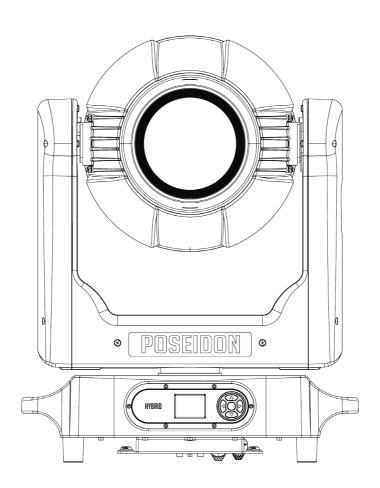


MANUAL



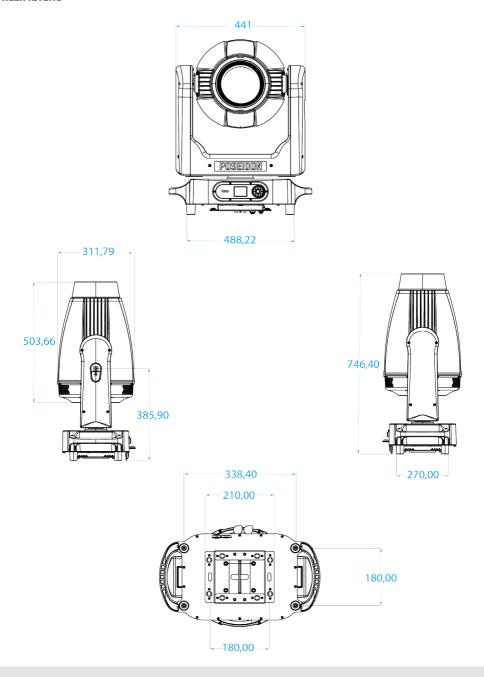
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DIMENSIONS

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 eyewear.



WARNING! Refer to user manual.



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

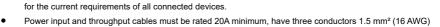
This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls.

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



- 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.
- A CONTRACTOR OF THE PARTY OF TH
- 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.



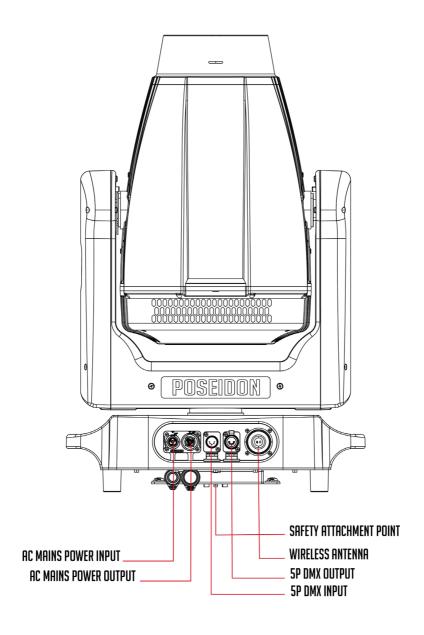
- Check that all external covers and rigging hardware are securely fastened.
- Block access below the work area and work from a stable platform whenever installing, servicing or moving the
 fixture.
- Do not operate the fixture with missing or damaged covers, shields or any optical component.

LAMP LIFE



 Lamp life can vary, caused by many factors. For example external temperature, humidity, lamp strikes, dimming or power/voltage.

FIXTURE OVERVIEW



INTRODUCTION

POWERFUL OUTDOOR HYBRID

- SMOOTH CMY COLOR MIXING
- FIXED COLOR WHEEL
- 2 GOBO WHEELS
- 3 PRISMS (LINEAR, 4-FACET & 8-FACET)
- FROST
- 2° 45° ZOOM WITH AUTOFOCUS
- ANIMATION EFFECT

USING 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 ψ

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.

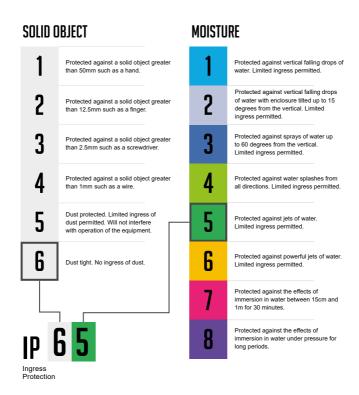


Warning! The supporting surface must be hard and flat or cooling may be blocked, which will cause overheating. Fasten the fixture securely. Do not place it on unstable surfaces. Always attach a securely anchored safety cable to the safety cable attachment point.

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:

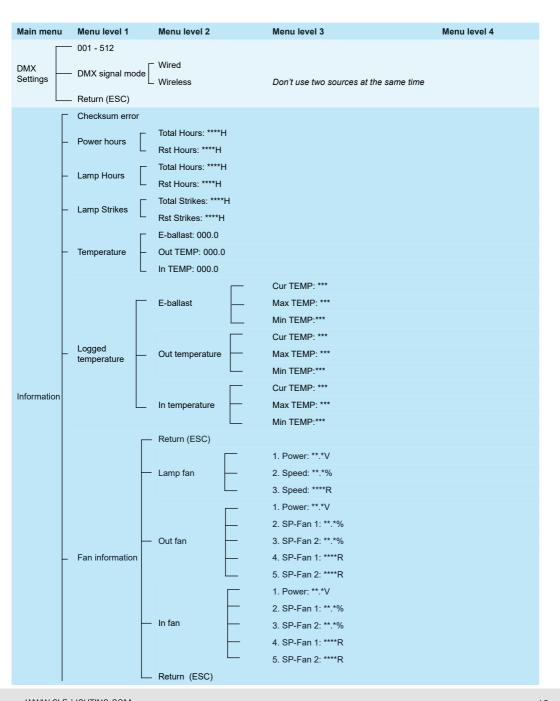
- To enter the menu select [ENTER].
- Press [UP], [DOWN], [LEFT] AND [RIGHT] to scroll within a menu or adjust values.
- To enter a menu, select a function or apply a selection, press [ENTER].
- To escape a function or move back one level in the menu structure, press [LEFT].

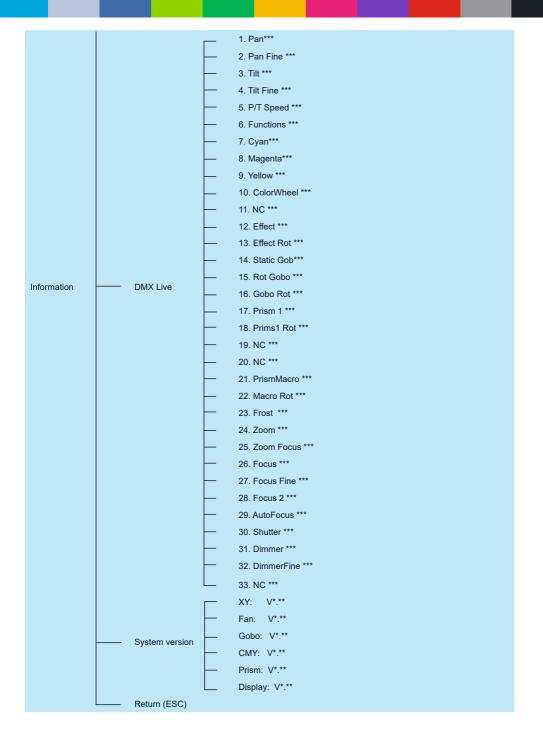
DMX ADDRESS SETTING

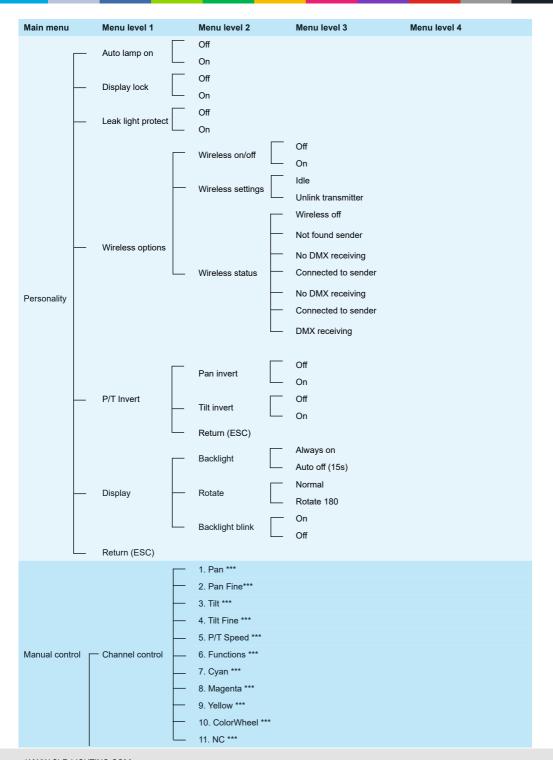
The DMX address is the first channel used to receive instructions from the controller. For independent control, each fixture must be assigned to a separate channel. The DMX address can be configured by using the DMX ADDRESS menu in the control panel.

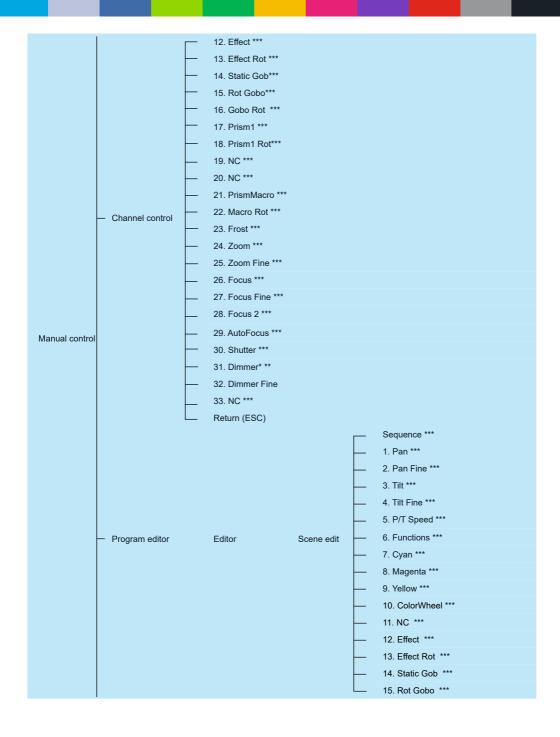
- NO DMX: Display flashes and shows at 'DMX: X'.
- DMX: Display backlight turns off and shows 'DMX: V'.
- The fixture is fully RDM ready. For RDM functions please refer to the ANSI/ESTA E1.20-2006 standard.

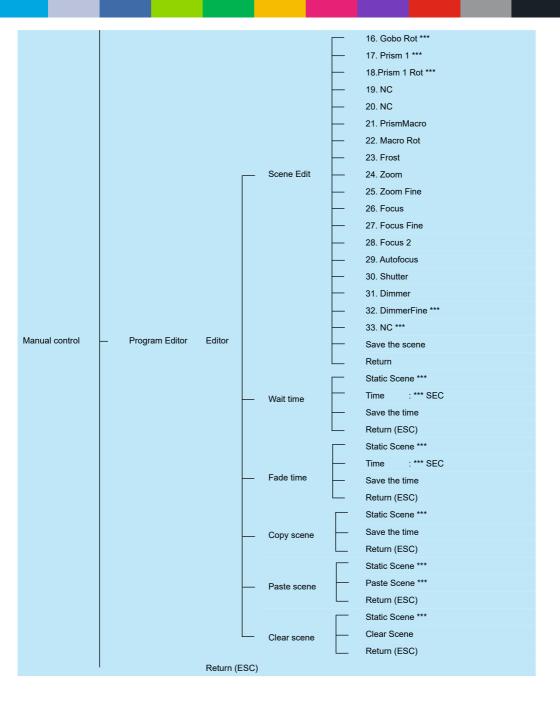
ONBOARD CONTROL MENUS

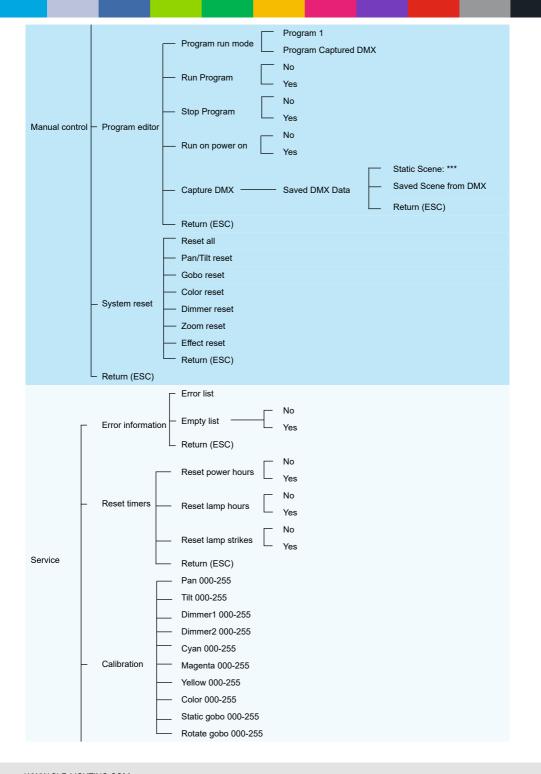


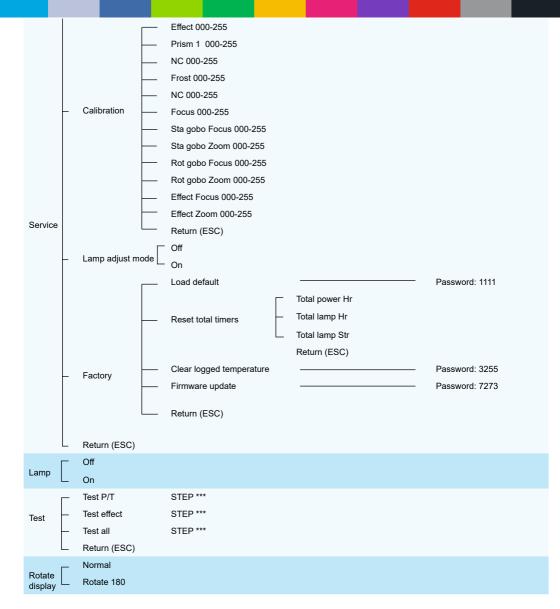












DMX PROTOCOL

Channel	Function	Value	Setting	Remark
1	Pan	0-255	0-100%	
2	Pan Fine	0-255	0-100%	
3	Tilt	0-255	0-100%	
4	Tilt Fine	0-255	0-100%	
		0	Standard mode (0=Default)	
5	Movement Speed/Time	1	Max. Speed Mode	
		2-255	Speed from max to min	
6	Function	0-130	No function	
		130-139	Lamp on	
		140-149	Pan/tilt reset	
		150-159	color system reset	
		160-169	gobo wheel reset	
		170-179	Dimmer/shutter reset	
		180-189	Zoom/focus/frost/ prism reset	
		190-199	Effect wheel reset	
		200-209	Total reset	
		210-229	No function	
		230-239	Lamp off	
		240-255	No function	
7	Cyan	0-255	0 to 100% cyan	
8	Magenta	0-255	0 to 100% magenta	
9	Yellow	0-255	0 to 100% yellow	
10	Color wheel	0-4	Open	
		5-8	Open + Red	
		9-12	Red	
		13-17	Red + Orange	
		18-21	Orange	
		22-25	Orange + Aquamarine	
		26-29	Aquamarine	
		30-34	Aquamarine + Green	
		35-38	Green	
		39-42	Green + Light Green	
		43-46	Light Green	
		47-51	Light Green + Lavender	
		52-55	Lavender	

Channel	Function	Value	Setting	Remark
10	Color wheel	56-59	Lavender + Pink	
		60-63	Pink	
		64-68	Pink + Yellow	
		69-72	Yellow	
		73-76	Yellow + Magenta	
		77-81	Magenta	
		82-85	Magenta + Cyan	
		86-89	Cyan	
		90-93	Cyan + CTO 260	
		94-98	CTO 260 / CTO2	
		99-102	CTO 260 + CTO 190 / CTO2 + CTO1	
		103-106	CTO 190 / CTO1	
		107-110	CTO 190 + CTB 8000 / CTO1 + CTB	
		111-115	CTB 8000 / CTB	
		116-119	CTB 8000 + Blue	
		120-123	Blue	
		124-127	Blue + White	
		128-191	CCW Fast to slow rotation	
		192-255	CW Slow to fast rotation	
11	No function			
12	Effect Wheel Positioning	0-19	No function	
		20-255	Full effect	
13	Effect Wheel Rotation	0	No rotation	
		1-127	Forwards rotation from fast to slow	
		128	No rotation	
		129-255	Backwards rotation from slow to fast	
14	Static Gobo Wheel	0-3	Open	
		4-9	Beam reducer 1	
		10-15	Beam reducer 2	
		16-21	Beam reducer 3	
		22-27	Beam reducer 4	
		28-33	Gobo 1 (dots)	
		34-39	Gobo 2 (star)	
		40-45	Gobo 3 (sun)	
		46-51	Gobo 4 (horizontal line)	
		52-57	Gobo 5 (vertical line)	
		58-63	Gobo 6 (twisted star)	

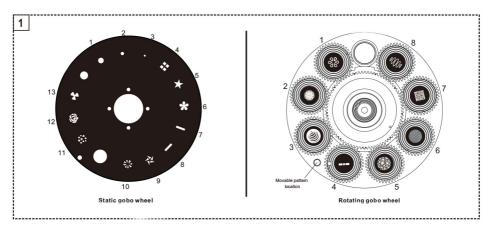
Channel	Function	Value	Setting	Remark
14	Static Gobo Wheel	64-69	Gobo 7 (flower)	
		70-75	Gobo 8 (dots)	
		76-81	Gobo 9 (break up)	
		82-87	Gobo 10 (tricone)	
			Shaking gobo from slow to fast	
		88-95	Beam reducer 1	
		96-103	Beam reducer 2	
		104-111	Beam reducer 3	
		112-119	Beam reducer 4	
		120-127	Gobo 1 (dots)	
		128-135	Gobo 2 (star)	
		136-143	Gobo 3 (sun)	
		144-151	Gobo 4 (horizontal line)	
		152-159	Gobo 5 (vertical line)	
		160-167	Gobo 6 (twisted star)	
		168-175	Gobo 7 (flower)	
		176-183	Gobo 8 (dots)	
		184-191	Gobo 9 (break up)	
		192-199	Gobo 10 (tricone)	
		200-201	Open	
		202-222	Forwards gobo wheel rotation from fast to slow	
		223-228	No rotation	
		229-249	Backwards gobo wheel rotation from slow to fast	
		250-255	Auto random gobo selection from fast to slow	
15	Rotating gobo wheel	0	Open (0=default)	
		1-4	Hole (flat field)	
		5-16	Gobo 1 (ovals)	
		17-28	Gobo 2 (spiderweb)	
		29-40	Gobo 3 (twister)	
		41-52	Gobo 4 (bar)	
		53-64	Gobo 5 (stars)	
		65-76	Gobo 6 (glass breakup)	
		77-88	Gobo 7 (square)	
		89-112	Gobo 8 (cones)	

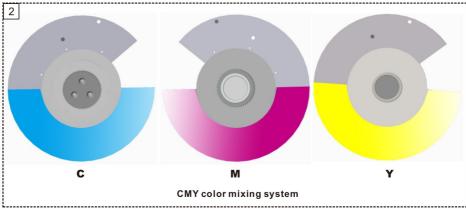
Channel	Function	Value	Setting	Remark
15	Rotating gobo wheel		Shaking gobo from slow to fast	
		113-124	Gobo 1 (ovals)	
		125-136	Gobo 2 (spiderweb)	
		137-148	Gobo 3 (twister)	
		149-160	Gobo 4 (bar)	
		161-172	Gobo 5 (stars)	
		173-184	Gobo 6 (glass breakup)	
		185-196	Gobo 7 (square)	
		197-220	Gobo 8 (cones)	
		221-249	Open	
		250-255	Auto random gobo slection from fast to slow	
16	Rotating gobo indexing and rotation	0-127	Gobo indexing	
		128-187	Forwards gobo rotation from fast to slow	
		188-195	No rotation	
		196-255	Backwards gobo rotation from slow to fast	
17	Prism wheel	0-3	Open	
			Index - set indexing on channel 18	
		4-15	Prism 3 - 6-facet linear	
		16-27	Prism 2 - 4-facet 12° circular	
		28-39	Prism 1 - 8-facet 12° circular	
			Rotate - set rotation on channel 18	
		40-51	Prism 3 - 6-facet linear	
		52-63	Prism 2 - 4-facet 12° circular	
		64-75	Prism 1 - 8-facet 12° circular	
18	Prism wheel indexing / rotation	0-255	Prism indexing	
		0	No rotation	
		1-127	Forwards rotation from fast to slow	
		128	No rotation (128 = default)	
		129-255	Backwards rotation from slow to fast	
19	No function			
20	No function			
21	Pattern selection	0-3	Open	
			Index - set indexing on channel 22	

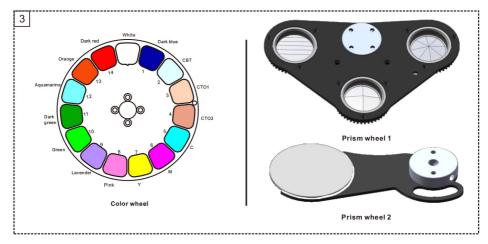
Channel	Function	Value	Setting	Remark
21	Pattern selection	4-14	Prism macro index 1	
		15-25	Prism macro index 2	
		26-36	Prism macro index 3	
		37-47	Prism macro index 4	
		48-58	Prism macro index 5	
		59-69	Prism macro index 6	
		70-80	Prism macro index 7	
			Rotate - set rotation on channel 22	
		81-91	Prism macro rotation 1	
		92-102	Prism macro rotation 2	
		103-113	Prism macro rotation 3	
		114-124	Prism macro rotation 4	
		125-135	Prism macro rotation 5	
		136-146	Prism macro rotation 6	
		147-157	Prism macro rotation 7	
		158-168	Prism macro rotation 8	
		169-179	Prism macro rotation 9	
		180-190	Prism macro rotation 10	
		191-255	Raw DMX	
22	Pattern rotation and indexing	0-255	Pattern indexing	
		0	No rotation	
		1-127	Forwards pattern rotation from fast to slow	
		128	No rotation	
		129-255	Backwards pattern rotation from slow to fast	
23	Frost	0-19	Open	
		20-128	100% light frost	
		129-169	Pulse closing from slow to fast	
		170-210	Pulse opening from fast to slow	
		211-255	Ramping from fast to slow	
24	Zoom	0-255	Zoom from max to min beam angle (128=default)	
25	Zoom + Fine	0-255	Fine zooming (0=default)	
26	Focus	0-255	Continuous adjustment from far to near (128=default)	
27	Focus + Fine	0-255	Fine focus (0=default)	
28	Auto Focus Fine	0-255	Fine auto focus adjustment, based on Auto focus setting channel 29	

Channel	Function	Value	Setting Remark
29	Auto Focus Selection	0-15	Auto focus off
		16-55	10m distance
		56-95	15m distance
		96-135	20m distance
		136-175	30m distance
		176-215	40m distance
		216-255	50m distance
30	Shutter	0-31	Shutter closed
		32-63	Shutter open (32=default)
		64-95	Strobe from slow to fast
		96-127	Shutter open
		128-143	Opening pulse in sequences from slow to fast
		144-159	Closing pulse in sequences from fast to slow
		160-191	Shutter open
		192-223	Random strobe effect from slow to fast
		224-255	Shutter open
31	Dimmer	0-255	Dimmer intensity from 0% to 100% (0=default)
32	Dimmer Fine	0-255	Fine dimming (0=default)
33	No function		

GOBO OVERVIEW

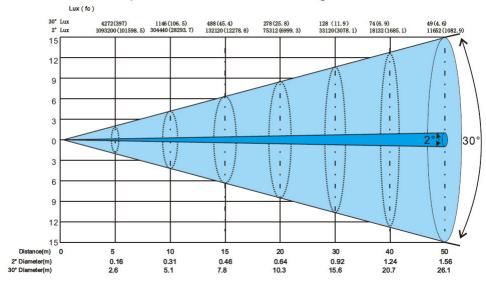




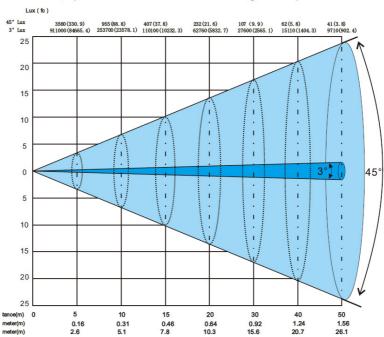


PHOTOMETRICS

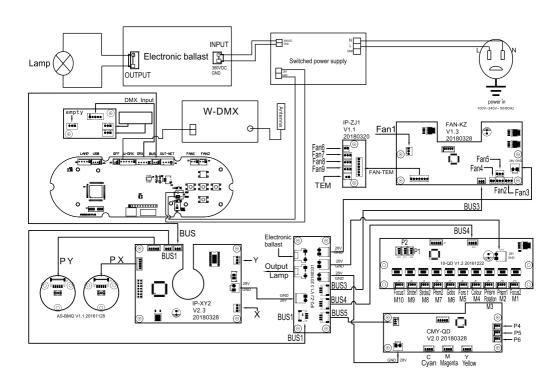
distance, spot diameter and illumination diagram (Beam model)



distance, spot diameter and illumination diagram (Spot model)



CIRCUIT CONNECTION DIAGRAM



SPECIFICATIONS

Power

Input voltage 100-240VAC, 50/60HZ

Standby power 82W

Total power consumption 650W

Typical current 2.83A

Cos φ

Power plug type Seetronic Powercon TRUE 1

Source

Lamp Ushio 400W LL (CLF Poseidon Lamp Kit)

Lamp hours 6000 hours
Color temperature 7300K

Optical

Zoom range 2° - 45°

Photometric

 Output @10M (Beam)
 304440 lux

 Output @50M (Beam)
 11652 lux

 Output @10M (Spot)
 253700 lux

 Output @50M (Spot)
 9710 lux

Effects

Color CMY

14 + open color wheel

 Gobo (static)
 14 + open

 Gobo (rotating)
 8 + open

Prism 8-facet round, 16-facet round, linear

Animation Two way rotating

Zoom 2° - 45° Frost 6°

Dimmer 0-100% 16 bit

Shutter 12Hz / second, random

 Pan
 540°

 Tilt
 240°

Focus Motorized

Heat Management

Cooling type Regulated fans

 $\begin{tabular}{lll} Max. ambient temp (Ta max) & Ta max=40 ^{\circ}C \\ Min. ambient temp (Ta min) & Ta min = -20 ^{\circ} \\ \end{tabular}$

Control

Control protocol USITT DMX512/1990

DMX Channels 33

RDM Yes

WDMX Yes
DMX input 5-pii

DMX input 5-pin sACN No

Hardware

Interface LCD Display

Software upload DMX, via upload tool

Installation

IP rating IP65

Orientation Any

Housing

Safety attachment point Bottom

Position lock Tilt lock

Physical

Net product weight 35Kg

Dimensions 488 x 312 x 747mm (I x w x h)

Accessories

Included items Manual, Power cable, Safety

Approvals

Approved certifications CE and RoHs

Information

Article number 160040

