

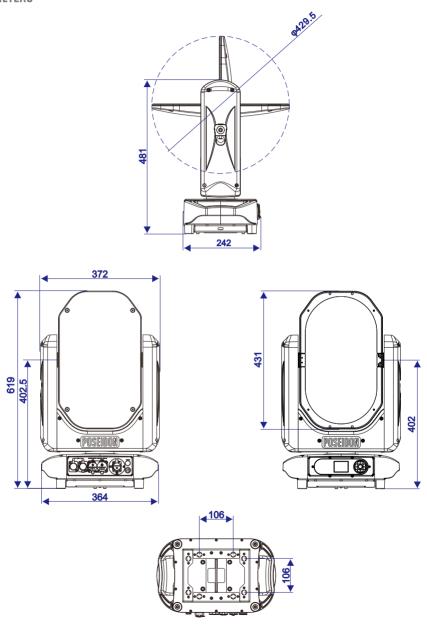
WWW.CLF-LIGHTING.COM V1.0 JUN 2023

TABLE OF CONTENTS

Dimensions	1
Safety Instruction	2
Fixture overview	4
Introduction	5
AC Power	5
Power voltage	5
Power cables	6
Relaying power to other devices	6
Data link	6
Tips for reliable data transmission	6
Physical installation	7
Fastening the fixture to a flat surface	7
Outdoor IP-rated fixtures	8
Condensation/moisture inside housing	8
Fixtures temperature specification	8
Setup	9
Control panel and menu navigation	9
DMX address setting	9
Onboard control menus	10
DMX protocol	12
Circuit connection diagram	13
Specifications	14

DIMENSIONS

IN MILLIMETERS



SAFETY INSTRUCTION



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! Burn hazard. Hot surface. Do not



WARNING! Wear protective evewear.



WARNING! Refer to user manual.



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.
- 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 20A 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 1[®] cable connectors to connect to power input sockets. Use only PowerCON TRUE1
 © cable connectors to connect to power throughput 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.
- 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



- 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 1 metres 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 8 metres 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 total to eachother in an interconnected chain.
- Connect only other fixtures to fixture power throughout 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

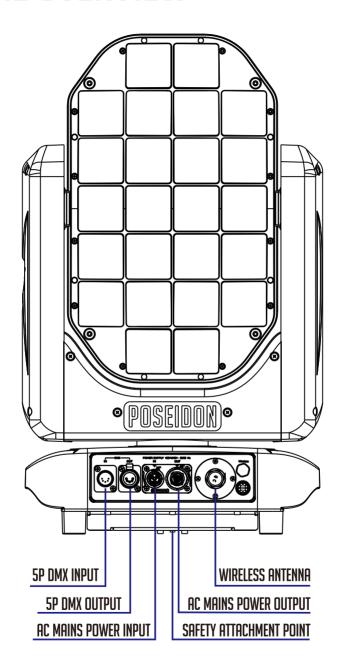


- Fasten the fixture securely to a fixed surface or structure when in use. The fixture is not portable when installed.
- Ensure that any supporting structure and/or hardware used can hold at least 10 times the weight of all the devices they support.
- Allow enough clearance around the head to ensure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



INTRODUCTION

POWERFUL OUTDOOR MIRROR

- IP65 DUAL SIDED MIRROR MOVINGHEAD
- CLEAR MIRROR AND 24 PCS SHAPED MIRROR
- 540° PAN AND INFINITE TILT
- 3 PRISMS (LINEAR, 4-FACET & 8-FACET)
- MIRROR SHAKE EFFECT

IISING FOR THE FIRST TIME

Warning! Read "Safety Information" 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 TRUE1 ® power input connector power cable.

AC POWER



Warning! Read "Safety Information" starting on 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 TRUE 1 ® 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 fixture serial number label matches the local AC mains power voltage before applying power to the fixture.

The fixtures accepts AC mains power at 100-240V 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 16A 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 16A 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
Brown	Black	Live	L
Blue	White	Neutral	N
Yellow/Green	Green	Ground (earth)	⊕ or ±

Table 1: Wire color-coding and power connections

RELAYING POWER TO OTHER DEVICES

Warning! Do not connect more than five fixtures in total in one interconnected chain. Power can be relayed to another device via the PowerCON TRUE 1 ® 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 TRUE1 ® connectors must be used to draw AC mains power from the fixtures power throughput socket and yellow PowerCON TRUE 1 ® connectors must be used to supply power at 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 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 in use.

TIPS FOR RELIABLE DATA TRANSMISSION

To connect the fixture to data:

- 1. Connect the DMX data output from the controller to the 5-pin XLR connector of the nearest fixture.
- 2. Connect the DMX output of the first fixture to the DMX input of the next fixture and continue connecting fixtures.

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! Always attach an approved safety cable to one of the safety cable attachment points on the base.

Do not illuminate surfaces within 6 meters of the fixture. Ensure that flammable materials (wood, fabric, paper, etc.) are minimum 1 meters from the fixture and allow a free airflow around the fixture.

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.

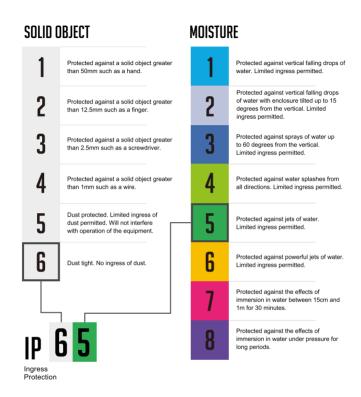


Warning! The supporting surface must be hard and flat or cooling may be blocked, which will cause overheating. Fasten the fixture securely. Do not place it on unstable surfaces. Always attach a securely anchored safety cable to the safety cable attachment point.

Block access under the construction area. Work from a stable platform, hang the fixture on a truss with the arrow on the base towards the area to be illuminated. Tighten the rigging clamp.

OUTDOOR IP-RATED FIXTURES

CLF products are applied to official classified IP norm levels. For this product the IP rate is IP65 when using the covers for the chassis parts. IP65 means according classified norm: shielded against dust and pressurized water from any side. Typical use for outdoor rated stage events with normal weather acceptance. So no heavy rain, because then the water pressure over exceeds the IP norm.



CONDENSATION/MOISTURE INSIDE HOUSING

Because of high humidity levels during production condensation can occur inside the housing. This is mostly visible on the coldest parts of the fixture, like the front glass or display. To prevent this problem we work with special conditioned areas for outdoor fixtures. Because of the breathing air valves it is still possible to get humidity inside the fixture. This will evaporate slowly. Do not put wet fixtures in a flightcase, this will help humidity enter the fixture.

FIXTURES TEMPERATURE SPECIFICATION

Make sure the fixture is used within its working temperature range. Outside this range we cannot guarantee correct operation.

TEMPORARY USAGE:

Stage event equipment is designed for temporary outdoor use. Materials are not designed for long-term exposure to heavy weather conditions. Rubber covers will be negatively affected by long-term UV exposure and should be checked by qualified service technicians over time. Tightening screws too hard will negatively affect the IP-rating.

SETUP

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

CONTROL PANEL AND MENU NAVIGATION

The onboard control panel and backlit graphic display are used to adjust the DMX address, fixture settings (personality), service utilities. See "Onboard control menus" for a complete list of menus and commands.

Using the control buttons:

- To enter the menu select [ENTER]
- Press [UP], [DOWN], [LEFT] AND [RIGHT] 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 [LEFT].

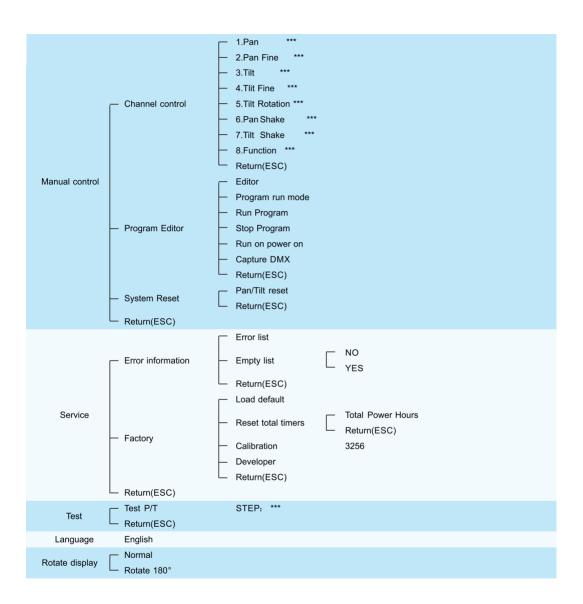
DMX ADDRESS SETTING

The DMX address is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned to a separate channel. The DMX address can be configured by using the DMX ADDRESS menu in the control panel.

- NO DMX: Display flashes and shows at 'DMX: X'.
- DMX: Display backlight turns off and shows 'DMX: V'.
- The fixture is fully RDM ready. For RDM functions please refer to the ANSI/ESTA E1.20-2006 standard.

ONBOARD CONTROL MENUS

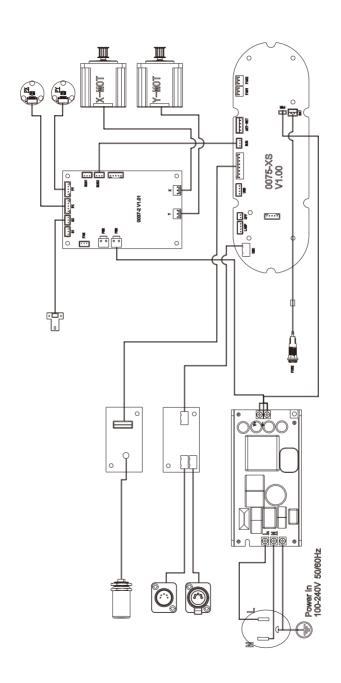
Main menu	Menu level 1	Menu level 2	Menu level 3	Menu level 4
DMX Settings	DMX Address DMX Signal mode Wireless Function Return(ESC)	001-512 Wire Wireless Idle Unlink transmitter		
Information	Total Time RDM UID DMX Live System version Return(ESC)	Total Hours: *****(H) XXXXXXXX 1.Pan **** 2.Pan Fine **** 3.Tilt **** 4.Tlit Fine **** 5.Tilt Rotation *** 6.Pan Shake *** 7.Tilt Shake *** 8.Function *** XY Board : V*.** DIS Board : V*.**		
Personality	 Display lock Wireless options P/T invert Display P/T Speed mode 	OFF ON Wireless installed Return(ESC) Pan invert Tilt invert Return(ESC) Backlight Rotate Backlight blink Return(ESC) Normal Fast Precise	OFF ON OFF ON OFF ON Always ON Auto OFF (15s) Normal Rotate 180° ON OFF	



DMX PROTOCOL

CHANNEL	- Function	VALUE	SETTING	SETTING
1	Pan	0 - 255	Pan	
2	Pan Fine	0 - 255	Pan Fine	
3	Tilt	0 - 255	Tilt	
4	Tilt Fine	0 - 255	Tilt Fine	
		0	No Function	
5	Tilt Rotation	1-127	Fast-Slow Rotation(CW)	
5	Till Rotation	128	Stop	
		129 - 255	Slow-Fast Rotation(CCW)	
	Pan Shake	0 - 9	No Function	
6		10 - 41	Pan shake	
		42 - 255	Reserved	
		0 - 9	No Function	
7	Tilt Shake	10 - 41	Tilt Shake	
		42-255	Reserved	
8 1	Function	0 - 29	Unused Range	
		30-50	Reset	
		51 - 255	Unused Range	

CIRCUIT CONNECTION DIAGRAM



SPECIFICATIONS

Power	
Input voltage & rate	AC100-240V~, 50/60HZ
Nominal total power consumption (at nominal voltage 100V)	60W
Typical current (at nominal voltage 100V)	0.6A
Cos φ	0.95
Power plug type	Seetronic Powercon TRUE 1
Configuration	
Pan	540°
Tilt	Endless
Heat management	
MAX ambient temp (Ta max)	Ta max= 40 ℃
MIN ambient temp (Ta min)	Ta min= -20℃
MAX housing temp. (ta=40°C)	Tc = 60°C
Menu	
Auto program	Manual program and Auto test program
Manual calibration	Service→calibration→ function (0-255)
Factory calibration	Yes
Control	
Control protocol	DMX512
DMX channel range	8CH
RDM	Yes
WDMX	WDMX from Lumen Solution
ACN	No
DMX input connection	5-pin
Data input (artnet, SACN)	No
Hardware	
Interface	LCD Display
Software upload method	DMX, via special box
Installation	
IP rating	IP65
Orientation	Any
Housing	
Safety attachment point	Bottom
Lock	Tilt lock
Physical	
Net product weight	15.5Kg
Machine dimensions - length	372mm
Machine dimensions - depth	242mm
Machine dimensions - height	619mm
Carton size	475*325*750mm
Gross weight	18.9Kg
Accessories	
Included items	Manual, Power cable, DMX cable, Safety cable
Approvals	
Approved certifications	CE and RoHs.
Information	
Article number	160042

