EQUINOX

Photon Moving Head

User Manual

Order code: EQLED082

WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CARE-FULLY 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.
- This unit is not intended for fixed installation.

- 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.
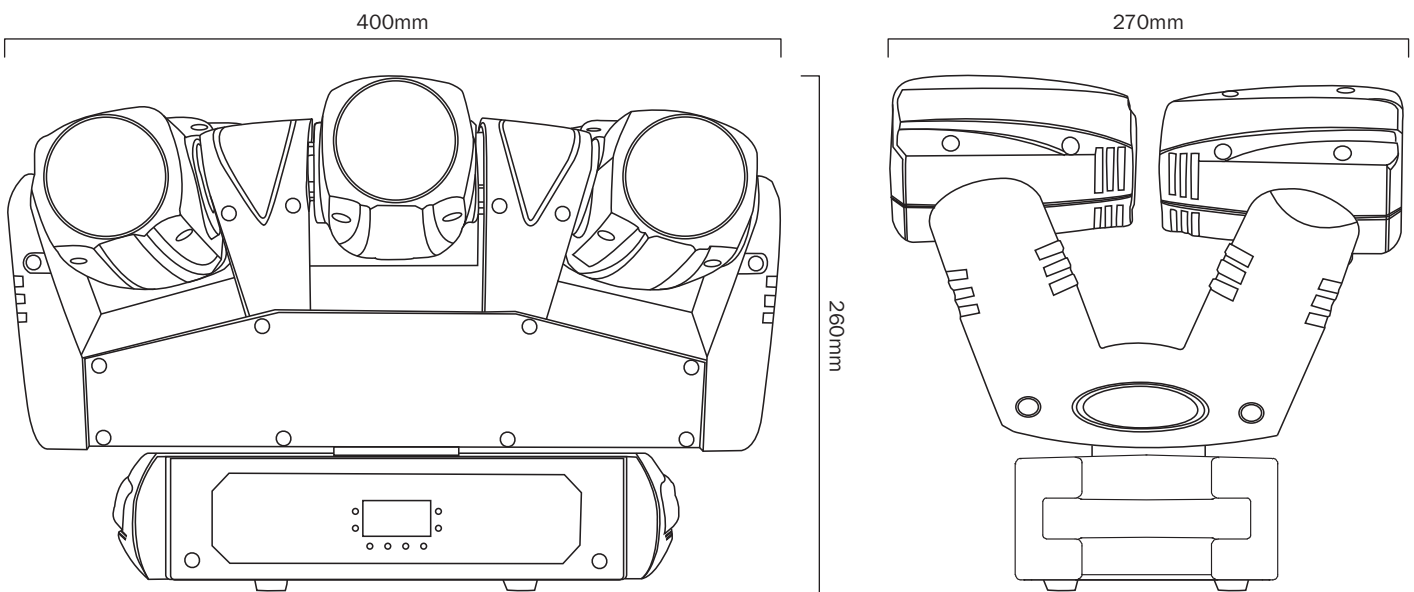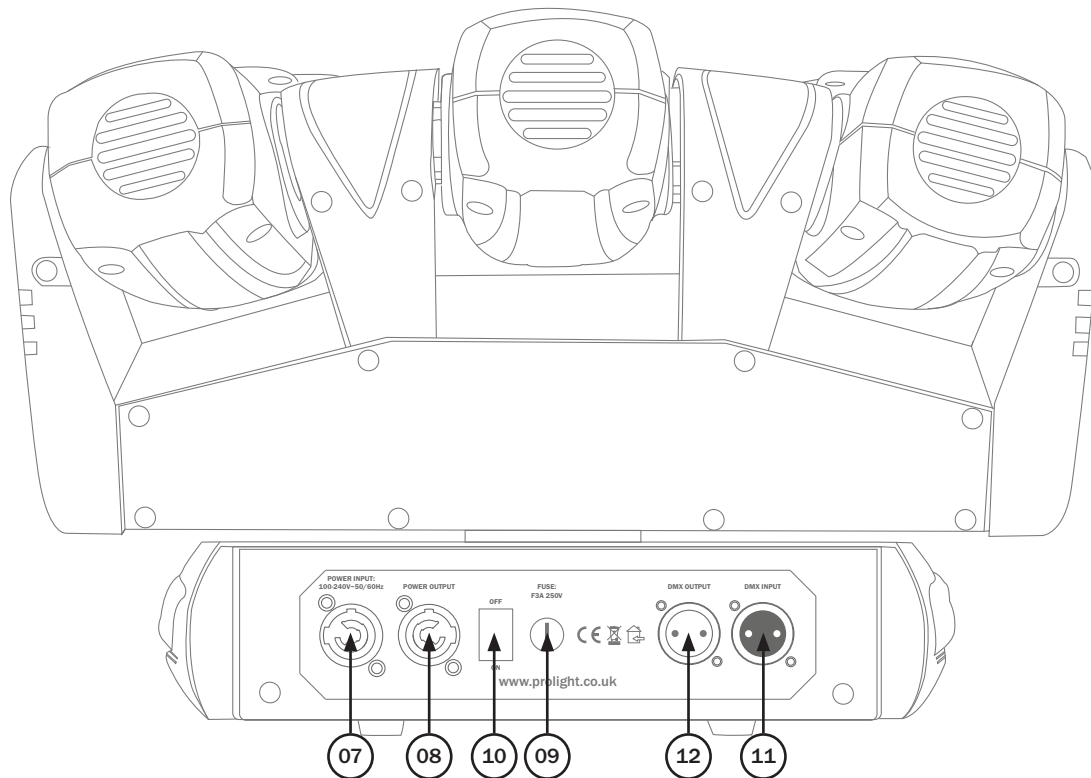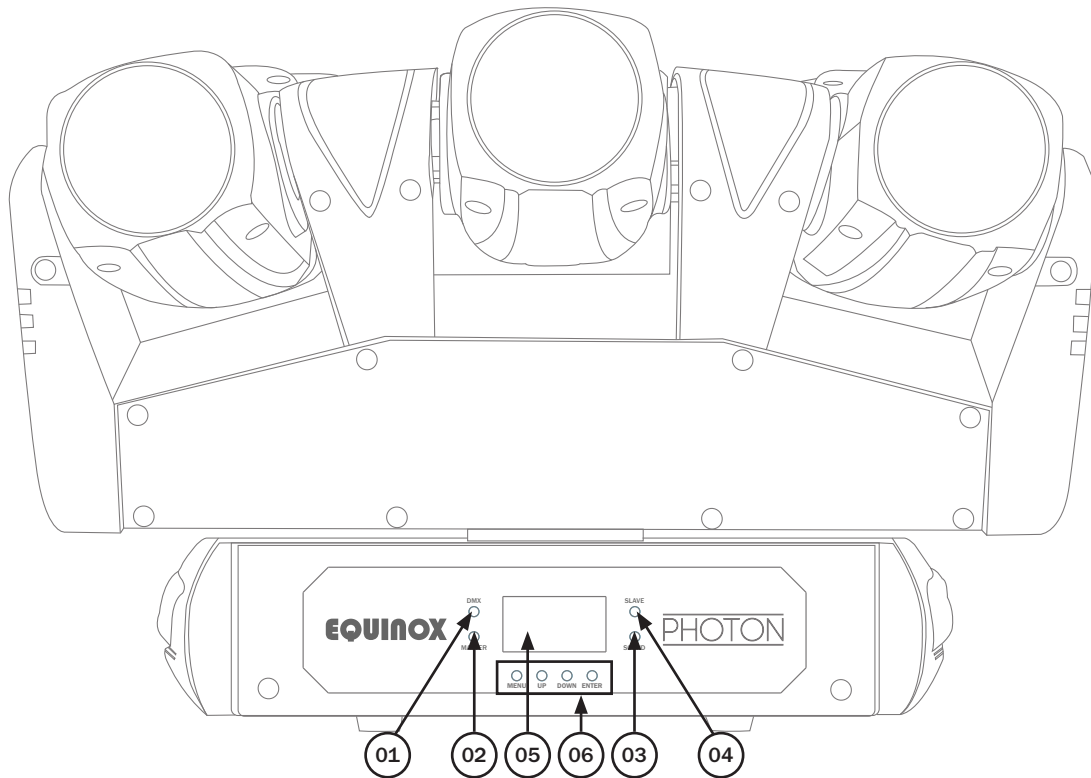
Photon

The Photon is a fast moving light array with 6 independently controlled heads that project narrow, razor-sharp beams of light. Each moving head features a high output quad-colour LED for infinite colour-mixing. Multiple units can be linked together to create stunning coordinated effects. On board functions include: Auto, sound active, master/slave and DMX modes.

- 6 heads each containing a 12W CREE quad-colour LED (RGBW)
- Beam angle: 5°
- DMX channels: 1/6/14/16 or 30 selectable
- Auto, sound active and master/slave modes
- 0-100% dimming and variable strobe
- Pan: 360°, Tilt: 270°
- Quick release omega clamps included
- 4 push button menu with LCD display
- PowerCON input/output
- 3-Pin XLR input/output
- Fan cooled

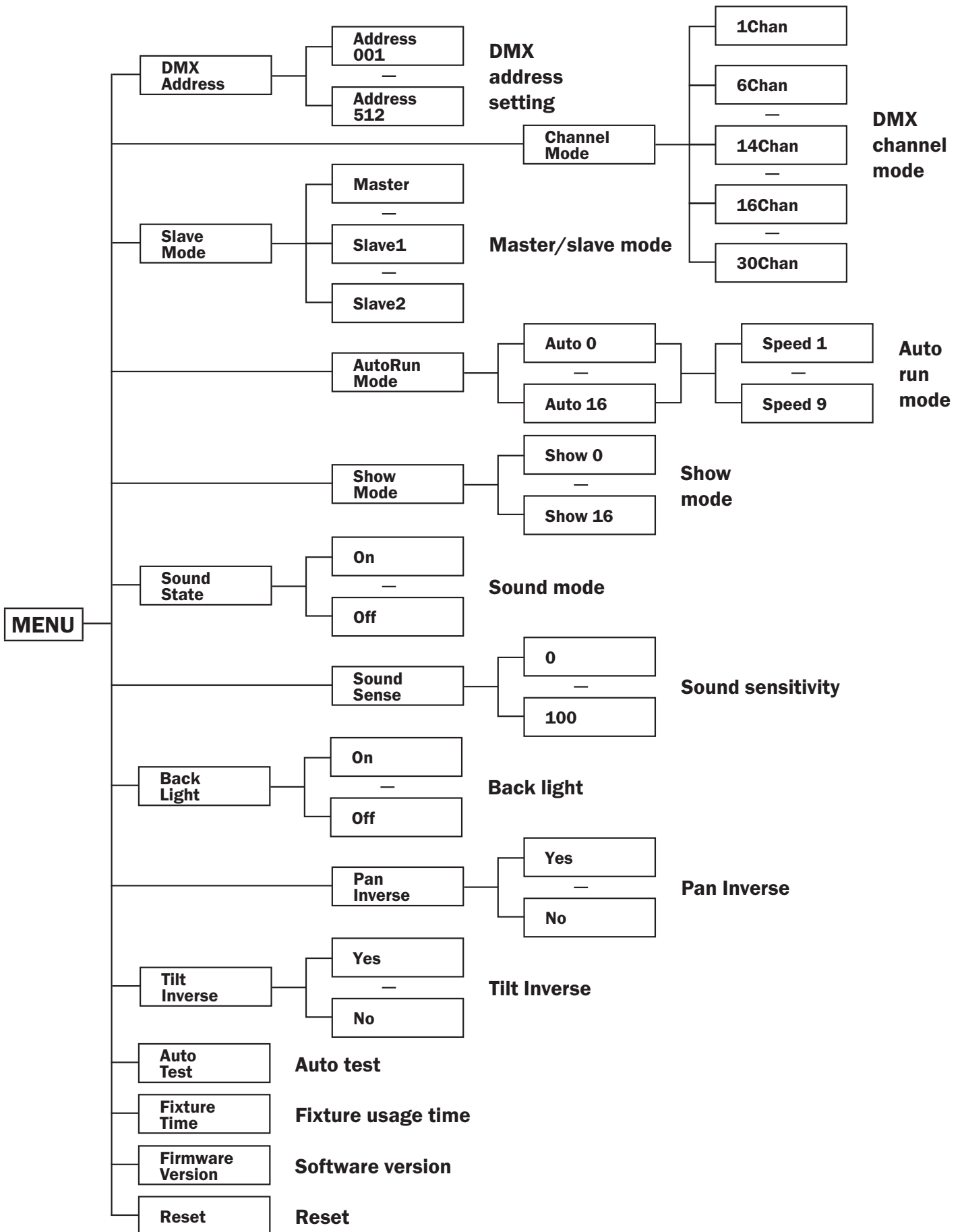| Specifications	
Power consumption	125W
Power supply	100~240V, 50/60Hz
Fuse	F3A 250V
Dimensions	260 x 400 x 270mm
Weight	8.9kg
Order code	EQLED082

01 - DMX LED
02 - Master LED
03 - Sound LED
04 - Slave LED

05 - LED display
06 - Function buttons
07 - PowerCON input
08 - PowerCON output

09 - Fuse F3A 250V
10 - On/off switch
11 - 3-Pin DMX input
12 - 3-Pin DMX output

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

```
                              ┌─ 1Chan
                              │
                              ├─ 6Chan
DMX ─── Address 001           │           DMX
Address    —      DMX         ├─ 14Chan   channel
        Address  address      │     —     mode
        512      setting      ├─ 16Chan
                 Channel ─────┤     —
                 Mode         └─ 30Chan

Slave ─── Master
Mode        —        Master/slave mode
          Slave1
            —
          Slave2

AutoRun ─── Auto 0 ─── Speed 1    Auto
Mode          —          —        run
            Auto 16    Speed 9    mode

Show ─── Show 0      Show
Mode       —         mode
         Show 16

Sound ─── On
State       —      Sound mode
          Off

Sound ─── 0
Sense       —      Sound sensitivity
          100

Back ─── On
Light      —       Back light
         Off

Pan ─── Yes
Inverse   —        Pan Inverse
        No

Tilt ─── Yes
Inverse    —       Tilt Inverse
         No

Auto Test     Auto test

Fixture Time  Fixture usage time

Firmware      Software version
Version

Reset         Reset
```

MENU

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 "**DMX Address**" on the LCD 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.

To access the DMX channel mode, press the "**MENU**" button on the front of the unit to show "**Channel Mode**" on the LCD display. Now press the "**ENTER**" button and use the "**UP**" and "**DOWN**" buttons to choose one of the 1/6/14/16 or 30 DMX channel modes. Press the "**ENTER**" button to confirm the setting.

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

1 channel mode:

Channel	Value	Function
CH1	000-007	No function
	008-022	Show mode 1
	023-037	Show mode 2
	038-052	Show mode 3
	053-067	Show mode 4
	068-082	Show mode 5
	083-097	Show mode 6
	098-112	Show mode 7
	113-127	Show mode 8
	128-142	Show mode 9
	143-157	Show mode 10
	158-172	Show mode 11
	173-187	Show mode 12
	188-202	Show mode 13
	203-217	Show mode 14
	218-232	Show mode 15
	233-247	Show mode 16
	248-255	Sound active

6 channel mode:

Channel	Value	Function
CH1	000-001	No function
	002-255	Master dimmer (0-100%)
CH2	000-255	Strobe (slow-fast)
CH3	000-007	No function
	008-022	Show mode 1
	023-037	Show mode 2
	038-052	Show mode 3
	053-067	Show mode 4
	068-082	Show mode 5
	083-097	Show mode 6
	098-112	Show mode 7
	113-127	Show mode 8
	128-142	Show mode 9
	143-157	Show mode 10
	158-172	Show mode 11
	173-187	Show mode 12
	188-202	Show mode 13
	203-217	Show mode 14
	218-232	Show mode 15
	233-247	Show mode 16
	248-255	Sound active
CH4	000-255	Show mode speed (slow-fast)
CH5	000	No function
	001	R
	002	G
	003	B
	004	W
	005	R+G
	006	R+B
	007	R+W
	008	G+B
	009	G+W
	010	B+W
	011	R+G+B
	012	R+G+W
	013	R+B+W
	014	G+B+W
	015	R+G+B+W
	016-255	Colour chase
CH6	000-255	Colour chase speed (slow-fast)

14 channel mode:

Value	CH1	CH2	CH3	CH4	CH5	CH6	CH7
000-007				No funtion		No funtion	
008-024				R		R	
025-041				G		G	
042-057				B		B	
058-074				W		W	
075-090				R+G		R+G	
091-107	Pan movement (0-360°)	Pan speed (fast-slow)	Head 1 tilt (0-270°)	R+B	Head 2 tilt (0-270°)	R+B	Head 3 tilt (0-270°)
108-123				R+W		R+W	
124-140				G+B		G+B	
141-156				G+W		G+W	
157-173				B+W		B+W	
174-189				R+G+B		R+G+B	
190-206				R+G+W		R+G+W	
207-222				R+B+W		R+B+W	
223-239				G+B+W		G+B+W	
240-255				R+G+B+W		R+G+B+W	

Value	CH8	CH9	CH10	CH11	CH12	CH13	CH14
000-007	No funtion		No funtion		No funtion		No funtion
008-024	R		R		R		R
025-041	G		G		G		G
042-057	B		B		B		B
058-074	W		W		W		W
075-090	R+G		R+G		R+G		R+G
091-107	R+B		R+B		R+B		R+B
108-123	R+W	Head 4 tilt (0-270°)	R+W	Head 5 tilt (0-270°)	R+W	Head 6 tilt (0-270°)	R+W
124-140	G+B		G+B		G+B		G+B
141-156	G+W		G+W		G+W		G+W
157-173	B+W		B+W		B+W		B+W
174-189	R+G+B		R+G+B		R+G+B		R+G+B
190-206	R+G+W		R+G+W		R+G+W		R+G+W
207-222	R+B+W		R+B+W		R+B+W		R+B+W
223-239	G+B+W		G+B+W		G+B+W		G+B+W
240-255	R+G+B+W		R+G+B+W		R+G+B+W		R+G+B+W

16 channel mode:

Value	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
000-001	No function					No funtion		No funtion
002-007								
008-024						R		R
025-041						G		G
042-057						B		B
058-074						W		W
075-090						R+G		R+G
091-107			Pan movement (0-360°)	Pan speed (fast-slow)	Head 1 tilt (0-270°)	R+B	Head 2 tilt (0-270°)	R+B
108-123	Master dimmer (0-100%)	Strobe (slow-fast)				R+W		R+W
124-140						G+B		G+B
141-156						G+W		G+W
157-173						B+W		B+W
174-189						R+G+B		R+G+B
190-206						R+G+W		R+G+W
207-222						R+B+W		R+B+W
223-239						G+B+W		G+B+W
240-255						R+G+B+W		R+G+B+W

Value	CH9	CH10	CH11	CH12	CH13	CH14	CH15	CH16
000-001		No funtion		No funtion		No funtion		No funtion
002-007								
008-024		R		R		R		R
025-041		G		G		G		G
042-057		B		B		B		B
058-074		W		W		W		W
075-090		R+G		R+G		R+G		R+G
091-107		R+B		R+B		R+B		R+B
108-123	Head 3 tilt (0-270°)	R+W	Head 4 tilt (0-270°)	R+W	Head 5 tilt (0-270°)	R+W	Head 6 tilt (0-270°)	R+W
124-140		G+B		G+B		G+B		G+B
141-156		G+W		G+W		G+W		G+W
157-173		B+W		B+W		B+W		B+W
174-189		R+G+B		R+G+B		R+G+B		R+G+B
190-206		R+G+W		R+G+W		R+G+W		R+G+W
207-222		R+B+W		R+B+W		R+B+W		R+B+W
223-239		G+B+W		G+B+W		G+B+W		G+B+W
240-255		R+G+B+W		R+G+B+W		R+G+B+W		R+G+B+W

30 channel mode:

Channel	Value	Function		
CH1	000-255	Pan movement (0-360°)		
CH2	000-255	Pan fine		
CH3	000-255	Pan speed (slow-fast)		
CH4	000-001	No function		
	002-255	Master dimmer (0-100%)		
CH5	000-255	Strobe (slow-fast)		
CH6	000-255	Head 1 tilt (0-270°)		
CH7	000-255	Head 1 tilt fine		
CH8	000-255	Head 1 tilt speed (fast-slow)		
CH9 (Head 1)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W
CH10	000-255	Head 2 tilt (0-270°)		
CH11	000-255	Head 2 tilt fine		
CH12	000-255	Head 2 tilt speed (fast-slow)		
CH13 (Head 1)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W
CH14	000-255	Head 3 tilt (0-270°)		
CH15	000-255	Head 3 tilt fine		
CH16	000-255	Head 3 tilt speed (fast-slow)		
CH17 (Head 3)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W

Channel	Value	Function		
CH18	000-255	Head 4 tilt (0-270°)		
CH19	000-255	Head 4 tilt fine		
CH20	000-255	Head 4 tilt speed (fast-slow)		
CH21 (Head 4)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W
CH22	000-255	Head 5 tilt (0-270°)		
CH23	000-255	Head 5 tilt fine		
CH24	000-255	Head 5 tilt speed (fast-slow)		
CH25 (Head 5)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W
CH26	000-255	Head 6 tilt (0-270°)		
CH27	000-255	Head 6 tilt fine		
CH28	000-255	Head 6 tilt speed (fast-slow)		
CH29 (Head 6)	000-007	No funtion	124-140	G+B
	008-024	R	141-156	G+W
	025-041	G	157-173	B+W
	042-057	B	174-189	R+G+B
	058-074	W	190-206	R+G+W
	075-090	R+G	207-222	R+B+W
	091-107	R+B	223-239	G+B+W
	108-123	R+W	240-255	R+G+B+W
CH30	000-199	No function		
	200-209	Reset		
	210-240	No function		
	241-255	Sound active		

Master/slave mode:

To access the master/slave mode, press the **"MENU"** button on the front of the unit to show **"Slave Mode"** on the LCD display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to select between **"Master"**, **"Slave1"** and **"Slave2"**.

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.

Auto Run mode:

To access the auto run mode, press the **"MENU"** button on the front of the unit to show **"AutoRun Mode"** on the LCD display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to select one of the 17 auto modes (Auto 0 - 16). Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to set the auto mode speed **1** - **9**. Press the **"ENTER"** button to confirm the setting.

Value: 1 - 9 (1 = slow, 9 = fast)

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

Show mode:

To access the auto run mode, press the **"MENU"** button on the front of the unit to show **"Show Mode"** on the LCD display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to select one of the 17 show modes (Show 0 - 16). Press the **"ENTER"** button to confirm the setting.

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

Sound active mode:

To access the sound active mode, press the **"MENU"** button on the front of the unit to show **"Sound State"** on the LCD display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to select between **"On"** or **"Off"**. To adjust the sound sensitivity, press the **"MENU"** button on the front of the unit to show **"Sound State"** on the LCD display. Now press the **"ENTER"** button and use the **"UP"** and **"DOWN"** buttons to set the sound sensitivity **0** - **100**. Press the **"ENTER"** button to confirm the setting.

Value: 0 - 100 (0 = low sensitivity, 100 = high sensitivity)

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

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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.
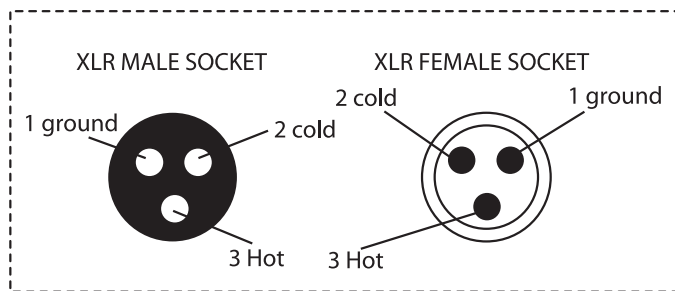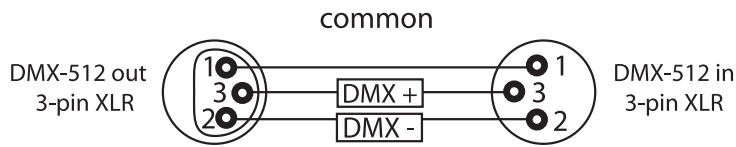Please quote:

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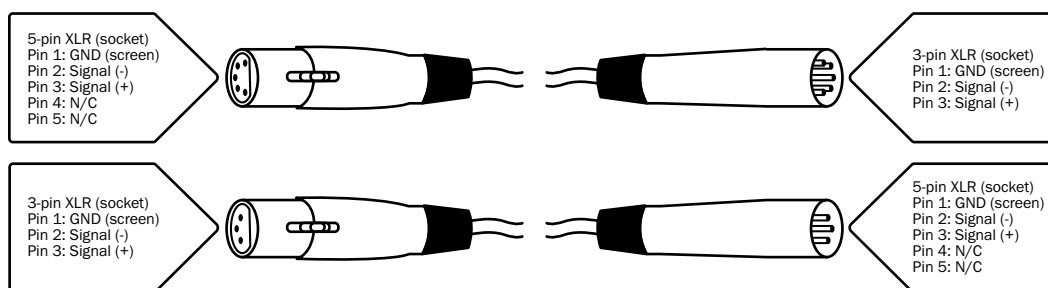
Using a cable terminator will decrease the possibilities of erratic behaviour.
(3-pin - Order ref: CABL9O, 5-pin - Order ref: CABL89)

Termination reduces signal transmission problems and 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.

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.

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