LED Color Spot

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1. Safety Instruction

WARNING

Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

♦ Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

♦ Unpack and check carefully there is no transportation damage before using the unit.

♦ Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

♦ It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

♦ The unit is for indoor use only and use only in a dry location.

♦ The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.

♦ Disconnect mains power before fuse replacement or servicing.

♦ Replace fuse only with the same type.

♦ Make sure there are not flammable materials close to the unit while operating as it is fire hazard.

♦ Use safety cable when fixes this unit.

♦ In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repair carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center and always use the same type spare parts.

♦ Do not touch any wire during operation as high voltage might be causing electric shock.

2. Technical Specification

- It can be operated by DMX512 control or can be used as an individual unit without controller.
- It can be linked together as many as required in master/slave mode, and perform the great built-in programmed lighting shows triggered by music.
- Please use a 3 pin XLR cable/plug when connecting them together.

- **Channel**

	CH1	CH2	CH3	CH4
3 channels	Red	Green	Blue	
4 channels	Red	Green	Blue	Dimmer/Strobe

- **Voltage:** 100V-240V~50/60Hz
- **Power consumption:** 6W
- **Fuse:** T 500mA
- **LED**：1X3W RGB LED
- **Dimension:** 215X141X195 mm
- **Weight:** 1.1kg
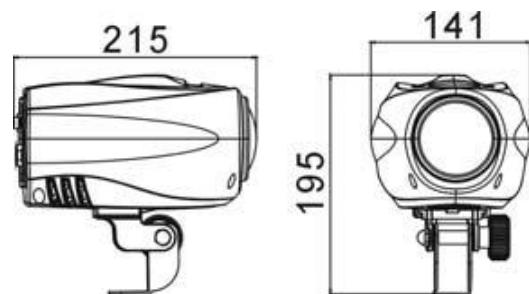
3. Installation

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

4. How To Control The Unit

Three ways to operation:

    A. Master/Slave operation

    B. Easy controller CA-8

    C. Universal DMX controller

4.1. Master/Slave operation

The unit can be linked together in daisy chain as many as you need in master/slave mode, the first unit will control the others to give a coordinate automatic light show and it's good for instant shows.

In Master/Slave mode refer to the DMX settings below:

Master unit: Set DIP switch 1-9 to OFF.

Slave units: The DMX start address may set to any value but 0.

➔ 4-Light show

Set dip switch 1-9 to OFF for the first unit which has nothing in its DMX input jack. Set the DMX address of other units to 1,4,7 or 10 when the dip switch 10 ON, or set the DMX address of other units to 1,5,9 or 13 when the dip switch 10 OFF, then the units (slave) will follow the first unit (master) to run built-in program for 4-Light show. The units which don't set as mentioned earlier will run as slave 1.

Dip switch 10 OFF

Slave 1：dip / on: #1 (=1)

Slave 2：dip / on: #1,#3 (1+4=5)

Slave 3：dip / on: #1, #4 (1+8=9)

Slave 4：dip / on: #1, #3, #4 (1+4+8=13)

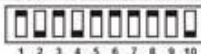| Unit	Dip switches setting
1	ON 1 2 3 4 5 6 7 8 9 10
2	ON 1 2 3 4 5 6 7 8 9 10
3	ON 1 2 3 4 5 6 7 8 9 10
4	ON 1 2 3 4 5 6 7 8 9 10

Dip switch 10 ON

Slave 1：dip / on: #1 (=1)

Slave 2：dip / on:,#3 (=4)

Slave 3：dip / on: #1, #2, #3 (1+2+4=7)

Slave 4：dip / on: #2, #4 (2+8=10)

Unit	Dip switches setting
1	ON 1 2 3 4 5 6 7 8 9 10
2	ON 1 2 3 4 5 6 7 8 9 10
3	ON 1 2 3 4 5 6 7 8 9 10
4	ON 1 2 3 4 5 6 7 8 9 10

4.2. Easy Controller (by CA-8)

The easy remote control is used only in master/slave mode. By connecting to the 1/4" microphone jack of the first unit (its DMX input plug is not used), you will find that the remote control all the first unit will control all the other units for Stand by, Function and Mode. Built-in lighting shows triggered by Easy Controller:

Stand By	Blackout the unit	
Function	1. Synchronous Strobe 2. Asynchronous Strobe 3. Sound Strobe	Show speed 1-3
Mode	Sound (LED OFF)	LED ON
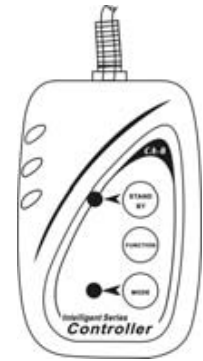
4.3 Universal DMX controller

When using a universal DMX controller to control the chain of units, you can set DIP switch 10 ON to select 3 channels mode and set it OFF to select 4 channels mode. After choosing channel mode, you have to set DMX address by Dip switches from 1 to 9 to make sure all the units will receive its DMX signal. Please refer to the following diagram to know how to address your DMX 512 system in the binary code.

DMX 512 Address Chart:

Dip-switches	# 1	# 2	# 3	# 4	# 5	# 6	# 7	# 8	# 9	#10
Value	1	2	4	8	16	32	64	128	256	Select Channel Mode

• **Examples:**

4 channels:

Channel 1：dip / on: #1 (=1)

Channel 5：dip / on: #1,#3 (1+4=5)

Channel 9：dip / on: #1, #4 (1+8=9)

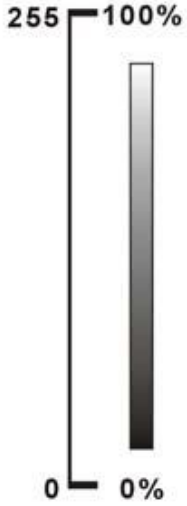Channel 13：dip / on: #1, #3, #4 (1+4+8=13)
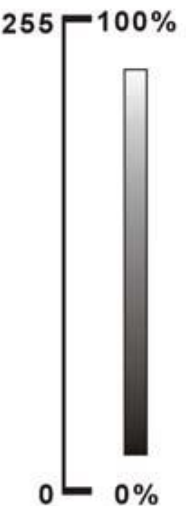
3 channels:

Channel 1：dip / on: #1 (=1)

Channel 4：dip / on:,#3 (=4)

Channel 7：dip / on: #1, #2, #3 (1+2+4=7)

Channel 10：dip / on: #2, #4 (2+8=10)

Channel	Dip switches setting
1	↓ ON 1 2 3 4 5 6 7 8 9 10
4	↓ ON 1 2 3 4 5 6 7 8 9 10
7	↓ ON 1 2 3 4 5 6 7 8 9 10
10	↓ ON 1 2 3 4 5 6 7 8 9 10

4.4 DMX 512 Configuration

DMX512 Configuration			
3 Channels	Ch1	Ch2	Ch3	
4 Channels	Ch1	Ch2	Ch3	Ch4
Function	Red	Green	Blue	Dimmer/ Strobe
Value	255 — 100% 0 — 0%	255 — 100% 0 — 0%	255 — 100% 0 — 0%	248-255 OPEN / Fast / 201-247 / Slow / 191-200 SOUND 100% / 8-190 / 0% / 0-7 OFF

4.5 DMX512 Connection
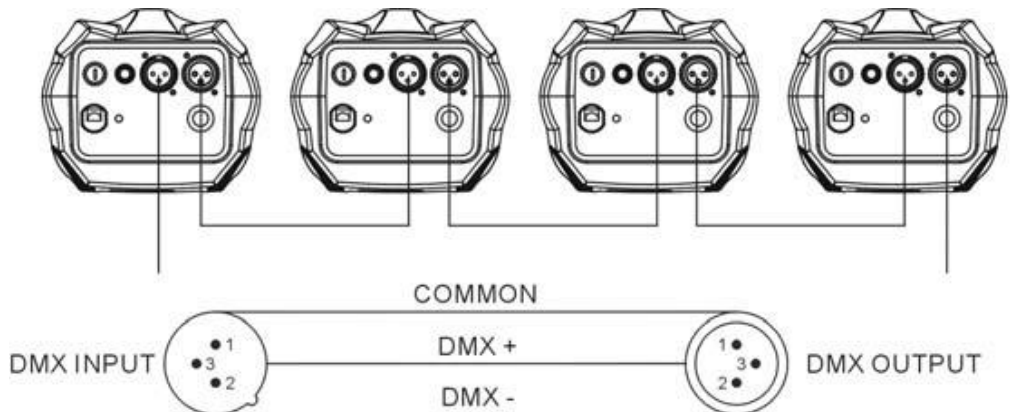
Termination reduces signal errorsand to avoid signal transmission problems and interference. It is always advisable to connect a DXM terminal.
(Resistance 120 ohm 1/4W)between pin2(DXM-)and pin3(DXM+) of the last fixture.
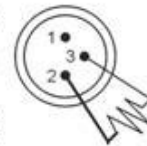
1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.

2. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

3. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).

6. The end of the DMX 512 system should be terminated to reduce signal errors.

7. 3 pin XLR connectors are more popular than 5 pin XLR.
   3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
   5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+),
   Pin4/5: Not used

5. Troubleshooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/ slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

D. No response to the sound

1. Make sure the unit does not receive DMX signal.
2. Check microphone to see if it is good by tapping the microphone

6. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

• Clean with soft cloth using normal glass cleaning fluid.

• Always dry the parts carefully.

• Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

EC - Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC.

EN55014-2: 1997 A1: 2001, EN61000-4-2: 1995; EN61000-4-3: 2002; EN61000-4-4: 1995; EN61000-4-5: 1995, EN61000-4-6: 1996, EN61000-4-11: 1994.

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<u>Harmonized Standard</u>

EN60598-1: 2000+ALL: 2000+A12: 2002

Safety of household and similar electrical appliances

Part 1: General requirements