DYNAMIC WHITE PAR MANUAL

TABLE OF CONTENTS

DIMENSIONS
ALL DIMENSIONS ARE IN MILLIMETERS

G Clamp with
Quicklock #875760
(Optional)

BRACKET ADJUSTMENT KNOB

HANGING BRACKET / FLOOR STAND

177

255

300

205
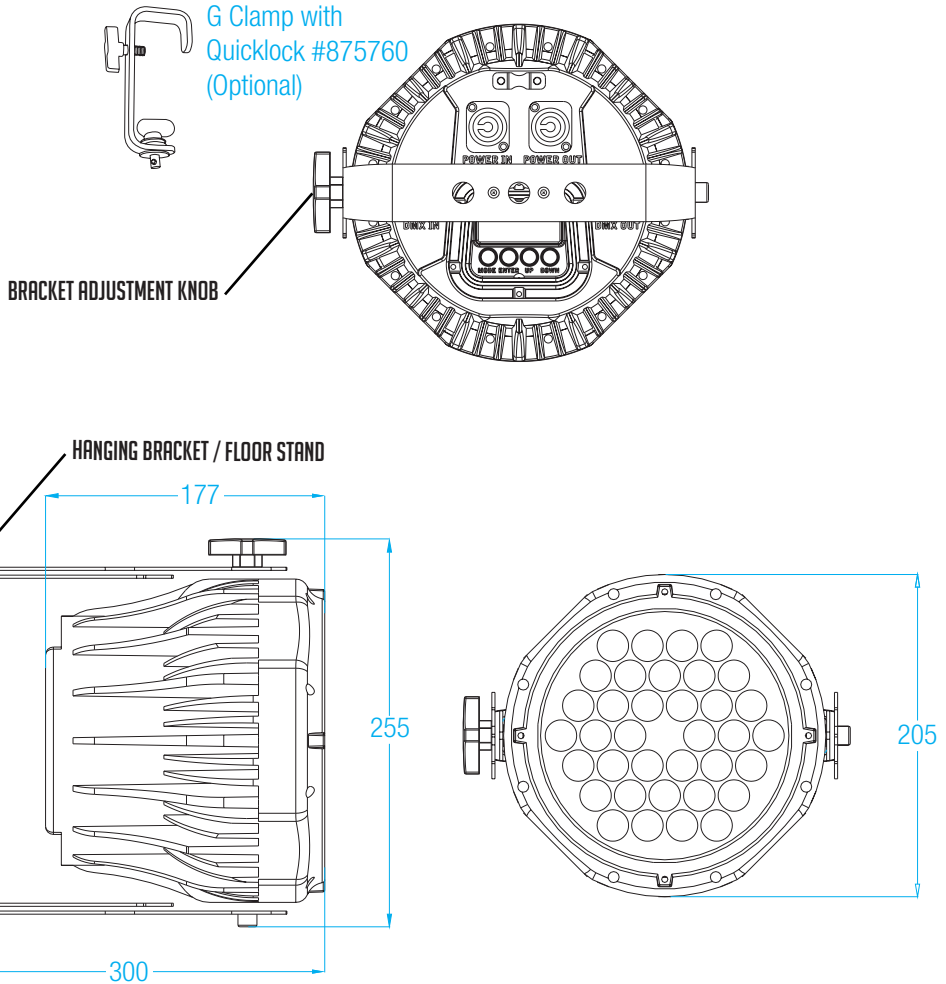
SAFETY INFORMATION

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 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 seat, 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 5 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 fixture fixtures in total to each other in an interconnected chain.
• Connect only other fixture fixtures to fixture power throughput 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.

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 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.

FIXTURE OVERVIEW

SAFETY

POWER OUT

POWER IN

DMX IN

DMX OUT

CONTROL BOARD
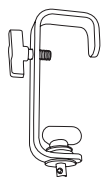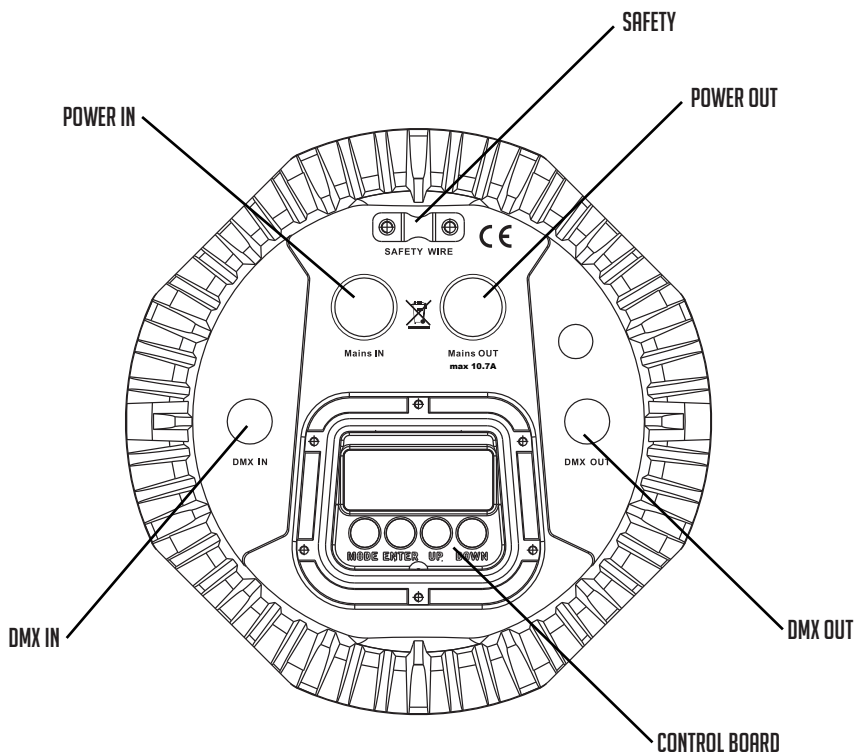
G Clamp with
Quicklock #875760
(Optional)

INTRODUCTION

Compact cold white & warm white LED fixture:
• 25° beam angle
• Extensive white color temperature control (2.800K – 6.500K, CRI>90)
• Solid housing
• Double bracket for floor and truss mounting
• 'Flicker free' operation
• Powercon in and out

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. 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 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 on the fixture's serial number label.

POWER CABLES

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 (USmodels)	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 8 fixtures in total to AC mains power in one interconnected chain.
Power can be relayed to another device via the light-grey PowerCon 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 mm2 cable with SJT or equivalent cable jacket must be used to connect the first fixture to AC mains power.
• PowerCON connectors must be used to draw AC mains power from the fixtures power output sockets. Blue power-CON connectors must be used to supply power through the fixture's power input sockets.

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 (+).

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.

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 it if 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 head, that there is free airflow around the fixture and that there are no flammable materials nearby. Make sure that it is impossible for the moving head to collide with another fixture or other object.

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. 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 or servicing the fixture.

CONTROL PANEL AND MENU NAVIGATION

The onboard control panel and display are used to set the fixture's DMX address, configure individual fixture settings (personality), read out data and execute service utilities. See "Menu Navigation" on page 9 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].

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 [DMX] menu in the control panel. For setting the DMX address press [ENTER] before you can change the adddres.

• If a DMX signal is presented to the fixture, a red dot is shown on the menu screen.

CONTROL MODE

DMX control mode is selected in the control mode [PERS] menu. The fixture has three DMX control modes:

	2ch	3ch	7ch
Cool white & warm white		✔	✔
CCT	✔		✔
Dimming	✔	✔	✔
Strobe			✔
ID			✔
Dimmer Speed			✔

MENU NAVIGATION

MAIN FUNCTION	SUB FUNCTION	SELECTION	INSTRUCTION
STAT	C000	000 - 255 (0 - 100%)	User can combine cool white and warm white to generate a custom color
	W000		
	S000	00 - 20	Select strobe frequency
AUTO	AT00	01 - 03	3 auto programs available
DMX	D001	001 - 512	Set DMX start address
RUN	DMX		Sets the operating made for the fixture to receive signal from a DMX controller (DMX) and receive signal from master fixture (SLAVE).
	SLAV		
PERS		07CH	7 CHS: D + C + W
		02CH	2 CHS: Dimmer + CCT
		03CH	3 CHS: Dimmer + C + W
ID	01 - 66		Assign ID address for fixtures
SET	IDSW	ON - OFF	Enable or disable ID
	LOCK	ON - OFF	Enables or disables password lockout Unlock with password: (MODE, UP, MODE, DOWN, MODE, UP, MODE, DOWN)(ENTER)
	DIM	OFF	'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.
		DIM 1 / 2 / 3 / 4	
	RESET	Password (UP, UP, DOWN, DOWN, ENTER)	Reset factory defaults
	VER	1.31	Version number
CCT	2800	C000	Preset custom whites, to choose different color temperatures.
	3000		
	3200		
	3400		
	4200		
	4900	W000	
	5600		
	5900		

DMX PROTOCOLS

DMX512 CONTROLLER MODE

1. DMX OPERATE MODE SETTING
Access control panel function by pressing MODE until [RUN] is displayed.
Press ENTER, press UP/DOWN buttuns untill the [DMX] is displayed.
Press ENTER, press MODE return to MENU.

2. SETTING DMX512 ADDRESS
[DMX] --> [001--512]
Access control panel function by presenting MODE until [RUN] is displayed.
Press ENTER, add or reduce channels by pressing UP/DOWN between 001 and 512.
Press MODE to exit.

3. SETTING CHANNELS
[PERS] --> [02CH, 03CH, 07CH]
Access control panel function by presenting MODE until [PERS] is displayed.
Press ENTER, select DMX channel by pressing UP/DOWN.
Press MODE to exit.

02 CHANNELS	VALUE	DESCRIPTION
1. Dimming	000 - 255	0 - 100%
2. CCT	000 - 010	No function
	011 - 040	White 1: 2800K
	041 - 070	White 2: 3000K
	071 - 100	White 3: 3200K
	101 - 130	White 4: 3400K
	131 - 160	White 5: 4200K
	161 - 190	White 6: 4900K
	191 - 220	White 7: 5600K
	221 - 255	White 8: 5900K

03 CHANNELS	VALUE	DESCRIPTION
1. Dimming	000 - 255	0 - 100%
2. Cool white	000 - 255	0 - 100%
3. Warm white	000 - 255	0 - 100%

DMX PROTOCOLS

07 CHANNELS	VALUE	DESCRIPTION
1. Dimming	000 - 255	0 - 100%
2. Cool white	000 - 255	0 - 100%
3. Warm white	000 - 255	0 - 100%
4. CCT	000 - 010	No function
	011 - 040	White 1: 2800K
	041 - 070	White 2: 3000K
	071 - 100	White 3: 3200K
	101 - 130	White 4: 3400K
	131 - 160	White 5: 4200K
	161 - 190	White 6: 4900K
	191 - 220	White 7: 5600K
	221 - 255	White 8: 5900K
5. Strobe	000 - 001	No function
	002 - 255	0 - 20Hz
6. Dimmer speed	000 - 255	Dimmer speed
7. ID	000 - 255	ID address selection

SPECIFICATIONS

Physical	
Length	255mm
Width	205mm
Height	300mm
Weight	4 kg
Dynamic Effects	
LED color mixing	Cold white / warm white
LED color temperature control	Variable 2800K (91 CRI) - 6500K (85 CRI)
Optics	
Light source	36 high power LED's, 18x CW & 18x WW
Control and Programming	
Control	DMX / master / slave
DMX channels	2 / 3 / 7
Setting and addressing	Control panel with seven digit display
Protocol	DMX512-A
Control and Programming	
Color	Black
Housing	High strength die-casting aluminum
Protection rating	IP 22
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 input socket
AC power output	PowerCON output socket
DMX data in/out	3-pin locking XLR
Electrical	
AC power	100-240 V nominal, 50/60 Hz
Maximum total power consumption	90 W
Power supply unit	Auto-ranging electronic switch mode
Power consumption in standby mode	2 W
Power consumption	
120 V, 60 Hz	90 W, PF 0.6
240 V, 50 Hz	90 W, PF 0.6
PF = power factor. Measurements made at nominal voltage with all LEDs at full intensity. Allow for a deviation of +/- 10%. Thermal	
Cooling	Convection
Maximum ambient temperature (Ta max.)	40° C
Minimum ambient temperature (Ta min.)	5° C

EXPLODED VIEW
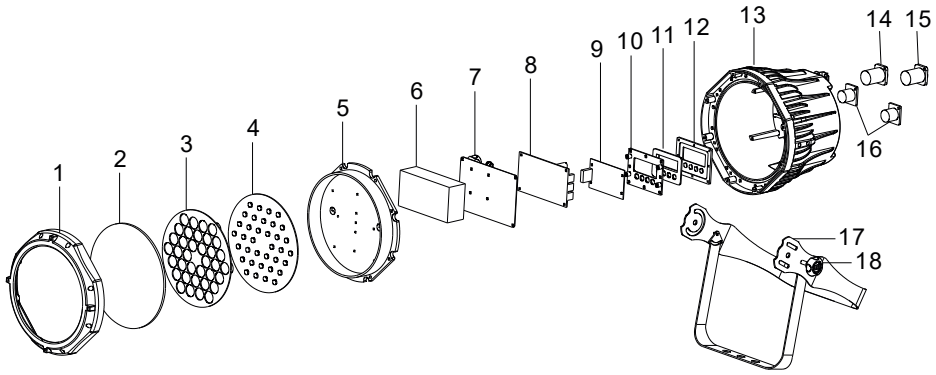
	Description	Part Number
1	Front cover ring	CLF-02-019
2	Tempered front glass	CLF-02-021
3	Lens kit	CLF-02-022
4	LED Board	CLF-02-023
5	LED Board radiator	CLF-02-001
6	Power supply	CLF-02-024
7	Power supply support bracket	CLF-02-002
8	Main board	CLF-02-025
9	Display board	CLF-02-026
10	Display holder	CLF-02-005
11	Acrylic display support	CLF-02-028
12	Display cover	CLF-02-029
13	Case body	CLF-02-030
14	Powercon input blue	CLF-02-031
15	Powercon output white	CLF-02-003
16	DMX socket set	CLF-02-032
17	Bracket	CLF-02-033
18	Knob bracket	CLF-02-034

DYNAMIC WHITE PAR