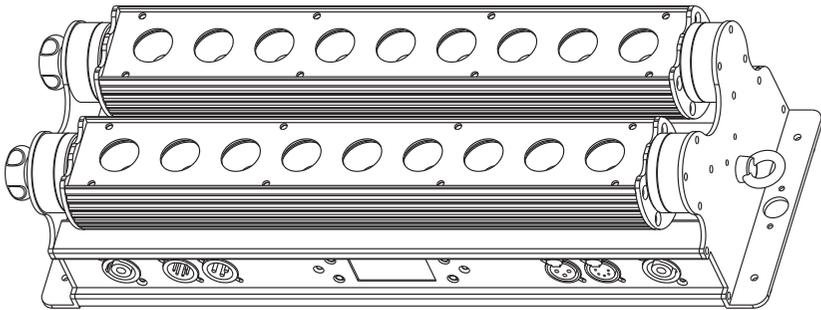


# LEDWASH RGBW XL

# MANUAL

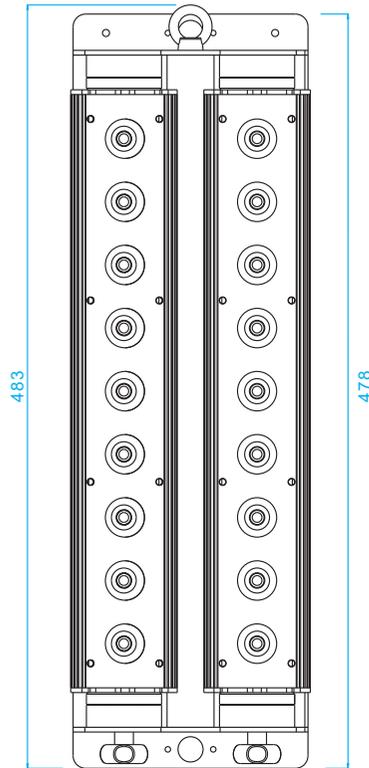
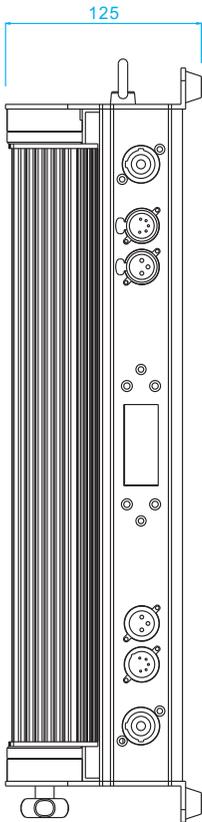
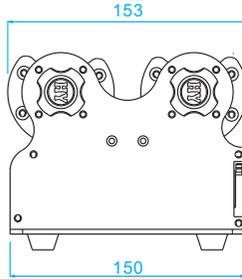


# TABLE OF CONTENTS

<b>Dimensions</b>	1
<b>Safety Information</b>	2
<b>Fixture overview</b>	4
<b>Introduction</b>	5
<b>AC power</b>	5
Power voltage	5
Power cables	5
Relaying power to other devices	6
<b>Data link</b>	6
Tips for reliable data transmission	6
<b>Physical installation</b>	7
Fastening the fixture to a flat surface	7
<b>Setup</b>	8
Control panel and menu navigation	8
DMX address setting	8
Control Mode	8
Static Color options	9
Auto Show	9
Master / Slave	9
ID Address Instructions	10
Setting	12
Custom program	12
Lock	12
<b>DMX protocols</b>	13
<b>Onboard control menus</b>	18
<b>Blow-out Diagram</b>	19
<b>Specifications</b>	20

# 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 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 through out cables must be rated 20A minimum, have three conductors 1.5 mm<sup>2</sup> (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® cable connectors to connect to power input sockets. Use only PowerCON® cable connectors to connect to power through put 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 the fixture 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 ( $T_a$ ) 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 fixture.
- 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 throughput sockets, do not connect more than ten the fixture in total to each other in an interconnected chain.
- Connect only other the fixture to fixture power throughput sockets. Do not connect any other type of device to these sockets.
- Do not connect any other type of device to these sockets.
- 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
- Do not use fixture on a dimmer

## PROTECTION FROM INJURY



- Do not look continuously at LEDs from a distance of less than 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 3 meters and above, light output is harmless to the naked eye provided that the eye's natural aversion response is not overcome.

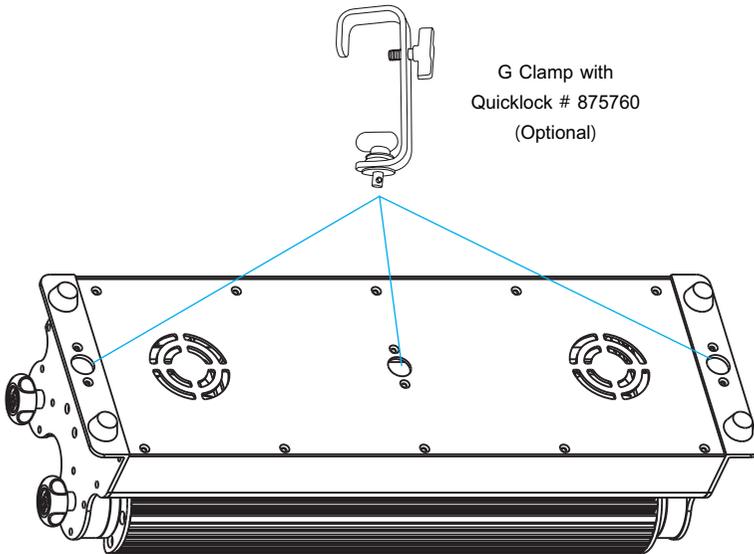
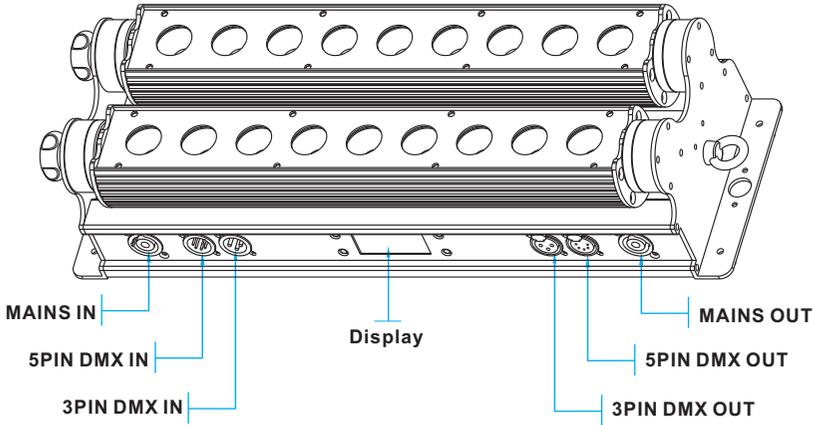


- Do not look at LEDs with magnifiers, telescopes, binoculars or similar optical instruments that may concentrate the light output.
- Ensure that persons are not looking at the LEDs from within 3 meters when the product lights up suddenly. This can happen when power is applied, when the product receives a DMX signal, or when SERVICE menu items are selected.



- Fasten the fixture securely to a fixed surface or structure when in use.
- 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 fixture 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.

# FIXTURE OVERVIEW



# INTRODUCTION

This compact LED-based wallwasher features:

- Superior Color mixing via unique lens design
- Exceptionally smooth projection
- RGBW color control with color temperature control
- User defined program/ inner optional program
- LED display with password protection
- Onboard control panel and LED graphic display
- Each line can be control independently
- 5 distinct dimming curves



## USING FOR THE FIRST TIME

**Warning! Read “Safety Information” on page 2 before installing, powering, operating or servicing the fixture. Before applying power to the fixture:**

- 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 6. Install a PowerCON® power input connector on a suitable power cable.

# AC POWER



**Warning! Read “Safety Information” starting on page 2 before connecting the fixtures to AC mains power.**

**Warning! For protection from electric shock, the fixture must be grounded (earthed). The power distribution 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 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 fixtures serial number label matches the local AC mains power voltage before applying power to the fixture.**

The fixtures accepts 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 specified.

## POWER CABLES

Power input and throughput cables must be rated 20A minimum, have three conductors 1.5 mm<sup>2</sup> (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 20A 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.

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-coding and power connections

## RELAYING POWER TO OTHER DEVICES



Warning! Do not connect more than ten fixtures in total to AC mains power in one interconnected chain. Power can be relayed to another device via the PowerCON<sup>®</sup> throughput socket.

If you daisy chain the fixtures in a chain so that they all draw AC mains power via the first fixture, certain points must be respected:

- A heavy duty, three-conductor, 16 AWG or 1.5 mm<sup>2</sup> cable with SJT or equivalent cable jacket must be used to connect the first fixture to AC mains power.
- PowerCON<sup>®</sup> connectors must be used to draw AC mains power from the fixtures power throughput sockets and yellow PowerCON<sup>®</sup> connectors must be used to supply power at the fixture's power input sockets.
- No matter what the AC mains power voltage is, do not connect more than ten the fixture in total (i.e. including the first fixture) to AC mains power in one interconnected daisy chain using power input and through out connectors.

# DATA LINK

A DMX 512 data link is required in order to control a fixture via DMX. The fixture has 3 & 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.

## TIPS FOR RELIABLE DATA TRANSMISSION

To connect the fixture to data:

1. Connect the DMX data output from the controller to 3 or 5-pin XLR connector of the nearest fixture.
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.

# PHYSICAL INSTALLATION



Warning! The fixture must be either fastened to a flat surface such as a stage or wall, or clamped to a truss or similar structure in any orientation using a rigging clamp.

Warning! If the fixture can cause injury or damage if it falls, attach an approved safety cable to one of the safety cable attachment points on the base (see "Fixture overview" on page 4).

Check that all surfaces to be illuminated are minimum 200 mm. from the fixture, that combustible materials (wood, fabric, paper, etc.) are minimum 100 mm. from the fixture, that there is free airflow around the fixture and that there are no flammable materials nearby.

## FASTENING THE FIXTURE TO A FLAT SURFACE

The fixture can be fastened to a fixed flat surface that is oriented at any angle. Check that the surface can support at least 10 times the weight of all fixtures and equipment to be installed on it.



Warning! The supporting surface must be hard and flat or air vents in the base may be blocked, which will cause overheating. Fasten the fixture securely. Do not stand it on a surface or leave it where it can be moved or can fall over. Attach a securely anchored safety cable to the safety cable attachment point (see "Fixture overview" on page 4) if the fixture is to be installed in any location where it may fall and cause injury or damage if the primary attachment fails.

1. Block access under the work area. Working from a stable platform, hang the fixture on the truss with the arrow on the base towards the area to be illuminated. Tighten the rigging clamp.
2. Secure the fixture against clamp failure with a secondary attachment such as an approved safety cable that is rated for the weight of the fixture using one of the attachment points at the edges of the base (see "Fixture overview" on page 4). Do not use any other part of the fixture as a safety cable attachment point.

# SETUP



Warning! Read "Safety Information" on page 2 before installing, powering, operating the fixture.

## 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 15 for a complete list of menus and commands.

Using the control buttons

- To enter the menu select [MODE].
- Press [UP] and [DOWN] to scroll within a menu or adjust values.
- To enter a menu, select a function or apply a selection, press [ENTER].
- 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 will rotate 180°.



## DMX ADDRESS SETTING

The DMX address, also known as the start channel, is the first channel used to receive instructions from the controller.

For independent control, each fixture must be assigned its own control channels.

The DMX address is configured using the DMX ADDRESS menu in the control panel. For setting the DMX address press [ENTER] before you can change the address.

### 1. DMX operate mode setting

Access control panel function by pressing MODE until **[RUN]** is displayed.

Press ENTER, press UP/DOWN buttons until the **[DMX]** is displayed.

Press ENTER, Press MODE return to MENU

### 2. Setting DMX512 Address

Access control panel function by pressing MODE until **[DMX]** is displayed.

Press ENTER, add or reduce channels by pressing UP/DOWN between 001 and 512.

Press MODE to exit.

## CONTROL MODE

DMX control mode is selected in the CONTROL MODE menu. The fixture has 8 DMX control modes:

	4ch	5ch	6ch	8ch	10ch	12ch	16ch	HSV
Dimmer	✓	✓	✓		✓			
RGBW		✓	✓		✓			
Strobe			✓					
Dimmer ( BAR1/2 )				✓		✓	✓	
RGBW( BAR1/2 )				✓		✓	✓	
Strobe ( BAR1/2 )					✓	✓	✓	
Macro color					✓		✓	
White presets							✓	
Effect					✓		✓	
Dimmer /Effect speed					✓		✓	
ID					✓			

## STATIC COLOR OPTIONS

Dimmer	<000-255>	Dimmer
Red	<000-255>	Dimmer Red
Green	<000-255>	Dimmer Green
Blue	<000-255>	Dimmer Blue
White	<000-255>	Dimmer White

## AUTO SHOW

The auto function gives 10 Auto programs and 10 custom programs RGBW color combinations which are working without any DMX console. Hit [ENTER] to adjust the speed of the Auto program from 1-20.

1) Auto 1	Auto program 1	11) Programme 1	pre-programmed 1
2) Auto 2	Auto program 2	12) Programme 2	pre-programmed 2
3) Auto 3	Auto program 3	13) Programme 3	pre-programmed 3
4) Auto 4	Auto program 4	14) Programme 4	pre-programmed 4
5) Auto 5	Auto program 5	15) Programme 5	pre-programmed 5
6) Auto 6	Auto program 6	16) Programme 6	pre-programmed 6
7) Auto 7	Auto program 7	17) Programme 7	pre-programmed 7
8) Auto 8	Auto program 8	18) Programme 8	pre-programmed 8
9) Auto 9	Auto program 9	19) Programme 9	pre-programmed 9
10) Auto 10	AUTO program 1-10 cycle	20) Programme 10	pre-programmed 10

## MASTER/SLAVE

### 1. Master/Slave operate mode setting

Access control panel function by pressing MODE until **[RUN]** is displayed.  
Press ENTER, press UP/DOWN buttons until the **[SLAV]** is displayed.  
Press ENTER, Press MODE return to MENU.

### 2. Upload custom program or set to another fixture

Set all the fixtures which receive custom programs from the source fixture as **[SLAV]**

- 1 Press MODE button until **[RUN]** is displayed.
- 2 Then press ENTER button, use UP/DOWN buttons until **[SLAV]** is displayed. Press MODE return to MENU.
- 3 On the Master unit, Press MODE button until **[SET]** is displayed on source fixture.
- 4 Then press ENTER button, use UP/DOWN buttons until **[UPLD]** is displayed.
- 5 Then press ENTER button, Input password UP, UP, DOWN, DOWN, press ENTER. All the lights display yellow color when uploading. After upload finish, it will turn to green which means upload successful. If has mistake, it will turn to red color.
- 6 Press <MODE> on the source unit to exit the upload mode.

# ID ADDRESS INSTRUCTIONS

## 1. Setting ID address

1. Access control panel function by pressing MODE until **【ID】** is displayed.
2. Press ENTER, increase or reduce ID values by pressing UP/DOWN between 01 and 66.
3. Press MODE to exit.

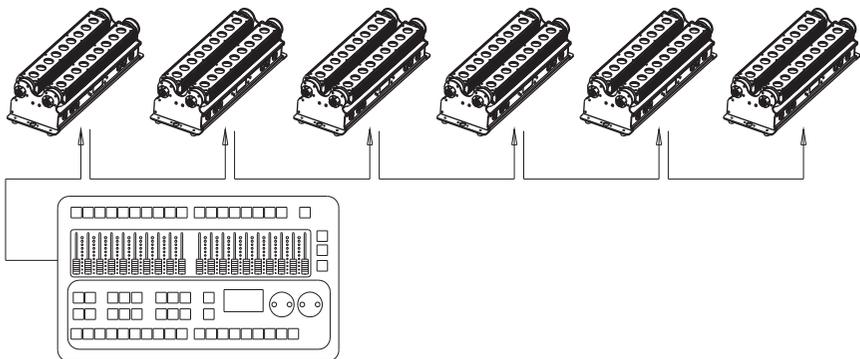
## 2. Enable or disable ID

**【SET】 -- 【IDSW】 -- 【ON-OFF】**

For every DMX512 address the user can set 66 separate ID addresses. ID addressing is a secondary function in DMX512 mode. In DMX512 Controller Mode, the user can simultaneously control the individual DMX address of all lights, and can control the lights which have separate ID address in independent DMX512.

## ID ADDRESS SELECTION

DMX VALUE	FUNCTION	DMX VALUE	FUNCTION	DMX VALUE	FUNCTION
000~009	All IDs	212	ID23	235	ID46
010~019	ID1	213	ID24	236	ID47
020~029	ID2	214	ID25	237	ID48
030~039	ID3	215	ID26	238	ID49
040~049	ID4	216	ID27	239	ID50
050~059	ID5	217	ID28	240	ID51
060~069	ID6	218	ID29	241	ID52
070~079	ID7	219	ID30	242	ID53
080~089	ID8	220	ID31	243	ID54
090~099	ID9	221	ID32	244	ID55
100~109	ID10	222	ID33	245	ID56
110~119	ID11	223	ID34	246	ID57
120~129	ID12	224	ID35	247	ID58
130~139	ID13	225	ID36	248	ID59
140~149	ID14	226	ID37	249	ID60
150~159	ID15	227	ID38	250	ID61
160~169	ID16	228	ID39	251	ID62
170~179	ID17	229	ID40	252	ID63
180~189	ID18	230	ID41	253	ID64
190~199	ID19	231	ID42	254	ID65
200~209	ID20	232	ID43	255	ID66
210	ID21	233	ID44		
211	ID22	234	ID45		



Select **16** channel on fixture's control panel (Please refer to DMX512 Channels Selection). The figure above shows a simple DMX layout which has used three units at each DMX address. The three units have different ID addresses. In the DMX address: 001, the user can control the first three lights simultaneously. When using channel 16 select the channel number is 020-029 and ID Address=02, the controller can control the second light individually. When using channel 16 select the channel number is 000-010 and ID Address=00, all the lights are in common use at the same DMX address.

# SETTING

Here you can set all functions for the fixture.

KEY	MODE+UP+MODE+DOWN+MODE+UP+MODE+DOWN+ENTER
IDSW	Enable or disable ID
UPLD	Upload programs , password is (UP+UP+DOWN+DOWN)
DIM	"Off" means select linear dimming, or choose dimmer 1-4 to control the dimming speed, dimming 1 of the fastest dimming curves, 4 for the most slowly dimming curve
REST	Resets the fixture to its factory default settings. (Password required)
VER	Shows software version (Vx.x)

## CUSTOM PROGRAM

### 【EDIT】 -- 【PRXX】 -- 【SC01】

- 1 Press MODE button until **【EDIT】** is displayed, press ENTER access program mode.
- 2 Select the program you'll edit by pressing UP/DOWN buttons. The available range is 01-10.
- 3 Select the step you'll edit by pressing UP/DOWN buttons, and then press ENTER button access program.

<b>PR01-09</b>	<b>SC01-30</b>	<b>R000</b>	Red (000 - 255)
		<b>G000</b>	green (000 - 255)
		<b>B000</b>	blue (000 - 255)
		<b>W000</b>	White (000 - 255)
<b>Pr10</b>	<b>SC01-90</b>	<b>S000</b>	Strobe (00 - 20)
		<b>T000</b>	Step Time (000 - 255)
<b>CUSTOM</b>	<b>SCENE</b>	<b>F000</b>	Transition Time Of Last Step To Current Step

Notice: Please operate the program in turn, from the 01st step to the 30th step. When the operating program less than 30 steps, please set the final step value be 0

- 4 Repeat step 3 till complete programming.
- 5 Exit program mode by pressing MODE buttons three times.

# DMX CHANNELS

4 CH	Function	Value	Percentage	Remark
1	Red	000 - 255	0 - 100%	
2	Green	000 - 255	0 - 100%	
3	Blue	000 - 255	0 - 100%	
4	White	000 - 255	0 - 100%	

5 CH	Function	Value	Percentage	Remark
1	Dimmer	000 - 255	0 - 100%	
2	Red	000 - 255	0 - 100%	
3	Green	000 - 255	0 - 100%	
4	Blue	000 - 255	0 - 100%	
5	White	000 - 255	0 - 100%	

6 CH	Function	Value	Setting	Remark
1	Dimmer	000 - 255	0 - 100%	
2	Red	000 - 255	0 - 100%	
3	Green	000 - 255	0 - 100%	
4	Blue	000 - 255	0 - 100%	
5	White	000 - 255	0 - 100%	
6	Strobe	000 - 024 025 - 064 065 - 069 070 - 084 085 - 089 090 - 104 105 - 109 110 - 124 125 - 129 130 - 144 145 - 149 150 - 164 165 - 169 170 - 184 185 - 189 190 - 204 205 - 209 210 - 224 225 - 229 230 - 244 245 - 255	Shutter open Strobe 1 (fast → slow) Shutter open Strobe 2: opening pulse (fast → slow) Shutter open Strobe 3: closing pulse (fast → slow) Shutter open Strobe 4: random strobe (fast → slow) Shutter open Strobe 5: random opening pulse (fast → slow) Shutter open Strobe 6: random closing pulse (fast → slow) Shutter open Strobe 7: burst pulse (fast → slow) Shutter open Strobe 8: random burst pulse (fast → slow) Shutter open Strobe 9: sine wave (fast → slow) Shutter open Strobe 10: burst (fast → slow) Shutter open	

8 CH	Function	Value	Percentage	Remark
1	Red 1	000 - 255	BAR 1 Red (0 - 100%)	
2	Green 1	000 - 255	BAR 1 Green (0 - 100%)	
3	Blue 1	000 - 255	BAR 1 Blue (0 - 100%)	
4	White 1	000 - 255	BAR 1 White (0 - 100%)	
5	Red 2	000 - 255	BAR 2 Red (0 - 100%)	
6	Green 2	000 - 255	BAR 2 Green (0 - 100%)	
7	Blue 2	000 - 255	BAR 2 Blue (0 - 100%)	
8	White 2	000 - 255	BAR 2 White (0 - 100%)	

10 CH	Functions	Value	Setting	Remark
1	Dimmer	000 - 255	0 - 100%	
2	Red	000 - 255	0 - 100% (Or STEP TIME when CUS.01-10 is activated)	
3	Green	000 - 255	0 - 100% (Or FADE TIME when CUS.01-10 is activated)	
4	Blue	000 - 255	0 - 100%	
5	White	000 - 255	0 - 100%	
6	Strobe	000 - 024	Shutter open	
		025 - 064	Strobe 1 (fast → slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast → slow)	
		085 - 089	Shutter open	
		090 - 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)	
		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			
7	Color wheel	000 - 255	Macro color control	
8	AUTO	000 - 009	No function	
		010 - 019	Auto program 1	
		020 - 029	Auto program 2	
		...	...	
		100 - 109	Auto 10 (AUTO 1-10 cycle)	
		110 - 119	Custom program 1	
		120 - 129	Custom program 2	
		....	...	
		200 - 255	Custom program 10	
		9	Speed	000 - 225
10	ID address	000 - 225	ID address selection (page 10)	

12 CH	Function	Value	Percentage	Remark
1	Dimmer 1	000 - 255	BAR 1 Dimmer 0 - 100%	
2	Red 1	000 - 255	BAR 1 Red (0 - 100%)	
3	Green 1	000 - 255	BAR 1 Green (0 - 100%)	
4	Blue 1	000 - 255	BAR 1 Blue (0 - 100%)	
5	White 1	000 - 255	BAR 1 White (0 - 100%)	
6	Strobe 1	000 - 024	Shutter open	
		025 - 064	Strobe 1 (fast → slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast → slow)	
		085 - 089	Shutter open	
		090 - 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)	
		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			
7	Dimmer 2	000 - 255	BAR 2 Dimmer 0 - 100%	
8	Red 2	000 - 255	BAR 2 Red (0 - 100%)	
9	Green 2	000 - 255	BAR 2 Green (0 - 100%)	
10	Blue 2	000 - 255	BAR 2 Blue (0 - 100%)	
11	White 2	000 - 255	BAR 2 White (0 - 100%)	
12	Strobe 2	000 - 024	Shutter open	
		025 - 064	Strobe 1 (fast → slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast → slow)	
		085 - 089	Shutter open	
		090 - 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)	
		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			

16 CH	Function	Value	Percentage	Remark
1	Dimmer 1	000 - 255	BAR 1 Dimmer 0 - 100%	
2	Red 1	000 - 255	BAR 1 Red (0 - 100%) Or STEP TIME when CUS.01-10 is activated	
3	Green 1	000 - 255	BAR 1 Green (0 - 100%) Or FADE TIME when CUS.01-10 is activated	
4	Blue 1	000 - 255	BAR 1 Blue (0 - 100%)	
5	White 1	000 - 255	BAR 1 White (0 - 100%)	
6	Strobe 1	000 - 024	Shutter open	
		025 - 064	Strobe 2: opening pulse (fast → slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 3: closing pulse (fast → slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 4: random strobe (fast → slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 5: random opening pulse (fast → slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 6: random closing pulse (fast → slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 7: burst pulse (fast → slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 8: random burst pulse (fast → slow)	
185 - 189	Shutter open			
190 - 204	Strobe 9: sine wave (fast → slow)			
205 - 209	Shutter open			
210 - 224	Strobe 10: burst (fast → slow)			
225 - 229	Shutter open			
230 - 244	Shutter open			
245 - 255	Shutter open			
7	Dimmer 2	000 - 255	BAR 2 Dimmer 0 - 100%	
8	Red 2	000 - 255	BAR 2 Red (0 - 100%)	
9	Green 2	000 - 255	BAR 2 Green (0 - 100%)	
10	Blue 2	000 - 255	BAR 2 Blue (0 - 100%)	
11	White 2	000 - 255	BAR 2 White (0 - 100%)	
12	Strobe 2	000 - 255	BAR 2 Strobe (Please refer to Strobe 1)	
13	Color wheel	000 - 255	Macro color control	
14	CCT	000 - 004	No function	
		005 - 255	8000K - 2000K	
15	AUTO	000 - 009	No function	
		010 - 019	Auto program 1	
		020 - 029	Auto program 2	
		030 - 039	Auto program 3	
		040 - 049	Auto program 4	
		050 - 059	Auto program 5	
		060 - 069	Auto program 6	
		070 - 079	Auto program 7	
		080 - 089	Auto program 8	
		090 - 099	Auto program 9	
		100 - 109	Auto 10 (AUTO 1-10 cycle)	
		110 - 119	Custom program 1	
		120 - 129	Custom program 2	
		130 - 139	Custom program 3	
		140 - 149	Custom program 4	
		150 - 159	Custom program 5	
160 - 169	Custom program 6			
170 - 179	Custom program 7			
180 - 189	Custom program 8			
190 - 199	Custom program 9			
200 - 255	Custom program 10			
16	Speed	000 - 225	Dimming /Auto speed	



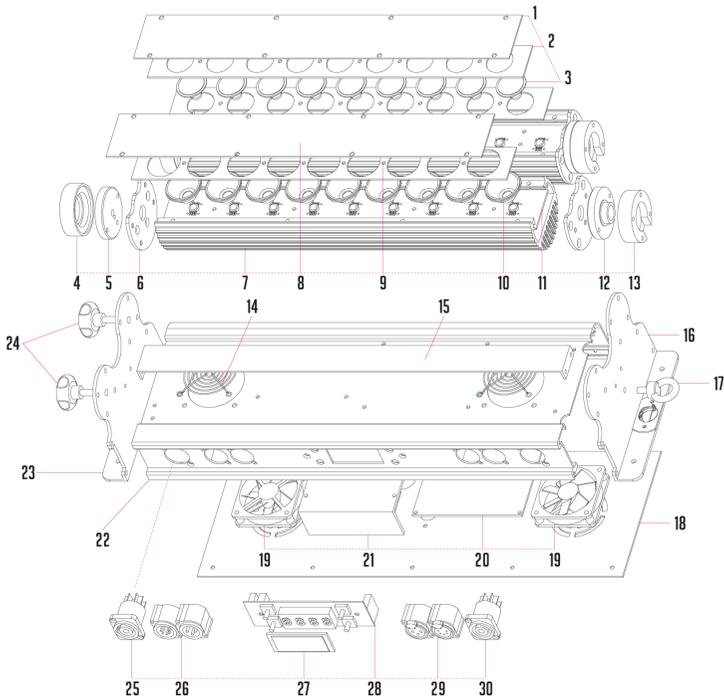
HSV	Function	Value	Percentage	Remark
1	Hue	000 - 255	0 - 100%	
2	Saturation	000 - 255	0 - 100%	
3	Value	000 - 255	0 - 100%	

**Note:** In HSV mode, Hue stands for the visible light, such as red, yellow, and cyan, etc. Saturation refers to the dominance of hue in the color; when saturation is at 100%, then the color is at its purest. Value is the color's brightness; when value is at 100%, then the color is at its brightest.

# ONBOARD CONTROL MENUS

NO.	Main Menu	Menu level 2	Selection	Remark	
1	DMX	D001	001-512		
2	PERS		04CH	Default : 8CH	
			05CH		
			06CH		
			08CH		
			10CH		
			12CH		
			16CH		
		HSV			
3	ID	01-66		Default : 01	
4	RUN	DMX		To receive signal from a DMX controller (Default : DMX)	
		SLAV		Receive signal or Download programs from Master fixture.	
5	STAT		D (000-255)	Dimmer	
		BAR1	R (000-255)	Red	
			G (000-255)	Green	
			B (000-255)	Blue	
		BAR2	W (000-255)	White	
			S (00-20)	Strobe	
6	AUTO	At00	01-10	10 auto programs available	
		Pr00	01-10	Chose program from 10 "EDIT" programs	
7	EDIT		R000	Red (000 - 255)	
		PR01-09 Custom	SC01-30 Scene	G000	Green (000 - 255)
				B000	Blue (000 - 255)
				W000	White (000 - 255)
		Pr10 Custom	SC01-90 Scene	S000	Strobe(000 - 255)
				T000	Step Time(000 - 255)
				F000	Transition Time Of Last Step To Current Step
		8	SET	KEY	ON / OFF
IDSW	ON/OFF			Default : ON	
UPLD	Password			UP+UP+DOWN+DOWN	
	OFF				
	DIM 1				
	DIM 2			Default : OFF	
DIM	DIM 3				
	DIM 4				
REST	Password			UP+UP+DOWN+DOWN	
VER	VX.XX			Shows software version	

# BLOW-OUT DIAGRAM



NO.	Description	Part Number	NO.	Description	Part Number
1	Front cover	CLF-16-009	17	Safety eye	CLF-16-039
2	Lens holder	CLF-16-004	18	Base plate	CLF-16-019
3	Lens	CLF-16-003	19	Fan	CLF-16-020
4	Left bearing	CLF-16-005	20	Main board	CLF-16-021
5	Left flange	CLF-16-006	21	Power supply	CLF-16-022
6	Side part radiator	CLF-16-007	22	Housing	CLF-16-018
7	Radiator Ledwash	CLF-16-008	23	Chassis part left	CLF-16-032
8	Front cover	CLF-16-009	24	Knob	CLF-16-025
9	Reflector holder	CLF-16-010	25	PowerCON input blue	CLF-16-026
10	Reflector	CLF-16-011	26	XLR input board	CLF-16-027
11	LED board	CLF-16-012	27	Display cover	CLF-16-001
12	Right flange	CLF-16-013	28	Display board	CLF-16-029
13	Right bearing	CLF-16-014	29	XLR output board	CLF-16-030
14	Fan guard	CLF-16-015	30	PowerCON output white	CLF-16-031
15	Wind shield	CLF-16-016			
16	Chassis part right	CLF-16-017			

# SPECIFICATIONS

## Physical

Length	483 mm
Width	153 mm
Height	125 mm
Weight	5.2 kg without accessories

## Dynamic Effects

Beam angle	BAR 1: 25° , BAR 2: 50°
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## Optics

Light source	18 pcs high-power LED (RGBW)
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## Control and Programming

Control	DMX
DMX channels	4 / 5 / 6 / 8 / 10 / 12 / 16 / HSV
Setting and addressing	Control panel with backlit LED graphic display
Protocol	USITT DMX512-A

## Control and Programming

Color	Black
Housing	High strength die-casting aluminum
Protection rating	IP 20

## Installation

Orientation	Any
Minimum distance to combustible materials	100 mm. from fixture
Minimum distance to illuminated surfaces	200 mm. from fixture

## Connections

AC power input	PowerCON <sup>®</sup> input socket
AC power throughput	PowerCON <sup>®</sup> output socket
DMX data in/out	5 pin & 3 pin locking XLR

## Electrical

AC power	100-240 V nominal, 50/60 Hz
Maximum total power consumption	130 W
Power supply unit	Auto-ranging electronic switch mode
Power consumption, all effects static, zero light output	<15 W

## Power consumption

120 V, 60 Hz	128.6 W, PF * 0.625
240 V, 50 Hz	126.2 W, PF * 0.530

\* PF = power factor. Measurements made at nominal voltage with all LEDs at full intensity. Allow for a deviation of +/- 10%.

## Cooling

	Forced air
Maximum ambient temperature (Ta max.)	40° C
Minimum ambient temperature (Ta min.)	5° C
Total heat dissipation (calculated, +/- 10%)	820 BTU/hr.



# LEDWASH RGBW XL