

112	30	24	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

## 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. 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.

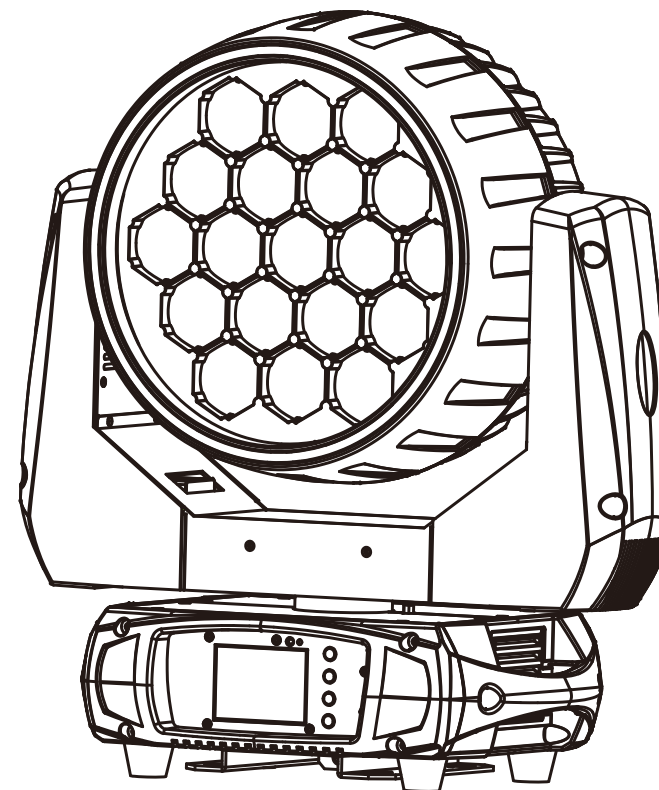
After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information---> Air Filters---> Elapsed Time).

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 Q19 Ultra



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 Q19 Ultra. 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.

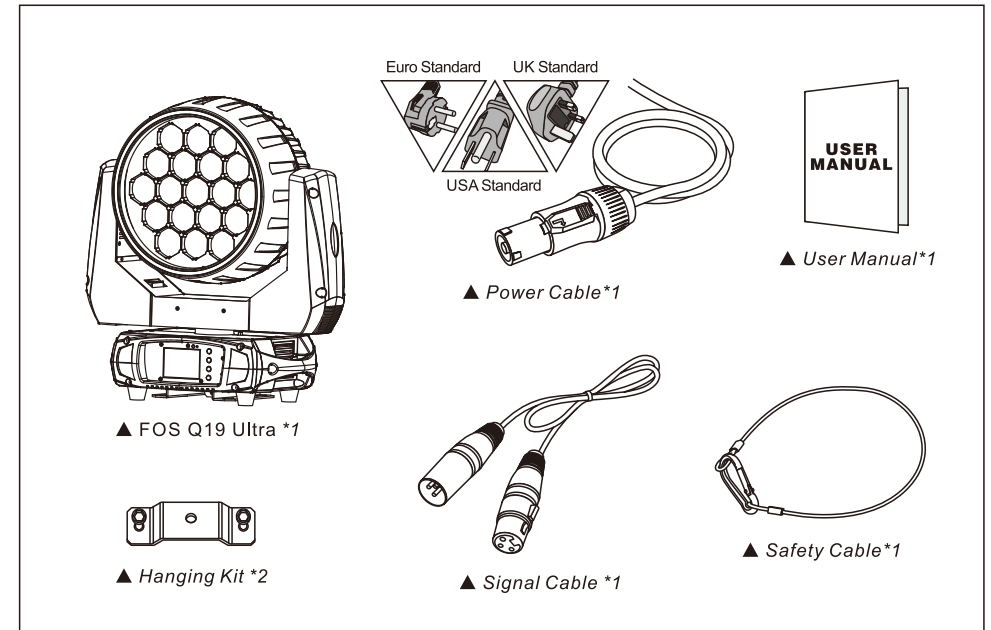
**CAUTION ! EYE DAMAGES !**  
Avoid looking directly into the light source  
(meant especially for epileptics) !

84			0.255	Red in Pixel 13 Red in pixel 13 saturation control (0-100%)
85			0.255	Green in pixel 13 Green in pixel 13 saturation control(0-100%)
86			0.255	Blue in pixel 13 Blue in pixel 13 saturation control(0-100%)
87			0.255	White in pixel 13 White in pixel 13 saturation control(0-100%)
88			0.255	Red in Pixel 14 Red in pixel 14 saturation control (0-100%)
89			0.255	Green in pixel 14 Green in pixel 14 saturation control(0-100%)
90			0.255	Blue in pixel 14 Blue in pixel 14 saturation control(0-100%)
91			0.255	White in pixel 14 White in pixel 14 saturation control(0-100%)
92			0.255	White in pixel 15 White in pixel 15 saturation control (0-100%)
93			0.255	Green in pixel 15 Green in pixel 15 saturation control(0-100%)
94			0.255	Blue in pixel 15 Blue in pixel 15 saturation control(0-100%)
95			0.255	White in pixel 15 White in pixel 15 saturation control(0-100%)
96			0.255	White in pixel 16 White in pixel 16 saturation control (0-100%)
97			0.255	Green in pixel 16 Green in pixel 16 saturation control(0-100%)
98			0.255	Blue in pixel 16 Blue in pixel 16 saturation control(0-100%)
99			0.255	White in pixel 16 White in pixel 16 saturation control(0-100%)
100			0.255	White in pixel 17 White in pixel 17 saturation control (0-100%)
101			0.255	Green in pixel 17 Green in pixel 17 saturation control(0-100%)
102			0.255	Blue in pixel 17 Blue in pixel 17 saturation control(0-100%)
103			0.255	White in pixel 17 White in pixel 17 saturation control(0-100%)
104			0.255	Red in Pixel 18 Red in pixel 18 saturation control (0-100%)
105			0.255	Green in Pixel 18 Green in pixel 18 saturation control (0-100%)
106			0.255	Blue in Pixel 18 Blue in pixel 18 saturation control(0-100%)
107			0.255	White in pixel 18 White in pixel 18 saturation control(0-100%)
108			0.255	Red in pixel 19 Red in pixel 19 saturation control(0-100%)
109			0.255	Green in pixel 19 Green in pixel 19 saturation control(0-100%)
110			0.255	Blue in pixel 19 Blue in pixel 19 saturation control(0-100%)
111			0.255	White in pixel 19 White in pixel 19 saturation control(0-100%)
112	30	24	0..19	Special function 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

51			White in pixel 4
	0.255		White in pixel 4 saturation control(0-100%)
52			Red in Pixel 5
	0.255		White in pixel 5 saturation control (0-100%)
53			Green in pixel 5
	0.255		Green in pixel 5 saturation control(0-100%)
54			Blue in pixel 5
	0.255		Blue in pixel 5 saturation control(0-100%)
55			White in pixel 5
	0.255		White in pixel 5 saturation control(0-100%)
56			Red in Pixel 6
	0.255		White in pixel 6 saturation control (0-100%)
57			Green in pixel 6
	0.255		Green in pixel 6 saturation control(0-100%)
58			Blue in pixel 6
	0.255		Blue in pixel 6 saturation control(0-100%)
59			White in pixel 6
	0.255		White in pixel 6 saturation control(0-100%)
60			Red in Pixel 7
	0.255		White in pixel 7 saturation control (0-100%)
61			Green in pixel 7
	0.255		Green in pixel 7 saturation control(0-100%)
62			Blue in pixel 7
	0.255		Blue in pixel 7 saturation control(0-100%)
63			White in pixel 7
	0.255		White in pixel 7 saturation control(0-100%)
64			Red in Pixel 8
	0.255		Red in pixel 8 saturation control (0-100%)
65			Green in Pixel 8
	0.255		Green in pixel 8 saturation control (0-100%)
66			Blue in Pixel 8
	0.255		Blue in pixel 8 saturation control(0-100%)
67			White in pixel 8
	0.255		White in pixel 8 saturation control(0-100%)
68			Red in pixel 9
	0.255		Red in pixel 9 saturation control(0-100%)
69			Green in pixel 9
	0.255		Green in pixel 9 saturation control(0-100%)
70			Blue in pixel 9
	0.255		Blue in pixel 9 saturation control(0-100%)
71			White in pixel 9
	0.255		White in pixel 9 saturation control(0-100%)
72			Red in Pixel 10
	0.255		Red in pixel 10 saturation control (0-100%)
73			Green in pixel 10
	0.255		Green in pixel 10 saturation control(0-100%)
74			Blue in pixel 10
	0.255		Blue in pixel 10 saturation control(0-100%)
75			White in pixel 10
	0.255		White in pixel 10 saturation control(0-100%)
76			Red in Pixel 11
	0.255		Red in pixel 11 saturation control (0-100%)
77			Green in Pixel 11
	0.255		Green in pixel 11 saturation control (0-100%)
78			Blue in Pixel 11
	0.255		Blue in pixel 11 saturation control(0-100%)
79			White in pixel 11
	0.255		White in pixel 11 saturation control(0-100%)
80			Red in pixel 12
	0.255		Red in pixel 12 saturation control(0-100%)
81			Green in pixel 12
	0.255		Green in pixel 12 saturation control(0-100%)
82			Blue in pixel 12
	0.255		Blue in pixel 12 saturation control(0-100%)
83			White in pixel 12
	0.255		White in pixel 12 saturation control(0-100%)

## 2.UNPACKING

FOS Q19 Ultra adopts 19\*40W 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:



FOS Q19 Ultra 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

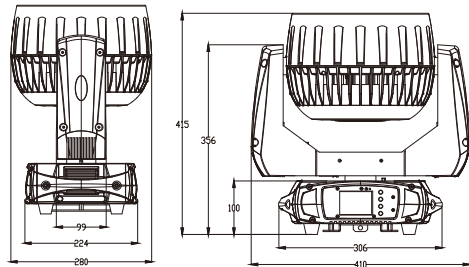
**SPECIFICATIONS:**

- 19\*40W 4-IN-1 RGBW LEDs 50,000 hours life span
- Input Voltage: AC90-260V 50/60Hz
- Control Signal: DMX512, master-slave and sound activated or auto operation
- Control Channel: 24/30/112 DMX channel modes
- Power Consumption: 530W
- Dimensions: 411(D)\*280(W)\*415(H)mm
- Packing Dimensions:490(D)\*285(W)\*555(H)mm
- Net Weight: 13.12kg
- Gross Weight: 17.6kg

**FEATURES:**

- Specific optic lens of highly efficient elements integrated with glass tube
- CTB and CTO,linear colour temperature 2800K-8000K changable
- 19 Pixel each color and each LED controllable individually, aura ring effect.
- Fast, smooth and quiet motorized zoom with 6° -60° beam angle
- Even, soft edge and pure color mixing coverage
- Flicker free sources management
- 8/16 Bit smooth, fast and precise PAN/TILT movement
- 630°/540°/360° PAN optional and 270°/180°/90° TILT optional
- PAN/TILT reversible advantage
- PAN/TILT calibration available
- Scan position memory, auto reposition after unexpected movement
- 0-100% Smooth linear LED dimmer
- 7 built-in default programs for easy operation
- Different Kinds of pre-programmed macro effects with variable speed
- Variable speed strobe effect with 1-25 flashes per second
- Variable pusle and random effects
- Sound control with sensitivity adjustment
- 2.4" TFT LCD display (320\*240pix) with 4 control buttons

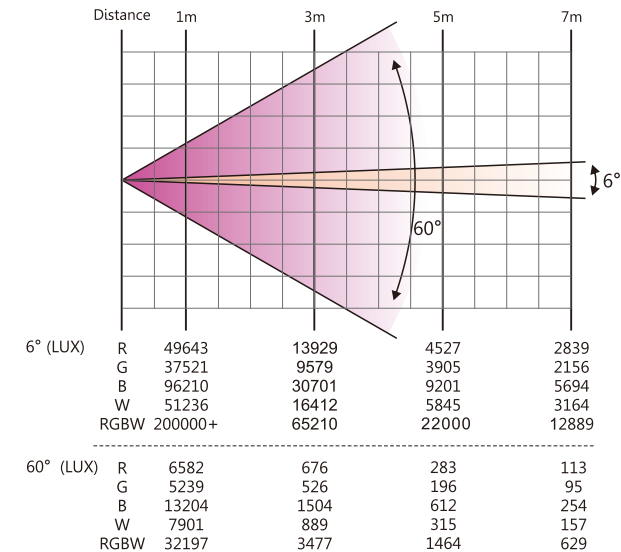
- LCD display switch-off automatically after 60 seconds
- DMX signal monitoring indicator available
- Lower noise and efficient FAN cooling system
- Efficient low noise self adjusting fan cooling system
- Constant temperature readout and management function
- Over heat protection management
- Powercon IN/ OUT with power switch and fuse
- 3-Pin DMX connectors IN/OUT
- DB rating@1M=54.18dB
- IP20 protection rating
- -35°C ~ 45°C max ambient temperature
- 2\*1/4 turn fastening Omega Clamps (Adaptable vertically and horizontally)
- 1\*Safety attachment point
- CE (EMC/LVD) and RoHS certified



				<b>Expand Patterns</b>
		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..255		Pix Dynamic Scene17
				<b>Pix_Foreground dimmer</b>
30				Pix_Expand Patterns Foreground dimmer 0 – 100%. (Foreground Color Share with "Pix_Macro"Channel)
		0..255		
31				<b>Pix_Background dimmer</b>
32		0..255		Pix_Expand Patterns Background dimmer 0 – 100%.
				<b>Pix_Background Red</b>
33		0..255		Pix_Expand Patterns Background Red 0 – 100%.
				<b>Pix_Background Green</b>
34		0..255		Pix_Expand Patterns Background Green 0 – 100%.
				<b>Pix_Background Blue</b>
35		0..255		Pix_Expand Patterns Background Blue 0 – 100%.
				<b>Red in Pixel 1</b>
36		0..255		Red in pixel 1 saturation control(0-100%)
				<b>Green in Pixel 1</b>
37		0..255		Green in pixel 1 saturation control(0-100%)
				<b>Blue in Pixel 1</b>
38		0..255		Blue in pixel 1 saturation control(0-100%)
				<b>White in pixel 1</b>
39		0..255		White in pixel 1 saturation control(0-100%)
				<b>Red in pixel 2</b>
40		0..255		Red in pixel 2 saturation control(0-100%)
				<b>Green in pixel 2</b>
41		0..255		Green in pixel 2 saturation control(0-100%)
				<b>Blue in pixel 2</b>
42		0..255		Blue in pixel 2 saturation control(0-100%)
				<b>White in pixel 2</b>
43		0..255		White in pixel 2 saturation control(0-100%)
				<b>Red in Pixel 3</b>
44		0..255		Red in pixel 3 saturation control(0-100%)
				<b>Green in pixel 3</b>
45		0..255		Green in pixel 3 saturation control(0-100%)
				<b>Blue in pixel 3</b>
46		0..255		Blue in pixel 3 saturation control(0-100%)
				<b>White in pixel 3</b>
47		0..255		White in pixel 3 saturation control(0-100%)
				<b>Red in Pixel 4</b>
48		0..255		Red in pixel 4 saturation control(0-100%)
				<b>Green in pixel 4</b>
49		0..255		Green in pixel 4 saturation control(0-100%)
				<b>Blue in pixel 4</b>
50		0..255		Blue in pixel 4 saturation control(0-100%)

21	21		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
			<b>Dynamic Patterns</b> (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	22	16	<b>Pix_Dimmer</b>	
			0..255	Pix_Dimmer 0%...100%
23	23	17	<b>Pix_Strobe</b>	
			0..255	Pix_Strobe Speed 0%...100%
24	24	18	<b>Pix_Red</b>	
			0..255	0-100% Pix_Red dimmer from dark to bright
25	25	19	<b>Pix_Green</b>	
			0..255	0-100% Pix_Green dimmer from dark to bright
26	26	20	<b>Pix_Blue</b>	
			0..255	0-100% Pix_Blue dimmer from dark to bright
27	27	21	<b>Pix_color</b>	
			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			
28	28	22	<b>Pix_Macro</b>	
			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..255	Pix Dynamic Scene17			
29	29	23	<b>Pix_Macro_Speed</b>	
			0..255	Slow to Fast

#### 4.PHOTOMETRICS DIAGRAM



#### 5.OPERATION INSTRUCTIONS

- The FOS Q19 Ultra is for beam 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 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.**

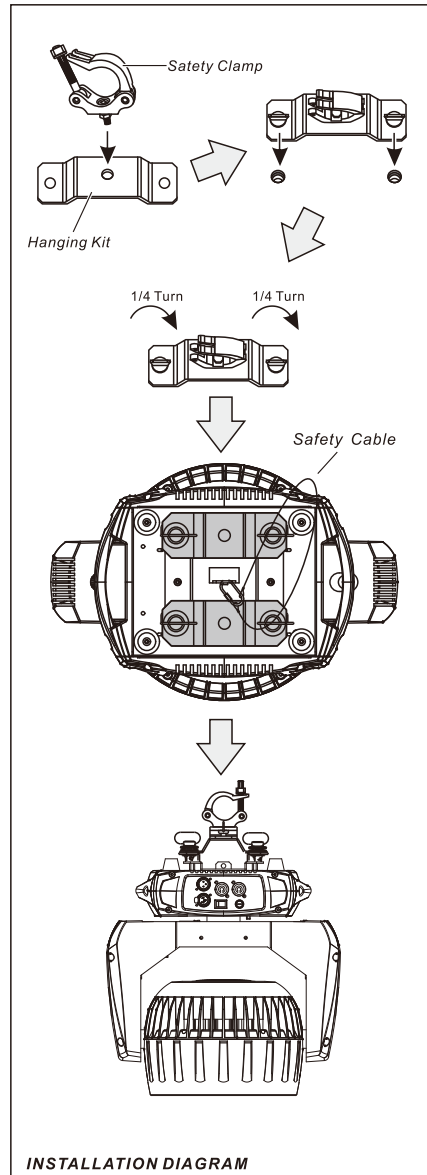
**Mounting points:**

**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:**

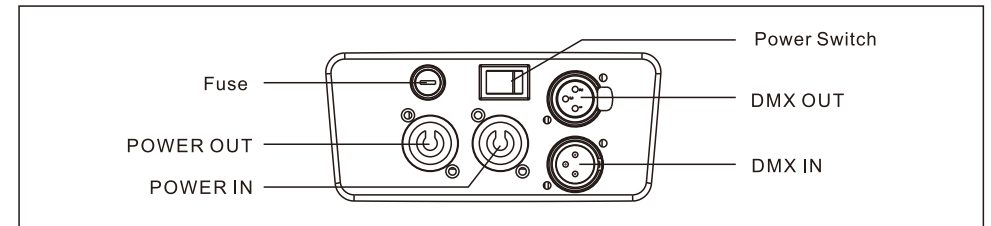
**FOS Q19 Ultra provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 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 .**



				<b>Patterns</b>
			000..015	No function
			016..031	Static patterns
			032..038	Dynamic Scene1
			039..045	Dynamic Scene2
			046..052	Dynamic Scene3
			053..059	Dynamic Scene4
			060..066	Dynamic Scene5
			067..073	Dynamic Scene6
			074..080	Dynamic Scene7
			081..087	Dynamic Scene8
			088..094	Dynamic Scene9
			095..101	Dynamic Scene10
			102..108	Dynamic Scene11
			109..115	Dynamic Scene12
			116..122	Dynamic Scene13
			123..129	Dynamic Scene14
			130..136	Dynamic Scene15
			137..143	Dynamic Scene16
			144..150	Dynamic Scene17
			151..157	Dynamic Scene18
			158..164	Dynamic Scene19
			165..171	Dynamic Scene20
			172..178	Dynamic Scene21
			179..185	Dynamic Scene22
			186..192	Dynamic Scene23
			193..199	Dynamic Scene24
			200..206	Dynamic Scene25
			207..213	Dynamic Scene26
			214..220	Dynamic Scene27
			221..227	Dynamic Scene28
			228..234	Dynamic Scene29
			235..241	Dynamic Scene30
			242..248	Dynamic Scene31
			249..255	Dynamic Scene32
				<b>Static patterns or patterns speed</b>
				<b>Static Patterns</b>
				<b>(If channel 18 is in the interval 016 – 031)</b>
			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..103	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
20	20			
21	21			

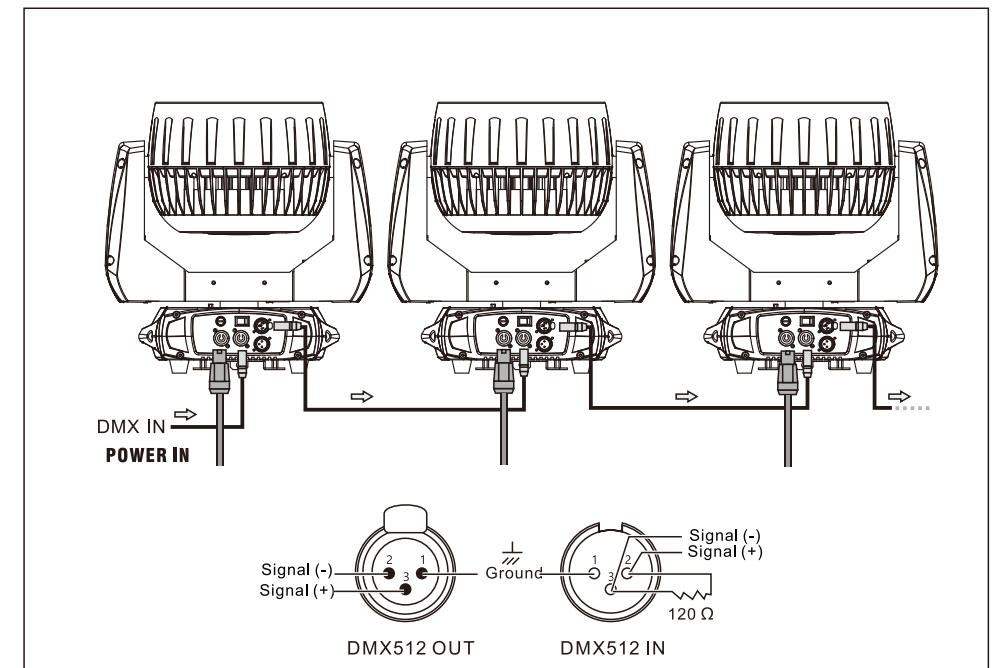
14	14	14	0..15	Color Temp No Function			
			16..45	Below 3200K			
			46..75	3200K - 3500K			
			76..105	3500K - 5000K			
			106..135	5000K - 5500K			
			136..165	5500K - 6000K			
			166..195	6000K - 6500K			
			196..225	6500K - 7000K			
226..255	7000K - 8000K						
15	15	15		Visual Tungsten Lamp			
			0..15	No Function			
			16..255	Tungsten lamp effect is gradually enhanced			
16	16	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			
			17	17	17		Foreground dimmer
						000..255	Foreground dimmer 0 – 100%.
18	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	19		Background dimmer
						000..255	Background dimmer 0 – 100%.

## 7.CONTROL CONNECTION

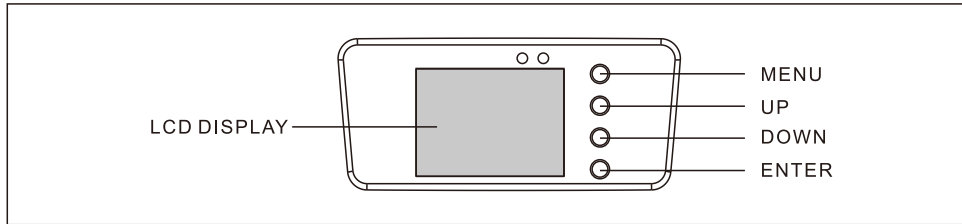


Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. 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 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
	Channel Mode	CH 112
		CH 30
		CH 24
	Auto Run	Internal Program1~8
		State:Master/Alone
		Auto Run(On/Off)
	Music Control	Internal Program1~8
		State:Master/Alone
		Music Run(On,Off)
Option	Reset Default	Yes/No
	Signal Set	Wire DMX
		Wireless DMX Act WDMX&Out WiDMX Out
	Pan/ Tilt	Reverse Pan (On/Off)
		Reverse Tilt (On/Off) Select Pan630/540/360 Select Tilt270/180/90
UI SET	Mic sensitivity 0~99% OFF Signal Mode (On/Off)	
Information	Temperature	XXX°C/°F
	Software Version	V1.0~V9.9
Manual Control	Reset	Total Reset
		Pan/Tilt Reset Focus Reset
	Channel	PAN=XXX.....
ADVANCED (Access Code 088)	Calibration	PAN=XXX.....

Special button instruction: press "UP" and "DOWN" for 3 seconds, display menu turns upside down

## 9.DMX PROTOCOL

Mode/Channel			Value	Function
112	30	24		
1	1	1		Pan
			0..255	PAN Movement
				Pan-fine
2	2	2	0..255	Fine control of Pan movement
				Tilt
3	3	3	0..255	Tilt Movement
				Tilt-fine
4	4	4	0..255	Fine control of Tilt movement
				Speed pan/tile
			0..225	max to min speed
5	5	5	226..235	blackout by movement
			236..255	no function
				Dimmer
6	6	6	0..255	Dimmer 0%...100%
				Shutter
			0..31	Shutter closed
7	7	7	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
				Red
			0..255	0-100% Red dimmer from dark to bright
9	9	9	0..255	0-100% Green dimmer from dark to bright
				Green
10	10	10	0..255	0-100% Blue dimmer from dark to bright
				Blue
11	11	11	0..255	0-100% White dimmer from dark to bright
				White
12	12	12	0..255	0-100% White dimmer from dark to bright
				Zoom
13	13	13	0..255	In(near) to out(far)
				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
			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			