

# elumen8

## **Kudos 350ZS** User Manual



Order codes: ELUM423

### 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.
- We recommend this fixture should be serviced at least once every 3 months to prevent build-up of dust, dirt and debris that could affect the fixtures operation.
- 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.

### Kudos 350ZS

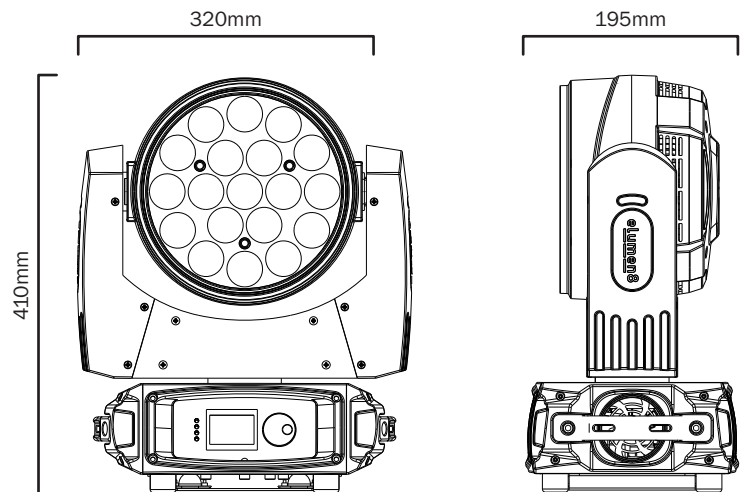
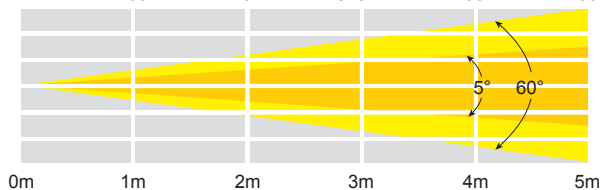
The eLumen8 Kudos 350ZS utilises nineteen 15W quad-colour (RGBW) LEDs combined with a motorised zoom (5° - 60°) offering superior colour mixing, producing vibrant colours and hues outputting in a perfectly even wash. This dynamic yet compact moving head is not only loaded with a variety of different programming options, it also comprises a vivid RGB backlight creating stunning 'eye candy' effects. Ideal for both rental and installation, the Kudos 350ZS boasts all the fundamental features you would expect from eLumen8 including: 4 dimming curves, 0-100% dimming with variable strobe, 3-Pin XLR, 5-Pin XLR and PowerCON input/outputs, plus two quick release omega clamps. The jog wheel menu with LCD display, and selectable 16 bit pan and tilt with auto correction, make this a truly 'event ready' fixture.

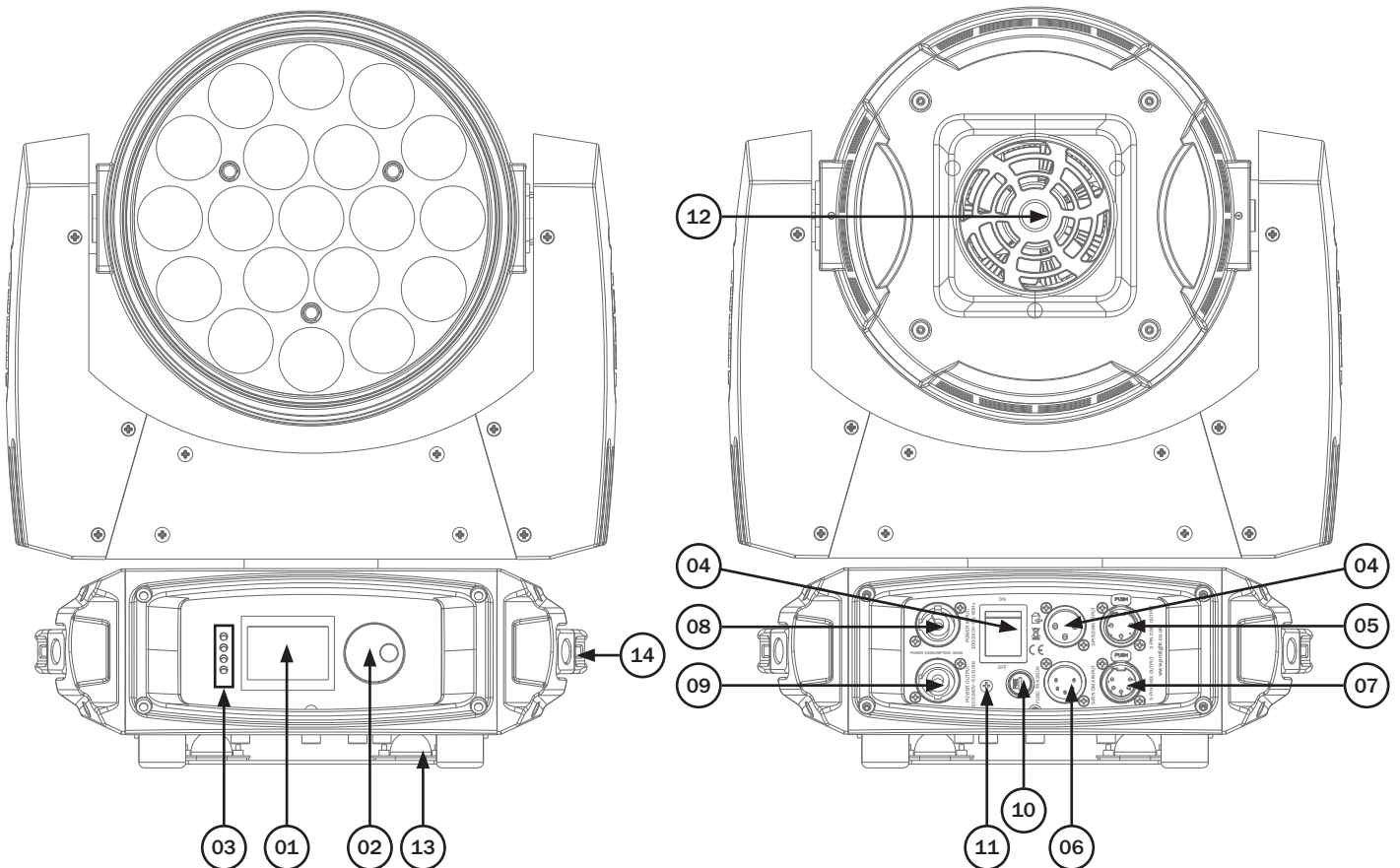
- 2 year warranty
- 19 x 15W Osram Ostar™ quad-colour LEDs (RGBW)
- RGB backlight for dual colour effects
- Adjustable beam angle: 5° - 60°
- 5° - 31,140 Lux @ 2m, 60° - 2,546 Lux @ 2m
- 4kHz refresh rate
- Motorised zoom
- DMX channels: 8/10/16 or 26 selectable
- Auto, sound active, manual control and master/slave modes
- Pan/tilt auto correction
- 360° continuous pan and tilt
- 0 - 100% dimming and variable strobe
- 4 dimming curves: Linear, square law, inverse square law and S-curve
- Supplied with quick release omega clamps
- Jog wheel menu with 2" LCD display
- PowerCON input/output
- 5-Pin XLR input/output
- 3-Pin XLR input/output
- Fan cooled



Specifications	Kudos 350ZS
Power consumption	360W
Fuse	T4A 250V
Power supply	100~240V, 50/60Hz
Dimensions	410 x 320 x 195mm
Weight	9.2kg
Order code	ELUM423

5° - Lux					
FULL ON	124000	31140	13800	7780	4980
R	28000	7014	3120	1750	1120
G	52400	13118	5820	3280	2100
B	10900	2729	1210	683	437
W	63600	15900	7070	3980	2540
60° - Lux					
FULL ON	10200	2546	1130	638	408
R	2150	536.7	239	134	85.9
G	4280	1069	476	268	171
B	992	248.3	110	62	39.7
W	4760	1192	529	298	190





01 - LCD display  
 02 - Jog wheel  
 03 - LED mode indicators  
 04 - 3-Pin DMX input  
 05 - 3-Pin DMX output

06 - 5-Pin DMX input  
 07 - 5-Pin DMX output  
 08 - PowerCON input  
 09 - PowerCON output  
 10 - Fuse T4A 250V

11 - Earth point  
 12 - Head fan  
 13 - Omega bracket plate  
 14 - Carry handles

In the box: **1 x fixture,**  
**2 x omega clamps,**  
**1 x power cable**  
**& 1 x user manual**

### Control Panel Menu:

The LCD control panel situated on the front of the fixture allows the user to access the menu system to adjust the fixtures settings.

When the unit has been powered on it will show “Wait...” followed by “Elumen8 Kudos 350ZS”. The fixture will then return to its home screen.

To access the main menu turn the jog wheel clockwise or anti-clockwise until the menu required is highlighted. Pressing the jog wheel on one of these options allows you to access the sub menu where you can turn the jog wheel clockwise or anti-clockwise to select the option/value required. Once the option/value has been selected press the jog wheel once more to confirm the setting.

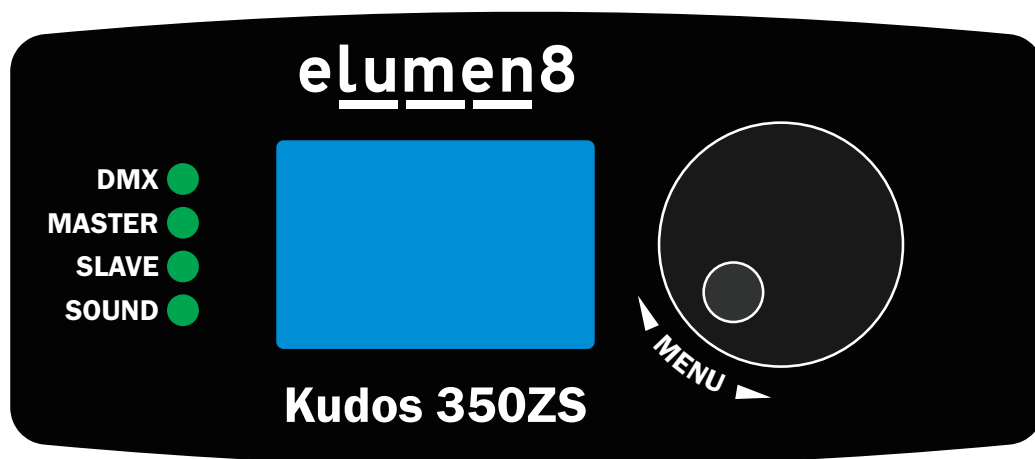
There are 4 LED indicators on the front panel of the fixture:

DMX - This LED indicator will flash when the unit is receiving a DMX signal.

MASTER - This LED indicator will illuminate when in Master mode.

SLAVE - This LED indicator will flash when in Slave mode.

SOUND - This LED indicator will flash when in Sound mode.



Main Menu	Sub Menu	Options/Values	Description
(Default Settings in BOLD)			
1: DMX Address	001-512		DMX Address Setting
2: Channel Mode	1: 8Ch (8 channel mode)		DMX Channel Setting
	2: 10Ch (10 channel mode)		
	<b>3: 16Ch (16 channel mode)</b>		
	4: 26Ch (26 channel mode)		
3: Dimmer Curve	Square Law		Dimming Curve Setting
	<b>Linear</b>		
	S-Curve		
	InvSquare Law		
4: Show Mode	Forward Facing Show		Show Modes
	Show Mode 01		
	Show Mode 02		
	Show Mode 03		
	Show Mode 04		
	Show Mode 05		
	Show Mode 06		
	Show Mode 07		
	Show Mode 08		
5: Manual Control	1: Pan	000-255	Manual Control Mode
	2: Tilt	000-255	
	3: Zoom	000-255	
	4: Red	000-255	
	5: RedA	000-255	
	6: Green	000-255	
	7: GreenA	000-255	
	8: Blue	000-255	
	9: BlueA	000-255	
	10: White	000-255	
	11: Strobe	000-255	
	Exit		
6: Slave Mode	<b>Slave1</b>		Slave Setting
	Slave2		
7: Sound Mode	On		Sound Mode Settings
	<b>Off</b>		
	Sens	000-255	
	Exit		
8: Pan Invert	<b>No</b>		Pan Invert Setting
	Yes		
9: Tilt Invert	<b>No</b>		Tilt Invert Setting
	Yes		

Main Menu	Sub Menu	Options/Values	Description
(Default Settings in BOLD)			
10: DMX Fail	<b>Blackout</b>		DMX Fail Setting
	Hold		
	Show mode		
	Manual		
11: DisplayRotate	<b>Auto rotate</b>		Display Rotate Setting
	Normal		
	Inverted		
	Exit		
12: Back Light	On		Back Light Setting
	<b>Off</b>		
	Adjust		
	Exit		
13: Version	Version X.XX		Software Version
14: Factory Sets	Yes		Factory Settings
	No		
15: Reset	Yes		Motor Reset
	No		
16: Calibrations	Pan	000-255	Calibration Setting
	Tilt	000-255	
	Default		
	Exit		
17: Auto Test	Test...		Auto Test
	Exit		
Exit			Exit Menu

### 8 channel mode:

Channel	Value	Function
CH1	000-127	Pan adjustment 0-540°
	128-191	Infinite pan clockwise (fast-slow)
	192-255	Infinite pan anticlockwise (slow-fast)
CH2	000-127	Tilt adjustment 0-270°
	128-191	Infinite tilt backwards (fast-slow)
	192-255	Infinite tilt forwards (slow-fast)
CH3	000-255	Zoom (5°-60°)
CH4	000-255	Red dimmer + red backlight dimmer (0-100%)
CH5	000-255	Green dimmer + green backlight dimmer (0-100%)
CH6	000-255	Blue dimmer + blue backlight dimmer (0-100%)
CH7	000-255	White dimmer (0-100%)
CH8	000-255	Master dimmer (0-100%)



## 10 channel mode:

Channel	Value	Function	
CH1	000-127	Pan adjustment 0-540°	
	128-191	Infinite pan clockwise (fast-slow)	
	192-255	Infinite pan anticlockwise (slow-fast)	
CH2	000-127	Tilt adjustment 0-270°	
	128-191	Infinite tilt backwards (fast-slow)	
	192-255	Infinite tilt forwards (slow-fast)	
CH3	000-255	Master dimmer (0-100%)	
CH4	000-010	No function	
	011-128	Random strobe (slow-fast)	
	129-255	Linear strobe (slow-fast)	
CH5	000-007	No function	Beam colour macros
	008-013	Primary Red	
	014-020	Scarlet	
	021-027	Pink	
	028-034	Dark Amber	
	035-041	Burnt Yellow	
	042-048	Yellow	
	049-055	Pastel Yellow	
	056-062	Soft Green	
	063-069	Jade	
	070-076	Dark Green	
	077-083	Primary Green	
	084-090	Light Blue	
	091-097	Sky Blue	
	098-104	Medium Blue	
	105-111	True Blue	
	112-118	Dark Steel Blue	
	119-125	Double New Colour Blue	
	126-132	Regal Blue	
	133-139	Winter Blue	
	140-146	Tokyo Blue	
	147-153	Special Medium Lavender	
	154-160	Provence	
	161-167	Magical Magenta	
	168-174	Bright Pink	
	175-181	Medium Purple	
	182-188	Follies Pink	
	189-195	Bright Rose	
	196-202	Magenta	
	203-209	Dark Magenta	
CH5	210-216	Mist Blue	Beam colour macros
	217-223	Pale Yellow	
	224-230	Cornflower	
	231-255	White (full on)	
CH6	000-007	No function	Back-light colour macros
	008-019	Red	
	020-039	Yellow	
	040-059	Lime Green	
	060-079	Green	
	080-099	Turquoise	
	100-119	Light Blue	
	120-139	Blue	
	140-159	Lavender	
	160-179	Violet	
CH7	180-199	Pink	Back-light colour macros
	200-219	Magenta	
	220-239	Hot Pink	
	240-255	White (full on)	
	000-015	No function	
	016-031	Program 1	
	032-047	Program 2	
	048-063	Program 3	
	064-079	Program 4	
	080-095	Program 5	
	096-111	Program 6	
	112-127	Program 7	
	128-143	Program 8	
	144-159	Program 9	
	160-175	Program 10	
176-191	Program 11		
192-207	Program 12		
208-223	Program 13		
224-239	Program 14		
240-255	Program 15		
CH8	000-255	Program speed (slow-fast)	
CH9	000-255	Zoom (5°-60°)	
CH10	000-007	No function	
	008-027	Show 1	
	028-047	Show 2	
	048-067	Show 3	

### 10 channel mode (cont.):

Channel	Value	Function
CH10 (cont.)	068-087	Show 4
	088-107	Show 5
	108-127	Show 6
	128-147	Show 7
	148-167	Show 8
	168-187	Forward Facing Show
	188-220	No function
	221-240	Reset motors (hold for 5 seconds)
	241-255	No function

### 16 channel mode:

Channel	Value	Function
CH1	000-255	Pan adjustment 0-540°
CH2	000-255	Pan fine
CH3	000-255	Tilt adjustment 0-270°
CH4	000-255	Tilt fine
CH5	000-255	Pan/tilt speed (fast-slow)
CH6	000-015	No function
	016-135	Infinite pan clockwise (fast-slow)
	136-255	Infinite pan anticlockwise (slow-fast)
CH7	000-015	No function
	016-135	Infinite tilt backwards (fast-slow)
	136-255	Infinite tilt forwards (slow-fast)
CH8	000-255	Master dimmer (0-100%)
CH9	000-010	No function
	011-255	Linear strobe (slow-fast)
CH10	000-010	No function
	011-255	Random strobe (slow-fast)
CH11	000-255	Zoom (5°-60°)
CH12	000-007	No function
	008-027	Show 1
	028-047	Show 2
	048-067	Show 3
	068-087	Show 4
	088-107	Show 5
	108-127	Show 6
	128-147	Show 7
	148-167	Show 8
	168-187	Forward Facing Show
	188-220	No function
	221-240	Reset motors (hold for 5 seconds)
	241-255	No function
CH13	000-255	Red dimmer + red backlight dimmer (0-100%)
CH14	000-255	Green dimmer + green backlight dimmer (0-100%)
CH15	000-255	Blue dimmer + blue backlight dimmer (0-100%)
CH16	000-255	White dimmer (0-100%)

## 26 channel mode:

Channel	Value	Function
CH1	000-255	Pan adjustment 0-540°
CH2	000-255	Pan fine
CH3	000-255	Tilt adjustment 0-270°
CH4	000-255	Tilt fine
CH5	000-255	Pan/tilt speed (fast-slow)
CH6	000-015	No function
	016-135	Infinite pan clockwise (fast-slow)
	136-255	Infinite pan anticlockwise (slow-fast)
CH7	000-015	No function
	016-135	Infinite tilt backwards (fast-slow)
	136-255	Infinite tilt forwards (slow-fast)
CH8	000-255	Master dimmer (0-100%)
CH9	000-010	No function
	011-255	Linear strobe (slow-fast)
CH10	000-010	No function
	011-255	Random strobe (slow-fast)
CH11	000-255	Backlight master dimmer (0-100%)
CH12	000-010	No function
	011-255	Backlight linear strobe (slow-fast)
CH13	000-010	No function
	011-255	Backlight random strobe (slow-fast)
CH14	000-007	No function
	008-013	Primary Red
	014-020	Scarlet
	021-027	Pink
	028-034	Dark Amber
	035-041	Burnt Yellow
	042-048	Yellow
	049-055	Pastel Yellow
	056-062	Soft Green
	063-069	Jade
	070-076	Dark Green
	077-083	Primary Green
	084-090	Light Blue
	091-097	Sky Blue
	098-104	Medium Blue
	105-111	True Blue
112-118	Dark Steel Blue	
119-125	Double New Colour Blue	

Beam colour macros

Channel	Value	Function
CH14	126-132	Regal Blue
	133-139	Winter Blue
	140-146	Tokyo Blue
	147-153	Special Medium Lavender
	154-160	Provence
	161-167	Magical Magenta
	168-174	Bright Pink
	175-181	Medium Purple
	182-188	Follies Pink
	189-195	Bright Rose
	196-202	Magenta
	203-209	Dark Magenta
	210-216	Mist Blue
	217-223	Pale Yellow
224-230	Cornflower	
231-255	White (full on)	
CH15	000-007	No function
	008-019	Red
	020-039	Yellow
	040-059	Lime Green
	060-079	Green
	080-099	Turquoise
	100-119	Light Blue
	120-139	Blue
	140-159	Lavender
	160-179	Violet
	180-199	Pink
	200-219	Magenta
220-239	Hot Pink	
240-255	White (full on)	
CH16	000-015	No function
	016-031	Program 1
	032-047	Program 2
	048-063	Program 3
	064-079	Program 4
	080-095	Program 5
	096-111	Program 6
	112-127	Program 7
	128-143	Program 8

Beam colour macros

Back-light colour macros

## 26 channel mode (cont.):

CH16 (cont.)	144-159	Program 9
	160-175	Program 10
	176-191	Program 11
	192-207	Program 12
	208-223	Program 13
	224-239	Program 14
	240-255	Program 15
CH17	000-255	Program speed (slow-fast)
CH18	000-255	Zoom (5°-60°)
CH19	000-007	No function
	008-027	Show 1
	028-047	Show 2
	048-067	Show 3
	068-087	Show 4
	088-107	Show 5
	108-127	Show 6
	128-147	Show 7
	148-167	Show 8
	168-187	Forward Facing Show
	188-220	No function
	221-240	Reset motors (hold for 5 seconds)
	241-255	No function
CH20	000-255	Red backlight dimmer (0-100%)
CH21	000-255	Green backlight dimmer (0-100%)
CH22	000-255	Blue backlight dimmer (0-100%)
CH23	000-255	Red dimmer (0-100%)
CH24	000-255	Green dimmer (0-100%)
CH25	000-255	Blue dimmer (0-100%)
CH26	000-255	White dimmer (0-100%)

### Setting the DMX address:

The DMX mode enables the use of a universal DMX controller. Each fixture requires a “start address” from 1- 511. 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 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**

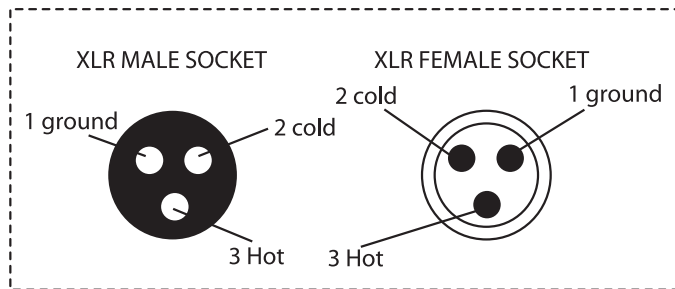
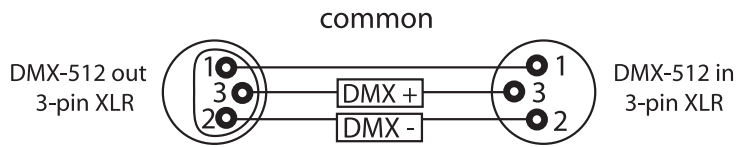
**CABL11 – 5m**

**CABL12 – 10m**

**Note: 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.



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.

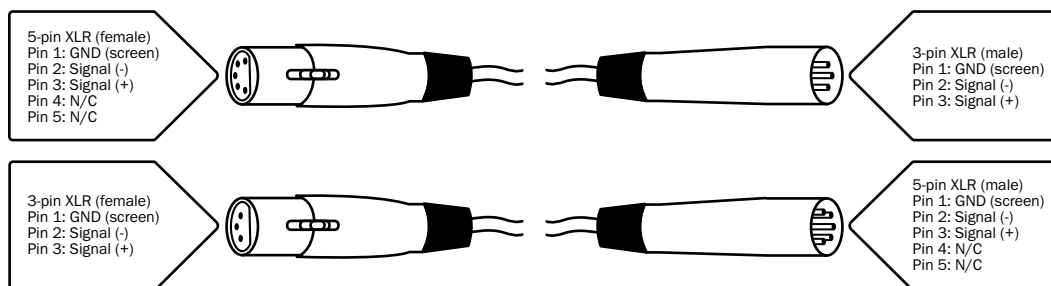
**Using a cable terminator will decrease the possibilities of erratic behaviour.**

**(3-pin - Order ref: 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 1/4 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.





***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.



# elumen8