EQUINOX

Fusion 100 Spot
User Manual

Order code: EQLED069

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.

Fusion 100 Spot

The Equinox Fusion 100 Spot is a compact, feature-packed fixture ideal for mobile applications as well as installation. The engine of this fixture is a powerful 80W white LED (max.), which generates sharp beams and patterns. A wheel with 7 colours plus open allows for rich hues to saturate the Fusion 100 Spots beam, while a rotating gobo wheel with 5 rotating gobos including hearts and stars plus open adds to the armoury of on-board effects. Also crammed inside this compact housing is a 3 facet circular prism and a motorised focus to keep the projected image sharp at any distance. With a forward facing show this fixture is ideal for mobile DJs.

- 1 x 80W white LED (max.)
- Beam angle: 10°
- 13,200 Lux @ 2m (full on)
- Motorised focus
- 3 facet prism
- Gobo wheel: 5 rotating gobos + open
- Colour wheel: 7 colours + open
- DMX channels: 5 or 15 selectable
- Auto, sound active and master/slave modes

- Pan: 540°, Tilt: 210°
- 0-100% dimming and variable strobe
- Supplied with hanging bracket
- 4 push button menu with LED display
- IEC power input
- 3-Pin XLR input/output
- Fan cooled

10° - Lux	52800	13200	5870	3300	2110

10°

0m 1m 2m 3m 4m 5m
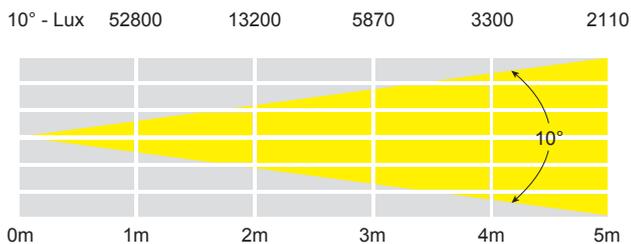
Specifications	
Power consumption	90W
Power supply	100~240V, 50/60Hz
Fuse	F2A 250V
Dimensions	330 x 198 x 146mm
Weight	4.4kg
Order code	EQLED069

198mm

330mm

146mm
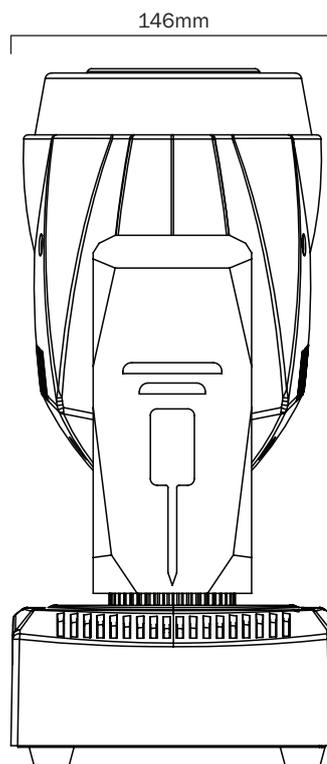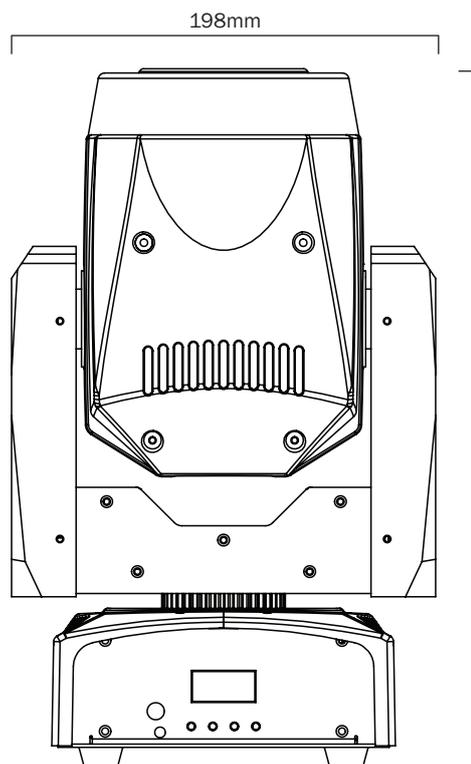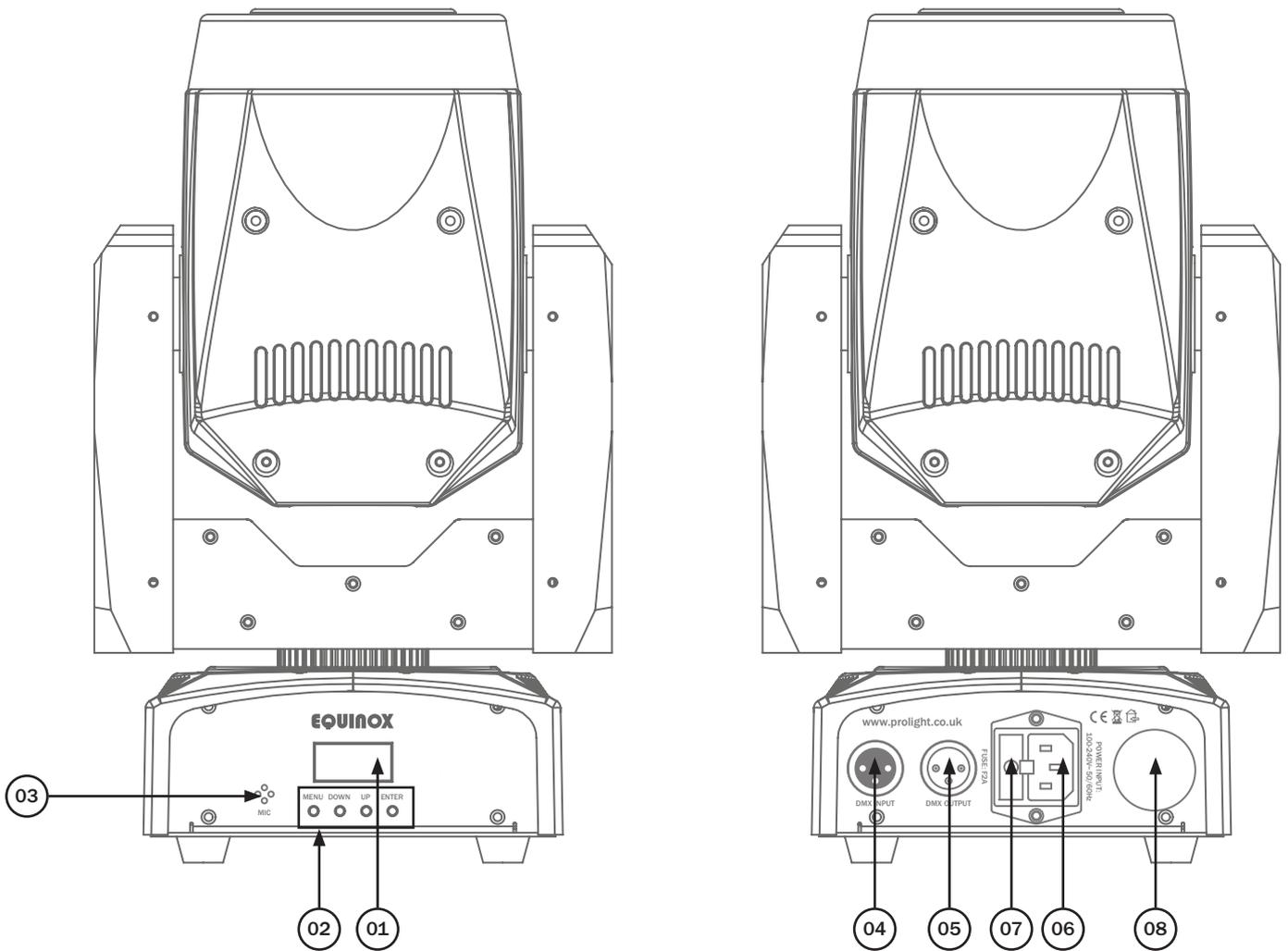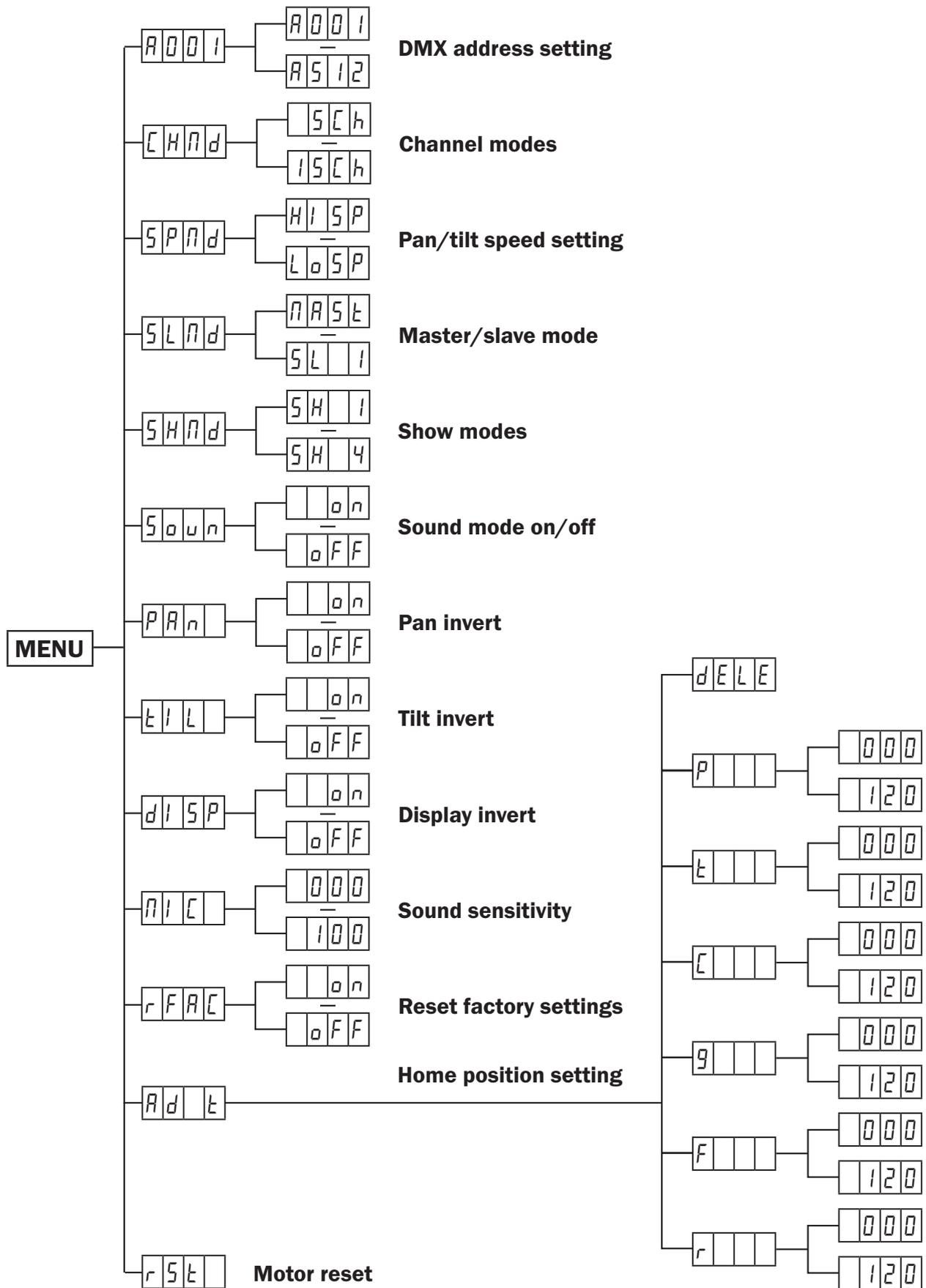
01 - LED display
02 - Function buttons
03 - Microphone
04 - DMX input socket

05 - DMX output socket
06 - IEC power input socket
07 - Fuse F2A 250V
08 - Fan

In the box: **1 x fixture,
1 x power cable,
1 x hanging bracket,
1 x eye bolt
& 1 x user manual**

MENU

Code	Range	Description
A001	A001 – A512	DMX address setting
CHMd	SCh – 15Ch	Channel modes
SPMd	HISP – LoSP	Pan/tilt speed setting
SLMd	MASt – SL 1	Master/slave mode
SHMd	SH 1 – SH 4	Show modes
Soun	on – oFF	Sound mode on/off
PAn	on – oFF	Pan invert
tIL	on – oFF	Tilt invert
dISP	on – oFF	Display invert
MIC	000 – 100	Sound sensitivity
rFAC	on – oFF	Reset factory settings
Ad t	Home position setting	
rSt	Motor reset	

Home position setting (Ad t):
- dELE
- P : 000 – 120
- t : 000 – 120
- C : 000 – 120
- 9 : 000 – 120
- F : 000 – 120
- r : 000 – 120

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 *R00 1* 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 *CHПd* on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose one of the 5 or 15 DMX channel modes. Press the "**ENTER**" button to confirm the setting.

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

<u>PLEASE NOTE:</u> When the unit is receiving DMX the first red dot on the display will flash.

5 channel mode:

Channel	Value	Function
CH1	000-255	Pan adjustment 0-540°
CH2	000-255	Tilt adjustment 0-210°
CH3	000-007	No function
	008-047	LED Macro 1
	048-087	LED Macro 2
	088-127	LED Macro 3
	128-167	LED Macro 4
	168-207	LED Macro 5
	208-247	LED Macro 6
	248-255	Sound active
CH4	000-007	No function
	008-058	Pan/tilt Macro 1
	059-110	Pan/tilt Macro 2
	111-162	Pan/tilt Macro 3
	163-240	Pan/tilt Macro 4
	241-255	Sound active
CH5	000-050	No function
	051-100	High speed motor movement
	151-200	Low speed motor movement
	251-255	Reset (10 seconds)

15 channel mode:

Channel	Value	Function
CH1	000-255	Pan adjustment 0-540°
CH2	000-255	Pan fine adjustment
CH3	000-255	Tilt adjustment 0-210°
CH4	000-255	Tilt fine adjustment
CH5	000-255	Pan/tilt speed
CH6	000-255	Master dimmer (0-100%)
CH7	000-009	Blackout
	010-245	Strobe (slow-fast)
	246-255	LED on
CH8	000-013	Open (white)
	014-031	Red
	032-049	Yellow
	050-067	Cyan
	068-085	Green
	086-103	Orange
	104-121	Magenta
	122-130	Blue
	131-139	Open (white)
	140-195	Rainbow effect (fast-slow)
	196-199	Rotation stop
	200-255	Reverse rainbow effect (slow-fast)
CH9	000-008	Open (white)
	009-033	Gobo 1
	034-058	Gobo 2
	059-083	Gobo 3
	084-108	Gobo 4
	109-133	Gobo 5
	134-194	Rainbow effect (fast-slow)
	195-255	Reverse rainbow effect (slow-fast)

Channel	Value	Function
CH10	000-009	Rotation stop
	010-129	Forward gobo rotation (fast-slow)
	130-134	Rotation stop
	135-255	Reverse gobo rotation (slow-fast)
CH11	000-255	Focus
CH12	000-007	Open (white)
	008-255	Prism
CH13	000-007	No function
	008-047	LED Macro 1
	048-087	LED Macro 2
	088-127	LED Macro 3
	128-167	LED Macro 4
	168-207	LED Macro 5
	208-247	LED Macro 6
	248-255	Sound active
CH14	000-007	No function
	008-058	Pan/tilt Macro 1
	059-110	Pan/tilt Macro 2
	111-162	Pan/tilt Macro 3
	163-240	Pan/tilt Macro 4
	241-255	Sound active
CH15	000-050	No function
	051-100	High speed motor movement
	151-200	Low speed motor movement
	251-255	Reset (10 seconds)

PLEASE NOTE:

High speed motor movement is suitable for high energy shows. For smooth movement please select low speed motor movement.
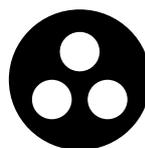
Gobos:
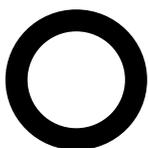
Open	Gobo 1	Gobo 2	Gobo 3	Gobo 4	Gobo 5

Pan/tilt speed setting:

To access the pan/tilt speed setting, press the **"UP"** button on the front of the unit to show *SPNd* on the LED display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to choose between *HI SP* (fast) or *LoSP* (slow). Press the **"ENTER"** button to confirm the setting.

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

Master/slave mode:

To set the master unit, press the **"UP"** button on the front of the master unit to show *SLNd* on the LED display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to choose *NASt*. Press the **"ENTER"** button to confirm the setting. Then select your desired program (sound active or one of the show modes).

To set the other units in slave mode, press the **"UP"** button on the front of the unit to show *SLNd* on the LED display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to choose either *SL 1*. 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.

Show mode:

To access the show modes, press the **"UP"** button on the front of the unit to show *ShNd* on the LED display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to choose between *SH 1 ~ SH 4*. Press the **"ENTER"** button to confirm the setting.

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

SH 1 – **full show**
SH 2 – **slow show 1**
SH 3 – **slow show 2**
SH 4 – **forward facing show**

Sound/sound sensitivity:

To turn the sound mode on or off, press the **"UP"** 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 **"UP"** button on the front of the unit to show *NI C* 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.

Pan invert setting:

To access the pan invert setting, press the "**UP**" 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 "**UP**" button on the front of the unit to show *tIL* 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.

Display invert setting:

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

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

Pan/Tilt/Zoom home position:

To access the pan/tilt/focus home position setting, press the "**UP**" button on the front of the unit to show *Ad t* on the LED display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to select *dELE* (default home position), *P* (pan home position), *t* (tilt home position), *C* (colour), *9* (gobo), *F* (focus home position), and *r* (rotation home position).
When on *dELE*, press the "**ENTER**" button and the units home positions will be reset to the factory default (*000*).

When on *P, t, C, 9, F* or *r*, press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to adjust the value between *000 ~ 120*. Press the "**ENTER**" button to confirm the setting.

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

Motor reset:

To reset the motors, press the "**UP**" button on the front of the unit to show *rSt* on the LED display. Press the "**ENTER**" button to perform the reset.

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 and your DMX controller require a standard 3-pin XLR connector for data input/output, see image below.

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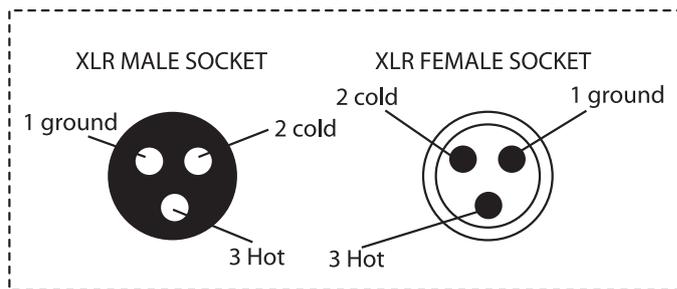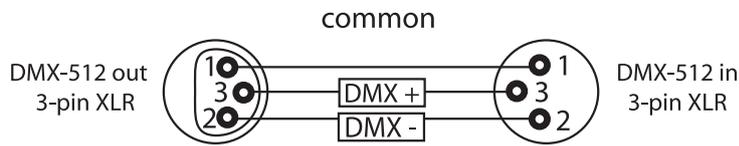Please quote:
CABL10 – 2m
CABL11 – 5m
CABL12 – 10m

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.

common

DMX-512 out
3-pin XLR

DMX +
DMX -

DMX-512 in
3-pin XLR

XLR MALE SOCKET

1 ground
2 cold
3 Hot

XLR FEMALE SOCKET

2 cold
1 ground
3 Hot

XLR Pin Configuration
Pin 1 = Ground
Pin 2 = Negative
Pin 3 = Postive

Special note:

Line termination:

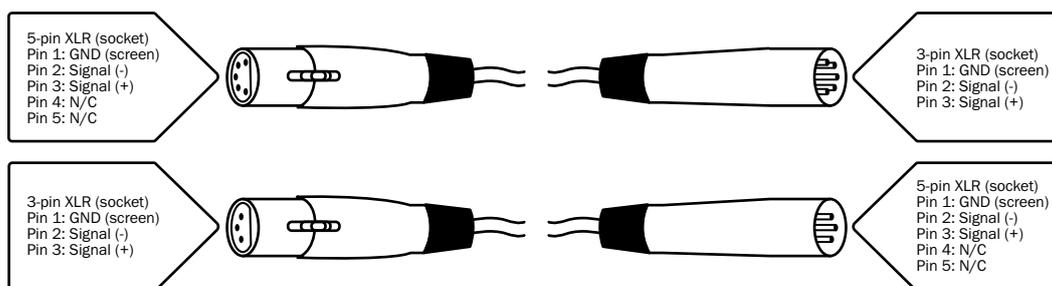When longer runs of cable are used, you may need to use a terminator on the last unit to avoid erratic behaviour.

Using a cable terminator will decrease the possibilities of erratic behaviour.
(3-pin - Order ref: CABL9O, 5-pin - Order ref: CABL89)

Termination reduces signal transmission problems and interferance. it is always advisable to connect a DMX terminal, (resistance 120 Ohm 1/4 W) 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 (socket)
Pin 1: GND (screen)
Pin 2: Signal (-)
Pin 3: Signal (+)
Pin 4: N/C
Pin 5: N/C

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

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

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

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.