

# **EQUINOX**

## **Merlin 80W**

### **User Manual**



**Order code: EQLED447**

### 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 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.

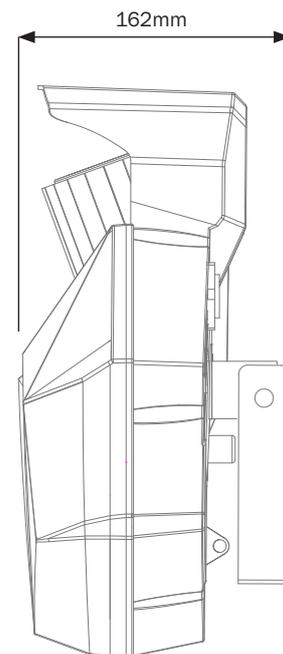
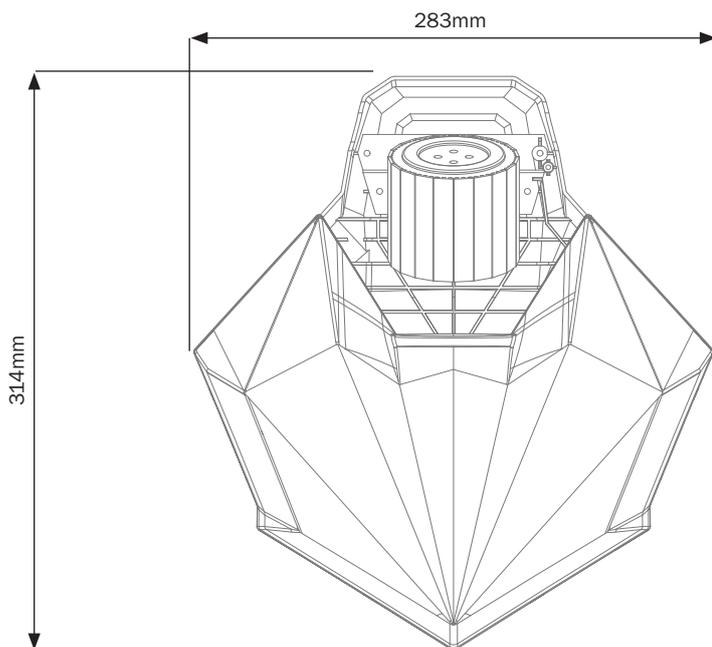
### Merlin 80W

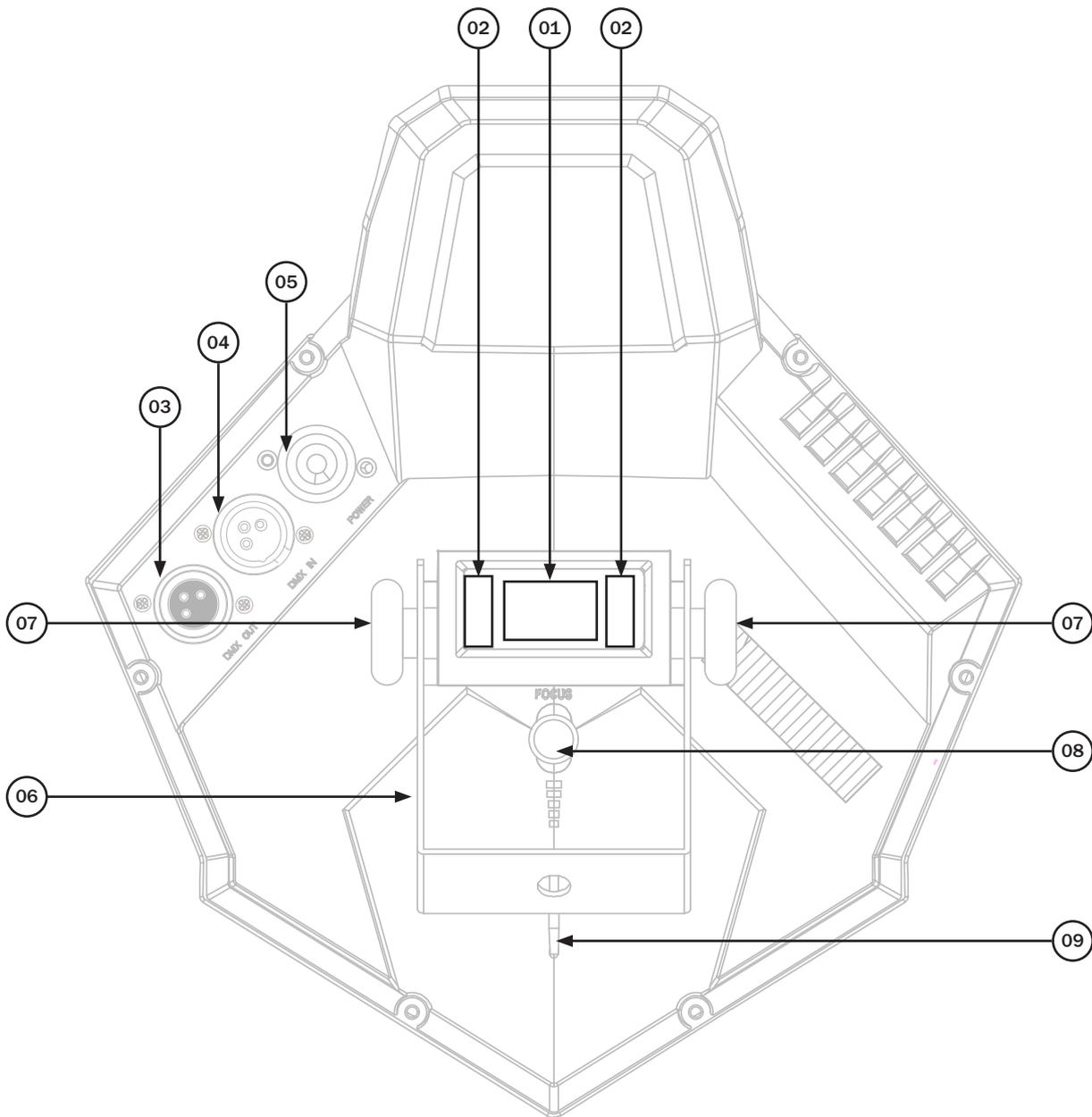
Powered by an 80W LED the Equinox Merlin is a compact multi gobo effect paired with a mirrored barrel to produce an array of colourful moving gobos that can be projected on to walls and dance floors. An adjustment control on the rear of the fixture allows for the focus to be manually adjusted whilst the intuitive OLED display allows for DMX, auto, sound active and master/slave modes to be selected.

- 1 x 80W cool white LED (7500K)
- Beam angle: 4° (per beam)
- Manual focus
- CRI: 70
- Refresh rate: 6kHz
- 8 static gobos/colours + open
- DMX channels: 2/6 or 9 selectable
- Auto, sound active and master/slave modes
- Pan: 180°, Tilt: 360°
- 0-100% dimming
- Variable strobe
- Supplied with hanging bracket
- 4 button menu with OLED display
- PowerTwist TR1 power input
- 3-Pin XLR input/output
- Fan cooled



Specifications	
Power consumption	80W
Power supply	100~240V, 50/60Hz
Fuse	F3A 250V
Dimensions	314 x 283 x 162mm
Weight	2.5kg
Order code	EQLED447





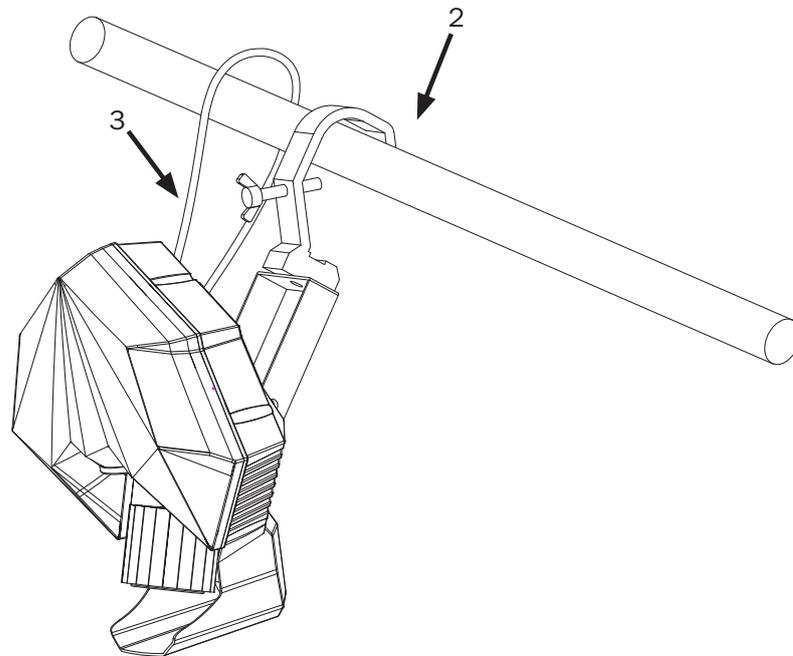
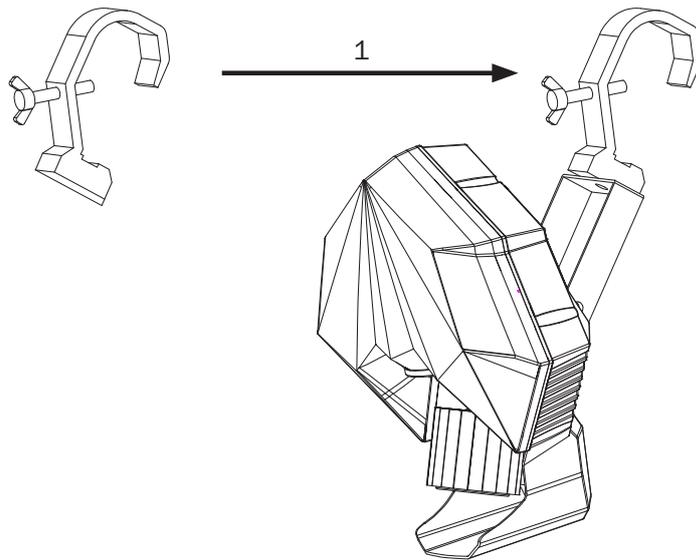
- 01 - OLED display
- 02 - Function buttons
- 03 - 3-Pin DMX output
- 04 - 3-Pin DMX input
- 05 - PowerTwist TR1 power input

- 06 - Hanging bracket
- 07 - Hanging bracket adjustment knobs
- 08 - Focus adjustment knob
- 09 - Safety eye

In the box: **1 x fixture**  
**& 1 x power cable**

### Installation:

1. Fasten the clamp to the bracket on the back of the fixture.
2. Mount the fixture onto your truss system via the clamps and tighten to ensure it is secure.
3. Pull the safety cable through the safety cable hole located on the metal base plate on the back of the fixture and around the truss.



Main Menu	Sub Menus	Values (Default Settings in BOLD)	Description
DMX Addr		<b>001-512</b>	DMX address
DMX Mode		2 Channel	DMX channel mode
		6 Channel	
		<b>9 Channel</b>	
MS		<b>Slave1</b>	Primary / Secondary mode
		Slave2	
		Master	
Show Mode		<b>Show1</b>	Show modes
		Show2	
		Show3	
		Show4	
Manual	Pan	<b>000-255</b>	Manual mode
	Barrel Rot	<b>000-255</b>	
	Gobo	<b>000-255</b>	
	Dish Rot	<b>000-255</b>	
	Dimmer	<b>000-255</b>	
	Strobe	<b>000-255</b>	
Master Dim		<b>000-255</b>	Master dimmer
Sound		<b>OFF</b>	Sound mode
		ON	
Sound Sens		000-255 ( <b>080</b> )	Sound mode sensitivity
Backlight		<b>ON</b>	Display backlight settings
		OFF	
Fact Rest		Yes	Restore factory settings
		<b>No</b>	
Temperature		<b>xx °C</b>	Fixture Temperature
Version		<b>Vx.x</b>	Software version

Please note: the unit must be set in master to run the show modes.

### 2 channel mode:

Channel	Value	Function
CH1	000-029	Blackout
	030-089	Show 1
	090-149	Show 2
	150-209	Show 3
	210-255	Show 4
CH2	000-255	Show speed (slow-fast) Sound sensitivity (low-high)

### 6 channel mode:

Channel	Value	Function
CH1	000-255	Pan (180°)
CH2	000-009	Barrel rotation stop
	010-120	Barrel forward rotation (fast-slow)
	121-134	Barrel rotation stop
	135-245	Barrel reverse rotation (slow-fast)
	246-255	Barrel rotation stop
CH3	000-009	Mirror rotation stop
	010-120	Mirror clockwise rotation (slow-fast)
	121-134	Mirror rotation stop
	135-245	Mirror anti-clockwise rotation (fast-slow)
	246-255	Mirror rotation stop
CH4	000-255	Master dimmer (0-100%)
CH5	000-032	LED on
	033-048	Pulse strobe 1 (slow-fast)
	049-063	Pulse strobe 2 (slow-fast)
	064-127	Pulse strobe (random)
	128-191	Random strobe
	192-252	Strobe (slow-fast)
	253-255	LED on
CH6	000-009	Open
	010-019	Gobo / colour 1
	020-029	Gobo / colour 2
	030-039	Gobo / colour 3
	040-049	Gobo / colour 4
	050-059	Gobo / colour 5
	060-069	Gobo / colour 6
	070-079	Gobo / colour 7
	080-089	Gobo / colour 8
	090-099	Open shake (slow-fast)
	100-109	Gobo / colour 1 shake (slow-fast)
	110-119	Gobo / colour 2 shake (slow-fast)
	120-129	Gobo / colour 3 shake (slow-fast)
	130-139	Gobo / colour 4 shake (slow-fast)
	140-149	Gobo / colour 5 shake (slow-fast)
	150-159	Gobo / colour 6 shake (slow-fast)
	160-169	Gobo / colour 7 shake (slow-fast)
	170-179	Gobo / colour 8 shake (slow-fast)
	180-255	Gobo / colour wheel rotation (slow-fast)

### 9 channel mode:

Channel	Value	Function
CH1	000-255	Pan (180°)
CH2	000-009	Barrel rotation stop
	010-120	Barrel forward rotation (fast-slow)
	121-134	Barrel rotation stop
	135-245	Barrel reverse rotation (slow-fast)
	246-255	Barrel rotation stop
CH3	000-009	Mirror rotation stop
	010-120	Mirror clockwise rotation (slow-fast)
	121-134	Mirror rotation stop
	135-245	Mirror anti-clockwise rotation (fast-slow)
	246-255	Mirror rotation stop
CH4	000-255	Master dimmer (0-100%)
CH5	000-032	LED on
	033-048	Pulse strobe 1 (slow-fast)
	049-063	Pulse strobe 2 (slow-fast)
	064-127	Pulse strobe (random)
	128-191	Random strobe
	192-252	Strobe (slow-fast)
	253-255	LED on
CH6	000-009	Open
	010-019	Gobo / colour 1
	020-029	Gobo / colour 2
	030-039	Gobo / colour 3
	040-049	Gobo / colour 4
	050-059	Gobo / colour 5
	060-069	Gobo / colour 6
	070-079	Gobo / colour 7
	080-089	Gobo / colour 8
	090-099	Open shake (slow-fast)
	100-109	Gobo / colour 1 shake (slow-fast)
	110-119	Gobo / colour 2 shake (slow-fast)
	120-129	Gobo / colour 3 shake (slow-fast)
	130-139	Gobo / colour 4 shake (slow-fast)
	140-149	Gobo / colour 5 shake (slow-fast)
	150-159	Gobo / colour 6 shake (slow-fast)
	160-169	Gobo / colour 7 shake (slow-fast)
	170-179	Gobo / colour 8 shake (slow-fast)
180-255	Gobo / colour wheel rotation (slow-fast)	

Channel	Value	Function
CH7	000-029	Blackout
	030-089	Show 1
	090-149	Show 2
	150-209	Show 3
	210-255	Show 4
CH8	000-255	Show speed (slow-fast) Sound sensitivity (low-high)
CH9	000-249	No function
	250-255	Motor reset (hold for 3 seconds)

### Gobo wheel home position adjustment:

To access the offset menu for the gobo home position adjustment setting, press the “**MENU**” button once and hold the “**ENTER**” button for 3 seconds to display “**Light**” on the OLED display. Press the “**MENU**” button to show “**Gobo**” then press the “**ENTER**” button and use the “**UP**” and “**DOWN**” buttons to set the required gobo wheel home position between 000 - 255. Press the “**ENTER**” button to confirm the setting.

To adjust the pan home position, press the “**MENU**” button to show “**Pan**” then press the “**ENTER**” button and use the “**UP**” and “**DOWN**” buttons to set the required pan home position between 000 - 255. Press the “**ENTER**” button to confirm the setting.

To return to the main menu, hold the “**ENTER**” button for 3 seconds.

### 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 a standard 3-pin connector for data input/output, see image below.



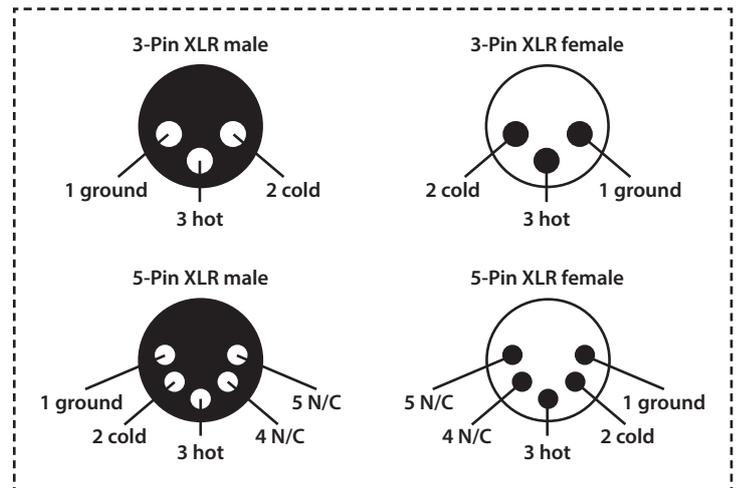
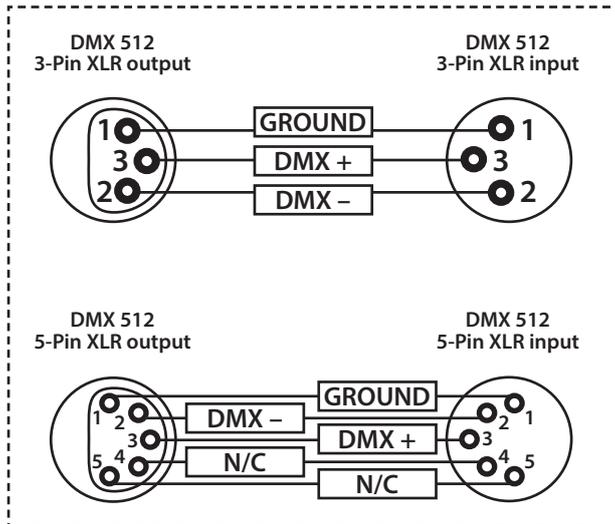
Further DMX cables can be purchased from all good sound and lighting suppliers or Prolight Concepts dealers.  
Please quote: 3-Pin: CABL10 – 2m CABL11 – 5m CABL12 – 10m

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

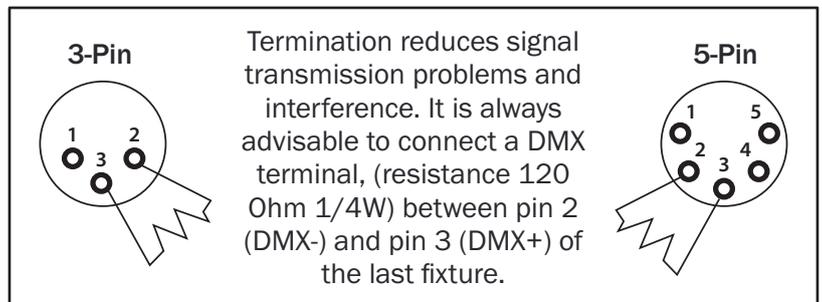


**Line termination:**

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

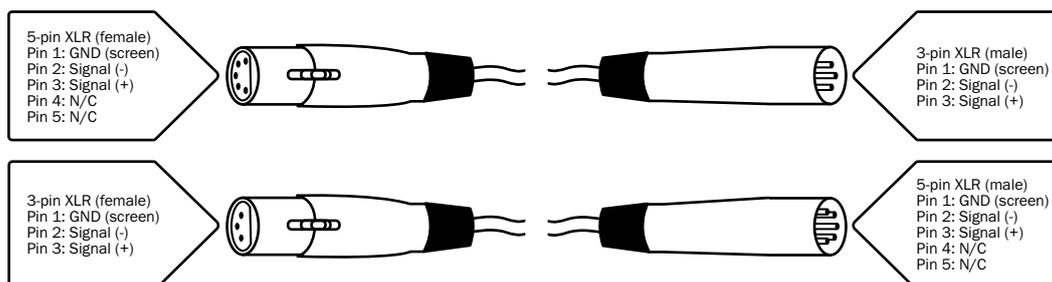
**Using a cable terminator will decrease the possibilities of erratic behaviour.**

(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.





### ***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.

