# GE/ST SPOT 

XA-500 SPOT


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## 1. Safety Instructions



WARNING

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

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- 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.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50 cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is $\mathrm{Ta}: 40^{\circ} \mathrm{C}$. DO NOT operate it where the temperature is higher than this.
- Unit surface temperature may reach up to $85^{\circ} \mathrm{C}$. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of serious operating problem, stop using the unit immediately. 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. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.


## Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.


## Caution:

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

## Installation:

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure 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. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

## 2. Technical Specifications

- Voltage:

AC 100V~240V, 50/60Hz

- Power consumption: 737W
- LED:
$1 \times 440 W$ LED
- Fuse:

T15A

- Beam Angle: $14^{\circ}-35^{\circ}$
- Dimension: $447 \times 265 \times 720 \mathrm{~mm}$
- Weight:

30 Kgs


## Photometrics Diagram



## 3. Gobo



Static Gobo Wheel


Rotating Gobo Wheel

## DANGER!

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

CAUTION: Never unscrew the screws of the rotating gobo as the ball bearing will otherwise be opened!

## 4. How To Set The Unit <br> 4.1 Control panel



1. Function Display: Used to show the various menus and the selected function;
2. DMX IN/OUT: DMX 512 link, use XLR cable to link the unit and $D M X$ controller;
3. POWER IN: Connect to power supply;
4. FUSE (T15Amp): Protect the unit from damage of the overcurrent;
5. POWER WITCH: Turn on/off the power.

### 4.2 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 the ENTER button and the display will blink. Use the DOWN and UP button to change the mode. Once the required mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Hold and press the MENU button about one second or wait for one minute to exit the menu mode.

The main functions are showing below:


## DMX Settings

To select DMX Settings press the ENTER button to confirm, use the UP/DOWN button to select DMX Address or DMX Channel Mode,

DMX Address —DMX512 address setting
To select DMX Address, press the ENTER button to confirm. Use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

DMX Channel Mode
To select DMX Channel Mode, press the ENTER button to confirm. Use the UP/DOWN button to select Mode $\mathbf{1 ( 2 0 )}$ or Mode $\mathbf{2 ( 2 2 )}$, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode

## Fixture Settings

To select Fixture Settings, press the ENTER button to confirm, use the UP/DOWN button to select Pan Inverse, Tile Inverse, P/T Feedback, Focus Compensate, BL.O. P/T Moving, BL.O. Color Change, BL.O. Gobo Change or Dimmer Curve.

## Pan Inverse

To select Pan Inverse, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal) or Yes (pan inverse), press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

## Tilt Inverse

To select Tilt Inverse, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal) or Yes (tilt inverse), press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

## P/T Feedback

To select P/T Feedback, press the ENTER button to confirm. Use the 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 the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

## Focus Compensate

To select Focus Compensate, press the ENTER button to confirm. Use the UP/DOWN button to select Disable,Near,Medium or Far, press the ENTER button to store. Press the 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
To select BL.O. P/T Moving, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal while pan/tilt moving) or Yes (blackout while pan/tilt moving), press the ENTER button to store. Press the 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
To select BL.O. Color Change, press the ENTER button to confirm. Use UP/DOWN button to select No (normal while changing color) or Yes (blackout while change color), press the ENTER button to store. Press the 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
To select BL.O. Gobo Change, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal while changing gobo) or Yes (blackout while changing gobo), press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

## Dimmer Curve

To select Dimmer Curve, press the ENTER button to confirm. Use the DOWN/UP button to select the Mode1 or Mode $\mathbf{2}$ or Mode $\mathbf{3}$ or Mode 4. Once the mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for one minute to exit the menu mode.

## Dimmer Modes



DMX \%
Optically Linear


DMX \%
Square Law


DMX \%
Inverse Square Law


DMX \%
S-curve

Mode 1(Optically Linear):

The increase in light intensity appears to be linear as DMX value is increased.

## Mode 2(Square Law):

Light intensity control is finer at low levels and coarser at high levels.

## Mode 3(Inverse Square Law):

Light intensity control is coarser at low levels and finger at high levels.
Mode 4(S-cure):
Light intensity control is finger at low levels and high levels and coarser at medium levels.

## Display Settings

Enter menu mode, select Display Setting, press the ENTER button to confirm, use the UP/DOWN button to select Display Inverse, Backlight Intensity, Temperature Unit or Language.

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

## Backlight Intensity

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

## Temperature Unit

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

## Language

Select Contrast Ratio, press the ENTER button to confirm, present mode will blink on the display, use the UP/DOWN button to select English or Chinese, press the ENTER button to store. Press the 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 the ENTER button to confirm, use the UP/DOWN button to select Auto Test or Manual Test

## Auto Test

Select Auto Test, press the ENTER button to confirm, the unit will run built-in programs to automatically test pan, tilt, shutter, color, CMY, gobo, gobo rotation, prism, prism rotation, iris, frost, zoom, focus, dimmer and lamp on/off. Press the MENU button back to the last menu or exit menu mode after auto test.

## Manual Test

Select Manual Test, press the ENTER button to confirm, the present channel will show on the display, use the UP/DOWN button to select channel, press the ENTER button to confirm, then use the UP and DOWN button to adjust the value, press the ENTER button to store, the fixture will run as the channel value indicates. Press the MENU button back to the last menu or exit menu mode idling one minute.
(All channels value will become 0 after exiting Manual Test menu)

## Fixture Information

Enter menu mode, select Fixture Information, press the ENTER button to confirm, use the UP/DOWN button to select Fixture use hour, Temperature or Firmware Version.

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

## Temperature

Select Temperature, press the ENTER button to confirm, fixture temperature will show on the display, press the MENU button to exit.

## Firmware Version

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

## Reset Functions

Enter menu mode, select Reset Function, press the ENTER button to confirm, use the UP/DOWN button to select Pan/Tilt, Effect or All.

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

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

All - Reset All
Select All, press the ENTER button to confirm, use the 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 the MENU button to exit.

## Special Functions

## Factory Settings

Select Factory Settings, press the ENTER button to confirm, use the UP/DOWN button to select Yes (the fixture will reset to factory settings) or No (normal), press ENTER button to store. Press the MENU button to exit.

### 4.3 Home Position Adjustment

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

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

Gobo 1-Gobo 1 home position adjustment
Enter offset mode, Select Gobo 1, press the ENTER button to confirm, the present position will blink on the display, use the UP/DOWN button to offset the value from -128 to 127, press the ENTER button to store. Press the MENU button to exit.

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

Gobo 1-Gobo 1 home position adjustment
Enter offset mode, Select Gobo 1, press the ENTER button to confirm, the present position will blink on the display, use the UP/DOWN button to offset the value from -128 to 127, press the ENTER button to store. Press the MENU button to exit.

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

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

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

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

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

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

## 5. Control By Universal DMX Controller

### 5.1 DMX Connection



1. Connect the fixture together in a "daisy chain" by XLR plug cable from the output of the fixture to the input of the next fixture. The cable cannot be branched or split to a " $\gamma$ " cable. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system
2. The DMX output and input connectors are pass-through to maintain the DMX circuit when one of the units' power is disconnected.
3. At last fixture, the $D M X$ cable has to be terminated with a terminator to reduce signal errors. 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 fixture.
4. Each lighting fixture 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. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

### 5.2 Address Setting

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

Press the MENU button to enter menu mode, select the DMX Functions, press the ENTER button to confirm, use the UP and DOWN button to select the DMX Address, press the ENTER button to confirm, the present address will blink on the display, use the UP and DOWN button to adjust the address from 0 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 7 seconds to exit menu mode.

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

| Channel mode | Unit 1 <br> Address | Unit 2 <br> Address | Unit 3 <br> Address | Unit 4 <br> Address |
| :---: | :---: | :---: | :---: | :---: |
| 20 Channels | 1 | 21 | 41 | 61 |
| 22 Channels | 1 | 23 | 45 | 67 |

### 5.3 DMX 512 Configuration

20 Channels Mode (Mode 1):

| Channel | Value | Function |
| :---: | :--- | :--- |
| 1 | $000-255$ | Pan <br> Pan movement $0^{\circ}-540^{\circ}$ <br> 2 |
| $000-255$ | Tilt |  |
| Tilt movement $0^{\circ}-270^{\circ}$ |  |  |
| 3 | $000-255$ | Pan/Tilt speed |
| Fast to slow |  |  |


| 4 | 000-255 | Cyan <br> 0-100\% |
| :---: | :---: | :---: |
| 5 | 000-255 | Magenta $0-100 \%$ |
| 6 | 000-255 | Yellow <br> 0-100\% |
| 7 | 000-255 | Сто <br> 0-100\% |
| 8 |  | Color 1 <br> Open <br> Color 1 <br> Color 2 <br> Color 3 <br> Color 4 <br> Color 5 <br> Color 6 <br> Index <br> Clockwise rotation from fast to slow <br> Stop <br> Clockwise rotation from slow to fast |
| 9 | $\begin{aligned} & 000-009 \\ & 010-018 \\ & 019-027 \\ & 028-036 \\ & 037-045 \\ & 046-054 \\ & 055-063 \\ & 064-074 \end{aligned}$ | Gobo <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo 1 Shaking |


|  | $\begin{aligned} & 075-085 \\ & 086-096 \\ & 097-107 \\ & 108-118 \\ & 119-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | Gobo 2 Shaking <br> Gobo 3 Shaking <br> Gobo 4 Shaking <br> Gobo 5 Shaking <br> Gobo 6 Shaking <br> Fast to Slow <br> Stop <br> Slow to Fast |
| :---: | :---: | :---: |
| 10 | $\begin{aligned} & 000-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | RGobo1 <br> Index 0-360 <br> Clockwise rotation from fast to slow <br> Stop <br> Clockwise rotation from slow to fast |
| 11 | $\begin{aligned} & 000-007 \\ & 008-014 \\ & 015-021 \\ & 022-028 \\ & 029-035 \\ & 036-042 \\ & 043-049 \\ & 050-056 \\ & 057-063 \\ & 064-071 \\ & 072-079 \\ & 080-087 \\ & 088-095 \\ & 096-103 \\ & 104-111 \end{aligned}$ | Gobo 2 <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo 7 <br> Gobo 8 <br> Gobo 1 shaking <br> Gobo 2 shaking <br> Gobo 3 shaking <br> Gobo 4 shaking <br> Gobo 5 shaking <br> Gobo 6 shaking |


|  | $\begin{aligned} & 112-119 \\ & 120-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | Gobo 7 shaking Gobo 8 shaking fast to slow Stop slow to fast |
| :---: | :---: | :---: |
| 12 | 000-255 | Iris $0-100 \%$ |
| 13 | $\begin{aligned} & 000-007 \\ & 008-127 \\ & 127-255 \end{aligned}$ | Prism <br> No effect <br> Prism1 <br> Prism2 |
| 14 | $\begin{aligned} & 000-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | R-prism <br> Index 0-360 <br> Fast to slow <br> Stop <br> Slow to fast |
| 15 | 000-255 | Zoom <br> 0-100\% |
| 16 | 000-255 | Focus $0-100 \%$ |
| 17 | $\begin{aligned} & 000-007 \\ & 008-015 \\ & 016-131 \\ & 132-139 \\ & 140-181 \\ & 182-189 \\ & 190-231 \\ & 232-239 \end{aligned}$ | Shutter <br> Close <br> Open <br> Strobe Slow to Fast <br> Open <br> Fast Close Slow open <br> Open <br> Fast Open Slow Close <br> Open |


|  | $\begin{aligned} & 240-247 \\ & 248-255 \end{aligned}$ | Random Strobe Open |
| :---: | :---: | :---: |
| 18 | 000-255 | Dimmer <br> 0-100\% |
| 19 | 000-255 | Dimmer Fine $0-100 \%$ |
| 20 | $\begin{aligned} & 000-009 \\ & 010-014 \\ & 015-029 \\ & 030-034 \\ & 035-255 \end{aligned}$ | Function <br> Null <br> Reset All <br> Reset Effect <br> Reset Pan/Tilt <br> Null |

## 22 Channels Mode (Mode 2):

| Channel | Value | Function |
| :---: | :--- | :--- |
| 1 | $000-255$ | Pan <br> $0-100 \%$ |
| 2 | $000-255$ | Pan Fine <br> $0-100 \%$ |
| 3 | $000-255$ | Tilt <br> $0-100 \%$ |
| 4 | $000-255$ | Tilt Fine <br> $0-100 \%$ |
| 5 | $000-255$ | Pan/Tilt speed <br> Fast to slow <br> 6 |


|  | 000-255 | 0-100\% |
| :---: | :---: | :---: |
| 7 | 000-255 | Magenta $0-100 \%$ |
| 8 | 000-255 | Yellow $0-100 \%$ |
| 9 | 000-255 | $\begin{aligned} & \text { CTO } \\ & 0-100 \% \end{aligned}$ |
| 10 |  | Color 1 <br> Open <br> Color 1 <br> Color 2 <br> Color 3 <br> Color 4 <br> Color 5 <br> Color 6 <br> Index <br> Clockwise rotation from fast to slow <br> Stop <br> Clockwise rotation from slow to fast |
| 11 |  | Gobo <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo 1 Shaking <br> Gobo 2 Shaking |


|  | $\begin{gathered} 086-096 \\ 097-107 \\ 108-118 \\ 119-127 \\ 128-189 \\ 190-193 \\ 194-255 \end{gathered}$ | Gobo 3 Shaking <br> Gobo 4 Shaking <br> Gobo 5 Shaking <br> Gobo 6 Shaking <br> Fast to Slow <br> Stop <br> Slow to Fast |
| :---: | :---: | :---: |
| 12 | $\begin{aligned} & 000-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | RGobo1 <br> Index 0-360 <br> Clockwise rotation from fast to slow <br> Stop <br> Clockwise rotation from slow to fast |
| 13 | $\begin{aligned} & 000-007 \\ & 008-014 \\ & 015-021 \\ & 022-028 \\ & 029-035 \\ & 036-042 \\ & 043-049 \\ & 050-056 \\ & 057-063 \\ & 064-071 \\ & 072-079 \\ & 080-087 \\ & 088-095 \\ & 096-103 \\ & 104-111 \\ & 112-119 \end{aligned}$ | Gobo 2 <br> Open <br> Gobo 1 <br> Gobo 2 <br> Gobo 3 <br> Gobo 4 <br> Gobo 5 <br> Gobo 6 <br> Gobo 7 <br> Gobo 8 <br> Gobo 1 shaking <br> Gobo 2 shaking <br> Gobo 3 shaking <br> Gobo 4 shaking <br> Gobo 5 shaking <br> Gobo 6 shaking <br> Gobo 7 shaking |


|  | $\begin{aligned} & 120-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | Gobo 8 shaking <br> fast to slow <br> Stop <br> slow to fast |
| :---: | :---: | :---: |
| 14 | 000-255 | Iris <br> 0-100\% |
| 15 | $\begin{aligned} & 000-007 \\ & 008-127 \\ & 127-225 \end{aligned}$ | Prism <br> No effect <br> Prism 1 <br> Prism 2 |
| 16 | $\begin{aligned} & 000-127 \\ & 128-189 \\ & 190-193 \\ & 194-255 \end{aligned}$ | R-prism <br> Index 0-360 <br> Fast to Slow <br> Stop <br> Slow to Fast |
| 17 | 000-255 | Zoom <br> 0-100\% |
| 18 | 000-255 | Focus <br> 0-100\% |
| 19 | $\begin{aligned} & 000-007 \\ & 008-015 \\ & 016-131 \\ & 132-139 \\ & 140-181 \\ & 182-189 \\ & 190-231 \\ & 232-239 \\ & 240-247 \end{aligned}$ | Shutter <br> Close <br> Open <br> Strobe Slow to Fast <br> Open <br> Fast Close Slow open <br> Open <br> Fast Open Slow Close <br> Open <br> Random Strobe |


|  | $248-255$ | Open |
| :---: | :--- | :--- |
| 20 | $000-255$ | Dimmer |
| 21 | $0-100 \%$ |  |
| 22 | $000-255$ | Dimmer Fine |
|  | $0-100 \%$ |  |
|  | $000-009$ Function <br> $003-014$  <br> $030-034$  <br> $035-255$  | Rull |

## 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 connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

## B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link 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 if the $D M X$ 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.

## 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.


## Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN55103-1: 2009+A1:2012; EN55103-2: 2009;
EN61000-3-2: 2014; EN61000-3-3: 2013.

## \&

Harmonized Standard

EN 60598-1:2015; EN 60598-2-17:1989 + A2:1991;
EN 62471:2008; EN 62493: 2010
Safety of household and similar electrical appliances
Part 1: General requirements

