

# ***LED MINI MOVING HEAD***

## **User's Manual**

Thank you for choosing our product, please carefully read this manual and operate it obey the specification in order to make sure you can correct and safety installing、operating and maintaining it; We will not take any responsibility for the damage and body injury which caused by the abnormal operation.

## Preface

This Manual includes the important information of installation and operation. Please install and operate the light according to the instructions strictly. And it must be power Off when open the light or before repair.

A: Please read the complete contents of this manual ( please keep this manual attach With the light for any preview )

B: In order to make sure the correct and safety installation、operation and maintenance, Well know and follow to the instructions of Manual is necessary.

C: We will not take any responsibility to the light damage、property loss or body injury Which caused by the incorrect installation、operation and maintenance.

**NOTICE: The data which inside the Manual maybe changed due to the continuous Improvement, and we'll not make another notice. We will keep the right to any Specification update during improvement**

**Warning: if the protection screen、lens or UV screen got a visible damage, eg: scratch or chasm, it should be changed, the lamp also should be changed when damaged or transformed.**

### ● Packing Content

( accessories ) ( Selectable )

1. Power Cable ( 1PCS ) a: Bracket
2. Signal Cable ( 1PCS ) b: Clamp
3. User's Manual ( 1PCS ) c: Safety Cable
4. Maintenance Card ( 1PCS )

### ● Unpacking Instruction:

Please check if all the contents are completed after unpacking? then, check if the light is undamaged? Please you can keep the original package and return to the factory if it's damaged

● **AC Power:** Check if the voltage is accordance with the rated power.

● **Safety Specifications: All the safety items of operation (includes installation) and before operating.**

1. Unpacking the carton and take out all the accessories, and open the poly package, take out the light from the carton, and put it in a certain platform for operation.
2. This device for indoor use only, the protection grade is: IP20. The light must keep dry and avoid to use under the Moist、Overheat or Dusty surroundings. And keep the light far away from the water or other liquid.
3. Installing of the light must keep a distance with any flammable objects by 5m at least. The distance between the light and the projected objects must be no less than 1m.
4. please don't install the light on the surface of flammable objects.
5. The installation、operation and maintenance must be managed by the qualified professional, and make sure to operate it under the instruction of the Manual.
6. Make sure the work environment temperature of the light maximum 40℃, and minimum -20℃.
7. The temperature of the light surface will up to 80℃ even under the normal cooling, so never touch it by hand.

8. The light was designed as electric shock protection type, and must connect to The power supply system which well earthed. Furthermore, the ground wire of the Light must connect to the ground wire of the power supply system, ground wire

Interface of the light must well connect with the light body

9. Please check if the voltage is accordance with the rated power before installation.
10. Please never use the power cable which was damaged the insulation cover, Meanwhile, never put the power cable on any other wire. Please pull out the power Cable by handle the plug when light is stop working or cleaning, never pull out it Roughly or handle the wire directly.

11. The light doesn't include any spare parts for repair, please check if all the parts Are well installed and screws are drove tightly before operating. It's prohibited to Use the light when the cover is opened.

**Notice: Please make sure it's power off before any installation、repair and clean!**

## Introduction

### ● Technical Features

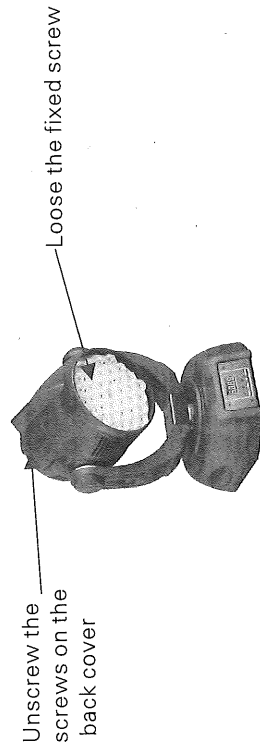
1. Control channel: 11 DMX channels
2. Operating mode: DMX512 Control Mode、Auto Mode、Sound Activate Mode.
3. Pan, Tilt : Pan 450° ,Tilt 270° ,both with fine precision
4. Dimmer: linear dimming  
Flash : 1-8/s
5. Fan : Use DC12V fan, wind cooling. Fan cooling and overheat protection.
6. Appearance: molding with project plastic shell, streamlined design.
7. Working environment: indoor, -20℃ ~40℃
8. IP degree: IP20

## Technology Parameter

- Voltage: AC220V 50Hz/AC110V 60Hz
- Power: 80W
- Outline Size: 245×235×345mm
- Packing Size: 300×288×430cm
- N/W: 5.5kg
- G/W: 6kg
- LED Unit: 36 X 1W LED units, R 12 G12 B12

## Installation

### ● Installation/replacement of LED Unit



1. First cut the power off, unscrew the screws of the light shell, then unscrew the screws of LED board, take out the LED board carefully.
2. Replace the LED with the same kind and power. ( recommend to buy from the dealer or manufacturer ) , Installation is in the opposite way

## Warning

- 1: The power must be disconnected during replacement of the LED lamp
- 2: The anti-static and thermostatic electric iron must be used, and wear the anti-static rings before repair the light

## ● Connection of Power and Wire

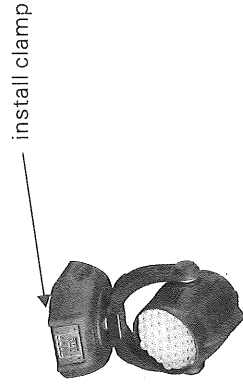
The exclusive plug should be used between the connection of light and power. And please confirm if the rated voltage and frequency is accordance with the power supply. Every light with an independent power switch is suggested, it will be convenient for you to turn ON or OFF every light. This product selected input voltage and frequency as follow:

Voltage (Selectable)	AC220V	Frequency	50Hz
	AC110V	Frequency	60Hz

The external power wire used Y-type connecting mode. Please contact the service agent or professional man for replacement if got any damage, please use the same type power wire for replacement.

**Note: the ground wire (yellow/green double-color wire) must be safely connected, the electronic installation must be in accordance with the relevant standards.**

## ● Lighting Installation



Make sure installation position is steady before fix the light. 2 sets of M10 professional clamp should be used when the light is reverse hanging, and drive the clamp into the screw hole which in the bracket of the light. Make sure the light will not fall from the truss, use the safety cable go through the truss and bracket of the light as a supporting, to avoid the light to fall down. There is no entrance to the work area during mounting. Periodically to check if the safety cable has fretted away or clamp is loosen. We will not take any responsibility which caused by the lighting fall of unsteady hanging.

## Operation

### ● Panel Specification

1. Press button "MODE" to display the DMX512 address code, and it's available to adjust the address code by press button UP and DOWN.
2. Press button "FUNC" to set the function and it's available to select the function by press the button UP and DOWN.

### ● Contrast Operation of Function Code

1. Displaying after light ON : A001
2. Press button MODE to display : S -4 - , press button UP and DOWN to increase or decrease under S -4- state, to select slave address.  
G -4 - ,press button UP and DOWN to increase or decrease under G -4- state.

- G -4- : OFF  
G -3- : Fast  
G -2- : Slow  
G -1- : Sound activate

3. Press button "FUNC" to display: P -1- or T -1 -, it's available to press button UP and DOWN to select 1 or 0 under P -1- or T -1 - state, 1 means reverse rotation, 0 means positive rotation. eg:

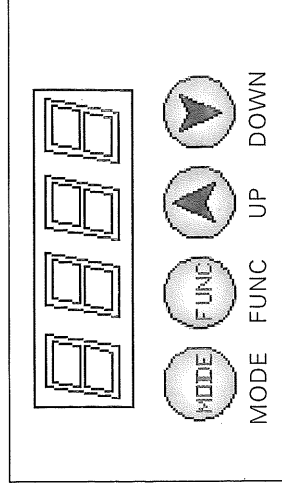
PAN reverse: 0 ( PAN positive rotation )

1 ( PAN reverse rotation )

TILT reverse: 0 ( TILT positive rotation )

1 ( TILT reverse rotation )

## ● Address Code Setting



Every light should set a DMX address code in order to receive the signal when you are using the controller to control multi lights.

The address code of the present light= ( address code of last light ) + ( channel quantity of the controller ) 。 This light with 11 channels, if the controller is 16 channels, the DMX address code of the first light is:001, the second light should be: 017, the third light should be: 033, the fourth light should be:049, analogously.

## ● Setting of Master/Slave Mode ( Note: set 4 Slaves are available normally )

### 1.Master Mode:

- G. -1-: press button "UP" and "DOWN" to select, it means you've selected the Sound Activate Mode when it's displaying "G.-1-"
- G. -2-: press button "UP" and "DOWN" to select, it means you've selected the Slow Mode when it's displaying "G.-2-"
- G. -3-: press button "UP" and "DOWN" to select, it means you've selected the Fast Mode when it's displaying "G.-3-"
- G. -4-: press button "UP" and "DOWN" to select, it means you've selected the Blackout Mode when it's displaying "G.-4-"

### 2.Slave Mode:

- S. -1-: press button "UP" and "DOWN" to select, it means you've selected the 1st Slave light when it's displaying "S. -1-"
- S. -2-: press button "UP" and "DOWN" to select, it means you've selected the 2nd Slave light when it's displaying "S. -2-"
- S. -3-: press button "UP" and "DOWN" to select, it means you've selected the 3rd Slave light when it's displaying "S. -3-"
- S. -4-: press button "UP" and "DOWN" to select, it means you've selected the 4th Slave light when it's displaying "S. -4-"

## Appendix

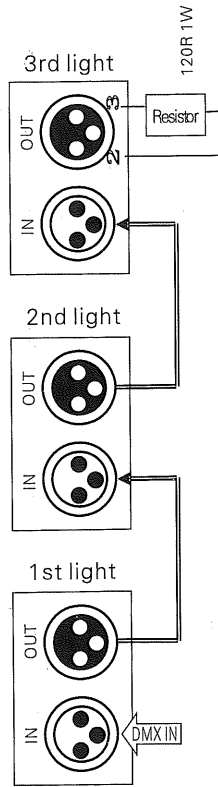
### ● Usage of the Signal Cable、Connector

The connection between the output of master light and input of the slave light, it's available to use the 3 pins XLR cable which provided by the manufacturer. Signal cable from the DMX output of the controller to the input of the first master light, and connect to the DMX input of second slave light from the DMX output of the first master light, analogously, till connected all the slave lights, and insert the last connector to the output of the final light.

If you want to prolong the connection of signal cable, the connection of the pins between male connector and female connector should be: 1 to 1; 2 to 2; 3 to 3, or it will cause communication interruption. ( Notice: the diameter of core of every cable should be 0.5mm at least, double core shelter cable should be used ). The signal connecting must use the attached 3 pins XLR cable. Notice, all the internal lead wire of the 3 pins XLR cable should not touch to each other or connect to the connector.

The light is available to receive the DMX512 signal, connect the signal plug to the panel which marked with "IN", and connect it to the next light. then, connect to the "IN" of next light from the "OUT". The DMX signal terminal organ is recommended when the lighting signal is connecting. It will avoid to damage the signal which caused by the noise, DMX terminal organ is a XLR connector, connect with a 120Ω x 1W resistor between the pin 2 and pin 3 of the XLR connector, and connect it to the last OUTPUT socket of the final light.

See Picture:



### ● DMX Channel Form

When the upper steps are done, switch ON and check if all is normal? the light will reset after a few seconds, meanwhile, the LCD screen will display DMX signal address code ( d001 ) if the result of self-inspection is normal ( run mode: DMX512; DMX address: 001; ), there is a symbol " " will flicker on the LCD screen when the light is well connected with the DMX signal, and it means it's under DMX control. If it's without the symbol " ", it means that the light can't receive the DMX signal because of any faulty.

DMX Channel	DMX Value	Specifications
1. R、G、B macro function	0 ~ 15	Off
	16 ~ 79	Full ON (R、G、B full on)
2. R、G、B speed adjustment	80 ~ 143	Flash (speed is controlled by CH2)
	144 ~ 209	R、G、B stream (speed is controlled by CH2)
	210 ~ 255	Close macro function, R、G、B dimming is controlled by CH8、9、10 separately.
	0 ~ 255	Speed from slow to fast

3. Pan	0 ~ 255	Pan 450° rotation
4. Tilt	0 ~ 255	Tilt 270° rotation
5. Pan fine	0 ~ 255	Pan fine
6. Tilt fine	0 ~ 255	Tilt fine
7. X、Y speed control	0 ~ 255	Speed from fast to slow
8. R dimming	0 ~ 255	R dimming from darkest to brightest
9. G dimming	0 ~ 255	G dimming from darkest to brightest
10. B dimming	0 ~ 255	B dimming from darkest to brightest
11. Reset	255	Reset after 5S

**Remark: Prolong 5s to reset when 1、2、7、8、9 five channels up to the value of 255 in the mean time.**

## Maintenance

### ● Cleaning and Using Frequency of Product

The light should keep clear in order to make sure it's available to work stably. It's recommended to clean the light body and fan by each 15days. The lens and filter should be cleaned as well in order to keep the best effect. Please never use the resolvable detergent to clean the filter in order to avoid the damage to the light.

When the light doesn't work, please check if the fuse is burnt out or not? If it is, the same fuse should be replaced, The light had installed an overheat protection device, it will cut off the power automatically when it's overheat. When this is happened, please check if the fan is working normally, fan and fan net is jammed by dust or not? Restart the light after repaired it, but the repair must be handled by professional.

### ● Complain

1. The salesman will check the details of complained problem, included the item no. delivered quantity、delivery time、faulty and pictures, and the requirement of customer  
2. QC and Technology department will analysis the complained problem, and give a final solution to customer.

## Faulty Disposal

Faulty Description	Solution
Light doesn't work	1. Check if the fuse burnt out or not
	2. Check if the power connected well or not
	3. Check if the +12V or +5V of circuit board is short circuited or not
Light is working, but not controllable by controller	1. Check if the DMX address code is correctly set?
	2. Check the signal communication of the wires
	3. Check if the circuit board is broken?
The light beam is dark and with visible reduction.	1. Check if the LED lamp is over the work life?
	2. Check if the internal optic system is clear?
Some LED lamps don't work	1. Check if the LED drive tube is damage or not?
	2. Check if the LED lamps are damaged or not