# elumen8

# Virtuoso 1500 Fresnel HEX
## User Manual



**Order codes: ELUM144**

# 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.

**CAUTION!**
**KEEP THIS EQUIPMENT AWAY FROM RAIN, MOISTURE AND LIQUIDS**

**CAUTION!**
**TAKE CARE USING THIS EQUIPMENT! HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!!**

**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.
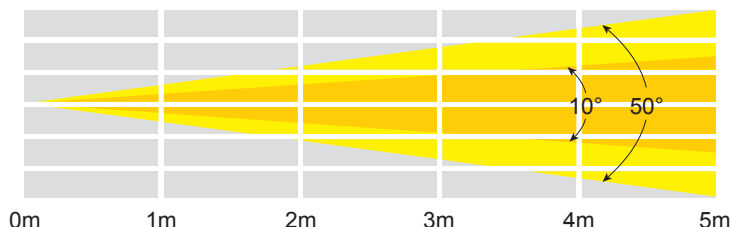
## Virtuoso 1500 Fresnel HEX

The Virtuoso 1500 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° – 50° zoom allows beam angle adjustment whilst on-board features include DMX, RDM and adjustable PWM rate.

- 1 x 100W six-colour COB LED (RGBALC)
- Manually adjustable beam angle: 10°- 50°
- 10° - 18,359 Lux @ 2m (full on),
  50° - 1,287 Lux @ 2m (full on)
- CRI Ra: 95
- CRI R9: 99
- CQS: 96
- TLCI: 90
- 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
- 2 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

| Specifications | Virtuoso 1500 Fresnel HEX |
|---|---|
| Power consumption | 124W |
| Power supply | 100~240V, 50/60Hz |
| Fuse | T2A 250V |
| Dimensions | 368 x 330 x 319mm |
| Weight | 5.4kg |
| Order code | ELUM144 |

**10° - Lux**

| | | | | | |
|---|---|---|---|---|---|
| FULL ON | 73436 | 18359 | 8160 | 4590 | 2937 |
| R | 7876 | 1969 | 875 | 492 | 315 |
| G | 12584 | 3146 | 1398 | 787 | 503 |
| B | 992 | 248 | 110 | 62 | 40 |
| A | 20156 | 5039 | 2240 | 1260 | 806 |
| L | 28600 | 7150 | 3178 | 1788 | 1144 |
| C | 4820 | 1205 | 536 | 301 | 193 |

**50° - Lux**

| | | | | | |
|---|---|---|---|---|---|
| FULL ON | 5148 | 1287 | 572 | 322 | 206 |
| R | 704 | 176 | 78 | 44 | 28 |
| G | 928 | 232 | 103 | 58 | 37 |
| B | 92 | 23 | 10 | 6 | 4 |
| A | 1444 | 361 | 160 | 90 | 58 |
| L | 2024 | 506 | 225 | 127 | 81 |
| C | 356 | 89 | 40 | 22 | 14 |

10°    50°

| 0m | 1m | 2m | 3m | 4m | 5m |
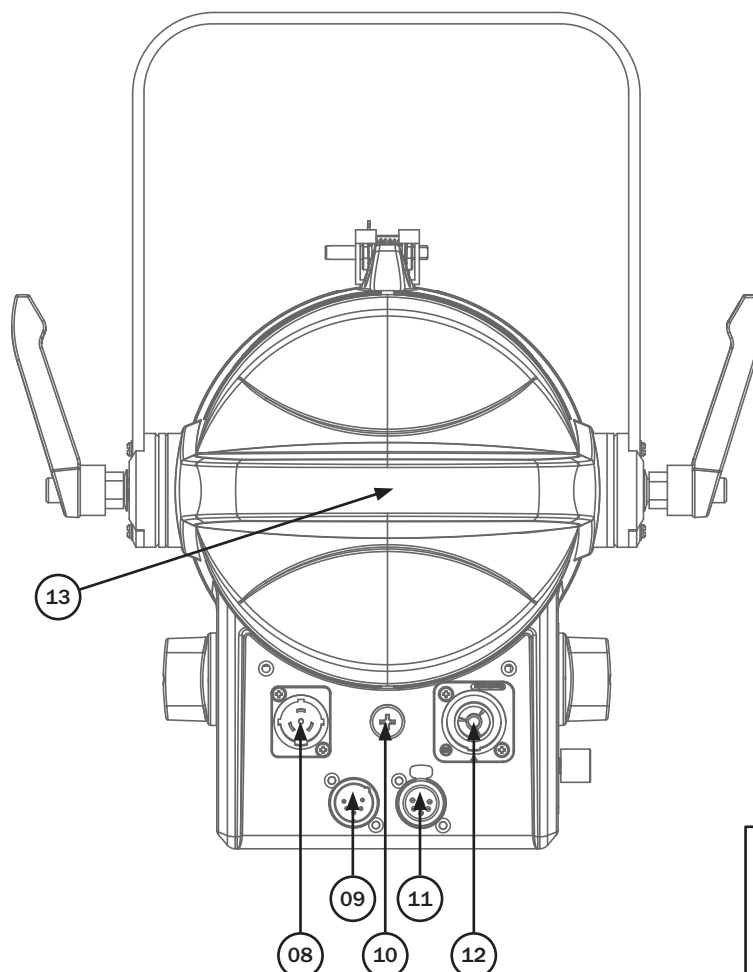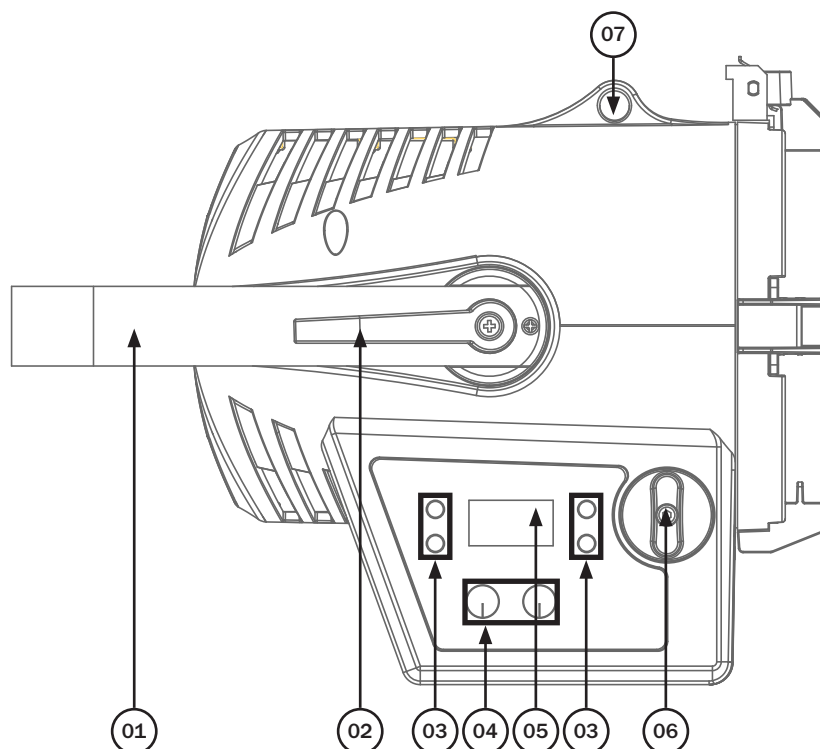
01 - Hanging bracket

02 - Hanging bracket
     adjustment knob

| | | |
|---|---|---|
| 03 - Function buttons | 06 - Zoom adjustment | 09 - 5-Pin DMX input | |
| 04 - Rotary control knobs | 07 - Safety eye | 10 - Fuse T2A 250V | 12 - PowerTwist TR1 input |
| 05 - LCD display | 08 - PowerTwist TR1 input | 11 - 5-Pin DMX output | 13 - Carry handle |

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

330mm

368mm

179mm

319mm

359mm

272mm

106mm

226mm
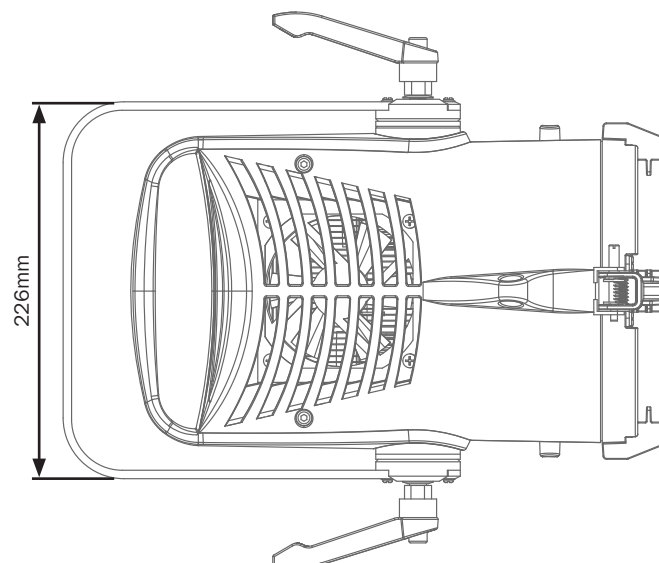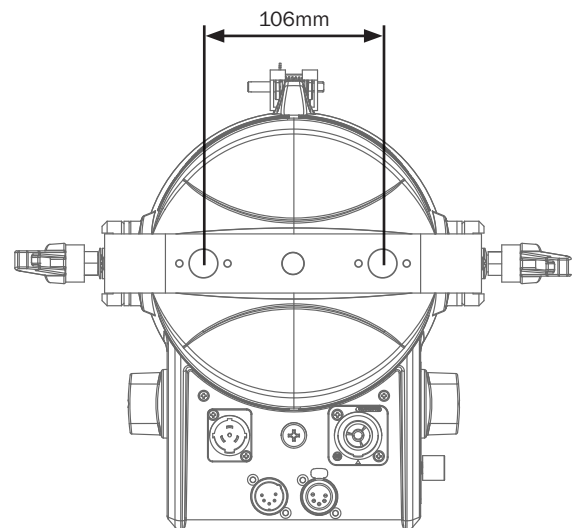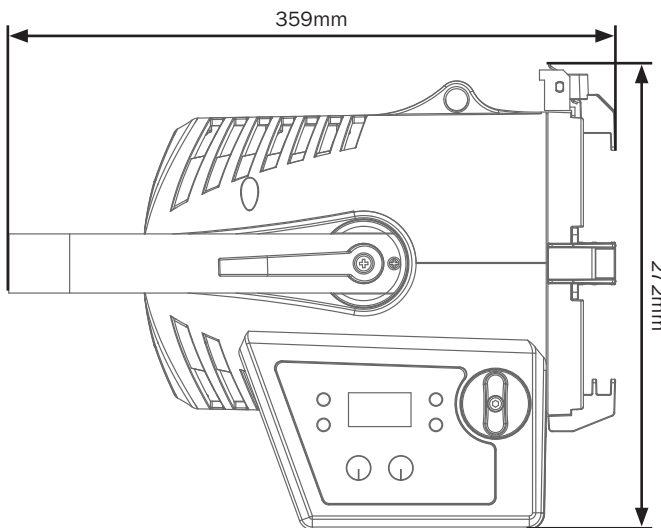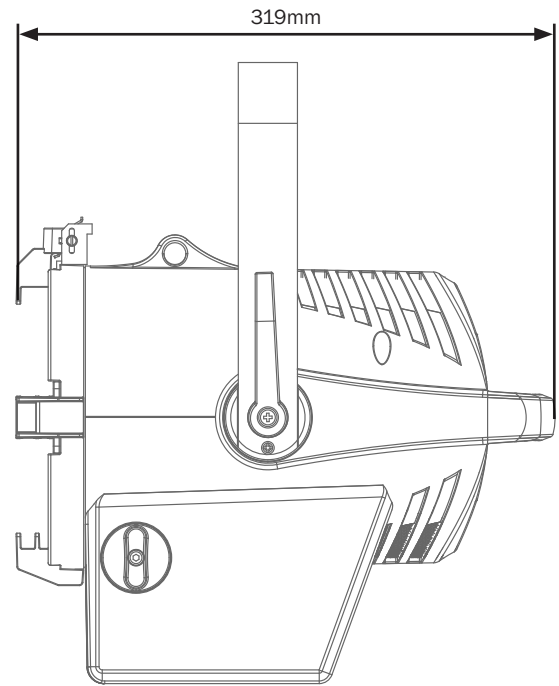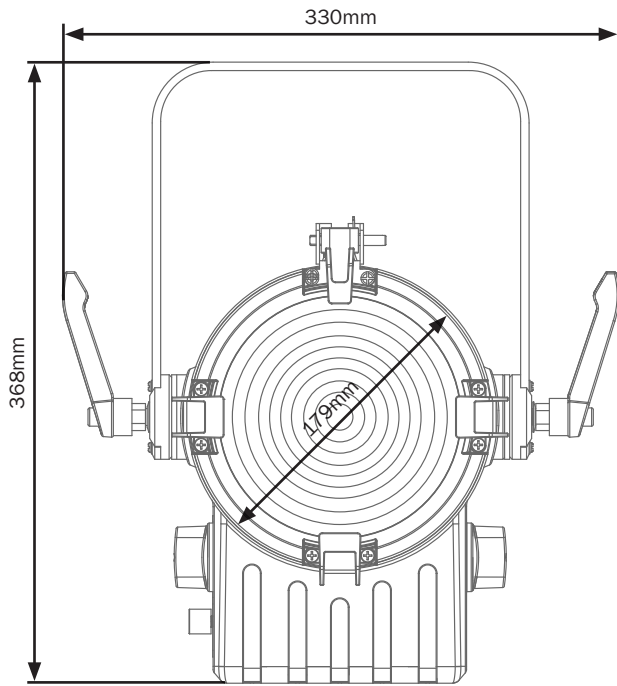
Before installing the fixture, the supporting structure (ie. truss) must be able to hold a minimum of 10 times the fixtures weight without any deformation (eg. 15kg - 150kg point load). The fixture must be secured with a secondary safety attachment when being installed (ie. an appropriate safety cable). 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.
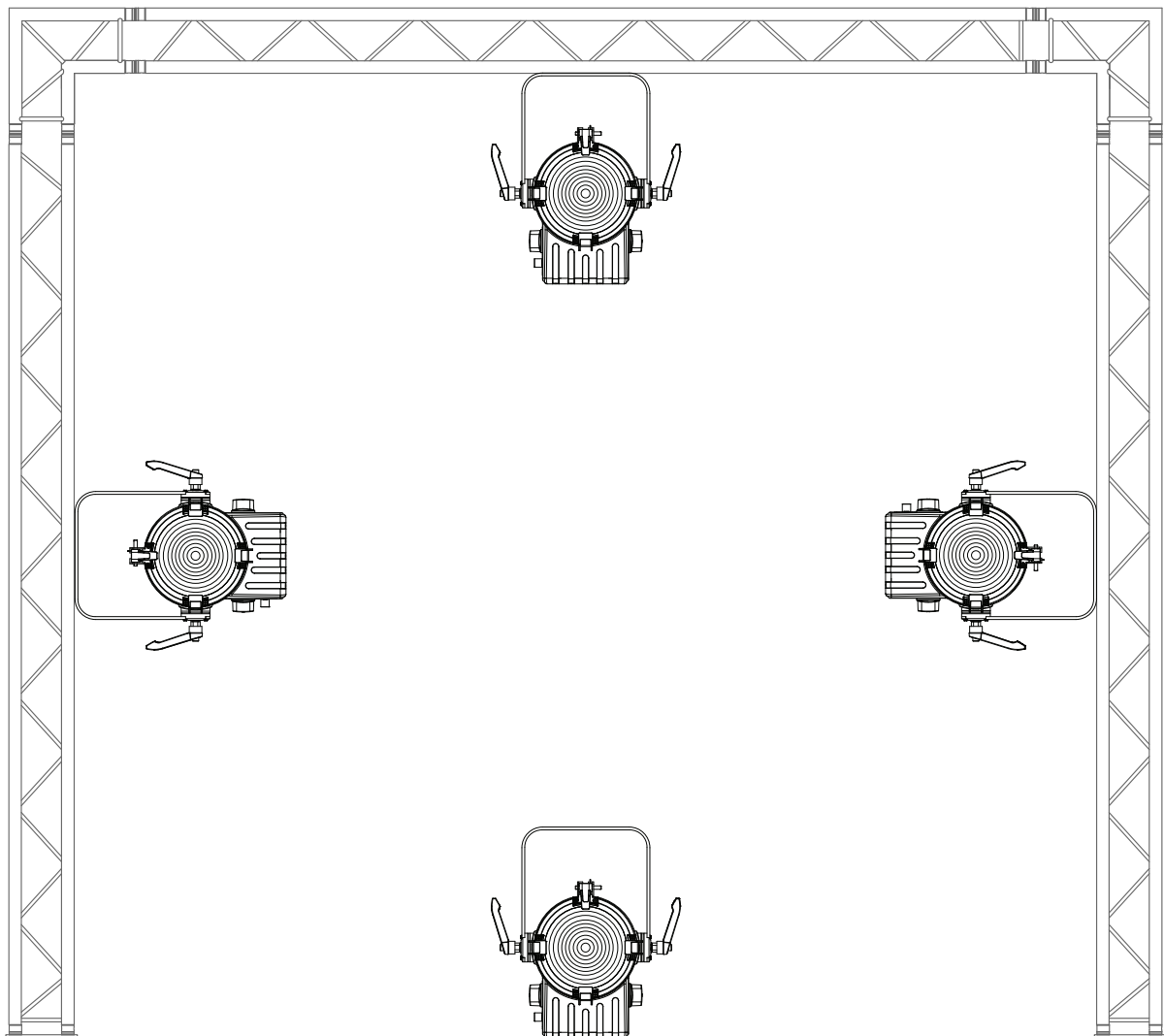


The Elumen8 Virtuoso 1500 Fresnel HEX can be operated in a number of mounting positions as shown in the diagram above, hanging upside-down from the ceiling or truss, mounting sideways on truss or stood upright on a flat level surface. Always use a safety wire as an extra safety precaution to prevent 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.
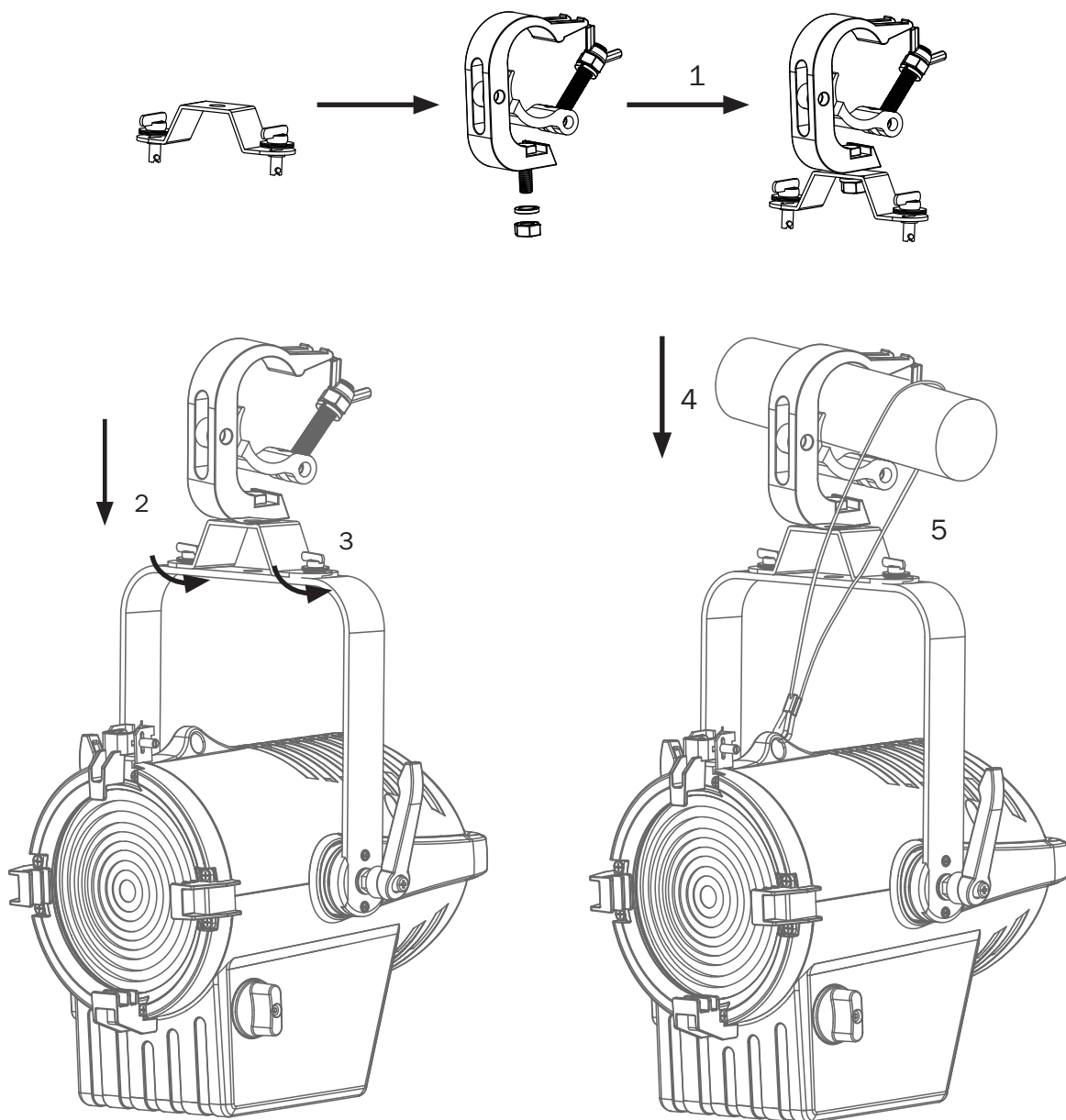
| Main Menu | Sub Menus | | Values (Default Settings in BOLD) | Description |
|---|---|---|---|---|
| MANUAL MODE | MODE 1 | DIMMER | **0**-100% | Manual mode (via rotary knobs) |
| | | CCT | **2700K**-8000K | |
| | MODE 2 | DIMMER | **0**-100% | |
| | | COLOUR | **L106**-L768 | |
| STATIC | RED | | **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 | |
| | | | 6500K | |
| | | | 7200K | |
| | | | 8000K | |

| Main Menu | Sub Menus | | | Values (Default Settings in BOLD) | Description |
|-----------|-----------|---|---|-----------------------------------|-------------|
| ADDRESS | | | | **001**-512 | DMX address settings |
| RUN MODE | | | | **DMX** | Run mode settings |
| | | | | SLAVE | |
| PERSONALITY | | | | HSIC (8CH) | DMX channel mode settings |
| | | | | BASIC (3CH) | |
| | | | | SDO (6CH) | |
| | | | | SIMPLE (9CH) | |
| | | | | 8BIT (12CH) | |
| | | | | 8BIT+ (13CH) | |
| | | | | 16BIT (19CH) | |
| | | | | **16BIT+ (20CH)** | |
| | | | | 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 | **0**-255 | Custom program settings |
| | | | GREEN | **0**-255 | |
| | | | BLUE | **0**-255 | |
| | | | AMBER | **0**-255 | |
| | | | LIME | **0**-255 | |
| | PROGRAM 2 | | CYAN | **0**-255 | |
| | | | STROBE | **0**-25 | |
| | | | TIME | **0**-255 | |
| | | | FADE | **0**-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 | | |
| | | | | **DIM4** | | |
| | | DIMMER CURVES | | LINEAR | | Dimmer curve settings |
| | | | | **SQUARE LAW** | | |
| | | | | INV. SQ LAW | | |
| | | | | S-CURVE | | |
| | | DMX ERROR | | **SAVE** | | DMX fail settings |
| | | | | BLACK | | |
| | | PWM RATE | | **1200HZ** | | Refresh rate settings |
| | | | | 2400HZ | | |
| | | | | 4000HZ | | |
| | | | | 6000HZ | | |
| | | | | 25000HZ | | |
| | | PERFORM | | **LIVE (low)** | | Fan speed settings |
| | | | | POWER (high) | | |
| | | | | STUDIO (auto) | | |
| | | DISP LOCK | | **ON** | | Display lock setting (passcode is <UP>, <DOWN>,<UP>, <DOWN>, <ENTER>) |
| | | | | OFF | | |
| | | DISP TIME | | ON | | Display backlight settings |
| | | | | 10S | | |
| | | | | **30S** | | |
| | | | | 2min | | |

| Main Menu | Sub Menus | | Values (Default Settings in BOLD) | Description |
|---|---|---|---|---|
| INFO | FIXTURE HOURS | | xHours | Fixture hours |
| | VERSION | | VX.X.X<br>XXXX.XX.XX | Software version |
| | RDM | UID | 0X09a5XXXXXXXX | Fixture VID |
| | | LABEL | Virtuoso<br>1500F-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 | **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 |
| CH6 | **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 |
| CH7 | **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 |
| CH8 | **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:

| BASIC 3CH | SDO 6CH | SIMPLE 9CH | 8BIT 12CH | 8BIT+ 13CH | 16BIT 19CH | 16BIT+ 20CH | Value | Function |
|---|---|---|---|---|---|---|---|---|
| 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:

| BASIC 3CH | SDO 6CH | SIMPLE 9CH | 8BIT 12CH | 8BIT+ 13CH | 16BIT 19CH | 16BIT+ 20CH | Value | Function |
|-----------|---------|------------|-----------|------------|------------|-------------|-------|----------|
| | | | | | | | | **Channel** (header spans first 7 columns) |
| | | | | | | | | Refresh Rate |
| - | - | - | - | 13 | - | 20 | 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 | **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 |
| CH6 | **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 |

| Channel | Value | Function |
|---------|-------|----------|
| CH7 | **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 |
| CH8 | **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 |
| CH9 | **Fan** | |
| | 000-009 | No function |
| | 010-080 | Live performance mode |
| | 081-160 | Studio performance mode |
| | 161-240 | Power performance mode |
| | 241-255 | No function |
| CH10 | **Refresh Rate** | |
| | 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 form 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: | CABL10 – 2m | CABL11 – 5m | CABL12 – 10m |
|---|---|---|---|---|
| | 5-Pin: | CABL185 – 2m | CABL187 – 5m | CABL188 – 10m |

**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.

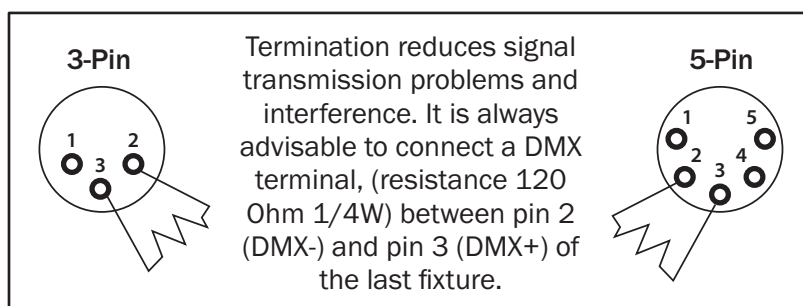| Pin Configuration | |
|---|---|
| **3-Pin** | **5-Pin** |
| Pin 1 - Ground | |
| Pin 2 - Negative | |
| Pin 3 - Positive | |
| – | Pin 4 - N/C |
| – | Pin 5 - N/C |
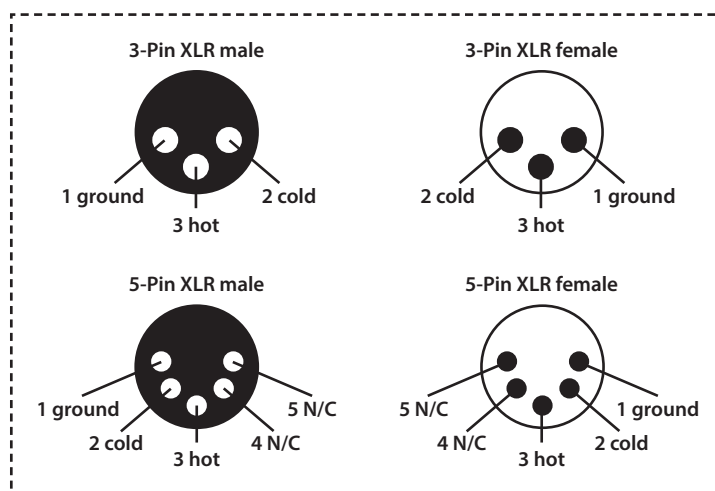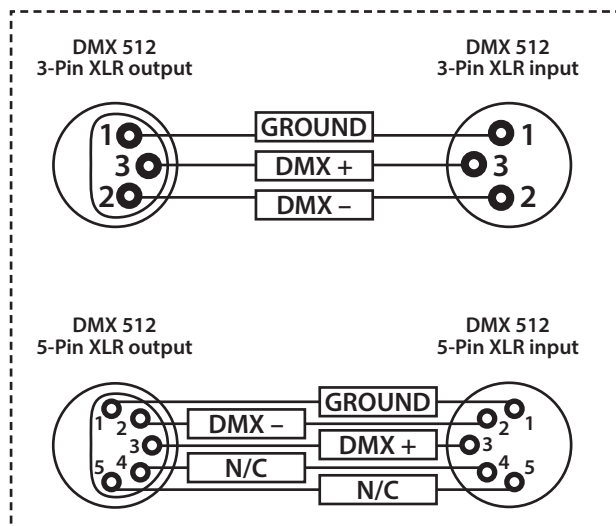


## Line termination:

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

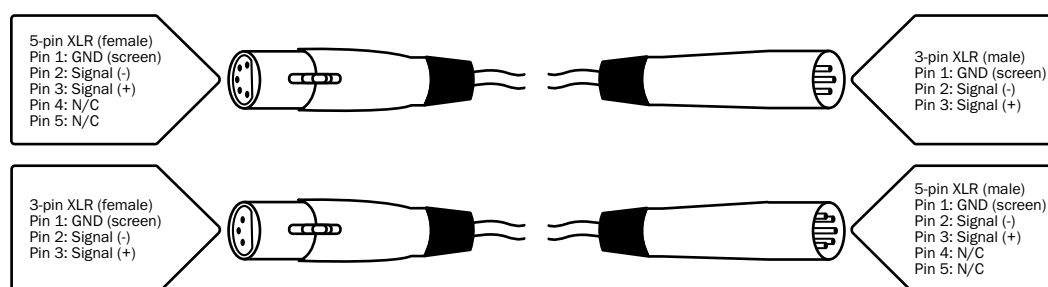**Using a cable terminator will decrease the possibilities of erratic behaviour.** (3-pin - Order ref: CABL90, 5-pin - Order ref: CABL89)



Termination reduces signal transmission problems and interference. It is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4W) between pin 2 (DMX-) and pin 3 (DMX+) of the last fixture.

## 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.



5-pin XLR (female)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

3-pin XLR (male)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

3-pin XLR (female)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)

5-pin XLR (male)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

## 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 12 fixtures @ 240V or 6 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 1500 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.
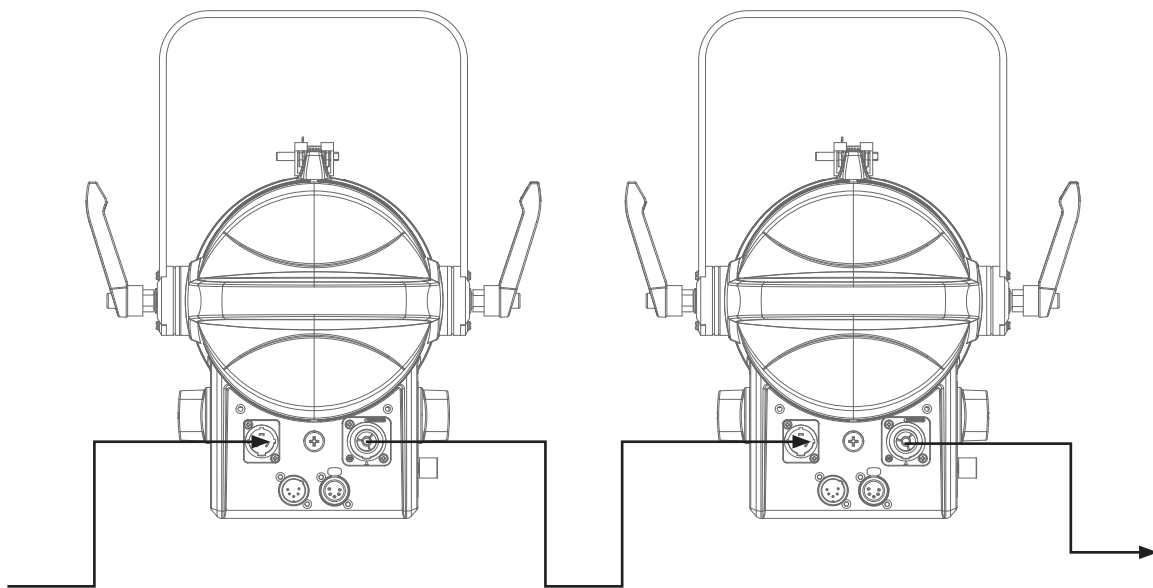
***Correct Disposal of this Product
(Waste Electrical & Electronic Equipment)***

**(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.