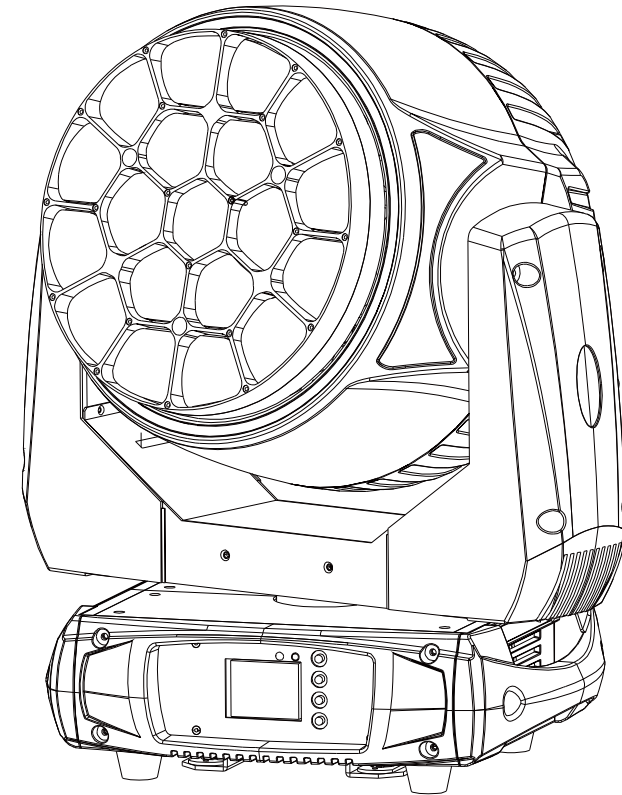


# FOS

technologies

## FOS Helix 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

## 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, CMY lamellas, gobo and graphic wheels and the internal lenses should be cleaned monthly. 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).

90	78			0..255	Red in Pixel 14 Red in pixel 14 saturation control (0-100%)
91	79			0..255	Green in pixel 14 Green in pixel 14 saturation control(0-100%)
92	80			0..255	Blue in pixel 14 Blue in pixel 14 saturation control(0-100%)
93	81			0..255	White in pixel 14 White in pixel 14 saturation control(0-100%)
94	82			0..255	White in pixel 15 White in pixel 15 saturation control (0-100%)
95	83			0..255	Green in pixel 15 Green in pixel 15 saturation control(0-100%)
96	84			0..255	Blue in pixel 15 Blue in pixel 15 saturation control(0-100%)
97	85			0..255	White in pixel 15 White in pixel 15 saturation control(0-100%)
98	86			0..255	White in pixel 16 White in pixel 16 saturation control (0-100%)
99	87			0..255	Green in pixel 16 Green in pixel 16 saturation control(0-100%)
100	88			0..255	Blue in pixel 16 Blue in pixel 16 saturation control(0-100%)
101	89			0..255	White in pixel 16 White in pixel 16 saturation control(0-100%)
102	90			0..255	White in pixel 17 White in pixel 17 saturation control (0-100%)
103	91			0..255	Green in pixel 17 Green in pixel 17 saturation control(0-100%)
104	92			0..255	Blue in pixel 17 Blue in pixel 17 saturation control(0-100%)
105	93			0..255	White in pixel 17 White in pixel 17 saturation control(0-100%)
106	94			0..255	Red in pixel 18 Red in pixel 18 saturation control (0-100%)
107	95			0..255	Green in pixel 18 Green in pixel 18 saturation control (0-100%)
108	96			0..255	Blue in pixel 18 Blue in pixel 18 saturation control(0-100%)
109	97			0..255	White in pixel 18 White in pixel 18 saturation control(0-100%)
110	98			0..255	Red in pixel 19 Red in pixel 19 saturation control(0-100%)
111	99			0..255	Green in pixel 19 Green in pixel 19 saturation control(0-100%)
112	100			0..255	Blue in pixel 19 Blue in pixel 19 saturation control(0-100%)
113	101			0..255	White in pixel 19 White in pixel 19 saturation control(0-100%)
114	102	38	26		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				

## 1.Safety instructions

**Thank you for choosing our FOS Helix 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!

The device has not been tested in laboratory perfect conditions in order to maintain the 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.

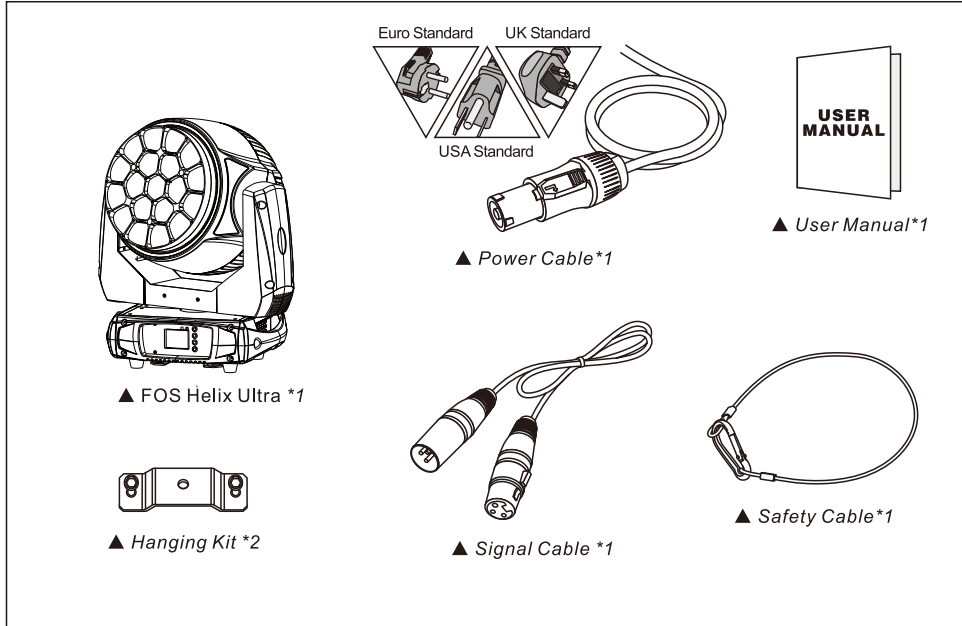
Do not touch the device's housing bare hands during its operation (housing becomes hot)!

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) !

## 2.UNPACKING

FOS Helix Ultra adopts 40W RGBW 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 Helix 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.

61	49				White in pixel 6
			0..255	White in pixel 6 saturation control(0-100%)	Red in Pixel 7
62	50			0..255	White in pixel 7 saturation control (0-100%)
					Green in pixel 7
63	51			0..255	Green in pixel 7 saturation control(0-100%)
					Blue in pixel 7
64	52			0..255	Blue in pixel 7 saturation control(0-100%)
					White in pixel 7
65	53			0..255	White in pixel 7 saturation control(0-100%)
					Red in Pixel 8
66	54			0..255	Red in pixel 8 saturation control (0-100%)
					Green in Pixel 8
67	55			0..255	Green in pixel 8 saturation control (0-100%)
					Blue in Pixel 8
68	56			0..255	Blue in pixel 8 saturation control(0-100%)
					White in pixel 8
69	57			0..255	White in pixel 8 saturation control(0-100%)
					Red in pixel 9
70	58			0..255	Red in pixel 9 saturation control(0-100%)
					Green in pixel 9
71	59			0..255	Green in pixel 9 saturation control(0-100%)
					Blue in pixel 9
72	60			0..255	Blue in pixel 9 saturation control(0-100%)
					White in pixel 9
73	61			0..255	White in pixel 9 saturation control(0-100%)
					Red in Pixel 10
74	62			0..255	Red in pixel 10 saturation control (0-100%)
					Green in pixel 10
75	63			0..255	Green in pixel 10 saturation control(0-100%)
					Blue in pixel 10
76	64			0..255	Blue in pixel 10 saturation control(0-100%)
					White in pixel 10
77	65			0..255	White in pixel 10 saturation control(0-100%)
					Red in Pixel 11
78	66			0..255	Red in pixel 11 saturation control (0-100%)
					Green in Pixel 11
79	67			0..255	Green in pixel 11 saturation control (0-100%)
					Blue in Pixel 11
80	68			0..255	Blue in pixel 11 saturation control(0-100%)
					White in pixel 11
81	69			0..255	White in pixel 11 saturation control(0-100%)
					Red in pixel 12
82	70			0..255	Red in pixel 12 saturation control(0-100%)
					Green in pixel 12
83	71			0..255	Green in pixel 12 saturation control(0-100%)
					Blue in pixel 12
84	72			0..255	Blue in pixel 12 saturation control(0-100%)
					White in pixel 12
85	73			0..255	White in pixel 12 saturation control(0-100%)
					Red in Pixel 13
86	74			0..255	Red in pixel 13 saturation control (0-100%)
					Green in pixel 13
87	75			0..255	Green in pixel 13 saturation control(0-100%)
					Blue in pixel 13
88	76			0..255	Blue in pixel 13 saturation control(0-100%)
					White in pixel 13
89	77			0..255	White in pixel 13 saturation control(0-100%)

38	26			0..255	Red in Pixel 1 Red in pixel 1 saturation control (0-100%)
39	27			0..255	Green in Pixel 1 Green in pixel 1 saturation control (0-100%)
40	28			0..255	Blue in Pixel 1 Blue in pixel 1 saturation control(0-100%)
41	29			0..255	White in pixel 1 White in pixel 1 saturation control(0-100%)
42	30			0..255	Red in pixel 2 Red in pixel 2 saturation control(0-100%)
43	31			0..255	Green in pixel 2 Green in pixel 2 saturation control(0-100%)
44	32			0..255	Blue in pixel 2 Blue in pixel 2 saturation control(0-100%)
45	33			0..255	White in pixel 2 White in pixel 2 saturation control(0-100%)
46	34			0..255	Red in Pixel 3 Red in pixel 3 saturation control (0-100%)
47	35			0..255	Green in pixel 3 Green in pixel 3 saturation control(0-100%)
48	36			0..255	Blue in pixel 3 Blue in pixel 3 saturation control(0-100%)
49	37			0..255	White in pixel 3 White in pixel 3 saturation control(0-100%)
50	38			0..255	Red in Pixel 4 Red in pixel 4 saturation control (0-100%)
51	39			0..255	Green in pixel 4 Green in pixel 4 saturation control(0-100%)
52	40			0..255	Blue in pixel 4 Blue in pixel 4 saturation control(0-100%)
53	41			0..255	White in pixel 4 White in pixel 4 saturation control(0-100%)
54	42			0..255	Red in Pixel 5 White in pixel 5 saturation control (0-100%)
55	43			0..255	Green in pixel 5 Green in pixel 5 saturation control(0-100%)
56	44			0..255	Blue in pixel 5 Blue in pixel 5 saturation control(0-100%)
57	45			0..255	White in pixel 5 White in pixel 5 saturation control(0-100%)
58	46			0..255	Red in Pixel 6 White in pixel 6 saturation control (0-100%)
59	47			0..255	Green in pixel 6 Green in pixel 6 saturation control(0-100%)
60	48			0..255	Blue in pixel 6 Blue in pixel 6 saturation control(0-100%)

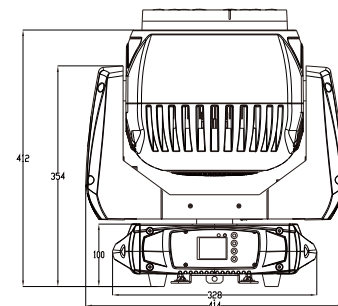
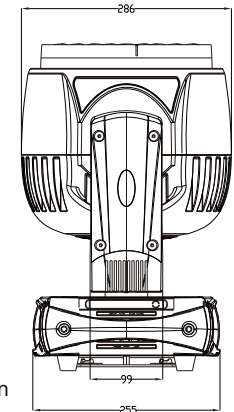
### 3.TECHNICAL INFORMATION

#### SPECIFICATIONS:

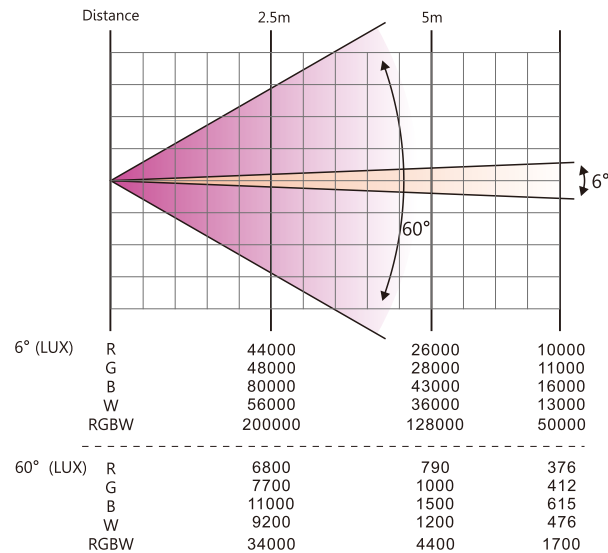
LED Quantities:19\*40W 4-IN-1 RGBW LEDs ,  
50,000 hours life span.  
Input Voltage:AC90-260V 50/60Hz  
Control Signal:DMX512, master-slave and sound activated or auto operation  
Control Channel: 26/38/102/114 DMX channels USITT DMX-512  
Power Consumption: 450W  
Dimension:414(D)\*286(W)\*412(H)mm  
Packing Dimension:525(D)\*380(W)\*530(H)mm  
Net Weight: 16kg  
Gross Weight: 18kg

#### FEATURES:

Low power consumption  
Each color and each LED controllable individually, aura ring effect.  
8/16 bit smooth and precise resolution for PAN/TILT movement  
Scan position memory, auto reposition after unexpected movement  
Specific high precision optic lens  
Variable direction rotating front lens  
4°-60°Smooth electronic linear zoom  
Brilliant hard beam effects at 4°  
Pure and even wash coverage effects at 60°  
Petal-like micro beam effects  
Pixel patterning macro effects  
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  
CTB and CTO,linear colour temperature 2800K-8000K changable  
23/17/95/99 DMX channels USITT DMX-512  
DMX512, master-slave, and sound activated controllable or auto operation  
DMX recorder and edit function integrated  
High resolution graphic LCD display  
POWERCON connector IN/OUT  
3-pin XLR connectors IN/OUT  
Aluminium structure with die-cast plastic cover  
Two side handles for transportation  
PAN lock for transport and maintenance  
High efficiency low noise cooling system  
Constant temperature readout and management function  
45°C max ambient temperature  
IP20 protection rating  
55dB at 3'dB rating  
2\*1/4 turn fastening Omega clamp  
1\*Safety attachment point



### 4. PHOTOMETRICS DIAGRAM



### 5. OPERATION INSTRUCTIONS

- FOS Helix 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 overheating, 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.

30	24	30	24	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
31	25	31	25		<b>Pix_Macro_Speed</b>
				0..255	Slow to Fast
32					<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				
33					<b>Pix_Foreground dimmer</b>
				0..255	Pix_Expand Patterns Foreground dimmer 0 – 100%. (Foreground Color Share with "Pix_Macro"Channel)
34					<b>Pix_Background dimmer</b>
				0..255	Pix_Expand Patterns Background dimmer 0 – 100%.
35					<b>Pix_Background Red</b>
				0..255	Pix_Expand Patterns Background Red 0 – 100%.
36					<b>Pix_Background Green</b>
				0..255	Pix_Expand Patterns Background Green 0 – 100%.
37					<b>Pix_Background Blue</b>
				0..255	Pix_Expand Patterns Background Blue 0 – 100%.



23				126..131	static scene22
				132..137	static scene23
				138..143	static scene24
				144..149	static scene25
				150..155	static scene26
				156..161	static scene27
				162..167	static scene28
				168..173	static scene29
				174..179	static scene30
				180..185	static scene31
				186..191	static scene32
				192..197	Multicolor static scene1
				198..203	Multicolor static scene2
				204..209	Multicolor static scene3
				210..215	Multicolor static scene4
				216..221	Multicolor static scene5
				222..227	Multicolor static scene6
				228..233	Multicolor static scene7
				234..239	Multicolor static scene8
				240..245	Multicolor static scene9
246..251	Multicolor static scene10				
252..255	Multicolor static scene11				
<b>Dynamic Patterns</b>					
(If Patterns channel 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
24	18	24	18	<b>Pix_Dimmer</b>	
				0..255	Pix_Dimmer 0%...100%
25	19	25	19	<b>Pix_Strobe</b>	
				0..255	Pix_Strobe Speed 0%...100%
26	20	26	20	<b>Pix_Red</b>	
				0..255	0-100% Pix_Red dimmer from dark to bright
27	21	27	21	<b>Pix_Green</b>	
				0..255	0-100% Pix_Green dimmer from dark to bright
28	22	28	22	<b>Pix_Blue</b>	
				0..255	0-100% Pix_Blue dimmer from dark to bright
29	23	29	23	<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				
30	24	30	24	<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

## 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.).**

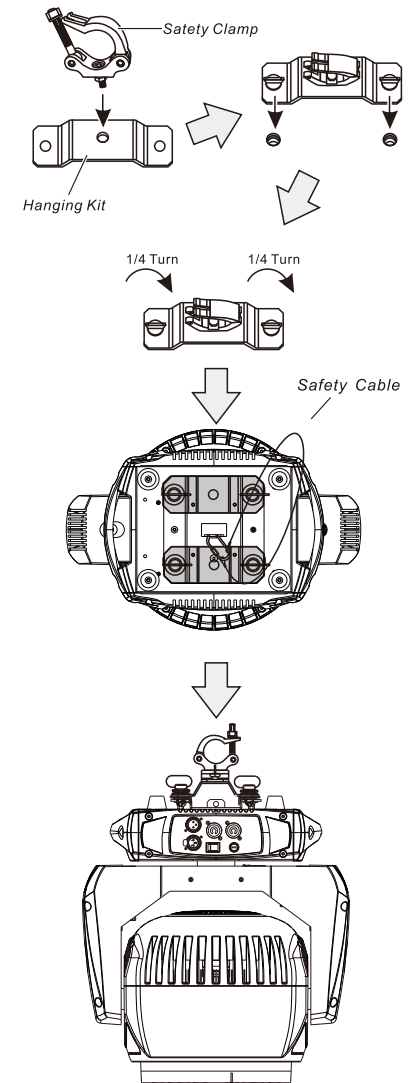
**Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.**

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.**

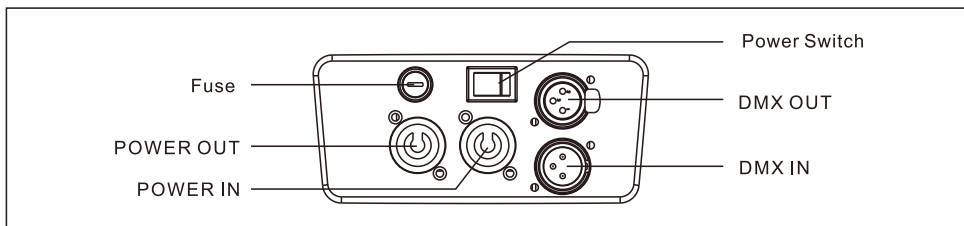
Clamp Mounting:

**FOS Helix 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 .**



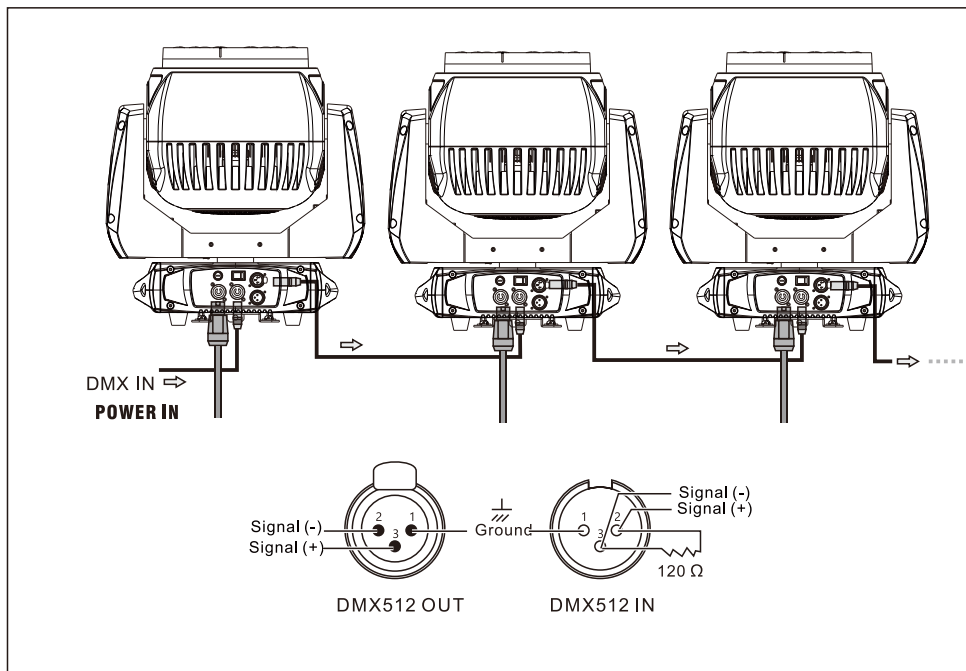
INSTALLATION DIAGRAM

## 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.

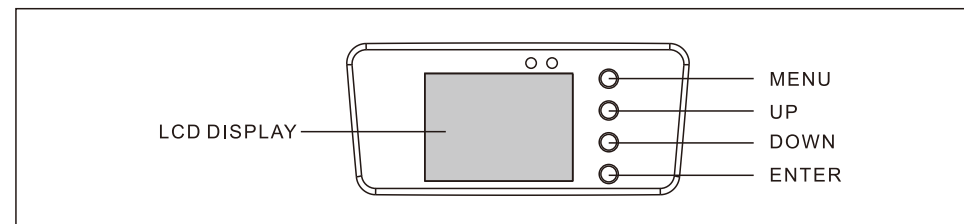


22	22	097..101	Dynamic Scene14
		102..106	Dynamic Scene15
		107..111	Dynamic Scene16
		112..116	Dynamic Scene17
		117..121	Dynamic Scene18
		122..126	Dynamic Scene19
		127..131	Dynamic Scene20
		132..136	Dynamic Scene21
		137..141	Dynamic Scene22
		142..146	Dynamic Scene23
		147..151	Dynamic Scene24
		152..156	Dynamic Scene25
		157..161	Dynamic Scene26
		162..166	Dynamic Scene27
		167..171	Dynamic Scene28
		172..176	Dynamic Scene29
		177..181	Dynamic Scene30
		182..186	Dynamic Scene31
		187..191	Dynamic Scene32
		192..196	Multicolor Dynamic Scene1
		197..201	Multicolor Dynamic Scene2
		202..206	Multicolor Dynamic Scene3
207..211	Multicolor Dynamic Scene4		
212..216	Multicolor Dynamic Scene5		
217..221	Multicolor Dynamic Scene6		
222..226	Multicolor Dynamic Scene7		
227..231	Multicolor Dynamic Scene8		
232..236	Multicolor Dynamic Scene9		
237..241	Multicolor Dynamic Scene10		
242..246	Multicolor Dynamic Scene11		
247..251	Multicolor Dynamic Scene12		
252..255	Multicolor Dynamic Scene13		
23	23	<b>Static patterns or patterns speed</b>	
		<b>Static Patterns</b>	
		<b>(If Patterns channel is in the interval 016 – 031)</b>	
		000..005	static scene1
		006..011	static scene2
		012..017	static scene3
		018..023	static scene4
		024..029	static scene5
		030..035	static scene6
		036..041	static scene7
		042..047	static scene8
		048..053	static scene9
		054..059	static scene10
		060..065	static scene11
		066..071	static scene12
		072..075	static scene13
		078..083	static scene14
		084..089	static scene15
		090..095	static scene16
		096..101	static scene17
		102..107	static scene18
		108..113	static scene19
		114..119	static scene20
120..125	static scene21		



19		19		<b>Foreground dimmer</b>
			000..255	Foreground dimmer 0 – 100%.
20		20		<b>Background color for patterns</b>
				Choose Background color for Dynamic/Static Scene, no function for Multicolor Scene
			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			
21		21		<b>Background dimmer</b>
			000..255	Background dimmer 0 – 100%.
22		22		<b>Patterns</b>
			000..015	No function
			016..031	Static patterns
			032..036	Dynamic Scene1
			037..041	Dynamic Scene2
			042..046	Dynamic Scene3
			047..051	Dynamic Scene4
			052..056	Dynamic Scene5
			057..061	Dynamic Scene6
			062..066	Dynamic Scene7
			067..071	Dynamic Scene8
			072..076	Dynamic Scene9
			077..081	Dynamic Scene10
			082..086	Dynamic Scene11
			087..091	Dynamic Scene12
092..096	Dynamic Scene13			

## 8.MENU OPERATIONS



MENU		Description	
DMX (Function Mode)	Dmx Address	A001~AXXX	
	ChannelMode	26CH	
		38CH	
		102CH	
		114CH	
	Auto Run	Program1~8	MasterAlone
Music Run	Program1~8	MasterAlone	
SET (Fixture Set)	Reset Default	Yes/No	
	Signal Set	Wire	
	Reverse Pan	(On/Off)	
	Reverse Tilt	(On/Off)	
	Select Pan	630° /540° /360°	
	Select Tilt	270° /180° /90°	
	Mic sensitivity	0~99%	
	OFF Signal Mode	(On/Off)	
	Scan Quick Mode	(On/Off)	
	Theater mode	(On/Off)	
Manu (Manual)	Reset	Total Reset Scan Reset ZOOM Reset	
	Channel	PAN=XXX....	
ADV (Advanced) (AccessCode 088)	Calibration	PAN=XXX....	
	UIDCode	XX XX XX XX XX XX	

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

## 9.DMX PROTOCOL

Mode/Channel				Value	Function
114	102	38	26		
1	1	1	1		<b>Pan</b>
				0..255	PAN Movement
2	2	2	2		<b>Pan-fine</b>
				0..255	Fine control of Pan movement
3	3	3	3		<b>Tilt</b>
				0..255	Tilt Movement
4	4	4	4		<b>Tilt-fine</b>
				0..255	Fine control of Tilt movement
5	5	5	5		<b>Speed pan/tilt</b>
				0..225	max to min speed
				226..235	blackout by movement
				236..255	no function
6	6	6	6		<b>Dimmer</b>
				0..255	Dimmer 0%...100%
7	7	7	7		<b>Shutter</b>
				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
8	8	8	8		<b>Red</b>
				0..255	0-100% Red dimmer from dark to bright
9	9	9	9		<b>Green</b>
				0..255	0-100% Green dimmer from dark to bright
10	10	10	10		<b>Blue</b>
				0..255	0-100% Blue dimmer from dark to bright
11	11	11	11		<b>White</b>
				0..255	0-100% White dimmer from dark to bright
12	12	12	12		<b>Zoom</b>
				0..255	In(near) to out(far)
13	13	13	13		<b>Zoom Rotation</b>
				0..15	Zoom rotation stop
				16..63	shake slow to fast(width by Zoom Angle)
				64..156	Forwards rotation from fast to slow
				157..162	Zoom rotation stop
14	14	14	14		<b>Zoom Angle</b>
				0..255	Zoom Angle(0°~60°)
					<b>Virtual color</b>
15	15	15	15	0,0	No Function
				1..13	Red
				14..27	Green
				28..41	Blue
				42..55	White
				56..69	Red+White

15	15	15	15	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				
16	16	16	16		<b>Color Temp</b>
				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				
17	17	17	17		<b>Visual Tungsten Lamp</b>
				0..15	No Function
				16..255	Tungsten lamp effect is gradually enhanced
18	18	18	18		<b>Foreground color for patterns</b>
					<b>Choose Foreground color for Dynamic/Static Scene,no function for Multicolor Scene</b>
				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				