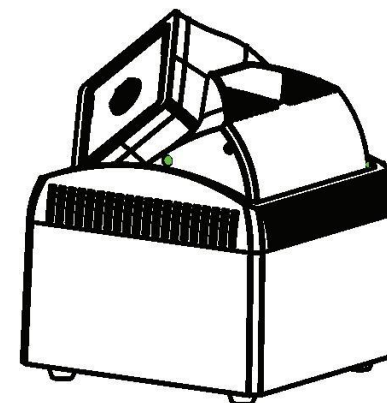


16



CE   IP20 $t_a 40^{\circ}\text{C}$ $t_c 100^{\circ}\text{C}$

User Manual
KEEP THIS MANUAL FOR FUTURE NEEDS

1 SAFETY INSTRUCTIONS



CAUTION

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching wires!

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



IMPORTANT

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

The device shall only be used with rated voltage and frequency.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

Please don't project the beam onto combustible substances.

Fixtures cannot be installed on combustible substances, keep more than 50cm distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

8 MAINTENANCE AND CLEANING

The following points have to be considered during the inspection:

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
- 3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 4) The electric power supply cables must not show any damage, material fatigue or sediments.

Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.



CAUTION

Disconnect from mains before starting maintenance operation



In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

- 1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- 2) Clean the fan each week.
- 3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents.

There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".

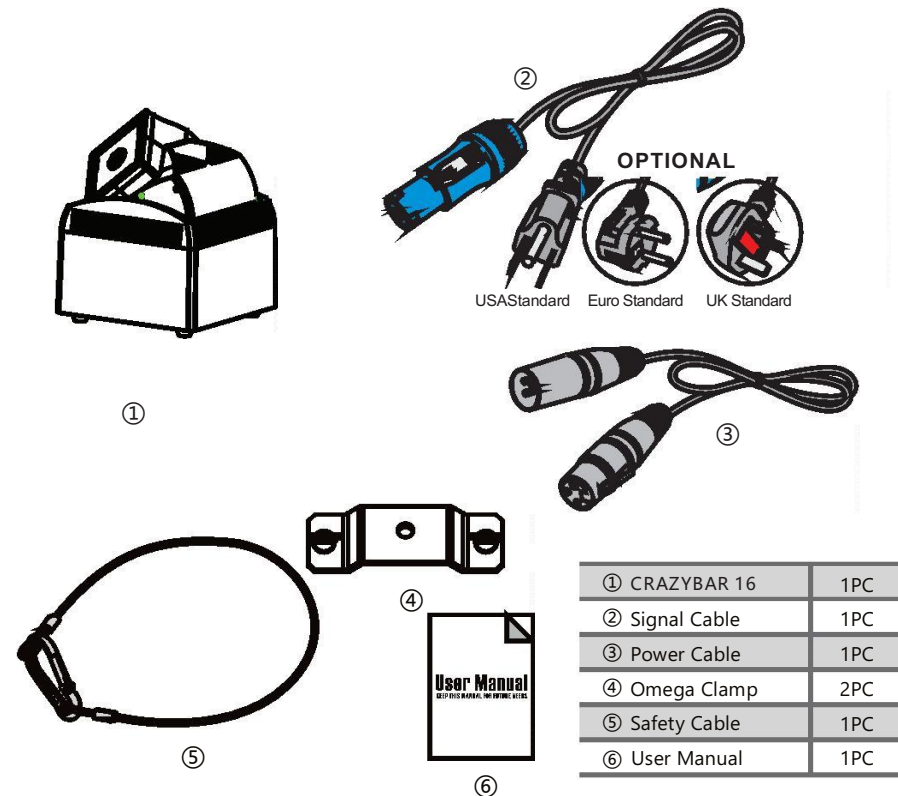
Should you need any spare parts, please order genuine parts from your local dealer.

2 UNPACKING

The BEAM 16 is a high-performance stage lighting BEAM fixture that features a ultra flexible moving MINI head, which is available with 76° for both PAN/TILT movement. The fixture is equipped with a powerful 60W 4-IN-1 RGBW LED light source. With its versatile design and advanced features, specially the mirror based optical system, the BEAM 16 is capable of producing a wide range of dynamic sharp and collimated BEAM lighting effects that are sure to captivate audiences and enhance performances. Also, thanks to the ingenious neon ring design on the front head, the fixture could bring ultra brilliant and magic lighting effect to the lighting designers.

The BEAM 16 also features a range of advanced lighting effects, including strobe, color mixing, and CTO. These effects can be easily accessed and controlled via the controller, allowing for precise and customizable lighting setups.

The fixture is tuned with proper LED refresh rate for flicker free operation for TV and FILM. It's a perfect option for large scale live concerts, TV productions, road shows, clubs/bars, weddings, ballrooms, banquet halls, etc.



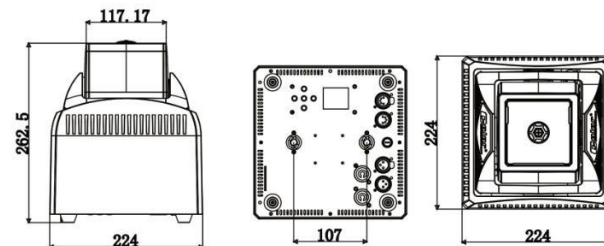
3 FEATURES & SPECIFICATIONS

1*60W 4-IN-1 RGBW LEDs
 30*0.2W 3-IN-1 SMD RGB LEDs
 Flicker free operation for broadcast TV and FILM
 Life Span: 50000H
 High efficiency lens
 3.5°Projection angle
 Sharp and clear beam effect
 PAN movement: 76° (8/16 bit)
 TILT movement: 76° (8/16 bit)
 Fast, quiet, smooth and precise 2-phase motors
 Smooth, fast and precise resolution for movement with low noise operation
 Scan position memory, auto reposition after unexpected movement
 Sophisticated 4 colors RGBW mixed
 Linear CTO 2500-8000K
 Preset static patterns
 Preset dynamic patterns with variable speed
 Preset dynamic color macro with variable speed
 Brilliant and magic trip effect with different built-in macros
 (variable speed control)
 1-25Hz shutter/strobe effect with variable speed
 Preset pulse strobe effect with variable speed
 Random strobe effect with variable speed
 0-100% Smooth linear LED dimming
 23/28 DMX channels USITT DMX-512
 DMX512, master-slave, sound activated or auto operation
 DMX recorder and edit function integrated
 RDM available (Remote Device Management)
 Shielded input signal protection for stable signal without interference
 3-Pin XLR connectors IN/OUT
 1.44" TFT LCD display
 English/Chinese menu
 5 Control buttons
 180°Reversible for LCD display
 Display auto OFF
 Electronic supply with active PFC
 AC100-240V 50/60Hz
 PowerCON IN/OUT with fuse
 80W Power consumption
 -25°C to 45°C ambient temperature
 IP20 protection rating
 Product Dimensions: 415(D)*320(W)*325(H)mm

Channel	Function	DmxValue	Description
1	PAN	000-255	0-76° PAN movement
2	PAN FINE	000-255	Fine control of PAN movement
3	TILT	000-255	0-76° TILT movement
4	TILT FINE	000-255	Fine control of TILT movement
5	SPEED	000-255	Speed control of PAN/TILT movement
6	DIMMER	000-255	Linear Dimmer 0-100%
7	DIMMER FINE		Fine control of dimmer
8	MASTERSHUTTER	000-003	Light OFF
		004-103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
		104-107	Light ON
		108-207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)
		208-212	Light ON
		213-225	Random Strobe at low frequency
		226-238	Random Strobe at medium frequency
		239-251	Random Strobe at high frequency
		252-255	Light ON
9	RED	000-255	Linear 0-100%
10	RED FINE	000-255	Fine control of RED
11	GREEN	000-255	Linear 0-100%
12	GREEN FINE	000-255	Fine control of GREEN
13	BLUE	000-255	Linear 0-100%
14	BLUE FINE	000-255	Fine control of BLUE
15	WHITE	000-255	Linear 0-100%
16	WHITE FINE	000-255	Fine control of WHITE
17	MACRO COLOUR	000-255	MACRO COLOUR
18	CTO		8000K to 2500K
		000-009	CTO Off
		010-255	8000K to 2500K
19	EFFECT	000-255	Dynamic effect options
20	EFFECTSPEED	000-255	Speed control of dynamic effect
21	RESET	000-255	RESET
		000-025	Unused Range
		026-255	Complete Reset (5s)
22	STRIPLIGHT DIMMER	000-255	Linear Dimmer 0-100%
23	SHUTTER (STRIPLIGHT)	000-255	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
24	RED (STRIPLIGHT)	000-255	Linear 0-100%
25	GREEN (STRIPLIGHT)	000-255	Linear 0-100%
26	BLUE (STRIPLIGHT)	000-255	Linear 0-100%
27	EFFECT (STRIPLIGHT)	000-255	Dynamic effect options
28	EFFECT (STRIPLIGHT)	000-255	Speed control of dynamic effect

7 DMX CHANNELS

Channel	Function	DmxValue	Description
1	PAN	000 - 255	0-76° PAN movement
2	PAN FINE	000 - 255	Fine control of PAN movement
3	TILT	000 - 255	0-76° TILT movement
4	TILT FINE	000 - 255	Fine control of TILT movement
5	SPEED	000 - 255	Speed control of PAN/TILT movement
6	DIMMER	000 - 255	Linear Dimmer 0 - 100%
7	MASTERSHUTTER	000 - 003	Light OFF
		004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
		104 - 107	Light ON
		108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)
		208 - 212	Light ON
		213 - 225	Random Strobeat low frequency
		226 - 238	Random Strobeat medium frequency
		239 - 251	Random Strobeat high frequency
		252 - 255	Light ON
8	RED	000 - 255	Linear 0 - 100%
9	GREEN	000 - 255	Linear 0 - 100%
10	BLUE	000 - 255	Linear 0 - 100%
11	WHITE	000 - 255	Linear 0 - 100%
12	MACROCOLOUR	000 - 255	MACROCOLOUR
13	CTO		8000K to 2500K
		000 - 009	CTO Off
		010 - 255	8000K to 2500K
14	EFFECT	000 - 255	Dynamic effect options
15	EFFECTSPEED	000 - 255	Speed control of dynamic effect
16	RESET	000 - 255	RESET
		000 - 025	Unused Range
		026 - 255	Complete Reset (5s)
17	STRIPLIGHTDIMMER	000 - 255	Linear Dimmer 0 - 100%
18	SHUTTER(STRIPLIGHT)	000 - 255	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
19	RED(STRIPLIGHT)	000 - 255	Linear 0 - 100%
20	GREEN(STRIPLIGHT)	000 - 255	Linear 0 - 100%
21	BLUE(STRIPLIGHT)	000 - 255	Linear 0 - 100%
22	EFFECT(STRIPLIGHT)	000 - 255	Dynamic effect options
23	EFFECT(STRIPLIGHT)	000 - 255	Speed control of dynamic effect

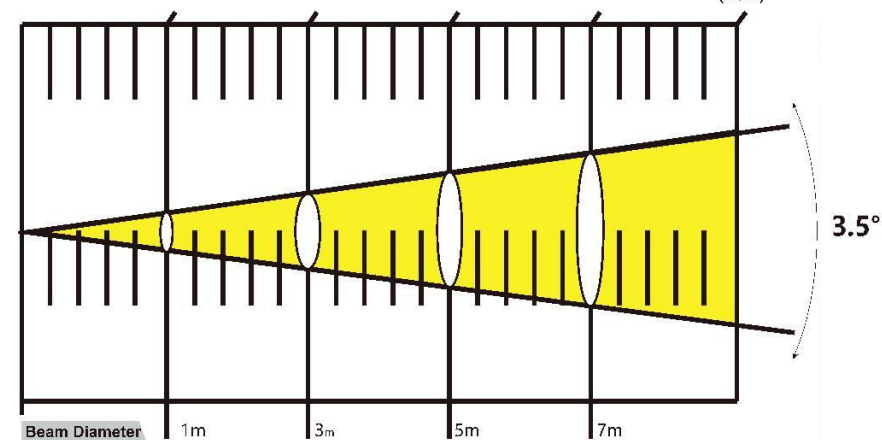


4 PHOTOMETRIC DATA

Photometric Beam Angle Data 3.5° Beam Angle $LUX \times 0.0929 = FC$

R	1600	206	80	42
G	3860	520	195	102
B	144	20	8	4
W	4673	647	239	124
RGBW	9640	1278	487	256

(LUX)

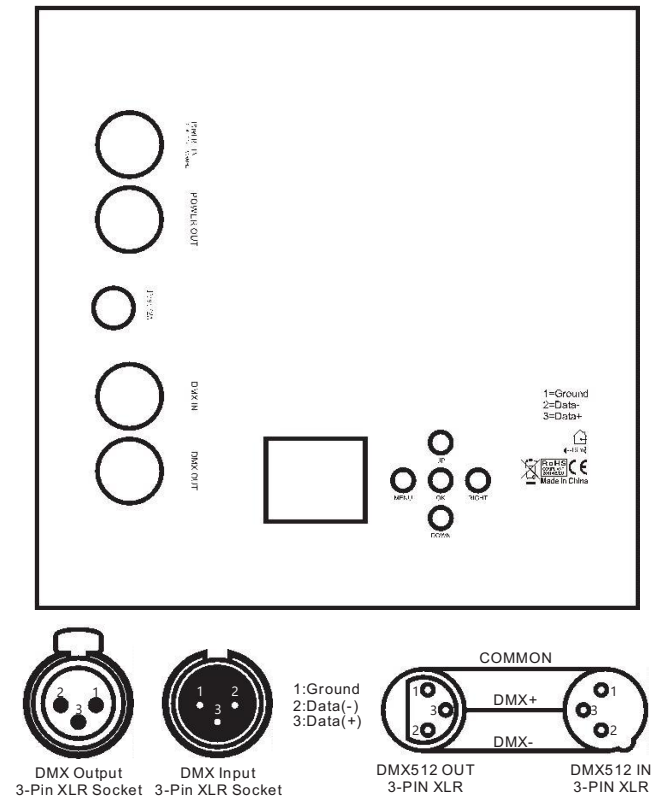


5 DMX-512 CONTROL CONNECTIONS

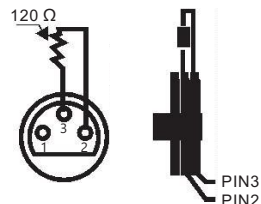
Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple

Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX-512 connection with DMX terminator



For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



6 MENU OPERATIONS

MainMenu	Second	Third	Fourth
DmxAddress	000 - 512		
Fixture	DmxMode	23CH/28CH	
	Run Mode	DMX/ Host	
	Pan Invert	Close/ Open	
	Tilt Invert	Close/ Open	
	No Dmx Signal	Clear/ Hold	
	Sound Control	1 -- 99	
Manual	Pan	000 - 255	
	Pan Fine	000 - 255	
	Tilt	000 - 255	
	TiltFine	000 - 255	
Information	Time	Current Time	xxxH
		Total Time	xxxH
	Sensor	AllSensoreare ok!	
	Temperature	Head Temp	xxx°C
	Software Version	Panel	Vx.xx
		Motor	Vx.xx
	Password	000 - 255	
	Pan	000 - 255	
	Tilt	000 - 255	
Factory	Red	000 - 255	
	Green	000 - 255	
	Blue	000 - 255	
	White	000 - 255	
FixtureReset	Motor Reset	Cance/ Run	
	Factory	Cance/ Run	
Display	Language	CH / EN	
	DisplayFlip	Normal/ Reverse	
	Display Mode	60s/ Show	