# Equinox Fusion 50

**User Manual**

## Contents

## 1. Safety Instruction

⚠️ **WARNING**

Please read the instructions carefully as they include important information about 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.

Unpack and check carefully that there is no transportation damage before using the unit.

- Before operating, ensure that the voltage and frequency of the 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 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect the mains power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as they may cause a fire hazard.
- Always use a safety cable when installing this unit. Do not carry the unit by its head only, always carry it using the base.
- The maximum ambient temperature is to: 40 . Don't operate it where the temperature is higher than this.
- In the event of a 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 power cables during operation as the high voltage may cause an 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 and lenses must be replaced if they are visibly damaged.

**Installation**

The unit should be mounted via its screw holes onto the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Make sure that the structure to which you are attaching the unit to is secure and is able to support a weight of 10 times of the unit's weight. Always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be installed by professionals and it must be installed in a place where is out of the reach of people and no one can pass by or under it.

## 2. Features & Technical Specification

Control: Sound active, auto, Master/slave and DMX-512 modes
DMX Channels: 9 channels
Electronic dimming: 0-100%
Electronic strobe with pulse and random effects
High output with low power consumption
Compact size and low weight

| | |
|---|---|
| **Voltage:** | 100V~240V, 50/60Hz |
| **Fuse:** | T 3.0A |
| **Power consumption:** | 85W |
| **Light source:** | 8W x 7pcs 4 in1 RGBW quad color LED |
| **Dimension:** | 173 x 173 x 249 mm |
| **Weight:** | 3.6 kg |
| **Pan/Tilt:** | 540°/180° |
| **Power sockets:** | IEC |
| **XLR sockets:** | 3-pin XLR IN/OUT |

## 3. How To Set The Unit

### 3.1 Control panel
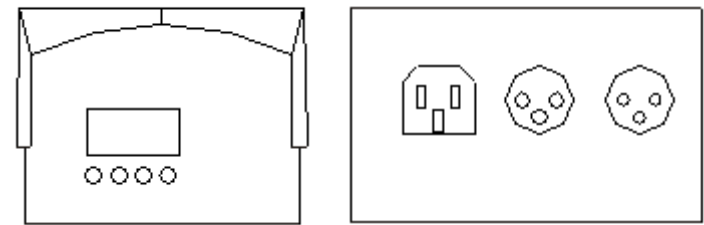


**Display**

Shows the various menus and selected functions

**Button**

| MENU | Selects the programming functions |
|------|-----------------------------------|
| DOWN | To go backward in the selected functions |
| UP | To go forward in the selected functions |
| ENTER | Confirms the selected functions |

**Mains input**

Connection to the power supply.

**DMX input/output**

For DMX-512 linking. Use a 3-pin XLR cables to link to the controller or to other units.

### 3.2 Main Functions

To select any of the given functions, press the **MENU** button up to where the required function is showing on the display. Select the function by pressing the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the mode. Once the required mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes, press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

The main functions are as below:

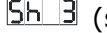| Menu | ADDR | 001-512 |
|------|------|---------|
| | SLND | SL1 |
| | | SL2 |
| | | MAST |
| | SHND | SH1 |
| | | SH2 |
| | | SH3 |
| | | SH4 |
| | SOUN | ON |
| | | OFF |
| | SENS | 000-255 |
| | BLND | YES |
| | | NO |
| | LED | ON |
| | | OFF |
| | BALA | RED |
| | | GREEN |
| | | BLUE |
| | DISP→INVERT | |
| | PAN INVERT | YES |
| | | NO |
| | TILT INVERT | YES |
| | | NO |
| | TEST | |
| | VER | |
| | REST | |

**Addr** **DMX Address Setting**

Press the **MENU** button to select **Addr**. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to choose the address

from 1-255. Once the address has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Master Mode or ⬚ Slave Mode

Press the **MENU** button to select ⬚. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⬚ (Slave 1), ⬚ (Slave 2) or ⬚ (Master) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Show Mode

Press the **MENU** button to select ⬚. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⬚ (show 1) or ⬚ (show 2) or ⬚ (show 3) or ⬚ (show 4) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Sound Mode

Press the **MENU** button to select ⬚. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⬚ (sound on) or ⬚ (sound off) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Sound Sensitivity

Press the **MENU** and use **UP** and **DOWN** button to select ⬚ and select the sound sensitivity between value 0 and 255. Press the ENTER button for confirmation after value selection. To go back to the functions without any changes press the **MENU** button again.

## ⬚ Blackout Mode

Press the **MENU** button to select ⬚. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⬚ (yes blackout) or ⬚ (no blackout) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Led Display

Press the **MENU** button to select ⬚. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⬚ (Led display on) or ⬚ (Led display off) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⬚ Dimmer Calibrate

Press the **MENU** button to select ⬚. Press the **ENTER** button to confirm, the current mode will blink. Use the **DOWN** and **UP** buttons to select **Red/ Green/Blue**. Once the mode has been selected, press the **ENTER** button to setup. Use the **DOWN** and **UP** buttons to change the value (125~255). Once the mode has been selected, press the **ENTER**

button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⧉ **Display Inversion**

Press the **MENU** button to select ⧉. Press the **ENTER** button to change to the mode ⧉ (display normal), It will be automatically saved after 8 seconds. Press the **ENTER** button again to select the mode ⧉ (display inversion). To go back to the functions press the **MENU** button. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

⧉ Display normal mode is for floor standing the unit.
⧉ Display inversion mode is for hanging the unit from a ceiling.

## ⧉ **Pan Inversion**

Press the **MENU** button to select ⧉. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⧉ (normal) or ⧉ (pan inversion) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⧉ **Tilt Inversion**

Press the **MENU** button to select ⧉. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the ⧉ (normal) or ⧉ (tilt inversion) mode. Once the mode has been selected, press the **ENTER** button to confirm. To go back to the functions without any change press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⧉ **Auto-Test**

Press the **MENU** button to select ⧉. Press the **ENTER** button and the unit will run a self-test with its built-in programs. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for one second or wait for one minute to go back to the main menu.

## ⧉ **Reset**

Press the **MENU** button to select ⧉. Press the **ENTER** button and all channels of the unit will return to their standard position.

## 4. How To Control The Unit

1. Master/slave built-in preprogram function
2. Universal DMX controller

There is no need to turn the unit off when you change the DMX address as new DMX address setting will be effected at once. Every time you turn the unit on, it will show "⧉" on the display and move all the motors to their 'home' position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

## 4.1 Master/Slave Built In Preprogrammed Function

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. You have to set the first unit as master and select **show 1**, **show 2**, **show 3** or **show 4** from the **Show Mode**. The other units must be set to either **Slave 1** (normal) or **Slave 2** (2 light show) mode. A DMX cable between the units for daisy chain is needed.

**2-light show**

In **slave mode**, **Slave 1** means the unit works normally and **Slave 2** means 2-light show. In order to create a great light show, you can set **Slave 2** on the second unit to get contrast movement to each other, even if you have two units only.

## 4.2 DMX Controller

By using a universal DMX controller to control the units, you will need to set a DMX address from 1 to 512 so that the units can receive a DMX signal.

Press the **MENU** button until $Addr$ is showing on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the DMX-512 address. Once the address has been selected, press the **ENTER** button to confirm. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button one second or wait for one minute to go back to the main menu.

Please refer to the below diagram to address your first 4 units :

| Channel mode | Unit 1 Address | Unit 2 Address | Unit 3 Address | Unit 4 Address |
|---|---|---|---|---|
| 9 channels | 1 | 10 | 19 | 28 |

## 4.3 DMX 512 Configuration

| Channel | Value | Function |
|---|---|---|
| 1 | 0-255 | Pan |
| 2 | 0-255 | Tilt |
| 3 | 0-255 | Red |
| 4 | 0-255 | Green |
| 5 | 0-255 | Blue |
| 6 | 0-255 | White |

| | Value | Function |
|---|---|---|
| 7 | 248-255 | Open |
| | 240-247 | Random Strobe |
| | 232-239 | Open |
| | 190-231 | Slow close |
| | | Fast Open |
| | 182-189 | Open |
| | 140-181 | Fast close |
| | | Slow Open |
| | 132-139 | Open |
| | 16-131 | Strobe (slow-fast) |
| | 8-015 | Open |
| | 0-007 | Close |
| 8 | 0-255 | Master dimmer |
| 9 | 0-010 | Stand alone (Sound mode) |
| | 011-255 | Sound sensitivity low - high. |

## 4.4 DMX512 CONNECTION



DMX Controller — DMX OUTPUT

COMMON

DMX INPUT — DMX + — DMX OUTPUT

DMX -
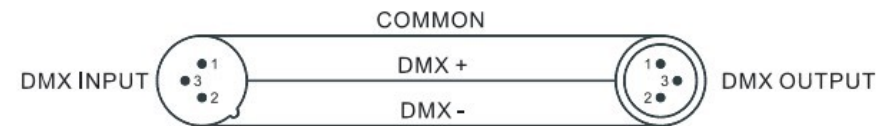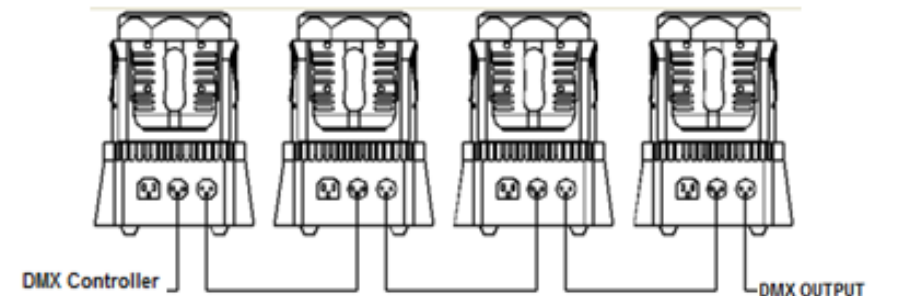
Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal.
(Resistance 120 ohm 1/4W)between pin2(DMX-)and pin3(DMX+) of the last fixture.

1. In the last unit, the DMX has to be terminated with a termination plug. 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 units together in a `daisy chain` with an XLR plug from the output of the unit to the input of the next unit. The cable can not be branched or split to a `Y` cable.
3. The DMX output and input connectors are a pass-through type to maintain the DMX circuit when one of the units' power is disconnected.
4. Each lighting unit needs to have an address setup to receive the data sent by the controller. The address number is between 0-512 (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 cable wiring configuration
   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

## 5.Troubleshooting

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

**A. The unit does not work, no light and the fan does not work**
  1. Check the connection of the power and the main fuse.

**B. Not responding to DMX controller**
  1. DMX LED should be on. If not, check DMX cables to see if linked correctly.
  2. If the DMX address is showing but no response to the controller, check the address settings and DMX polarity.
  3. Try another DMX controller.

**C. No response to the sound**
  1. Make sure the unit is not receiving a DMX signal.
  2. Check the microphone to see if it is good by tapping it. The microphone is located on the bottom plate of the unit.

## 6. Fixture Cleaning

The cleaning of external optical lenses 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 a greater accumulation of dirt on the unit's optics.

Clean with a soft cloth using normal glass cleaning fluid or mild soapy water.

• Always dry the parts carefully.
• Clean the external optics at least every 20 days.