

**INVO**LIGHT

**LEDMH100**

**USER MANUAL**



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## INTRODUCTION

Thanks for your purchase of our product, mini led moving-head fixture. It can works under auto mode and sound -active mode with 16 built-in programs. The product has a long lifespan and low power consumption. It is exquisite and applicable for all kinds of entertaining occasions. Before you begin, please read instructions carefully. If you meet with any problem, please contact with your distributor nearby.

### MAIN FEATURES

- DMX-512 control, 11 channels
- DMX, AUTO, SOUND-ACTIVE mode
- RGB control with 255 grades
- RGB total dimmer is 0~100%
- Shutter speed is 10flashes/sec ~10secs / flash
- 36X1W LED
- PAN scan angle 0~540<sup>0</sup>
- TILT scan angle 0~230<sup>0</sup>

### UNPACKING

- ★LEDMH100 MINI LED FIXTURE
- ★USER MANUAL

## SAFETY WARNING

**For your convenient and accurate operation, please read following information carefully.**

- ◆Suitable for indoor use only.
- ◆Put it in a dry, well -ventilated place in case of short cut caused by erosion of moisture and rain.
- ◆Do not install it nearby hot sources in case that rising temperature of lamp damages

itself.

- ◆Do not barrier vent in order to ventilate well and dissipate in time.
- ◆Connect the fixture with power source, which has a ground line, and voltage of power source should accord with rating voltage.
- ◆If fuse was damaged, change the same type.
- ◆You can only choose accessories the manufacturer provides when need repairing.
- ◆Ambient temperature of the lamp should not exceed 40°C
- ◆If any problem, contact with professional technicians working in our after-sales service department.

## PANEL REVIEW



**Press FUN button:** Switch to function menu or return to previous menu

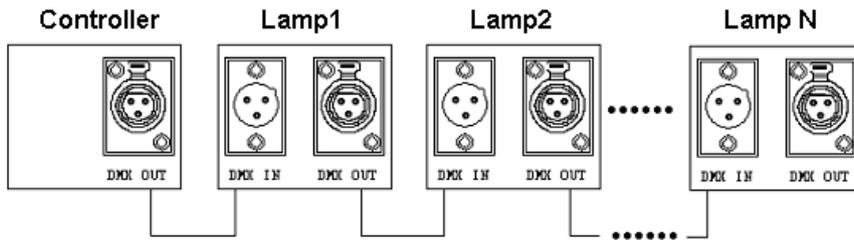
**Press UP/DOWN:** Adjust current activated field. If the four point twinkle, indicating value has been changed.

**Press ENTER:** Enter into sub-menu or confirm the current value.

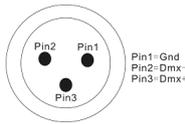
## INSTALLATION AND SETTING

### 1. MULTI-FIXTURES CONNECTION

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling. Connect fixtures using shielded two conductor twisted pair cable with three pin XLR male to female connectors.



The shield connection is pin 1, while pin 2 is Data Negative (S-) and pin 3 is Data positive



(S+).

## 2. LAMP BODY INSTALLATION

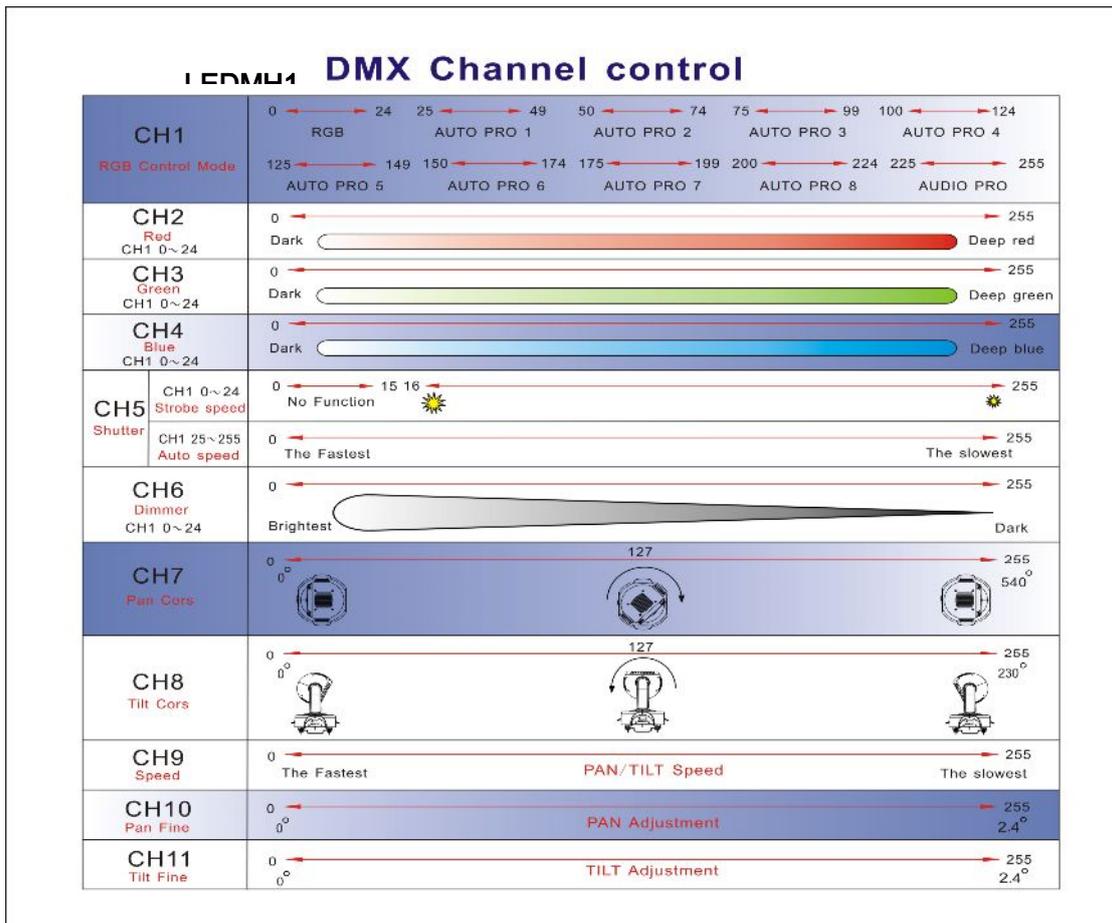
**Notes: do not install it nearby the curtain or flammable materials.  
Only for indoor use.**

## OPERATION

### 1.SET DIPSWITCHES

- Each fixture occupies 11 DMX channels.
- DMX 512 signal can control multi-fixtures together, however you must set DMX address of each lamp first. Different DMX address will lead to different movements.
- You can set DMX address from 1~501 on the multi-function display panel.
- Switch on power supply and after finishing resetting, the panel will show 001, that is to say DMX address is 1 and the first lamp has been controlled by 1~11 channels. In turn the second fixture has been controlled by 12~22 channels. (When panel shows 001, press UP button until it shows 012. Then just press ENTER button). In the same way, the third fixture has been controlled by 23~33 channels and the panel shows 023.
- Through this method, you can control multi-fixtures to perform different movements.

## 2. DMX CHANNEL SUMMARY



## 3. CHANNEL FUNTIONS

DISPLAY		FUNCTION
VALUE	001-501	DMX address (16BT is on, the max value is 501.)
MODE	M-DM	DMX mode
	M-AU	AUTO mode Notes: Only one lamp can be set as Master and the left are Slaves (Slaves set to DMX mode with DMX address "001"). Do not connect the Slaves lamp with controller.
	M-SO	SOUND mode Notes: Only one lamp can be set as Master and the left are Slaves (Slaves set to DMX mode with DMX address "001"). Do not connect the Slaves lamp with controller.
PRCO	PR1~8	8 built-in programs

		Pr1-4 means skip Pr5-8 means fade
SPCO	SP01~15	Auto speed SP01: 0.1sec/step, SP15: 10secs/step
r PAN	STND	Run clockwise as DMX value increases
	REV	Run anticlockwise as DMX value decreases
R TILT	STND	Run clockwise as DMX data increase
	REV	Run anticlockwise as DMX data decreases
r-PT	STND	CH7: PAN, CH8: TILT, CH10: PAN FINE, CH11: TILT FINE.
	REV	CH7: PAN, CH8: TILT, CH10: PAN FINE, CH11: TILT FINE.
TEST	ALL	Check all channels with motors
	PAN	Check pan channels
	TITL	Check tilt channels
	RED	Check red channels
	GREEN	Check green channels
	BLUE	Check blue channels
DISP	STND	Display bites normally
	REV	Display bytes upside down
REST	REST/ON	Reset (Press ENTER button to enter into REST menu and the screen reads flashing "REST". Then press UP/DOWN button and the screen reads flashing "ON". If to press ENTER again, the light engine resets again)
16BT	ON	PAN, TILT is 16 bit, CH10: PAN FINE, CH11: TILT FINE.
	OFF	PAN, TILT is 8 bit. CH10, CH11 does not exist.

#### 4. ABOUT EACH CHANNEL

##### ■ Channel 1:DMX MODE

Ch	DMX	Function	CH2	CH3	CH4	CH5	CH6
CH1	0~24	RGB	Red 0~255	Green 0~255	Blue 0~255	Strobe Speed 0~255	Dimmer 0~255
	25~49	Built-in program 1	No function	No function	No function	Auto speed	No function
	50~74	Built-in program 2					
	75~99	Built-in program 3					

	100~124	Built-in program 4					
	125~149	Built-in program 5					
	150~174	Built-in program 6					
	175~199	Built-in program 7					
	200~224	Built-in program 8					
	225~255	Sound-active program				No function	

■ Channel 2: RED

When CH1 is 0~24

DMX value

255



0

red

carmine



0

■ Channel 3 : GREEN

When CH1 is 0~24

DMX value

255



0

green

bottle\_green



0

0

0

■ **Channel 4:Blue**

When CH1 is 0~24

DMX value

255



0

blue

navy blue



0

■ **Channel 5 : Strobe**

When CH1 is 0~24

DMX value

255



16

15

0

strobe speed

slowest



fastest

no strobe

no strobe

**Notes: CH2~4 decides brightness. When CH2, CH3, CH4 is 0, there is no brightness.**

**When CH1 is 25~224:**

DMX value

255



0

AUTO speed

slowest



0

0

fastest

■ **Channel 6 : RGB Dimming**

When CH1 is 0~24:

DMX value

255



0

RGB brightness

0



brightest

■ **Channel 7: PAN ( 540° )**

NO.	DMX value	Effect
1	0	Leftmost
2	127	Medium
3	255	Rightmost

■ **Channel 8: TILT ( 230° )**

NO.	DMX value	Effect
1	0	Bottommost
2	127	Medium
3	255	Topmost

■ **Channel 9 : PAN or TILT SPEED**

■ **Channel 10 : PAN FINE (2.4°)**

■ **Channel 11: TILT FINE (2.4°)**

**Notes: When 16 BT is on, CH10, CH11 exists; otherwise they do not exist.**

## MAINTENANCE

### 1.TROUBLESHOOTING

Problem	Probable cause(s)	Suggested remedy
Fixtures does not work	No power source	Check if power source is on or cord works well.
	Fuse burnt	Cut off power source and change the same type fuse. If fuse was burnt on end, it may be the problem of connection; Find qualified professors to repair.
Reset normally, but console abnormally or no response	False or incomplete data connection	Check, repair or change the data line. Ensure connection is well and the first lamp's single input is connected with the controller output.
	False address setting	Check DMX address.
	Problem of signal connector of some fixtures	Pull out the signal output and input of one fixture. Then connect both directly. If it works well, this fixture is proved to be the failed one. Handle the rest fixtures alike to check which fixture has problems. If any problem, please connect the technician.
	Signal output does not match with the pin (pins2 and pins3 has a wrong sequence)	Toggle the PHASE button on the controller to reverse the polarity.

### 2. CLEANING

Though increasing reliability by designing well and we never stop to improve quality to lengthen lamp's lifespan. It is still indispensable to maintain it well by certain time in order to ensure best performance

#### ***First , clean fan and vent.***

Favorable heat-dissipation and ventilation is vital to lamp's normal work. So clean the fan and vent during a certain time to guarantee smooth of wind path. Otherwise dust will barrier vent, which will affect the performance because of over heat after working for some time.

#### ***Second, lens cleaning and maintenance***

To ensure the best effect of lamp, please clean every lean or reflective setting. Use the soft cotton with some lotion to clean it, but do not damage lens.

**Third, check line during a certain time.**

Check connecting line, wiring and ground line to ensure safety of using lamp during a certain time.

**Forth, mechanical transmission part maintenance.**

Check mechanical transmission part if it has any loose part during a certain time, such as a strap. Abrasion of mechanical transmission part will affect stability of lamp work. If strap is loose, you should change it if needed.

## TECHNICAL SPECIFICATION

Type-----	LEDMH100 MINI LED MOVING-HEAD
LED Number& Voltage-----	36X1W LED
Power-----	160W
Voltage-----	220V
Electrical current-----	0.7 2 6 A
Total lumens-----	528.15 1m
Max light intensity-----	1089 c d
Lamp efficiency-----	3.8 lm/w
Optic angle -----	23 <sup>0</sup>
Dimension-----	L250XW220XH376 (MM)
Weight-----	7KG

## APPENDIX

Color	Total output (Lumens)	Efficiency	Color index
Red	465	5	21
Green	528	4	-12
Blue	788	5	-50