

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!

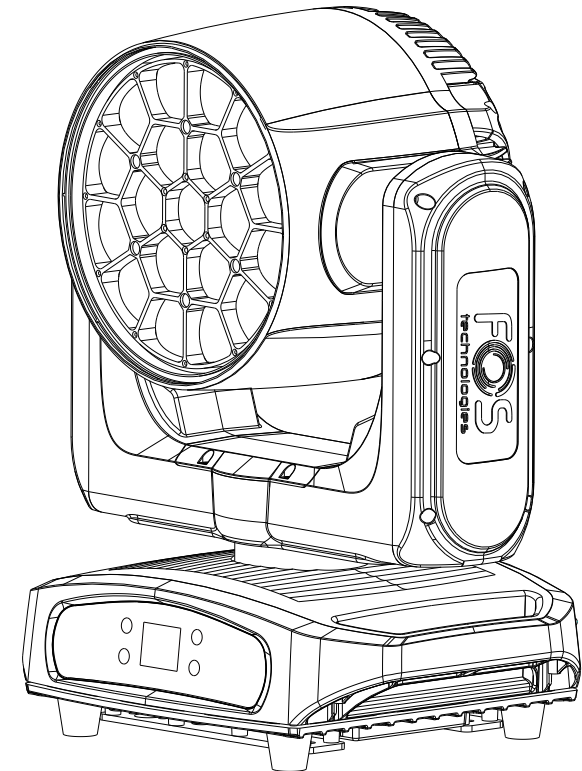
Clean two air filters placed in the fixture's covers and two in the fixture base. Use a vacuum cleaner, compressed air or you can wash them and put back dry.

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 Hydor 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

1.Safety instructions

Thank you for choosing our FOS Hydor 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!

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.

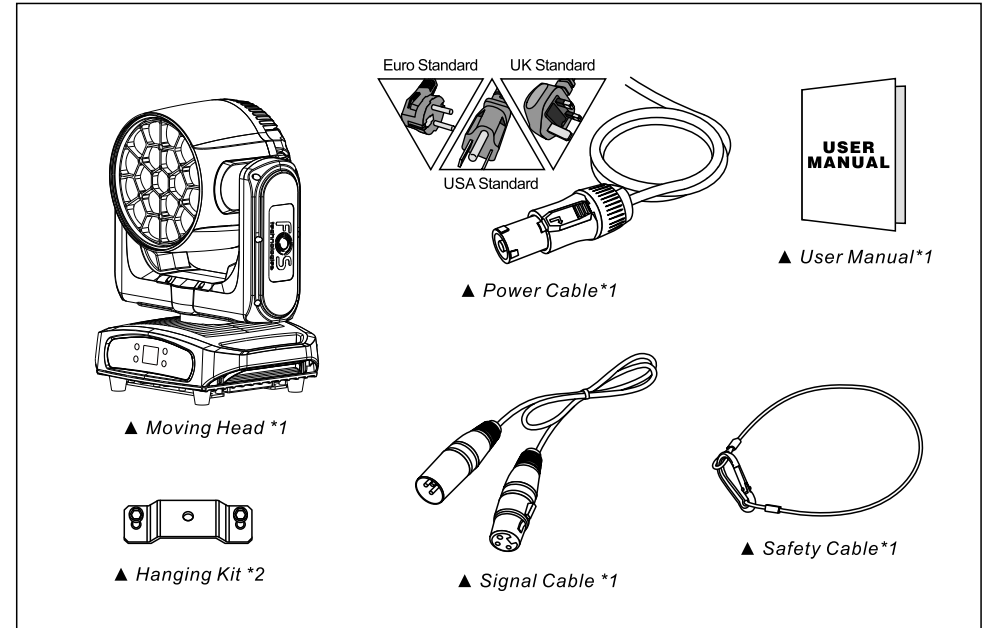
CAUTION ! EYE DAMAGES !
Avoid looking directly into the light source
(meant especially for epileptics) !

105	93				White in pixel 17
				0..255	White in pixel 17 saturation control(0-100%)
106	94				Red in Pixel 18
				0..255	White in pixel 18 saturation control (0-100%)
107	95				Green in pixel 18
				0..255	Green in pixel 18 saturation control(0-100%)
108	96				Blue in pixel 18
				0..255	Blue in pixel 18 saturation control(0-100%)
109	97				White in pixel 18
				0..255	White in pixel 18 saturation control(0-100%)
110	98				Red in Pixel 19
				0..255	White in pixel 19 saturation control (0-100%)
111	99				Green in pixel 19
				0..255	Green in pixel 19 saturation control(0-100%)
112	100				Blue in pixel 19
				0..255	Blue in pixel 19 saturation control(0-100%)
113	101				White in pixel 19
				0..255	White in pixel 19 saturation control(0-100%)
114	102	38	26		Special function
				0..19	No function
				20..24	FAN Auto Mode
				25..29	FAN High Speed
				30..34	FAN Mid Speed
				35..39	FAN Low Speed
				40..44	Linear Dimmer Curve
				45..49	S-Curve Dimmer Curve
				50..54	Square Dimmer Curve
				55..59	InvSquare Dimmer Curve
				60..79	No function
				80..89	All Motor reset
				90..94	SCAN Motor Reset
				95..99	ZOOM Motor Reset
				100..117	Internal program 1
				118..135	Internal program 2
				136..153	Internal program 3
				154..171	Internal program 4
				172..189	Internal program 5
				190..207	Internal program 6
				208..225	Internal program 7
				226..243	Internal program 8
				244..255	Internal program 9

76	64			0..255	Blue in pixel 10 Blue in pixel 10 saturation control(0-100%)
77	65			0..255	White in pixel 10 White in pixel 10 saturation control(0-100%)
78	66			0..255	Red in Pixel 11 White in pixel 11 saturation control (0-100%)
79	67			0..255	Green in pixel 11 Green in pixel 11 saturation control(0-100%)
80	68			0..255	Blue in pixel 11 Blue in pixel 11 saturation control(0-100%)
81	69			0..255	White in pixel 11 White in pixel 11 saturation control(0-100%)
82	70			0..255	Red in Pixel 12 White in pixel 12 saturation control (0-100%)
83	71			0..255	Green in pixel 12 Green in pixel 12 saturation control(0-100%)
84	72			0..255	Blue in pixel 12 Blue in pixel 12 saturation control(0-100%)
85	73			0..255	White in pixel 12 White in pixel 12 saturation control(0-100%)
86	74			0..255	Red in Pixel 13 White in pixel 13 saturation control (0-100%)
87	75			0..255	Green in pixel 13 Green in pixel 13 saturation control(0-100%)
88	76			0..255	Blue in pixel 13 Blue in pixel 13 saturation control(0-100%)
89	77			0..255	White in pixel 13 White in pixel 13 saturation control(0-100%)
90	78			0..255	Red in Pixel 14 White 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	Red 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	Red 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	Red 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%)

2.UNPACKING

The FOS Hydor Helix Ultra adopts a 19x40W LED 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 FOS Hydor 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.

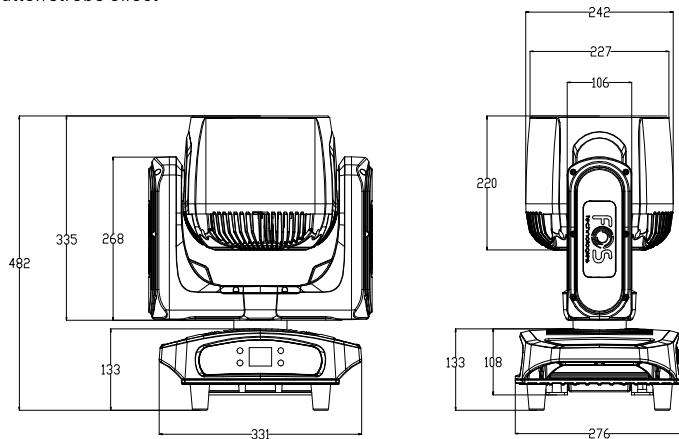
3. TECHNICAL INFORMATION

SPECIFICATIONS:

- 19*40w RGBW LEDs and 106*0.02W SMD RGB LED aura Ring, 50000 hours life span.
- Input Voltage: AC90-260V 50/60Hz
- Control Signal: DMX512, master-slave auto operation WDMX, RDM
- Control Channel: 114/102/38/26 DMX channels USITTDMX-512
- Power Consumption: 760W
- Dimension: 331(D)*276(W)*482(H)mm
- Packing Dimension: 460(D)*370(W)*570(H)mm
- Net Weight: 19Kgs
- Gross Weight: 22Kgs
- Preset variable/random strobe and dimming pulse effect
- CTB and CTO, linear colour temperature 1800K-10000K changable
- High resolution graphic LCD display
- POWERCON connector IN/OUT
- 3-pin XLR connectors IN/OUT
- True powercon and weatherproof XLR
- Aluminium structure with die-cast plastic cover
- High efficiency low noise cooling system
- High-frequency LED refresh rate, 16 bit dimmer, delicate photographic stripes, no high-frequency dimming noise, suitable for theater and other venues.
- Constant temperature readout and management function
- 35°C~45°C max ambient temperature
- IP66 protection rating
- 48dB at 3'dB rating
- 2*1/4 turn fastening Omega clamp
- 1* Safety attachment point

FEATURES:

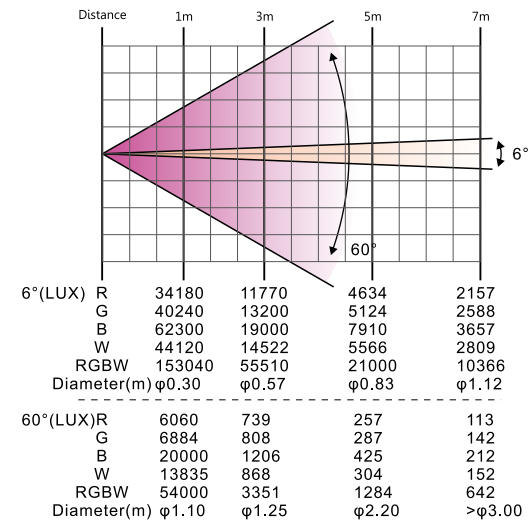
- Low power consumption
- Each color and each LED controllable individually, aura ring effect
- 8/16 bit smooth and precise resolution for PAN/TILT movement
- Scan position memory, auto reposition after unexpected movement
- Specific high precision optic lens
- Variable direction rotating front lens
- 6°-60° Smooth electronic linear zoom
- 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



48	36			0..255	Blue in pixel 3 saturation control(0-100%)
49	37			0..255	White in pixel 3 saturation control(0-100%)
50	38			0..255	Red in Pixel 4 saturation control (0-100%)
51	39			0..255	Green in pixel 4 saturation control(0-100%)
52	40			0..255	Blue in pixel 4 saturation control(0-100%)
53	41			0..255	White in pixel 4 saturation control(0-100%)
54	42			0..255	White in pixel 5 saturation control (0-100%)
55	43			0..255	Green in pixel 5 saturation control(0-100%)
56	44			0..255	Blue in pixel 5 saturation control(0-100%)
57	45			0..255	White in pixel 5 saturation control(0-100%)
58	46			0..255	White in pixel 6 saturation control (0-100%)
59	47			0..255	Green in pixel 6 saturation control(0-100%)
60	48			0..255	Blue in pixel 6 saturation control(0-100%)
61	49			0..255	White in pixel 6 saturation control(0-100%)
62	50			0..255	White in pixel 7 saturation control (0-100%)
63	51			0..255	Green in pixel 7 saturation control(0-100%)
64	52			0..255	Blue in pixel 7 saturation control(0-100%)
65	53			0..255	White in pixel 7 saturation control(0-100%)
66	54			0..255	White in pixel 8 saturation control (0-100%)
67	55			0..255	Green in pixel 8 saturation control(0-100%)
68	56			0..255	Blue in pixel 8 saturation control(0-100%)
69	57			0..255	White in pixel 8 saturation control(0-100%)
70	58			0..255	White in pixel 9 saturation control (0-100%)
71	59			0..255	Green in pixel 9 saturation control(0-100%)
72	60			0..255	Blue in pixel 9 saturation control(0-100%)
73	61			0..255	White in pixel 9 saturation control(0-100%)
74	62			0..255	White in pixel 10 saturation control (0-100%)
75	63			0..255	Green in pixel 10 saturation control(0-100%)

31	25	31	25	0..255	Pix_Macro_Speed Slow to Fast
					Expand Patterns
				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		33			Pix_Foreground dimmer
				0..255	Pix_Expand Patterns Foreground dimmer 0 – 100%.
34		34			Pix_Background dimmer
				0..255	Pix_Expand Patterns Background dimmer 0 –
35		35			Pix_Background Red
				0..255	Pix_Expand Patterns Background Red 0 –
36		36			Pix_Background Green
				0..255	Pix_Expand Patterns Background Green 0 –
37		37			Pix_Background Blue
				0..255	Pix_Expand Patterns Background Blue 0 –
38	26				Red in Pixel 1
				0..255	Red in pixel 1 saturation control (0-100%)
39	27				Green in Pixel 1
				0..255	Green in pixel 1 saturation control (0-100%)
40	28				Blue in Pixel 1
				0..255	Blue in pixel 1 saturation control(0-100%)
41	29				White in pixel 1
				0..255	White in pixel 1 saturation control(0-100%)
42	30				Red in pixel 2
				0..255	Red in pixel 2 saturation control(0-100%)
43	31				Green in pixel 2
				0..255	Green in pixel 2 saturation control(0-100%)
44	32				Blue in pixel 2
				0..255	Blue in pixel 2 saturation control(0-100%)
45	33				White in pixel 2
				0..255	White in pixel 2 saturation control(0-100%)
46	34				Red in Pixel 3
				0..255	Red in pixel 3 saturation control (0-100%)
47	35				Green in pixel 3
				0..255	Green in pixel 3 saturation control(0-100%)

4.PHOTOMETRICS DIAGRAM



5.OPERATION INSTRUCTIONS

- The FOS Hydor Helix Ultra 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 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.

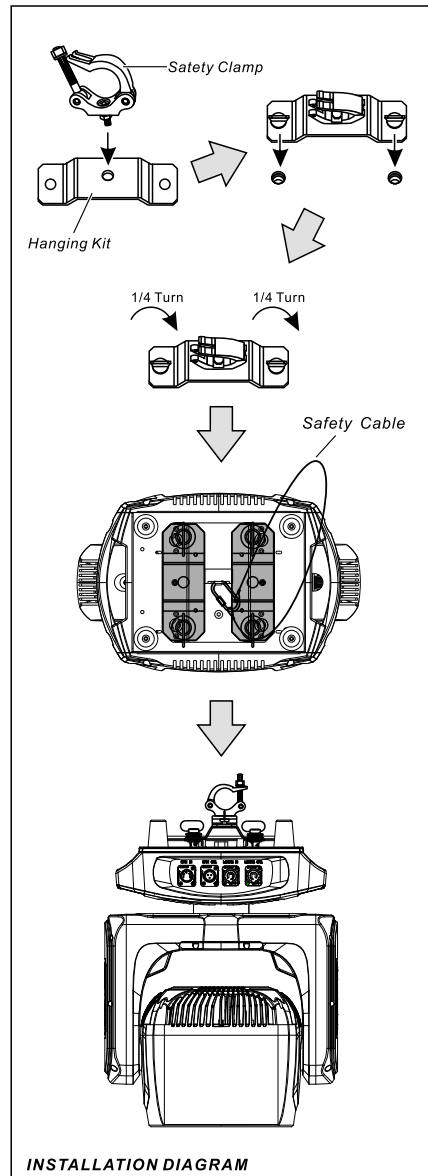
Mounting points:

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:

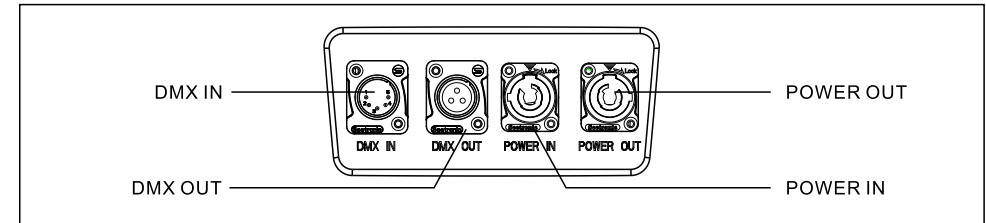
FOS Hydor Helix Ultra provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the "Hanging Kit". As an added safety measure be sure to attach at least one properly rated safety cable to the fixture using one of the safety cable rigging points integrated in the base assembly.



24	18	24	18	0..255	Pix_Dimmer
					Pix_Dimmer 0%...100%
25	19	25	19	0..255	Pix_Strobe
					Pix_Strobe Speed 0%...100%
26	20	26	20	0..255	Pix_Red
					0-100% Pix_Red dimmer from dark to bright
27	21	27	21	0..255	Pix_Green
					0-100% Pix_Green dimmer from dark to bright
28	22	28	22	0..255	Pix_Blue
					0-100% Pix_Blue dimmer from dark to bright
29	23	29	23		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
30	24	30	24	208..223	6500K
				224..239	7000K
				240..255	8000K
					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..255	Pix Dynamic Scene17

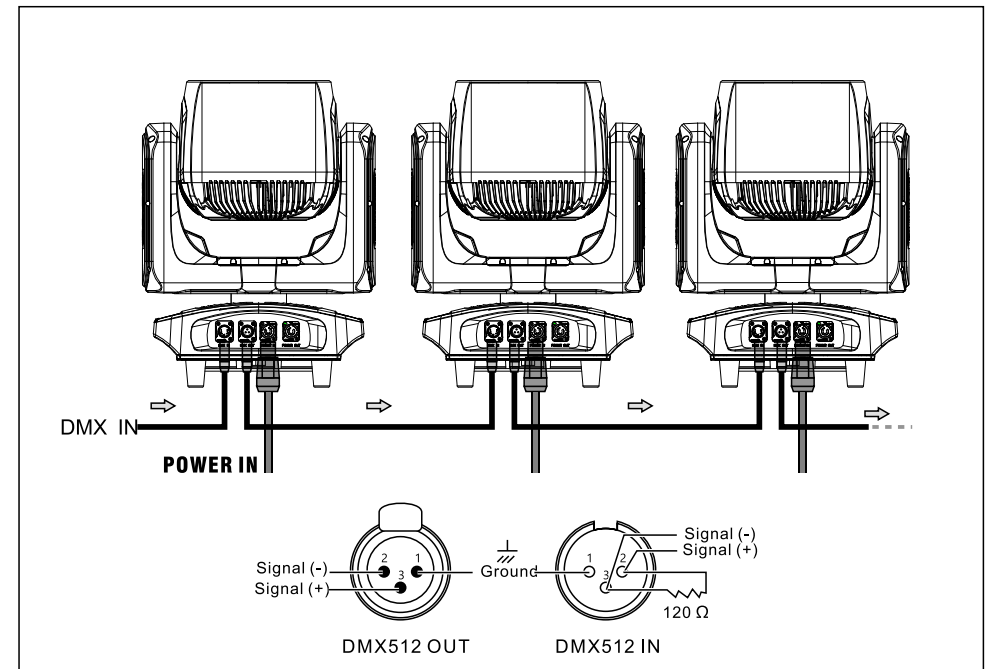
23	23	Static patterns or patterns speed	
		Static Patterns	
		(If channel Patterns is in the interval 016 – 031)	
		000..005	static scene1
		006..011	static scene2
		012..017	static scene3
		018..023	static scene4
		024..029	static scene5
		030..035	static scene6
		036..041	static scene7
		042..047	static 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
		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
		Dynamic Patterns	
		(If channel Patterns 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

7.CONTROL CONNECTION

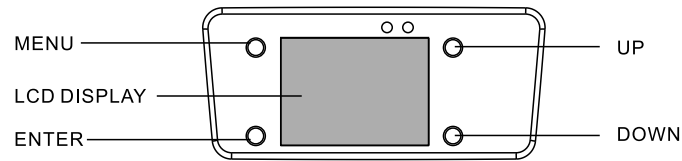


Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. 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
DMX (FunctionMode)	Dmx Address	A001~AXXX	DMX address setting
	ChannelMode	38CH	38CHmode
		26CH	26CHmode
		102CH	102CHmode
		114CH	114CHmode
	Auto Run	Program1~9	Auto program 1-9
		State: Master/ Alone	Auto program master/slave
		Auto Run: (On/Off)	Auto program on/off
SlaveDelay: Off(0.1-3.2s)		Slave delaytime	
Wireless Pair	Clear/No	Wireless Pair Clear	
SET (FixtureSet)	Reset Default	Yes/No	Reset Default
	SignalSet	Wire	Wire
		Wireless	Wireless
		WDMX&Out	WDMXinput&DMX Out
	ReversePan	(On/Off)	Reverse Pan
	ReverseTilt	(On/Off)	Reverse Tilt
	SelectPan	630° /540° /360°	SelectPan degree
	Scan Feedback	(On/Off)	Scan Feedback
	Key Lock	(Off/1min/3min/5min)	Key Lock(Off/1min/3min/5min)
	OFF SignalMode	(On/Off)	(OFF) keep originalstatus, (ON) keep resetstatus,when no DMX
	DisplayInvert	(On/Off)	DisplayInvert
	Fan Mode	Auto/High/Mid/Low	Auto/High/Mid/Low
	DimmerCurve	Linear	Lineardimmer
S-Curve		S-Curvedimmer	
Square		Squaredimmer	
InvSquare		InvSquare dimmer	
Manu (Manual)	Reset	Total Reset Scan Reset	Total Reset Scan Reset
	Channel	PAN=XXX.....	Manualchannelcontrol
ADV (Advanced) (AccessCode 088)	Calibration	PAN=XXX.....	Calibration
	UID Code	XX XX XX XX XX XX	UID Code

Accidental touch the "Key Lock" option, the unlock password is UP, DOWN, UP, DOWN

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

			084..087	Dynamic Scene14
			088..091	Dynamic Scene15
			092..095	Dynamic Scene16
			096..099	Dynamic Scene17
			100..103	Dynamic Scene18
			104..107	Dynamic Scene19
			108..111	Dynamic Scene20
			112..115	Dynamic Scene21
			116..119	Dynamic Scene22
			120..123	Dynamic Scene23
			124..127	Dynamic Scene24
			128..131	Dynamic Scene25
			132..135	Dynamic Scene26
			136..139	Dynamic Scene27
			140..143	Dynamic Scene28
			144..147	Dynamic Scene29
			148..151	Dynamic Scene30
			152..155	Dynamic Scene31
			156..159	Dynamic Scene32
			160..163	Multicolor Dynamic Scene1
			164..167	Multicolor Dynamic Scene2
			168..171	Multicolor Dynamic Scene3
			172..175	Multicolor Dynamic Scene4
			176..179	Multicolor Dynamic Scene5
			180..183	Multicolor Dynamic Scene6
			184..187	Multicolor Dynamic Scene7
			188..191	Multicolor Dynamic Scene8
			192..195	Multicolor Dynamic Scene9
			196..199	Multicolor Dynamic Scene10
			200..203	Multicolor Dynamic Scene11
			204..207	Multicolor Dynamic Scene12
			208..211	Multicolor Dynamic Scene13
			212..215	Multicolor Dynamic Scene14
			216..219	Multicolor Dynamic Scene15
			220..223	Multicolor Dynamic Scene16
			224..227	Multicolor Dynamic Scene17
			228..231	Multicolor Dynamic Scene18
			232..235	Multicolor Dynamic Scene19
			236..239	Multicolor Dynamic Scene20
			240..243	Multicolor Dynamic Scene21
			244..247	Multicolor Dynamic Scene22
			248..251	Multicolor Dynamic Scene23
			252..255	Multicolor Dynamic Scene24

				79..91	Blue+White
				92..104	Green+Blue
				105..117	Red+Blue
				118..130	Red+Green
				131..143	Green+Blue+White
				144..156	Red+Green+Blue
				157..169	Red+Blue+White
				170..182	Red+Green+White
				183..195	Red+Blue+Green+White
				196..200	2700K
				201..205	3200K
				206..210	3500K
				211..215	5000K
				216..220	5500K
				221..225	6000K
				226..230	6500K
				231..235	7000K
				236..240	7500K
				241..245	8000K
				246..250	9000K
				251..255	10000K
21		21			Background dimmer
				000..255	Background dimmer 0 – 100%.
22		22			Patterns
				000..015	No function
				016..031	Static patterns
				032..035	Dynamic Scene1
				036..039	Dynamic Scene2
				040..043	Dynamic Scene3
				044..047	Dynamic Scene4
				048..051	Dynamic Scene5
				052..055	Dynamic Scene6
				056..059	Dynamic Scene7
				060..063	Dynamic Scene8
				064..067	Dynamic Scene9
				068..071	Dynamic Scene10
				072..075	Dynamic Scene11
				076..079	Dynamic Scene12
				080..083	Dynamic Scene13

9.DMX PROTOCOL

Mode/Channel				Value	Function
114	102	38	26		
1	1	1	1		Pan
				0..255	PAN Movement
2	2	2	2		Pan-fine
				0..255	Fine control of Pan movement
3	3	3	3		Tilt
				0..255	Tilt Movement
4	4	4	4		Tile-fine
				0..255	Fine control of Tilt movement
5	5	5	5		Speed pan/tile
				0..225	max to min speed
				226..235	blackout by movement
				236..255	no function
6	6	6	6		Dimmer
				0..255	Dimmer 0%...100%
7	7	7	7		Shutter
				0..31	Shutter closed
				32..63	shutter open
				64..95	Strobe effect slow to fast
				96..127	shutter open
				128..143	Opening pulse in sequences slow to fast
				144..159	Closing pulse in sequences fast to slow
				160..191	shutter open
				192..223	Random strobe effect slow to fast
				224..255	shutter open
8	8	8	8		Red
				0..255	0-100% Red dimmer from dark to bright
9	9	9	9		Green
				0..255	0-100% Green dimmer from dark to bright
10	10	10	10		Blue
				0..255	0-100% Blue dimmer from dark to bright
11	11	11	11		White
				0..255	0-100% White dimmer from dark to bright
12	12	12	12		Zoom
				0..255	In(near) to out(far)
13	13	13	13		Zoom Rotation
				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
				163..255	Backwards rotation from slow to fast

14	14	14	14		Zoom Angle
				0..255	Zoom Angle(0°~60°)
					Virtual color
				0..0	No Function
				1..5	RGBW to CTO
				6..13	Red
				14..26	Green
				27..39	Blue
				40..52	White
				53..65	Red+White
				66..78	Green+White
				79..91	Blue+White
				92..104	Green+Blue
				105..117	Red+Blue
				118..130	Red+Green
				131..143	Green+Blue+White
				144..156	Red+Green+Blue
				157..169	Red+Blue+White
				170..182	Red+Green+White
				183..195	Red+Blue+Green+White
				196..200	2700K
				201..205	3200K
				206..210	3500K
				211..215	5000K
				216..220	5500K
				221..225	6000K
				226..230	6500K
				231..235	7000K
				236..240	7500K
				241..245	8000K
				246..250	9000K
				251..255	10000K
					Color Temp
				0..17	No Function
					1800K-10000K(1Steps 100K) (If channel Virtual color is in the interval 001 – 005, need RGBW value is Full)
				18..100	
				101..255	10000K
					Visual Tungsten Lamp
				0..15	No Function
					Tungsten lamp effect is gradually enhanced (If channel Virtual color is in the interval 001 – 005, need RGBW value is Full)
				16..255	

					Foreground color for patterns
					Choose Foreground color for Dynamic/Static Scene,no function for
				0..0	No Function
				1..13	Red
				14..26	Green
				27..39	Blue
				40..52	White
				53..65	Red+White
				66..78	Green+White
				79..91	Blue+White
				92..104	Green+Blue
				105..117	Red+Blue
				118..130	Red+Green
				131..143	Green+Blue+White
				144..156	Red+Green+Blue
				157..169	Red+Blue+White
				170..182	Red+Green+White
				183..195	Red+Blue+Green+White
				196..200	2700K
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				206..210	3500K
				211..215	5000K
				216..220	5500K
				221..225	6000K
				226..230	6500K
				231..235	7000K
				236..240	7500K
				241..245	8000K
				246..250	9000K
				251..255	10000K
					Foreground dimmer
				000..255	Foreground dimmer 0 – 100%.
					Background color for patterns
					Choose Background color for Dynamic/Static Scene,no function for
				0..0	No Function
				1..13	Red
				14..26	Green
				27..39	Blue
				40..52	White
				53..65	Red+White
				66..78	Green+White