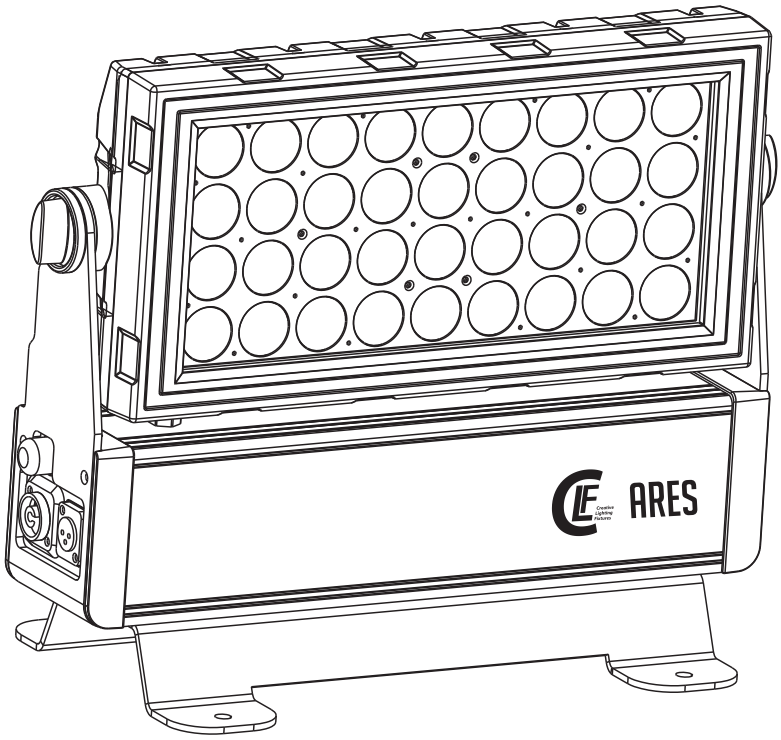
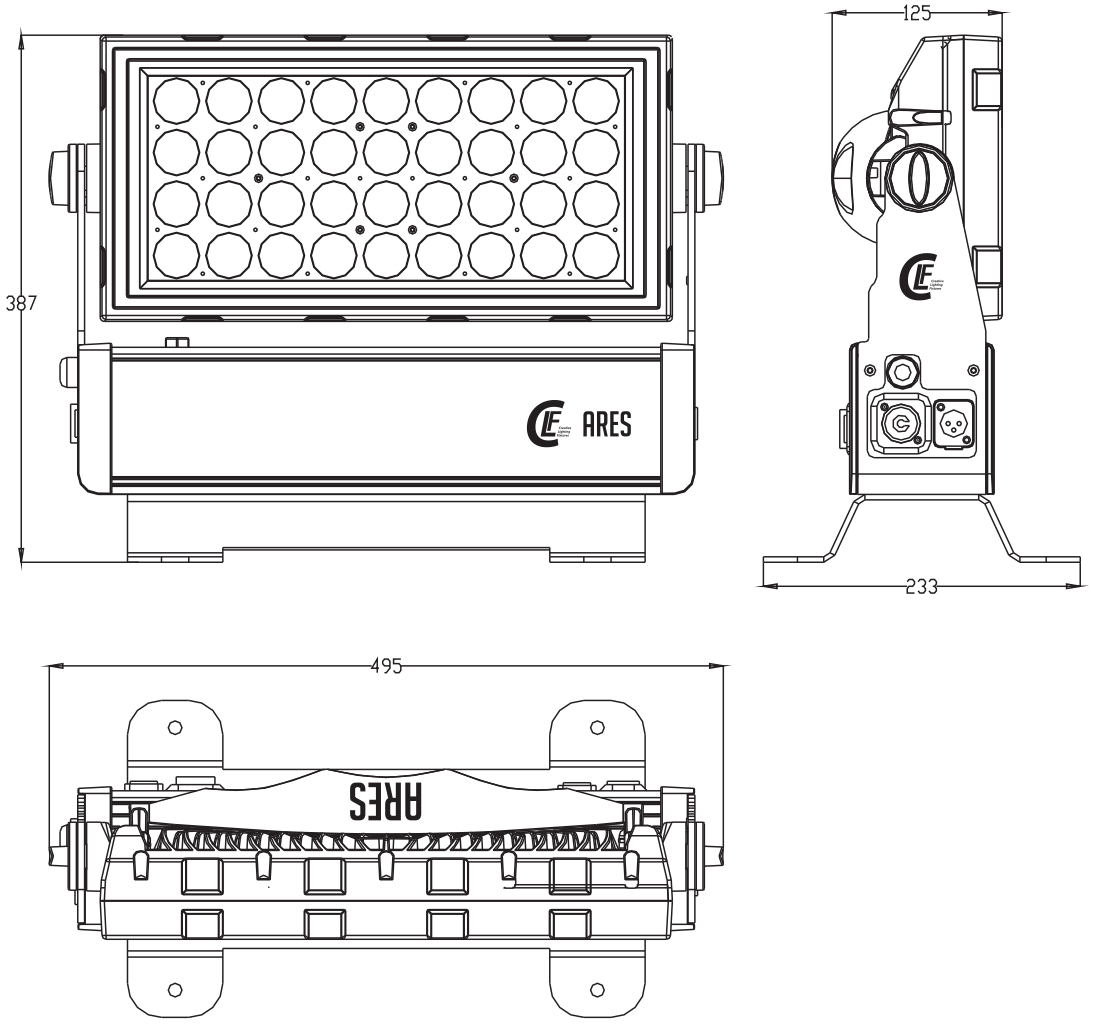
CLF ARES LEDWASH



V1.0 DECEMBER 2015

Dimensions

All dimensions are in millimeters



Safety Information

WARNING!
Read the safety precautions in this section before installing, powering, operating or servicing this product

The following symbols are used to identify important safety information on the product and in this manual:


DANGER! Safety hazard. Risk of severe injury or death.


DANGER! Hazardous voltage. Risk of lethal or severe electric shock.


WARNING! Fire hazard.


WARNING! LED light emission. Risk of eye injury.


WARNING! Burn hazard. Hot surface. Do not touch.


WARNING! Wear protective eyewear.


WARNING! Refer to user manual.

Warning! Risk Group 3 (high risk) LED product according to EN 62471. Do not look into the beam at a distance of less than 8.3 meters from the front surface of the product. Do not view the light output with optical instruments or any device that may concentrate the beam.

This product is for professional use only. It is not for household use.

This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls.

Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture. If you have questions about how to operate the fixture safely, please contact your supplier

PROTECTION FROM ELECTRIC SHOCK

- Disconnect the fixture from AC power before removing or installing any cover or part and when not in use.
- Always ground (earth) the fixture electrically.

- Use only a source of AC power that complies with local building and electrical codes and has both overload and ground-fault (earth-fault) protection.
- Before using the fixture, check that all power distribution equipment and cables are in perfect condition and rated for the current requirements of all connected devices.
- Power input and throughput cables must be rated 20 A minimum, have three conductors 1.5 mm² (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90° C minimum.
- Use only PowerCon true cable connectors to connect to power input sockets. Use only PowerCon true cable connectors to connect to power throughout sockets.
- Isolate the fixture from power immediately if the power plug or any seal, cover, cable, or other component is damaged, defective, deformed, wet or showing signs of overheating. Do not reapply power until repairs have been completed.

- Do not expose the fixture to rain or moisture.
- Refer any service operation not described in this manual to a qualified technician.
- Socket outlets used to supply fixture fixtures with power or external power switches must be located near the fixtures and easily accessible so that the fixtures can easily be disconnected from power.

PROTECTION FROM BURNS AND FIRE

- Do not operate the fixture if the ambient temperature (Ta) exceeds 40° C .
- The exterior of the fixture becomes hot during use. Avoid contact by persons and materials. Allow the fixture to cool for at least 10 minutes before handling.

- Keep all combustible materials (e.g. fabric, wood, paper) at least 100 mm away from the head.
- Keep flammable materials well away from the fixture.
- Ensure that there is free and unobstructed airflow around the fixture.
- Do not illuminate surfaces within 200 mm of the fixture.
- Do not attempt to bypass thermostatic switches or fuses.
- If you relay power from one fixture to another using power throughout sockets, do not connect more than five fixtures in interconnected chain.
- Do not stick filters, masks or other materials onto any optical component.
- Do not modify the fixture in any way not described in this manual

PROTECTION FROM INJURY

- Do not look continuously at LEDs from a distance of less than 8.3 meters from the front surface of the fixture without protective eyewear such as shade 4-5 welding goggles. At less than this distance, the LED emission can cause eye injury or irritation. At distances of 8.3 meters and above, light output is harmless to the naked eye provided that the eye's natural aversion response is not overcome.

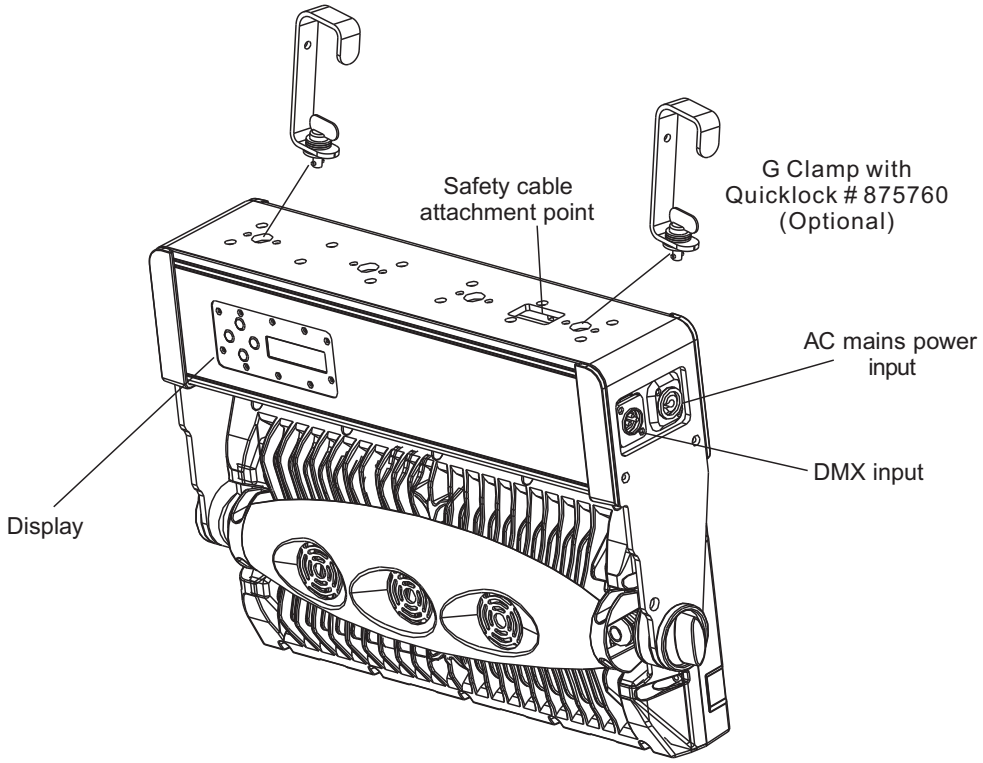
- Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.
- Ensure that persons are not looking at the LEDs from within 8.3 meters when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when SERVICE menu items are selected.

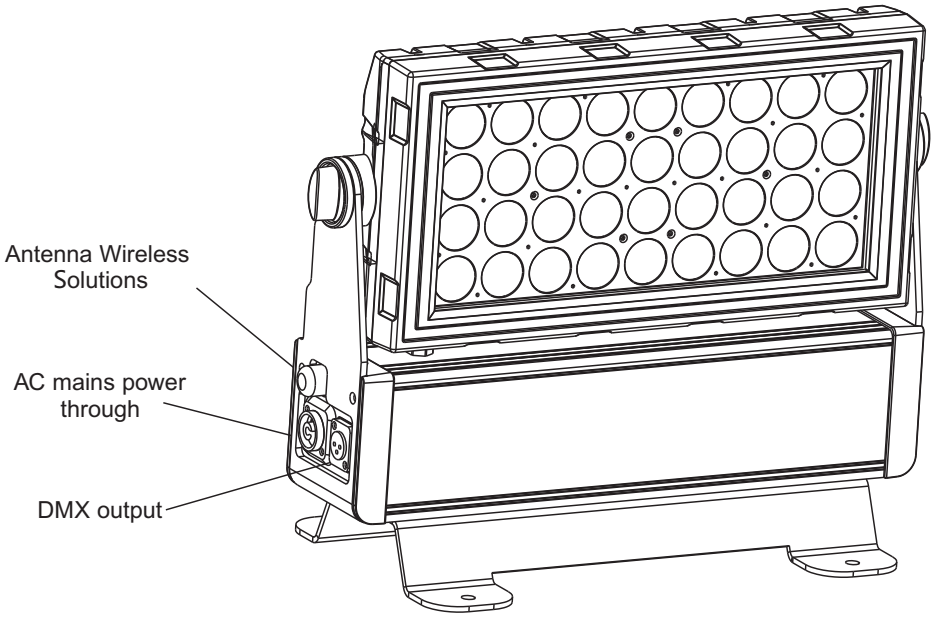
- Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.
- Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support.
- Allow enough clearance around the head to ensure that it cannot collide with an object or another fixture when it moves.

- Check that all external covers and rigging hardware are securely fastened.
- Block access below the work area and work from a stable platform whenever installing, servicing or moving the fixture.
- Do not operate the fixture with missing or damaged covers, shields or any optical component.

Contents

Fixture overview





Introduction

- This CLF Ares fixture features:
- RGBW color control with color temperature control
- 'Color wheel' color
- Onboard control panel and backlit LCD graphic display
- Smooth electronic dimming
- Electronic shutter with strobe and pulse effects
- Calibrated and raw modes
- Each line can be control independently
- Refresh frequency 600/1200/2400/4800 adjustable
- Wireless DMX multimode(2.4GHz) by Wireless Solution Sweden
- Master, Slave Function
- XLR 3-pole DMX standard sockets

Using for the first time

Warning! Read "Safety Information" on page 3 before installing, powering, operating or servicing the fixture. Before applying power to the fixture:.

- Carefully review "Safety Information" starting on page 3.
- Check that the local AC mains power source is within the fixture's power voltage and frequency ranges.
- See "Power cables and power plug" on page 8. Install a PowerCon input connector on a suitable power cable. If drawing power from a mains power outlet, install a suitable power plug on the power cable.

AC power

Warning! Read "Safety Information" starting on page 3 before connecting the fixrures to AC mains power.

Warning! For protection from electric shock, the fixture must be grounded (earthed). The powerdistribution circuit must be equipped with a fuse or circuit breaker and ground-fault (earth-fault)protection.

Warning! Socket outlets or external power switches used to supply the fixture with power must be located near the fixture and easily accessible so that the fixtures can easily be disconnected from power.

Important! Do not insert or remove live PowerCon connectors to apply or cut power, as this may cause arcing at the terminals that will damage the connectors.

Important! Do not use an external dimming system to supply power to the fixture, as this may cause damage to the fixture that is not covered by the product warranty.

The fixture can be hard-wired to a building electrical installation if you want to install it permanently, or a power plug that is suitable for the local power outlets can be installed on the power cable.

Power voltage

Warning! Check that the voltage range specified on the fixture's serial number label matches the local AC mains power voltage before applying power to the fixture.

The fixtures accept AC mains power at 100-240 V nominal, 50/60 Hz. Do not apply AC mains power to the fixture at any other voltage than that specified on the fixture's serial number label.

Power cables and power plug

Power input and throughput cables must be rated 20 A minimum, have three conductors 1.5 mm² (16 AWG) minimum conductor size and an outer cable diameter of 5 - 15 mm. Cables must be hard usage type (SJT or equivalent) and heat-resistant to 90° C minimum. In the EU the cable must be HAR approved or equivalent.

If you install a power plug on the power cable, install a grounding-type (earthed) plug that is rated 20 A minimum. Follow the plug manufacturer's instructions. Table 1 shows standard wire color-coding schemes and some possible pin identification schemes; if pins are not clearly identified, or if you have any doubts

Wire Color (EU models)	Wire Color (US models)	Conductor	Symbol	Screw (US)
brown	black	live	L	yellow or brass
blue	white	neutral	N	silver
yellow/green	green	ground (earth)	⏚ or ⏚	green

Table 1: Wire color-codig and power connections

Data link

A DMX 512 data link is required in order to control a fixture via DMX.

The fixture has 3-pin XLR connectors for DMX data input and output. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+).

Or the fixture has 5-pin XLR connectors for DMX data input and output. The pin-out on all connectors is

pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+). Pins 4 and 5 in the 5-pin XLR connectors are not used

Connecting the data link

Use shielded twisted-pair cable designed for RS-485 devices: standard microphone cable cannot transmit control data reliably over long runs. 24 AWG cable is suitable for runs up to 300 meters. Heavier gauge cable and/or an amplifier is recommended for longer runs.

Tips for reliable data transmission

To connect the fixture to data:

1. Connect the DMX data output from the controller to the closest fixture's male 3-pin XLR DMX input connector.

2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input.

DMX protocols

21CH	4CH	9CH	11CH	16CH	27CH	30CH	DMX Value	Function
								Electronic shutter effect
							0 - 19	Shutter closed
							20 - 24	Shutter open
							25 - 64	Strobe 1 (fast → slow)
							65 - 69	Shutter open
							70 - 84	Strobe 2：opening pulse（fast → slow）
							85 - 89	Shutter open
							90 - 104	Strobe 3：closing pulse（fast → slow）
							105 - 109	Shutter open
							110 - 124	Strobe 4：random strobe（fast → slow）
							125 - 129	Shutter open
							130 - 144	Strobe 5：random opening pulse（fast → slow）
1		1	1		1	1	145 - 149	Shutter open
							150 - 164	Strobe 6：random closing pulse（fast → slow）
							165 - 169	Shutter open
							170 - 184	Strobe 7：burst pulse（fast → slow）
							185 - 189	Shutter open
							190 - 204	Strobe 8：random burst pulse（fast → slow）
							205 - 209	Shutter open
							210 - 224	Strobe 9：sine wave（fast → slow）
							225 - 229	Shutter open
							230 - 244	Strobe 10：burst（fast → slow）
							245 - 255	Shutter open
2		2	2		2	2	0 - 255	Dimmer 0-100% intensity
								Fixture control settings
							0 - 39	No function
							40-44	SILENT MODE (level 1)-70% fan speed[1]
							45-49	SILENT MODE (level 2)-40% fan speed[1]
							50-54	SILENT MODE (level 3)-20% fan speed[1]
							55-59	No function
							60-64	Fan mode FULL[1]
							65-69	Fan mode REGULATED[1]
							70-74	Fan mode SILENT[1]
							75-89	No function
							90 - 94	Calibrated color output mode- COLOR CALIB = ON[1]
							95 - 99	Manual calibration output mode -Manual calibration= ON[1]
							100 - 104	Raw color output mode- COLOR CALIB = OFF[1]
							105 - 109	No function
3		3	3		3	3	110 - 114	Normal dimming, speed of changes unrestricted[1]
							115 - 119	No function
							120 - 124	Smooth dimming, speed of changes restricted slightly[1]
							125 - 129	No function
							130 - 134	600 Hz Refresh rate
							135 - 139	1200Hz Refresh rate
							140 - 144	2400Hz Refresh rate
							145 - 149	4800Hz Refresh rate
							150 - 154	No Function
							155 - 159	WDMX - ON[1]
							160 - 164	No Function
							165 - 169	WDMX - OFF[1]
							170 - 174	No Function
							175 - 179	WDMX - RESET[1]
							180 - 239	No Function
							240 - 244	DMX Manual calibration mode[2]
							245 - 249	No Function
							250 - 255	illuminate display

[1] Value must be held for 3 seconds to activate.

[2] Please refer the page of 15.(calibrate by DMX control)
Value must be held for 3 seconds to activate.

21CH	4CH	9CH	11CH	16CH	27CH	30CH	DMX Value	Function
		4	4		4	4	000 - 009 010 - 255	No Function Color wheel rotation effect
	1	5	5		5		000 - 255	Red(0-100%)
	2	6	6		6		000 - 255	Green(0-100%)
	3	7	7		7		000 - 255	Blue(0-100%)
	4	8	8		8		000 - 255	White(0-100%)
		9	9		9		000 - 009 010 - 255	No Function Color temperature(2500K-10000K)
						5	000-255	LED block 1 dimmer
4				1	10	6	000-255	LED block 1 -Red 1(0-100%)
5				2	11	7	000-255	LED block 1 -Green 1(0-100%)
6				3	12	8	000-255	LED block 1 -Blue 1(0-100%)
7				4	13	9	000-255	LED block 1 -White 1(0-100%)
						10	000-255	LED block 1 -Fade(dimmer speed)
						11	000-255	LED block 2 dimmer
8				5	14	12	000-255	LED block 2 -Red 2(0-100%)
9				6	15	13	000-255	LED block 2 -Green 2(0-100%)
10				7	16	14	000-255	LED block 2 -Blue 2(0-100%)
11				8	17	15	000-255	LED block 2 -White 2(0-100%)
						16	000-255	LED block 2 -Fade(dimmer speed)
						17	000-255	LED block 3 dimmer
12				9	18	18	000-255	LED block 3 -Red 3(0-100%)
13				10	19	19	000-255	LED block 3 -Green 3(0-100%)
14				11	20	20	000-255	LED block 3 -Blue 3(0-100%)
15				12	21	21	000-255	LED block 3 -White 3(0-100%)
						22	000-255	LED block 3 -Fade(dimmer speed)
						23	000-255	LED block 4 dimmer
16				13	22	24	000-255	LED block 4 -Red 4(0-100%)
17				14	23	25	000-255	LED block 4 -Green 4(0-100%)
18				15	24	26	000-255	LED block 4 -Blue 4(0-100%)
19				16	25	27	000-255	LED block 4 -White 4(0-100%)
						28	000-255	LED block 4 -Fade(dimmer speed)
20			10		26	29	0-9 10-19 20-29 ..... 180-189 190-199 200-255	NO Function AUTO 1 AUTO 2 ..... AUTO 18 AUTO 19 AUTO cycle
						30		AUTO speed
21			11		27			NO Function AUTO Speed or Dimmer Speed

Onboard control menus

Menu	Item	Options	Notes (**Default** settings **in bold print**)
DMX ADDRESS		**1-XXX**	Set DMX start address
CONTROL MODE		**21CH**	Select 21/04/09/11/16/27/30 channel setting
		4CH	
		9CH	
		11CH	
		16CH	
		27CH	
		30CH	
STATIC COLOR	**Dimmer**	**0-255**	0~100%
	Red	**0-255**	0~100%
	Green	**0-255**	0~100%
	Blue	**0-255**	0~100%
	White	**0-255**	0~100%
	Strobe	**(0-20)**	(0~20Hz)Select strobe frequency
PERSONALITY	**FANS**	**REGULATED**	Cooling fan speed regulated
		SILENT **Level(1-3)**	three level of silent mode to control the output
		FULL	Max. cooling fan speed
	LED POWER	**High**	single leds or two color mixing in full power with 120% output
		Normal	Normal mode output
	Dimmer speed	**NORMAL**	Normal dimming with normal speed
		SMOOTH	Smooth dimming with slow speed
	KEY-Lock	**ON/OFF**	Enables or Disables password protection
	W-DMX	**ON**	Turn on the Wireless Board
		OFF	Turn off the Wireless Board
		RESET	Reset the Wireless Board
	CALIBRATION	**NO CALIBRATION**	Color calibration mode off.
		MANUAL	Manual calibration mode, RGBW to white is custom calibration
		FACTORYON	Factory calibration mode,RGBW to white is Factory calibration
	Refresh rate	600/1200/2400/4800	Select the refresh frequency
	LCD brightness	**Level(1-10)**	Set the LCD display brightness
	DMX HOLD	**DMX HOLD**	The fixture will stay the last values when you disconnect DMX
		NO DMX HOLD	The fixture has no output when you disconnect DMX
AUTO	**AUTO(1-20)**		Auto programs
	Speed(0-20)		Auto speed
INFO	**Software type**	**VXXX**	CPU firmware version
	Usage time	**TOTAL** XXXX	USE of time
		RESET **Reset OK**	Use time reset(password)
	Temperature	**XXX**℃	LED board current temperature
FACTORY SET	**LOAD**		Return all settings to factory defaults
MANUAL CALIB	**Red**	**0-255**	Manual calibration mode, RGB to white is custom calibration,(require password)
	Green	**0-255**	
	Blue	**0-255**	

Setup

Control panel and menu navigation

The onboard control panel and backlit graphic display are used to set the fixture's DMX address, configure individual fixture settings (personality), read out data and execute service utilities. See “Onboard control menus” on page 12 for a complete list of menus and commands.

Using the control buttons

- To enter a menu, select a function or apply a selection, press ► (Enter).
- Press ▲ (Up) and ▼ (Down) to scroll within a menu or adjust values.
- To escape a function or move back one level in the menu structure, press ◄ (MODE).
- Holding down the "UP" and "DOWN" button for more than 3 seconds, the MENU display rotated 180°

DMX address setting

The DMX address is configured using the DMX ADDRESS menu in the control panel.

- In order to facilitate for inspection the signal, If the display to flicker when it's not receiving any DMX signal

WDMX control

Press the button “UP” to switch off Wireless DMX or disconnect with all connected Transmitters.

Press the button “DOWN' to set the unit in the ”ready to connect with all not connected transmitters' mode. If you press the mode button on the Wireless solution transmitter all the ready to connect units will be connected.

If the unit is successfully connected in the home display the sign “◢:V”. Appears. If the unit is not connected to a transmitter in the home display the sign “◢:X”. If the unit switched off in the home display the sign “◢:OFF”.

- Holding the **MENU** and **ENTER** button for more than 3 seconds, The Wireless Board will reset.

CONTROL MODE

Standard and **Manual** modes

DMX control mode is selected in the **CONTROL MODE** menu. The fixture has five DMX control modes:

- 21 channels :Strobe+Dimmer+Setting+Each line(RGBW)
- 4 channels :RGBW
- 9 channels :Strobe+Dimmer+Setting+Macro color +RGBW+CT
- 11 channels :Strobe+Dimmer+Setting+Macro color +RGBW+CT + AUTO + AUTO/dimmer speed
- 16 channels:Each line(RGBW)
- 27 channels:Strobe+Dimmer+Setting+Macro color +RGBW+CT+Each line(RGBW)
- 30 channels:Strobe+Dimmer+Setting+Macro color +Each line(dimmer+RGBW+fade)

Dimming

- **NORMAL** is the default setting. It gives a virtually instantaneous reaction when you dim from one intensity to another, but dimming slowly from one intensity to another may appear slightly uneven.
- The **SMOOTH** setting gives smoother dimming during slow changes in intensity, but it limits the speed of dimming changes slightly. This makes it ideal for slow, smooth dimming, but a short time-lag may be noticeable if you try to dim quickly from one intensity to another.

Enable password lock

【PERSONALITY】⇨【KEY-Lock】⇨【ON】/【OFF】⇨{ENTER}

【ON】enable lock，【OFF】disable lock

when you enable password lock and the fixture was in standby mode ,it need password { MODE、UP、MODE、DOWN、MODE、UP、MODE、DOWN }.then press the enter button to active.

Restoring factory default settings

The fixture factory default settings can be restored by applying a **FACTORY SETTING → LOAD** command.

CALIBRATION

Three mode of color calibration

1, **NO CALIBRATION**

Color calibration mode is off.

2,**MANUAL**

Manual calibration mode, RGBW to white is according your custom calibration.

Manual calibration can calibrate by control panel and DMX channel.

calibrate by control panel

1、Press MODE button until【MANUAL】is displayed, press ENTER

3、Enter the password

3、Set【Red,Green,Blue】to white by custom calibration

calibrate by DMX control

channel 4 is set to 245-249 to enter dmx controller calibration

channel	DMX Value	Percent	Function
1	0 - 255	0-100	No function
2	0 - 255	0-100	No function
3	0 - 255	0-100	No function
4	0 - 229 230 - 234 240-244 245-249 250-255	0-100 0-89 90-95 96-97 98-10	No function come back to DMX mode[3] No function turn on manual calibration mode by dmx control[3] Illuminate display [3]Value must be held for 3 seconds to activate.
5	0 - 254 255	0-99 100	No function Save Correction, Value must be held for 3 seconds to activate.
6	0 - 255	0-100	RED(0-255)
7	0-255	0-100	GREEN(0-255)
8	0-255	0-100	BLUE(0-255)
9	0-255	0-100	WHITE(0-255)

3,FACTORY calibration mode

Fixture is calibrated in the factory by radiant machine.

Specifications

Physical

Length . . . . . .495 mm
Width . . . . . .233 mm
Height . . . . . .387 mm
Weight . . . . . 13 kg without accessories

Dynamic Effects

Color mixing . . . . . RGBW
Color temperature control . . . . . CTO, variable 10 000 - 2500 K
LED Quantity: . . . . . 36 PCS 4 in 1 LED
Shutter effects . . . . . Electronic, with regular and random pulse, burst and strobe effects
Beam Angle: . . . . . 21°

Control and Programming

Control . . . . . .DMX/Wireless DMX
DMX channels . . . . 21/04/09/11/16/27/30 CHs
Setting and addressing . . . . . Control panel with backlit graphic display
Protocol . . . . . USITT DMX512-A

Construction

Color . . . . . Black
Housing . . . . . High strength die-casting aluminum
Protection rating. . . . . .IP 65 only when DMX output and input is covered

Installation

Orientation . . . . . .Any
Minimum distance to combustible materials . . . . . 100 mm. from fixture
Minimum distance to illuminated surfaces . . . . . 200 mm. from fixture
Location . . . . . must be fastened to structure or surface

Connections

AC power input . . . . . PowerCon input socket (Ip65 only when covered)
AC power throughput. . . . . .PowerCon output socket (Ip65 only when covered)
DMX data in/out . . . . . .3 pin locking XLR (Ip65 only when covered)

Electrical

AC power . . . . . .100-240 V nominal, 50/60 Hz
Maximum total power consumption . . . . . .360 W
Power supply unit . . . . . .Auto-ranging electronic switch mode
Power consumption, all effects static, zero light output . . . . . <10 W

Thermal

Cooling . . . . . Forced air (temperature-regulated, low noise, user-definable FAN levels)
Maximum ambient temperature (Ta max.). . . . . 40° C
Minimum ambient temperature (Ta min.). . . . . 5° C