

# elumen8

## **Virtuoso 2500 Fresnel HEX**

### User Manual



Order codes: ELUM145

### WARNING

### FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.



### IMPORTANT:

**The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.**

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not connect this equipment to a dimmer pack.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available mains supply voltage is between 100~240V AC, 50/60Hz.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- Never touch the fixture during operation as it may be hot.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Pro Light dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. **THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.**
- This lighting fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- Warning! Risk Group 2 LED product according to EN 62471. Do not view the light output with optical instruments or any device that may concentrate the beam.
- **WARRANTY:** Two years from date of purchase.

### OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and/or property.

### Virtuoso 2500 Fresnel HEX

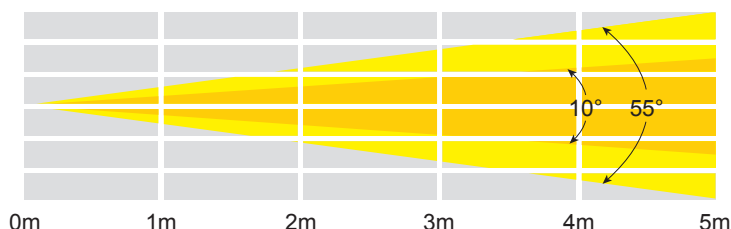
The Virtuoso 2500 HEX Fresnel features an advanced full colour LED system with high CRI that outputs a flat and even field and is suitable for many applications including theatrical and studio. HSIC colour management allows you to create virtually any colour whilst the virtual colour wheel provides direct access to a wide palette of colours along with a 1,800K to 10,000K colour temperature control. A manually adjustable 10° – 55° zoom allows beam angle adjustment whilst on-board features include DMX, RDM and adjustable PWM rate.

- 1 x 250W six-colour COB LED (RGBALC)
- Manually adjustable beam angle: 10° - 55°
- 10° - 29,340 Lux @ 2m (full on),  
55° - 1,565 Lux @ 2m (full on)
- CRI Ra: 95
- CRI R9: 90
- CQS: 95
- TLCI: 85
- Colour temperature: 1,800K-10,000K
- Refresh rate: 1.2kHz, 2.4kHz, 4kHz, 6kHz or 25kHz selectable
- DMX channels: 3/6/8/9/10/12/13/19 or 20 selectable
- RDM (Remote Device Management)
- 0 - 100% 8 or 16 bit dimming
- Variable strobe
- 4 dimming curves: Linear, square law, inverse square law and S-curve
- 4 button menu with LCD display
- 3 rotary knobs on the side
- PowerTwist TR1 input/output
- 5-Pin XLR input/output
- 3 selectable fan modes (live, power and studio)
- Rear handle
- Quick release omega clamp included

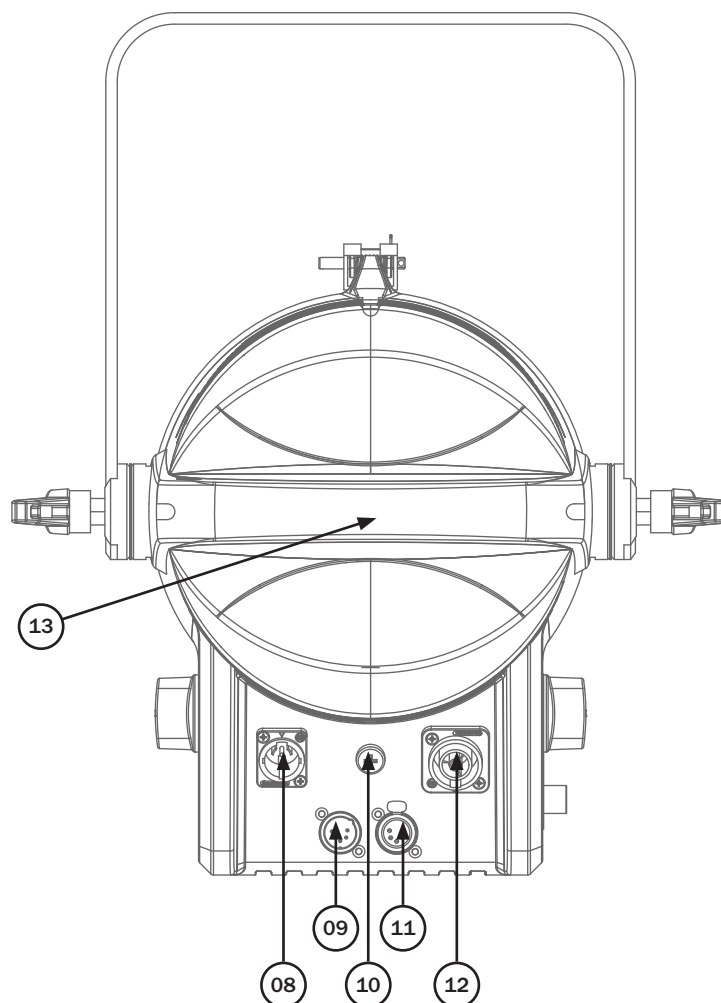
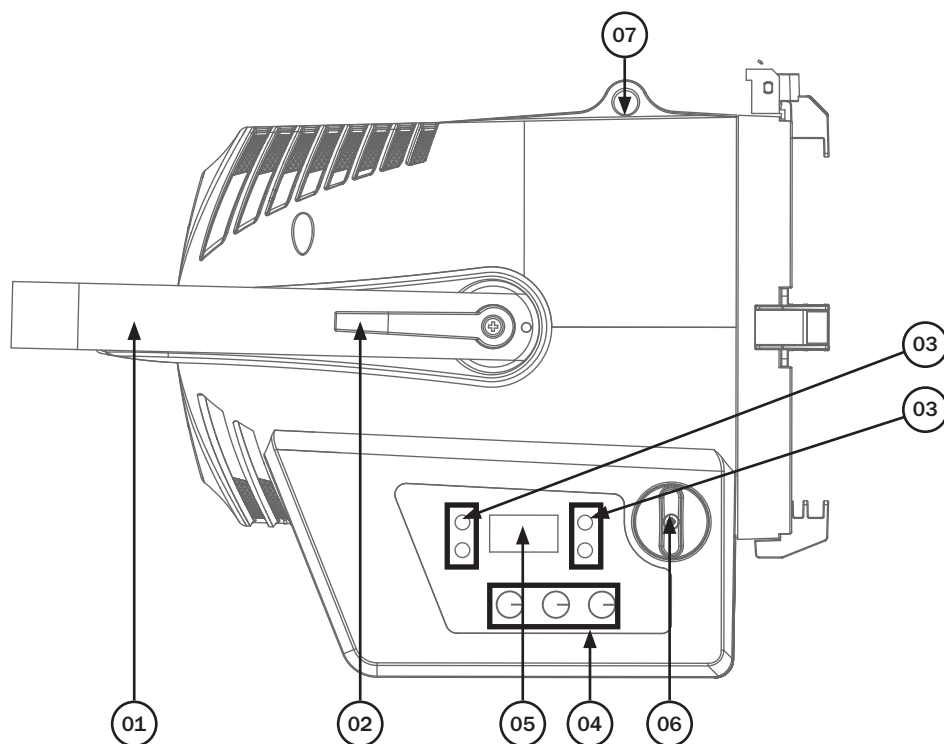


10° - Lux					
FULL ON	117360	29340	13040	7335	4694
R	17444	4361	1938	1090	698
G	25204	6301	2800	1575	1008
B	2136	534	237	133	85
A	28124	7031	3125	1758	1125
L	37872	9468	4208	2367	1515
C	9420	2355	1047	589	377

55° - Lux					
FULL ON	6260	1565	696	391	250
R	1016	254	113	63	41
G	1392	348	155	87	56
B	136	34	15	9	5
A	1524	381	169	95	61
L	2088	522	242	130	84
C	512	128	57	32	21



Specifications	Virtuoso 2500 Fresnel HEX
Power consumption	250W
Power supply	100~240V, 50/60Hz
Fuse	T5A 250V
Dimensions	451 x 375 x 398mm
Weight	9.7kg
Order code	ELUM145



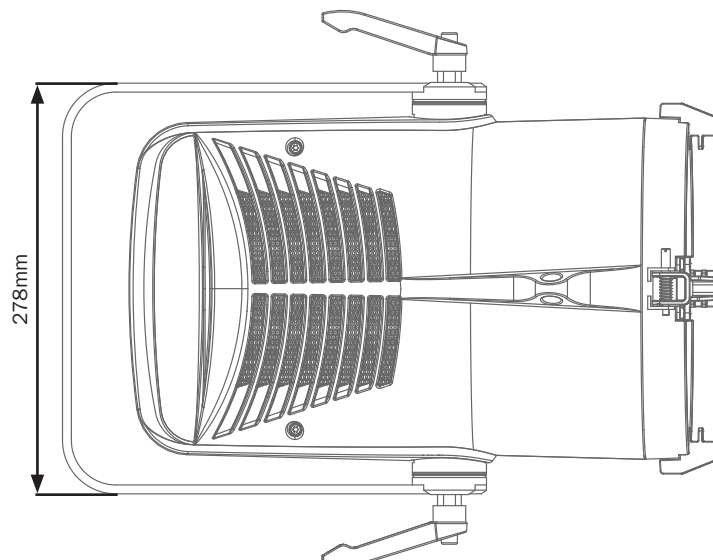
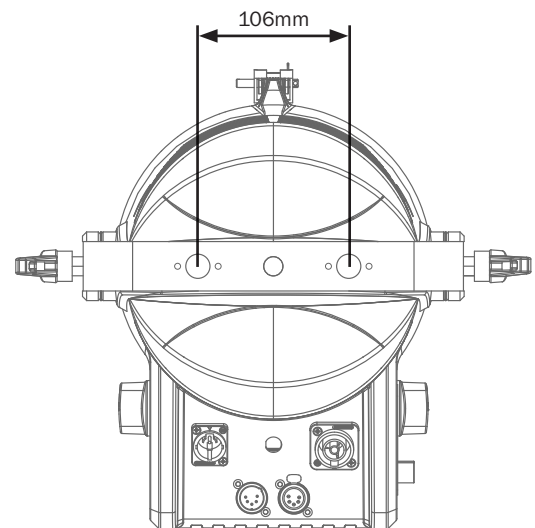
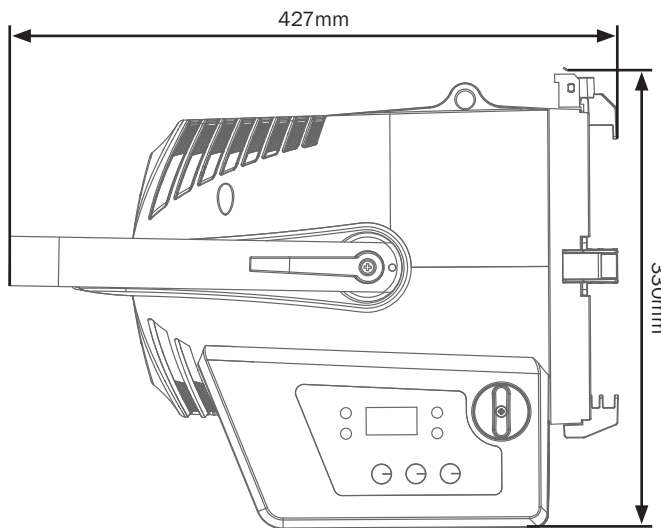
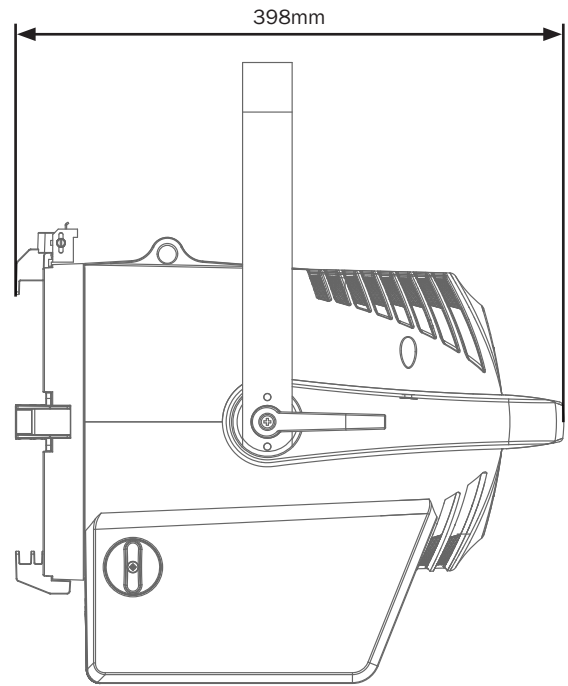
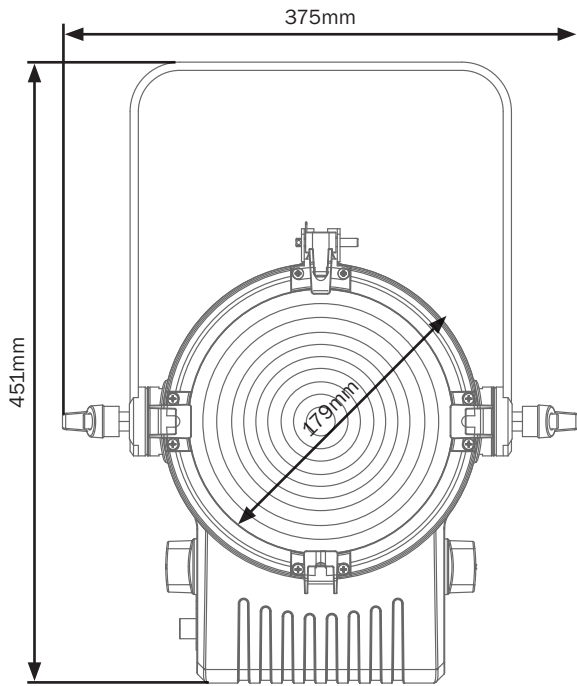
- 01 - Hanging bracket
- 02 - Hanging bracket adjustment knob
- 03 - Function buttons
- 04 - Rotary control knobs
- 05 - LCD display

- 06 - Zoom adjustment
- 07 - Safety eye
- 08 - PowerTwist TR1 input
- 09 - 5-Pin DMX input
- 10 - Fuse T5A 250V
- 11 - 5-Pin DMX output

In the box: **1 x fixture,**  
**1 x omega clamp,**  
**1 x safety wire &**  
**1 x power cable**

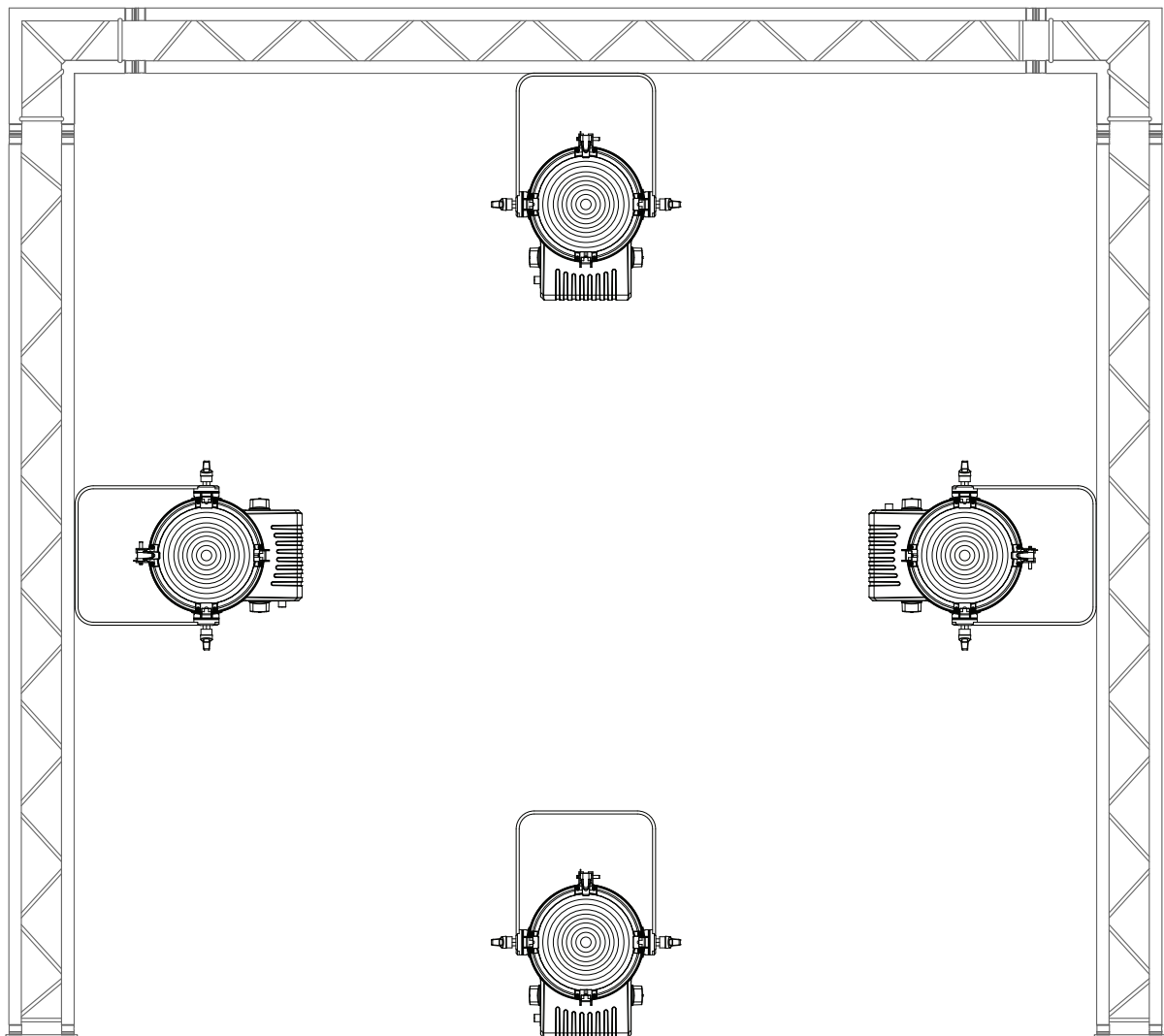
- 12 - PowerTwist TR1 input
- 13 - Carry handle





Before installing the fixture, the supporting structure (ie. truss) must be able to hold a minimum of 10 times the fixtures weight without any deformation (eg. 15kg - 150kg point load). The fixture must be secured with a secondary safety attachment when being installed (ie. an appropriate safety cable). Never stand directly below the fixture when mounting, removing, and/or servicing.

Overhead installation requires experience and qualifications to calculate working load limits, the material being used at the installation area and periodic safety inspections of the fixture and installation material. If you do not have the relevant experience and/or qualifications please do not attempt the installation yourself. The installation should be checked annually by a qualified person.

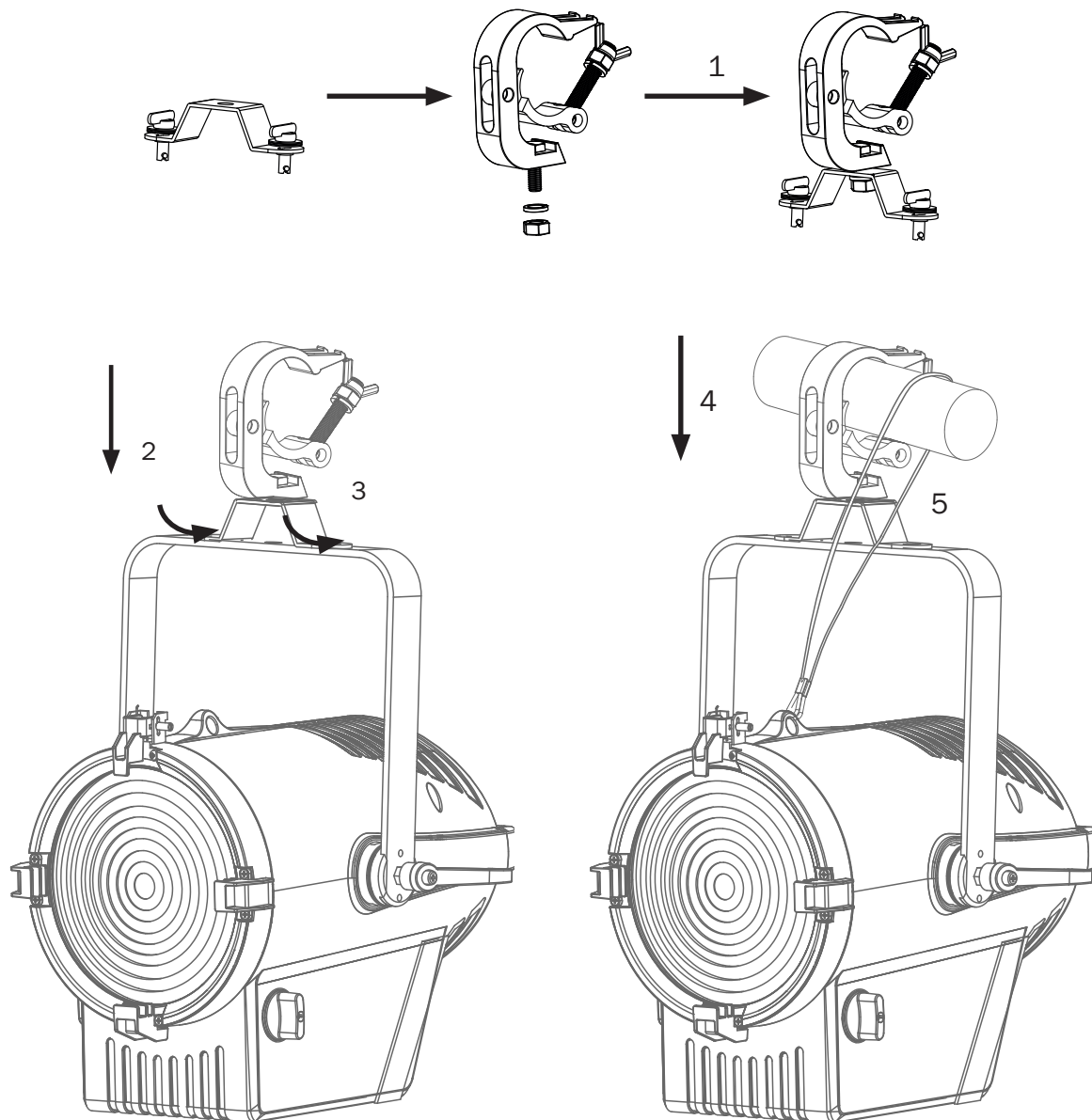


The Elumen8 Virtuoso 2500 Fresnel HEX can be operated in a number of mounting positions as shown in the diagram above, hanging upside-down from the ceiling or truss, mounting sideways on truss or stood upright on a flat level surface. Always use a safety wire as an extra safety precaution to prevent damage/injury in the event a clamp fails (see the next page for clamp installation).

Never use the carry handles for secondary attachments.

### Installation:

1. Fasten the clamp to the omega clamp with a bolt and lock nut through the hole in the omega clamp.
2. Align and insert the omega clamp quick-lock fasteners with the respective holes on the bracket of the unit.
3. Tighten both locking fasteners clockwise on each omega clamp ensuring they're fully secure.
4. Mount the fixture onto your truss system via the clamps and tighten to ensure secure.
5. Pull the safety cable through the safety cable hole located on the top of the fixture and around the truss.



Main Menu	Sub Menus		Values (Default Settings in BOLD)	Description
MANUAL MODE	MODE 1	DIMMER	0-100%	Manual mode (via rotary knobs)
		CCT	2700K-8000K	
		TINT	-99% - +99% (0%)	
	MODE 2	DIMMER	0-100%	
		COLOUR	L106-L768	
	MODE 3	HUE	0-100%	
		SATUR	0-100%	
		INTENSITY	0-100%	
STATIC	RED		0-255	Static mode
	GREEN		0-255	
	BLUE		0-255	
	AMBER		0-255	
	LIME		0-255	
	CYAN		0-255	
	STROBE		0-25	
PRESET COLOUR			L106	Preset colours
			R05	
			L194	
			R54	
			L019	
			R08	
			R89	
			R86	
			L213	
			R377	
			R80	
			L202	
			L328	
			R3314	
			L101	
			L768	
CCT			2700K	Colour temperature presets
			3000K	
			3200K	
			3500K	
			4000K	
			4200K	
			4500K	
			5600K	
			6000K	

Main Menu		Sub Menus		Values (Default Settings in BOLD)	Description
CCT				6500K	Colour temperature presets (cont.)
				7200K	
				8000K	
ADDRESS				<b>001</b> -512	DMX address settings
RUN MODE				<b>DMX</b>	Run mode settings
				SLAVE	
PERSONALITY				HSIC (8CH)	DMX channel mode settings
				BASIC (3CH)	
				SDO (6CH)	
				SIMPLE (9CH)	
				8BIT (12CH)	
				8BIT+ (13CH)	
				16BIT (19CH)	
				<b>16BIT+ (20CH)</b>	
				CMY (10CH)	
AUTO PROGRAM	AUTO.1			SPEED 000-255	Auto/custom programs
	AUTO.2				
	AUTO.3				
	AUTO.4				
	AUTO.5				
	AUTO.6				
	AUTO.7				
	AUTO.8				
	AUTO.9				
	AUTO.10				
	PR.01				
	PR.02				
	EDIT	PROGRAM 1	SCENE 01-10	RED	
GREEN				<b>0</b> -255	
BLUE				<b>0</b> -255	
AMBER				<b>0</b> -255	
LIME				<b>0</b> -255	
PROGRAM 2		CYAN		<b>0</b> -255	
		STROBE		<b>0</b> -25	
		TIME		<b>0</b> -255	
		FADE		<b>0</b> -255	



Main Menu	Sub Menus				Values (Default Settings in BOLD)	Description	
SETTING	PASSCODE (<UP> <DOWN> <UP> <DOWN> <ENTER>)	UPLOAD	PASSCODE (<UP>, <DOWN>, <UP>, <DOWN>, <ENTER>)	SEND...	OK!	Send custom programs to slave fixtures	
		RESET		RESET ...	OK!	Restore factory settings	
		DIMMER				OFF	Dimmer settings
						DIM1	
						DIM2	
						DIM3	
						<b>DIM4</b>	
		DIMMER CURVES				LINEAR	Dimmer curve settings
						<b>SQUARE LAW</b>	
						INV. SQ LAW	
						S-CURVE	
		DMX ERROR				<b>SAVE</b>	DMX fail settings
						BLACK	
		PWM RATE				<b>1200HZ</b>	Refresh rate settings
						2400HZ	
						4000HZ	
						6000HZ	
						25000HZ	
		PERFORM				<b>LIVE (low)</b>	Fan speed settings
						POWER (high)	
						STUDIO (auto)	
		DISP LOCK				<b>ON</b>	Display lock setting (passcode is <UP>, <DOWN>,<UP>, <DOWN>,<ENTER>)
						OFF	
		DISP TIME				ON	Display backlight settings
						10S	
						<b>30S</b>	
						2min	

Main Menu	Sub Menus		Values (Default Settings in BOLD)	Description
INFO	FIXTURE HOURS		xHours	Fixture hours
	VERSION		VX.X.X XXXX.XX.XX	Software version
	RDM	UID	0X09a5XXXXXXXX	Fixture VID
		LABEL	Virtuoso 2500F-6C	Fixture model

### Colour temperature preset values:

CCT	Values					
	R	G	B	A	L	C
1800K	244	112	72	255	182	84
2200K	199	113	95	255	185	124
2700K	183	115	111	255	187	188
3000K	187	122	126	255	198	216
3200K	184	125	135	255	203	225
4000K	157	128	161	255	208	241
4500K	149	131	176	252	212	255
5000K	138	129	182	244	208	255
5600K	131	127	185	227	205	255
6000K	123	125	191	225	203	255
6500K	117	124	194	218	201	255
7000K	115	123	197	215	200	255
8000K	108	120	198	201	194	255

### DMX channel modes:

#### 8 channel mode (HSIC):

Channel	Value	Function
CH1	000-255	Intensity
CH2	000-255	Hue
CH3	000-255	Hue fine
CH4	000-255	Saturation
CH5	<b>Colour temperature presets</b>	
	000-010	No function
	011-030	2700K
	031-050	3000K
	051-070	3200K
	071-090	3500K
	091-110	4000K
	111-130	4200K
	131-150	4500K
	151-170	5600K
	171-190	6000K
	191-210	6500K
	211-230	7200K
	231-255	8000K
CH6	<b>Strobe</b>	
	000-009	No function
	010-099	Strobe (slow-fast)
	100-109	No function
	110-179	Lightning strobe
	180-189	No function
	190-255	Random strobe
CH7	<b>Dimmer</b>	
	000-009	Dimming mode (set in menu)
	010-029	No function
	030-069	Dimming speed 1
	070-129	Dimming speed 2
	130-189	Dimming speed 3
	190-255	Dimming speed 4
CH8	<b>Fan</b>	
	000-009	No function
	010-080	Live performance mode
	081-160	Studio performance mode
	161-240	Power performance mode
	241-255	No function

### DMX channel modes:

Channel							Value	Function
BASIC 3CH	SDO 6CH	SIMPLE 9CH	8BIT 12CH	8BIT+ 13CH	16BIT 19CH	16BIT+ 20CH		
1	1	1	1	1	1	1	000-255	Master dimmer (0-100%)
-	-	-	-	-	2	2	000-255	Master dimmer fine
-	-	2	2	2	3	3	000-255	Red dimmer (0-100%)
-	-	-	-	-	4	4	000-255	Red dimmer fine
-	-	3	3	3	5	5	000-255	Green dimmer (0-100%)
-	-	-	-	-	6	6	000-255	Green dimmer fine
-	-	4	4	4	7	7	000-255	Blue dimmer (0-100%)
-	-	-	-	-	8	8	000-255	Blue dimmer fine
-	-	5	5	5	9	9	000-255	Amber dimmer (0-100%)
-	-	-	-	-	10	10	000-255	Amber dimmer fine
-	-	6	6	6	11	11	000-255	Lime dimmer (0-100%)
-	-	-	-	-	12	12	000-255	Lime dimmer fine
-	-	7	7	7	13	13	000-255	Cyan dimmer (0-100%)
-	-	-	-	-	14	14	000-255	Cyan dimmer fine
2	2	-	8	8	15	15	Preset Colour	
							000-010	No function
							011-020	L106 - Primary Red
							021-030	R05 - Rose Tint
							031-040	L194 - Surprise Pink
							041-050	R54 - Special Lavender
							051-060	L019 - Fire
							061-070	R08 - Pale Gold
							071-080	R89 - Moss Green
							081-090	R86 - Pea Green
							091-100	L213 - White Flame Green
							101-110	R377 - Iris Purple
							111-120	R80 - Primary Blue
							121-130	L202 - Half C.T. Blue
							131-140	L328 - Follies Pink
							141-150	R3314 - Tough 1/4 Minusgreen
							151-160	L101 - Yellow
							161-170	L768 - Egg Yolk Yellow
							171-255	No function



### DMX channel modes:

Channel							Value	Function
BASIC 3CH	SDO 6CH	SIMPLE 9CH	8BIT 12CH	8BIT+ 13CH	16BIT 19CH	16BIT+ 20CH		
3	3	-	9	9	16	16	Colour Temperature Presets	
							000-010	No function
							011-030	2700K
							031-050	3000K
							051-070	3200K
							071-090	3500K
							091-110	4000K
							111-130	4200K
							131-150	4500K
							151-170	5600K
							171-190	6000K
							191-210	6500K
							211-230	7200K
							231-255	8000K
-	4	8	10	10	17	17	Strobe	
							000-009	No function
							010-099	Strobe (slow-fast)
							100-109	No function
							110-179	Lightning strobe
							180-189	No function
							190-255	Random strobe
-	5	-	11	11	18	18	Dimmer	
							000-009	Dimming mode (set in menu)
							010-029	No function
							030-069	Dimming speed 1
							070-129	Dimming speed 2
							130-189	Dimming speed 3
							190-255	Dimming speed 4
-	6	9	12	12	19	19	Fan	
							000-009	No function
							010-080	Live performance mode
							081-160	Studio performance mode
							161-240	Power performance mode
							241-255	No function

### DMX channel modes:

Channel							Value	Function
BASIC 3CH	SDO 6CH	SIMPLE 9CH	8BIT 12CH	8BIT+ 13CH	16BIT 19CH	16BIT+ 20CH		
-	-	-	-	13	-	20	Refresh Rate	
							000-009	No function
							010-029	1200Hz
							030-069	2400Hz
							070-129	4000Hz
							130-189	6000Hz
							190-255	25000Hz

### 10 channel mode (CMY):

Channel	Value	Function
CH1	000-255	Master dimmer (0-100%)
CH2	000-255	Cyan dimmer (0-100%)
CH3	000-255	Magenta dimmer (0-100%)
CH4	000-255	Yellow dimmer (0-100%)
CH5	<b>Preset Colour</b>	
	000-010	No function
	011-020	L106 - Primary Red
	021-030	R05 - Rose Tint
	031-040	L194 - Surprise Pink
	041-050	R54 - Special Lavender
	051-060	L019 - Fire
	061-070	R08 - Pale Gold
	071-080	R89 - Moss Green
	081-090	R86 - Pea Green
	091-100	L213 - White Flame Green
	101-110	R377 - Iris Purple
	111-120	R80 - Primary Blue
	121-130	L202 - Half C.T. Blue
	131-140	L328 - Follies Pink
	141-150	R3314 - Tough 1/4 Minusgreen
	151-160	L101 - Yellow
	161-170	L768 - Egg Yolk Yellow
	171-255	No function
CH6	<b>Colour Temperature Presets</b>	
	000-010	No function
	011-030	2700K
	031-050	3000K
	051-070	3200K
	071-090	3500K
	091-110	4000K
	111-130	4200K
	131-150	4500K
	151-170	5600K
	171-190	6000K
	191-210	6500K
	211-230	7200K
	231-255	8000K

Channel	Value	Function
CH7	<b>Strobe</b>	
	000-009	No function
	010-099	Strobe (slow-fast)
	100-109	No function
	110-179	Lightning strobe
	180-189	No function
CH8	<b>Dimmer</b>	
	000-009	Dimming mode (set in menu)
	010-029	No function
	030-069	Dimming speed 1
	070-129	Dimming speed 2
	130-189	Dimming speed 3
CH9	<b>Fan</b>	
	000-009	No function
	010-080	Live performance mode
	081-160	Studio performance mode
	161-240	Power performance mode
	241-255	No function
CH10	<b>Refresh Rate</b>	
	000-009	No function
	010-029	1200Hz
	030-069	2400Hz
	070-129	4000Hz
	130-189	6000Hz
	190-255	25000Hz

### Setting the DMX address:

The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 512. A fixture requiring one or more channels for control begins to read the data on the channel indicated by the start address. For example, a fixture that occupies or uses 7 channels of DMX and was addressed to start on DMX channel 100, would read data from channels: 100, 101, 102, 103, 104, 105 and 106. Choose a start address so that the channels used do not overlap. E.g. the next unit in the chain starts at 107.

### DMX 512:

DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “OUT” XLR terminals located on all DMX fixtures (most controllers only have a data “out” terminal).

### DMX linking:

DMX is a language allowing all makes and models of different manufactures to be linked together and operate from a single controller, as long as all fixtures and the controller are DMX compliant. To ensure proper DMX data transmission, when using several DMX fixtures try to use the shortest cable path possible. The order in which fixtures are connected in a DMX line does not influence the DMX addressing. For example; a fixture assigned to a DMX address of 1 may be placed anywhere in a DMX line, at the beginning, at the end, or anywhere in the middle. When a fixture is assigned a DMX address of 1, the DMX controller knows to send DATA assigned to address 1 to that unit, no matter where it is located in the DMX chain.

### DATA cable (DMX cable) requirements (for DMX operation):

This fixture can be controlled via DMX-512 protocol. The DMX address is set on the back of the unit. Your unit requires either a standard 3-pin or 5-pin XLR connector for data input/output, see images below.



Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight Concepts dealers.

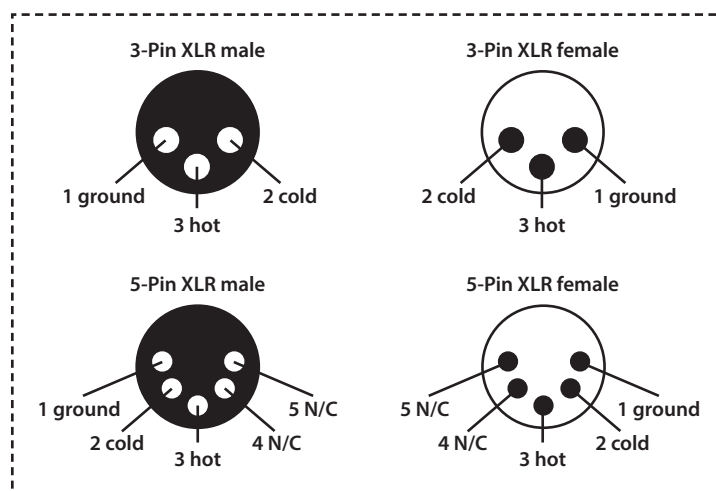
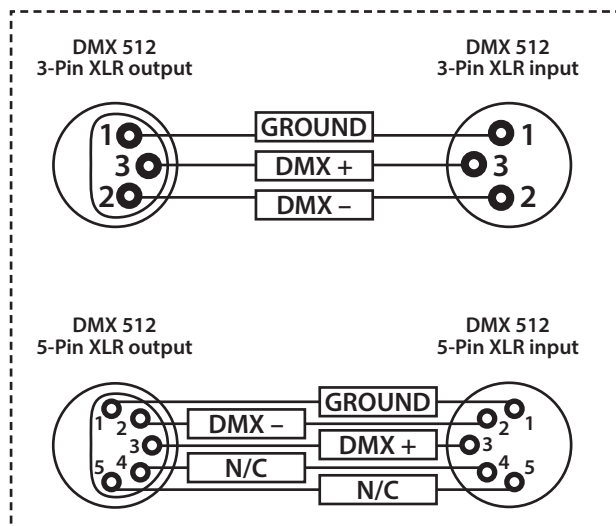
Please quote:	3-Pin:	<b>CABL10 – 2m</b>	<b>CABL11 – 5m</b>	<b>CABL12 – 10m</b>
	5-Pin:	<b>CABL185 – 2m</b>	<b>CABL187 – 5m</b>	<b>CABL188 – 10m</b>

Also remember that DMX cable must be daisy chained and cannot be split.

### Notice:

Be sure to follow the diagrams below when making your own cables. Do not connect the cables shield conductor to the ground lug or allow the shield conductor to come in contact with the XLRs outer casing. Grounding the shield could cause a short circuit and erratic behaviour.

Pin Configuration	
3-Pin	5-Pin
	Pin 1 - Ground
	Pin 2 - Negative
	Pin 3 - Positive
-	Pin 4 - N/C
-	Pin 5 - N/C



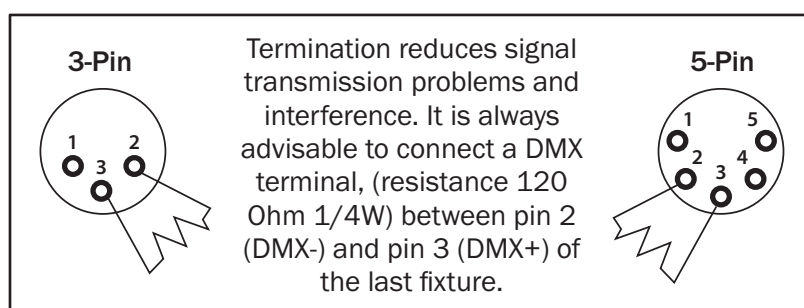
### Line termination:

When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

Using a cable terminator will decrease the possibilities of erratic behaviour.

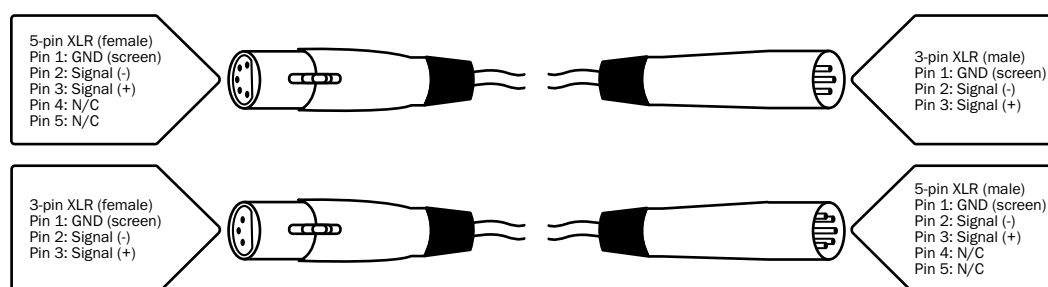
(3-pin - Order ref: CABL90,

5-pin - Order ref: CABL89)



### 5-pin XLR DMX connectors:

Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.

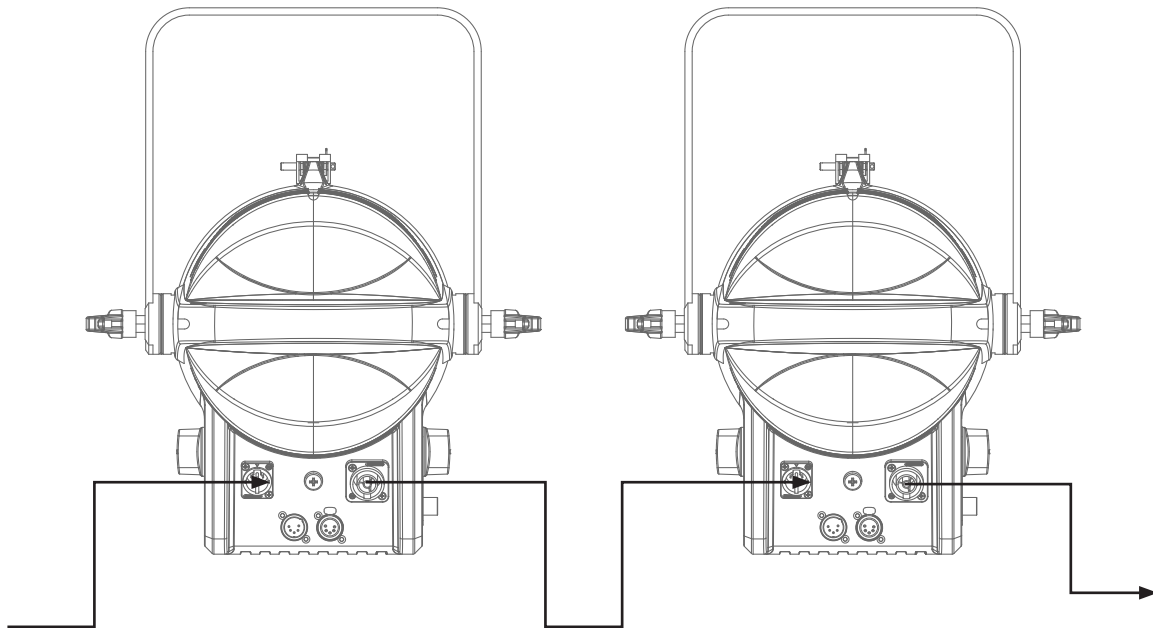




### Power linking:

This fixture provides power linking via the power output on the rear allowing multiple units to be connected together. The maximum number of fixtures that can be connected is 8 fixtures @ 240V or 4 fixtures @ 120V (including the first fixture). After the maximum number of fixtures are connected a new power run will need to be started.

Please note: Caution should be used when power linking other fixtures to the Virtuoso 2500 Fresnels as the power consumption of other fixtures will vary. Fixtures fitted with lamps often require 2/3 times more current on startup, these may require their own power source.





***Correct Disposal of this Product  
(Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries  
with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

