EQUINOX

Fusion 120Q

User Manual

Order code: EQLED448

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 is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- 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.
- 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: One year 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!

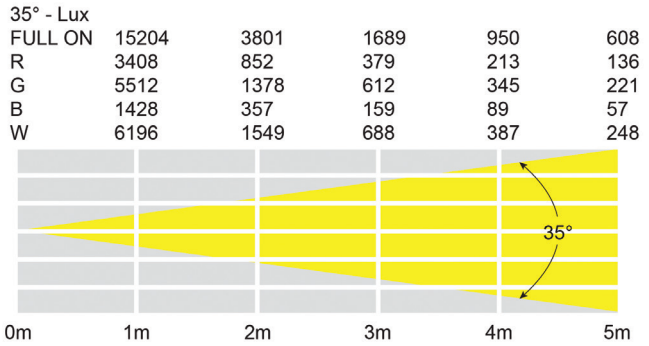
Incorrect installation or use can cause serious damage to people and/or property.

Please note: These fixtures are intended for stage lighting and entertainment applications only, and are not intended for extended periods of use, including but not limited to house-light, industrial or architectural applications and should only be operated with short duty cycles.

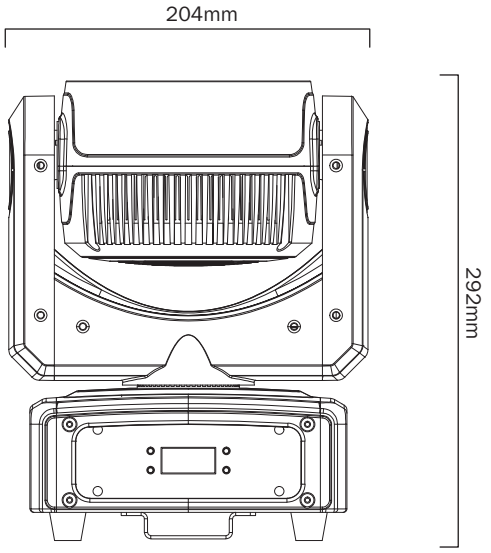
Fusion 120Q

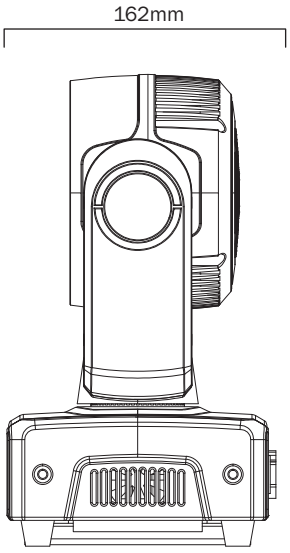
The Equinox Fusion 120Q is a compact yet powerful 120W LED moving head packed full of features. A 120mm front lens and high CRI provide superb colour rendering, whilst its quick speed and built-in light shows bathe venues in a wash of colour. Also onboard are a host of colour macros and colour temperature presets along with 4 dimming curves. An omega clamp is supplied for quick and easy installation, whilst the PowerTwist TR1 and 3-Pin DMX inputs/outputs allow for a problem-free connection.

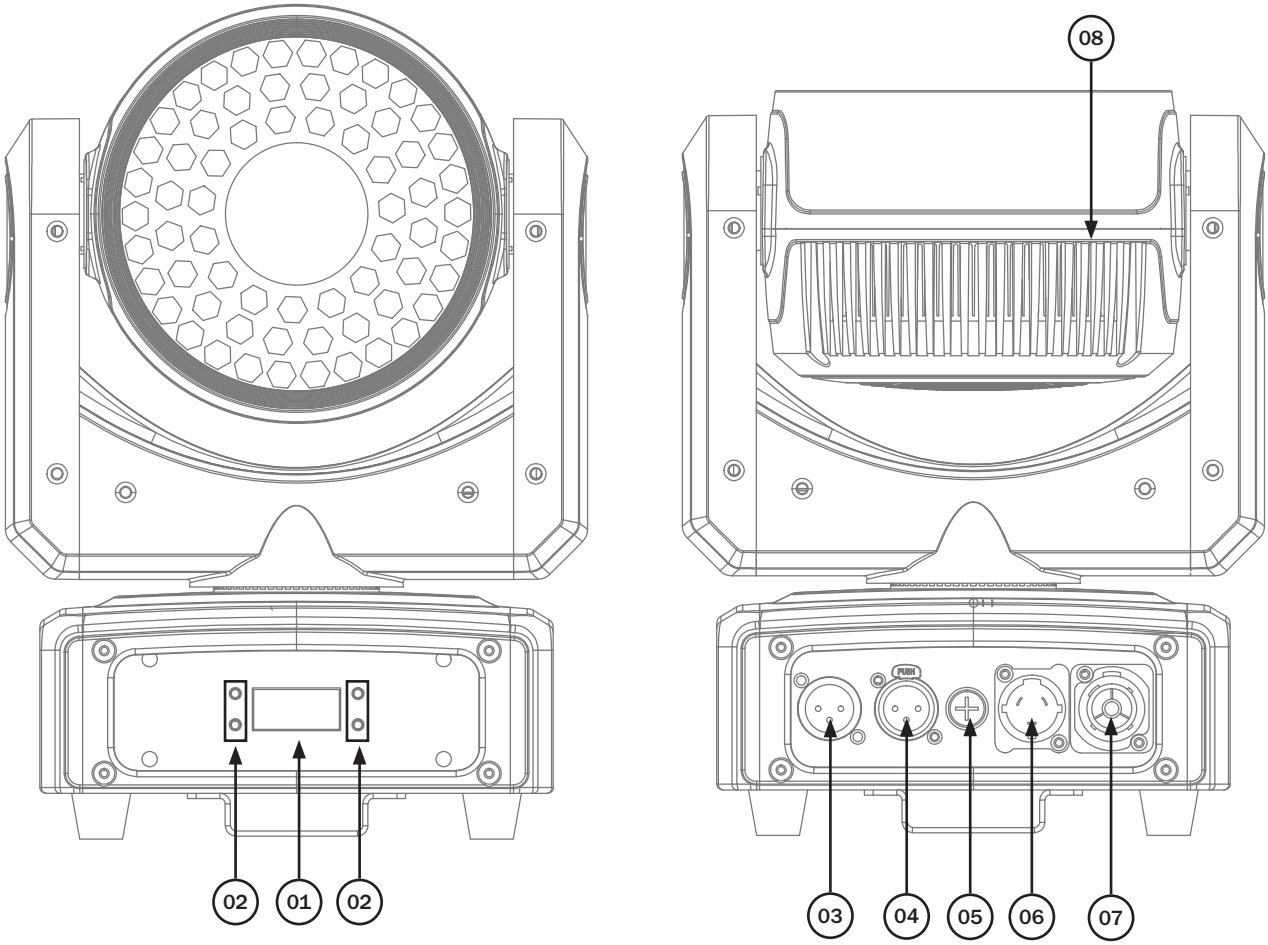
- 1 x 120W quad-colour COB LED (RGBW)
- Beam angle: 35°
- 3,801 Lux @ 2m (full on)
- CRI: 90
- Refresh rate: 20kHz
- DMX channels: 2/9/12 or 16 selectable
- Auto, sound active, manual control and master/slave modes
- Built-in colour macros
- Colour temperature presets
- Forward facing show modes
- Pan/tilt auto correction
- 16-Bit pan/tilt positioning
- 0 - 100% dimming
- 4 dimming curves: Linear, square law, inverse square law and S-curve
- Variable strobe
- Quick release omega clamp included
- 4 button menu with LED display
- PowerTwist TR1 input/output
- 3-Pin XLR input/output
- Fan cooled



Specifications	
Power consumption	121W
Power supply	100~240V, 50/60Hz
Fuse	F4A 250V
Dimensions	292 x 204 x 162mm
Weight	4kg
Order codes	EQLED448







01 - LED display
02 - Function buttons
03 - 3-Pin DMX input
04 - 3-Pin DMX output
05 - Fuse F4A 250V
06 - PowerTwist TR1 input
07 - PowerTwist TR1 output
08 - Fan

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

Installation:

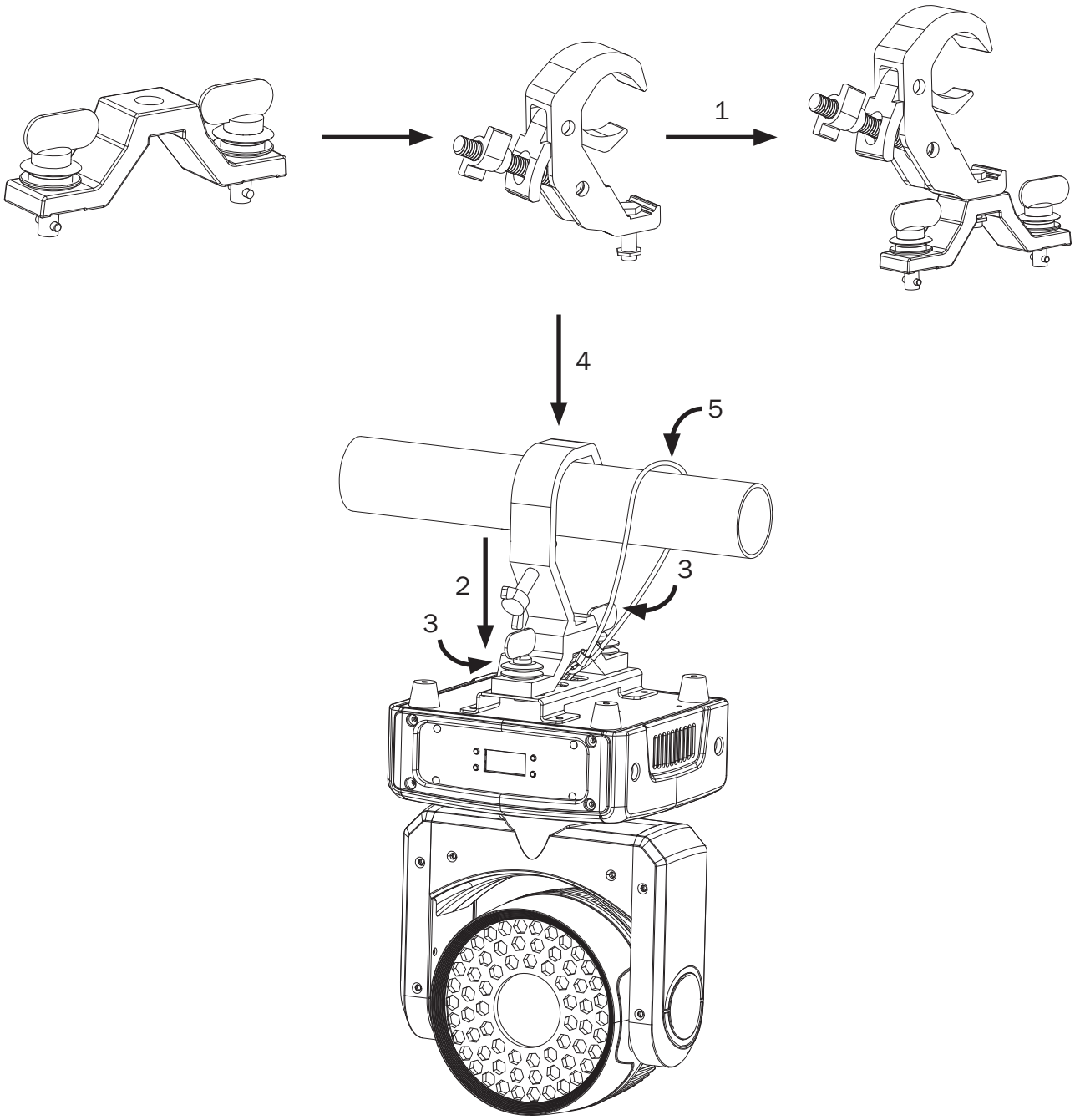
1. Fasten each clamp to the omega clamps with a bolt and lock nut through the hole in the omega clamp.

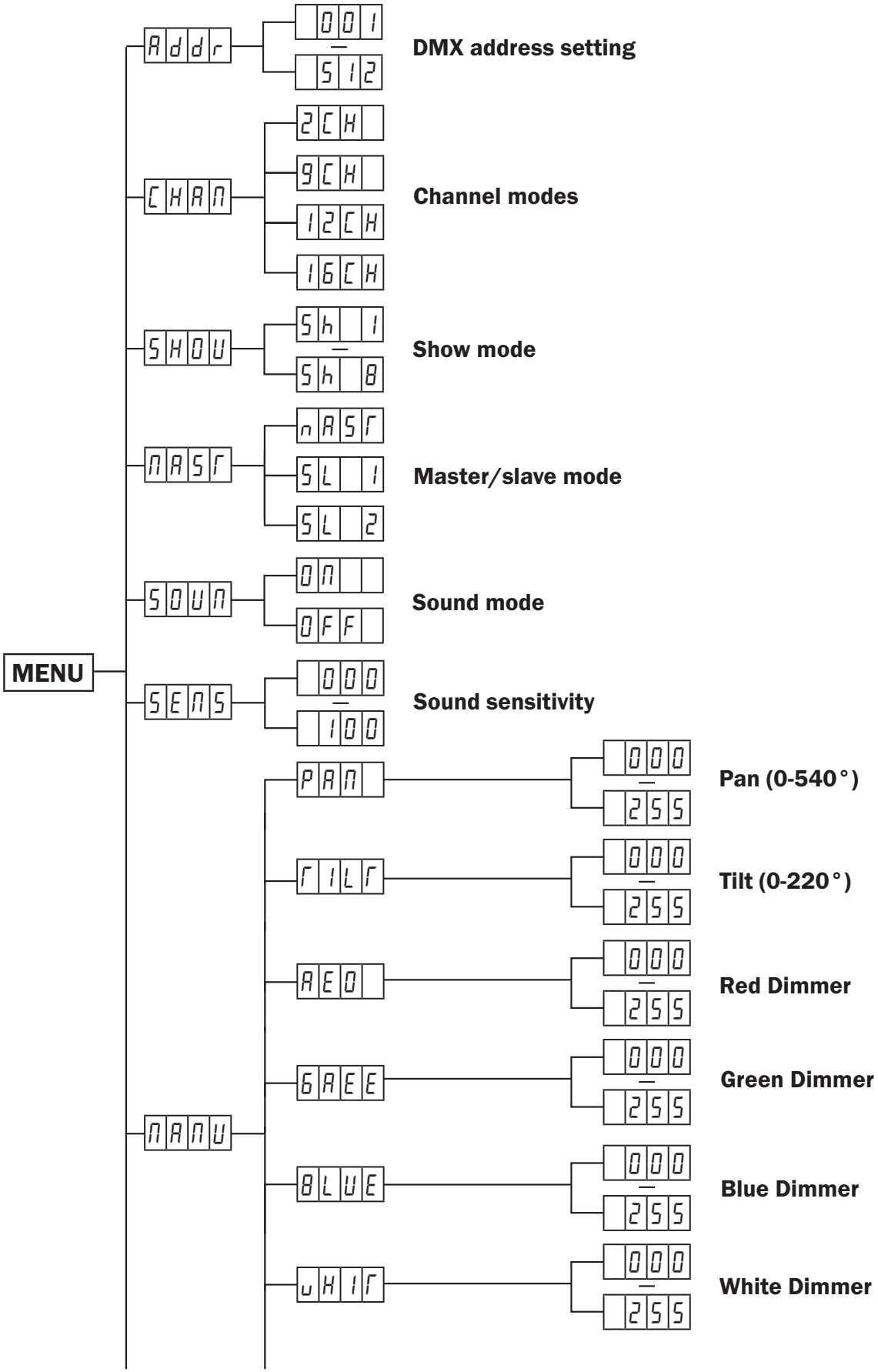
2. Align and insert the omega clamp quick-lock fasteners with the respective holes on the bottom of the unit.

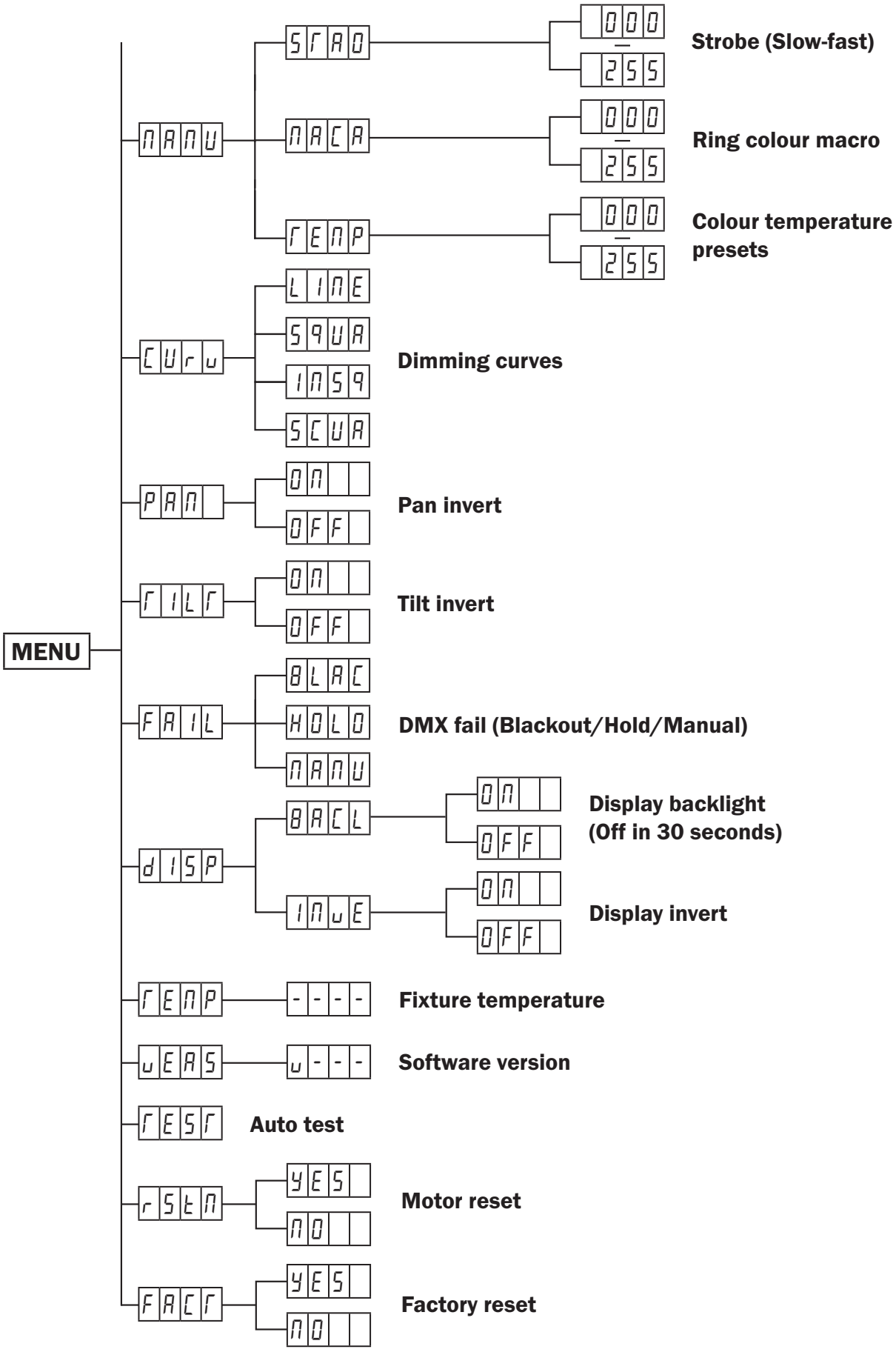
3. Tighten both locking fasteners clockwise on each omega clamp ensuring they're fully secure.

4. Mount the fixture onto your truss system via the clamps and tighten to ensure that it's secure.

5. Pull the safety cable through the safety cable holes located on the metal base plate on the underside of the fixture and around the truss.




MENU
Addr
001
512
DMX address setting
CHAN
2CH
9CH
12CH
16CH
Channel modes
SHOW
Sh 1
Sh 8
Show mode
MASR
nASr
SL 1
SL 2
Master/slave mode
SOUN
ON
OFF
Sound mode
SENS
000
100
Sound sensitivity
MANU
PAN
000
255
Pan (0-540°)
TILT
000
255
Tilt (0-220°)
RED
000
255
Red Dimmer
GREE
000
255
Green Dimmer
BLUE
000
255
Blue Dimmer
WHIT
000
255
White Dimmer


MENU
MANU
STRO
000
255
Strobe (Slow-fast)
MACR
000
255
Ring colour macro
TEMP
000
255
Colour temperature presets
CURV
LINE
SQUA
INSQ
SCUA
Dimming curves
PAN
ON
OFF
Pan invert
TILT
ON
OFF
Tilt invert
FAIL
BLAC
HOLD
MANU
DMX fail (Blackout/Hold/Manual)
DISP
BACL
ON
OFF
Display backlight (Off in 30 seconds)
INVE
ON
OFF
Display invert
TEMP
- - -
Fixture temperature
VERS
v - - -
Software version
TEST
Auto test
RSTM
YES
NO
Motor reset
FACT
YES
NO
Factory reset

DMX mode:

Operating in a DMX control mode environment gives the user the greatest flexibility when it comes to customising or creating a show. In this mode you will be able to control each individual trait of the fixture and each fixture independently.

To access the DMX address mode, press the "**MENU**" button on the front of the unit to show Addr on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to set the required DMX address. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

DMX channel mode:

To access the DMX channel mode, press the "**UP**" button on the front of the unit to show CHAN on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose one of the 2, 9, 12 or 16 DMX channel modes. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

2 channel mode:

Channel	Value	Function
CH1	000-015	No function
	016-045	Show 1
	046-075	Show 2
	076-105	Show 3
	106-135	Show 4
	136-165	Show 5
	166-195	Show 6
	196-225	Show 7 (Forward Facing)
	226-255	Show 8 (Forward Facing)
CH2	000-255	Sound sensitivity (low-high)

9 channel mode:

Channel	Value	Function
CH1	000-255	Pan (0-540°)
CH2	000-255	Tilt (0-220°)
CH3	000-255	Pan/Tilt Speed (fast-slow)
CH4	000-255	Master Dimmer (0-100%)
CH5	000-009	No function
	010-255	Strobe (slow-fast)
CH6	000	No function
	001-027	2800K
	028-055	3200K
	056-083	3600K
	084-111	4500K
	112-139	5000K
	140-167	5600K
	168-195	6200K
	196-223	6800K
	224-255	7500K
CH7	000-009	No function
	010-255	Colour Macro
CH8	000-015	No function
	016-045	Show 1
	046-075	Show 2
	076-105	Show 3
	106-135	Show 4
	136-165	Show 5
	166-195	Show 6
	196-225	Show 7 (Forward Facing)
	226-255	Show 8 (Forward Facing)
CH9	000-255	Sound sensitivity (low-high)

12 channel mode:

Channel	Value	Function
CH1	000-255	Pan (0-540°)
CH2	000-255	Pan Fine
CH3	000-255	Tilt (0-220°)
CH4	000-255	Tilt Fine
CH5	000-255	Pan/Tilt Speed (fast-slow)
CH6	000-255	Master Dimmer (0-100%)
CH7	000-009	No function
	010-255	Strobe (slow-fast)
CH8	000-255	Red Dimmer (0-100%)
CH9	000-255	Green Dimmer (0-100%)
CH10	000-255	Blue Dimmer (0-100%)
CH11	000-255	White Dimmer (0-100%)
CH12	000-030	No function
	030-054	Dimming curve set via menu
	055-079	Linear
	080-104	Square Law
	105-129	Inv Square Law
	130-154	S-Curve
	155-204	No function
	205-229	Reset (hold for 5s)
	230-255	No function

16 channel mode:

Channel	Value	Function
CH1	000-255	Pan (0-540°)
CH2	000-255	Pan Fine
CH3	000-255	Tilt (0-220°)
CH4	000-255	Tilt Fine
CH5	000-255	Pan/Tilt Speed (fast-slow)
CH6	000-255	Master Dimmer (0-100%)
CH7	000-009	No function
	010-255	Strobe (slow-fast)
CH8	000-255	Red Dimmer (0-100%)
CH9	000-255	Green Dimmer (0-100%)
CH10	000-255	Blue Dimmer (0-100%)
CH11	000-255	White Dimmer (0-100%)
CH12	000	No function
	001-027	2800K
	028-055	3200K
	056-083	3600K
	084-111	4500K
	112-139	5000K
	140-167	5600K
	168-195	6200K
	196-223	6800K
	224-255	7500K
CH13	000-009	No function
	010-255	Colour Macro
CH14	000-015	No function
	016-045	Show 1
	046-075	Show 2
	076-105	Show 3
	106-135	Show 4
	136-165	Show 5
	166-195	Show 6
	196-225	Show 7 (Forward Facing)
	226-255	Show 8 (Forward Facing)

Channel	Value	Function
CH15	000-255	Sound sensitivity (low-high)
CH16	000-030	No function
	030-054	Dimming curve set via menu
	055-079	Linear
	080-104	Square Law
	105-129	Inv Square Law
	130-154	S-Curve
	155-204	No function
	205-229	Reset (hold for 5s)
	230-255	No function

Show mode:

To access the show modes, press the "**MENU**" button on the front of the unit to show SHOU on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between SH 1 ~ SH 8. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

SH 1 – SH 6 – **Show 1 - 6**
SH 7 – **Show 7 (forward facing)**
SH 8 – **Show 8 (forward facing)**

Master/slave mode:

To set the master unit, press the "**MENU**" button on the front of the master unit to show MASr on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose nASr. Press the "**ENTER**" button to confirm the setting.
To set the other units in slave mode, press the "**MENU**" button on the front of the unit to show MASr on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose either SL 1 or SL 2. Press the "**ENTER**" button to confirm the setting. The unit will now run in sequence with the master unit.

To exit out of any of the above options, press the "**MENU**" button.

Please ensure that all slave units are set to the same DMX channel mode as the master unit.

Sound/sound sensitivity:

To turn the sound mode on or off, press the "**MENU**" button on the front of the unit to show SOUN on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between on or oFF. Press the "**ENTER**" button to confirm the setting.

To adjust the sound sensitivity, press the "**MENU**" button on the front of the unit to show SENS on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between 000 ~ 100. **Value: 000 - 100 (000 = low, 100 = high)**

To exit out of any of the above options, press the "**MENU**" button.

Manual mode:

To access the manual modes, press the "**MENU**" button on the front of the unit to show MANU on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose PAN (**Pan**), TILT (**Tilt**), REd (**Red dimmer**), GREE (**Green dimmer**), BLUE (**Blue dimmer**), uHIC (**White dimmer**), SCAd (**Strobe**), MACA (**Ring colour macro**), or TEMP (**Colour temperature presets**). Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between 000 - 255 Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Dimming curves:

To access the dimming curves, press the "**MENU**" button on the front of the unit to show CUrv on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose LINE (**Linear**), SQUA (**Square Law**) , INSQ (**Inverse square law**), or SCUA (**S-Curve**).

Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Pan invert setting:

To access the pan invert setting, press the "**MENU**" button on the front of the unit to show PAN on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between on or oFF. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Tilt invert setting:

To access the tilt invert setting, press the "**MENU**" button on the front of the unit to show TILT on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between on or oFF. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

DMX fail:

To access the DMX fail setting, press the "**MENU**" button on the front of the unit to show FAIL on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose BLAC (**Blackout**), HOLD (**Hold**) or MANU (**Manual**) Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Display settings:

To access the display settings, press the "**MENU**" button on the front of the unit to show diSP on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between BACL (**Backlight off in 30 seconds**) or INvE (**Display invert**). Press the "**ENTER**" button then choose oFF or on. Then press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Temperature:

To view the fixture temperature, press the "**MENU**" button on the front of the unit to show TEMP on the LED display. Now press the "**ENTER**" button to view the current temperature in degrees celcius.

To exit out of any of the above options, press the "**MENU**" button.

Software version:

To view the fixtures software version, press the "**MENU**" button on the front of the unit to show uEAS on the LED display. Now press the "**ENTER**" button to view the current software version.

To exit out of any of the above options, press the "**MENU**" button.

Test mode:

To access the test mode, press the "**MENU**" button on the front of the unit to show rESr on the LED display. Press the "**ENTER**" button to run the test mode.

To exit out of any of the above options, press the "**MENU**" button.

Motor reset:

To reset the motors, press the "**MENU**" button on the front of the unit to show rStN on the LED display. Press the "**ENTER**" button then choose YES or no. Then press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

Reset factory settings:

To reset the units factory settings, press the "**MENU**" button on the front of the unit to show FACr on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose between YES (reset) or no. Press the "**ENTER**" button to confirm the setting.

To exit out of any of the above options, press the "**MENU**" button.

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 a standard 3-pin XLR connector for data input/output, see images below.

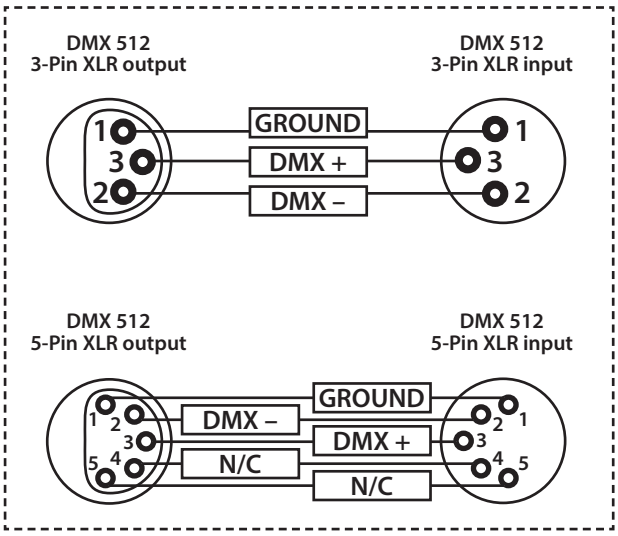
Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight Concepts dealers.
Please quote: 3-Pin: **CABL10 – 2m** **CABL11 – 5m** **CABL12 – 10m**

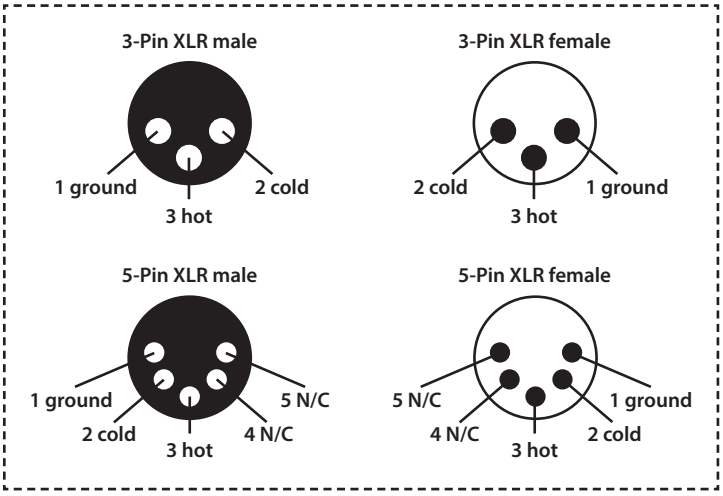
Also remember that DMX cable must be daisy chained and cannot be split.

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

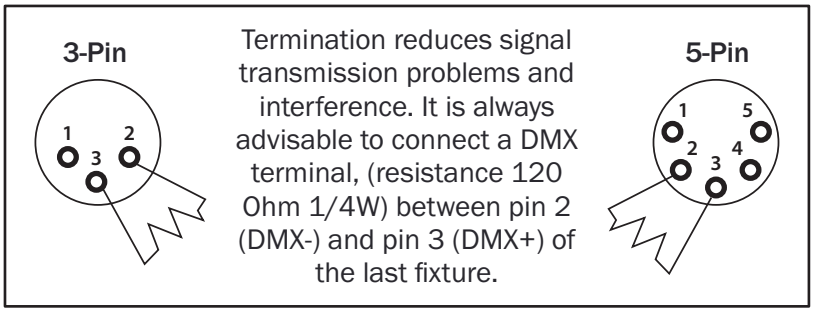




Line termination:

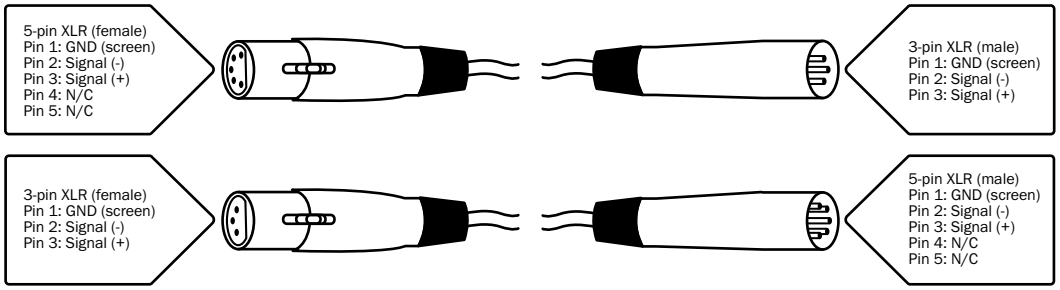
When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

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:

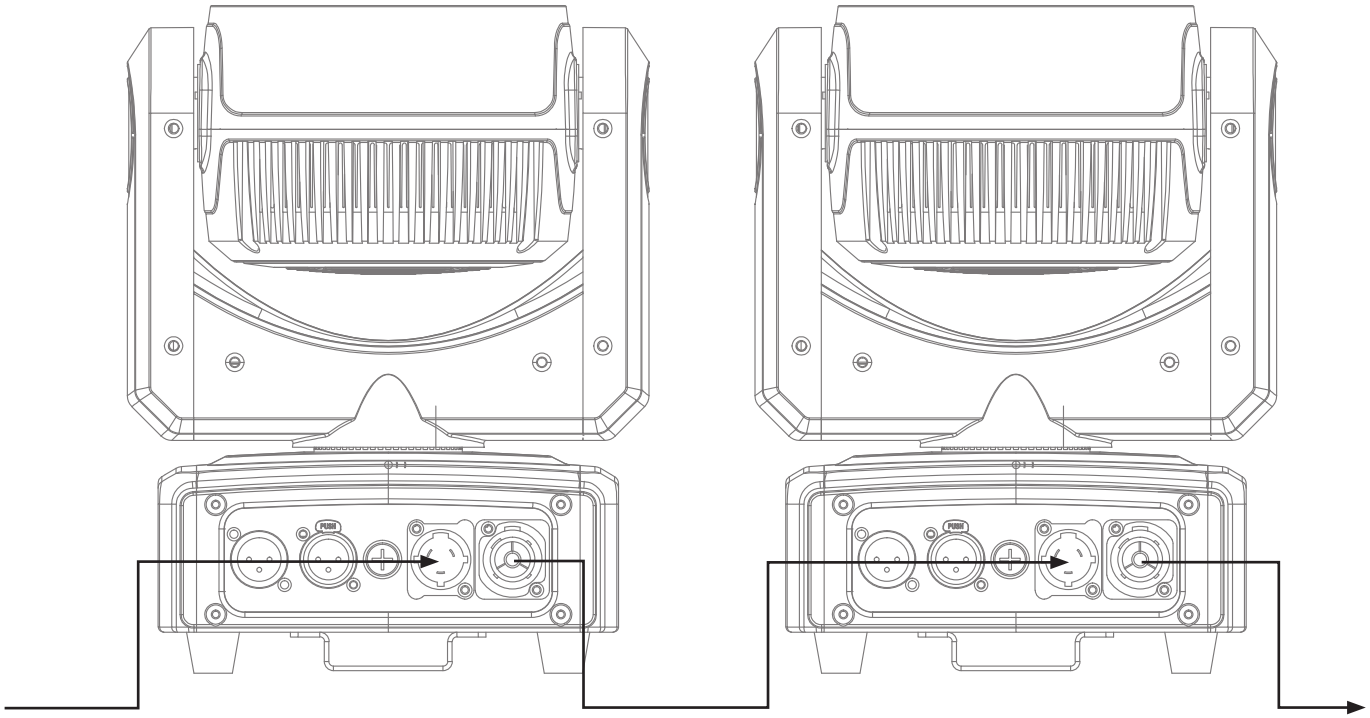
Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.



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 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 Fusion 120Q 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 of 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.