## 8. Trouble Shooting

The following are common faults and corresponding treatment methods for the fixture.All the faults which can not be fixed by your own self should be handled by a professionals. The power must to be off when maintenance.

| Description | Analysis | Treatment |
| :---: | :---: | :---: |
| Not working after power on | Check if the power switch is on or off. | Switch on |
|  | Check if the fuse is blown. | Replace |
|  | Check the output terminal of power switch. | Check voltage |
|  | Check if the internal wiring is in poor connection. | Reconnect |
| Fixture is out of control. | Check if the DMX cable is connected correctly. (If without singnal input, green indicator light is off.) | Reconnect or replace |
|  | Check if the address code is correct. Check if DMX mode is corresponding with mixer settings. | Reconfirm |
|  | Display board damaged | Replace |
| Bulb not working | The bulb is aging or damaged. | Replace |
|  | Power board in fault | Check/replace |
|  | Wiring loose or poor connection | Reconnect |
|  | Trigger in fault | Replace |
|  | Ballast in fault | Replace |
| Bulb off automatically | The bulb is aging. | Replace |
|  | Fan is damaged or speed is low. | Replace |
|  | Check wirings between fan and power board | Check/replace |
|  | The temperature control is damaged | Replace |
| Gobo wheel dislocated or unnormal control | Motor wiring in poor connection | Reconnect |
|  | Motor drive board in fault | Retighten |
|  | Magnet is damaged or dislocation with the located magnet. | Adjust/Replace |
|  | Motor in fault | Replace |
| Weak light efficiency, uneven light spot | The bulb is aging. | Replace |
|  | Bulb out of center | Adjust |
|  | Dust or smudge on optical lens | Clean |
|  | The optical lens is broken | Replace |
| Color is not pure | Weak light efficiency | Replace |
|  | Dust or smudge on color film | Clean |
|  | Mold release or damaged on color flim | Replace |
| Dim gobo | Dust or smudge on optical lens | Clean |
|  | Optical lens damaged | Replace |

## 80W BEAM MOVING HEAD

MJ-1080


## User Manual

## PROFESSIONAL LED LIGHTING

Thank you for choosing our LED moving head light. For the sake of your safety, Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

## 7. Technical Data

-Input power: AC100V-240V;50/60Hz
-Rated power: 150 W at 220 V
-Bulb: high brightness 80W white LED
-Color wheel: 13 colors
-Gobo wheel: 11 gobos effect
-Effect wheel: 1 a rotating 8 facet prism,effect movable, fog effect
-Effect wheel: 2 a rotating 16 facet prism,effect movable, fog effect
-Fog filter effect: one frost mirror
-Multi-color mirror: one mirror
-0-100\% smooth dimming.
-Lens group optical system,electric focus,beam angle $3^{\circ}$
-Photoelectric reset system, X/Y axis accurate positioning
-Control channel:16/20 CH
-Control mode:DMX512,Auto, Sound and master-slave
-Pan $540^{\circ}$ movement and 8Bit/16Bit
-Tilt $270^{\circ}$ movement and 8Bit/16Bit
-IP rating: Ip20
-Working temperature: $-20^{\circ} \mathrm{C} \sim 40^{\circ} \mathrm{C}$
-N.W.:12KG
-G.W.:14KG
-Packing dimensions:380(D)*370(W)*490(H)mm

| 9 | Prism 1 |  | $\begin{aligned} & 000-127 \\ & 128-255 \end{aligned}$ | Prism 1 set out Prism 1 set in |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 10 |  | m 1 Rot． | $\begin{aligned} & 000-127 \\ & 128-190 \\ & 191-192 \\ & 193-255 \end{aligned}$ | Prism 1 angle adjustment <br> Rotate counterclockwise from fast to slow Stop <br> Rotate clockwise from slow to fast |  |
| 11 |  | Prism 2 | $\begin{aligned} & 000-127 \\ & 128-255 \end{aligned}$ | Prism 2 set out Prism 2 set in |  |
| 12 |  | m 2 Rot． | $\begin{aligned} & \hline 000-127 \\ & 128-190 \\ & 191-192 \\ & 193-255 \end{aligned}$ | Prism 2 angle adjustment <br> Rotate counterclockwise from fast to slow <br> Stop <br> Rotate clockwise from slow to fast |  |
| 13 |  | Focus | 000－255 | Linear focusing |  |
| 14 |  | urful color wheel | $\begin{aligned} & 000-127 \\ & 128-255 \end{aligned}$ | Colourful color wheel set out Colourful color wheel set in |  |
| 15 |  | Frost | $\begin{aligned} & \hline 000-127 \\ & 128-255 \end{aligned}$ | Frost set out Frost set in |  |
| 16 |  | Reset | $\begin{aligned} & 000-049 \\ & 050-099 \\ & 100-199 \\ & 200-255 \end{aligned}$ | No function <br> Small motor reset <br> Big motor（Pan／Tilt）reset <br> All motor reset |  |
| Expand <br> Channel | 17 | Pan／Tilt s |  | 000－255 | The speed from fast to slow |
|  | 18 | Color wheel speed <br> Dimmer／Prism／Frost speed |  |  |  |
|  | 19 |  |  |  |  |
|  | 20 | Gobo wheel speed |  |  |  |

## 6．Special Instruction

口 When repositioning，long press＂OK＂button for 5 secs to stop．
$\square$ When power on，long press＂ENTER＂button to stop repositioning and enter testing mode．
口 DMX address to be set as 512 ，back to main interface，long press＂OK＂button for 10 secs to set logo displayed or hidden．

## 口 Signal indicator：

口 ERR red indicator flash means in fault．Enter＂system info＂－＂system fault＂to check information．
$\square$ DMX green indicator on：DMX signal received．Off：no DMX signal．
$\square$ Green indicator on motor drive board：if flashing fastly in each 1 sec，it means that serial signal from display is received．If flashing slowly in each 2 secs， it means no serial signal．The flashing light means system is running．If the indicator light is on

## Catalogue

Introduction ..... ． 1
1．Safety Tips ..... ． 1
2．Signal Connection ..... 2
3．Product Infomation ..... 3
4．Control Panel ..... 4
4．1Button Instruction ..... 4
4．2 Interface Instruction ..... 4
5 ．Channels Instruction ..... ． 9
6 ．Special Instruction ..... 11
7 ．Technical Data ..... 12
8 ．Trouble Shooting ..... 13

## Caution：

The product performance and packing are in good condition when delivered． This manual is including of all important information about installation and using．Please follow the rules strictly．All problems resulted from improper operation or ignoring this instruction manual are out of warranty．Subject to technical changes without prior notice．

## Introduction

Thank you for using our product.For your safety, please read this manual carefully before using. This manual is including of all important information for using, please keep it properly.

## 1. Safety Tips

To ensure that you can use the fixture safely, please read the following safety tips carefully before using, avoiding unnecessary failures and injuries.

1. Non professionals please do not disassemble the fixture and internal parts.
2. Please do not eyes on the light source. There is a risk to damage your retina.
3. AC power: confirm if your local power is corresponding to its rated voltage.
4. The fixture is designed according to electric shock protection. It should be connected to grounded power system, and ground wire of fixture must to be connected with ground wire of power system. Do not use cable with damaged insulation. When installation, the fixture should be 10 m far away from the flammables and explosives. Do not install the fixture on any flammable materials.
5. Keep the fixture far away from liquid and wet.
6. Confirm it grounding in good condition before power on. Do not install it or disassemble it when power on.
7. When installation, the screws should be tighten and with safety rope and regular check.
8. It is suggested that the continuous working hours of should not exceed 10 hours.

The interval between consecutively turning on the lamps should be no less than
10 minutes, otherwise it will not be triggered normally due to the overheat protection.
9. Stop using when the fixture is running abnormally.
10. The bulb should be replaced when its rated lifespan is over, otherwise there is a risk of explosive bulb.
11. The rotating parts and paste parts should be checked regularly. Tighten once loose or swaying.
12. As forced cooling is easy to accumulate dust,clean it once each month to keep it good cooling performance.

|  |  | $\begin{aligned} & 035-039 \\ & 040-044 \\ & 045-049 \\ & 050-054 \\ & 055-059 \\ & 060-064 \\ & 065-069 \\ & 070-074 \\ & 075-079 \\ & 080-084 \\ & 085-089 \\ & 090-094 \\ & 095-099 \\ & 100-104 \\ & 105-109 \\ & 110-114 \\ & 115-119 \\ & 120-124 \\ & 125-129 \\ & 130-134 \\ & 135-139 \\ & 140-200 \\ & 201-255 \end{aligned}$ | Color 3+ Color 4 <br> Color 4 <br> Color 4+ Color 5 <br> Color 5 <br> Color 5+ Color 6 <br> Color 6 <br> Color 6+ Color 7 <br> Color 7 <br> Color 7+ Color 8 <br> Color 8 <br> Color 8+ Color 9 <br> Color 9 <br> Color 9+ Color 10 <br> Color 10 <br> Color 10+ Color 11 <br> Color 11 <br> Color 11+ Color 12 <br> Color 12 <br> Color 12+ Color 13 <br> Color 13 <br> Color 13+White <br> Rotate clockwise from fast to slow <br> Rotate counterclockwise from slow to fast |
| :---: | :---: | :---: | :---: |
| 8 | Gobo | $\begin{aligned} & \text { 000-004 } \\ & 005-009 \\ & 010-014 \\ & 015-019 \\ & 020-024 \\ & 025-029 \\ & 030-034 \\ & 035-039 \\ & 040-044 \\ & 045-049 \\ & 050-054 \\ & 055-059 \\ & 060-064 \\ & 065-069 \\ & 070-074 \\ & 075-079 \\ & 080-084 \\ & 085-089 \\ & 090-094 \\ & 095-099 \\ & 100-104 \\ & 105-109 \\ & 110-114 \\ & 115-119 \\ & 120-189 \\ & 190-255 \end{aligned}$ | 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 9 <br> Gobo 10 <br> Gobo 11 <br> Gobo 12 <br> Gobo 1 shake (From slow to fast) <br> Gobo 2 shake (From slow to fast) <br> Gobo 3 shake (From slow to fast) <br> Gobo 4 shake (From slow to fast) <br> Gobo 5 shake (From slow to fast) <br> Gobo 6 shake (From slow to fast) <br> Gobo 7 shake (From slow to fast) <br> Gobo 8 shake (From slow to fast) <br> Gobo 9 shake (From slow to fast) <br> Gobo 10 shake (From slow to fast) <br> Gobo 11 shake (From slow to fast) <br> Gobo 12 shake (From slow to fast) <br> Rotate clockwise from fast to slow <br> Rotate counterclockwise from slow to fast |

## 5. Channels Instruction

| Simple CH Channel model |  |  |
| :---: | :--- | :--- |
|  | 16 |  |
| 1 | Pan | Pan |
| 2 | Pan fine | Pan fine |
| 3 | Tilt | Tilt |
| 4 | Tilt fine | Tilt fine |
| 5 | Dimmer | Dimmer |
| 6 | Strobe | Strobe |
| 7 | Color Wheel | Color Wheel |
| 8 | Gobo Wheel | Gobo Wheel |
| 9 | Prism 1 | Prism 1 |
| 10 | Prism 1 Rotation | Prism 1 Rotation |
| 11 | Prism 2 | Prism 2 |
| 12 | Prism 2 Rotation | Prism 2 Rotation |
| 13 | Focus | Focus |
| 14 | Colourful color wheel | Colourful color wheel |
| 15 | Frost | Frost |
| 16 | Reset | Reset |
| 17 |  | Pan / Tilt speed |
| 18 |  | Color wheel speed |
| 19 |  | Dimmer/Prism/Frost speed |
| 20 |  | Gobo wheel speed |

Channel description(Full version)

| Channel | Function | Value | Effect |
| :---: | :---: | :--- | :--- |
| 1 | Pan | $000-255$ | Pan 540 degree movement |
| 2 | Pan Fine | $000-255$ | Pan 1.2 degree fine |
| 3 | Tilt | $000-255$ | Tilt 270 degree movement |
| 4 | Tilt Fine | $000-255$ | Tilt 1.2 degree fine |
| 5 | Dimmmer | $000-255$ | Dimmer from dark to bright |
| 6 | Strobe | $000-003$ | Off |
|  |  | $004-251$ | Strobe from slow to fast |
|  |  | $252-255$ | Open |
| 7 | Color | $000-004$ | White |
|  |  | $005-009$ | White+Color1 |
|  |  | $010-014$ | Color1 |
|  |  | $015-019$ | Color1+ Color2 |
|  |  | $020-024$ | Color 2 |
|  |  | $025-029$ | Color 2+ Color 3 |
|  |  |  |  |
|  |  |  |  |

## 2. Signal Connection

The fixture uses standard DMX 3-pin and 5 -pin XLR for in/out. Please use DMX 512 twisted-pair cable. Connecting distance should be within 150 meters.


| DMX512 |
| :--- |
| 1: Ground |
| 2: |
| $3:+$ | Amplifier is necessary when long distance.

Connect the DMX cable from the DMX output terminal of the mixer to the input terminal of the first fixture. Then connect the DMX cable from the DMX output terminal of the first fixture to the input terminal of the second one, by parity of reasoning until all fixtures are connected. Then install a connector at the output 3 -pin terminal of the last fixture. (Weld a $4 / 1 \mathrm{~W}, 120 \Omega$ resistance between the second and the third pin of the 3-pin XLR connector)

Connect as below picture:


## Calculation of initial address code:

Initial address code is: (the last initial address code)+(channels amount)
1.The first initial address code A001.
2.The basic channels of mixer should be $\geq$ the channels amount of fixtures 3.Note:When using any mixers, there is a initial address code for each fixture. For example, initial address code A001 and 16 channels for the first fixture, initial address code A017 for the second fixture, and initial address code A033 for the third one, by parity of reasoning.(Different settings should be according to different mixers.)
3. Product Introduction


## Optical Data:



|  | Prism 2 accuracy |  |
| :---: | :---: | :---: |
|  | Frost accuracy |  |
| Sensor monitoring | $X$ axis hall | Magnetic detected :0, otherwise: 1 |
|  | $Y$ axis hall | Magnetic detected :0, otherwise: 1 |
|  | Color wheel hall | Magnetic detected :0, otherwise: 1 |
|  | Gobo wheel hall | Magnetic detected :0, otherwise: 1 |
|  | Focus hall | Magnetic detected :0, otherwise: 1 |
|  | Prism 1 hall | Magnetic detected :0, otherwise: 1 |
|  | Prism 2 hall | Magnetic detected :0, otherwise: 1 |
|  | $X$ axis encoding status | Double digits.Each digit is corresponding to a optoelectronic switch |
|  | Yaxis encoding status | Double digits.Each digit is corresponding to a optoelectronic switch |
|  | $X$ axis encoding value | Forwarding, data is increasing. <br> Revering, data is decreasing. <br> At each point, data is always normal. |
|  | Yaxis encoding value | Forwarding, data is increasing. <br> Revering, data is decreasing. <br> At each point, data is always normal. |
| System error | Common errors as shown in following | If ERR indicator light is on -- running error. Enter and check the slave interface. Then press "clear"button to clear the error records. |
| DMX detection |  | Enter slave interface, and check the channels |


| Errors | Explain |
| :--- | :--- |
| MT board connection failure | Drive board no respond. Problems of drive board, <br> or serial wiring between display and drive board. |
| X axis repositioning failure | Problems of X axis optoelectronic switch or X axis motor |
| Y axis repositioning failure | Problems of Y axis optoelectronic switch or Y axis motor |
| X axis Hall error | Problems of X axis Hall |
| Y axis Hall error | Problems of Y axis Hall |
| Color wheel repositioning failure | Problems of motor or Hall of color wheel |
| Gobo wheel repositioning failure | Problems of motor or Hall of gobo wheel |
| Focus repositioning failure | Problems of motor or Hall of focus |


| X reverse | OFF | The start and terminal are exchanged when it is |
| :--- | :--- | :--- |
|  | ON | ON. Default OFF. |
|  | OFF | The start and terminal are exchanged when it is |
|  | ON | ON. Default OFF. |
| XY exchange | OFF |  |
|  | ON | Exchange channels of XY axis(Fine adjustment) |
| XY encoder | ON | Using encoder to judge position lost and self-correcting |
|  | OFF | Not using encoder to self-correct position. |
| DMX signal | Maintain | Continue running as initial |
|  | Clear | Motor reset, stop running |
| Color wheel <br> linear vary | ON | Color wheel linear vary |
|  | OFF | Color wheel non linear vary, but half -color |
| Default |  | Press OK, and press OK again. |

## System Information



| Options | Explain |  |
| :---: | :---: | :---: |
| Software version |  | Software version |
| Reset calibration | X axis calibration | Enter sla ve interface, to adjust motors' position, making up for hardware errors. Adjust range: -128~+127. +0: no adjust. |
|  | Yaxis calibration |  |
|  | Color calibration |  |
|  | Gobo calibration |  |
|  | Foxus calibration |  |
|  | Prism 1 calibration |  |

## 4. Control Panel

### 4.1 Buttons Instruction



RIGHT and LEFT buttons are same function, it is return to main manual

UP and DOWN buttons is choose and editing function

```
ENTER is OK buttons,it is confirm and return.
```

Explain how to control the panel(Example as modify DMX address code):

1. If not at the main interface, press "left"(Once or more times)to return.
2. At main interface, press "up"or"down"to choose setting function.
3. Press "OK"to enter.
4. At "setting" interface, press"up"or"down"to choose DMX address.
5. Press OK to enter and edit.
6. Press up or down to modify the DMX address.
7. Press OK to confirm and return.

## 4. 2 Menu Instruction

## Main Menu



## Sub-menu

## Manual control



This interface is to control current fixture, meanwhile enter master status (Not receiving DMX signal, but sending to slave fixtures.)
16 CH or 20 CH will be shown clearly according to the settings.

| Options | Explain |  |
| :--- | ---: | :--- |
| 1CH.X | $0 \sim 255$ | Use yellow arrow to select, press OK to enter <br> and edit. Now the letter is red, press UP or <br> DOWN to change channels number, then <br> press OK to confirm. |
| $\ldots \ldots$ | $0 \sim 255$ |  |
| 15CH.Frost | $0 \sim 255$ | Press OK, and then press OK again. <br> All motors reset. |
| 16CH.Reset | $0 \sim 255$ | Shown when channels mode as "expend $\mathrm{CH} 20 "$ |
| 17CH.XY speed | $0 \sim 255$ | Shown when channels mode as "expend $\mathrm{CH} 20 "$ |
| 18CH. Color wheel speed | $0 \sim 255$ | Shown when channels mode as "expend $\mathrm{CH} 20 "$ |
| 19CH.Dimmer/frost/Prism <br> speed | She |  |
| 20CH. Gobo wheel spee | d | $0 \sim 255$ |

## Setting



| Options | Explain |  |
| :---: | :---: | :---: |
| Running | DMX | Slave fixture: receive signal from mixer or master |
|  | Auto 1 | Self running procedures <br> Master fixture: self running and send DMX signal to slave fixtures. |
|  | Auto 2 |  |
|  | Freedom |  |
|  | Sound control |  |
| DMX address | 1~512 | Press OK to enter and edit. Press UP or DOWN to vary address code. Press OK to confirm. |
| Channels mode | Standard $16 \mathrm{CH}$ | Standard 16CH 17-20CH invalid |
|  | $\begin{aligned} & \text { Extension } \\ & 20 \mathrm{CH} \end{aligned}$ | Extension 20CH. 17-20CH to control speed.(Channel list) |

