

# Contents

Contents.....	1
1. Dimensions.....	3
2. Fixture structure.....	4
3. Specifications.....	5
4. Brief introduction .....	6
5. Safety information.....	6
5.1 Protections from electric shock.....	7
5.2 Protections from burning or fire.....	7
5.3 Protections from falling of fixture.....	7
5.4 Don' t stretch the hand when rotating.....	7
6. Transportations and accessories.....	8
7. AC Power.....	8
7.1 Power connections.....	8
8. Data.....	9
8.1 Connection equipments .....	9
8.2 Data information connection .....	9
9. Fixture installation.....	10
10. Control Panel.....	12
10.1 DMX Address .....	12
10.2 Menu set.....	12
11. Dmx Controlling channels.....	14
11.1 Channel-1, Rainbow .....	14
11.2 Channel-2, Red .....	14
11.3 Channel-3, Green .....	14
11.4 Channel-4, Blue.....	14
11.5 Channel-5, Pan.....	14
11.6 Channel-6, Tilt.....	14
11.7 Channel-7, Speed of movement.....	14

P/N 399907010601

EDITION A

11.8 Channel-8, Strobe.....	14
11.9 Channel-9, inside program .....	15
11.10 Channel-10, Pan 16 bit.....	15
11.11 Channel-11, Tilt 16 bit.....	15
11.12 Channel-12, Dimming.....	15
12. Routine maintenance.....	15
13. Channel Sketch.....	16

## 1. Dimensions

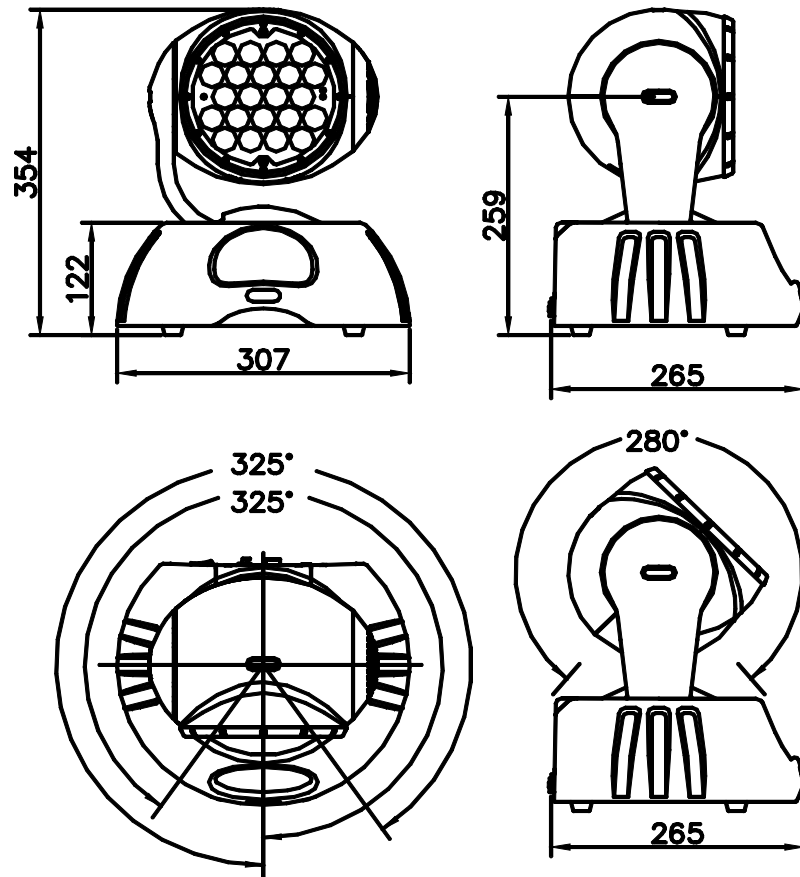


Fig.1

## 2. Structure

Fig.2

1. Head module
2. Arm module
3. Base module
4. Handle

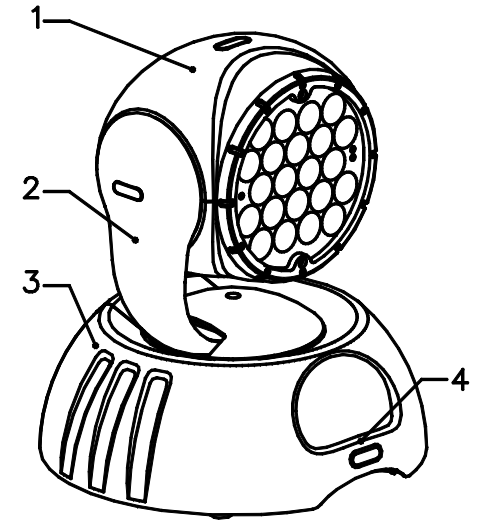


Fig.2

Fig.3

1. Switch button
2. Wire cable
3. Fuse
4. DMX output
5. DMX input
6. Mode button
7. Input button
8. Up button
9. Down button
10. LED display

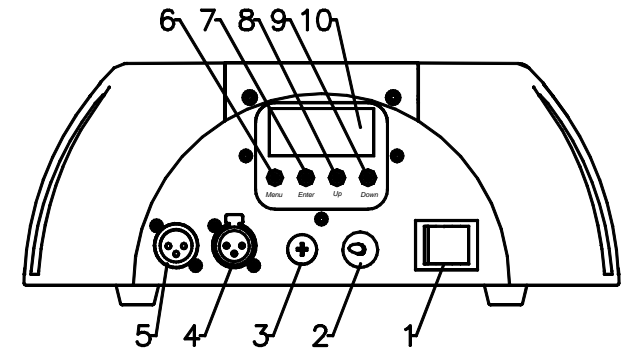


Fig.3

Fig. 4

11. Clamp

12. Safety cable

13. Hanging system

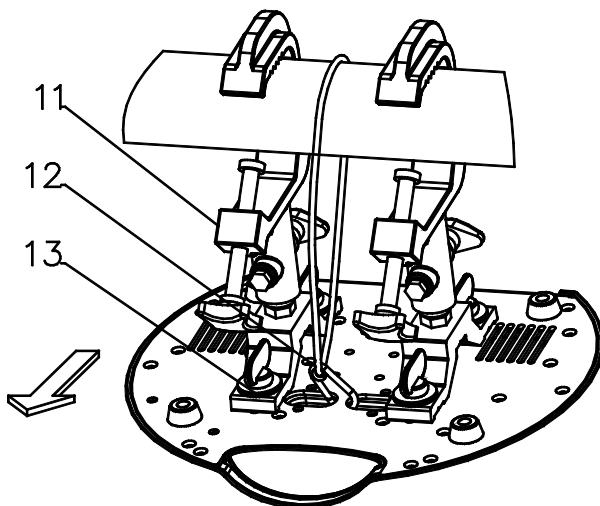


Fig. 4

### 3. Specifications

Item No.	LED Qty. (PCS)	Power (W/PC)	Total Power (W)	Power supply (V)	Frequency (Hz)	N. W (Kg)	Dimensions (mm)
FINE122DM	22	1	50	100/ 240	50/60	8.7	307×265 ×354
FINE222DM		2	72			8.7	
FINE322DM		3	94			8.7	
FINE136DM	36	1	64			8.7	
FINE236DM		2	100			8.7	
FINE336DM		3	136			8.7	

### 4. Brief introductions

Many thanks for selecting this LED moving head light issued by FINE ART. The users' manual adapt to these models produced by FINE ART, such as FINE122DM/FINE222DM/FINE322DM/FINE136DM/FINE236DM/FINE336DM. This LED moving head features as follow:

- The volume and weight reduced a lot due to this LED moving head doesn't used traditional ballast, ignitor and drive structure for color changeover.
- As the normal service life of LED is more than 50000 hours, using module control the color changeover, thus less drive structure adopted, and the fixture is more durable, easy-maintenance and low-cost.
- No ultraviolet radiation harm to personnel.

This LED moving head is moving by single arm with synchronous driving type, pan 540°, tilt 280°;control LED RGB color by CPU control module, meanwhile with rainbow effect, transformable strobe and electric dimming functions. DMX512 signal receiving; Pan and Tilt repositioning by photoelectric repositioning system,when accidental movement occurs, the fixture will reset automatically.

With regard to the latest software, hardware or other information as well as FINE ART professional products, please visit Fine Art Website at <http://en.fineart-light.com>.

### 5.Safety information

- **WARNING!!!** This product is only for professional utilization, not for any other utilization.

During operation of this product, please pay more attention to avoid fire, hot, electric shock, and read the users' manual

carefully before apply power or installation. Operate the fixture according to safety operating instructions and users' manual as well as warning slogan on the fixture. If you have any questions about how to operate the fixture safety, please consult FINE ART distributor or FINE ART.

### 5.1 Protections from electric shock

- Never connect power-cable when install or remove spares such as fuse, and dependable grounding is essential.
- Supplied voltage must match with the fixture, and overload protections or grounding is essential.
- Never expose the fixture in rain or moist environment.
- Consult professional technician for maintenance.

### 5.2 Avoid burning or fire

- Never bypass the thermal switch or fuse, and use indicated fuse in the fixture.
- Keep at least 0.1 meters around fans and air vents.
- Don't place filters or other materials over the lens
- Use the spares which are from FINE ART
- Don't operate the fixture when the ambient temperature exceed 40 °C

### 5.3 Protection from injury when fixture falls

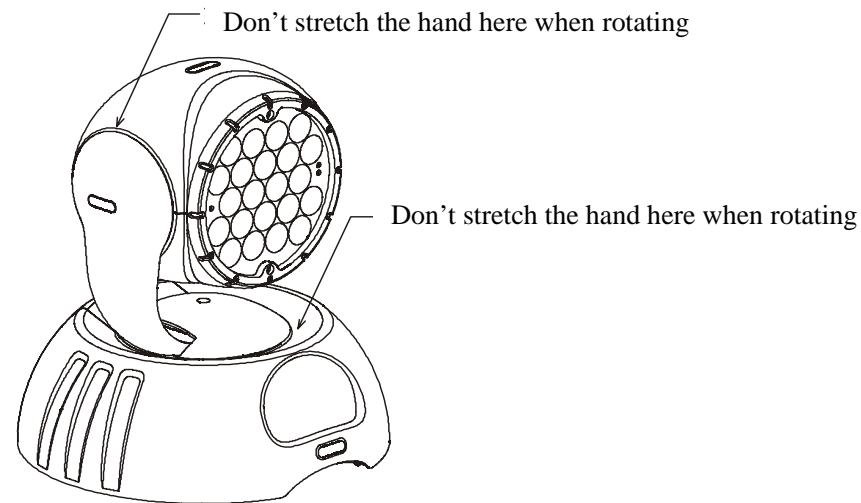
- Don't remove the fixture by holding its side arm.
- Don't stare at the light for long time.
- When suspending the fixture, ensure that the structure can hold at least 10 times the weight of all installed devices.
- Make sure that all covers and rigging hardware are securely fastened and use an approved means of secondary attachment such as a safety cable.

During installation or remove fixtures, keep in mind that the working flat roof is lower than the working position.

### 5.4 Don't stretch the hand to rotation place when rotating

- Don't stretch the hand to transmission parts when fixtures is

rotating, to avoiding scratch the hand. ( refer to diagram)



## 6. Transportation and accessories

This LED moving head light is packed in foam and carton, 1 PCS/CTN, each fixture is equipped with accessories as follows:

- 1 Users' manual
- 2 clamps
- 1 Guarantee card
- 1 safety cable
- 1 Data cable

## 7. AC Power


WARNING! For protection from electric shock, the fixture must be grounded (earthed). The AC mains supply must be fitted with a fuse or circuit breaker and ground-fault (earth-fault) protection. Important! Please check the power supply before applying power.

### 7.1 Power Connection

Notice! Connect the LED moving head light directly to AC power. Do

not connect it to a dimmer system; doing so may damage the fixture. We have equipped with standard 3 pin connector, please connect the power according to the marks below, yellow/green wires grounded stable, if you have any other questions, please consult qualified technician.

To apply power, set the power switch on the base to the “I” position.

Wire Color	Connector	Marks
Brown	Live wire	L
Blue	Neutral wire	N
Yellow/Green	Ground wire	

## 8. Data

Important! Never connect more than 1 data input and 1 data output.

LED moving head has both 3-pin and 5-pin XLR sockets for DMX input and output. The pin-out on all sockets is pin 1 to shield, pin 2 to cold (-), and pin 3 to hot (+).

### 8.1 Connection equipment

- Use shielded twisted-pair cable designed for DMX512 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs down to 300 meters. Heavier gauge cable and/or a DMX512 signal amplifier is recommended for longer runs.
- Never use both outputs to split the link. To split the serial link into branches use a FINE ART splitter.
- Do not overload the link. At most 32 devices may be connected on a serial link.
- Terminate the link by installing a termination plug in the output socket of the last fixture. The termination plug, which is a male XLR plug with a 120 Ohm, 0.25 Watt resistor soldered between pins 2 and 3, soaks up the control signal so it does not reflect and cause interference. If a splitter is used, terminate each branch of the link.

### 8.2 Data Link

- 1、 Connect the DMX data output from the controller to this LED

moving light 3-pin or 5-pin input (male) socket.

- 2、 Using the sockets that match your data cable, connect the output of the fixture closest to the controller to the input of the next fixture.
- 3、 Insert a male 120 Ohm XLR termination plug in the 3-pin output of the last fixture on the link.

## 9. Installation

LED moving head can be placed on stage or clamped to a truss in any orientation<Fig.7>. The mounting points allow the clamp brackets to be fastened parallel or perpendicular to the front as shown Figure 5.

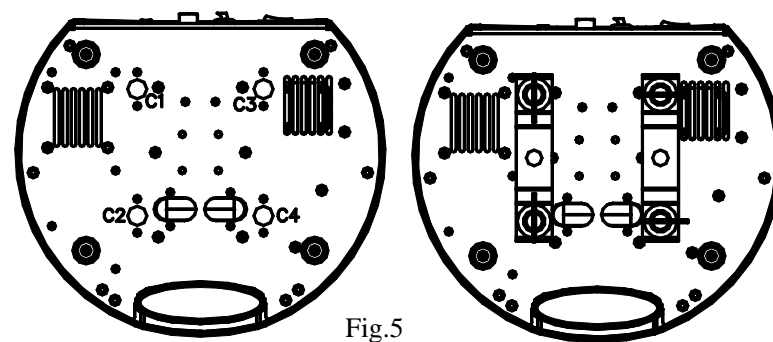


Fig.5

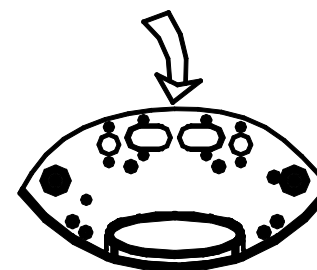


Fig.6

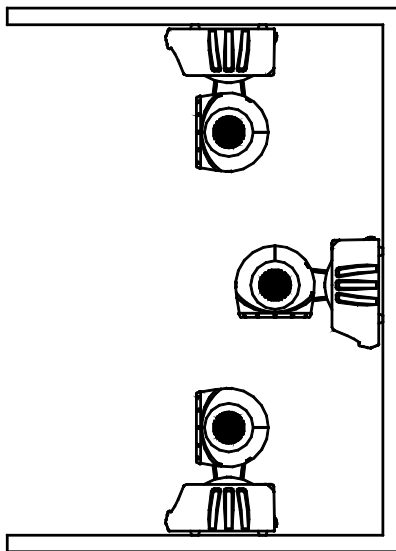


Fig.7

- **Warning!**

Always use 2 clamps to rig the fixture. Lock each clamp with both 1/4-turn fasteners. The fasteners are locked only when turned fully clockwise. Attach an approved safety cable to the attachment point labelled “SAFETY WIRE” in the base<Fig.6>. Never use the carrying handles for secondary attachment.

- **Clamp the fixture on a truss**

- 1、 Check that the rigging clamps are undamaged and can bear at least 10 times the weight of the fixture, and make sure the rigging clamps are suitable for the holes on the base of fixtures. Check that the structure can bear at least 10 times the weight of all installed fixtures, clamps, cables, auxiliary equipment, etc.
- 2、 Bolt each clamp securely to a clamp bracket with an M12 bolt and lock nut.
- 3、 Align a clamp with 2 mounting points in the base. Insert the fasteners

into hole C1, C2, C3 and C4 on the base and turn both levers a full 1/4-turn clockwise to lock. Install the second clamp.

- 4、 If the truss can be low, fixture can be clamp directly from the flight case. Block access under the work area. Working from a stable platform, hang the fixture on the truss with the arrow <Fig.4> towards the area to be illuminated. Tighten the rigging clamps.
- 5、 Install a safety wire that can bear at least 10 times the weight of the fixture. The attachment point is designed to fit a carabiner clamp.

## 10. Control panel

LED control panel used for set address and fixture functions.

### 10.1 DMX Address set up

The DMX address, also known as the start channel, is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned its own control channels. Address sharing can be useful for diagnostic purposes and symmetric control, particularly when combined with the inverse pan and tilt options.

### 10.2 Menu set up

Turn on the fixture, LED display shows FineART-LED-Vxxx circularly, and later shows present DMX address.

Press “MENU” to enter into menu setup, press “UP-DOWN” to choose options, press “ENTER” to save, press “MENU” to return.

Menu Selection as below:

Menu	Sub-item	Opt	Function
ADD R	0001-----0512		
SPEC	16BT	ON	XY axis precise control open
		OFF	XY axis precise control close
	PINV	ON	Pan reverse open

		OFF	Pan reverse close
		ON	Tilt reverse open
	TINV	OFF	Tilt reverse close
	SWAP	ON	Pan/Tilt exchange open
		OFF	Pan/Tilt exchange close
INFO	TIME	0000	Display working time of fixture
		RSET	Working time to Zero
	LIMIT	NONE	
	VER	NONE	Version No.
TOOL	MODE	SLAV	Subsidiary Model
		MAST	Main model
	AUTO	0000--0008	Inside program opt.
	DISP	2-MN	Display delay
		ON	Display open
	DINT	0100--0090	
	DINV	ON	
		OFF	
CTRL	CHO1	0000-0255	Channel1
	CHO2	0000--0255	Channel 2
	CHO3	0000--0255	Channel 3
	CHO4	0000--0255	Channel 4
	CHO5	0000--0255	Channel 5
	CHO6	0000--0255	Channel 6
	CHO7	0000--0255	Channel 7
	...	...	...
	CH32	0000--0255	Channel 32
ADL	5—01-----5--24	0000---FFFO	
CHLV	R—01-----R--32		
CODE	CD01 ...	0000-----0255	

	CD16		
--	------	--	--

## 11. Dmx Controlling channels

### 11.1 Channel—1, Rainbow

000-004 No function  
 005-008 Red color  
 009-092 Brightness control of red and green color  
 093-096 Green color  
 097-180 Brightness control of green and blue color  
 181-184 Blue color  
 185-255 Brightness control of blue and red color

### 11.2 Channel—2, Red

000-004 No function  
 005-255 Brightness 0-100% control of red output

### 11.3 Channel—3, Green

000-004 No functions  
 005-255 Brightness 0-100% control of green output

### 11.4 Channel—4, Blue

000-004 No functions  
 005-255 Brightness 0-100% control of blue output

### 11.5 Channel—5, Pan rotation

000-255, Pan rotation 540 degree control

### 11.6 Channel—6, Tilt rotation

000-255, Tilt rotation 280 degree control

### 11.7 Channel—7, Pan/tilt rotation speed control

000-002 No function  
 003-239 Speed change from maximum to minimum  
 240-242 Low speed mode  
 243-245 Middle speed mode  
 246-248 High speed mode  
 249-255 Close light

### 11.8 Channel—8, Strobe

001-127 Strobe control from fast to slow (1/8168

- us—1/3301709 us)
- 128-159 The change of LED is: open suddenly and then close slowly, the value of DMX controls the time from open to close, ( 835584 us—26738688 us)
- 160-191 The change of LED is: close suddenly and then open slowly, the value of DMX controls the time from open to close, ( 835584 us—26738688 us)
- 192-255 The change of LED is strobe uncertainly, open or close suddenly.

#### **11.9 Channel—9, Inside program**

- 000-007 No function
- 008-014 Motor reposition
- 015-255 No function

#### **11.10 Channel—10, Pan rotation (16bit)**

- 000-255 Pan rotation (16bit) precise control

#### **11.11 Channel—11, Tilt rotation (16bit)**

- 000-255 Tilt rotation (16bit) precise control

#### **11.12 Channel—12, Dimmer**

- 000-255 Channel 2 (Red), Channel 3 (Green), Channel 4 (Blue)
- Three colors output integrated control (the channel can work only when Channel 2, 3, 4 have output)

## **12. Routine maintenance**

LED moving head light requires routine cleaning. The schedule depends heavily on the operating environment. It is essential to follow the cleaning guidelines given later in this section. Refer any service operation that is not described here to a qualified FINE ART technician.

Important! Excessive dust, smoke fluid, and particulate buildup

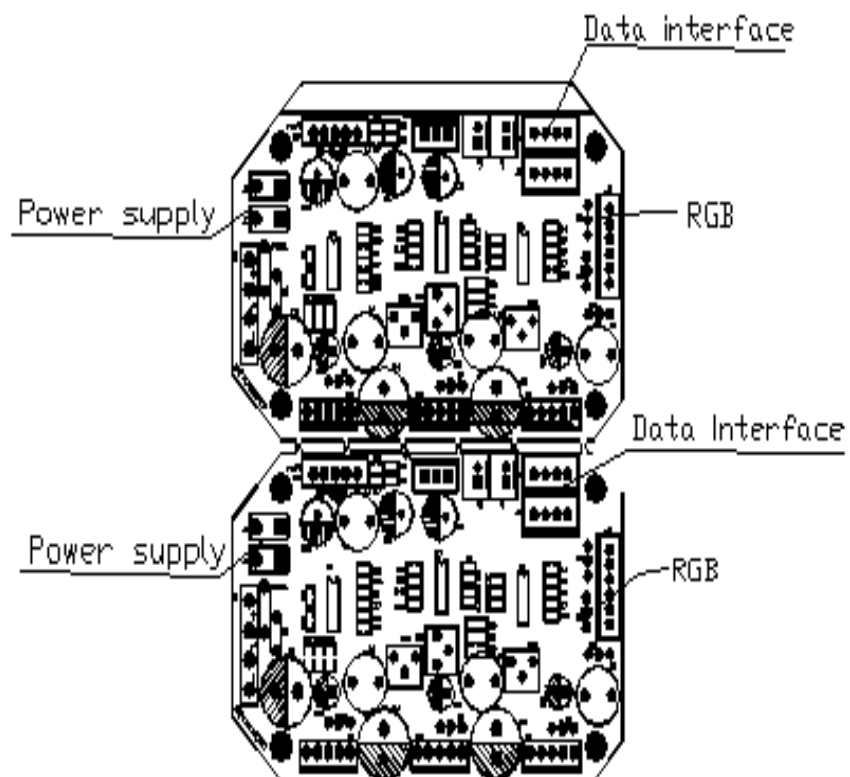
degrades performance, causes overheating and will damage the fixture. Damage caused by inadequate maintenance is not covered by the warranty. Warning! Disconnect the fixture from power before removing any cover.

Remove dust from the head fans and air vents with a soft brush, cotton swab, vacuum, or compressed air.

## **13. Channel sketch**

### **PCB-I (If have 22 LED, as use half PCB of PCB-I)**





PCB-II

