



USER'S MANUAL



Model: BC-BMZ280

280w Beam Spot Zoom Moving Head Light

Package Includes:

- 1 x beam spot zoom moving head light
- 1 x clamp, handle
- 1 x safe cable
- 1 x power cable
- 1 x DMX cable

Please read this manual before use

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Chapter 1 Installation and attention

1.1 Maintenance

- To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- Intermittently using will extend this item's service life.
- Please clear the fan ,fan net , and optical lens in order to keep good work state.
- Do not use the alcohol or any other organic solvent to wipe the shell.

1.2 Statement

The product has perfect performance and integrity packing. All users should be strictly complying with the warning and operating instructions as stated. Or we aren't in charge of any result by misusing. Any damage resulting by misuse is not within the Company's warranty. Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Note: All information is subject to change without prior notice.

1.3 Safety Precaution

- In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.
- Always mount this unit in safe and stable matter.
- Install or dismantle should operate by professional engineer.
- Using lamp, the change rate of power voltage should be within $\pm 10\%$, If the voltage is too high, it will shorten the light's life; If it's not enough, will influence the effect.
- Please restart it 20 minutes later after turning off light , until full-cooling. Frequent switching will reduce the life span of lamps and bulbs; intermittent using will improve the life of bulbs and lamps.
- In order to make sure the product is used well, please read the Manual carefully.

1.4 Product Instruction

- lamp: Philips MSD Platinum 5R or YODN 5R (life:2200 hours Color temperature: 8000K)
- Channel mode:20 DMX512 Channel
- Pan scan: 540 (16bit) Electric correction
- Tilt scan: 270 °(16bit) Electric correction
- Amazing dot matix, four tact switch, 180 °turning show
- Color wheel: one color wheel, 14 kinds of color chips in one color wheel
- Gobo: 17 gobos
- Effect Wheel: Rotation eight prism, effect move , frost
- 0-100% mechanical dimming, mechanical dimming and free dimming available.
- strobe macro control available.
- Lens optical system achanical fouce .beam angle 0~4 °
- Over heat protection

- Power Input: 100-240V, 50/60Hz
- Power Dissipation: 350W
- IP level :IP20
- [Magnetic ballast](#) and AC/Dc power supply
- Product Size: 523×337×511mm
- Packing Size: 635X440X725
- Net weight: 19.5KG

1.5 Cable connection (DMX)

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

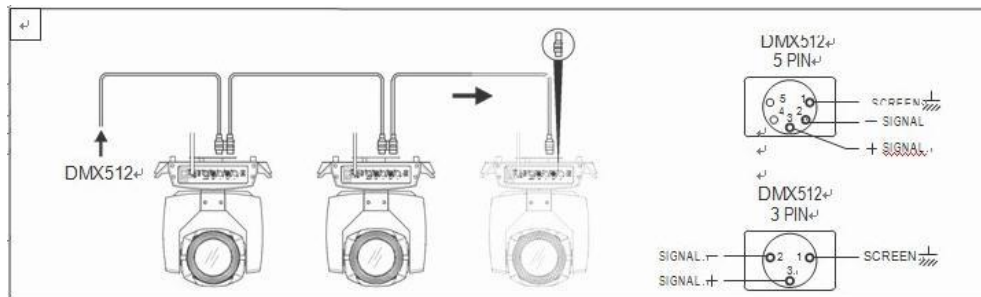


Figure 1 DMX Cable connection

1.6 Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.

Attention! Two clamps is needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.

Attention! Fasten a safety string to the additional hole of side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

- Check if rigging clamp (not including the one inside) damaged or not? If stand ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipments, clamps, wirings and other additional fixtures.
- Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to clamp bracket, and then screw the nuts.
- Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.

-
- Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.
 - Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.

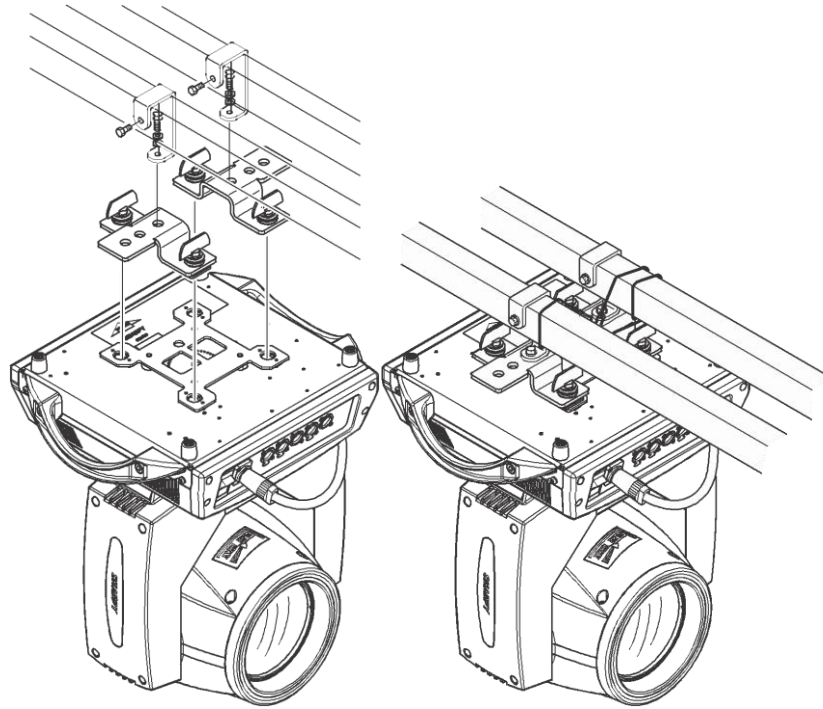


Figure 2 Installation

Chapter 2 Panel operation

2.1 Brief

The light panel diagram show as Figure 3, Left area is TFT Displayer, support touch, and right area is KEY, both of touch and KEY can operate light and setting.

Display & operation just like 'Android operation system', touch the item will set or modify setting.

Note: Prevent damage the touch or TFT displayer, Can not use sharp objects chick displayer.



Figure 3 Panel diagram

2.2 Operation

2.2.1 Operate light with touch or KEY

- The left area is TFT Displayer and touch, chick item or value with finger will to complete operation of set light setting(parameters) or view light state.
- The area on the right hand side is 4 KEY, As auxiliary input interface, if disable touch function,, the KEYr can been choose to set the parameter.

2.2.2 Parameter value setting

When the selected item is value need to been modified, the dialog shown in Figure 4 will popup.

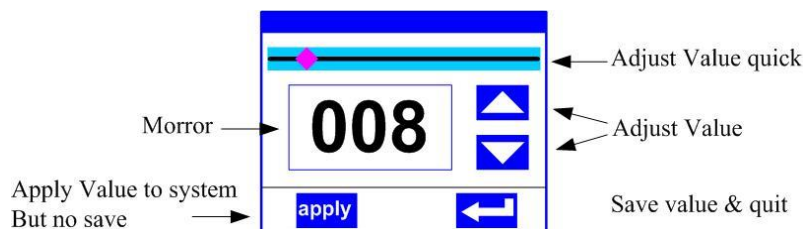


Figure 4 Dialog of value setting

- **Modify value:** Can quickly modify value via pull the slider to the desired position, or click the button of 'up' or 'down' whit finger on the right side to set the exact desired value, another way is roll encoder on the right hand side of panel.

- **Apply value:** When Value had been modified, Then press the bottom of ‘apply’ in the left corner to apply to the light, but hav’t saved;
- **Save Value:** Any time, click on the lower right corner of the "OK" button, the setting will be saved into internal memory.

2.2.3 Boolean parameter setting

- when the selected parameters is a Boolean value (such as ON or OFF), can directly modify setting by chick corresponding item, the setting will be saved right now.
- When the parameter is a key item, chick corresponding item, a dialog shown in Figure 5 will be popup ask for the confirm. Chick ‘sure’ to confirm.

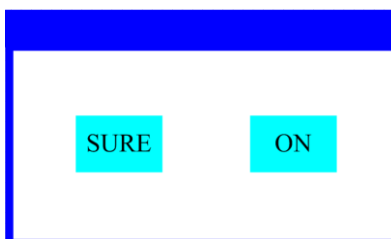


Figure 5 Dialog of confirm

2.2.4 Sub Menu (Parameter)

Chick item of main menu, enter corresponding sub menu, shown in Figure 6, total 6 sub menu, includes class of parameter and status:

- **ADDRESS:** Set light DMX address.
- **WORKMOD:** Set light work mode, master or slave mode when in auto run mode.
- **DISPLAY:** Set display parameter, eg. select language.
- **TEST:** Used for test light, modify DMX channel data to test function, the corresponding function of reference channel function table.
- **ADVANCE:** Set light running parameter.
- **STATUS:** view light current status.

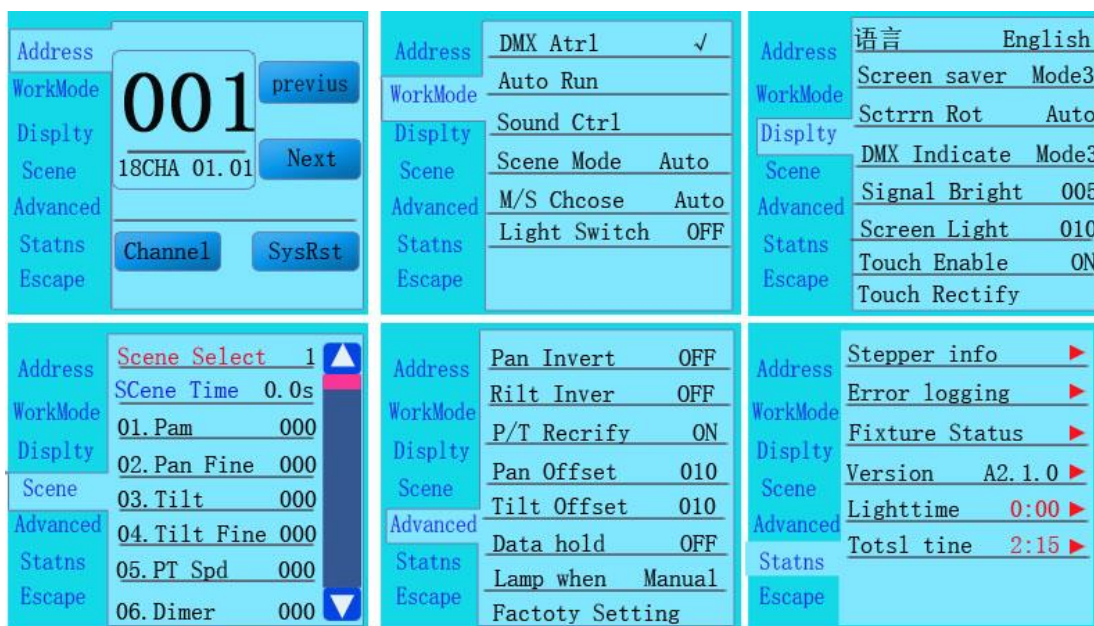


Figure 6 Parameter menu

2.3 Operation and parameter instruction

Via following operation, enter sub menu(parameter menu) shown in Figure 6

- In main menu, click 1/6 function button into corresponding parameter menu.
- In sub menu(page), click main item on the left side of display, can shift to corresponding sub menu(page) quickly.

2.3.1 ADDR--> Address: Set DMX Address

Click and select the "ADDR", can enter the page of DMX address setting, range from 1 to 512, the address code shouldn't is not greater than (512- channels quantity), otherwise the light will not be controlled. Following is the operation:

Enter the page of DMX address, as shown in Figure 7, click the blank area in right side of display will pop-up diglog as in Fig. 4, modify value, then click 'ENTER' to confirm and save DMX address code.



Figure 7 page of DMX Address

2.3.2 MODE--> WorkMode: Set Light work mode

Enter the page of 'WorkMode' as shown in Figure 8 and modify setting. Can set light work mode, control lamp and DMX channel mode.

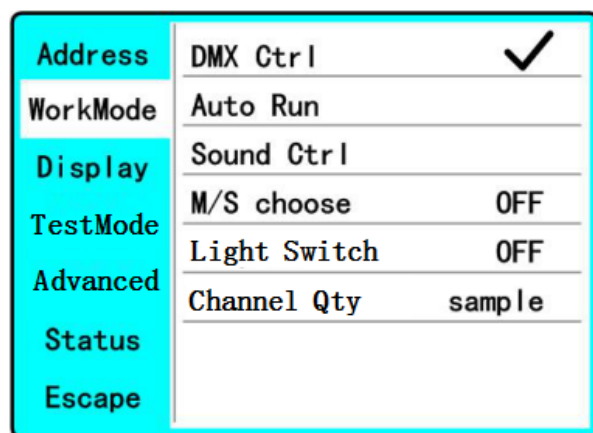


Figure 8 page of work mode

- ◆ **DMX Ctrl:** Choose to set DMX Mode,
- ◆ **Auto Run:** Choose to set Auto Mode,

- ◆ **Sound Ctrl:** Choose to set Sound Mode,
- ◆ **M/S Choose:** Available just in 'AUTO RUN' or 'SOUND Ctrl' mode.
ON--> Master. (Data will be send to other slave lamp immediately.)
OFF--> Slaver.(NOT send data to other lamp via DMX Cable).(Default)
- ◆ **Light Switch:**
ON--> Turn on the light,
OFF--> Turn off the light.
- ◆ **Channel Qty:** Light support 2 DMX Channel mode: sample or extend。
Simple --> 16CH.(Default)
Expand--> 20CH(or null).

2.3.3 DISP-->DISPLAY: Set display

Light support 2 language, rotation display, Enter page as shown in Figure9 to set parameter following:

Address	语言	English
WorkMode	Screen saver	Mode3
Display	Screen rotation	OFF
TestMode	Touch Enable	ON
Advanced	Touch Rectify	
Status		
Escape		

Figure9 page of display

- ◆ **Language:** English / 中文.
- ◆ **Screen Saver:** when panel is idle(these is no operation in 10 second), displayer will enter saver status.
OFF--> No screen saver.
Mode1--> Power-saving mode, turn off the display.
Mode2--> Displays the current address.
Mode3--> Displays the icon and the current working mode.(Default)
- ◆ **Screen Rotion: To turning display.**
ON--> Normal display.(Default)
OFF--> 180 °turning display.
- ◆ **Touch enable:** Disable or enable touch function.,
ON--> Enable touch function.(Default)
OFF--> Dosable touch function.
- ◆ **Touch adjust:** Adjust touch function. Normally, not enter this item.

2.3.4 TEST--> TestMode

Enter the page as shown in Figure 10, Light will into test mode, in this mode, the light does not receive the data for DMX controller.:

Address	PAN	000
WorkMode	TILT	000
Display	FOCUS	000
TestMode	COLOR	000
	GOBO	000
Advanced	PRISM	000
Status	FROST	000
Escape	STROBE	000

Figure 10 page of Test

- ◆ **PAN:** range for 0 to 255;
- ◆ **TILT:** range for 0 to 255;
- ◆ **FOCUS:** range for 0 to 255;
- ◆ **COLOR:** range for 0 to 255;
- ◆ **GOBO:** range for 0 to 255;
- ◆ **PRISM:** range for 0 to 255;
- ◆ **FROST:** range for 0 to 255;;
- ◆ **STROBE:** range for 0 to 255;

2.3.5 ADVA-->Advanced: Set light run parameter

Enter the page as shown in Figure 10, set the parameter of light:

Address	PAN Inset	OFF
WorkMode	TILT Inset	OFF
Display	P/T Rectify	ON
TestMode	PAN Offset	010
	TILT Offset	010
Advanced	Lamp when	Power ON
Status	Data hold	OFF
Escape	Factory Setting	

Figure 11 page of run parameter

- ◆ **Pan Invert:** Reverse PAN move
OFF--> Pan Normal move.(Default)
ON--> Reverse PAN move.
- ◆ **Tilt Invert:** Reverse TILT move
OFF--> Tilt Normal move.(Default)
ON--> Reverse Tilt move.
- ◆ **P/T Rectify:** Disable or enable position rectify function.
OFF--> Disable P/T rectify
ON--> Enable P/T rectify-(Default)
- ◆ **Pan Offset:** Set PAN original position. **Default: 10**
- ◆ **Tilt Offset:** Set TILT original position. **Default: 10**
- ◆ **Lamp when:**

PowerON--> Turn on the lamp when power on.(Default)

RstDone--> Turn on the lamp after reset.

Manual--> Manually turn on the lamp.

◆ **Data hold:**

OFF--> When no DMX signal,return to middle position.(Default)

ON--> When no DMX signal,stop in the final position.

◆ **Factory Setting:** Restore all parameter to factory setting.

2.3.6 STAT-->Status: View status

Enter the page as shown in Figure 12:

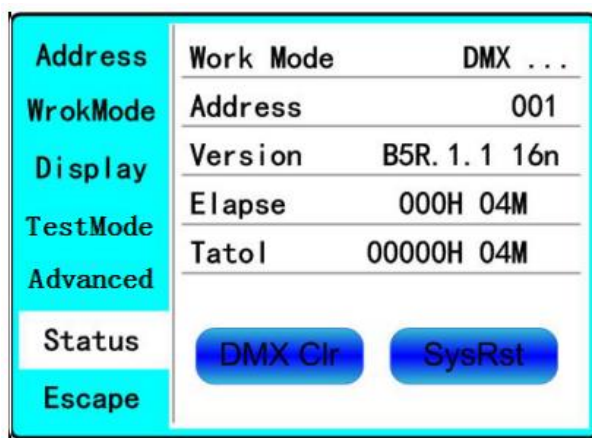



Figure 12 page of status

- ◆ **Work Mode:** Show the current working mode.
- ◆ **Address:** Show the current address.
- ◆ **Version:** Show the version of the lamp.
- ◆ **Elapse:** Working hours after turn on.
- ◆ **Tatol:** Cumulative hours of operation

 When <Data hold> set <ON>,click to clear DMX data, and make the lamp return to themiddle position.

 Click to reset.

Chapter 3 Channel description

3.1 Channel table

Table 1 Channel brief

CH1	PAN	0-255	0-540°
CH2	TILT	0-255	0-270°
CH3	PAN 16bit	0-255	
CH4	TILT 16bit	0-255	
CH5	XY Speed	0-255	Fast to slow
CH6	Amplify	0-255	From big to small
CH7	Strobe	0-3	Drak
		4-103	Slow strobe to fast strobe
		104-107	White
		108-207	Slow strobe to fast strobe(mode 2)
		208-212	White
		213-251	Free strobe
		252-255	White
CH8	Dimmer	0-255	0-100%
CH9	Color	0-4	White
		5-9	White+COLOR1
		10-14	COLOR1
		15-19	COLOR1+COLOR2
		20-24	COLOR2
		25-29	COLOR2+COLOR3
		30-34	COLOR3
		35-39	COLOR3+COLOR4
		40-44	COLOR4
		45-49	COLOR4+COLOR5
		50-54	COLOR5
		55-59	COLOR5+COLOR6
		60-64	COLOR6
		65-69	COLOR6+COLOR7
		70-74	COLOR7
		75-79	COLOR7+COLOR8
		80-84	COLOR8
		85-89	COLOR8+COLOR9
		90-94	COLOR9
95-99	COLOR9+COLOR10		
	100-104	COLOR10	
	105-109	COLOR10+COLOR11	

		110-114	COLOR11
		115-119	COLOR11+COLOR12
		120-124	COLOR12
		125-129	COLOR12+COLOR13
		130-134	COLOR13
		135-139	COLOR13+COLOR14
		140-144	COLOR14
		145-149	COLOR14+White
		150-199	Rotate forward (fast to slow)
		200-255	Rotate reverse (slow to fast)
CH10	Gobo	0-6	White
		44390	GOB01
		14-20	GOB02
		21-27	GOB03
		28-34	GOB04
		35-41	GOB05
		42-48	GOB06
		49-55	GOB07
		56-62	GOB08
		63-69	GOB09
		70-76	GOB010
		77-83	GOB011
		84-90	GOB012
		91-97	GOB013
		98-104	GOB014
		105-111	GOB015
		112-118	GOB016
		119-127	GOB017
		128-191	Rotate forward (fast to slow)
192-255	Rotate reverse (slow to fast)		
CH11	Gobo Revolve	0-9	White
		10-19	GOB01
		20-29	GOB02
		30-39	GOB03
		40-49	GOB04
		50-59	GOB05
		60-69	GOB06
		70-79	GOB07
		80-127	Rotate forward (fast to slow)
		128-185	Rotate reverse (slow to fast)
		186-195	Shake slow to fast GOB01

		196-205	Shake slow to fast GOB02
		206-215	Shake slow to fast GOB03
		216-225	Shake slow to fast GOB04
		226-235	Shake slow to fast GOB05
		236-245	Shake slow to fast GOB06
		246-255	Shake slow to fast GOB07
CH12	Gobo Rot	0-127	0-400 degrees
		128-187	Rotate forward (fast to slow)
		188-195	Stop
		196-255	Rotate reverse (slow to fast)
CH13	Focus	0-255	From far to near
CH14	Prism	0-63	None
		64-127	Prism1
		128-191	Prism2
		192-255	Prism1+Prism2
CH15	Prism1 Rot	0-127	0-400 degrees
		128-187	Rotate forward (fast to slow)
		188-195	Stop
		196-255	Rotate reverse (slow to fast)
CH16	Reset	100-105	Close 6 seconds
		200-205	Open 6 seconds
		210-215	Reset XY 6 seconds
		220-235	Reset over 6 seconds
		240-255	Reset all 6 seconds

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