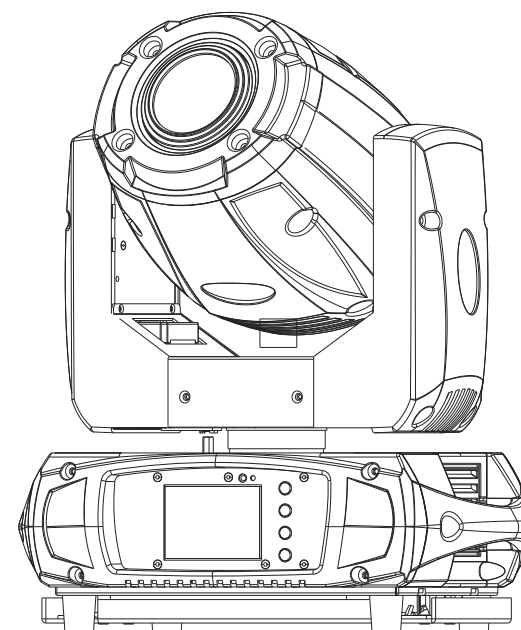


AERO SPOT 60



JMAZ LIGHTING

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Version 1.0

USER MANUAL

- Be sure to read the USER MANUAL carefully before using this product.
- Be sure to keep the USER MANUAL properly for future needs.
- Use this product correctly when you can fully understand the User Manual

1.Safety instructions

Thank you for choosing our AERO SPOT 60. for your own safety, please read this user manual carefully **BEFORE YOU INITIAL START - UP!**

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

This device has left our premises in absolutely 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 manual.

CAUTION!
*Keep this device away from rain and moisture!
 Unplug mains lead before opening the housing!*

Important:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

During the operation the housing becomes hot). Allow the fixture to cool approximately 20 minutes prior to manipulate with it.

Make sure that the available voltage is not higher than stated on the rear panel.

WARNING! This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the fixture.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

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.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee.

Do not connect this device to a dimmer pack.

Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.

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

Do not touch the device's housing bare hands during its operation (housing becomes hot)!

For replacement use lamps and fuses of same type and rating only.

CAUTION ! EYE DAMAGES !
*Avoid looking directly into the light source
 (meant especially for epileptics) !*

12.Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

DANGER !
*Disconnect from the mains before starting any
 maintenance work*

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet. Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner.

Important! Check the air filters periodically and clean before they become clogged!

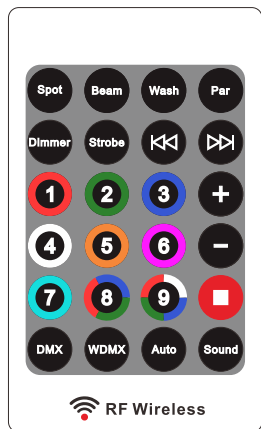
Clean two air filters placed in the fixture's covers and two in the fixture base. Use a vacuum cleaner, compressed air or you can wash them and put back dry.

After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters--->Elapsed Time).

Replacing the fuse. Before replacing the fuse, unplug mains lead.

- 1) Remove the fuse holder on the rear panel of the base with a fitting screwdriver from the housing (anti-clockwise).
- 2) Remove the old fuse from the fuse holder.
- 3) Install the new fuse in the fuse holder (only the same type and rating).
- 4) Replace the fuseholder in the housing and fix it.

11.RF Remote Controller Instruction



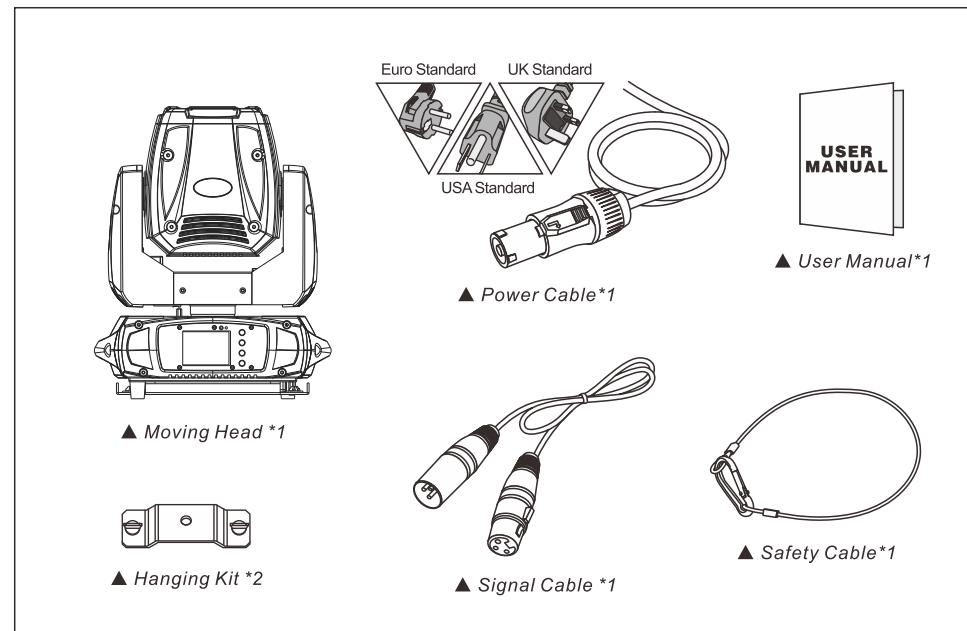
1. Press 3 times "Spot" to activate Spot series RF function
2. Press 3 times "Beam" to activate Beam series RF function
3. Press 3 times "Wash" to activate Wash series RF function
4. Press 3 times "Par" to activate Wash series RF function
5. "Dimmer" brightness adjustment (press "Dimmer" button then press "+", "-") to adjust brightness.
6. "Strobe" turn on strobe effect (press "Strobe" button, can adjust speed by "+", "-").
7. "◀▶" adjust the speed of sound program or adjust the sensitivity of sound control.
8. "▶▶" adjust the speed of self-propelled program or adjust the sensitivity of voice control.
9. "1-9" Auto programs or sound activated state, press the corresponding button into the corresponding program; In the "Dimmer" or "Strobe" state, press this button can be optional color matching
10. "◻" All reset
11. "DMX" selects wire DMX signal as signal source.

Tips:

1. When activated RF function, the lamp will not control by DMX signal, and the lamp is in the RF control state. And each remote controller can only control a series of lamps at the same time.
2. When Wash series opens "Dimmer" and "Strobe", it needs to press the number button to brighten the corresponding color. In this mode, the number button can only switch the color wheel, but not the corresponding key color for Spot and Beam series.
3. To turn off RF function, there are the following methods:
 - (1). Select the signal input mode needed, "DMX" can exit RF function;
 - (2). Switch to other series of lamps, "Spot", "Beam", "Wash", "Par" switch to other units, will be restored to the original set signal source input;
 - (3). Press the menu button of the display panel.

2 UNPACKING

The AERO SPOT 60 adopts a 60W white LED 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:



The AERO SPOT 60 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.

This manual covers the important information on installation and applications. Meanwhile, please keep this manual well for future needs.

3. TECHNICAL INFORMATION

Light Source

- 1x60W White LED
- Life span: 50000 Hours
- Color: Cool white , 7500K

Optics

- Beam angle:12°
- Specific high precision glass optic system

Power Supply

- Input voltage:AC90-260V 50/60Hz
- Power consumption:190W(Charging Mode);90W (Battery Operating Mode)

Battery

- LED full use 8 hours, built-in program use 8 hours
- Temperature detection function (-20 °C to 50 °C normal charge,;not the range,it do damage to the battery and can not be normal charged)
- Battery short circuit protection, overcurrent protection
- Overflow charging
- After the battery is switched on, the battery is automatically charged when the battery is low, and the charging function is automatically stopped when the battery is fully charged.
- Support battery extension.

Control

- 4 Operating Modes:Sound Active,Show Mode,DMX Controlled and RF Remote Control
- 9 Built-in Lighting Shows
- Motorized Focus
- Built-in wireless DMX Technology
- Control channel: 11/13 DMX channels USITT DMX-512.
- DMX recorder and edit function integrated

Movement

- 8/16 Bit smooth and precise resolution for PAN/TILT movement
- 360°/540°/630° PAN and 90°/180°/270° TILT movement
- PAN/TILT inversion available
- Scan position memory, auto reposition after unexpected movement

Color Wheel

- 1 Color wheel with 7 colors plus open

Gobo Wheel

- 1 Rotatable gobo wheel with 6 rotatable and interchangeable gobos
- plus open with speed adjustable, stream effect, dithering effect and
- rotatable clockwise or anticlockwise
- Gobo size 21.8mm (external dimensions)/14.5mm (inner dimensions)

Working Enviroment

- Fan cooling system
- -20-50°C max ambient temperature
- Constant temperature readout and management function.
- Protection Rating : IP 20

Construction & Weight

- Dimensions:15"x 14.9"x 8.7" / 38.5x38x22cm
- Packing dimensions:14.6"x 11"x 16.7" / 37x28x42.5cm
- Net weight:19 lbs. / 8.7kgs
- Gross weight: 30.6 lbs. / 13.9kgs

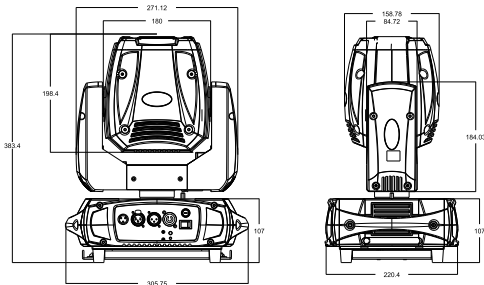
Features

- ABS die-cast plastic cover with Aluminium structure
- 2.5-15m electronic focus
- 3-Facet prism with variable speed and direction
- 0-100% Linear LED dimmer
- 20T/sec high speed LED shutter/strobe effect with variable speed
- Preset variable/random strobe and dimming pulse effect
- 2.4'TFT LCD display (320*240pix)
- 3-Pin XLR connectors IN/Out
- 55dB at 3'dB rating
- 2*1/4 Turn fastening Omega clamp
- 1" Safety attachment point

Rotating Gobo Wheel



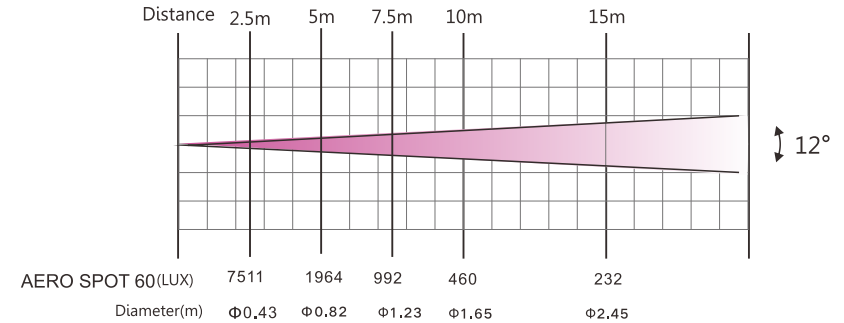
Color Wheel



		Special function	
13	11	0..19	No function
		20..39	No function
		40..59	Enter power saving mode
		60..79	Exit power saving mode
		80..84	All Motor reset
		85..87	Scan motor reset
		88..90	Colors motor reset
		91..93	Gobo motor reset
		94..96	No function
		97..99	Other motor reset
		100..119	Internal program 1
		120..139	Internal program 2
		140..159	Internal program 3
		160..179	Internal program 4
		180..199	Internal program 5
200..219	Internal program 6		
220..239	Internal program 7		
240..255	Internal Sound program 1		

7	5	60..69	gobo 6
		70..89	Gobo 1 shake slow to fast
		90..109	Gobo 2 shake slow to fast
		110..129	Gobo 3 shake slow to fast
		130..149	Gobo 4 shake slow to fast
		150..169	Gobo 5 shake slow to fast
		170..189	Gobo 6 shake slow to fast
		190..255	Rot. gobo wheel cont. rotation slow to fast
8	6	Gobo rotation	
		0..3	no function
		4..127	Forwards gobo rotation from fast to slow
		128..131	Gobo rotation stop
		132..255	Backwards gobo rotation from slow to fast
9	7	Shutter	
		0..31	Shutter closed
		32..63	shutter open
		64..95	Strobe effect slow to fast
		96..127	shutter open
		128..159	Pulse-effect in sequences slow to fast
		160..191	shutter open
		192..223	Random strobe effect slow to fast
		224..255	shutter open
10	8	Dimmer	
		0..255	Dimmer 0%...100%
11	9	Focus	
		0..255	In(near) to out(far)
12	10	Prism & Rotating	
		0..5	OFF
		6..127	ON
		128..255	Rotating from slow to fast

4.PHOTOMETRICS DIAGRAM



5.OPERATION INSTRUCTIONS

- The AERO SPOT 60 is for spot 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 kept 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 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.

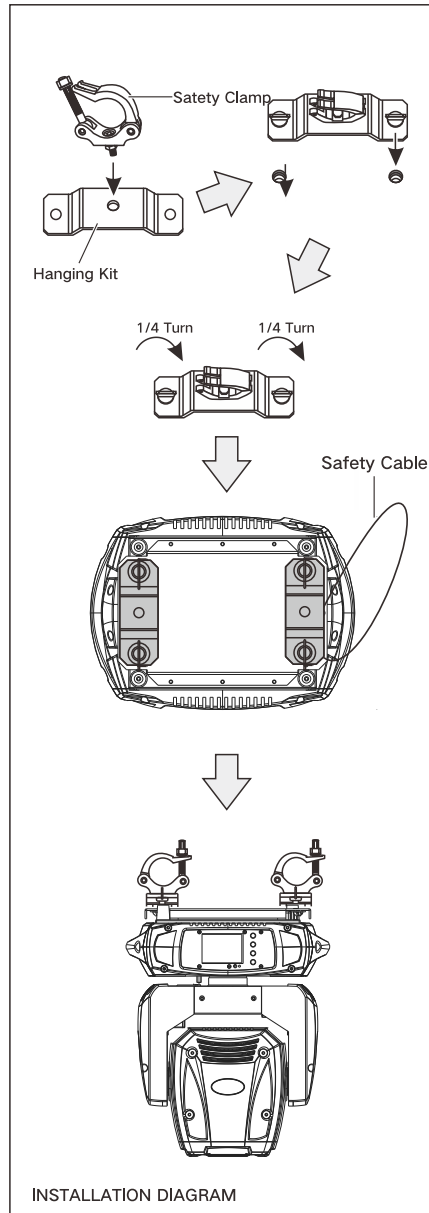
Mounting points:

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:

AERO SPOT 60 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 "Hanging Kit". As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using one of the safety cable rigging points integrated in the base assembly .



10.DMX PROTOCOL

Mode/Channel		Value	Function
16b	8b		
1	1		Pan
		0..255	PAN Movement
2			Pan-fine
		0..255	Fine control of Pan movement
3	2		Tilt
		0..255	Tilt Movement
4			Tilt-fine
		0..255	Fine control of Tilt movement
5	3		Speed pan/tilt
		0..225	max to min speed
		226..235	blackout by movement
		236..245	blackout by all wheel changing
6	4	246..255	no function
			Color wheel
		0..15	Open / white
		16..31	Color 1
		32..47	Color 2
		48..63	Color 3
		64..79	Color 4
		80..95	Color 5
		96..111	Color 6
		112..127	Color 7
		128..189	Forwards rainbow effect from fast to slow
190-193	Color rotation stop		
194..255	Backwards rainbow effect from slow to fast		
7	5		Gobo wheel
		0..9	Open
		10..19	gobo 1
		20..29	gobo 2
		30..39	gobo 3
		40..49	gobo 4
50..59	gobo 5		

Description of the Wireless Indicator for Wireless DMX

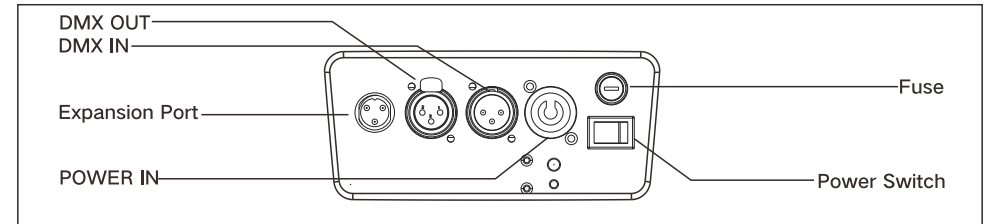
1. Under the Set-up mode, each color on the indicator means different communication protocols:

1. Red ----- WIDMX Protocol
2. Green ----- WDMX Receive Protocol
3. Blue ----- WDMX Transmit Protocol
4. Yellow ----- (Generic) Protocol

2. Under the Operation mode, explanation of the indicator's status:

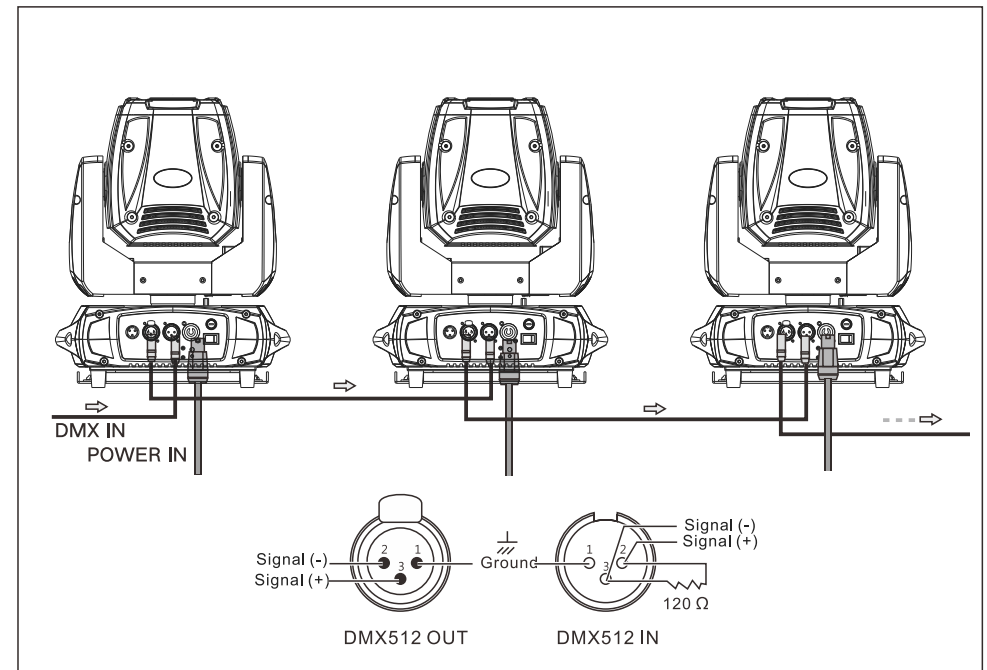
Protocol	Action	Status Description
WIDMX or Generic Protocol	Red, Green, Blue, Yellow, Cyan, Purple, (White)	Different Wireless Groups
	Flashing Red	Transmitting Wireless DMX Signal
	Flashing Green	Receiving Wireless DMX Signal
WDMX Receive Protocol	White	Connection is not
	Red	Deleting Connection
	Red(Fast-Flash)	Connection is Lost
	Green(Fast-Flash)	Connecting to Transmitter
	Green(Slow-Flash)	Connected, Without DMX Signal
	Green	Connected, Receiving DMX Signal
WDMX Transmit Protocol	Red	Deleting all Receivers'
	Blue(Fast-Flash)	Connecting with the Receiver(s)
	Blue(Slow-Flash)	No DMX Signal Input
	Blue	Transmitting DMX

7.CONTROL CONNECTION

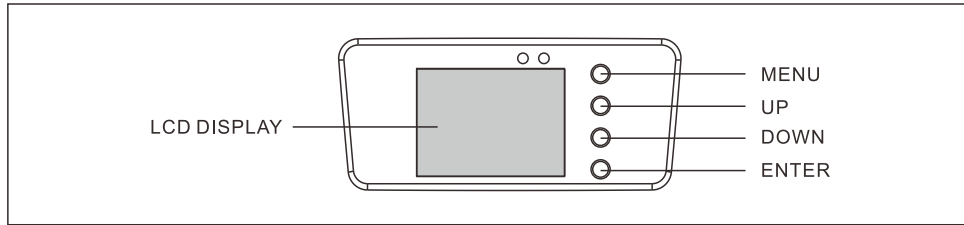


Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. 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 3 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



MENU		Description
Function Mode	Dmx Address	A001~AXXX <i>DMX address setting</i>
	Channel Mode	CH13 <i>Standard mode</i>
		CH11 <i>Vector mode</i>
	Auto Run	Internal Program1~9 <i>Auto run</i>
State: Master/Alone <i>State: Master/Alone</i>		
Auto Run (On/Off) <i>Auto Run (On/Off)</i>		
Internal Program1~9 <i>Sound Control</i>		
Music Control	State: Master/Alone <i>State: Master/Alone</i>	
	Music Run (On/Off) <i>Music Run (On/Off)</i>	
Option	Reset Default	Yes/No <i>Reset Default</i>
	Signal Set	Wire DMX <i>Wire DMX</i>
		Act WDMX & Out <i>Act WDMX & Out</i>
		WiDMX Out <i>WiDMX Out</i>
	Pan / Tilt	Reverse Pan (On/Off) <i>Reverse Pan</i>
		Reverse Tilt (On/Off) <i>Reverse Tilt</i>
		Select Pan 630°/540°/360° <i>Pan Degree, default is 540°</i>
		Select Tilt 270°/180°/90° <i>Tilt Degree, default is 270°</i>
	UI SET	Mic sensitivity 0~99% <i>MIC Sensitivity Setting</i>
		OFF Signal Mode (On/Off) <i>OFF at original status and ON at reset status when no DMX signal</i>
		Start Up Saving <i>Start Up Saving</i>
	Information	Temperature
Software Version		V1.0~V9.9 <i>Software Version</i>
Manual Control	Reset	Total Reset <i>Total Reset</i>
		Pan/Tilt Reset <i>Pan/Tilt Reset</i>
		Color Reset <i>Color Reset</i>
		Gobo Reset <i>Gobo Reset</i>
		The Others Reset <i>The Others Reset</i>
	Channel	PAN=XXX..... <i>Channel Control</i>
Advanced (Access Code 088)	Calibration	PAN=XXX..... <i>Calibration(code:088)</i>

9.Operation Guide for the Wireless DMX

How to Set-up the Wireless DMX Mode:

Turn the power switch to off on the back of the light, press and hold the "SELECT" button then turn the power switch to ON. When you see status indicator turns into the white color, release the button to enter the Set-up mode. In this mode you can select different transmission protocols. Each time you press the "SELECT" button, you would see the status indicator changes in following order: red, green, blue and yellow. Choose one of the protocols (**recommended using RED- WIDMX protocol**), then press and hold the "SELECT" button for two seconds, when you see the indicator light turns to white color, release the "SELECT" button and it will enter the operation mode, the set up for wireless DMX is done.

* Under the WIDMX protocol or Generic protocol, you can select different DMX Group:

Press the "SELECT" button once, it will indicated the current DMX group. Press the "SELECT" button twice, you can switch over to different DMX group.

* Under the WDMX Transmit protocol:

1. By pressing the "SELECT" button once, the transmitter will try to connect all of the receivers within the coverage area
2. Press and hold the "SELECT" button for more than three seconds, the indicator will turn to red. The device will delete all the receivers' connection within the coverage range.
3. In WDMX Receive protocol:
Press and hold the "SELECT" button for more than three seconds until the indicator turns white. The device would delete the current connection setting with the transmitter.

Explanation of the DMX Signal setting on the menu

Options:	Function:
Wire DMX	Using wire DMX signal input
Wireless DMX	Using Wireless DMX signal input
Act WDMX & Out	Using Wireless DMX signal input, at the same time, it will send out DMX signal to the DMX output on the back of the light
WIDMX Out	Using wire DMX signal input, at the same time, it will send out wireless DMX signal through the wireless transmitter. (In case if there is no wire DMX input signal, the device will stay at Wireless DMX receiving mode)