



USER MANUAL

KMLSP150W

KANDOLite[®]

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Summarize

Thank you for purchasing our LED Moving lighting. Please read these instructions carefully before begin and operate the fixtures according to these instructions to avoid any possible damages and accidents causes by misuseage.

Product introduction

This light uses Kandolite KMLSP150w LED light source. The output luminous flux reaches 6200lm. It has 50000-100000hours life span. Compared with traditional moving head (with Gas discharge light bubble), it is featured by light weight, energy-saving and long life span. The rotation angle is Pan 540°, tilt 270°. It has the functions of auto reset and correction and 16bit fine adjustment. The configuration includes: 2 gobo wheels, 2 color wheels, iris, zoom, focus, prism and Atomization. International standard DMX 512 signal is requested. The combination of DMX512 and DMX Ethernet network is optional

Packing list

- KMLSP150W 1PC
- Clamp hanger 2pcs
- Quick release lock 4set
- Safety cable 1pc
- Power cable
- user manual

Safety instruction

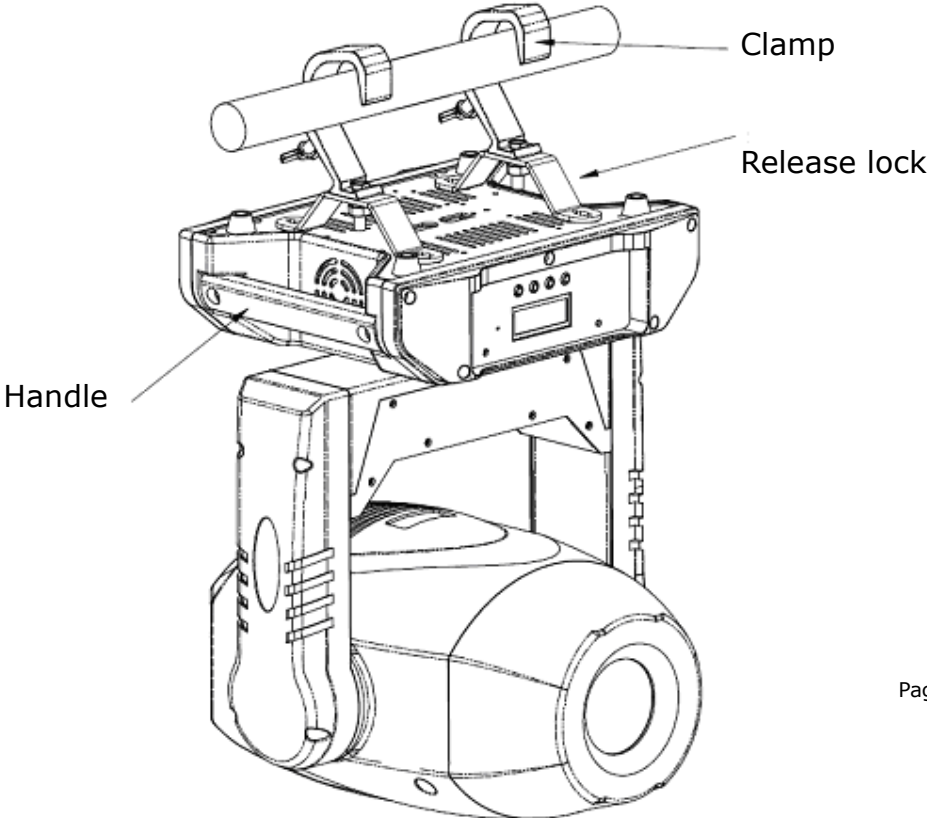
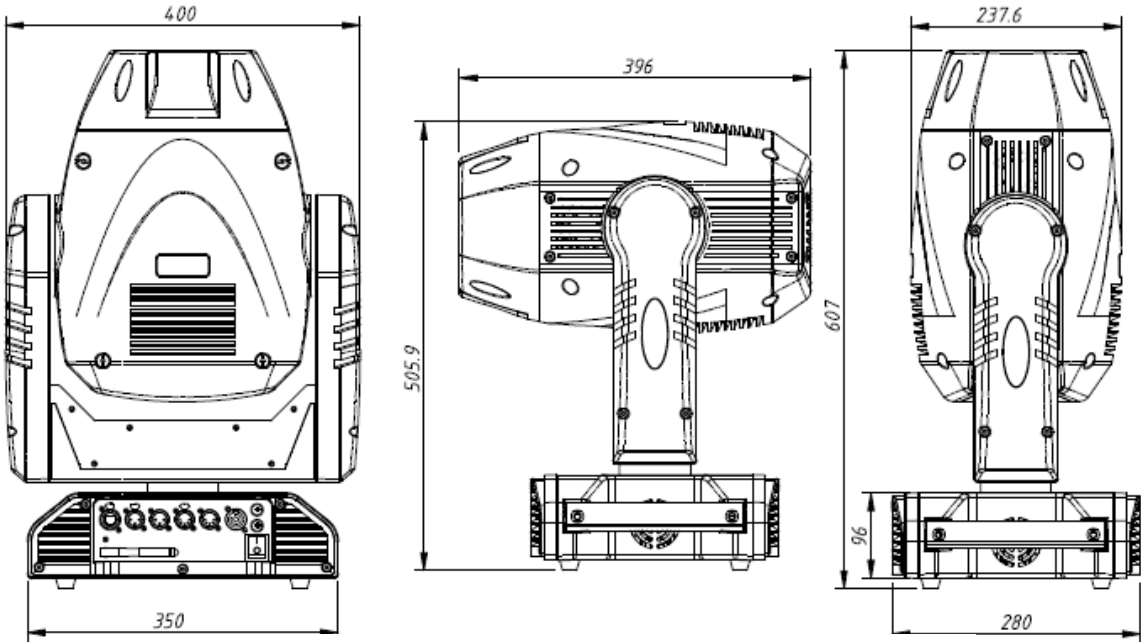


- Please open the carton and check whether there is any damage at the arrival of the fixture. If there is any damage caused by transportation, please do not use the fixture and contact the distributor or manufacturer as soon as possible.
- Make sure the power supply voltages are consistent with this lights, Ensure the use of voltage is in the range of the request technical parameter.
- Before the installation, please check the light's fasteners and mechanical structure have been received in good condition and appear no damage.
- This light is designed for indoor use. The protection rate is IP20. The fixture should be kept dry from water and other liquids. Do not use it in a humid, overheated and dusty environment. The working temperature is lower than 50 degree.
- The fixtures maybe mounted in any position provided there is adequate room for ventilation. Make sure there are no inflammable and explosive items (ornaments) in 0.5 meters away. Do not project the light on flammable materials. The distance between the fixture and lighting object should be more than 5m.
- Do not open the fixture to repair by yourself.
- Ensure safe grounding of Yellow / green cable and install electricity according to relative standards. Don't shake the fixture when it is working.
- Only qualified personnel can do electricity connection.
- Please do not connect the fixture with any other dimming devices.
- Please do not use power cable with incomplete insulation and don't connect the power cable with other wires. When the fixture is not in use or in cleaning, please make sure to turn off the power.

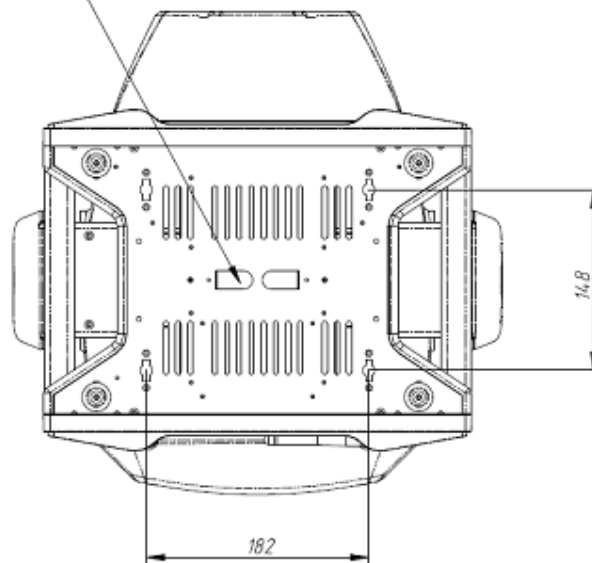
If you have any questions or suggestions, please contact the distributor or manufacturer promptly.

Installation instruction

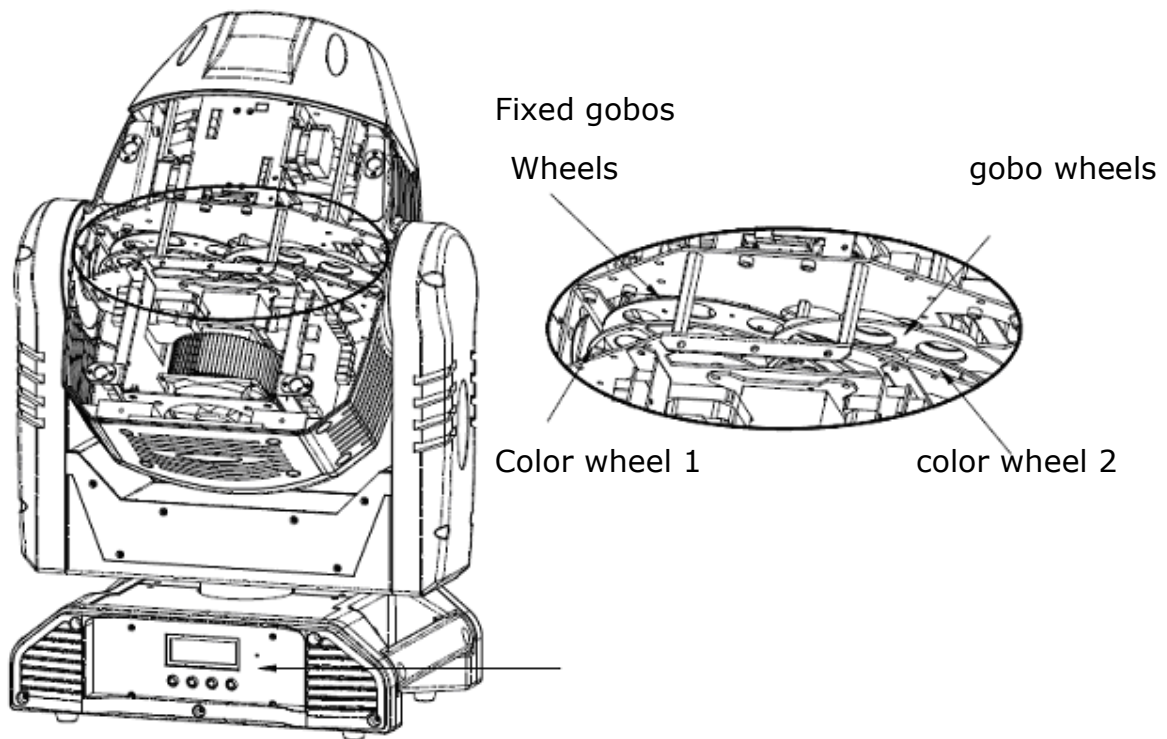
Dimension diagram



For Safety wire



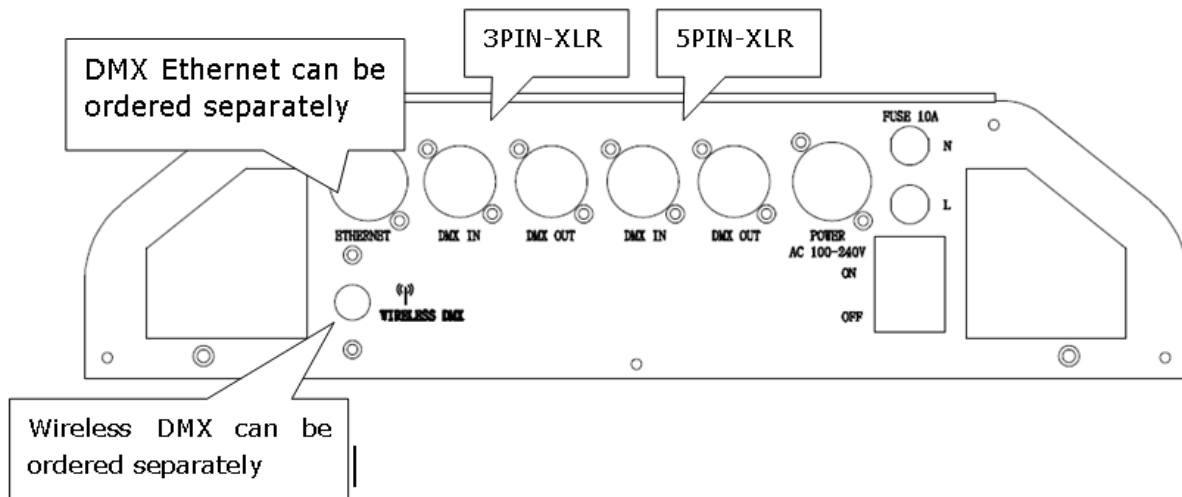
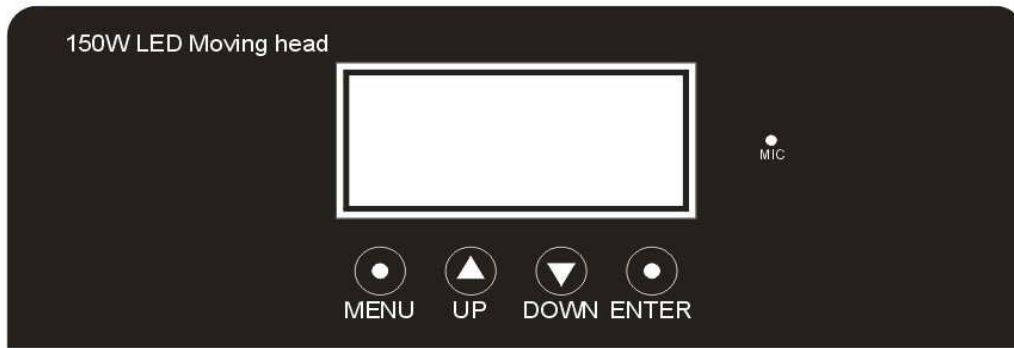
Instruction for changing interchangeable gobos



Main function

- 150W high brightness LED
- 2 gobo wheels, 2 color wheels, iris, zoom, focus, prism and Atomization
- Accord with DMX512 protocol. Wireless DMX and DMX Ethernet network is optional.
- The color wheel can reach any position
- 2 DMX channel modes
- Multi strobe effect, 5 dimmer modes
- Sound control, auto run
- Master-slave mode: no need to set slave manually; the slave will receive data from master automatically
- The fixture parameter can be downloaded mutually
- When the fan is not working, the LED won't light up

Display Operation



MENU : access the menu or return to a previous menu option

ENTER : select the current menu option

UP : menu selection or parameter increments

DOWN : menu selection or parameters decrease

Menu instruction

MENU	DMX ADDRESS	001-512	
	OPTION	PAN INVERTE	ON/ <u>OFF</u>
		TILT INVERTE	ON/ <u>OFF</u>
		P/T SWAP	ON/ <u>OFF</u>
		P/T FEEDBACK	<u>ON</u> /OFF
		DIMMER MODE	OFF,DIMMER1,DIMMER2,DIMMER3,DIMMER4
		CHANNEL MODE	17CH/19CH
	DISPLAY	DISPLAY INTENSITY	01-32
		DISPLAY SLEEP	PERMANENTLY ON/2 MINUTES/5 MINUTES/10 MINUTES
	MANUAL CONTROL	CH1:INTENSITY	0-255
		CH2:SHUT/STROBE	0-255
		CH3:PAN	0-255
		CH4:PAN FINE	0-255
		CH5:TILT	0-255
		CH6:TILT FINE	0-255
		CH7:P/T SPEED	0-255
		CH8:GOBO1	0-255
		CH9:GOBO1 ROTATE	0-255
		CH10:GOBO2	0-255
		CH11:COLOR1	0-255
		CH12:COLOR2	0-255
		CH13:IRIS	0-255
		CH14:ZOOM	0-255
		CH15:FOCUS	0-255
		CH16:PRISM	0-255
		CH17:ATOMIZATION	0-255
		CH18:MOVING BLACKOUT	0-255
		CH19:CONTROL	0
	CALIBRATION	GOBO1	0-255
		GOBO2	0-255
		COLOR1	0-255
		COLOR2	0-255
	TEST OPERATION	SOUND CONTROL	RUNNING... *

		AUTO	RUNNING... *
	FACTORY DEFAULT	CALIBRATION LOAD	YES/NO
		SETTING LOAD	YES/NO
	FIXTURE RESET	YES/NO	
	SEND SETTING	YES/NO	

Note:

1. When entering MENU *, the fixture is set automatically as a master to send data and the other fixtures will receive the data and work synchronously. When turn on the light again after power off, the fixture will jump to the same position.

2. The content with underline is factory default value

7、 2 DMX address code setting

MENU	DMX ADDRESS	001-512
------	-------------	---------

- ◆ Choose 【DMX ADDRESS】 from menu, press 【ENTER】 to set DMX address code
- ◆ Press 【UP/DOWN】 to choose from 【1~512】
- ◆ Press 【ENTER】 to exit and save the option

7、 3 option setting

MENU	OPTION	PAN INVERTE	ON/ <u>OFF</u>
		TILT INVERTE	ON/ <u>OFF</u>
		P/T SWAP	ON/ <u>OFF</u>
		P/T FEEDBACK	<u>ON</u> / <u>OFF</u>
		DIMMER MODE	OFF,DIMMER1,DIMMER2,DIMMER3,DIMMER4
		CHANNEL MODE	17CH/19CH

7、3、1 PAN INVERTE

- ◆ Choose **【PAN INVERTE】** from menu, press **【ENTER】** to set PAN INVERTE
- ◆ Press **【UP/DOWN】** to choose **【ON】** or **【OFF】**
- ◆ Press **【ENTER】** to exit and save the option

7、3、2 TILT INVERTE

- ◆ Choose **【TILT INVERTE】** from menu, press **【ENTER】** to set TILT INVERTE
- ◆ Press **【UP/DOWN】** to choose **【ON】** or **【OFF】**
- ◆ Press **【ENTER】** to exit and save the option

7、3、3 PAN/TILT SWAP

- ◆ Choose **【P/T SWAP】** from menu, press **【ENTER】** to set PAN/TILT SWAP
- ◆ Press **【UP/DOWN】** to choose **【ON】** or **【OFF】**
- ◆ Press **【ENTER】** to exit and save the option

7、3、4 PAN/TILT FEEDBACK

- ◆ Choose **【P/T FEEDBACK】** from menu, press **【ENTER】** to set PAN/TILT FEEDBACK
- ◆ Press **【UP/DOWN】** to choose **【ON】** or **【OFF】**
- ◆ Press **【ENTER】** to exit and save the option

Note:

After pressing **【ENTER】** to confirm, PAN/TILT will reset automatically once

7、3、5 dimmer modes setting

- ◆ Choose **【DIMMER MODE】** from menu, press **【ENTER】** to set dimmer modes
- ◆ Press **【UP/DOWN】** to choose **【OFF】**, **【DIM1】**, **【DIM2】**, **【DIM3】** or **【DIM4】**
- ◆ Press **【ENTER】** to exit and save the option

Note:

From **【OFF】** to **【DIM4】** , the dimming speed is fast to slow.

7、 3、 6 DMX channel mode setting

- ◆ Choose 【CHANNEL MODE】 from menu, press 【ENTER】 to set DMX channel
- ◆ Press 【UP/DOWN】 to choose 【17CH】 or 【19CH】
- ◆ Press 【ENTER】 to exit and save the option

7、 4 display setting

MENU	DISPLAY	DISPLAY INTENSITY	01-32
		DISPLAY SLEEP	PERMANENTLY ON/ <u>2</u> <u>MINUTES</u> /5 MINUTES/10 MINUTES

7、 4、 1 display intensity setting

- ◆ Choose 【DISPLAY INTENSITY】 from menu, press 【ENTER】 to set display intensity
- ◆ Press 【UP/DOWN】 to choose 【1~32】
- ◆ Press 【ENTER】 to exit and save the option

7、 4、 2 display sleeps mode setting

- ◆ Choose 【DISPLAY SLEEP】 from menu, press 【ENTER】 to set display sleep
- ◆ Press 【UP/DOWN】 to choose 【PERMANENTLY ON】, 【2 MINUTES】, 【5 MINUTES】, 【10 MINUTES】
- ◆ Press 【ENTER】 to exit and save the option

7、 5 manual control setting

MENU	MANUAL CONTROL	CH1:INTENSITY	0-255
		CH2:SHUT/STROBE	0-255
		CH3:PAN	0-255
		CH4:PAN FINE	0-255
		CH5:TILT	0-255
		CH6:TILT FINE	0-255
		CH7:P/T SPEED	0-255
		CH8:GOBO1	0-255

		CH9:GOBO1 ROTATE	0-255
		CH10:GOBO2	0-255
		CH11:COLOR1	0-255
		CH12:COLOR2	0-255
		CH13:IRIS	0-255
		CH14:ZOOM	0-255
		CH15:FOCUS	0-255
		CH16:PRISM	0-255
		CH17:ATOMIZATION	0-255
		CH18:MOVING BLACKOUT	0-255
		CH19:CONTROL	0

- ◆ Choose **【MANUAL CONTROL】** from menu, press **【ENTER】** to set manual control of DMX value of **【CH1】 ~ 【CH19】**
- ◆ Press **【UP/DOWN】** to choose **【0~255】**
- ◆ Press **【ENTER】** to exit and save the option

Note:

Please find the DMX value of **【CH1】 ~ 【CH19】** at DMX control function

7、 6 gobo and color wheel position calibration setting

MENU	CALIBRATION	GOBO1	0-255
		GOBO2	0-255
		COLOR1	0-255
		COLOR2	0-255

- ◆ Choose **【CALIBRATION】** from menu, press **【ENTER】** to set gobo and color wheel position calibration
- ◆ Press **【UP/DOWN】** to choose **【0~255】**
- ◆ Press **【ENTER】** to exit and save the option

Note:

1、 After pressing 【ENTER】 to confirm, gobo and color wheel will reset automatically once

2、 when the value is 128, the gobo and color wheel are in the middle; when the value is below 128, the gobo and color wheel are moving left by fine adjustment; when the value is above 128, the gobo and color wheel are moving right by fine adjustment.

7、 7 test operation setting

MENU	TEST OPERATION	SOUND CONTROL	RUNNING... *
		AUTO	RUNNING... *

7、 7、 1 sound control mode

- ◆ Choose 【SOUND CONTROL】 from menu, press 【ENTER】 to enter SOUND CONTROL mode

Note:

The sound control sensitivity is realized by adjusting R3 on display board.

7、 7、 2 auto run mode

- ◆ Choose 【AUTO】 from menu, press 【ENTER】 to enter auto run mode

7、 8 recover factory default setting

MENU	FACTORY DEFAULT	CALIBRATION LOAD	YES/NO
		SETTING LOAD	YES/NO

7、 8、 1 recover factory default of gobo and color wheel position calibration load

- ◆ Choose 【CALIBRATION LOAD】 from menu, press 【ENTER】 to recover the factory default of gobo and color wheel position calibration load
- ◆ Press 【UP/DOWN】 to choose 【YES】
- ◆ Press 【ENTER】 to exit and save the option

Note:

1、 After pressing 【ENTER】 to confirm, gobo and color wheel will reset automatically once

2、 the factory default value is 128, i.e. the middle.

7、 8、 2 recover factory default of setting parameter

- ◆ Choose 【SETTING LOAD】 from menu, press 【ENTER】 to recover the factory default of setting parameter
- ◆ Press 【UP/DOWN】 to choose 【YES】
- ◆ Press 【ENTER】 to exit and save the option

Note:

After pressing 【ENTER】 to confirm, PAN/TILT will reset automatically once

7、 9 fixture reset

MENU	FIXTURE RESET	YES/NO	
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- ◆ Choose 【FIXTURE RESET】 from menu, press 【ENTER】 to enter fixture reset
- ◆ Press 【UP/DOWN】 to choose 【YES】
- ◆ Press 【ENTER】 to confirm reset

7、 10 send setting parameters to other fixtures

MENU	SEND SETTING	YES/NO	
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- ◆ Choose 【SEND SETTING】 from menu, press 【ENTER】 to set sending setting parameters to other fixtures
- ◆ Press 【UP/DOWN】 to choose 【YES】
- ◆ Press 【ENTER】 to confirm sending

Note:

- 1、 Should disconnect with DMX controller before sending the parameters.
- 2、 The setting of 【DMX ADDRESS】 and 【CALIBRATION】 is invalid and won't be sent.
- 3、 The other fixtures will reset automatically once after receiving data correctly.

DMX Control Function

17channels	19channels	DMX value	function
CH1	CH1	0~255	dimming, Intensity Zero→full
CH2	CH2	0~10 11~20 21~60 61~100 101~140 141~180 181~220 221~255	Shutter, Strobe Shutter Closed Shutter Open Strobe, slow→fast Electronic Sine wave, slow→fast Random Strobe, slow→fast Opening pulse, slow→fast Closing pulse, slow→fast Electronic Square wave, slow→fast
CH3	CH3	0~255	Pan
-	CH4	0~255	Pan, fine
CH4	CH5	0~255	Tilt
-	CH6	0~255	Tilt, fine
CH5	CH7	0-255	Pan/tilt speed, fast→slow
CH6	CH8	0~10 11~20 21~30 31~40 41~50 51~60 61~70 71~80 81~90 91~100 101~110 111~120 121~130 131~140 141~150 151~190 191~230 231~240 241~255	Gobo 1 no gobo gobo1 gobo2 gobo3 gobo4 gobo5 gobo6 gobo7 shaking gobo1 shaking gobo2 shaking gobo3 shaking gobo4 shaking gobo5 shaking gobo6 shaking gobo7 CW flow effect, slow→fast CCW flow effect, slow→fast sound running Reserved
CH7	CH9	0~20 21~80 81~140	Gobo rotation No rotation CW, slow→fast CCW, slow→fast

		141~220 221~255	CW→CCW cycle, slow→fast Reserved
CH8	CH10	0~10 11~20 21~30 31~40 41~50 51~60 61~70 71~80 81~90 91~100 101~110 111~120 121~130 131~140 141~150 151~190 191~230 231~240 241~255	Gobo 2 no gobo gobo1 gobo2 gobo3 gobo4 gobo5 gobo6 gobo7 shaking gobo1 shaking gobo2 shaking gobo3 shaking gobo4 shaking gobo5 shaking gobo6 shaking gobo7 CW flow effect, slow→fast CCW flow effect, slow→fast sound running Reserved
CH9	CH11	0~10 11~17 18 19~25 26 27~33 34 35~41 42 43~49 50 51~57 58 59~65 66 67~73 74 74~80 81~90	Color wheel 1 Open(white) Continuously scrolling color wheel position Open→Color 1 Color 1 Color 1→Color 2 Color 2 Color 2→Color 3 Color 3 Color 3→Color 4 Color 4 Color 4→Color 5 Color 5 Color 5→Color 6 Color 6 Color 6→Color 7 Color 7 Color 7→Open Open Stepped scroll (indexed) color wheel positions Open (white)

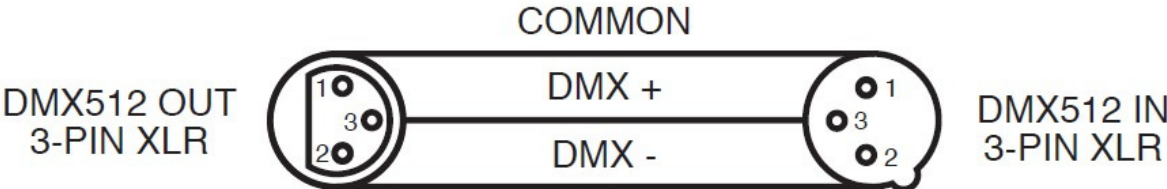
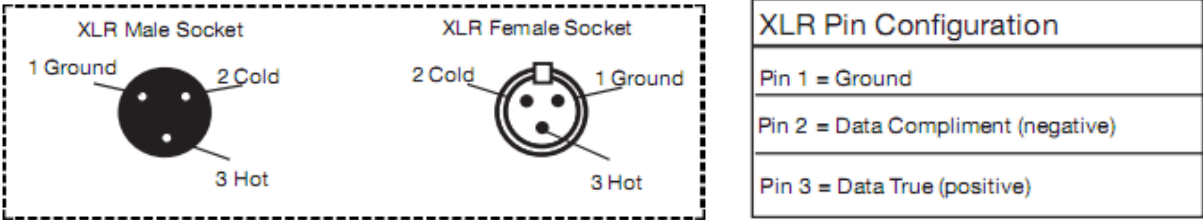
		91~100 101~110 111~120 121~130 131~140 141~150 151~180 181~190 191~220 221~230 231~255	Color 1 (dark blue) Color 2 (orange) Color 3 (red) Color 4 (purple) Color 5 (green) Color 6 (pink) Color 7 (light yellow) CW flow effect, slow→fast Color wheel stop CCW flow effect, slow→fast sound running Reserved
CH10	CH12	0~10 11~17 18 19~25 26 27~33 34 35~41 42 43~49 50 51~57 58 59~65 66 67~73 74 74~80 81~90 91~100 101~110 111~120 121~130 131~140 141~150 151~180 181~190 191~220 221~230	Color wheel 2 Open(white) Continuously scrolling color wheel position Open→Color 1 Color 1 Color 1→Color 2 Color 2 Color 2→Color 3 Color 3 Color 3→Color 4 Color 4 Color 4→Color 5 Color 5 Color 5→Color 6 Color 6 Color 6→Color 7 Color 7 Color 7→Open Open Stepped scroll (indexed) color wheel positions Open (white) Color 1 (fluorescent) Color 2 (light green) Color 3 (cooling tablet) Color 4 (copious cooling) Color 5 (yellow) Color 6 (wine red) Color 7 (light blue) CW flow effect, slow→fast Color wheel stop CCW flow effect, slow→fast

		231~255	sound running Reserved
CH11	CH13	0~150 151~190 191~230 231~255	Iris Open→closed Opening pulse, slow→fast Closing pulse, slow→fast Reserved
CH12	CH14	0~255	Zoom (zoom in→zoom out)
CH13	CH15	0~255	Focus
CH14	CH16	0~10 11~20 21~100 101~180 181~255	Prism No prism prism active CW, slow→fast CCW slow→fast CW→CCW cycle, slow→fast
CH15	CH17	0~50 51~255	No atomization Atomization
CH16	CH18	0~50 51~255	Blackout while P/T moving Disable Enable
CH17	CH19	0~10 11~20 21~30 31~40 41~50 51~60 61~254 255	Control channel Dimmer modes set by menu Dimmer off Dimmer 1 Dimmer 2 Dimmer 3 Dimmer 4 Dimmer modes set by menu Reset (at least keep 5S)

XLR cable connecting

XRL cable:

The stand connection way of the XRL is: one end connects to the male plug, and the other connects to the female.



Noted In order to avoid failures and interference signal transmission we connect a resistance 120Ω $1/4W$ at the end of the DMX connecting as below:



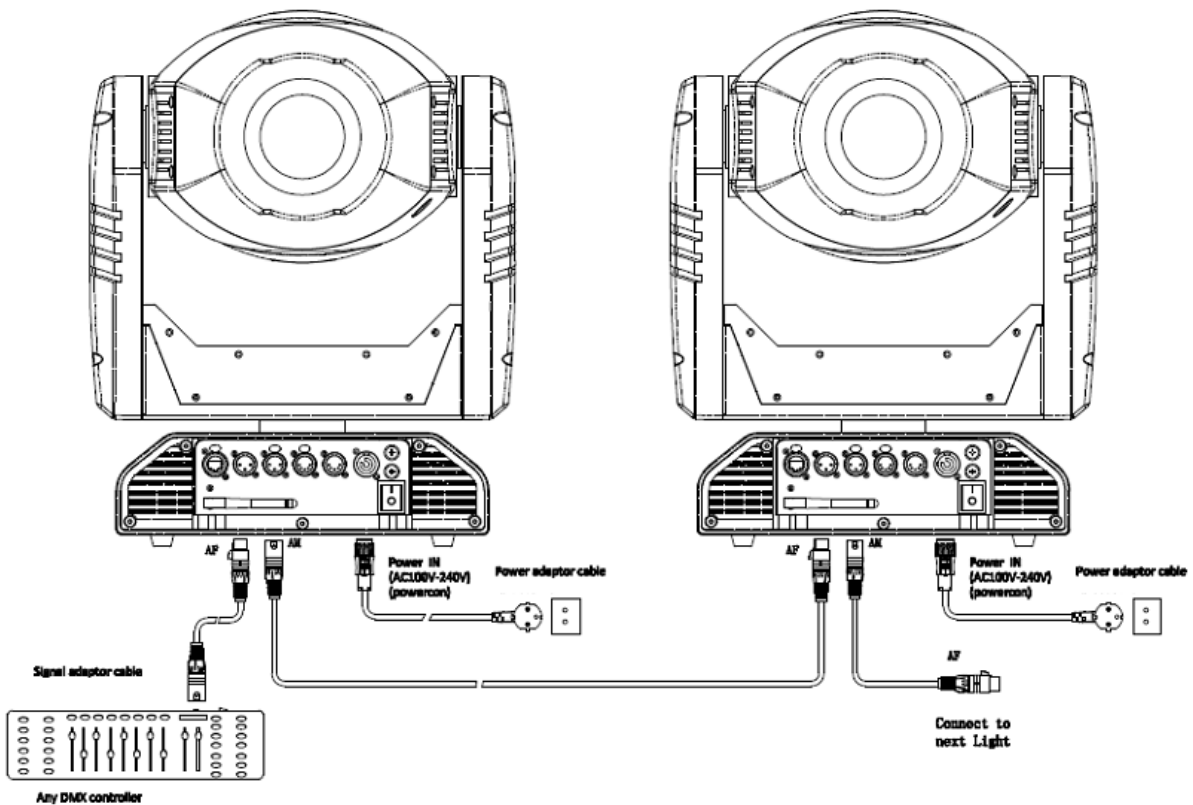
Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.

The Conversion between 3pin and 5 pin XLR

If the output cable of DMX512 controller is the 5PIN, please use 1pc 5PIN to 3PIN cable

3-Pin XLR to 5-Pin XLR Conversion		
Conductor	3-Pin XLR Female (Out)	5-Pin XLR Male (In)
Ground/Shield	Pin 1	Pin 1
Data Compliment (- signal)	Pin 2	Pin 2
Data True (+ signal)	Pin 3	Pin 3
Not Used		Do Not Use
Not Used		Do Not Use

Wiring diagram



Problem analysis

Problem	solution
Can not turn on the light	<ul style="list-style-type: none"> ◆ Check the power source plug is good or not ◆ Check the switch of the lights is off or on ◆ Check if the fuse is broken ◆ Check if the switch power supply is good
LEDnotlight(150w)	<ul style="list-style-type: none"> ◆ Check if the fan is broken ◆ The LED can light up when the fan is working normally
DMX can not control it	<ul style="list-style-type: none"> ◆ Check if the DMX cable is connect to the lights or not ◆ Check if the DMX512 controller work normally or not ◆ Check if the DMX cable is good or not ◆ Check if the lights is in DMX mode or if the address code is correct
the beam lacks fidelity greatly	<ul style="list-style-type: none"> ◆ Check if the optical lens is damaged ◆ Clean the dust and grease on the lens

Maintenance

- Lubrication: to achieve smooth zooming, we suggest lubricating 2 guide rails every 2 months. Should use good and heat resisting lubricating grease
- Fixture cleaning: to use the fixture reliably, it is very important to keep it clean. Too much dust will cause malfunction of control IC board. More seriously, it will cause short circuit and burn out the control IC board. Should regularly check if the fan works normally and if the fan and fan net are blocked by dust.
- Optical lens cleaning: must periodically clean the interior and exterior optical lens, reflector and coating film color filter, to optimize the light output. **Please do not use any solvent with chemical composition to clean the coating film color filter. Cleaning frequency depends on the operation frequency and environment of the fixture.** Please use soft cloth and ordinary glass cleaning product to clean. We suggest to cleaning the exterior optical system every 20 days and cleaning the interior optical system every 30-60 days. **Please do not use any organic solvent, such as ethyl alcohol, to clean the housing of the fixture to avoid any damage.**

Technical Specification

- Input voltage: AC100V-240V 50-60Hz
- Rated power: 300W (PF>90%)
- Lamp specs: LED-150W (6500K)
- Life Span: above 50000-100000 hours
- output luminous flux: 6200lm
- color: 2 color wheels with 7 colors & white
gobo: 2 gobo wheels, 1 fixed gobo wheel, 7 fixed gobos + white;
1 rotating gobo wheel, 7 interchangeable gobos+ white
- Effects: 1 prism+1 atomizer
- zoom: optical linear zooming, zooming angle 15°-35°
- dimming: 0-100% linear dimming, with 16 bit fine adjustment, refresh rate>400Hz
- strobe: Electronic strobe, 0-20Hz
- rotation angle: PAN 540°, TILT 270°, with auto reset and correction function, 16bit fine adjustment.
- Control modes: stand-alone, Master/slave, sound control
- DMX channel: 17CH、19CH
- Display: LCD Display
- communication signals: DMX512、wireless DMX512、DMX Ethernet
(multi-network in one) (ordered separately)
- Weight: 20Kg
- Size: L400*W280*607mm

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