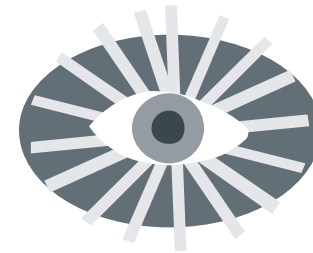


LIGHTING

Laser Lighting



Instruction
Manual

★ Appendix

This plug-pin wiring lights definition

1	X+	X galvanometer input signal (differential signal cathode)(-5V voltage range from +5V)
2	Y+	Y galvanometer input signal (differential signal cathode)(-5V voltage range from +5V)
3	NoUse	Useless
4	InterbckA	Together with 17 feet) of the external graphics interface card is linked
5	Red+	Red luminance signal input(differential Signal cathode)(voltage of 0V to +2.5V)
6	Green+	Green brightness of the input signal (differential Signal cathode) (voltage of 0V to +2.5V)
7	Blue+	Blue brightness of the input signal (differential signal cathode) (voltage of 0V to +2.5V)
8	NoUse	Useless
9	NoUse	Useless
10	NoUse	Useless
11	NoUse	Useless
12	NoUse	Useless
13	Notoonected	Useless
14	X-	X galvanometer input signal (differential signal cathode)(+5V voltage range from -5V)
15	Y-	Y galvanometer input signal (differential signal cathode)(+5V voltage range from -5V)
16	NoUse	Useless
17	InterbckB	Together with four feet) of the external graphics interface card is linked
18	Red-	Red luminance signal input(differential Signal cathode)(-2.5V voltage range from 0V)
19	Green-	Green brightness of the input signal (differential Signal cathode) (-2.5V voltage range from 0V)
20	Blue-	Blue brightness of the input signal (differential signal cathode) (-2.5V voltage range from 0V)
21	NoUse	Useless
22	NoUse	Useless
23	NoUse	Useless
24	NoUse	Useless
25	Ground	Ground(Signal Reference)

Catalogue

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(2) Notices	
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★ Rules

1、Inspection

Thanks for your purchasing, please read this manual carefully before Operating the system. It gives you general information for your safe and better operation. Check the goods is receive in good condition, and check for the contents in the package refers to the following list:

- 1、Lighting×1
- 2、Instruction Manual×1
- 3、Power cable×1

2、Notices

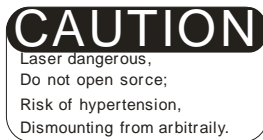
- 1、Perform the Instruction Manual for operation, please don't disassemble the light rudely. Installation should be made by professional technician. The laser light has a fault, please inquire with the professional or contact with the factory.
- 2、The light well protected against dampness, moisture, rust and shock. Do not use the product in dusty place.
- 3、The distance between lighting and the object that light falls on should be more than 1 meter.
- 4、Prevent other subject enter into the lighting.
- 5、Ensure the fan is not blocked.
- 6、Do not look into the laser source.
- 7、Do not turn on and turn off frequently, and avoid to turn on the power for a long time.
- 8、Please power off the lighting for 15 minutes after running two hours, ensure that the laser system is in well cooling state.
- 9、Do not touch the laser lighting by wet hand and forcefully pull the power line.
- 10、Prevent the laser light from strong vibration or punch.
- 11、Do not dismantle the lighting.
- 12、Please directly contact with the local dealer when the trouble occurred.
- 13、When to be transported, use the original package to avoid shocking.

3、Installation

- 1、Firstly, be sure that the using voltage is match with the voltage marked on the light.
- 2、Installation should be made by professional technician. Fix the laser Lighting and adjust the angle of the light to you need.
- 3、Be sure that there is no flammable or explosive subject nearby. The least distance is 0.5 meters. At the same time, keep more than 15cm between the wall and the laser light..
- 4、Please check whether the fan and the exhaust is blocked.
- 5、There is a hole for connection. When hang the laser light, be sure the cable can undertake 10 times of the light weight.
- 6、It's essential to be earthed well for the sake of safety.
- 7、It's very important that connect the ground line to ground.

4、Warning

- 1、Power off before installation or maintenance.
- 2、The danger of this laser light is CLASS III B. It's dangerous for Observing laser. The safe minimum distance is 13cm; the safe maximum time is 10 seconds.
- 3、Keep at least 0.5 meters distance between the lighting and flammable material



★ Fault Analysis and exclusion

Faults	analyze the causes	remove failures
without electricity	The Fuse burned out	Change the fuse
No music-active or insensitive	MIC broken	MIC
	NC board broken	NC board
	Potentiometer broken	Potentiometer
XY ineffective	Scanner broken	Scanning motor
	NC board broken	NC board
No beams showing	Scanner board broken	Scanning board
	Scanner vibration	Scanning board
No light or Light weakness Black out, but Others normal	Lens dirty	See Page 3 Maintenance
	Laser diode broken Blue diode	Green diode, Red diode
	NC board broken	NC board
	Wrong operation about the working mode	See Page 6 Instruction
Out of control, but other diode fan normal	Wrong operation about the working mode	See Page 6 Instruction
	NC board broken	NC board
	SMPS broken	±12V

★ Instructions

Master synchronous mode

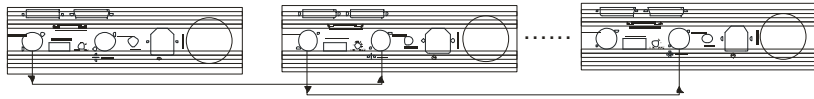
1、 Set the working mode: set one laser as the master, the others as slave.

The master controlled slave to showing the beams and patterns for the purpose of the synchronization. See Page 5 Functional settings.

2、 Connected the On-line, Using the XLR-XLR, connect the outputs of the master Lennon XLR with the inputs of the first slave Lennon XLR, and connect the outputs of the first slave Lennon XLR with the inputs of the second slave light, so all the links from the end.

3、 Please turn the sensitivity knob of the master light(in the music-active mode) to moderate position.

Note: It doesn't need the DMX controller under the master-slave synchronous; not multi-master light; otherwise the slave light would have errors. The slave electricity time can't lag behind the master light, suggest use the same current.



1: MASTER: SOUND/AUTO

2: SLAVE MODE

N: SLAVE MODE

The main mode from the wiring diagram

USAGE OF DIPSWITCH



USAGE OF DIPSWITCH



.....

USAGE OF DIPSWITCH



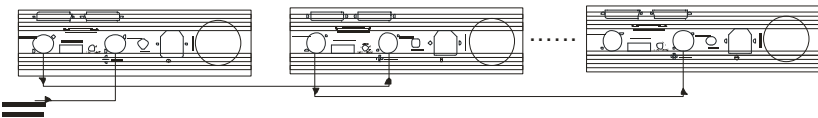
DMX mode

1、 Set the DMX mode, and distribute the DMX starting channel address. See Page 5 Functional settings.

2、 Connected the controlling cable. Using the DMX line, connect the outputs of the DMX controller with the inputs of the first light Lennon, and connect the outputs of the first Lennon to the inputs of the second light, so all the links from the end.

3、 Turn on the current, the DMX controller start to work.

Note: there is no master light under DMX mode; otherwise all of the lights would not be controlled.



1: DMX MODE

2: DMX MODE

N: DMX MODE

DMX mode wiring diagram

USAGE OF DIPSWITCH



USAGE OF DIPSWITCH



.....

USAGE OF DIPSWITCH



★ Maintenance

Maintenance

1、 Please clean the lens regularly. Do not do it using the wet cloth or other chemical.

The clean times is depend on the using frequency and surrounding condition; it is recommended that should be cleaned every 20 days.

2、 Please clean the lighting surface and engine outlet regularly.

★ Performance Trait

◆ Uses the advanced laser control technology and the high accuracy inspires the mirror rapid scanning, the life is long, the low power loss.

May make the writing performance, the animation performance, the light beam performance, the laser advertisement;

May act according to the customer request custom make design.

★ Technical parameters

◆ rated voltage: AC85-265V 50HZ-60HZ(Auto-adjust)

◆ rated power: 20W

◆ laser power: 100mW

◆ laser wave length: Green laser wavelength 532nm;

◆ laser color: Green

◆ sweeping system: 20 Kpps scanner system

◆ control mode: stand alone, music active, DMX512,

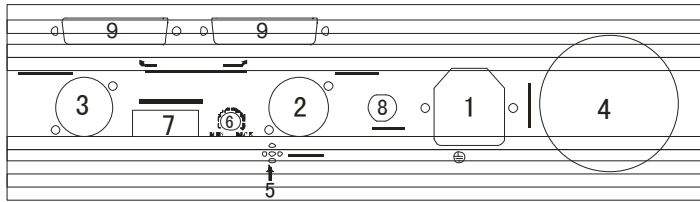
◆ DMX512: 9 channels

◆ cooling system: Fan system

◆ lamp body size: L375×D225×H120(mm)

◆ laser weight: 4 kg

★ Sketch maps



back board sketch

- 1、 POWER:Power sockets with fuses(2A)
- 2、 INPUT
- 3、 OUTPUT
- 4、 FAN
- 5、 MIC
- 6、 MIN-MAX
- 7、 Address: The Tenth dial switch is Sound-active number. When the tenth dial as ON, the laser lighting is Auto-playing mode. When the tenth dial as OFF, accept the DMX signal, 1-9 dial as the DMX ADDRESS CODE, normally set address Code of the first light as 1, the second light as 17, etc.
- 8、 KEY
- 9、 ILDADB-25F Connector IN / OUT

- The voice mode
- From the pattern set

Function	USAGE OF DIP SWITCH																														
Music-active mode	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td> </tr> <tr> <td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10																						
ON	ON	ON	ON	ON	ON	ON	ON	ON	ON																						
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF																						
Master-slave mode	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td><td>ON</td> </tr> <tr> <td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10																						
ON	ON	ON	ON	ON	ON	ON	ON	ON	ON																						
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF																						

- Address code:

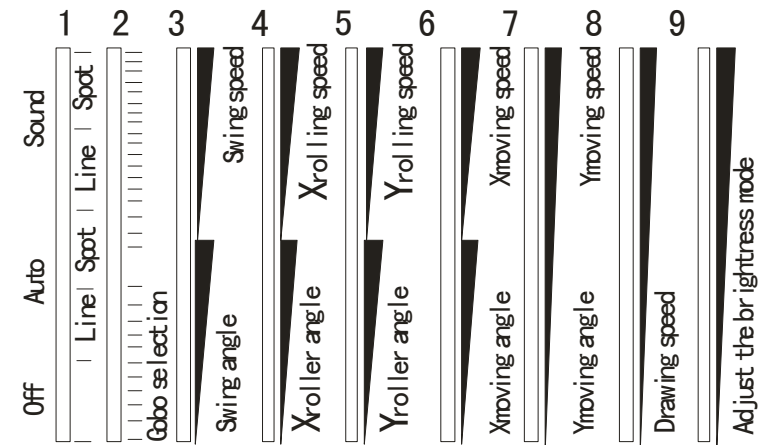
In the second-band, each Numerical only "0" and "1", precisely corresponding "OFF" or "ON" DMX address code, for example:

Decimal base	Binary system LSB1 → MSB9	USAGE OF DIP SWITCH																				
1	000000000	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10													
OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF													
17	100000000	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10													
ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF													
33	111000000	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>ON</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10													
ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF													
49	101100000	<table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td> </tr> <tr> <td>ON</td><td>OFF</td><td>ON</td><td>ON</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td><td>OFF</td> </tr> </table>	1	2	3	4	5	6	7	8	9	10	ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF
1	2	3	4	5	6	7	8	9	10													
ON	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF													

★ Function set

Products within the 51 preset patterns, users can set different conditions for the use of the control method:

- 1、 Single mode voice: built-in lamps will run voice procedures, these procedures only call the lamp 35 geometric patterns, a total of 64 kinds of effects, each about continuing effect of about 12 seconds;
- 2、 Voice synchronization modes: Main running lights built-in voice procedures, by the lights of the main light control and step;
- 3、 DMX512 mode: Via DMX512 controller, you can use the 51 gobos freely, also you can make a good show through the DMX512 controller, but please take attention to the sound activate status (Push the channel 1 the toppest), turn on sound, the light will run after response from the sound, the detail of DMX512 channels as follows.



- 4、 Computer control modes: the computer-controlled lighting, this time by the software freely edit lighting effects, the specific reference to the use of your computer control software.