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## 01/ Safety Instructions

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

## WARNING

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 to ensure that there is no transportation damage before using the unit.
- This product 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 50 cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: $0^{\circ} \mathrm{C}$. Maximum ambient temperature TA: $40^{\circ} \mathrm{C}$. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to $50^{\circ} \mathrm{C}$. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut
off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 0.5 meters.
- 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 housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

| Power Voltage | 100-240V~50/60Hz |  |
| :---: | :---: | :---: |
| Power Consumption | 340W |  |
| Light Source | 7x40W RGBW LED |  |
| Color Temperature | 2500K-8000K |  |
| Beam Angle | $6^{\circ}-40^{\circ}$ |  |
| Field Angle | $10^{\circ}-60^{\circ}$ |  |
| Dimmer/Strobe | 0-100\% smooth dimming; outstanding strobe effect with variable speed |  |
| Movement | Pan | $540^{\circ}$ |
|  | Tilt | $230^{\circ}$ |
|  | Pan/Tilt Resolution | 16 bit |
|  | Automatic pan/tilt position correction |  |
| Control | DMX Channel | 17/37 Channels |
|  | Control Mode | DMX512 |
|  |  | RDM |
|  |  | Primary/Secondary Mode |
|  | Firmware Upgrade | via DMX link or USB disk |
| Construction | Display | OLED display |
|  | Data $\ln /$ Out | 3-pin XLR (5-pin XLR is optional) |
|  | Power In/Out | Power Connector in/out |
|  | Protection Rating | IP20 |
| Features | Pixel control, uniform RGBW color mixing and rainbow effect |  |
|  | Motorized liner zoom system |  |
|  | Compact design, small size, fast and silent operation |  |
| Dimensions | $216 \times 165 \times 343 \mathrm{~mm}$ | 8.5 " $\times 6.5$ " $\times 13.5$ "in |
| Weight | 5.3 kgs | 11.7lbs |



Photometric Diagram:



| 1. Display | To show the various menus and the selected function |  |
| :--- | :--- | :--- |
|  | MENU | To enter into move backward or leave the menu |
|  | A UP | To go backward to move up in the menu |
|  | V DOWN | To go forward to move down in the menu |
| 3. POWER OUT | To connect to the next fixture |  |
| 4. POWER IN | To connect to supply power |  |
| 5. DMX IN | For DMX512 link, use 3-pin XLR cable to link the unit and DMX <br> controller to input DMX signal (5-pin XLR cable is optional) |  |
| 6. FIRMWARE | Used to upgrade fixture's firmware |  |
| UPGRADE | For DMX512 <br> 7. link, use 3-pin XLR cable to link the next units to <br> output DMX signal (5-pin XLR cable is optional) |  |

- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in three different mounting positions: hanging upside-down, mounted sideways on trussing, or set on a flat level surface. Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.





## 05/ How To Set The Unit

### 5.1 Main Functions

- To access the control menus, press the [MENU] button.
- Navigate the menu structure, using the [ENTER], [^ UP] and [ $\vee$ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

The main functions are shown below:


| MENU | SUBMENU | OPTIONS |  |
| :---: | :---: | :---: | :---: |
|  | White Balance | Red | 125-255 |
|  |  | Green | 125-255 |
|  |  | Blue | 125-255 |
|  |  | Red 1 | 125-255 |
|  |  | Green 1 | 125-255 |
|  |  | Blue 1 | 125-255 |
|  |  | ...... | ...... |
|  |  | Red 7 | 125-255 |
|  |  | Green 7 | 125-255 |
|  |  | Blue 7 | 125-255 |
|  | Pri/Sec Mode | Secondary |  |
|  |  | Primary |  |
| Display Settings | Display Invert | Off |  |
|  |  | On |  |
|  | Temperature Unit | ${ }^{\circ} \mathrm{C}$ |  |
|  |  | ${ }^{\circ} \mathrm{F}$ |  |
|  | Display Warning | Off |  |
|  |  | On |  |
|  | Fixture Language | English |  |
|  |  | Chinese |  |
| Auto Test |  |  |  |
| Manual Test | Pan | 0-255 |  |
|  | Pan Fine | 0-255 |  |
|  | Tilt | 0-255 |  |
|  | Tilt Fine | 0-255 |  |
|  | Zoom | 0-255 |  |
|  | Dimmer | 0-255 |  |
|  | Dimmer Fine | 0-255 |  |
|  | Shutter | 0-255 |  |
|  | Red 1 | 0-255 |  |
|  | Green 1 | 0-255 |  |
|  | Blue 1 | 0-255 |  |
|  | White 1 | 0-255 |  |
|  | ...... | ...... |  |
|  | Red 7 | 0-255 |  |
|  | Green 7 | 0-255 |  |
|  | Blue 7 | 0-255 |  |
|  | White 7 | 0-255 |  |


| MENU | SUBMENU | OPTIONS |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Spe. Func. | 0-255 |  |  |
| Show Program | Set Scene Totals | 0-50 |  |  |
|  | Edit Scene Color | 1-50 | Red | 0-255 |
|  |  |  | Green | 0-255 |
|  |  |  | Blue | 0-255 |
|  |  |  | White | 0-255 |
|  | Fade Time | 0-255 |  |  |
|  | Hold Time | 0-255 |  |  |
|  | Pan POS | 0-255 |  |  |
|  | Tilt POS | 0-255 |  |  |
|  | Zoom POS | 0-255 |  |  |
| Information | Temperature |  |  |  |
|  | Fan State | Head |  |  |
|  |  | Base |  |  |
|  | Fixture Use Hour |  |  |  |
|  | LED Use Hour |  |  |  |
|  | Upgrade File |  |  |  |
|  | Firmware Version |  |  |  |
| Reset Functions | Pan/Tilt Reset | No |  |  |
|  |  | Yes |  |  |
|  | Effect Reset | No |  |  |
|  |  | Yes |  |  |
|  | All Reset | No |  |  |
|  |  | Yes |  |  |
| Factory Restore | No |  |  |  |
|  | Yes |  |  |  |

## DMX Settings

Enter the control menu and select DMX Settings, press ENTER. Use the UP/DOWN button to select DMX Address, Channel Mode or No DMX State.

## DMX Address

## Select DMX Address, press ENTER.

Use UP/DOWN button to select an address, confirm your selection with ENTER.

| CHANNEL MODE | DMX ADDRESS |
| :---: | :---: |
| Mode $1(17)$ | $1-496$ |
| Mode $2(37)$ | $1-476$ |

To exit the menu, press MENU, or wait 30 seconds.

## Channel Mode

Select Channel Mode, press ENTER.
Use UP/DOWN button to select between Mode 1 (17) and Mode 2 (37),
confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.
No DMX State
Select No DMX State, press ENTER.
Use UP/DOWN button to select one of the following status:
Hold (The device continues to operate in the current mode with the last active DMX values until the signal returns)

Blackout (Fixture blacks out if DMX signal stops)
Pri. Sec. (Primary/Secondary Mode)
Confirm your selection with ENTER.
To exit the menu, press MENU, or wait 30 seconds.

## Fixture Settings

Enter the control menu and select Fixture Settings, press ENTER. Use the UP/DOWN button to select Pan Invert, Tilt Invert, P/T Feedback, Fan Mode, Dimmer Curve, Dimmer Speed, White Balance or Pri/Sec Mode.

## Pan Invert

Select Pan Invert, press ENTER.
Use UP/DOWN button to select No (pan invert deactivated) or Yes (pan invert activated), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
Tilt Invert
Select Tilt Invert, press ENTER.
Use UP/DOWN button to select No (tilt invert deactivated) or Yes (tilt invert activated), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## P/T Feedback

Select P/T Feedback, press ENTER.
Use UP/DOWN button to select Off (pan/tilt feedback deactivated) or On (pan/tilt feedback activated), confirm your selection with ENTER. To exit the menu, press MENU, or wait 30 seconds.

## Fan Mode

Select Fan Mode, press ENTER.
Use UP/DOWN button to select Auto or Silent, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Select Dimmer Curve, press ENTER.
Use UP/DOWN button to select Linear, Square Law, Inv SQ Law or S Curve, confirm your selection with ENTER.

## Dimmer Modes




DMX \%
Square Law


DMX \%
Inverse Square Law


DMX \%
S-curve

To exit the menu, press MENU, or wait 30 seconds.

## Dimmer Speed

Select Dimmer Speed, press ENTER.
Use UP/DOWN button to select Fast or Smooth, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## White Balance

Select White Balance, press ENTER.
Use UP/DOWN button to select Red, Green, Blue, Red 1, Green 1, Blue 1 ...... or Red 7, Green 7, Blue 7, confirm your selection with ENTER.

Use UP/DOWN button to select a value between 125 and 255, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
Pri/Sec Mode
Select Pri/Sec Mode, press ENTER.
Use UP/DOWN button to select Secondary or Primary, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Display Settings

Enter the control menu and select Display Settings, press ENTER. Use the UP/DOWN button to select Display Invert, Temperature Unit, Display Warning or Fixture Language.

## Display Invert

Select Display Invert, press ENTER.
Use UP/DOWN button to select Off (display normal) or On (display inverted), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Temperature Unit

Select Temperature Unit, press ENTER.
Use UP/DOWN button to select ${ }^{\circ} \mathrm{C}$ or ${ }^{\circ} \mathrm{F}$, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Display Warning

Select Display Warning, press ENTER.
Use UP/DOWN button to select Off or On, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Fixture Language

Select Fixture Language, press ENTER.
Use UP/DOWN button to select English or Chinese, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Auto Test

Select Auto Test, press ENTER.
The device immediately performs an automatic self-test.
To end the automatic self-test and exit the menu, press MENU, or wait 30 seconds.

## Manual Test

Select Manual Test, press ENTER.
Use UP/DOWN button to select the channel for which the manual test is to be performed, confirm your selection with ENTER.

Use UP/DOWN button to select a value, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
(All channels value will become 0 after exiting Manual Test menu)

## Show Program

Enter the control menu and select Show Program, press ENTER. Use the UP/DOWN button to select Set Scene Totals, Edit Scene Color, Fade Time, Hold Time, Pan POS, Tilt POS or Zoom POS.

## Set Scene Totals

Select Set Scene Totals, press ENTER.
Use UP/DOWN button to select a value between 0 and 50, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Edit Scene Color

## Select Edit Scene Color, press ENTER.

Use UP/DOWN button to select a value between 1 and 50, confirm your selection with ENTER.

Use UP/DOWN button to select Red, Green, Blue or White, confirm your selection with ENTER.

Use UP/DOWN button to select a value between 0 and 255 , confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Select Fade Time, press ENTER.

Use UP/DOWN button to select a value between 0 and 255 , confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
Hold Time
Select Hold Time, press ENTER.
Use UP/DOWN button to select a value between 0 and 255 , confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Pan POS

Select Pan POS, press ENTER.
Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
Tilt POS
Select Tilt POS, press ENTER.
Use UP/DOWN button to select a value between 0 and 255, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.
Zoom POS
Select Zoom POS, press ENTER.
Use UP/DOWN button to select a value between 0 and 255 , confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Information

Enter the control menu and select Information, press ENTER. Use the UP/DOWN button to select Temperature, Fan State, Fixture Use Hour, LED Use Hour, Upgrade File or Firmware Version.

## Temperature

Select Temperature, press ENTER.
The device temperature is displayed.
To exit the menu, press MENU, or wait 30 seconds.

## Fan State

Select Fan State, press ENTER.
The fan status is displayed.
To exit the menu, press MENU, or wait 30 seconds.
Fixture Use Hour
Select Fixture Use Hour, press ENTER.
The operating hours is displayed.
To exit the menu, press MENU, or wait 30 seconds.

## LED Use Hour

Select LED Use Hour, press ENTER.
The LED operating hours is displayed.
To exit the menu, press MENU, or wait 30 seconds.

## Upgrade File

Select Upgrade File, press ENTER.
The upgrade file is displayed.
To exit the menu, press MENU, or wait 30 seconds.
Firmware Version
Select Firmware Version, press ENTER.
The firmware version is displayed.
To exit the menu, press MENU, or wait 30 seconds.

## Reset Functions

Enter the control menu and select Reset Functions, press ENTER. Use the UP/DOWN button to select Pan/Tilt Reset, Effect Reset or All Reset.

## Pan/Tilt Reset

## Select Pan/Tilt Reset, press ENTER.

Use UP/DOWN button to select No or Yes (the device will run built-in program to reset pan/tilt to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Effect Reset

Select Effect Reset, press ENTER.
Use UP/DOWN button to select No or Yes (the device will run built-in program to reset effect to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## All Reset

## Select All Reset, press ENTER.

Use UP/DOWN button to select No or Yes (the device will run built-in program to reset all to their home positions), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

## Factory Restore

Select Factory Restore, press ENTER.
If you wish to reset the device to the factory settings, select Yes. If you do not wish to reset anything, select No. Confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

| Parameter ID | Command 'Discovery' | Command 'Set' | Command 'Get' |
| :---: | :---: | :---: | :---: |
| DISC_UNIQUE_BRANCH | $\checkmark$ |  |  |
| DISC_MUTE | $\checkmark$ |  |  |
| DISC_UN_MUTE | $\checkmark$ |  |  |
| DEVICE_INFO |  |  | $\checkmark$ |
| SUPPORTED_PARAMETERS |  |  | $\checkmark$ |
| SOFTWARE_VERSION_LABEL |  |  | $\checkmark$ |
| DMX_START_ADDRESS |  | $\checkmark$ | $\checkmark$ |
| IDENTIFY_DEVICE |  | $\checkmark$ | $\checkmark$ |
| DEVICE_MODEL_DESCRIPTION |  |  | $\checkmark$ |
| PARAMETER_DESCRIPTION |  |  | $\checkmark$ |
| MANUFACTURER_LABEL |  |  | $\checkmark$ |
| DEVICE_LABEL |  | $\checkmark$ | $\checkmark$ |
| FACTORY_DEFAULTS |  | $\checkmark$ | $\checkmark$ |
| BOOT_SOFTWARE_VERSION_ID |  |  | $\checkmark$ |
| BOOT_SOFTWARE_VERSION_LABEL |  |  | $\checkmark$ |
| DMX_PERSONALITY |  | $\checkmark$ | $\checkmark$ |
| DMX_PERSONALITY_DESCRIPTION |  |  | $\checkmark$ |
| SLOT_INFO |  |  | $\checkmark$ |
| SLOT_DESCRIPTION |  |  | $\checkmark$ |
| SENSOR_DEFINITION |  |  | $\checkmark$ |
| SENSOR_VALUE |  |  | $\checkmark$ |
| DEVICE_HOURS |  |  | $\checkmark$ |
| PAN_INVERT |  | $\checkmark$ | $\checkmark$ |
| TILT_INVERT |  | $\checkmark$ | $\checkmark$ |
| RESET_DEVICE |  | $\checkmark$ |  |

$\sqrt{ }$-Command implemented for the respective parameter ID

### 5.2 Home Position Adjustment

- To access the control menus, press the [MENU] button.
- To access the offset menus, long-press the [ENTER] button.
- Navigate the offset menus, using the [ENTER], [ $\boldsymbol{A}$ UP] and [ $\checkmark$ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

| OFFSET MENU | VALUES |
| :---: | :---: |
| Pan | $-128 \sim 127$ |
| Tilt | $-128 \sim 127$ |
| Zoom | $-128 \sim 127$ |
| Red | $28 \sim 1000$ |
| Green | $20 \sim 1000$ |
| Blue | $20 \sim 1000$ |
| White | $23 \sim 1000$ |
| Red 1 | $28 \sim 1000$ |
| Re.... 7 | $\ldots . .$. |
| Green 1 | $28 \sim 1000$ |
| ...... | $20 \sim 1000$ |
| Green 7 | $\ldots . .$. |
| Blue 1 | $20 \sim 1000$ |
| ...... | $20 \sim 1000$ |
| Blue 7 | $\ldots . .$. |
| White 1 | $20 \sim 1000$ |
| ...... | $23 \sim 1000$ |
| White 7 | $\ldots . . .$. |
|  | $23 \sim 1000$ |

Pan
Select Pan, press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Tilt

Select Tilt, press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.
Zoom
Select Zoom, press ENTER.
Use UP/DOWN button to select a value between -128 and 127, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.
Red
Select Red, press ENTER.
Use UP/DOWN button to select a value between 28 and 1000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.
Green
Select Green, press ENTER.
Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.
To exit the offset menu, press MENU, or wait 30 seconds.

Blue
Select Blue, press ENTER.
Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## White

Select White, press ENTER.
Use UP/DOWN button to select a value between 23 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Red 1

Select Red 1, press ENTER.
Use UP/DOWN button to select a value between 28 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Red 7

Select Red 7, press ENTER.
Use UP/DOWN button to select a value between 28 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Green 1

Select Green 1, press ENTER.
Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Green 7

## Select Green 7, press ENTER.

Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## Blue 1

## Select Blue 1, press ENTER.

Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

Blue 7
Select Blue 7, press ENTER.
Use UP/DOWN button to select a value between 20 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## White 1

Select White 1, press ENTER.
Use UP/DOWN button to select a value between 23 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

White 7
Select White 7, press ENTER.
Use UP/DOWN button to select a value between 23 and 1000, confirm your selection with ENTER.

To exit the offset menu, press MENU, or wait 30 seconds.

## 06/ Control By Universal DMX Controller

### 6.1 DMX512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 -ohm $1 / 4 \mathrm{~W}$ resistor between pin $2(\mathrm{DMX}$-) 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 cable from the output of the unit to the input of the next unit. The cable can only be used in series and cannot be connected in parallel. 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 one of the units' power is disconnected.
4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
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 pins 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 (+), Pin4, Pin5 not used.

### 6.2 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address between 1 and 512 so that the units can receive DMX signal.
Press the MENU button to access the control menus, select DMX Settings, press the ENTER button to confirm. Use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will show on the display. Use the UP/DOWN button to adjust the address between 001 and 512, press the ENTER button to store. To exit the menu, press MENU, or wait 30 seconds.

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 |
| :---: | :---: | :---: | :---: | :---: |
| 17 channels | 1 | 18 | 35 | 52 |
| 37 channels | 1 | 38 | 75 | 112 |

### 6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below.
Attentions:

- The unit will maintain the last condition until reset if you cut-off the DMX signal.
- For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.


## 17 Channels (Mode 1):

| CHANNEL | VALUE | FUNCTION |
| :---: | :---: | :---: |
| $\mathbf{1}$ | $000-255$ | PAN <br> $0^{\circ} \rightarrow 540^{\circ}$ |
| $\mathbf{2}$ | $000-255$ | PAN FINE |
| 3 | $000-255$ | TILT <br> $0^{\circ} \rightarrow 230^{\circ}$ |
| 4 | $000-255$ | TILT FINE |
| 5 | $000-255$ | ZOOM <br> Narrow $\rightarrow$ Wide |


| 6 | 000-255 | $\begin{gathered} \text { DIMMER } \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| :---: | :---: | :---: |
| 7 | 000-255 | DIMMER FINE |
| 8 | $\begin{aligned} & 000-007 \\ & 008-015 \\ & 016-131 \\ & 132-139 \\ & 140-181 \\ & 182-189 \\ & 190-231 \\ & 232-239 \\ & 240-247 \\ & 248-255 \end{aligned}$ | STROBE <br> Close <br> Open <br> Strobe from Slow to Fast <br> Open <br> Fast Close Slow Open from Slow to Fast Open <br> Fast Open Slow Close from Slow to Fast Open <br> Random Strobe from Slow to Fast Open |
| 9 | 000-255 | $\begin{gathered} \text { RED } \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 10 | 000-255 | $\begin{gathered} \text { GREEN } \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 11 | 000-255 | $\begin{gathered} \text { BLUE } \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 12 | 000-255 | $\begin{aligned} & \text { WHITE } \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 13 | $\begin{gathered} 000 \\ 001-004 \\ 005-009 \\ 010-013 \\ 014-018 \\ 019-022 \\ 023-027 \\ 028-031 \\ 032-036 \\ 037-040 \\ 041-045 \\ 046-049 \\ 050-054 \\ 055-058 \\ 059-063 \\ 064-067 \\ 068-072 \\ 073-076 \\ 077-081 \\ 082-085 \\ 086-090 \\ 091-094 \\ 095-099 \end{gathered}$ | CTO Null 8000 K 7900 K 7800 K 7700 K 7600 K 7500 K 7400 K 7300 K 7200 K 7100 K 7000 K 6900 K 6800 K 6700 K 6600 K 6500 K 6400 K 6300 K 6200 K 6100 K 6000 K 5900 K |


|  | 100-103 | 5800K |
| :---: | :---: | :---: |
|  | 104-108 | 5700K |
|  | 109-112 | 5600K |
|  | 113-117 | 5500K |
|  | 118-121 | 5400K |
|  | 122-126 | 5300K |
|  | 127-130 | 5200K |
|  | 131-135 | 5100K |
|  | 136-139 | 5000K |
|  | 140-144 | 4900K |
|  | 145-148 | 4800K |
|  | 149-153 | 4700K |
|  | 154-157 | 4600K |
|  | 158-162 | 4500K |
|  | 163-166 | 4400K |
|  | 167-171 | 4300K |
|  | 172-175 | 4200K |
|  | 176-180 | 4100K |
|  | 181-184 | 4000K |
|  | 185-189 | 3900K |
|  | 190-193 | 3800K |
|  | 194-198 | 3700K |
|  | 199-202 | 3600K |
|  | 203-207 | 3500K |
|  | 208-211 | 3400K |
|  | 212-216 | 3300K |
|  | 217-220 | 3200K |
|  | 221-225 | 3100K |
|  | 226-229 | 3000K |
|  | 230-234 | 2900K |
|  | 235-238 | 2800K |
|  | 239-243 | 2700K |
|  | 244-247 | 2600K |
|  | 248-255 | 2500K |
| 14 |  | COLOR MACRO |
|  | 000-007 | Null |
|  | 008-011 | Color 1 |
|  | 012-015 | Color 2 |
|  | 016-019 | Color 3 |
|  | 020-023 | Color 4 |
|  | 024-027 | Color 5 |
|  | 028-031 | Color 6 |
|  | 032-035 | Color 7 |
|  | 036-039 | Color 8 |
|  | 040-043 | Color 9 |
|  | 044-047 | Color 10 |
|  | 048-051 | Color 11 |



068-071
072-075
076-079
080-083
084-087
088-091
092-095
096-099
100-103
104-107
108-111
112-115
116-119
120-123
124-127
128-131
132-135
136-139
140-143
144-147
148-151
152-155
156-159
160-163
164-167
168-171
172-175
176-179
180-183
184-187
188-191
192-195
196-199
200-203
204-207
208-211
212-215
216-219
220-223
224-227
228-231
232-235
236-239
240-243
244-247
248-251
252-255

Pattern 17
Pattern 18
Pattern 19
Pattern 20
Pattern 21
Pattern 22
Pattern 23
Pattern 24
Pattern 25
Pattern 26
Pattern 27
Pattern 28
Pattern 29
Pattern 30
Pattern 31
Pattern 32
Pattern 33
Pattern 34
Pattern 35
Pattern 36
Pattern 37
Pattern 38
Pattern 39
Pattern 40
Pattern 41
Pattern 42
Pattern 43
Pattern 44
Pattern 45
Pattern 46
Pattern 47
Pattern 48
Pattern 49
Pattern 50
Pattern 51
Pattern 52
Pattern 53
Pattern 54
Pattern 55
Pattern 56
Pattern 57
Pattern 58
Pattern 59
Pattern 60
Random (Pattern 1-7)
Pattern 61
Open

| 16 | $\begin{aligned} & 000-031 \\ & 032-091 \\ & 092-101 \\ & 102-161 \\ & 162-255 \end{aligned}$ | PIXEL ROTATION <br> Null <br> Clockwise Rotation, Fast to Slow Null <br> Counter-Clockwise Rotation, Slow to Fast Null |
| :---: | :---: | :---: |
| 17 | $\begin{aligned} & 000-079 \\ & 080-089 \\ & 090-099 \\ & 100-139 \\ & 140-149 \\ & 150-159 \\ & 160-199 \\ & 200-209 \\ & 210-255 \end{aligned}$ | FUNCTION Null <br> Dimmer Speed: Smooth Dimmer Speed: Fast Null <br> Pan/Tilt Reset <br> Effect Reset Null Reset All Null |

37 Channels (Mode 2):

| CHANNEL | VALUE | FUNCTION |
| :---: | :---: | :---: |
| 1 | $000-255$ | PAN |
| $0^{\circ} \rightarrow 540^{\circ}$ |  |  |$|$| PAN FINE |
| :---: | :---: |


| 10 | 000-255 | $\begin{gathered} \text { GREEN } 1 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| :---: | :---: | :---: |
| 11 | 000-255 | $\begin{gathered} \text { BLUE } 1 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 12 | 000-255 | $\begin{aligned} & \text { WHITE } 1 \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 13 | 000-255 | $\begin{gathered} \text { RED } 2 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 14 | 000-255 | $\begin{aligned} & \text { GREEN } 2 \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 15 | 000-255 | $\begin{gathered} \text { BLUE } 2 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 16 | 000-255 | $\begin{aligned} & \text { WHITE } 2 \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 17 | 000-255 | $\begin{gathered} \text { RED } 3 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 18 | 000-255 | $\begin{gathered} \text { GREEN } 3 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 19 | 000-255 | $\begin{gathered} \text { BLUE } 3 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 20 | 000-255 | $\begin{aligned} & \text { WHITE } 3 \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 21 | 000-255 | $\begin{gathered} \text { RED } 4 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 22 | 000-255 | $\begin{gathered} \text { GREEN } 4 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 23 | 000-255 | $\begin{gathered} \text { BLUE } 4 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 24 | 000-255 | WHITE 4 $0 \% \rightarrow 100 \%$ |
| 25 | 000-255 | $\begin{gathered} \text { RED } 5 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 26 | 000-255 | $\begin{gathered} \text { GREEN } 5 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 27 | 000-255 | $\begin{gathered} \text { BLUE } 5 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 28 | 000-255 | $\begin{aligned} & \text { WHITE } 5 \\ & 0 \% \rightarrow 100 \% \end{aligned}$ |
| 29 | 000-255 | $\begin{gathered} \text { RED } 6 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 30 | 000-255 | $\begin{gathered} \text { GREEN } 6 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |
| 31 | 000-255 | $\begin{gathered} \text { BLUE } 6 \\ 0 \% \rightarrow 100 \% \end{gathered}$ |


| 32 | $000-255$ | WHITE 6 <br> $0 \% \rightarrow 100 \%$ |
| :---: | :---: | :---: |
| 33 | $000-255$ | RED 7 |
| $0 \% \rightarrow 100 \%$ |  |  |

LED PIXEL SELECT FOR 17-CH:

| * | (2) | (3) | (8) | \% | ( | (2) | (3) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| * | ( | (2) | - | - | (2) | * | \% |
| ( | \% | (2) | (2) | ( | \% | - | (2) |
| (8) | (3) | 3 | ( | (2) | (2) | (3) | (3) |
| O | (2) | (2) | (3) | (8) | 3 | ( | (3) |
| - | (2) | (2) | (3) | \% | (8) | (2) | ( |
| c | \% | - | - | ( | - | (4) | (3) |
| 3 | - | 3 | - | 2 | (8) | \% | \% |

## Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

CPU-B/C/D Error
Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

## Pan Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.
Check whether the Hall element on the pan is damaged.
Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.
Check whether the related circuit of the motor drive board on the pan is damage.

## Pan Encode Error

Check whether the encoder on the pan is damaged.
Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

## Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.
Check whether the Hall element on the tilt is damaged.
Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.
Check whether the related circuit of the motor drive board on the tilt is damage.

## Tilt Encode Error

Check whether the encoder on the tilt is damaged.
Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

## Zoom Error

Check whether the position of the zoom where the magnet is installed falls off or is damaged.
Check whether there are obstacles in the zoom operating range.
Check whether the Hall element on the zoom is damaged.
Check whether the lead connecting the Hall element on the zoom and the PCB board is in poor contact or disconnected.
Check whether the motor on the zoom is damaged.
Check whether the related circuit of the motor drive board on the zoom is damage.

## Base Fan / Head Fan Start Err

Check whether the fan is not running.
Check whether the fan leads are installed in place or disconnected.
Check whether the fan is damaged.
Check whether there are obstacles in the fan operating range.

## Base Fan / Head Fan Stop Err

Check whether the fan circuit on the motherboard breaks down.
Check whether the component is damaged.

## Base Fan / Head Fan Slow Err

Check whether the fan is out of order.
Check whether there are obstacles in the fan operating range.

## Base Fan / Head Fan Fast Err

Check whether the fan is out of order.
Check whether the fan circuit on the motherboard breaks down.

The position of each fan of the fixture:


Following are a few common problems that may occur during operation. Here are some suggestions for troubleshooting:
A. The unit does not work, no light and the fan does not work

- Check the connected power.
- Measure the voltage.
- Check the power indicator to see whether it can be lit up or not.


## B. Not responding to the DMX controller

- Check whether the DMX connectors and the DMX cables are connected correctly.
- Check whether the DMX address is correctly set.
- If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- Try it with another DMX controller.
- Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.


## C. One of the channels is not working well

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


## 09/ Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 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 2014/30/EU.

EN 55032: 2015; EN IEC 61000-3-2: 2019;
EN 61000-3-3: 2013; EN 55035: 2017.

## \&

Harmonized Standard
EN 60598-1: 2015;
EN 60598-2-17: 2018; EN 62493: 2015.
Safety of household and similar electrical appliances
Part 1: General requirements and tests

