

10 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.



ADD 3rd Floor, No. 288, Guangzhu East Line, Pingwen, Lanhe Town, Nansha District,
Guangzhou, China
Tel. +86 20 8499 2310/2320/2330
Fax +86 20 8499 2360
E-mail info@color-imagination.com
Website www.color-imagination.com

Follow
us on



www.facebook.com/color.imagination.1



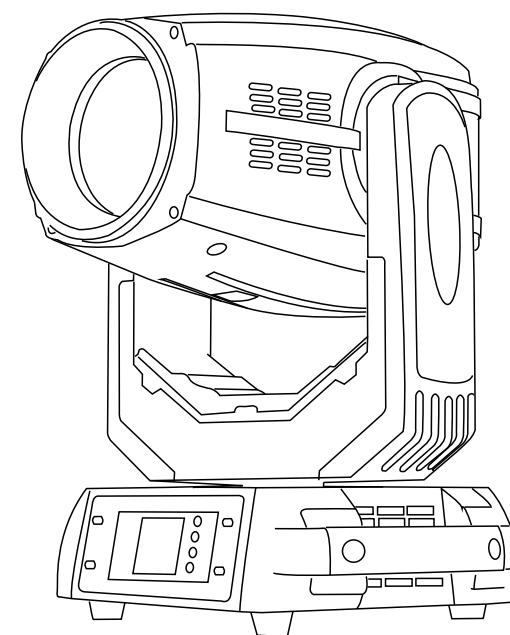
www.youtube.com/user/colorimaginationj



twitter.com/colorimaginej

Color[®]
IMAGINATION
the POWER of DREAM

BSW 280



CE F IP20 LED 0.2m t_a 40° C t_c 150° C

User Manual

KEEP THIS MANUAL FOR FUTURE NEEDS

1 SAFETY INSTRUCTIONS



CAUTION

Becareful 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.

		144-159	SLOW STROBE - FAST STROBE
		160-191	Open
		192-223	RANDOM SLOW - FAST
23	16		Dimmer
		0—255	Linear Dimmer
24	*		Reserve

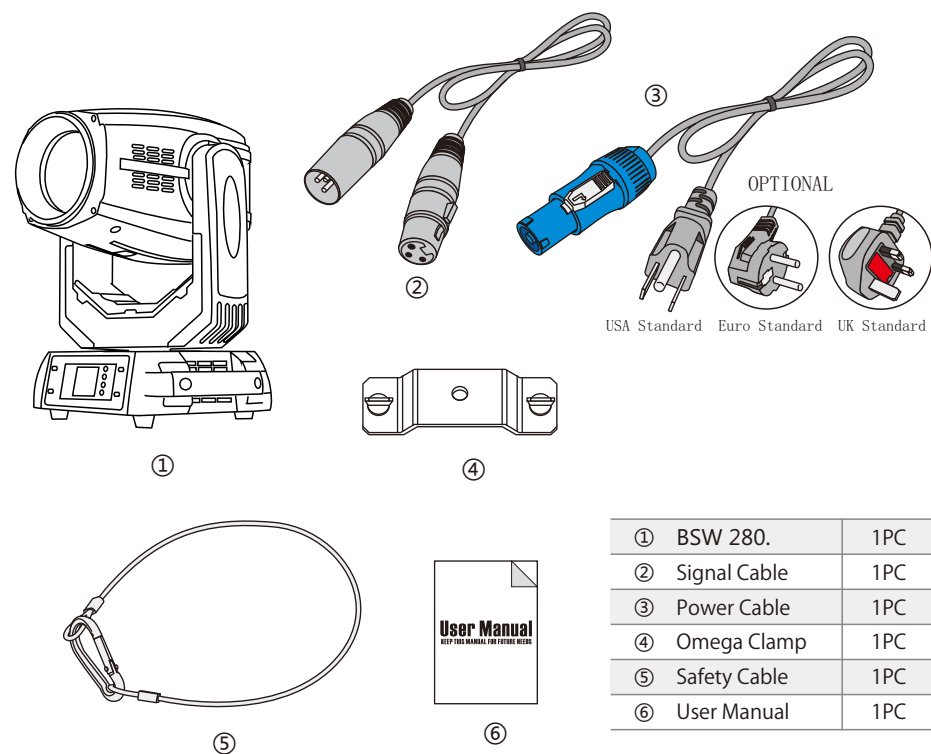
13	9		Prism
		0-63	empty
		64-127	Prism-1
		128-191	Prism-2
		192-255	Prism-1/Prism-2
14	10		Prism-1/Rot
		0—127	Rotation
		128—189	FAST ROTATION - SLOW ROTATION
		190—192	STOP
		193—255	SLOW ROTATION - FAST ROTATION
15	11		Prism-2/Rot
		0—127	Rotation
		128—189	FAST ROTATION - SLOW ROTATION
		190—192	STOP
		193—255	SLOW ROTATION - FAST ROTATION
16	12		Frost
		0—64	Reserve
		65—255	Linear Frost
17	13		Zoom
		0—255	Linear Zoom
18	*	0—255	Zoom Fine
19	14	0—255	Focus
20	*	0—255	Zoom Low
21	*	0—255	Reserve
22	15		Shutter
		0-31	Closed
		32-63	Open
		64-95	SLOW - FAST
		96-127	Open
		128-143	FAST STROBE-SLO W STROBE

2 UNPACKING

Thank you for choosing our BSW 280. For your own safety, please read this manual before installing the device. This manual covers the important information on installation and applications. Please install and operate the fixture with following instructions. Meanwhile, please keep this manual well for future needs.

The BSW 280, is made of a new type of high temperature strength of engineering plastics and cast aluminum casing with nice outlook. The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. It's available independently controlled and linkable with each other for operation. And it is applicable for large-scale live performances, theater, studio, nightclubs and discos.

The BSW 280. adopts 1*350W lamp which features high brightness and stability. Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:



3 FEATURES & SPECIFICATIONS

Features

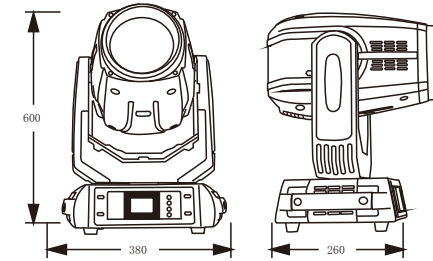
- 1*280W lamp
- Electronic ballast
- 2000 Hours lamp life span
- Color temperature: 8500K
- DMX512
- 16CH/24CH channels can be switched.
- a total of 16 silent motors
- LCD 650,000 color touch TFT interface, easy to operate, beautiful interface, the interface can be reversed 180 degrees display.
- The X axis rotates 540 ° C horizontally, and the Y axis rotates 270 ° C vertically with automatic correction positioning.
- X, Y axis operation can be adjusted and adjusted, software with correction positioning function, high precision!
- Dimming: 0-100% linear adjustment.
- Strobe: two-chip strobe (0.5-9 times / sec), full linear dimming and variable stroboscopic speed.
- Color wheel: with 14 colors + blank (can create a sharp aerial beam effect)
- Metal pattern: with 17 fixed pattern pieces + blank (allows you to quickly change the shape of the beam)
- Glass pattern: with 9 dynamic pattern plates that can rotate (let you make different color pictures quickly)
- Prism: Rotating 16 prism + rotating mirror prism, can rotate in both directions, the rotation speed can be adjusted, which makes the pattern projection effect more abundant.
- Uniform film: Uniform effect, can achieve uniform spot, when chasing effect.
- Atomizing mirror: Soft light effect, easy to achieve a soft and dreamy pattern effect.
- Magnifying glass: The magnifying function can enlarge the metal pattern, glass pattern and prism.
- Focusing: With 3 sets of optical lens combination, the effect is much better than the usual beam light, which can project high-definition patterns.
- Beam angle: parallel beam angle: 2.5-52°
- Overheating intelligent protection
- Smart light bulb switch control (extend lamp life)

			ROTATION - SLOW ROTATION
10	7		Gobo 2
		0	S white
		1-4	L white
		5-8	Gobo 2 -1
		9-12	Gobo 2 -2
		13-16	Gobo 2 -3
		17-20	Gobo 2 -4
		21-24	Gobo 2 -5
		25-28	Gobo 2 -6
		29-32	Gobo 2 -7
		33-36	Gobo 2 -8
		37-40	Gobo 2 -9
		41-48	Gobo 2 -1 Jitter
		49-56	Gobo 2 -2 Jitter
		57-64	Gobo 2 -3 Jitter
		65-72	Gobo 2 -4 Jitter
		73-80	Gobo 2 -5 Jitter
		81-88	Gobo 2 -6 Jitter
		89-96	Gobo 2 -7 Jitter
		97-104	Gobo 2 -8 Jitter
		105-112	Gobo 2 -9 Jitter
11	8	113-119	L white
		120-185	FAST ROTATION - SLOW ROTATION
		186-189	STOP
			Gobo2/Rot
		0-127	Rotation
12	*	128-190	FAST ROTATION - SLOW ROTATION
		191-192	STOP
		193-255	SLOW ROTATION - FAST ROTATION
12	*	0-255	Gobo2/Rot Fine

		162-166	Colour 8
		167-171	Colour 9
		172-176	Colour 10
		177-180	Colour 11
		181-185	Colour 12
		186-189	Colour 13
		190-220	FAST ROTATION - SLOW ROTATION
8	*	221-224	STOP
		0-255	Colour Fine
9	6		Gobo 1
		0-3	white
		4-9	Gobo 1
		10-15	Gobo 2
		16-21	Gobo 3
		22-27	Gobo 4
		28-33	Gobo 5
		34-39	Gobo 6
		40-45	Gobo 7
		46-51	Gobo 8
		52-57	Gobo 9
		58-63	Gobo 10
		64-69	Gobo 11
		70-75	Gobo 12
		76-81	Gobo 13
		82-87	Gobo 14
		88-95	Gobo 1 Jitter
		96-103	Gobo 2 Jitter
		104-111	Gobo 3 Jitter
		112-119	Gobo 4 Jitter
		120-127	Gobo 5 Jitter
		128-135	Gobo 6 Jitter
		136-143	Gobo 7 Jitter
		144-151	Gobo 8 Jitter
		152-159	Gobo 9 Jitter
		160-167	Gobo 10 Jitter
		168-175	Gobo 11 Jitter
		176-183	Gobo 12 Jitter
		184-191	Gobo 13 Jitter
		192-199	Gobo 14 Jitter
		200-201	white
		202-227	FAST

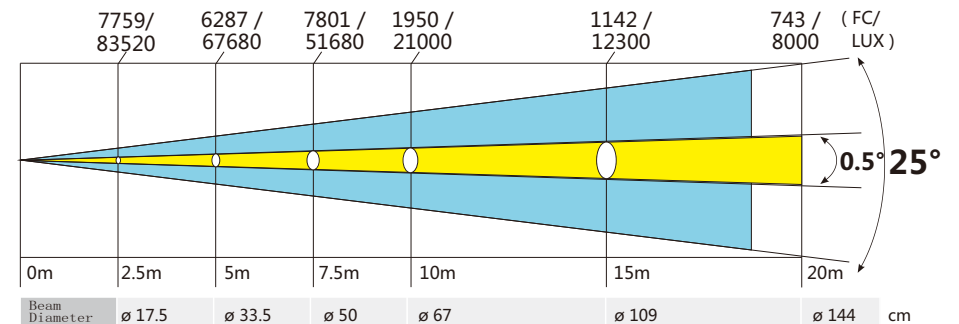
Specifications

Input Voltage:	AC110-240V 50/60Hz
Lamp Quantities :	280W lamp
Control Signal:	DMX512, master-slave and sound activated or auto operation
Control Channel:	24/16DMX channels USITT DMX-512
Power Consumption:	420W
Dimensions:	380(D)*260(W)*600(H)mm
Packing Dimensions:	470(D)*450(W)*685(H)mm
Net Weight:	15kg
Gross Weight:	16kg



4 PHOTOMETRIC DATA

■ Photometric Beam Angle Data $5-25^\circ$ Beam Angle LUX $\times 0.0929 = FC$



5 OPERATION INSTRUCTIONS

- The BSW 280 is for beam effect for on-site decoration purpose.
- Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.
- This light should be keep away from strong shaking during any transportation or movement.

- Don't pull up the light by only the head, or it might cause damages to the BSW 280 mechanical parts.
- Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And don't lay any power cables on the floor. Or it might cause electronic shock to the people.
- Make sure the installation place is in good safety condition before installing the fixture.
- Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.
- Make sure the lens are in good condition. It's recommended to replace the units if there are any damages or severe scratch.
- Make sure the fixture is operated by qualified personnel who knows the fixture before using.
- Keep the original packages if any second shipment is needed.
- Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.
- It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock, lamp broke, etc.

6 INSTALLATIONS

Cautions: For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas where the fixture might be reached by unauthorized personnel.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.

Never stand directly below the device when mounting, removing, or servicing the fixture.

from a ceiling, or set on a flat level surface (see illustration below). Be sure this fixture is kept at least 0.5m (1.5 ft) away from any flammable materials (decoration etc.).

Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

9 DMX CHANNELS

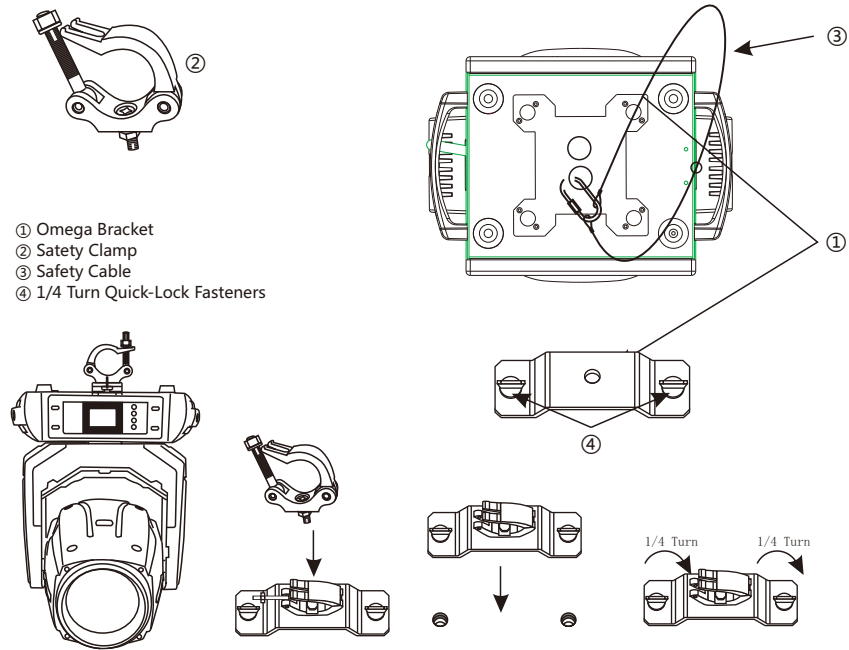
Standard mode	Simple mode	DMX Value	Function
1	1	0 – 255	Pan
2	*	0 – 255	Pan Low
3	2	0 – 255	Tilt
4	*	0 – 255	Tilt Low
5	3	0 – 255	P/T Speed
6	4		Macro function
		0 – 19	Reserve
		20 – 24	230W power
		25-29	350W power
		30-49	Reserve
		50-59	Reserve
		60-69	Reserve
		70-79	P/T Rotate Off Light
		80-89	P/T Rotate On Light
		90-99	Reserve
		100-109	Reserve
		110-119	Reserve
		120-129	Reserve
		130 – 139	Lamp
		140 – 149	P/T Reset
		150 – 189	Effect Reset
		190 – 199	Reserve
		200 – 209	whole Reset
		210 – 229	Reserve
		230 – 239	Lamp Off
		240 – 255	Reserve
7	5	0 – 255	P/T Speed
			Macro function
			Macro Colour
		0-127	Linear Colour
		128-129	white
		130-134	Colour 1
		135-138	Colour 2
		139-143	Colour 3
7	5	144-147	Colour 4
		148-152	Colour 5
		153-157	Colour 6
		158-161	Colour 7

Manual control interface	Option	Description		
	Reset	Reset Press the “OK” button and see the confirmation dialog. Press the “OK” button again to enter the reset position interface and reset all the motors.		
	Light bulb control	OFF		
		ON		
	Color wheel	0-255	Press the "OK" button to enter the editing state. At this time, it is selected. Press the "Up" and "Down" keys to change the channel value, and then press the “OK”	
Pattern disk speed				
Advanced interface	Maximum brightening time	0-9999	Can set the time of bright bubbles	
	Encryption mode	OFF		
		frequency	Can set the number of times the lamp is used	
		TIME	Can set the use time of the luminaire	
	Encryption parameters (number of times / time)	0-9999	This works when the encryption mode is turned on. Can be used to set the lamp (number of times / time)	
Inverted interface			Press “OK” button, the interface can be reversed by 180	
English interface			Press “OK” to switch the interface to English mode.	
Factory interface	Reset calibration (fine tuning)	0–255	X calibration	
		0–255	Y calibration	
		0–255	Dimming calibration	
		0–255	Color wheel calibration	
		0–255	Pattern plate calibration	
		0–255	Focusing calibration	
		0–255	Prism calibration	
		0–255	Fog mirror calibration	
Channel setting	Screen saver mode	Mode 1	Display address code	
		Mode 2	Show factory LOGO	
		Mode 3	No display (reserved)	
	Bright bubble time clear	no		
		Yes		

Mounting points: Overhead mounting requires extensive experience, including amongst others calculating working load limits, a fine knowledge of the installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Be sure to complete all rigging and installation procedures before connecting the main power cord to the appropriate wall outlet.

Clamp Mounting: The BSW 280 provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the “omega bracket”. As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly.



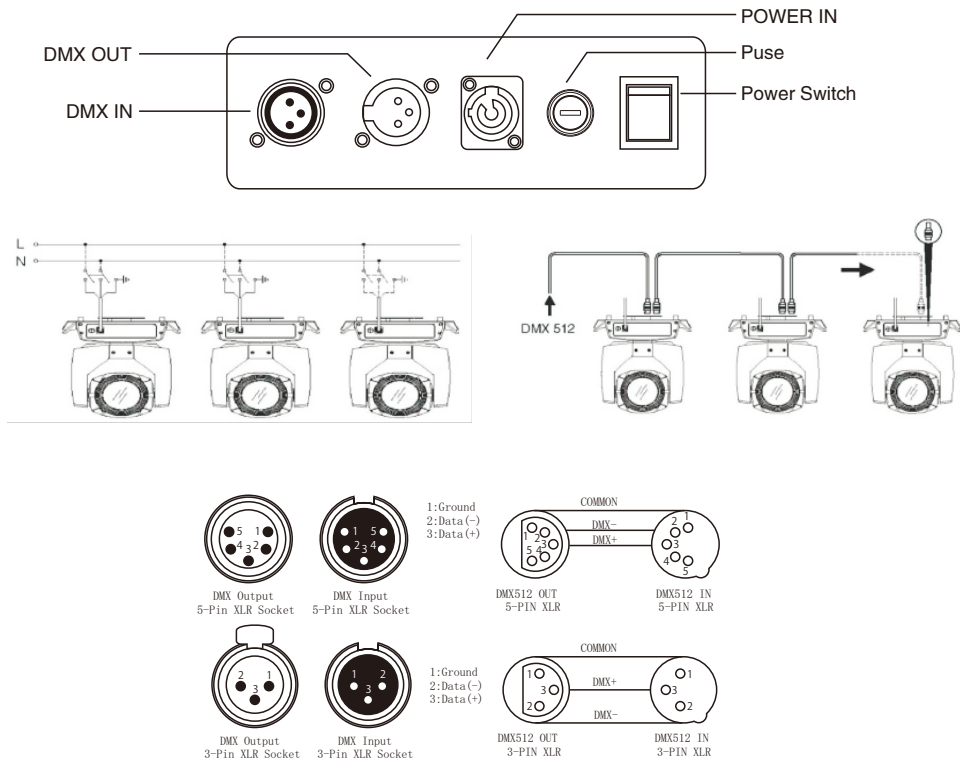
Regardless of the rigging option you choose for your BSW280 , always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

7 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

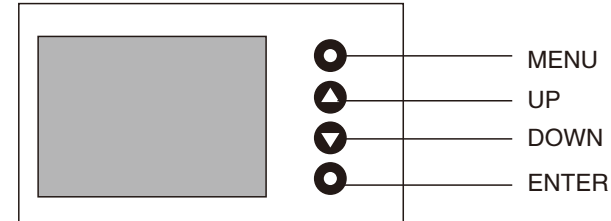
Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

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.

8 MENU OPERATIONS



Set interface	Option		Description
	Operating mode	DMX	Slave status: Receive DMX signals from the console or host
		automatic	Host status: Run automatically and send DMXD signal to slave
		Voice control	Receive external sound or vibration, run built-in program effects
	DMX address	1-512	Press the "OK" button to enter the editing state. At this time, select the hundred digits, press "up" and "down". Press the key to change the address code. Press the "OK" button again to select the ten-digit edit. Press again. The "OK" button selects the one-bit edit. Press again to exit the edit state.
	Channel mode	16	Channel 17-20 is invalid
		20	17th-20th channel control speed (see channel table)
	X reversal	OFF	
		ON	
	Y reversal	OFF	
		ON	
	XY encoder	OFF	Correct position without encoder (optocoupler)
		ON	Use encoder (optocoupler) to determine out of step and automatically correct position
	No DMX signal	maintain	Continue running as it is
		Clear	The motor returns to the position and stops running.
	Screen protector	OFF	Turn off the backlight after 30 seconds of idle time
		ON	Backlight is always bright
	Boot bright bubble	OFF	The light bulb automatically lights up when the light is turned on
		ON	When the light is turned on, the light bulb does not light up
	Restore default settings	OFF	
		ON	Press the "OK" button to restore the default settings.