10.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. Dichroic colour filters, 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.

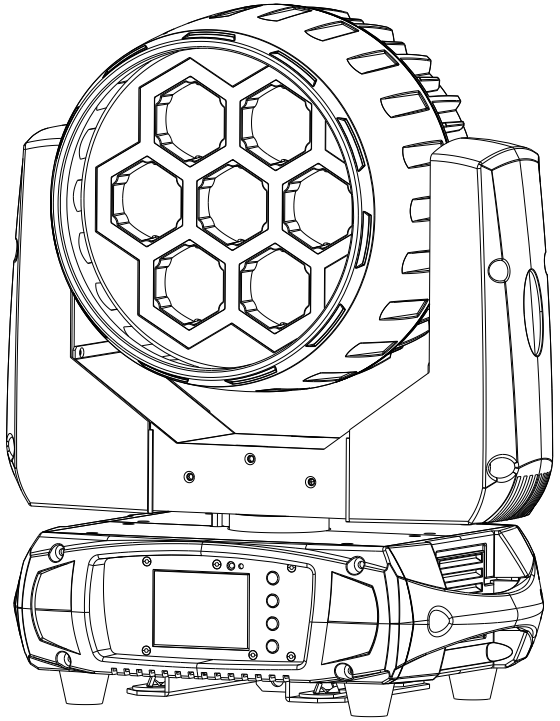
After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters--->Elapsed Time).

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.

FOS technologies

FOS Aurora



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 FOS Aurora. 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 suffera 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.

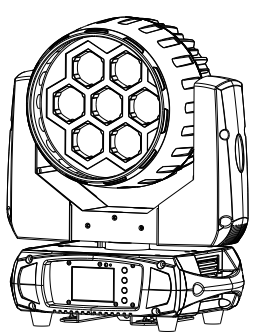
CAUTION ! EYE DAMAGES !
Avoid looking directly into the light source
(meant especially for epileptics) !

56	28	22		**Pix_Macro_Speed**
			0..255	Fast to slow
57	29	23		Pix Ganged Form Macro Total Number
			0..255	Total Number
58	30	24		**Pix Ganged Form Macro The Serial Number**
			0..255	The Serial Number
59	31	25		**Special function**
			0..19	No function
			20..29	No function
			30..39	No function
			40..79	No function
			80..89	All Motor reset
			90..94	SCAN Motor Reset
			95..99	Focus 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

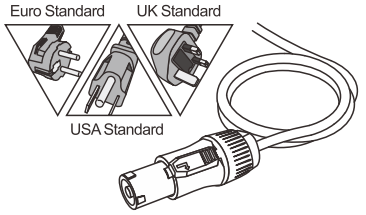
50	22	16		**Pix_Dimmer**
			0..255	Pix_Dimmer 0%...100%
51	23	17		**Pix_Red**
			0..255	0-100% Pix_Red dimmer from dark to bright
52	24	18		**Pix_Green**
			0..255	0-100% Pix_Green dimmer from dark to bright
53	25	19		**Pix_Blue**
			0..255	0-100% Pix_Blue dimmer from dark to bright
54	26	20		**Pix_color**
			0..0	No Function
			1..15	Red
			16..31	Green
			32..47	Blue
			48..63	Red+Blue
			64..79	Red+Green
			80..95	Green+Blue
			96..111	Red+Blue+Green
			112..127	2700K
			128..143	3200K
			144..159	3500K
			160..175	5000K
			176..191	5500K
			192..207	6000K
			208..223	6500K
			224..239	7000K
			240..255	8000K
55	27	21		**Pix_Macro**
			0..15	No Function
			16..29	Pix Dynamic Scene1
			30..43	Pix Dynamic Scene2
			44..57	Pix Dynamic Scene3
			58..71	Pix Dynamic Scene4
			72..85	Pix Dynamic Scene5
			86..99	Pix Dynamic Scene6
			100..113	Pix Dynamic Scene7
			114..127	Pix Dynamic Scene8
			128..143	Pix Dynamic Scene9
			142..155	Pix Dynamic Scene10
			156..169	Pix Dynamic Scene11
			170..183	Pix Dynamic Scene12
			184..197	Pix Dynamic Scene13
			198..211	Pix Dynamic Scene14
			212..225	Pix Dynamic Scene15
			226..239	Pix Dynamic Scene16
			240..245	Pix Ganged Form Macro 1
			246..250	Pix Ganged Form Macro 2
			251..255	Pix Ganged Form Macro 3

2.UNPACKING

FOS Aurora adopts 7*40W 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:

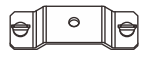


▲ MINI WASH ZOOM *1

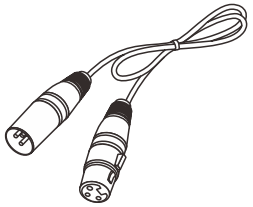


▲ *Power Cable*1*

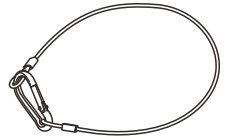
▲ *User Manual*1*



▲ *Hanging Kit *2*



▲ *Signal Cable *1*



▲ *Safety Cable*1*

FOS Aurora 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 per formances, 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

SPECIFICATIONS:

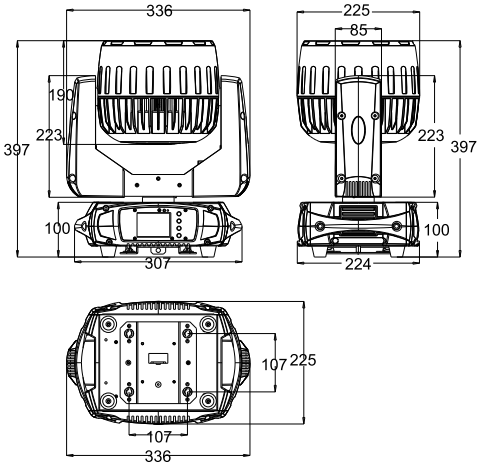
- Input Voltage: AC90-260V 50/60Hz
- LED Quantities:7*40W 4-in-1 RGBW LEDs ; 90 pcs RGB 5050 high brighteness LED neon light effect
- Control Signal: DMX512, master-slave and sound activated or auto operation
- Control Channel: 59/31/25DMX channel modes
- Power Consumption: 350W
- Dimensions: 380(D)*200(W)*400(H)mm
- Packing Dimensions:410(D)*305(W)*415(H)mm
- Net Weight: 9.5kg
- Gross Weight: 12kg

FEATURES:

- Per each LED controllable individually
- Built-in online neon light effect
- 7*40W 4-IN-1 RGBW LEDS
- 50000 hours life span and low power
- CTB and CTO,linear colour temperature 2700K -8000K changable
- 8/16 bit smooth and precise resolution for PAN/TILT movement
- Scan position memory, auto reposition after unexpected movement
- 6°-60°Smooth electronic linear zoom
- Built-in running programs
- Built-in color and graphic effect macros
- 0-100% Linear LED dimmer
- 1-25T/sec high speed LED shutter/strobe effect with variable speed
- Preset variable/random strobe and dimming pulse effect
- DMX512, master-slave, and sound activated controllable or auto operation
- DMX recorder and edit function integrated
- High resolution graphic LCD display
- POWERCON connector IN
- 3-Pin XLR connectors IN/OUT
- Constant temperature readout and management function
- -35°C ~ 45°C max ambient temperature
- IP20 protection rating

FUNCTION:

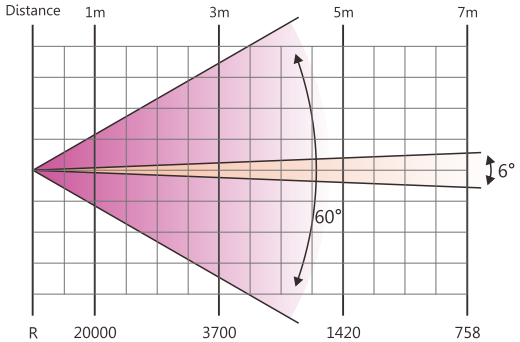
- Scan position memory, auto reposition after unexpected movement
- Built-in running programs
- Built-in color and graphic effect macros
- Preset variable/random strobe and dimming pulse effect
- DMX recorder and edit function integrated



27				**Green in pixel 2**
			0..255	Green in pixel 2 saturation control(0-100%)
28				**Blue in pixel 2**
			0..255	Blue in pixel 2 saturation control(0-100%)
29				**White in pixel 2**
			0..255	White in pixel 2 saturation control(0-100%)
30				**Red in Pixel 3**
			0..255	Red in pixel 3 saturation control (0-100%)
31				**Green in pixel 3**
			0..255	Green in pixel 3 saturation control(0-100%
32				**Blue in pixel 3**
			0..255	Blue in pixel 3 saturation control(0-100%)
33				**White in pixel 3**
			0..255	White in pixel 3 saturation control(0-100%)
34				**Red in Pixel 4**
			0..255	Red in pixel 4 saturation control (0-100%)
35				**Green in pixel 4**
			0..255	Green in pixel 4 saturation control(0-100%)
36				**Blue in pixel 4**
			0..255	Blue in pixel 4 saturation control(0-100%)
37				**White in pixel 4**
			0..255	White in pixel 4 saturation control(0-100%)
38				**Red in Pixel 5**
			0..255	White in pixel 5 saturation control (0-100%)
39				**Green in pixel 5**
			0..255	Green in pixel 5 saturation control(0-100%)
40				**Blue in pixel 5**
			0..255	Blue in pixel 5 saturation control(0-100%)
41				**White in pixel 5**
			0..255	White in pixel 5 saturation control(0-100%)
42				**Red in Pixel 6**
			0..255	White in pixel 6 saturation control (0-100%)
43				**Green in pixel 6**
			0..255	Green in pixel 6 saturation control(0-100%)
44				**Blue in pixel 6**
			0..255	Blue in pixel 6 saturation control(0-100%)
45				**White in pixel 6**
			0..255	White in pixel 6 saturation control(0-100%)
46				**Red in Pixel 7**
			0..255	White in pixel 7 saturation control (0-100%)
47				**Green in pixel 7**
			0..255	Green in pixel 7 saturation control(0-100%)
48				**Blue in pixel 7**
			0..255	Blue in pixel 7 saturation control(0-100%)
49				**White in pixel 7**
			0..255	White in pixel 7 saturation control(0-100%)

21	21			**Static patterns or patterns speed**
			Static Patterns (If channel 18 is in the interval 016 – 031)	
			000..007	static scene1
			008..015	static scene2
			016..023	static scene3
			024..031	static scene4
			032..039	static scene5
			040..047	static scene6
			048..055	static scene7
			056..063	static scene8
			064..071	static scene9
			072..079	static scene10
			080..087	static scene11
			088..095	static scene12
			096..097	static scene13
			104..111	static scene14
			112..119	static scene15
			120..127	static scene16
			128..135	static scene17
			136..143	static scene18
			144..151	static scene19
			152..159	static scene20
			160..167	static scene21
			168..175	static scene22
			176..183	static scene23
			184..191	static scene24
			192..199	static scene25
			200..207	static scene26
			208..215	static scene27
			216..223	static scene28
			224..231	static scene29
			232..239	static scene30
			240..247	static scene31
			248..255	static scene32
			Dynamic Patterns (If channel 18 is in the interval 032 – 255)	
			000..023	No function
			024..137	Forward speed from zero speed to fast speed
			138..141	Stop movement
			142..255	Reverse speed from zero speed to fast speed
22				**Red in Pixel 1**
			0..255	Red in pixel 1 saturation control (0-100%)
23				**Green in Pixel 1**
			0..255	Green in pixel 1 saturation control (0-100%)
24				**Blue in Pixel 1**
			0..255	Blue in pixel 1 saturation control(0-100%)
25				**White in pixel 1**
			0..255	White in pixel 1 saturation control(0-100%)
26				**Red in pixel 2**
			0..255	Red in pixel 2 saturation control(0-100%)

4.PHOTOMETRICS DIAGRAM



		1m	3m	5m	7m
6° (LUX)	R	20000	3700	1420	758
	G	23000	4000	1480	775
	B	37000	6350	2320	1210
	W	39000	6700	2480	1300
	RGBW	136000	19700	7300	3800
60° (LUX)	R	2400	290	120	75
	G	3150	340	130	70
	B	5000	650	215	117
	W	5000	670	219	120
	RGBW	15100	2030	710	365

5.OPERATION INSTRUCTIONS

- FOS Aurora is for wash 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 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 were 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 f t) 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.

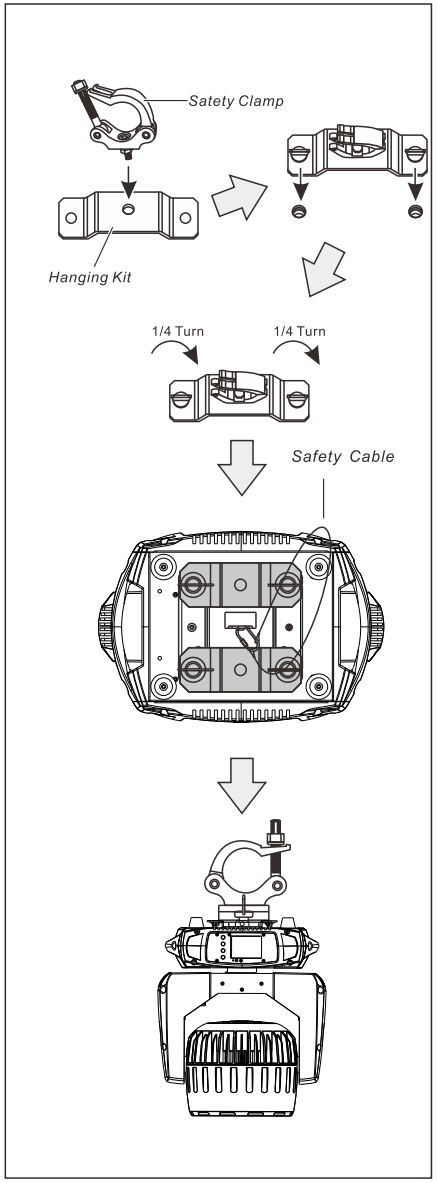
Mounting points:

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:

FOS Aurora 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 on of the safety cable rigging point integrated in the base assembly .

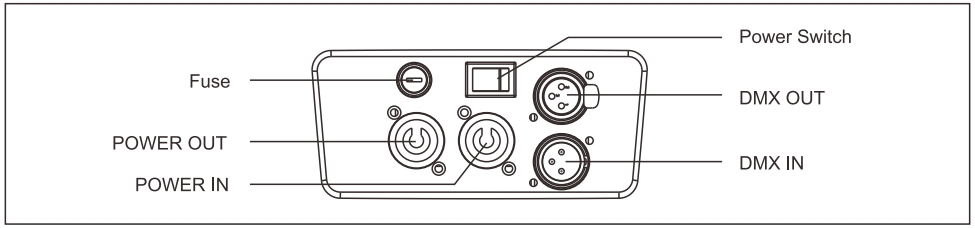


INSTALLATION DIAGRAM

16	17			**Foreground dimmer**
			000..255	Foreground dimmer 0 – 100%.
18	18			**Background color for patterns**
			0..0	No Function
			1..13	Red
			14..27	Green
			28..41	Blue
			42..55	White
			56..69	Red+White
			70..83	Green+White
			84..97	Blue+White
			98..111	Green+Blue
			112..125	Red+Blue
			126..139	Red+Green
			140..153	Green+Blue+White
			154..167	Red+Blue+White
			168..181	Red+Green+White
			182..195	Red+Blue+Green+White
			196..202	2700K
			203..209	3200K
			210..216	3500K
			217..223	5000K
			224..230	5500K
			231..237	6000K
			238..244	6500K
			245..251	7000K
			252..255	8000K
19	19			**Background dimmer**
			000..255	Background dimmer 0 – 100%.
20	20			**Patterns**
			000..015	No function
			016..031	Static patterns
			032..043	Dynamic Scene1
			44.055	Dynamic Scene2
			056..067	Dynamic Scene3
			068..079	Dynamic Scene4
			080..091	Dynamic Scene5
			092..103	Dynamic Scene6
			104..115	Dynamic Scene7
			116..127	Dynamic Scene8
			128..139	Dynamic Scene9
			140..151	Dynamic Scene10
			152..163	Dynamic Scene11
			164..175	Dynamic Scene12
			176..187	Dynamic Scene13
			188..199	Dynamic Scene14
			200..211	Dynamic Scene15
			212..223	Dynamic Scene16
			224..235	Dynamic Scene17
			236..247	Dynamic Scene18
			248..255	Dynamic Scene19

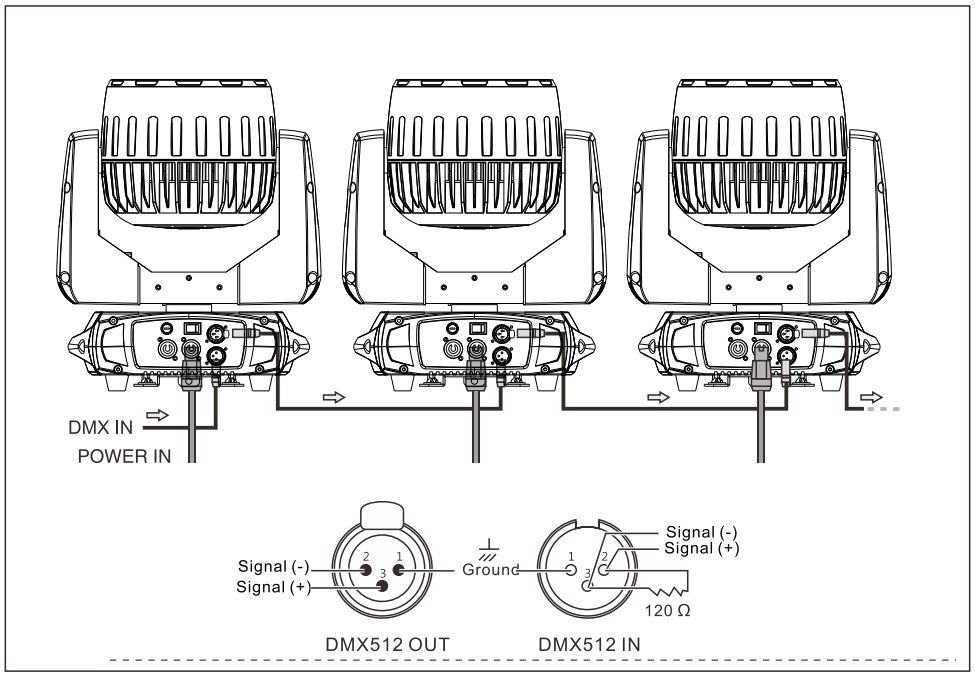
13	13	13	140..153	Green+Blue+White
			154..167	Red+Blue+White
			168..181	Red+Green+White
			182..195	Red+Blue+Green+White
			196..202	2700K
			203..209	3200K
			210..216	3500K
			217..223	5000K
			224..230	5500K
			231..237	6000K
			238..244	6500K
			245..251	7000K
			252..255	8000K
14	14	14		**Color Temp**
			0..15	No Function
			16..45	Below 3200K
			46..75	3200K - 3500K
			76..105	3500K - 5000K
			106..135	5000K - 5500K
			136..165	5500K - 6000K
			166..195	6000K - 6500K
			196..225	6500K - 7000K
			226..255	7000K - 8000K
15	15	15		**Visual Tungsten Lamp**
			0..15	No Function
			16..255	Tungsten lamp effect is gradually enhanced
16	16			**Foreground color for patterns**
			0..0	No Function
			1..13	Red
			14..27	Green
			28..41	Blue
			42..55	White
			56..69	Red+White
			70..83	Green+White
			84..97	Blue+White
			98..111	Green+Blue
			112..125	Red+Blue
			126..139	Red+Green
			140..153	Green+Blue+White
			154..167	Red+Blue+White
			168..181	Red+Green+White
			182..195	Red+Blue+Green+White
			196..202	2700K
			203..209	3200K
			210..216	3500K
			217..223	5000K
			224..230	5500K
			231..237	6000K
			238..244	6500K
			245..251	7000K
			252..255	8000K

7.CONTROL CONNECTION

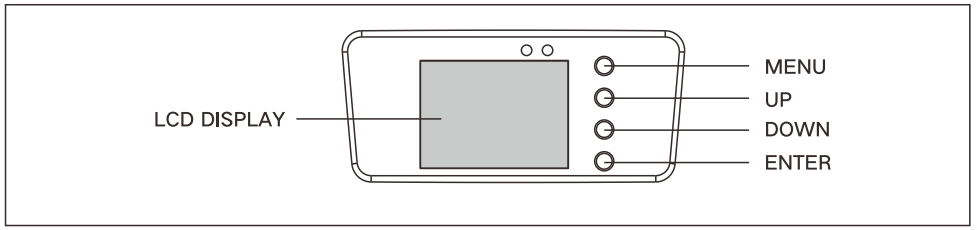


Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. 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 a3 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		***DMX*** address setting
	Channel Mode	Ch31		***31 Channel Mode***
		Ch25		***25 Channel Mode***
		Ch59		***59 Channel Mode***
	Auto Run	Internal Program1~8	Master/Alone	Auto run
	Music Control	Internal Program1~8	Master/Alone	Sound Control
Option	Reset Default	Yes/No		Reset Default
	Signal Set	Wire DMX		Wire ***DMX***
		Wireless DMX		Wireless ***DMX***
		Act WDMX & Out		***Act WDMX*** & Out
	Pan / Tilt	Reverse Pan (On/Off)		Reverse Pan
		Reverse Tilt (On/Off)		Reverse Tilt
		Select Pan 630 ° /540 ° /360 °		Pan Degree,default is 540 °
		Select Tilt 270 ° /180 ° /90 °		Tilt Degree,default is 270 °
	UI SET	Mic SEN 0~99%		Sensitivity Setting
		OFF Signal Mode (On/Off)		***OFF*** at original status and ***ON*** at reset status when no ***DMX*** signal
Information	Temperature	XXX ° C/ ° F		Current Temperature
	Software Version	V1.0~V9.9		Software Version
Manual Control	Reset	Total Reset		Total Reset
		Pan/Tilt Reset		Pan/Tilt Reset
		Zoom Reset		***Zoom*** Reset
	Channel	PAN=XXX·····		***Manual*** Channel Control
Advanced (Access Code 088)	Calibration	PAN=XXX·····		***Calibration(Code:088)***

9.DMX PROTOCOL

Mode/Channel			Value	Function
59	31	25		
1	1	1		**Pan**
			0..255	PAN Movement
2	2	2		**Pan-fine**
			0..255	Fine control of Pan movement
3	3	3		**Tilt**
			0..255	Tilt Movement
4	4	4		**Tile-fine**
			0..255	Fine control of Tilt movement
5	5	5		**Speed pan/tile**
			0..225	max to min speed
			226..235	blackout by movement
			236..255	no function
6	6	6		**Dimmer**
			0..255	Dimmer 0%...100%
7	7	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..255	shutter open
8	8	8		**Red**
			0..255	0-100% Red dimmer from dark to bright
9	9	9		**Green**
			0..255	0-100% Green dimmer from dark to bright
10	10	10		**Blue**
			0..255	0-100% Blue dimmer from dark to bright
11	11	11		**White**
			0..255	0-100% White dimmer from dark to bright
12	12	12		**Zoom**
			0..255	In(near) to out(far)
13	13	13		**Virtual color**
			0..0	No Function
			1..13	Red
			14..27	Green
			28..41	Blue
			42..55	White
			56..69	Red+White
			70..83	Green+White
			84..97	Blue+White
			98..111	Green+Blue
			112..125	Red+Blue
			126..139	Red+Green