

17R BEAM SPOT 3IN1 MOVE HEAD LIGHT

IM-MH350 USER MANUAL

(TFT DISPLAY & TOUCH)

Please read over this manual before operation the light

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Chapter 1 Installation and attention

1. Maintenance

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

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.

3. Safety Precaution

- I In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.
- I Always mount this unit in safe and stable matter.
- I Install or dismantle should operate by professional engineer.
- I 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.
- I 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.
- I In order to make sure the product is used well, please read the Manual carefully.

4. Product Instruction

- I lamp: Osram 17R (life:2200 hours Color temperature: 8000K)
- I Channel mode:16/24 DMX512 Channel
- I Pan scan: 540°(16bit) Electric correction
- I Tilt scan: 270° (16bit) Electric correction
- I Amazing dot matix, four tact switch, 180° turning show
- I Color wheel: one color wheel, 14 kinds of color chips in one color wheel
- I Gobo: 17 gobos
- I Effect Wheel: Rotation eight prism, effect move , frost
- I 0-100% mechanical dimming, mechanical dimming and free dimming available.

- I strobe macro control available.
- I Lens optical system achanical fouce .beam angle 0~4°
- I Over heat protection
- I Power Input: 100-240V, 50/60Hz
- I Power Dissipation: 550W
- I IP level :IP20
- I Magnetic ballast and AC/Dc power supply
- I Product Size: 523×337×511mm
- I Packing Size: 635X440X725
- I Net weight: 25.5KG

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.

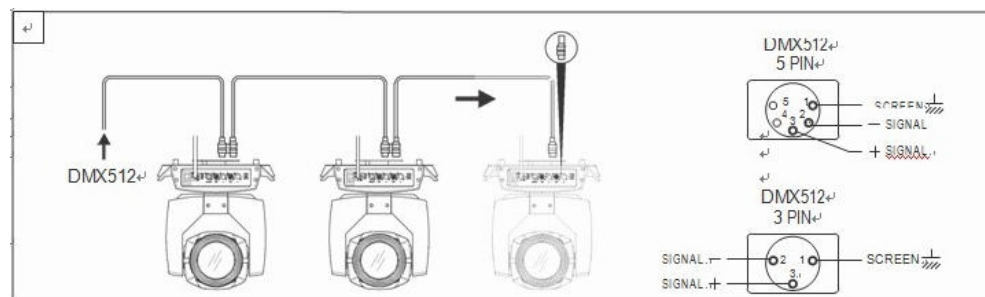


Figure 1 DMX Cable connection

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.

- I 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.

- I Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to clamp bracket, and then screw the nuts.
- I 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.
- I Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.
- I Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.

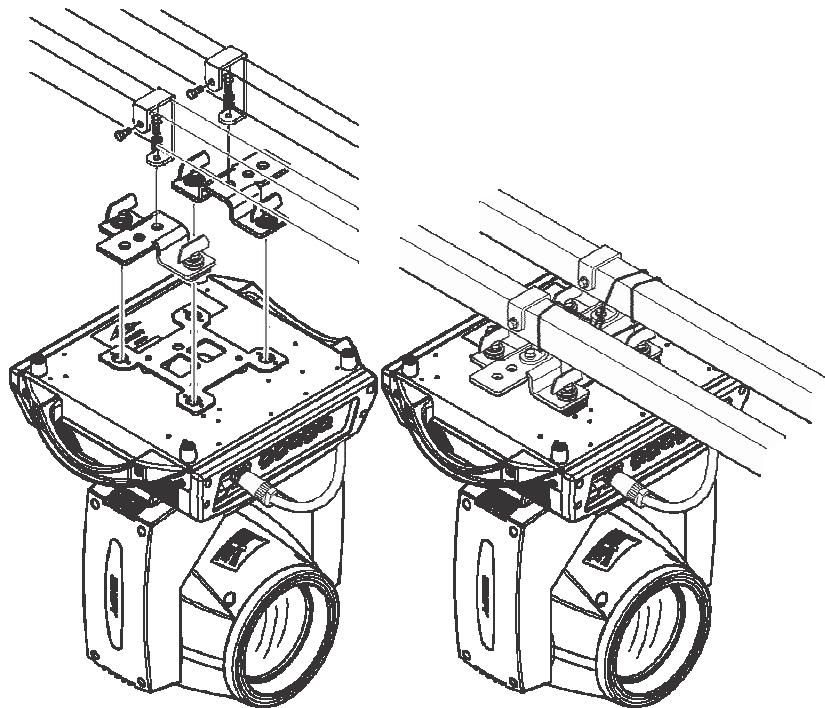


Figure 2 Installation

Chapter 2 Panel operation

1. Brief

The light panel diagram show as Figure 3, Left area is TFT Displayer, support touch, and right area is encoder button, both of touch and coder button 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.

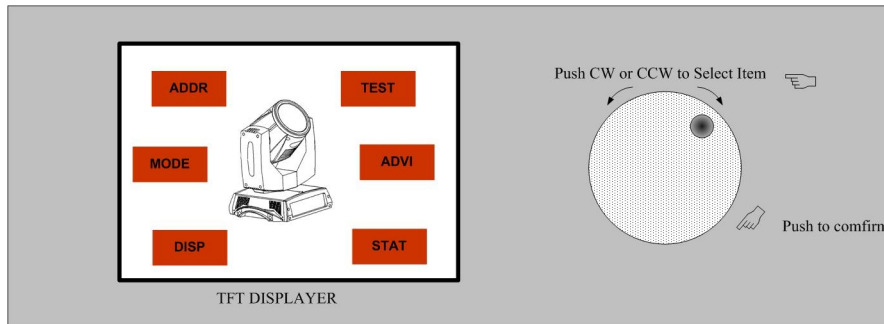


Figure 3 Panel diagram

2. Operation

1. Operate light with touch or encoder button

- I The left area is TFT Displayer and touch, click item or value with finger will to complete operation of set light setting(parameters) or view light state.
- I The area on the right hand side is rotary encoder with button, As auxiliary input interface, if disable touch function,, the encoder can been choose to set or view the item, and then press the encoder button to confirm the selection, rotary encoder again set the parameter value, finally, Press encoder button one again to save value or setting.

2. Parameter value setting

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

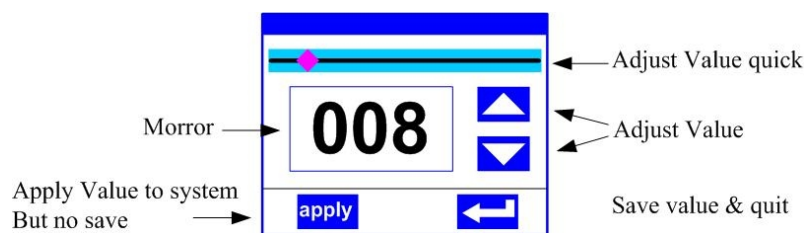


Figure 4 Dialog of value setting

- I **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.
- I **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;
- I **Save Value:** Any time, click on the lower right corner of the "OK" button, the setting will

been saved into internal memory.

3. Boolean parameter setting

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

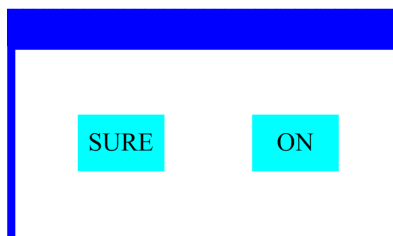


Figure 5 Dialog of confirm

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:

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

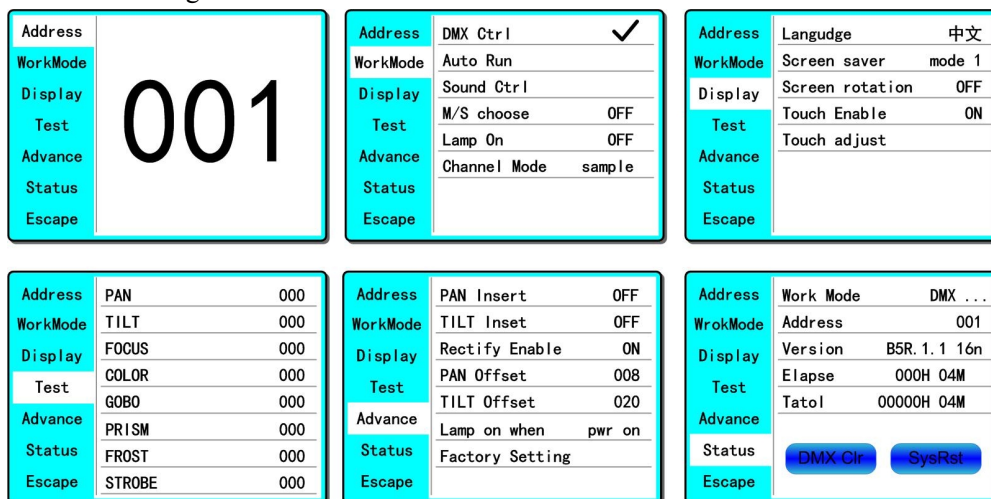


Figure 6 Parameter menu

3. Operation and parameter instruction

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

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

1. 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 dialog as in Fig. 4, modify value, then click 'ENTER' to confirm and save DMX address code.

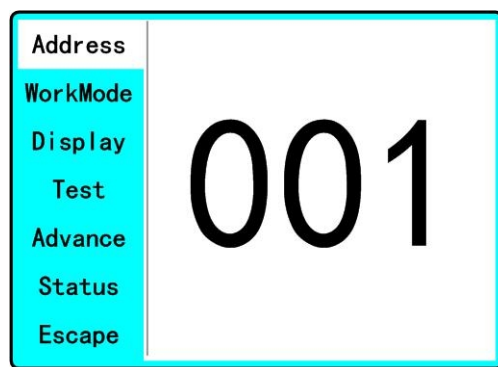


Figure 7 page of DMX Address

2. Set Light work mode

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

Light includes 3 work mode: DMX MODE, AUTO RUN and SOUND MODE, Parameter definition as following:

- I **DMX Mode:** Under this mode, the light receive data from the DMX controller and move.
- I **AUTO RUN:** Under this mode, light will run with inside code(data), ignore data from DMX controller.
- I **SOUND Ctrl:** Under this mode, light ignore data from DMX controller., When there is a strong sound in stage, the light will run a scene, otherwise it will keep the last scene.
- I **M/S Choose:** 'M/S Choose' is available when light just in 'AUTO RUN' or 'SOUND Ctrl' mode. If this item is set as 'OFF', the light don't send data to other light via DMX Cable. When 'ON', the data will send to other slave light immediately.
- I **Lamp control:** Turn on lamp when this item is set 'ON', otherwise, turn off lamp. The gap between operation is limited to 30 second.
- I **Channel mode:** Light support 2 DMX Channel mode: sample or extend.

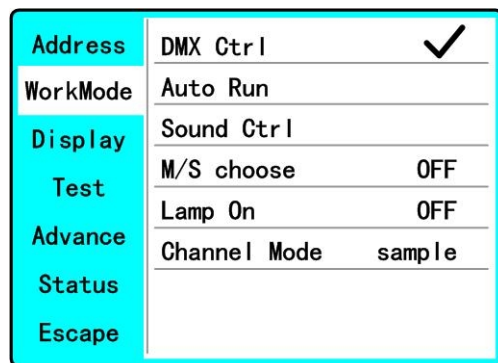


Figure 8 page of work mode

3. Set display

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

- I **Language:** Select display as simplified Chinese or English.
- I **Screen Saver:** when panel is idle(these is no operation in 10 second), displayer will enter saver status. When set as 'mode 1', saver status is close display, as 'mode 2' saver status will display DMX address code(DMX MODE) or display LOGO(AUTO RUN or SOUND CTRL). As 'OFF', keep light up displayer and show main menu.
- I **Screen Rotation:** rotate displayer.
- I **Touch enable:** Disable or enable touch function, when disable, use encoder to operate light and set parameter.
- I **Touch adjust:** adjust touch function, normally, not enter this item.

Address	Language	中文
WorkMode	Screen saver	mode 1
Display	Screen rotation	OFF
Test	Touch Enable	ON
Advance	Touch adjust	
Status		
Escape		

Figure9 page of display

4. Test light

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.:

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

Address	PAN	000
WorkMode	TILT	000
Display	FOCUS	000
Test	COLOR	000
Advance	GOBO	000
Status	PRISM	000
Escape	FROST	000
	STROBE	000

Figure 10 page of Test

5. Set light run parameter

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

- I Pan Invert: Reverse PAN move.
- I Tilt Invert: Reverse TILT mover.
- I Rectify enable: set as 'OFF', PAN or TILT will disable position rectify function. As 'ON', when PAN or TILT lose steps, light will rectify auto.
- I Pan Offset: Set PAN original position.
- I Tilt Offset: Set TILT original position.
- I Lamp up when: Select lamp on mode, includes 3 mode: power on, after reset done and manual;
- I Factory setting: restore all parameter to factory setting.

Address	PAN Inset	OFF
WorkMode	TILT Inset	OFF
Display	Rectify Enable	ON
Test	PAN Offset	008
	TILT Offset	020
Advance	Lamp on when	pwr on
Status	Factory Setting	
Escape		

Figure 11 page of run parameter

6. View status

Enter the page as shown in Figure 12:

- I View light current status, version;
- I DMXClr: Click to clear all DMX data to '0'.
- I SysRst: Click to reset light.

Address	Work Mode	DMX ...
WrokMode	Address	001
Display	Version	B5R.1.1 16n
Test	Elapse	000H 04M
Advance	Tatol	00000H 04M
Status	<div>DMX Clr</div> <div>SysRst</div>	
Escape		

Figure 12 page of status

Chapter 3 Channel description

1. Channel table

Light support 2 DMX mode: 16ch (Sample) and 24ch (extend), as shown in Table 1:

Table 1 Channel brief

CHANNEL1	CHANNEL2	NAME	VALUE	DEFIE
CH1	CH1	PAN	0-255	0-540
CH2		PAN Fine	0-255	
CH3	CH2	TILT	0-255	0-270
CH4		TILT Fine	0-255	
CH5	CH3	XY speed	0-255	fast to slow
CH6	CH4	Function	30-50	full lamp power(default)
			60-80	half lamp power over 3 seconds
			100-105	Close lamp over 3 seconds
			200-205	Open lamp over 3 seconds
			240-255	Reset over 3 seconds
CH7	CH5	Color	0-129	Linear color
			130-134	Color1
			135-138	Color2
			139-143	Color3
			144-147	Color4
			148-152	Color5
			153-157	Color6
			158-161	Color7
			162-166	Color8
			167-171	Color9
			172-176	Color10
			177-180	Color11
			181-185	Color12
			186-189	Color13
			190-220	Rotate forward (fast to slow)
			221-224	Stop
			225-255	Rotate reverse (slow to fast)
CH8		Color fine	0-255	
CH9	CH6	Gobo	0-3	White
			4-9	G0B01
			10-15	G0B02
			16-21	G0B03
			22-27	G0B04
			28-33	G0B05
			34-39	G0B06
			40-45	G0B07

			46-51	G0B08
			52-57	G0B09
			58-63	G0B010
			64-69	G0B011
			70-75	G0B012
			76-81	G0B013
			82-87	G0B014
			88-95	Shake slow to fast G0B01
			96-103	Shake slow to fast G0B02
			104-111	Shake slow to fast G0B03
			112-119	Shake slow to fast G0B04
			120-127	Shake slow to fast G0B05
			128-135	Shake slow to fast G0B06
			136-143	Shake slow to fast G0B07
			144-151	Shake slow to fast G0B08
			152-159	Shake slow to fast G0B09
			160-167	Shake slow to fast G0B010
			168-175	Shake slow to fast G0B011
			176-183	Shake slow to fast G0B012
			184-199	Shake slow to fast G0B013
			200-201	Whi te
			202-227	Rotate forward (fast to slow)
			228-229	Stop
			230-255	Rotate reverse (slow to fast)
CH10	CH7	Rot Gobo	0-4	Whi te
			5-8	G0B01
			9-12	G0B02
			13-16	G0B03
			17-20	G0B04
			21-24	G0B05
			25-28	G0B06
			29-32	G0B07
			33-36	G0B08
			37-40	G0B09
			41-48	Shake slow to fast G0B01
			49-56	Shake slow to fast G0B02
			57-64	Shake slow to fast G0B03
			65-72	Shake slow to fast G0B04
			73-80	Shake slow to fast G0B05
			81-88	Shake slow to fast G0B06
			89-96	Shake slow to fast G0B07
			97-104	Shake slow to fast G0B08
			105-112	Shake slow to fast G0B09

			113-119	White
			120-185	Rotate forward (fast to slow)
			186-189	Stop
			190-255	Rotate reverse (slow to fast)
CH11	CH7	Gobo rot	0-127	0-400 degrees
			128-190	Rotate forward (fast to slow)
			191-192	Stop
			193-255	Rotate reverse (slow to fast)
CH12		fine	0-255	
CH13	CH9	Prism1	0-63	移开棱镜
			64-127	插入棱镜 1
			128-191	插入棱镜 2
			192-255	插入棱镜 1 和棱镜 2
CH14	CH10	Prism1 Rot	0-127	0-400 degrees
			128-190	Rotate forward (fast to slow)
			191-192	Stop
			193-255	Rotate reverse (slow to fast)
CH15	CH11	Prism2 Rot	0-127	0-400 degrees
			128-190	Rotate forward (fast to slow)
			191-192	Stop
			193-255	Rotate reverse (slow to fast)
CH16	CH12	Frost	0-127	None
			128-255	Insert frost
CH17	CH13	Zoom	0-255	small to large
CH18		Zoom fine		
CH19	CH14	Focus	0-255	far to near
CH20		Focus fine		
CH21		none		
CH22	CH15	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
CH23	CH16	Dimmer	0-255	0-100% Dimmer
CH24		Dimmer fine	0-255	