX 512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
2. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when power is disconnected to the unit.
4. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
5. The end of the DMX 512 system should be terminated to reduce signal errors.
6. 3 pin XLR connectors are more popular than 5 pin XLR.
3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
Pin 4/5: Not used.

5.2 DMX Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press MENU button to enter menu mode, select **DMX Functions**, press ENTER button to confirm, use UP and DOWN button to select **DMX Address**, press ENTER button to confirm, the present address will blink on the display, use UP and DOWN button to adjust the address from 0 to 512, press ENTER button to store. Press MENU button back to the last menu or let the unit idle one minute to exit menu mode.

Please refer to the following diagram to address your DMX512 channel for the first 4 units:

| Channel Mode | Unit 1 | Unit 2 | Unit 3 | Unit 4 |
|--------------|--------|--------|--------|--------|
| 16 channels | 1 | 17 | 33 | 49 |
| 17 channels | 1 | 18 | 35 | 52 |

5.3 DMX512 Configuration

16 Channels Mode:

| 16 Channel Mode | | | | | | |
|--|--|---|--|---|-------------------|--|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 | Ch7 |
| Pan | Pan Fine | Tilt | Tilt Fine | Pan/Tilt speed | Dimmer | Strobe |
| 255 [540° 0 L 0° | 255 [0 0 L | 255 [270° 0 L 0° | 255 [0 0 L | 255 [Fast 254 Slow 0 Fast | 255 [100% 0 0% | 248-255 Open Random Strobe 240-247 232-239 Open 190-231 Fast Open Slow Close 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 116-131 Slow 008-015 Open 000-007 Off |
| Ch8 | Ch9 | Ch10 | Ch11 | | | |
| Color 1 | Gobo1 | R-Gobo1 | Gobo2 | | | |
| 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 064-127 Index 056-063 Color 8 048-055 Color 7 040-047 Color 6 024-031 Color 4 016-023 Color 3 008-015 Color 2 000-007 Color 1 | 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 119-127 Gobo7 shaking 110-118 Gobo6 shaking 101-109 Gobo5 shaking 092-100 Gobo4 shaking 083-091 Gobo3 shaking 074-082 Gobo2 shaking 064-073 Gobo1 shaking 056-063 Gobo7 048-055 Gobo6 040-047 Gobo5 032-039 Gobo4 024-031 Gobo3 016-023 Gobo2 008-015 Gobo1 000-007 Open | 255 Rotation Fast 194 Slow 190-193 Stop 189 Slow 128 Rotation 127 Prism, Index 360° 000 Prism, Index 0° | 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 120-127 Gobo8 Shaking 112-119 Gobo7 Shaking 104-111 Gobo6 Shaking 096-103 Gobo5 Shaking 088-095 Gobo4 Shaking 080-087 Gobo3 Shaking 072-079 Gobo2 Shaking 064-071 Gobo1 Shaking 057-063 Gobo8 050-056 Gobo7 043-049 Gobo6 036-042 Gobo5 029-035 Gobo4 022-028 Gobo3 015-021 Gobo2 008-014 Gobo1 000-007 Open | | | |
| Ch12 | Ch13 | Ch14 | Ch15 | Ch16 | | |
| Prism | R-Prism | Iris | Focus | Function | | |
| 128-255 Prism Effect 000-127 No Effect | 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 127 Prism, Index 360° 000 Prism, Index 0° | 255 Min. 0 Max. | 255 [▲ 0 [● | 230-255 Null 220-229 Disable Blackout while Pan/Tilt Moving or Color or Gobo change 210-219 Enable Blackout while Pan/Tilt Moving or Color or Gobo change 200-209 Reset All 190-199 Null 180-189 Focus Reset 170-179 Null 160-169 Gobo Reset 150-159 Color Reset 140-149 Pan/Tilt Reset 130-139 Null 120-129 Disable Blackout while Gobo Change 110-119 Enable Blackout while Gobo Change 100-109 Disable Blackout while Color Change 090-099 Enable Blackout while Color Change 080-089 Disable Blackout while Pan/Tilt Moving 070-079 Enable Blackout while Pan/Tilt Moving 000-069 Null | | |

17 Channels Mode:

| 17 Channel Mode | | | | | | |
|--|--|---|---|---|-------------------|--|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 | Ch7 |
| Pan | Pan Fine | Tilt | Tilt Fine | Pan/Tilt speed | Dimmer | Strobe |
| 255 [540° 0 L 0° | 255 [0 0 L | 255 [270° 0 L 0° | 255 [0 0 L | 255 [Fast 254 Slow 0 Fast | 255 [100% 0 0% | 248-255 Open Random Strobe 240-247 232-239 Open 190-231 Fast Open Slow Close 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 116-131 Slow 008-015 Open 000-007 Off |
| Ch8 | Ch9 | Ch10 | Ch11 | Ch12 | | |
| Color 1 | Gobo1 | R-Gobo1 | Gobo2 | Prism | | |
| 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 064-127 Index 056-063 Color 8 048-055 Color 7 040-047 Color 6 024-031 Color 4 016-023 Color 3 008-015 Color 2 000-007 Color 1 | 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 119-127 Gobo7 shaking 110-118 Gobo6 shaking 101-109 Gobo5 shaking 092-100 Gobo4 shaking 083-091 Gobo3 shaking 074-082 Gobo2 shaking 064-073 Gobo1 shaking 056-063 Gobo7 048-055 Gobo6 040-047 Gobo5 032-039 Gobo4 024-031 Gobo3 016-023 Gobo2 008-015 Gobo1 000-007 Open | 255 Rotation Fast 194 Slow 190-193 Stop 189 Slow 128 Rotation 127 Prism, Index 360° 000 Prism, Index 0° | 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 120-127 Gobo8 Shaking 112-119 Gobo7 Shaking 104-111 Gobo6 Shaking 096-103 Gobo5 Shaking 088-095 Gobo4 Shaking 080-087 Gobo3 Shaking 072-079 Gobo2 Shaking 064-071 Gobo1 Shaking 057-063 Gobo8 050-056 Gobo7 043-049 Gobo6 036-042 Gobo5 029-035 Gobo4 022-028 Gobo3 015-021 Gobo2 008-014 Gobo1 000-007 Open | 128-255 Prism Effect 000-127 No Effect | | |
| Ch13 | Ch14 | Ch15 | Ch16 | Ch17 | | |
| R-Prism | Iris | Focus | Function | Color Speed | | |
| 255 Fast 194 Slow 190-193 Stop 189 Slow 128 Fast 127 Prism, Index 360° 000 Prism, Index 0° | 255 Min. 0 Max. | 255 [▲ 0 [● | 230-255 Null 220-229 Disable Blackout while Pan/Tilt Moving or Color or Gobo change 210-219 Enable Blackout while Pan/Tilt Moving or Color or Gobo change 200-209 Reset All 190-199 Null 180-189 Focus Reset 170-179 Null 160-169 Gobo Reset 150-159 Color Reset 140-149 Pan/Tilt Reset 130-139 Null 120-129 Disable Blackout while Gobo Change 110-119 Enable Blackout while Gobo Change 100-109 Disable Blackout while Color Change 090-099 Enable Blackout while Color Change 080-089 Disable Blackout while Pan/Tilt Moving 070-079 Enable Blackout while Pan/Tilt Moving 000-069 Null | 255 Slow 0 Fast | | |



6. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connect power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED to see if it can be light up or not.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

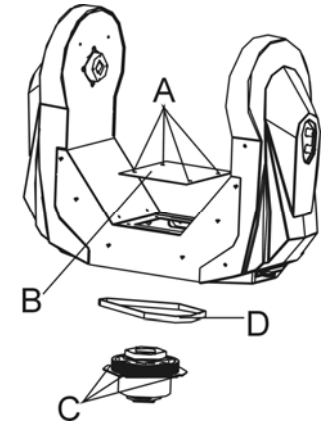
1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition.

D. The lamp is cutting out intermittently

1. The lamp is not working well. Check the mains voltage either too high or too low.
2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

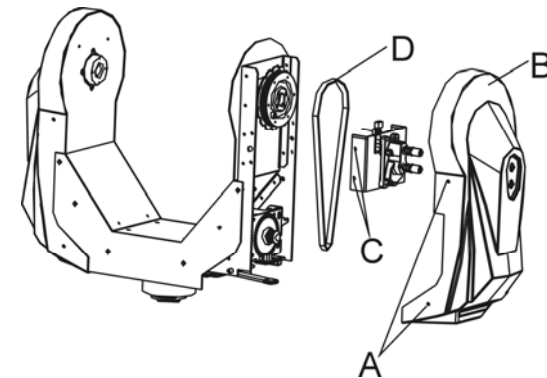
E. If the pan belt is broken

1. Turn off the mains power.
2. Loosen the screws (A) , open the cover (B).
3. Loosen the screws (C).
4. Unplug all the connect wires over the belt.
5. Change a new belt (D), put the belt around the axis gear and motor gear.
6. Plug all the connect wires back upon the belt.
7. Tighten all the screws.



F. If the tilt belt is broken

1. Turn off the mains power.
2. Loosen all the screws (A) and open the right arm cover (B).
3. Loosen the screws (C) that fix the bridge.
4. Change a new belt (D). Please adjust the tension of the belt properly.



Note: do not fix the belt too tight as it is can easily rupture. Reverse the procedures from step 3 to 2.

7. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

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