EV LIGHT®

EV BM1012

Appearance patent No.:201330085957.7

USER MANUAL

Please read it carefully

INDEX

ACCESSORIES

These items are packed together with the lighting ， please check：

Name	Quantity	Unit	Remark
This manual	1	Pc	
The power cord	1	Pc	

1、 SAFETY GUIDELINE

● Please keep this manual in a safe place for further reference. Please make sure they also have this user manual if you sell this lighting to other users. Every unit is packed properly by the manufacturer. Please operate this lighting according to the user manual. Any damage caused by improper use will not be assumed by the manufacturer.

● When receiving the lighting，please dispose the carton, check and inspect there is any damage or not. Should there be any damage caused by transportation，do not use the lighting and consult your dealer or the manufacturer.

● This lighting can be used indoors, IP20.

● The lighting is only intended for installation and operation by qualified personnel.

● Do not mount the lighting directly onto inflammable surface.

● Ensure power supply voltage correspond to device requirements before running.

● It is essential that each lighting is correctly earthed and that electrical installation conforms to all relevant standards.

● When the lighting is hanged to a high place, please use a safety cord provided to pass through the lighting handles as a secondary safety fixing for safety seasons. For details, refer to "LIGHTING INSTALLATION" section.

● Avoid direct exposure to the light from the lamp（specially for people with epilepsy）. The light is harmful to eyes.

● Do not project the beam onto inflammable surfaces. The minimum distance between the lighting and irradiated object should be 1 m.

● Exterior surface temperature of the lighting will be 65℃ when working，please do not touch it with bare hands .

● To prevent electric shocking, please do not touch the power cord when the lighting is running.

● Never let the power cord mix with other cables.

● The LED lens should be changed if deeply scratched or cracked.

● There is no user serviceable parts inside the lighting. Before using the device, please check whether the covers or housing are well installed or not, and whether the screws are installed firmly or not. Do not open the housing and never operate the lighting with the covers removed.

● Always disconnect a lighting from the power supply when the device is not in use or before cleaning it or before attempting any maintenance work!

● Electrical connection must only be carried out by qualified personnel.

● Please use the original packing material for second transportation.

● If you have any questions or suggestions,please do not hesitate to consult your dealer or factory.

2、 TECHNICAL PARAMETER

Input Voltage： AC100V-AC240V， 50/60HZ；

Power Consumption： 135W ;

Lamp Specifications： 12 pcs four in one (RGBW) CREE 10W LED,rated life 50000 hours；

Lens Angle：8 ^{o}

Spot Angle：15° ；

Color：RGBW linear color mixing；

Color Temperature： color cast calibration setting、 color temperature output inside device；

Dimmer： 0-100% linearly dimming， 5 types dimmer modes，smooth dimming, flicker-free；

Shutter：independent electronic strobe；

Control Mode：

Standard DMX512，3 pin interfaces；

4 channel modes；

Master/slave mode，no need to set up the master and slave manually, will receive the main engine data automatically;

5 auto-running modes，rainbow channel and rainbow effect；

Other Functions：

Self-programming function, 5 chases，each chase has 20 scenes，fade function；

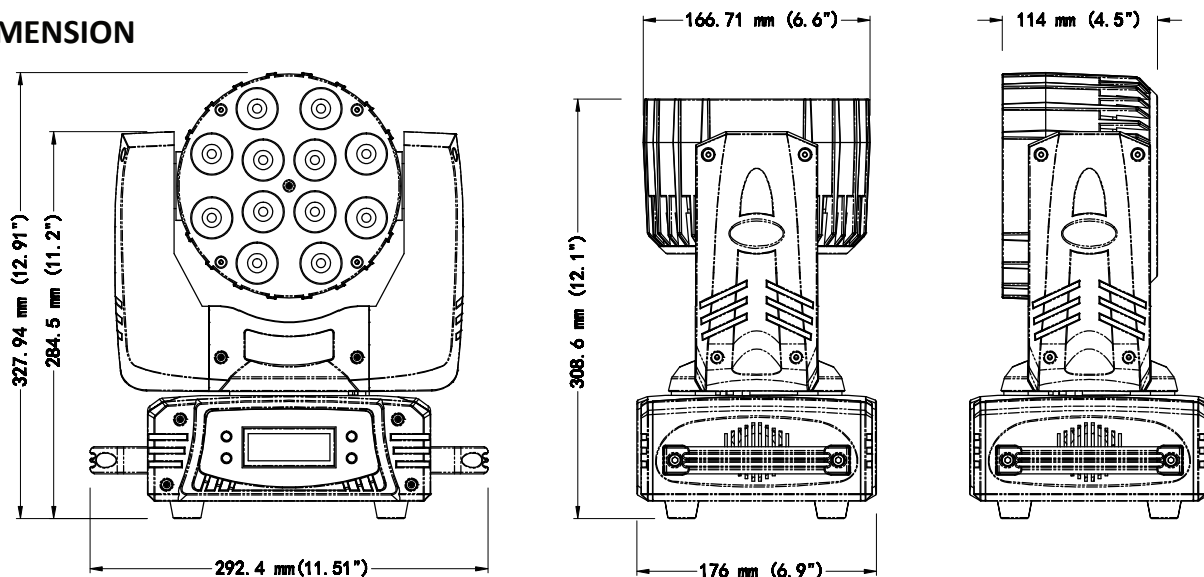 Lighting setting data、self-programming data can be downloaded each other；

Temperature Control Protection： both of lamp holder and base have temperature control protection;
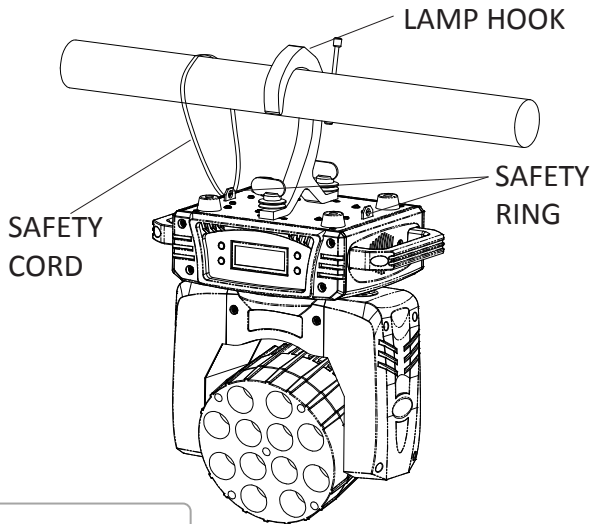
Waterproof Grade： IP20；

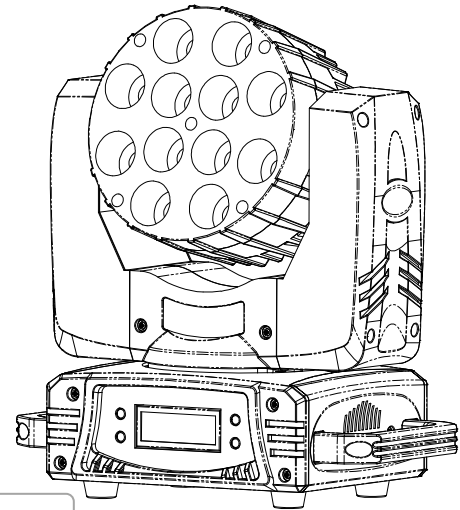**Work Environment Temperature**： -20°C～40°C；

Net Weight：5.6Kg；

DIMENSION

3、 LIGHTING INSTALLATION

LAMP HOOK

SAFETY RING

SAFETY CORD

PICTURE ONE

PICTURE TWO

- The lighting can be hanged on the high place with using the lamp hooks (as showed in picture 1). Use the safety cord provided to pass through the bottom safe ring and hang it as a second safety fixing.

- The lighting also can be used on the ground,as showed in picture 2.

Note:

➤ Ensure support loading ability at least 10 times more than product weight，and make sure lighting be firmly installed.

➤ The lighting must be installed by the qualified personnel. Please install it at the place where no one goes through.

4、 POWER SUPPLY-CONTROL SIGNAL CONNECTIONS

● Make the XLR signal line connect with the lighting, one port connects with the output port of lighting, another one connects with the input port of another lighting.

● Due to the output and input of the lighting keep connecting all the time, so the DMX circuit still can be keep connecting when the power of certain unit occurs turn-off.

● XLR signal line only can be used in series connection pattern(the amount of the lighting can not be more than 32 PCS), not available in parallel connection pattern. Must add a signal amplifier if the length of signal line exceeds 60M between controller and lighting or between two lightings.

● In the controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. The DMX terminator is simply a connector with a resistor about 120Ω（OHM）connected across pins 2 and 3 of the **Canon** plug（please see the picture in the right）. It can prevent the noise and reflection caused by DMX 512 signal during transmission.

● The transmission speed of DMX 512 signal is very quick. It will affect the signal transmission if any damage of the signal line, the weld is not firm or bad connection etc

● The connector with 3 pins XLR is more universal than the one with 5 pins XLR.
3 pins XLR：PIN 1：GND，PIN 2：﹣signal，PIN 3：﹢signal.
5 pins XLR：PIN 1：GND，PIN 2：﹣signal，PIN 3：﹢signal，PIN4/PIN5：UNUSED.

● There can't be more than 16 PCS of lightings for series connection pattern when using 220V AC; it can't exceed 8 PCS lightings for series connection pattern when using 110V AC.

POWER IN
TO TERMINATOR

POWER IN
DMX IN

POWER IN
DMX OUT
DMX COMSOLE
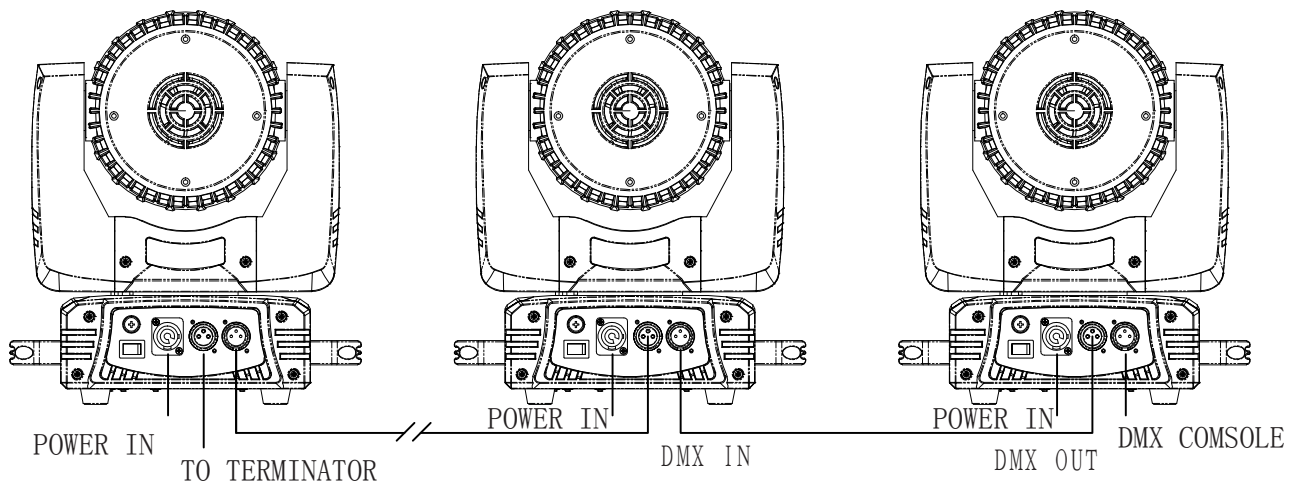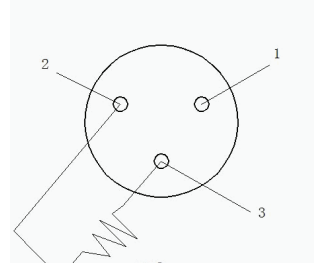
5、 OPERATION MENU

Tab	Level 1	Level 2
DMX address	001-512	
Option	Pan invert	Yes/<u>No</u>
	Tilt invert	Yes/<u>No</u>
	P/T swap	Yes/<u>No</u>
	P/T Feedback	<u>Yes</u>/No
	Dimmer mode	<u>Dimmer1</u>-4
	CH mode	10CH/<u>13CH</u>
	(Calibrate XY)	X -127-128
		Y -127-128
Display	Language	<u>English</u>
	Lightness	01-30
	Backlight	Permanently on/<u>2 Minutes off</u>
Manual control	Red	0-255 *
	Green	0-255 *
	Blue	0-255 *
	White	0-255 *
	Shut	0-255 *
	Colour wheel	0-255 *
	Pan	0-255 *
	Pan Fine	0-255 *
	Tilt	0-255 *
	Tilt Fine	0-255 *
	Speed	0-255 *
Test operation	Sound	Running... *
	Auto	Running... *
Power reduction	100%/80%/50%	
Resume default	Yes/No	
Send parameter	Yes/No	Sending current settings to other fixtures,when receive sucessfully will generate a reset.
Fixture reset	Yes/No	

Illustrations：

When the menu is set as the information of * position, the projector will be set automatically to be the main engine and then send data to external. Other projectors can receive these data and run synchronously with the main engine. It still be run according to these setting parameter even if power reconnection after power off .

When setting YES in 【Resume default】 menu, The parameter will bereset to be the factory default value as which with underline of above chart.
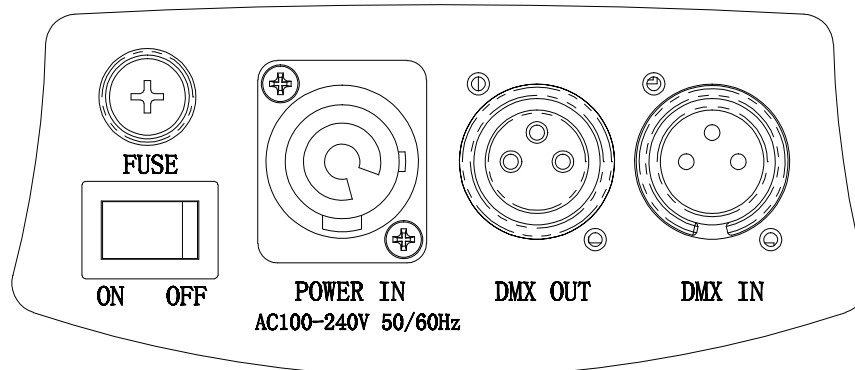
6、 CONTRL PANEL

DISPLAY SCREEN

Display function menu and selection menu

BUTTON OPERATION

1)   MENU： Return to previous menu.
2)   ENTER： Enter to the next menu or save.
3)   UP： Menu selection or increasing the parameter.
4)   DOWN： Menu selection or decreasing the parameter.

POWER INPUT

  Supply power

SINGNAL INPUT

  Connect forward lighting with 3 XLR signal wire , then input DMX512 signal.

SINGNAL OUTPUT

  Connect next lighting with 3 XLR signal wire , then output DMX512 signal.

POWER SWITCH:

  ON/OFF

PROTECTION:

  Current excessive protection

7、 MAINTENANCE

To prolong the life of lighting, it is very important to do the maintenance work. If the lighting is idle for a long time, damp, dust can cause greater accumulation of dirt on its cover or housing. So it should be cleaned to maintain an optimum light output and at the same time to prevent it from corrupted by dust and acid gas.
Cleaning frequency depends on the lighting operation frequency and the environment in which the fixture operates. Soft cloth and typical glass cleaning products should be used for cleaning. It is recommended to clean lighting at least once every 20 days.
Do not use any organic solvent,e.g.alcohol, to clean housing of the apparatus.

8、 TROUBLESHOOTING

PROBLEM	REASON AND ACTION
The lighting can't be started normally	• Check the power connection is correct or not. • Please detect the voltage. • Power supply is damaged or incorrect connected. Call a qualified personnel to fix it. • Connection of control board is not correct. Call a qualified personnel to fix it.
Out of console's control	• Please check the DMX connector and the power connection is connected correctly or not. It means having signal if it shows twinkling of the decimal point which in the lower right corner of the screen when exiting the screen saver. • Please check the DMX address setting of lighting is correct or not. • Check【CH mode】setting is correct or not. • Please check whether the DMX line is near to the high voltage wire or not. In that case, it will damage or interfere the DMX electric circuit.
The beam appears dim ,the brightness declines obviously	• Check whether the 【POW reduction】 is in over temperature protection situation or not, if yes, please take measures for ventilation.
Pan or Tilt rotating not work properly	• Check whether lead-wire of motor or feedback position damage

9、 DMX PROTOCOL

10CH	13CH	Value	Function
CH1	CH1	0-255	Dim all
CH2	CH2	0-255	Red
CH3	CH3	0-255	Green
CH4	CH4	0-255	Blue
CH5	CH5	0-255	White
CH6	CH6	0-10	No strobe
		11-90	Strobe，slow->fast
		91-170	Random Strobe，slow->fast
		171-255	Electronic Squarewave，slow->fast
-	CH7		Virtual colour wheel
		0-10	No effect
		11	Blue (Blue=full, Red+Green+White=0)(step)
		12-50	Red=0, Green->up,Blue =full, White=0(proportional)
		51	Light Blue (Red=0, Green=full, Blue =full, White=0)(step)
		52-90	Red=0, Green=full, Blue->down, White=0(proportional)
		91	Green (Red=0, Green=full, Blue =0, White=0)(step)
		92-130	Red->up, Green=full, Blue=0, White=0(proportional)
		131	Yellow (Red=full, Green=full, Blue=0, White=0)(step)
		132-170	Red=full, Green->down, Blue=0, White=0(proportional)
		171	Red(Red=full, Green=0, Blue=0, White=0)(step)
		172-210	Red=full, Green=0, Blue->up, White=0(proportional)
		211	Magenta (Red=full, Green=0, Blue=full, White=0)(step)
		212-250	Red -> down, Green=0, Blue=full, White=0(proportional)
		251	Blue (Red=0, Green=0, Blue=full, White=0)(step)
		252-255	Sound control colour
CH7	CH8	0-255	Pan
-	CH9	0-255	Pan Fine
CH8	CH10	0-255	Tilt
-	CH11	0-255	Tilt Fine
CH9	CH12	0-255	Speed(Fast->Slow)
CH10	CH13	0-10	use menu setting dimmer
		11-20	Dimmer off
		21-30	Dimmer 1
		31-40	Dimmer 2
		41-50	Dimmer 3
		51-60	Dimmer 4
		61-254	Use menu setting dimmer
		255	Reset (at least 5S)