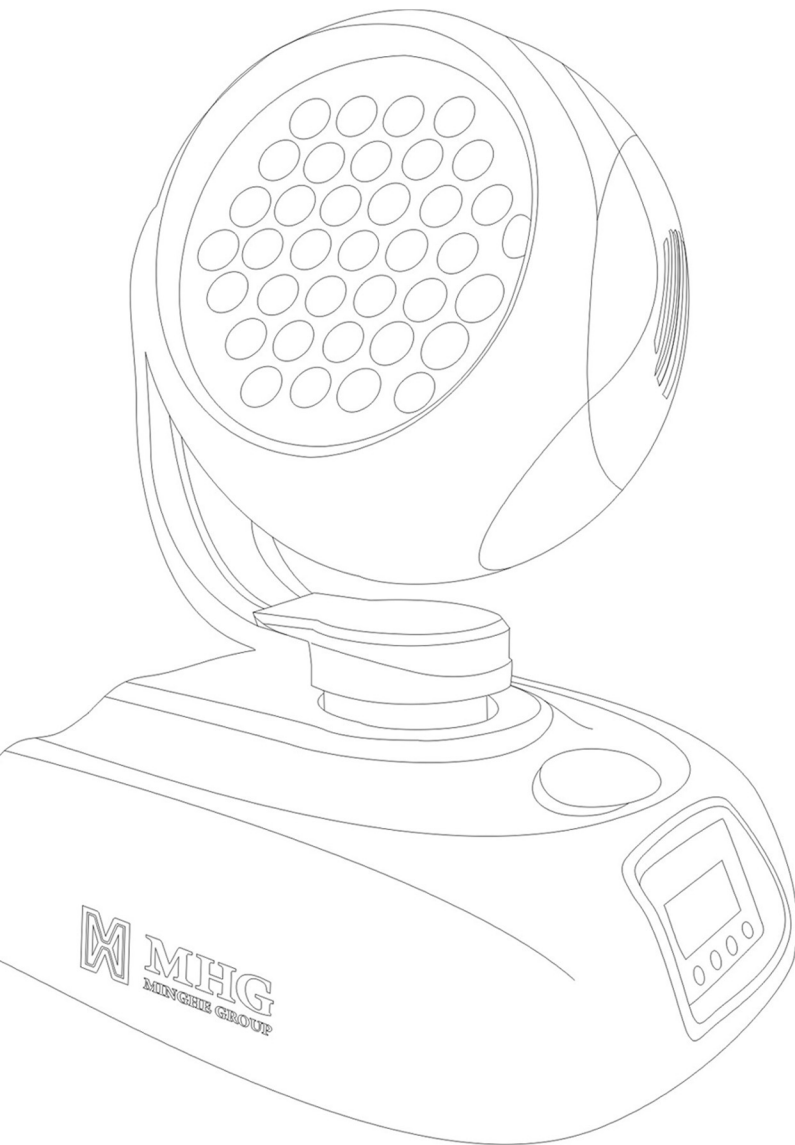




PRODUCT MANUAL LED Moving Head

M-YL2



LED MOVING HEAD: *M-YL2*



INSTRUCTION

Thank you for purchasing a MHG product. M-YL2 is designed for professional stage and nightclub lighting applications. With its unlimited colors and the fast movement, it is perfect for disco, bars, stage, shopping center, and TV shows, etc, owing to its quality in the color production and its versatility in use.

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Hunan Minghe Lighting Equipment Co., Ltd.

ISO 9001:2000 Compliance

CE Certificate

I. Function and Features

1. With light source of LED, this fixture has following advantages:
 - long service life, good at resistance to shock; service life is 50,000 hours under nominal working conditions, and only 5% decrease in the first 1,000 working hours;
 - bright-colored, color saturation can be reached at more than 90% to produce more brilliant light effect;
 - high efficiency, and low power consumption. There is no color filter loss, being efficient at electro-optic transfer;
 - RGB color mixing with or without DMX control;
 - Environmental protected, since there is no ultraviolet radiation and infrared ray in the spectrum, it is low at heat emission and radiation. It is a typical environmental protected lighting fixture with cool light source;
2. Pan and Tilt Scan
 - Pan 540°, Tilt: 300°
 - With 8 or 16 resolution
 - Scan speed adjustable
 - Automatic repositioning by photoelectric repositioning system
3. Four-digit LED display for function set and corresponding parameters adjustment;
4. With DMX512 signal, this fixture is compatible with various kind of digital dimmer;
5. With parameters such as ID addressing, function set, strobe speed, strobe pulse, and power-off memory adjustable;
6. With engineering plastics housing of high strength, this fixture is of durability and attractive shape, which is widely used at entertainment places, such as dancing hall, discos, pubs, clubs, etc.

II. Technical Data

Model: M-YL2

Light Source: 36 high power LED (Red: 12×1W, Green: 12×3W, Blue: 12×1W)

Power Supply: AC220V/50Hz

Power Consumption: 120W max

Illumination Intensity: 7960 Lx @1m (25°)

Control Signal: DMX512

Input Signal: XLR 3-Pin (In & Out)

Control Channels: 16

Max Strobe: 1-20 times / sec

Pan 540°, Tilt: 300°

Working Temperature: 0°C~40°C

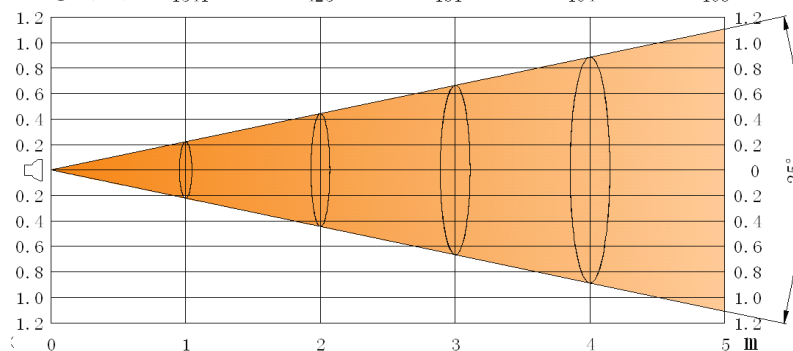
Operating Humidity: <90%RH

Dimension: 290mm×300mm×350mm

Net Weight: 6.5Kg

Illuminance Spectrum

Total bright	7960	1865	953	479	308
W light (LUX)	6810	1701	757	422	276
B light (LUX)	1597	436	187	105	70
G light (LUX)	4760	1183	518	315	187
R light (LUX)	1541	425	181	104	108



III. Operation Guide

1. DMX Code Addressing

In DMX mode, all fixtures must be set a preliminary ID address (default value: 001). It is used to receive signal from the controller and make the right response. When the preliminary value of the first fixture is 001, the second one should be $001+16=017$; the N should be $(N*16-15)$, and so on and so forth.

2. ID Addressing

- Under the same ID Address, there are 64 sub-ID; fixtures make the right response according to DMX address and corresponding Sub-ID of its tenth channel.
- When DMX value of the tenth channel ≤ 3 , fixtures will not be influenced by Sub-ID address, and all fixtures will be controlled by DMX address only;
- When DMX value of the tenth channel > 3 , fixtures will be controlled by both DMX address and Sub-ID address.
- The corresponding Sub-ID value of the tenth channel is $\text{DMX Value of the tenth channel} \div 4$.
For instance, if DMX value=13, $13 \div 4 = 3 \dots 1$, the corresponding sub-ID value =3.
Fixture 1: DMX Address=36, ID Address=5;
Fixture 2: DMX Address=36, ID Address=8;
- To use a controller to control these two fixtures with same DMX address, but different ID address:
If corresponding controlled ID=0, both fixtures will not work;
If ID Address =5, only fixture 1 work;
If ID Address =8, only fixture 2 work;
If ID Address $\neq 0, 5, \text{ or } 8$, both fixtures will not work.

3. DMX Channel Assignments

This fixture occupies 16 channels. For the corresponding value, please refer to **TABLE 1** as follows.

CHANNEL	FUNCTION	D M X VALUE		PRIORITY
		0	1~255	
1	Master Dimmer	Dimmer 0~100%		2
2	Red	Dimmer 0~100%		5
3	Green	Dimmer 0~100%		5
4	Blue	Dimmer 0~100%		5
5	Rainbow Effects	Off	Mixed color control on preset turn.	4
6	RGB MACRO	Off	Mixed color in cycle with speed adjustable from slow to fast	3
7	Strobe	Off	Strobe speed adjustable from slow to fast	2
8	Pulse Strobe	50%	Strobe VS Dark, duty cycle 90%~10%	2
9	Build-in Programs	Off	Refer to Table 2: <i>Build-in Programs Instruction</i>	1
10	ID Addressing	Off	ID Address: 0(0-3),1(4-7)...62 (248-251), 63(252-255)	1
11	White Balance	Off	White balance	2
12	Pan	0~540°		2
13	Tilt	0~300°		2
14	Pan Fine	16bit fine		2
15	Tilt Fine	16bit fine		2
16	Scan Speed	higher~lower		2

Table 1

4. Build-in Programs Setting

- In build-in programs 1-5, parameters 1-4 are to adjust the cycle speed. The cycle is about 10s~2s.
- In build-in programs 6-13, parameters 1-4 are to set the strobe. 1 refers to non-strobe; Strobe speed of 2, 3, 4 is 0.3s/strobe, 1s/strobe, 5s/strobe respectively.
- In order to adjust and check the present status, press button for 5s, it will return to its corresponding Master Mode; if former value before pressing button is Mode 1, or Mode 2, it will return to Mode 1. If former value is Mode 3, 4 or 5, 6, it will return to Mode 3 (its default value is Mode 3).

5. Operating Status Indicator

- Receiving signal, the small dot of single's place will be flashing;
- Master sends signal to its Slave, the small dot of thousand's place will be flashing.

6. Build-in Programs Instruction

Programs (1-5) Speed Adjustable		Program 1		Program 2		Program 3		Program 4		Program 5							
		Dimmer: lower→higher→lower, Mixed color in cycle		Dimmer: lower→higher (in a slow speed), higher→lower (in a fast speed)		Dimmer: lower→higher (in a fast speed), higher→lower (in a slow speed)		A blackout in each color change.		Dimmer controlled by sound beat, mixed color in cycle							
		DMX Value		DMX Value		DMX Value		DMX Value		DMX Value							
1		1-7		32-50		64-95		96-140		128-135							
2		8-15		40-55		72-100		104-145		136-143							
3		16-23		48-60		80-105		112-119		144-151							
4		24-20		56-65		88-110		120-127		152-160							
Program (6-13) Strobe		Program 6		Program 7		Program 8		Program 9		Program 10		Program 11		Program 12		Program 13	
		Red		Green		Blue		Red & Green		Green & Blue		Red & Blue		Whole Bright		White	
		DMX Value		DMX Value		DMX Value		DMX Value		DMX Value		DMX Value		DMX Value		DMX Value	
1	Off	161-163		173-175		185-187		197-199		209-211		221-223		233-235		245-247	
2	Slow	164-166		176-178		188-190		200-202		212-214		224-226		236-238		248-250	
3	Medium	167-169		179-181		191-193		203-205		215-217		227-229		239-241		251-253	
4	Fast	170-172		182-184		194-196		206-208		218-220		230-232		242-244		254-255	

Table 2

7. Pan & Tilt, Build-in Programs VS Scan Speed

Build-in Programs	1	2	3	4
Scan Speed	Off	Slow	Medium	Fast

8. Display Menu Instruction

Mode	Definition	LED Display				Reference	Display Status
		Thousand' s place	Hundred' s Place	Tenth Place	Single' s Place		
1	DMX Address Setting				001~512		DMX Signal Received
2	IDA	d			00~63		
3	Build-in Programs	A			01~13	Please refer to <i>Build-in Programs Instruction</i>	Auto-run
4	Speed of build-in programs adjustable	E			01~04	Please refer to <i>Build-in Programs Instruction</i>	
5	Scan Speed	V			00~03	0 (Rest), 1→3 (Slow→Fast)	
6	Master Mode Setting	H			00~01	0 (Non-Master), 1(Master)	

Press **【FUNC】** to adjust operation mode: 1→2→3→4→5→6→1;

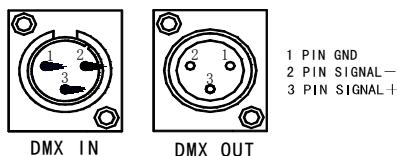
Press **【UP】** **【DOWN】** to adjust corresponding parameters;

Press **【SWITCH】** to save, power-off memory available;

Press **【UP】** **【DOWN】** to adjust values. Then please press **【SWITCH】** to save the change.

IV. Connection of Fixture

- 3-Pin XLR Socket connection line: 1 pin: signal GND, 2 pin Signal-, 3 pin signal +, as listed in the graph below.



- DMX line should use STP (Shielded Twisted Pair). The transfer distance should be within the range of 300m. If out of this range, it should be equipped with a DMX distributor. Each distributor can connect up to 32 fixtures.

3. The DMX line should be connected in series one by one. That is each output of former fixture connects to the input of its follower, and each output DMX line can not be divided into more than one outputs;
4. There should be a terminator on the last unit of DMX line. A terminator is a 120 ohm 1 watt resistor which is a connection between Pin 2 and Pin 3 of a Male XLR connector. Using a cable terminator will decrease the possibility of erratic behavior.

V. Notice

1. before install or use of this fixture, please read and follow these instructions carefully and keep this manual in a safe place for future reference;
2. before install or use of this fixture, please check the address code and operating modes are set right;
3. before install or maintain this fixture, make sure the power is off;
4. When the fixture is running, don't unplug live DMX connection line;
5. before use this fixture safely, make sure the fixture is appropriately earthed;
6. in DMX control mode, any fixture in DMX chain set as Master Mode will lead fixture work inappropriately;
7. in Master/Slave mode, there can only be one Master, and signal input of controller prohibited.

VI. Packing Contents

Items included in the packing:

1. An unit of M-YL2, LED MOVING HEAD
2. A 3-Pin DMX control line
3. 1 power cord
4. An user manual

Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

Brief Introduction

Hunan Minghe Lighting Equipment Co., Ltd., located at Changsha National Economic Development Zone, is a professional manufacturer of pro-lighting and theatrical & TV Studios equipments; and of the designing and installing of professional lighting & audio projects. Our products mainly include LED Lighting, color changers, moving heads, scanners, profiles, control systems, and TV Studios & Stage lighting equipments, etc. We have passed ISO 9001:2000, International Quality Management System Compliance, and our products have got the CE & RoHS Certificate to enter European market. The goal of Minghe business service is “to survive with excellent quality, to sustain with good faith”. We’ll keep on innovating to meet the ever-changing market; we’ll keep on cooperating with our customers with faith and dedication.

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