

# EQUINOX

## Fusion Patriot 1940FXP

### Pixel Zoom Wash

#### User Manual



Order codes: EQLED471

### 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.
- 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 Prolight 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: 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.

This fixture falls under Protection Class 1, therefore it has to be connected to a mains socket with a protective earthing connection.

**Risk group 2, RG-2: CAUTION!**

Do not stare at exposed LED in operation as it may damage/be harmful to the eyes. Avoid looking directly into the light source.

**CAUTION!**

The maximum ambient temperature ( $T_a$ ) of 40° must not be exceeded.

**CAUTION!**

If the lens gets damaged ie. cracks or deep scratches so the output is impaired then it must be replaced.

**CAUTION!**

To avoid damage to internal parts ie. optics, motors, belts, wiring or LEDs never expose the front lens to direct sunlight, lighting fixtures or lasers even when the fixture is not in use.

### Fusion Patriot 1940FXP Pixel Zoom Wash

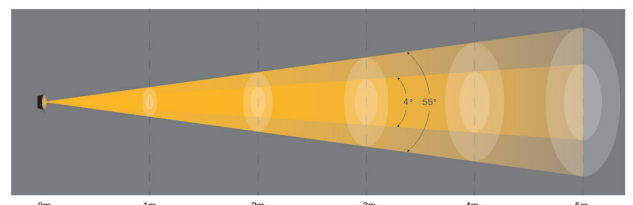
The Equinox Fusion Patriot 1940FXP is a powerful IP65-rated moving head beam designed to thrive in the toughest environments. Featuring 19 x 40W quad-colour LEDs (RGBW) and full pixel mapping capabilities allows for stunning eye candy effects to be created. The motorised zoom from a narrow 4 degree beam angle to a wider 55 degree paired with front-lens rotation, allows the user to create superb mid-air multibeam effects along with wide washes of colour. The fixture also features colour temperature presets, DMX, auto, manual control and primary/secondary modes all accessible via the onboard 4 button menu. With 3/5-pin DMX, PowerTwist TR1, and quick-release omega clamps, this versatile fixture integrates seamlessly into any rig.

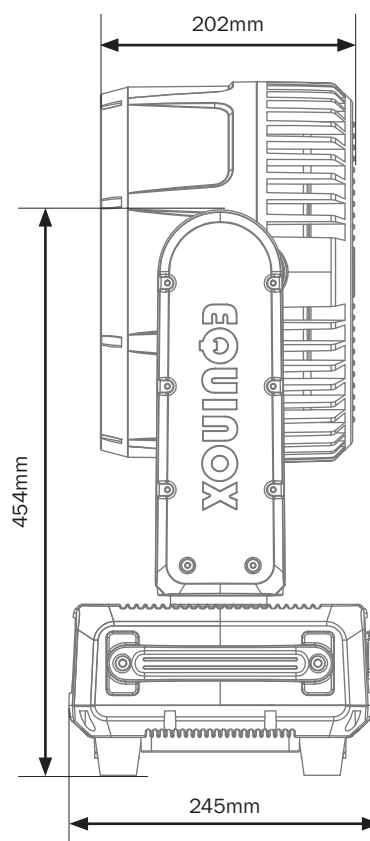
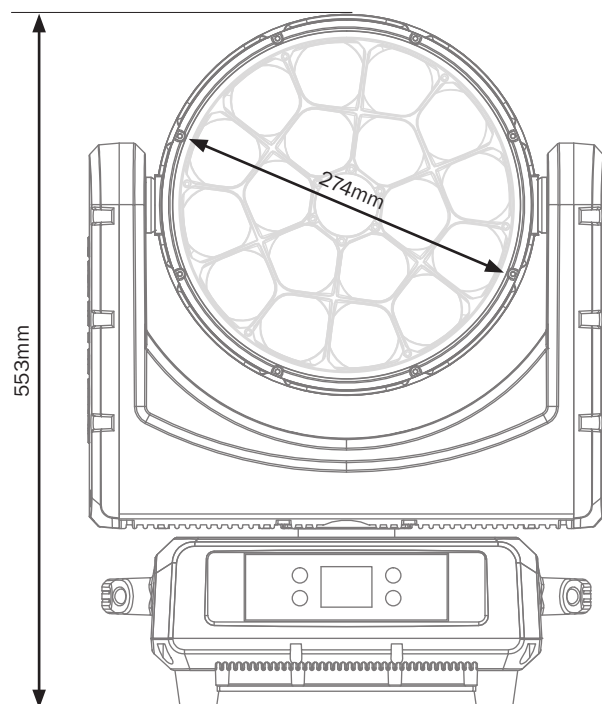
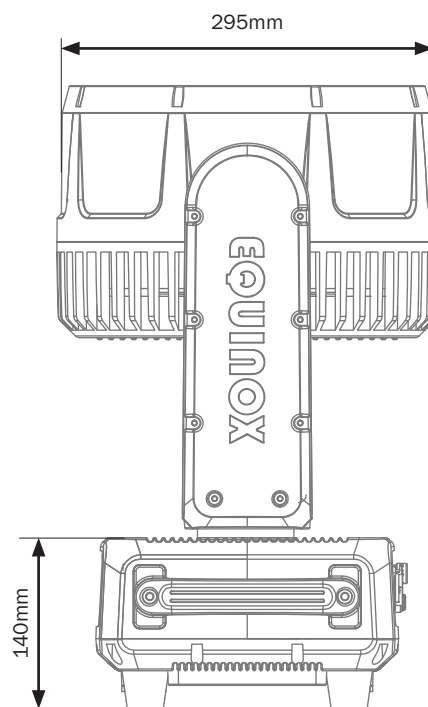
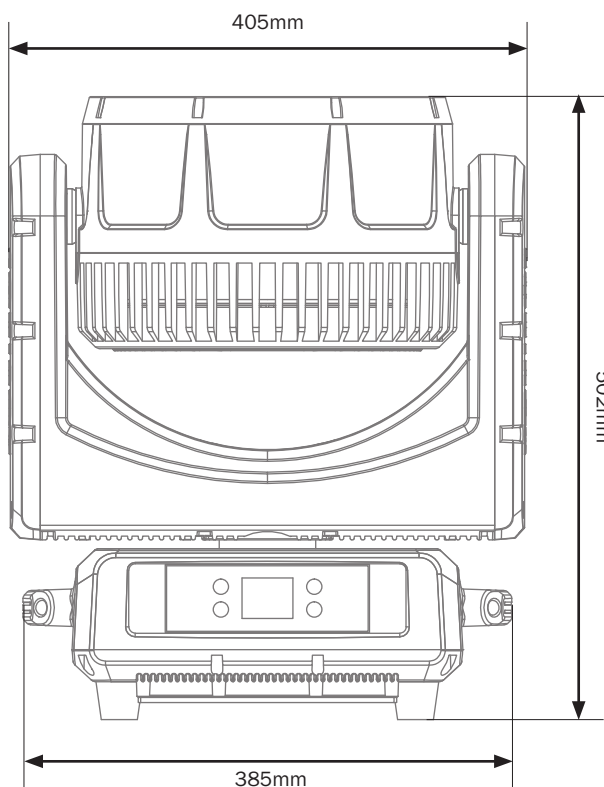
- 19 x 40W quad-colour LEDs (RGBW)
- Adjustable beam angle: 4° - 55°
- 4° - 110,743 Lux @ 2m (full on), 55° - 14,522 Lux @ 2m (full on)
- CRI: 70
- Refresh rate: 5 selectable presets between 650Hz-25kHz
- Motorised zoom
- Full pixel mapping capabilities
- Front lens rotation
- DMX channels: 18/21/35/96 or 111 selectable
- Wireless control (W-DMX Sweden compatible transceiver)
- RDM (Remote Device Management)
- Auto, manual control and primary/secondary modes
- Colour temperature presets
- Forward facing show mode
- Pan/tilt auto correction
- 16-Bit pan/tilt positioning
- Pan: 540°, Tilt: 220°
- 0 - 100% dimming
- 4 dimming curves: Linear, square law, inverse square law and S-curve
- Variable strobe
- Quick release omega clamps included
- 4 button menu with 1.8" LCD display
- PowerTwist TR1 input/output
- 5-Pin XLR input/output
- 3-Pin XLR input/output
- Temperature controlled fans

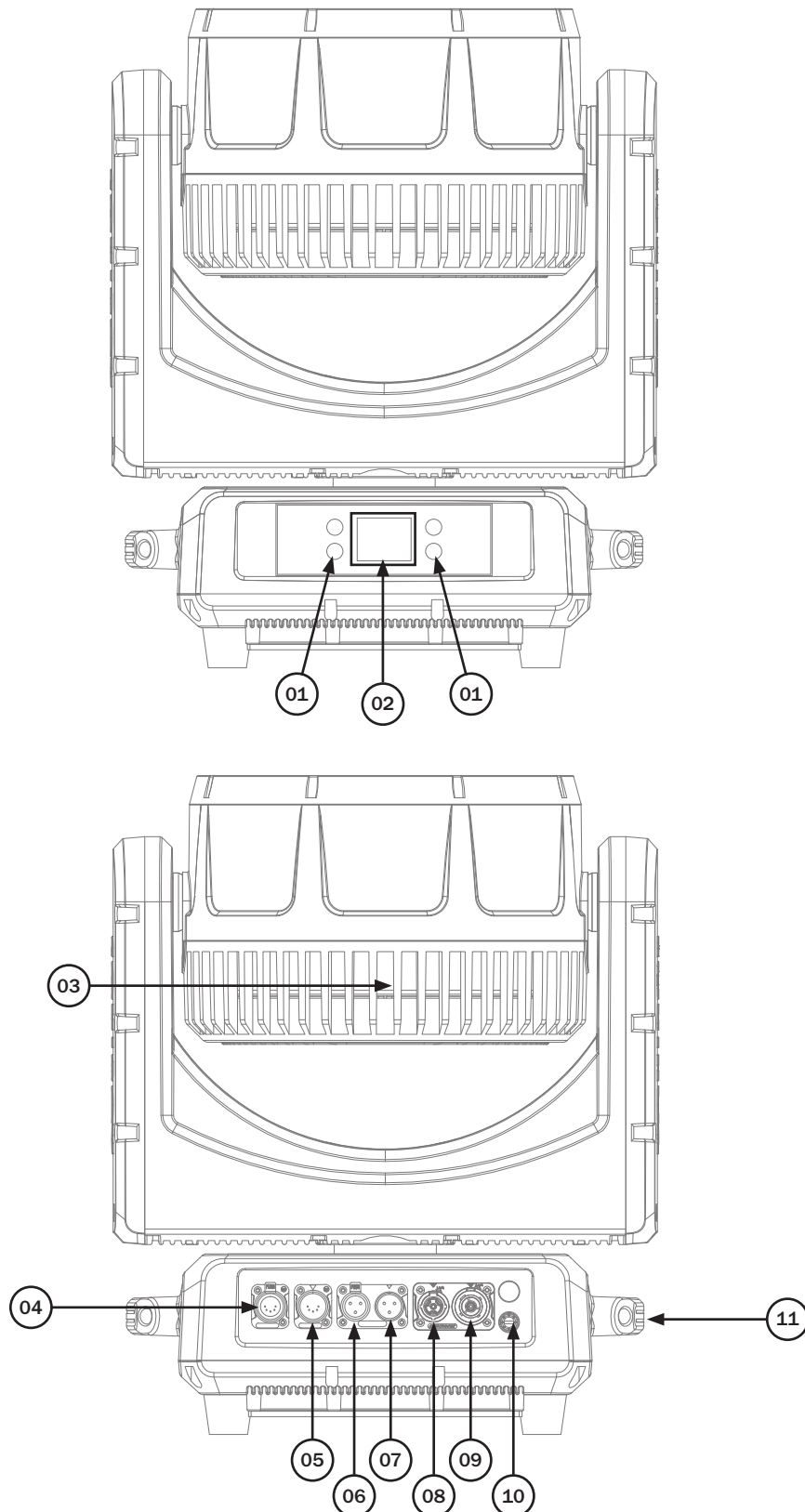


| Specifications         | Fusion Patriot 1940FXP Pixel Zoom Wash |
|------------------------|----------------------------------------|
| Power consumption      | 813W                                   |
| Fuse                   | T10A 250V                              |
| Power supply           | 100~240V, 50/60Hz                      |
| IP rating              | IP65                                   |
| Dimensions (H x W x D) | 553 x 405 x 245mm                      |
| Weight                 | 23kg                                   |
| Order code             | EQLED471                               |

|         |        |        |       |       |       |
|---------|--------|--------|-------|-------|-------|
| 4° LUX  | 72204  | 18024  | 8023  | 4213  | 2988  |
| 55° LUX | 9844   | 2461   | 1094  | 615   | 394   |
| 4° LUX  | 178480 | 44020  | 19031 | 11105 | 7139  |
| 55° LUX | 21676  | 5419   | 2408  | 1355  | 867   |
| 4° LUX  | 21040  | 5260   | 2338  | 1315  | 842   |
| 55° LUX | 4028   | 1007   | 448   | 252   | 161   |
| 4° LUX  | 275144 | 68786  | 30572 | 17196 | 11006 |
| 55° LUX | 27216  | 6804   | 3024  | 1701  | 1089  |
| 4° LUX  | 442972 | 110743 | 49219 | 27686 | 17719 |
| 55° LUX | 58088  | 14522  | 6454  | 3630  | 2324  |







01 - Function buttons  
 02 - LCD display  
 03 - Fans  
 04 - 5-Pin DMX output

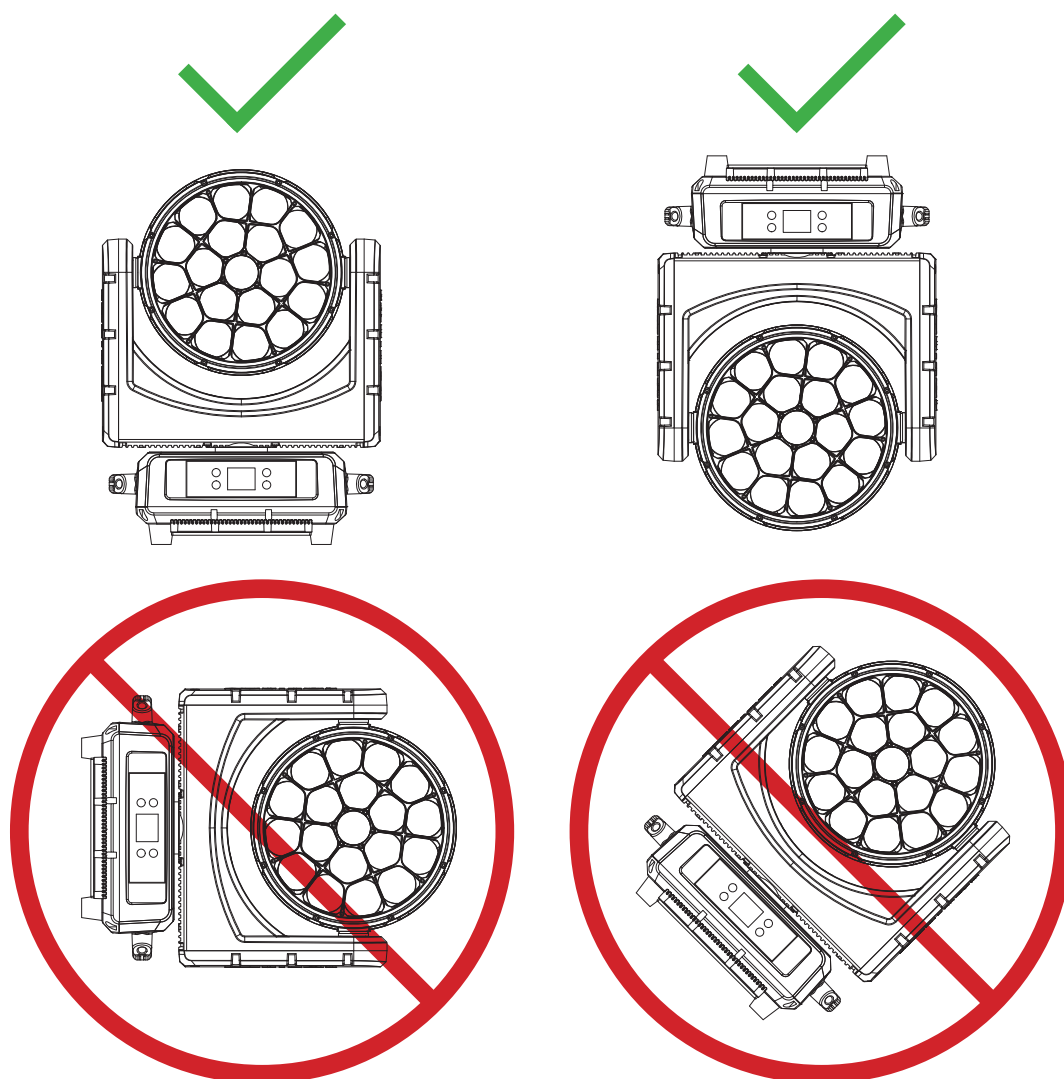
05 - 5-Pin DMX input  
 06 - 3-Pin DMX output  
 07 - 3-Pin DMX input  
 08 - PowerTwist TR1 input

09 - PowerTwist TR1 output  
 10 - Fuse: T10A 250V  
 11 - Carry handle

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

Before installing the fixture, the supporting structure (ie. truss) must be able to hold a minimum of 10 times the fixtures weight without any deformation (eg. 15kg - 150kg point load). The fixture must be secured with a secondary safety attachment when being installed (ie. an appropriate safety cable). Never stand directly below the fixture when mounting, removing, and/or servicing.

Overhead installation requires experience and qualifications to calculate working load limits, the material being used at the installation area and periodic safety inspections of the fixture and installation material. If you do not have the relevant experience and/or qualifications please do not attempt the installation yourself. The installation should be checked annually by a qualified person.



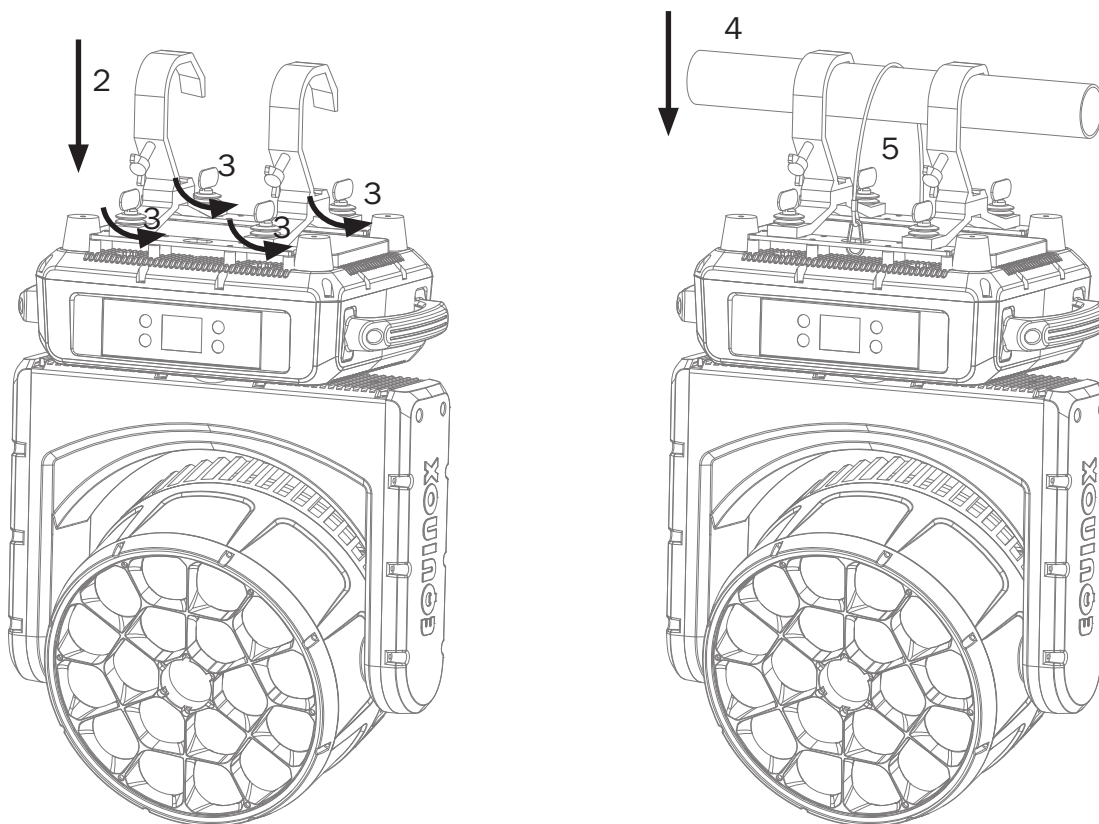
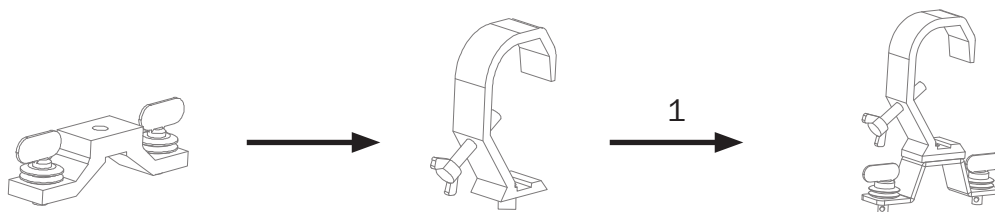
The Fusion Patriot 1940FXP Pixel Zoom Wash can be operated where the base of the fixture is horizontally orientated, this includes standing the fixture upright on a flat, level surface or hanging the fixture upside down.

Do NOT install the fixture in a sideways position or in a position where the base of the fixture is orientated vertically or at an angle. Always use a safety wire as an extra safety precaution to prevent damage/injury in the event a clamp fails (see the next page for clamp installation).

Never use the carry handles for secondary attachments.

### 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 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.



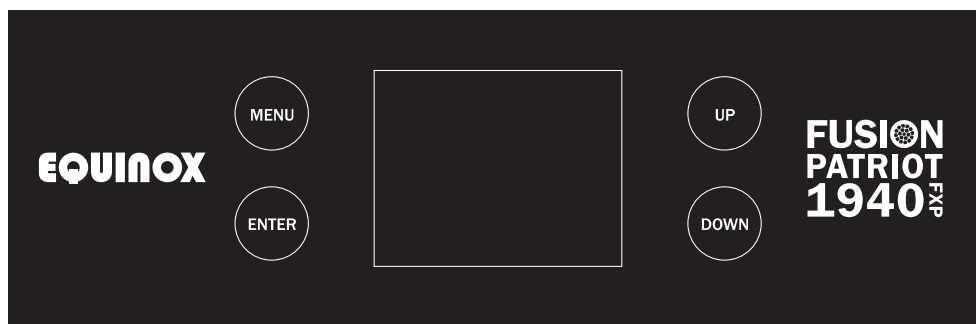
### Control Panel Menu:

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 the display will show “**Software Update**” followed by “**Please Wait...**” than “**Equinox**” and followed by “**Motor Reset Please Wait...**”. The fixture will then return to its home screen.

Press and hold the “**MENU**” button for 5 seconds to unlock the screen, than press “**ENTER**” once will take the user to the fixtures main menu. Using the “**UP**” and “**DOWN**” buttons you can then navigate between the different options in the main menu. Pressing the “**ENTER**” button on one of these options allows you to access the sub menu where you can use the “**UP**” and “**DOWN**” buttons to select option/ value required. Once the option/value has been selected press the “**ENTER**” button once more to confirm the setting.

To exit out of any of the above options, press and hold the “**MENU**” button.

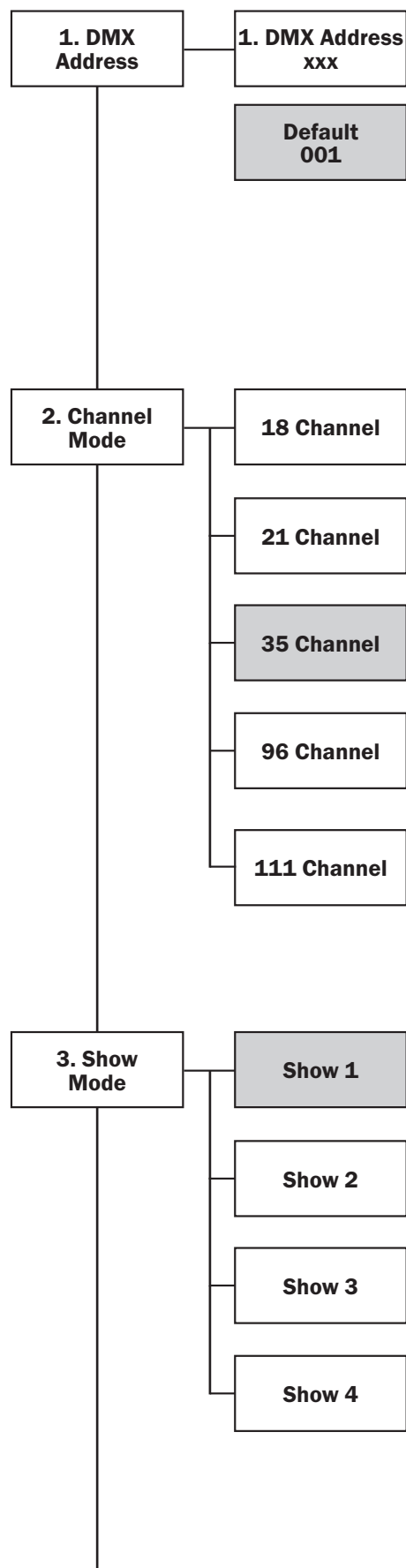


### Error Codes:

When the unit is powered on the unit will automatically perform a motor reset. If there is a problem with any of the motors these will be displayed under the Error Log in the menu (see page 14).

Please power the unit off and back on to reset the motors again.

### Main Menu - Defaults are in grey



#### DMX address:

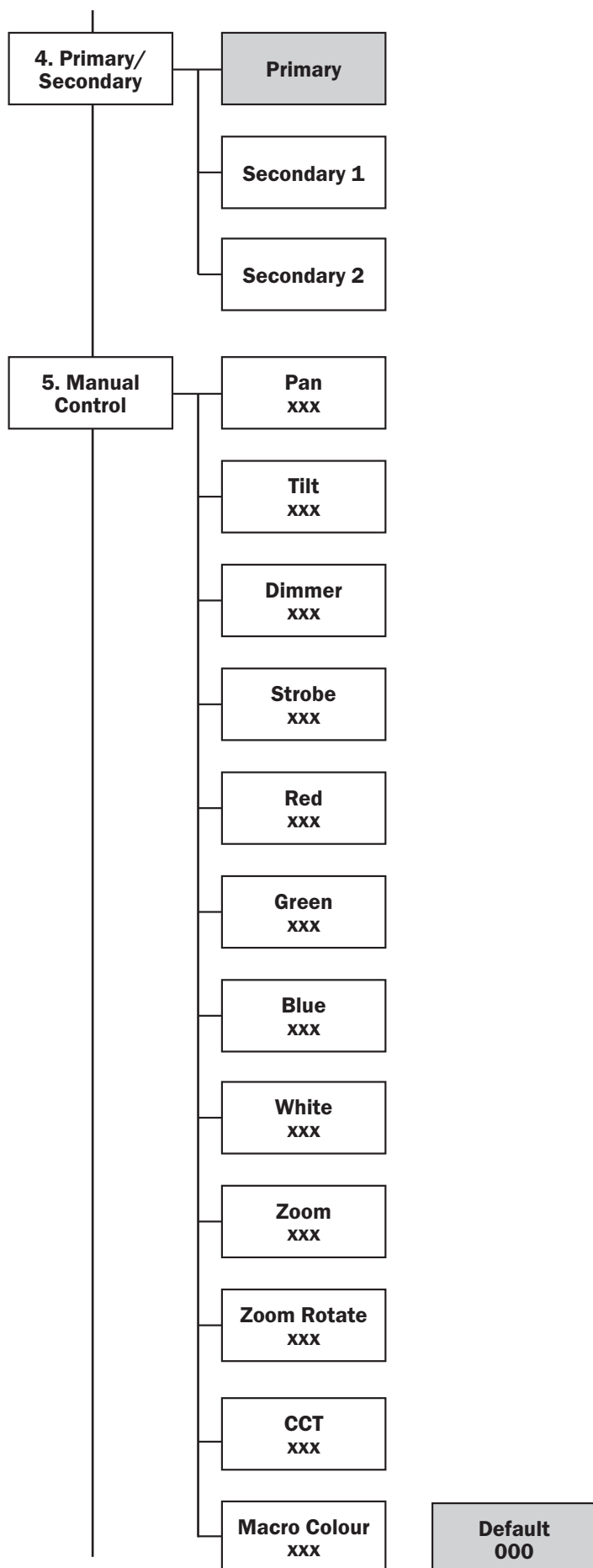
To access the DMX address mode, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “DMX Address” on the LCD display. Now press the “ENTER” button and use the “UP” and “DOWN” buttons to set the required DMX address. Press the “ENTER” button to confirm the setting.

#### DMX channel mode:

To access the DMX channel mode, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Channel Mode” on the LCD display. Now press the “ENTER” button and use the “UP” and “DOWN” buttons to set the required DMX channel. Press the “ENTER” button to confirm the setting.

#### Show mode:

To access the show modes, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Show Mode” on the LCD display. Now press the “ENTER” button and use the “UP” and “DOWN” buttons to set the required show mode. Press the “ENTER” button to confirm the setting. Show 3 & 4 are forward facing show modes.

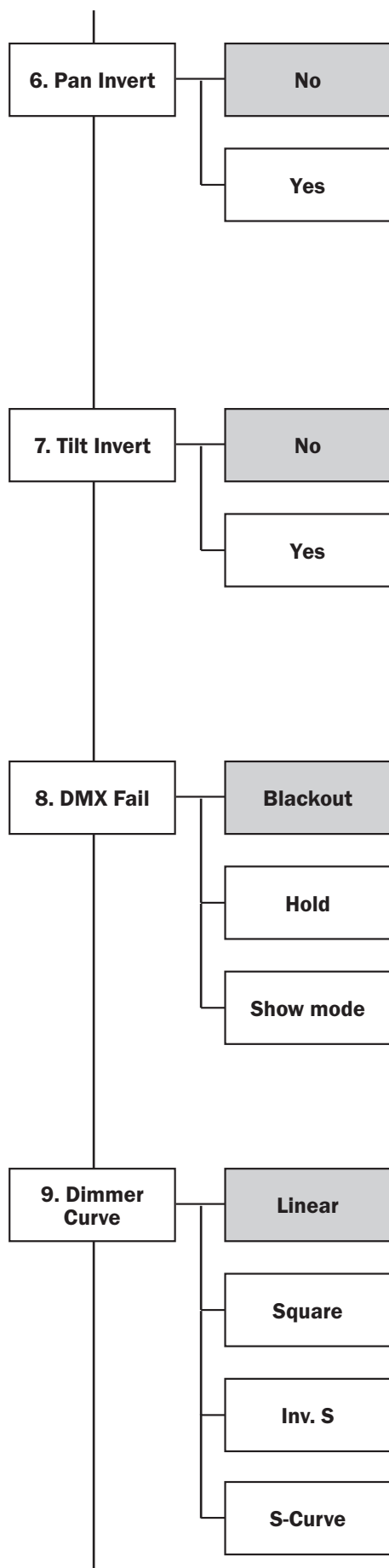


### Primary/secondary mode:

To access the primary/secondary modes, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Primary/Secondary” on the LCD display. Now press the “ENTER” button and use the “UP” and “DOWN” buttons to set the required mode. Press the “ENTER” button to confirm the setting.

### Manual control:

To access manual control mode, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Manual Control” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select the various options. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “000” - “255”. Press the “ENTER” button to confirm the setting.



### Pan invert:

To access the pan invert setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “**Pan Invert**” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “No” and “Yes”. Press the “ENTER” button to confirm the setting.

### Tilt invert:

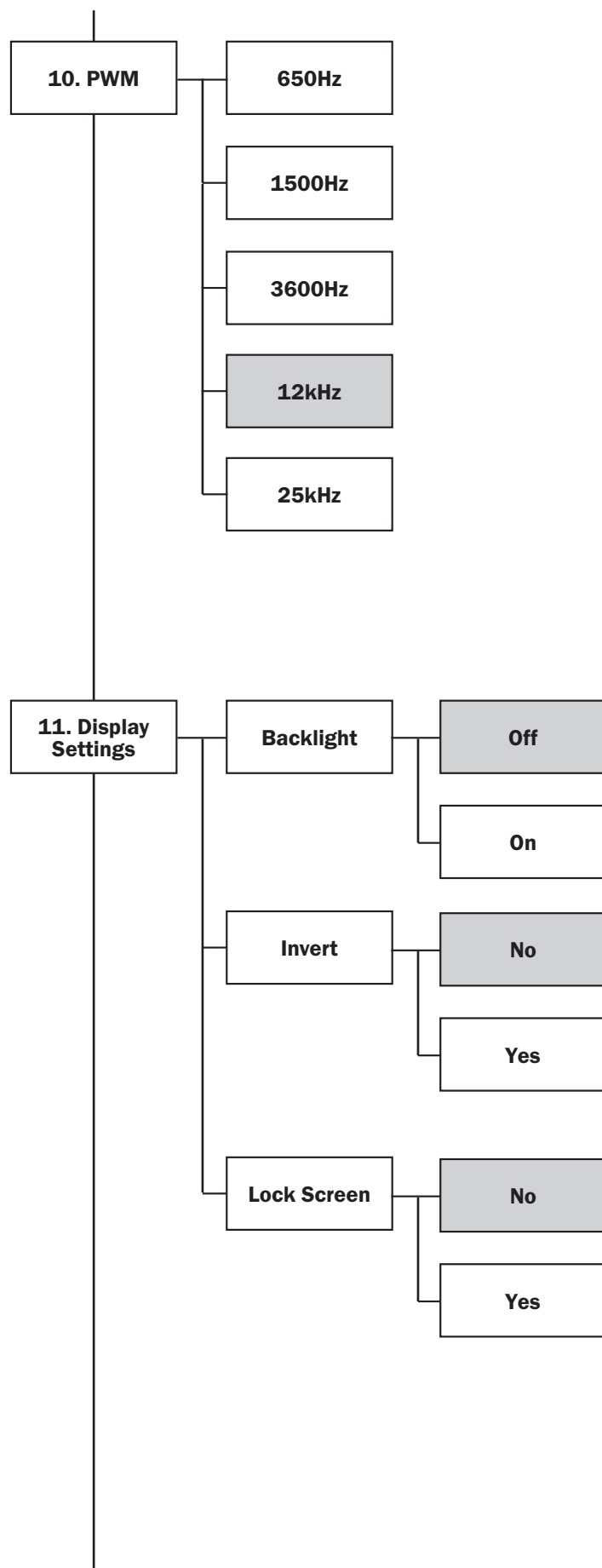
To access the tilt invert setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “**Tilt Invert**” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “No” and “Yes”. Press the “ENTER” button to confirm the setting.

### DMX fail:

Sets what the fixture does when the DMX signal is lost. To access the DMX fail setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “**DMX Fail**” on the LCD display. Now press the “ENTER” button and use the “UP” and “DOWN” buttons to choose between “Blackout”, “Hold” or “Show mode”. Press the “ENTER” button to confirm the setting.

### Dimmer curve setting:

To access the dimmer curve setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “**Dimmer Curve**” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to choose between “Linear”, “Square”, “Inv. S” or “S-Curve”. Press the “ENTER” button to confirm the setting.



### Refresh rate setting:

To access the refresh rate setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “PWM” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to choose between “650Hz”, “1500Hz”, “3600Hz”, “12kHz” or “25kHz”. Press the “ENTER” button to confirm the setting.

### Display backlight:

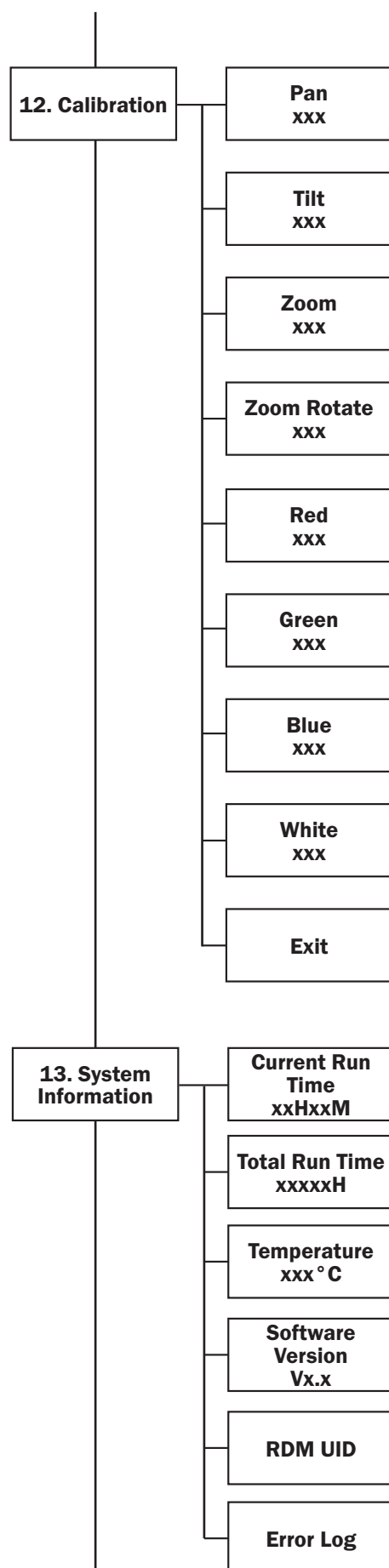
To access the display backlight setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Display Settings” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select “Backlight”. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “Off” and “On”. Press the “ENTER” button to confirm the setting.

### Display invert:

To access the display invert setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Display Settings” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select “Invert”. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “No” and “Yes”. Press the “ENTER” button to confirm the setting.

### Lock Screen:

To access the lock screen setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Display Settings” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select “Lock Screen”. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “No” and “Yes”. Press the “ENTER” button to confirm the setting.



### Calibration:

Calibration settings for the fixture.

To access the units calibration menu press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Calibration”. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select the various options. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “000” - “255”.

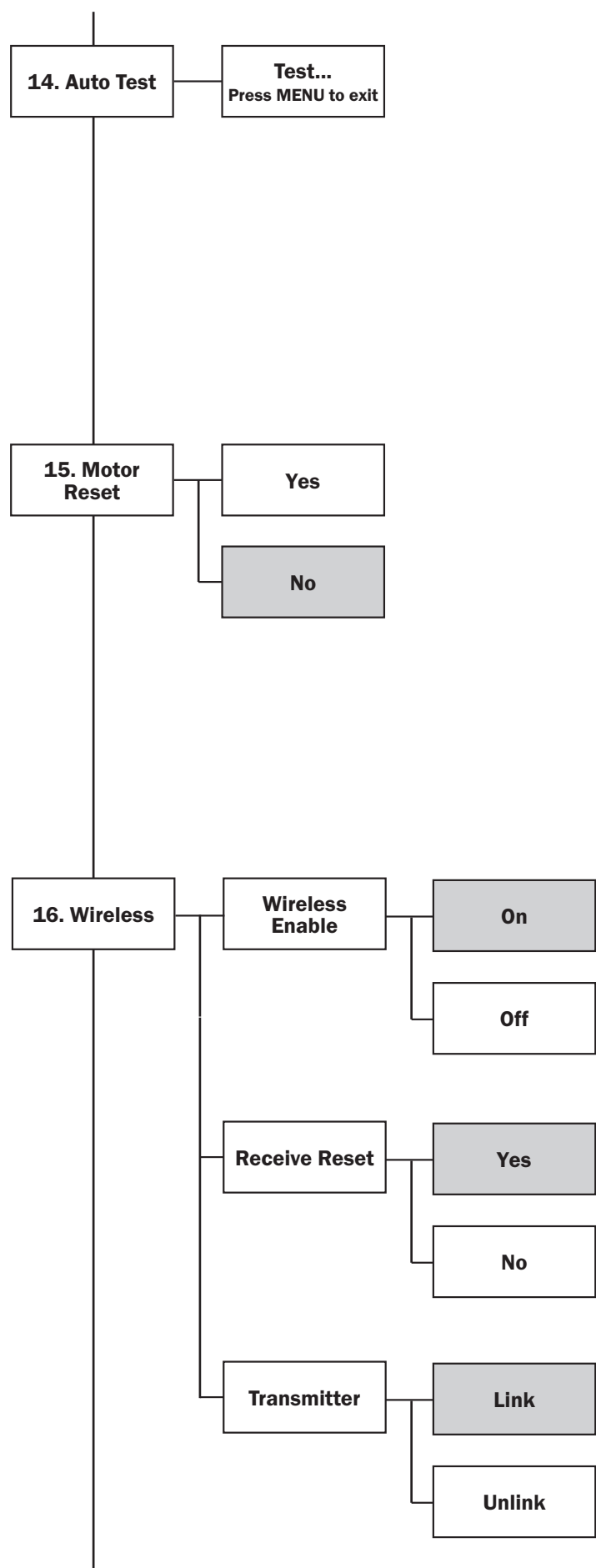
Press the “ENTER” button to confirm the setting.

Please note: Calibration settings are set when the fixture is manufactured. This can be changed manually for home position adjustment.

Performing a factory reset will not change these settings.

### System information:

To display the fixtures system information, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “System Information” on the LCD display. The unit will now display the fixtures current run time, total run time, temperature, software version, RDM UID and error log.



### Auto test:

Tests all functions and motors in the fixture.

To access the auto test mode, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Auto Test” on the LCD display. Press the “ENTER” button and the fixture will initiate auto test.

Please note: Auto test will automatically stop when exiting the auto test menu.

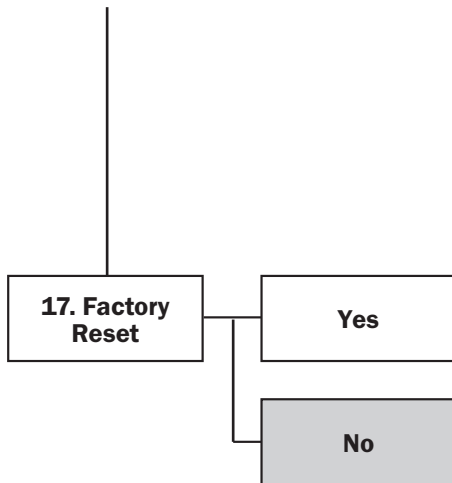
### Motor reset:

Resets all the fixtures motors.

To access the motor reset setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Motor Reset” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “Yes” and “No”. Press the “ENTER” button to perform the motor reset when yes is selected.

### Wireless:

To access wireless setting, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Wireless” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “Wireless Enable”, “Receive Reset” and “Transmitter”. Press the “ENTER” button to confirm the setting.



### Factory Reset:

Resets all the fixtures factory settings.

To access the factory setting reset, press the “ENTER” button and use the “UP” and “DOWN” buttons to show “Factory Reset” on the LCD display. Press the “ENTER” button and use the “UP” and “DOWN” buttons to select between “Yes” and “No”. Press the “ENTER” button to perform the factory reset when yes is selected.

### DMX channel modes:

| 18CH | 96CH | Value                      | Function                            | Default Value |
|------|------|----------------------------|-------------------------------------|---------------|
| 1    | 1    | 000-255                    | Pan adjustment 0-540°               | 000           |
| 2    | 2    | 000-255                    | Pan fine adjustment                 | 000           |
| 3    | 3    | 000-255                    | Tilt adjustment 0-270°              | 000           |
| 4    | 4    | 000-255                    | Tilt fine adjustment                | 000           |
| 5    | 5    | 000-255                    | Pan/tilt speed (fast-slow)          | 000           |
| 6    | 6    | 000-255                    | Zoom (narrow-wide)                  | 000           |
| 7    | 7    | Zoom rotation              |                                     | 000           |
|      |      | 000-127                    | Rotation index                      |               |
|      |      | 128-190                    | Clockwise rotation (fast-slow)      |               |
|      |      | 191-192                    | Rotation stop                       |               |
|      |      | 193-255                    | Anti-clockwise rotation (slow-fast) |               |
| 8    | 8    | 000-255                    | Master dimmer (0-100%)              | 000           |
| 9    | 9    | Strobe                     |                                     | 000           |
|      |      | 000-003                    | LED off                             |               |
|      |      | 004-103                    | Strobe (slow-fast)                  |               |
|      |      | 104-107                    | LED on                              |               |
|      |      | 108-207                    | Pulse strobe (slow-fast)            |               |
|      |      | 208-212                    | LED on                              |               |
|      |      | 213-251                    | Random strobe (slow-fast)           |               |
|      |      | 252-255                    | LED on                              |               |
| 10   | 10   | 000-255                    | Red dimmer (0-100%)                 | 000           |
| 11   | 11   | 000-255                    | Green dimmer (0-100%)               | 000           |
| 12   | 12   | 000-255                    | Blue dimmer (0-100%)                | 000           |
| 13   | 13   | 000-255                    | White dimmer (0-100%)               | 000           |
| 14   | 14   | Colour temperature presets |                                     | 000           |
|      |      | 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                               |               |
|      |      | 224-251                    | 7500K                               |               |
|      |      | 252-255                    | 8500K                               |               |
| 15   | 15   | Colour macros              |                                     | 000           |
|      |      | 000-009                    | No function                         |               |
|      |      | 010                        | Red                                 |               |
|      |      | 011                        | Green                               |               |

### DMX channel modes:

| 18CH          | 96CH          | Value                 | Function          | Default Value |
|---------------|---------------|-----------------------|-------------------|---------------|
| 15<br>(cont.) | 15<br>(cont.) | Colour macros (cont.) |                   |               |
|               |               | 013                   | Cyan              | 000           |
|               |               | 014                   | Yellow            |               |
|               |               | 015                   | Magenta           |               |
|               |               | 016                   | 7000K             |               |
|               |               | 017                   | 5000K             |               |
|               |               | 018                   | 3700K             |               |
|               |               | 019                   | Green             |               |
|               |               | 020-022               | Medium Yellow     |               |
|               |               | 023-026               | Straw Tint        |               |
|               |               | 027-028               | Surprise Peach    |               |
|               |               | 029                   | Fire              |               |
|               |               | 030                   | Medium Amber      |               |
|               |               | 031                   | Gold Amber        |               |
|               |               | 032-034               | Dark Amber        |               |
|               |               | 035-044               | Sunrise Red       |               |
|               |               | 045                   | Light Pink        |               |
|               |               | 046-048               | Medium Pink       |               |
|               |               | 049-061               | Pink Carnation    |               |
|               |               | 062-067               | Light Lavender    |               |
|               |               | 068-077               | Lavender          |               |
|               |               | 078-088               | Sky Blue          |               |
|               |               | 079-099               | Just Blue         |               |
|               |               | 100-109               | Dark Yellow Green |               |
|               |               | 110-111               | Spring Yellow     |               |
|               |               | 112                   | Light Amber       |               |
|               |               | 113                   | Straw             |               |
|               |               | 114                   | Deep Amber        |               |
|               |               | 115-116               | Orange            |               |
|               |               | 117                   | Light Rose        |               |
|               |               | 118                   | English Rose      |               |
|               |               | 119                   | Light Salmon      |               |
|               |               | 120                   | Middle Rose       |               |
|               |               | 121-122               | Dark Pink         |               |
|               |               | 123-124               | Magenta           |               |
|               |               | 125                   | Peacock Blue      |               |
|               |               | 126                   | Medium Blue Green |               |
|               |               | 127                   | Steel Blue        |               |
|               |               | 128                   | Light Blue        |               |

### DMX channel modes:

| 18CH          | 96CH          | Value                                                     | Function          | Default Value |     |
|---------------|---------------|-----------------------------------------------------------|-------------------|---------------|-----|
| 15<br>(cont.) | 15<br>(cont.) | Colour macros (cont.)                                     |                   |               | 000 |
|               |               | 019-130                                                   | Dark Blue         |               |     |
|               |               | 131-133                                                   | Leaf Green        |               |     |
|               |               | 134-135                                                   | Dark Green        |               |     |
|               |               | 136-137                                                   | Mauve             |               |     |
|               |               | 138-141                                                   | Bright Pink       |               |     |
|               |               | 142-144                                                   | Medium Blue       |               |     |
|               |               | 145                                                       | Deep Golden Amber |               |     |
|               |               | 146                                                       | Pale Lavender     |               |     |
|               |               | 147-148                                                   | Special Lavender  |               |     |
|               |               | 149-150                                                   | Primary Green     |               |     |
|               |               | 151-156                                                   | Bright Blue       |               |     |
|               |               | 157-161                                                   | Apricot           |               |     |
|               |               | 162-167                                                   | Pale Gold         |               |     |
|               |               | 168-171                                                   | Deep Orange       |               |     |
|               |               | 172-173                                                   | Bastard Amber     |               |     |
|               |               | 174                                                       | Flame Red         |               |     |
|               |               | 175-178                                                   | Daylight Blue     |               |     |
|               |               | 179                                                       | Lilac Tint        |               |     |
|               |               | 180-183                                                   | Deep Lavender     |               |     |
|               |               | 184-190                                                   | Deep Steel Blue   |               |     |
|               |               | 191-206                                                   | Congo Blue        |               |     |
|               |               | 207                                                       | Alice Blue        |               |     |
|               |               | 208                                                       | Dirty White       |               |     |
|               |               | 209-255                                                   | White             |               |     |
| 16            | 16            | Dynamic effects (use channels 10-13 to select the colour) |                   |               | 000 |
|               |               | 000-009                                                   | No function       |               |     |
|               |               | 010-014                                                   | Dynamic effect 1  |               |     |
|               |               | 015-019                                                   | Dynamic effect 2  |               |     |
|               |               | 020-024                                                   | Dynamic effect 3  |               |     |
|               |               | 025-029                                                   | Dynamic effect 4  |               |     |
|               |               | 030-034                                                   | Dynamic effect 5  |               |     |
|               |               | 035-039                                                   | Dynamic effect 6  |               |     |
|               |               | 040-044                                                   | Dynamic effect 7  |               |     |
|               |               | 045-049                                                   | Dynamic effect 8  |               |     |
|               |               | 050-054                                                   | Dynamic effect 9  |               |     |
|               |               | 055-059                                                   | Dynamic effect 10 |               |     |
|               |               | 060-064                                                   | Dynamic effect 11 |               |     |
|               |               | 065-069                                                   | Dynamic effect 12 |               |     |

### DMX channel modes:

| 18CH          | 96CH          | Value                                                     | Function          | Default Value |
|---------------|---------------|-----------------------------------------------------------|-------------------|---------------|
| 16<br>(cont.) | 16<br>(cont.) | Dynamic effects (use channels 10-13 to select the colour) |                   |               |
|               |               | 070-074                                                   | Dynamic effect 13 | 000           |
|               |               | 075-079                                                   | Dynamic effect 14 |               |
|               |               | 080-084                                                   | Dynamic effect 15 |               |
|               |               | 085-089                                                   | Dynamic effect 16 |               |
|               |               | 090-094                                                   | Dynamic effect 17 |               |
|               |               | 095-099                                                   | Dynamic effect 18 |               |
|               |               | 100-104                                                   | Dynamic effect 19 |               |
|               |               | 105-109                                                   | Dynamic effect 20 |               |
|               |               | 110-114                                                   | Dynamic effect 21 |               |
|               |               | 115-119                                                   | Dynamic effect 22 |               |
|               |               | 120-124                                                   | Dynamic effect 23 |               |
|               |               | 125-129                                                   | Dynamic effect 24 |               |
|               |               | 130-134                                                   | Dynamic effect 25 |               |
|               |               | 135-139                                                   | Dynamic effect 26 |               |
|               |               | 140-144                                                   | Dynamic effect 27 |               |
|               |               | 145-149                                                   | Dynamic effect 28 |               |
|               |               | 150-154                                                   | Dynamic effect 29 |               |
|               |               | 155-159                                                   | Dynamic effect 30 |               |
|               |               | 160-164                                                   | Dynamic effect 31 |               |
|               |               | 165-169                                                   | Dynamic effect 32 |               |
|               |               | 170-174                                                   | Dynamic effect 33 |               |
|               |               | 175-179                                                   | Dynamic effect 34 |               |
|               |               | 180-184                                                   | Dynamic effect 35 |               |
|               |               | 185-189                                                   | Dynamic effect 36 |               |
|               |               | 190-194                                                   | Dynamic effect 37 |               |
|               |               | 195-199                                                   | Dynamic effect 38 |               |
|               |               | 200-204                                                   | Dynamic effect 39 |               |
|               |               | 205-209                                                   | Dynamic effect 40 |               |
|               |               | 210-214                                                   | Dynamic effect 41 |               |
|               |               | 215-219                                                   | Dynamic effect 42 |               |
|               |               | 220-224                                                   | Dynamic effect 43 |               |
|               |               | 225-229                                                   | Dynamic effect 44 |               |
|               |               | 230-234                                                   | Dynamic effect 45 |               |
|               |               | 235-239                                                   | Dynamic effect 46 |               |
|               |               | 240-244                                                   | Dynamic effect 47 |               |
|               |               | 245-249                                                   | Dynamic effect 48 |               |
|               |               | 250-254                                                   | Dynamic effect 49 |               |
|               |               | 255                                                       | Dynamic effect 50 |               |

### DMX channel modes:

| 18CH | 96CH | Value          | Function                         | Default Value |
|------|------|----------------|----------------------------------|---------------|
| 17   | 17   | 000-255        | Dynamic effect speed (fast-slow) | 000           |
| -    | 18   | Dimming curves |                                  | 000           |
|      |      | 000-020        | No Function                      |               |
|      |      | 051-100        | Linear                           |               |
|      |      | 101-150        | Square Law                       |               |
|      |      | 151-200        | Inv. Square Law                  |               |
|      |      | 201-255        | S-Curve                          |               |
| -    | 19   | Refresh rate   |                                  | 000           |
|      |      | 000-050        | 650Hz                            |               |
|      |      | 051-100        | 1500Hz                           |               |
|      |      | 101-150        | 3600Hz                           |               |
|      |      | 151-200        | 12kHz                            |               |
|      |      | 201-255        | 25kHz                            |               |
| -    | 20   | 000-255        | Red 1 dimmer (0-100%)            | 000           |
| -    | 21   | 000-255        | Green 1 dimmer (0-100%)          | 000           |
| -    | 22   | 000-255        | Blue 1 dimmer (0-100%)           | 000           |
| -    | 23   | 000-255        | White 1 dimmer (0-100%)          | 000           |
| -    | 24   | 000-255        | Red 2 dimmer (0-100%)            | 000           |
| -    | 25   | 000-255        | Green 2 dimmer (0-100%)          | 000           |
| -    | 26   | 000-255        | Blue 2 dimmer (0-100%)           | 000           |
| -    | 27   | 000-255        | White 2 dimmer (0-100%)          | 000           |
| -    | 28   | 000-255        | Red 3 dimmer (0-100%)            | 000           |
| -    | 29   | 000-255        | Green 3 dimmer (0-100%)          | 000           |
| -    | 30   | 000-255        | Blue3 dimmer (0-100%)            | 000           |
| -    | 31   | 000-255        | White 3 dimmer (0-100%)          | 000           |
| -    | 32   | 000-255        | Red 4 dimmer (0-100%)            | 000           |
| -    | 33   | 000-255        | Green 4 dimmer (0-100%)          | 000           |
| -    | 34   | 000-255        | Blue 4 dimmer (0-100%)           | 000           |
| -    | 35   | 000-255        | White 4 dimmer (0-100%)          | 000           |
| -    | 36   | 000-255        | Red 5 dimmer (0-100%)            | 000           |
| -    | 37   | 000-255        | Green 5 dimmer (0-100%)          | 000           |
| -    | 38   | 000-255        | Blue 5 dimmer (0-100%)           | 000           |
| -    | 39   | 000-255        | White 5 dimmer (0-100%)          | 000           |
| -    | 40   | 000-255        | Red 6 dimmer (0-100%)            | 000           |
| -    | 41   | 000-255        | Green 6 dimmer (0-100%)          | 000           |
| -    | 42   | 000-255        | Blue 6 dimmer (0-100%)           | 000           |
| -    | 43   | 000-255        | White 6 dimmer (0-100%)          | 000           |

### DMX channel modes:

| 18CH | 96CH | Value   | Function                 | Default Value |
|------|------|---------|--------------------------|---------------|
| -    | 44   | 000-255 | Red 7 dimmer (0-100%)    | 000           |
| -    | 45   | 000-255 | Green 7 dimmer (0-100%)  | 000           |
| -    | 46   | 000-255 | Blue 7 dimmer (0-100%)   | 000           |
| -    | 47   | 000-255 | White 7 dimmer (0-100%)  | 000           |
| -    | 48   | 000-255 | Red 8 dimmer (0-100%)    | 000           |
| -    | 49   | 000-255 | Green 8 dimmer (0-100%)  | 000           |
| -    | 50   | 000-255 | Blue 8 dimmer (0-100%)   | 000           |
| -    | 51   | 000-255 | White 8 dimmer (0-100%)  | 000           |
| -    | 52   | 000-255 | Red 9 dimmer (0-100%)    | 000           |
| -    | 53   | 000-255 | Green 9 dimmer (0-100%)  | 000           |
| -    | 54   | 000-255 | Blue 9 dimmer (0-100%)   | 000           |
| -    | 55   | 000-255 | White 9 dimmer (0-100%)  | 000           |
| -    | 56   | 000-255 | Red 10 dimmer (0-100%)   | 000           |
| -    | 57   | 000-255 | Green 10 dimmer (0-100%) | 000           |
| -    | 58   | 000-255 | Blue 10 dimmer (0-100%)  | 000           |
| -    | 59   | 000-255 | White 10 dimmer (0-100%) | 000           |
| -    | 60   | 000-255 | Red 11 dimmer (0-100%)   | 000           |
| -    | 61   | 000-255 | Green 11 dimmer (0-100%) | 000           |
| -    | 62   | 000-255 | Blue 11 dimmer (0-100%)  | 000           |
| -    | 63   | 000-255 | White 11 dimmer (0-100%) | 000           |
| -    | 64   | 000-255 | Red 12 dimmer (0-100%)   | 000           |
| -    | 65   | 000-255 | Green 12 dimmer (0-100%) | 000           |
| -    | 66   | 000-255 | Blue 12 dimmer (0-100%)  | 000           |
| -    | 67   | 000-255 | White 12 dimmer (0-100%) | 000           |
| -    | 68   | 000-255 | Red 13 dimmer (0-100%)   | 000           |
| -    | 69   | 000-255 | Green 13 dimmer (0-100%) | 000           |
| -    | 70   | 000-255 | Blue 13 dimmer (0-100%)  | 000           |
| -    | 71   | 000-255 | White 13 dimmer (0-100%) | 000           |
| -    | 72   | 000-255 | Red 14 dimmer (0-100%)   | 000           |
| -    | 73   | 000-255 | Green 14 dimmer (0-100%) | 000           |
| -    | 74   | 000-255 | Blue 14 dimmer (0-100%)  | 000           |
| -    | 75   | 000-255 | White 14 dimmer (0-100%) | 000           |
| -    | 76   | 000-255 | Red 15 dimmer (0-100%)   | 000           |
| -    | 77   | 000-255 | Green 15 dimmer (0-100%) | 000           |
| -    | 78   | 000-255 | Blue 15 dimmer (0-100%)  | 000           |
| -    | 79   | 000-255 | White 15 dimmer (0-100%) | 000           |
| -    | 80   | 000-255 | Red 16 dimmer (0-100%)   | 000           |
| -    | 81   | 000-255 | Green 16 dimmer (0-100%) | 000           |
| -    | 82   | 000-255 | Blue 16 dimmer (0-100%)  | 000           |
| -    | 83   | 000-255 | White 16 dimmer (0-100%) | 000           |

### DMX channel modes:

| 18CH | 96CH | Value   | Function                   | Default Value |
|------|------|---------|----------------------------|---------------|
| -    | 84   | 000-255 | Red 17 dimmer (0-100%)     | 000           |
| -    | 85   | 000-255 | Green 17 dimmer (0-100%)   | 000           |
| -    | 86   | 000-255 | Blue 17 dimmer (0-100%)    | 000           |
| -    | 87   | 000-255 | White 17 dimmer (0-100%)   | 000           |
| -    | 88   | 000-255 | Red 18 dimmer (0-100%)     | 000           |
| -    | 89   | 000-255 | Green 18 dimmer (0-100%)   | 000           |
| -    | 90   | 000-255 | Blue 18 dimmer (0-100%)    | 000           |
| -    | 91   | 000-255 | White 18 dimmer (0-100%)   | 000           |
| -    | 92   | 000-255 | Red 19 dimmer (0-100%)     | 000           |
| -    | 93   | 000-255 | Green 19 dimmer (0-100%)   | 000           |
| -    | 94   | 000-255 | Blue 19 dimmer (0-100%)    | 000           |
| -    | 95   | 000-255 | White 19 dimmer (0-100%)   | 000           |
| 18   | 96   | 000-250 | No function                | 000           |
|      |      | 251-255 | Reset (hold for 5 seconds) |               |

### DMX channel modes:

| 21CH | Value                      | Function                            | Default Value |
|------|----------------------------|-------------------------------------|---------------|
| 1    | 000-255                    | Pan adjustment 0-540°               | 000           |
| 2    | 000-255                    | Pan fine adjustment                 | 000           |
| 3    | 000-255                    | Tilt adjustment 0-270°              | 000           |
| 4    | 000-255                    | Tilt fine adjustment                | 000           |
| 5    | 000-255                    | Pan/tilt speed (fast-slow)          | 000           |
| 6    | 000-255                    | Zoom (narrow-wide)                  | 000           |
| 7    | Zoom rotation              |                                     | 000           |
|      | 000-127                    | Rotation index                      |               |
|      | 128-190                    | Clockwise rotation (fast-slow)      |               |
|      | 191-192                    | Rotation stop                       |               |
|      | 193-255                    | Anti-clockwise rotation (slow-fast) |               |
| 8    | 000-255                    | Master dimmer (0-100%)              | 000           |
| 9    | 000-255                    | Dimmer fine (0-100%)                | 000           |
| 10   | Strobe                     |                                     | 000           |
|      | 000-003                    | LED off                             |               |
|      | 004-103                    | Strobe (slow-fast)                  |               |
|      | 104-107                    | LED on                              |               |
|      | 108-207                    | Pulse strobe (slow-fast)            |               |
|      | 208-212                    | LED on                              |               |
|      | 213-251                    | Random strobe (slow-fast)           |               |
|      | 252-255                    | LED on                              |               |
| 11   | 000-255                    | Red dimmer (0-100%)                 | 000           |
| 12   | 000-255                    | Red fine (0-100%)                   |               |
| 13   | 000-255                    | Green dimmer (0-100%)               |               |
| 14   | 000-255                    | Green fine (0-100%)                 |               |
| 15   | 000-255                    | Blue dimmer (0-100%)                |               |
| 16   | 000-255                    | Blue fine (0-100%)                  | 000           |
| 17   | 000-255                    | White dimmer (0-100%)               | 000           |
| 18   | 000-255                    | White fine (0-100%)                 | 000           |
| 19   | Colour temperature presets |                                     | 000           |
|      | 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                               |               |
|      | 224-251                    | 7500K                               |               |

### DMX channel modes:

| 21CH          | Value                              | Function          | Default Value |
|---------------|------------------------------------|-------------------|---------------|
| 19<br>(cont.) | Colour temperature presets (cont.) |                   |               |
|               | 252-255                            | 8500K             | 000           |
| 20            | Colour macros                      |                   |               |
|               | 000-009                            | No function       | 000           |
|               | 010                                | Red               |               |
|               | 011                                | Green             |               |
|               | 013                                | Cyan              |               |
|               | 014                                | Yellow            |               |
|               | 015                                | Magenta           |               |
|               | 016                                | 7000K             |               |
|               | 017                                | 5000K             |               |
|               | 018                                | 3700K             |               |
|               | 019                                | Green             |               |
|               | 020-022                            | Medium Yellow     |               |
|               | 023-026                            | Straw Tint        |               |
|               | 027-028                            | Surprise Peach    |               |
|               | 029                                | Fire              |               |
|               | 030                                | Medium Amber      |               |
|               | 031                                | Gold Amber        |               |
|               | 032-034                            | Dark Amber        |               |
|               | 035-044                            | Sunrise Red       |               |
|               | 045                                | Light Pink        |               |
|               | 046-048                            | Medium Pink       |               |
|               | 049-061                            | Pink Carnation    |               |
|               | 062-067                            | Light Lavender    |               |
|               | 068-077                            | Lavender          |               |
|               | 078-088                            | Sky Blue          |               |
|               | 079-099                            | Just Blue         |               |
|               | 100-109                            | Dark Yellow Green |               |
|               | 110-111                            | Spring Yellow     |               |
|               | 112                                | Light Amber       |               |
|               | 113                                | Straw             |               |
|               | 114                                | Deep Amber        |               |
|               | 115-116                            | Orange            |               |
|               | 117                                | Light Rose        |               |
|               | 118                                | English Rose      |               |
|               | 119                                | Light Salmon      |               |
|               | 120                                | Middle Rose       |               |
|               | 121-122                            | Dark Pink         |               |

### DMX channel modes:

| 21CH          | Value                 | Function                   | Default Value |
|---------------|-----------------------|----------------------------|---------------|
| 20<br>(cont.) | Colour macros (cont.) |                            |               |
|               | 123-124               | Magenta                    | 000           |
|               | 125                   | Peacock Blue               |               |
|               | 126                   | Medium Blue Green          |               |
|               | 127                   | Steel Blue                 |               |
|               | 128                   | Light Blue                 |               |
|               | 019-130               | Dark Blue                  |               |
|               | 131-133               | Leaf Green                 |               |
|               | 134-135               | Dark Green                 |               |
|               | 136-137               | Mauve                      |               |
|               | 138-141               | Bright Pink                |               |
|               | 142-144               | Medium Blue                |               |
|               | 145                   | Deep Golden Amber          |               |
|               | 146                   | Pale Lavender              |               |
|               | 147-148               | Special Lavender           |               |
|               | 149-150               | Primary Green              |               |
|               | 151-156               | Bright Blue                |               |
|               | 157-161               | Apricot                    |               |
|               | 162-167               | Pale Gold                  |               |
|               | 168-171               | Deep Orange                |               |
|               | 172-173               | Bastard Amber              |               |
|               | 174                   | Flame Red                  |               |
|               | 175-178               | Daylight Blue              |               |
|               | 179                   | Lilac Tint                 |               |
|               | 180-183               | Deep Lavender              |               |
|               | 184-190               | Deep Steel Blue            |               |
|               | 191-206               | Congo Blue                 |               |
|               | 207                   | Alice Blue                 |               |
|               | 208                   | Dirty White                |               |
|               | 209-255               | White                      |               |
| 21            | 000-250               | No function                | 000           |
|               | 251-255               | Reset (hold for 5 seconds) |               |

### DMX channel modes:

| 35CH | 111CH | Value                      | Function                            | Default Value |
|------|-------|----------------------------|-------------------------------------|---------------|
| 1    | 1     | 000-255                    | Pan adjustment 0-540°               | 000           |
| 2    | 2     | 000-255                    | Pan fine adjustment                 | 000           |
| 3    | 3     | 000-255                    | Tilt adjustment 0-270°              | 000           |
| 4    | 4     | 000-255                    | Tilt fine adjustment                | 000           |
| 5    | 5     | 000-255                    | Pan/tilt speed (fast-slow)          | 000           |
| 6    | 6     | 000-255                    | Zoom (narrow-wide)                  | 000           |
| 7    | 7     | Zoom rotation              |                                     | 000           |
|      |       | 000-127                    | Rotation index                      |               |
|      |       | 128-190                    | Clockwise rotation (fast-slow)      |               |
|      |       | 191-192                    | Rotation stop                       |               |
|      |       | 193-255                    | Anti-clockwise rotation (slow-fast) |               |
| 8    | 8     | 000-255                    | Master dimmer (0-100%)              | 000           |
| 9    | 9     | 000-255                    | Dimmer fine (0-100%)                | 000           |
| 10   | 10    | Strobe                     |                                     | 000           |
|      |       | 000-003                    | LED off                             |               |
|      |       | 004-103                    | Strobe (slow-fast)                  |               |
|      |       | 104-107                    | LED on                              |               |
|      |       | 108-207                    | Pulse strobe (slow-fast)            |               |
|      |       | 208-212                    | LED on                              |               |
|      |       | 213-251                    | Random strobe (slow-fast)           |               |
|      |       | 252-255                    | LED on                              |               |
| 11   | 11    | 000-255                    | Red dimmer (0-100%)                 | 000           |
| 12   | 12    | 000-255                    | Red fine (0-100%)                   |               |
| 13   | 13    | 000-255                    | Green dimmer (0-100%)               |               |
| 14   | 14    | 000-255                    | Green fine (0-100%)                 |               |
| 15   | 15    | 000-255                    | Blue dimmer (0-100%)                |               |
| 16   | 16    | 000-255                    | Blue fine (0-100%)                  | 000           |
| 17   | 17    | 000-255                    | White dimmer (0-100%)               | 000           |
| 18   | 18    | 000-255                    | White fine (0-100%)                 | 000           |
| 19   | 19    | Colour temperature presets |                                     | 000           |
|      |       | 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                               |               |
|      |       | 224-251                    | 7500K                               |               |

### DMX channel modes:

| 35CH          | 111CH         | Value                              | Function          | Default Value |
|---------------|---------------|------------------------------------|-------------------|---------------|
| 19<br>(cont.) | 19<br>(cont.) | Colour temperature presets (cont.) |                   |               |
|               |               | 252-255                            | 8500K             | 000           |
| 20            | 20            | Colour macros                      |                   |               |
|               |               | 000-009                            | No function       | 000           |
|               |               | 010                                | Red               |               |
|               |               | 011                                | Green             |               |
|               |               | 013                                | Cyan              |               |
|               |               | 014                                | Yellow            |               |
|               |               | 015                                | Magenta           |               |
|               |               | 016                                | 7000K             |               |
|               |               | 017                                | 5000K             |               |
|               |               | 018                                | 3700K             |               |
|               |               | 019                                | Green             |               |
|               |               | 020-022                            | Medium Yellow     |               |
|               |               | 023-026                            | Straw Tint        |               |
|               |               | 027-028                            | Surprise Peach    |               |
|               |               | 029                                | Fire              |               |
|               |               | 030                                | Medium Amber      |               |
|               |               | 031                                | Gold Amber        |               |
|               |               | 032-034                            | Dark Amber        |               |
|               |               | 035-044                            | Sunrise Red       |               |
|               |               | 045                                | Light Pink        |               |
|               |               | 046-048                            | Medium Pink       |               |
|               |               | 049-061                            | Pink Carnation    |               |
|               |               | 062-067                            | Light Lavender    |               |
|               |               | 068-077                            | Lavender          |               |
|               |               | 078-088                            | Sky Blue          |               |
|               |               | 079-099                            | Just Blue         |               |
|               |               | 100-109                            | Dark Yellow Green |               |
|               |               | 110-111                            | Spring Yellow     |               |
|               |               | 112                                | Light Amber       |               |
|               |               | 113                                | Straw             |               |
|               |               | 114                                | Deep Amber        |               |
|               |               | 115-116                            | Orange            |               |
|               |               | 117                                | Light Rose        |               |
|               |               | 118                                | English Rose      |               |
|               |               | 119                                | Light Salmon      |               |
|               |               | 120                                | Middle Rose       |               |
|               |               | 121-122                            | Dark Pink         |               |

### DMX channel modes:

| 35CH          | 111CH         | Value                 | Function          | Default Value                                                                                   |     |
|---------------|---------------|-----------------------|-------------------|-------------------------------------------------------------------------------------------------|-----|
| 20<br>(cont.) | 20<br>(cont.) | Colour macros (cont.) |                   |                                                                                                 | 000 |
|               |               | 123-124               | Magenta           |                                                                                                 |     |
|               |               | 125                   | Peacock Blue      |                                                                                                 |     |
|               |               | 126                   | Medium Blue Green |                                                                                                 |     |
|               |               | 127                   | Steel Blue        |                                                                                                 |     |
|               |               | 128                   | Light Blue        |                                                                                                 |     |
|               |               | 019-130               | Dark Blue         |                                                                                                 |     |
|               |               | 131-133               | Leaf Green        |                                                                                                 |     |
|               |               | 134-135               | Dark Green        |                                                                                                 |     |
|               |               | 136-137               | Mauve             |                                                                                                 |     |
|               |               | 138-141               | Bright Pink       |                                                                                                 |     |
|               |               | 142-144               | Medium Blue       |                                                                                                 |     |
|               |               | 145                   | Deep Golden Amber |                                                                                                 |     |
|               |               | 146                   | Pale Lavender     |                                                                                                 |     |
|               |               | 147-148               | Special Lavender  |                                                                                                 |     |
|               |               | 149-150               | Primary Green     |                                                                                                 |     |
|               |               | 151-156               | Bright Blue       |                                                                                                 |     |
|               |               | 157-161               | Apricot           |                                                                                                 |     |
|               |               | 162-167               | Pale Gold         |                                                                                                 |     |
|               |               | 168-171               | Deep Orange       |                                                                                                 |     |
|               |               | 172-173               | Bastard Amber     |                                                                                                 |     |
|               |               | 174                   | Flame Red         |                                                                                                 |     |
|               |               | 175-178               | Daylight Blue     |                                                                                                 |     |
|               |               | 179                   | Lilac Tint        |                                                                                                 |     |
|               |               | 180-183               | Deep Lavender     |                                                                                                 |     |
|               |               | 184-190               | Deep Steel Blue   |                                                                                                 |     |
|               |               | 191-206               | Congo Blue        |                                                                                                 |     |
|               |               | 207                   | Alice Blue        |                                                                                                 |     |
|               |               | 208                   | Dirty White       |                                                                                                 |     |
|               |               | 209-255               | White             |                                                                                                 |     |
| 21            | 21            | Shape selection       |                   |                                                                                                 | 000 |
|               |               | 000-003               | No function       | Use channels 24-27 to select the main colour and channels 11-18 to select the background colour |     |
|               |               | 004-008               | Static Shape 1    |                                                                                                 |     |
|               |               | 009-013               | Static Shape 2    |                                                                                                 |     |
|               |               | 014-017               | Static Shape 3    |                                                                                                 |     |
|               |               | 018-022               | Static Shape 4    |                                                                                                 |     |
|               |               | 023-027               | Static Shape 5    |                                                                                                 |     |
|               |               | 028-031               | Dynamic shape 1   | Use channel 22 to select position/speed                                                         |     |
|               |               | 032-036               | Dynamic shape 2   |                                                                                                 |     |

### DMX channel modes:

| 35CH          | 111CH                         | Value                   | Function                      |                                                                                                                                                | Default Value |     |                                            |  |
|---------------|-------------------------------|-------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----|--------------------------------------------|--|
| 21<br>(cont.) | 21<br>(cont.)                 | Shape selection (cont.) |                               |                                                                                                                                                |               | 000 |                                            |  |
|               |                               | 037-041                 | Dynamic shape 3               | Use channel 22 to select position/<br>speed, channels 24-27 to select the<br>main colour and channels 11-18 to<br>select the background colour |               |     |                                            |  |
|               |                               | 042-045                 | Dynamic shape 4               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 046-050                 | Dynamic shape 5               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 051-055                 | Dynamic shape 6               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 056-059                 | Dynamic shape 7               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 060-064                 | Dynamic shape 8               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 065-069                 | Dynamic shape 9               |                                                                                                                                                |               |     |                                            |  |
|               |                               | 070-073                 | Dynamic shape 10              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 074-078                 | Dynamic shape 11              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 079-083                 | Dynamic shape 12              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 084-087                 | Dynamic shape 13              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 088-092                 | Dynamic shape 14              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 093-096                 | Dynamic shape 15              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 097-101                 | Dynamic shape 16              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 102-106                 | Dynamic shape 17              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 107-110                 | Dynamic shape 18              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 111-115                 | Dynamic shape 19              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 116-120                 | Dynamic shape 20              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 121-124                 | Dynamic shape 21              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 125-129                 | Dynamic shape 22              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 130-134                 | Dynamic shape 23              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 135-138                 | Dynamic shape 24              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 139-143                 | Dynamic shape 25              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 144-148                 | Dynamic shape 26              |                                                                                                                                                |               |     |                                            |  |
|               |                               | 149-152                 | Dynamic multi-colour shape 1  |                                                                                                                                                |               |     | Use channel 22 to select<br>position/speed |  |
|               |                               | 152-157                 | Dynamic multi-colour shape 2  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 158-162                 | Dynamic multi-colour shape 3  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 163-166                 | Dynamic multi-colour shape 4  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 167-171                 | Dynamic multi-colour shape 5  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 172-175                 | Dynamic multi-colour shape 6  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 176-180                 | Dynamic multi-colour shape 7  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 181-185                 | Dynamic multi-colour shape 8  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 186-189                 | Dynamic multi-colour shape 9  |                                                                                                                                                |               |     |                                            |  |
|               |                               | 190-194                 | Dynamic multi-colour shape 10 |                                                                                                                                                |               |     |                                            |  |
| 195-199       | Dynamic multi-colour shape 11 |                         |                               |                                                                                                                                                |               |     |                                            |  |
| 200-203       | Dynamic multi-colour shape 12 |                         |                               |                                                                                                                                                |               |     |                                            |  |
| 204-208       | Dynamic multi-colour shape 13 |                         |                               |                                                                                                                                                |               |     |                                            |  |
| 209-213       | Dynamic multi-colour shape 14 |                         |                               |                                                                                                                                                |               |     |                                            |  |
| 214-217       | Dynamic multi-colour shape 15 |                         |                               |                                                                                                                                                |               |     |                                            |  |

### DMX channel modes:

| 35CH          | 111CH         | Value                   | Function                                |                                         | Default Value |     |
|---------------|---------------|-------------------------|-----------------------------------------|-----------------------------------------|---------------|-----|
| 21<br>(cont.) | 21<br>(cont.) | Shape selection (cont.) |                                         |                                         |               | 000 |
|               |               | 218-222                 | Dynamic multi-colour shape 16           | Use channel 22 to select position/speed |               |     |
|               |               | 223-227                 | Dynamic multi-colour shape 17           |                                         |               |     |
|               |               | 228-231                 | Dynamic multi-colour shape 18           |                                         |               |     |
|               |               | 232-236                 | Dynamic multi-colour shape 19           |                                         |               |     |
|               |               | 237-241                 | Dynamic multi-colour shape 20           |                                         |               |     |
|               |               | 242-245                 | Dynamic multi-colour shape 21           |                                         |               |     |
|               |               | 246-250                 | Dynamic multi-colour shape 22           |                                         |               |     |
|               |               | 251-254                 | Dynamic multi-colour shape 23           |                                         |               |     |
|               |               | 255                     | Dynamic multi-colour shape 24           |                                         |               |     |
| 22            | 22            | Shape speed/position    |                                         |                                         |               | 000 |
|               |               | 000-009                 | No function                             |                                         |               |     |
|               |               | 010-018                 | Position 1                              |                                         |               |     |
|               |               | 019-027                 | Position 2                              |                                         |               |     |
|               |               | 028-036                 | Position 3                              |                                         |               |     |
|               |               | 037-045                 | Position 4                              |                                         |               |     |
|               |               | 046-054                 | Position 5                              |                                         |               |     |
|               |               | 055-063                 | Position 6                              |                                         |               |     |
|               |               | 064-158                 | Clockwise rotation (fast-slow)          |                                         |               |     |
|               |               | 159-160                 | Rotation stop                           |                                         |               |     |
|               |               | 161-255                 | Counter-clockwise rotations (slow-fast) |                                         |               |     |
| 23            | 23            | 000-255                 | Shape fade                              | 000                                     |               |     |
| 24            | 24            | 000-255                 | Shape red dimmer (0-100%)               | 000                                     |               |     |
| 25            | 25            | 000-255                 | Shape green dimmer (0-100%)             | 000                                     |               |     |
| 26            | 26            | 000-255                 | Shape blue dimmer (0-100%)              | 000                                     |               |     |
| 27            | 27            | 000-255                 | Shape white dimmer (0-100%)             | 000                                     |               |     |
| 28            | 28            | 000-255                 | Shape master dimmer (0-100%)            | 000                                     |               |     |
| 29            | 29            | 000-255                 | Background master dimmer (0-100%)       | 000                                     |               |     |
| 30            | 30            | 000-255                 | Shape starting position                 | 000                                     |               |     |
| 31            | 31            | Shape Strobe            |                                         |                                         |               | 000 |
|               |               | 000                     | LED off                                 |                                         |               |     |
|               |               | 000-250                 | Strobe (slow-fast)                      |                                         |               |     |
|               |               | 251-255                 | LED on                                  |                                         |               |     |
| 32            | 32            | Background Strobe       |                                         |                                         |               | 000 |
|               |               | 000                     | LED off                                 |                                         |               |     |
|               |               | 000-250                 | Strobe (slow-fast)                      |                                         |               |     |
|               |               | 251-255                 | LED on                                  |                                         |               |     |

### DMX channel modes:

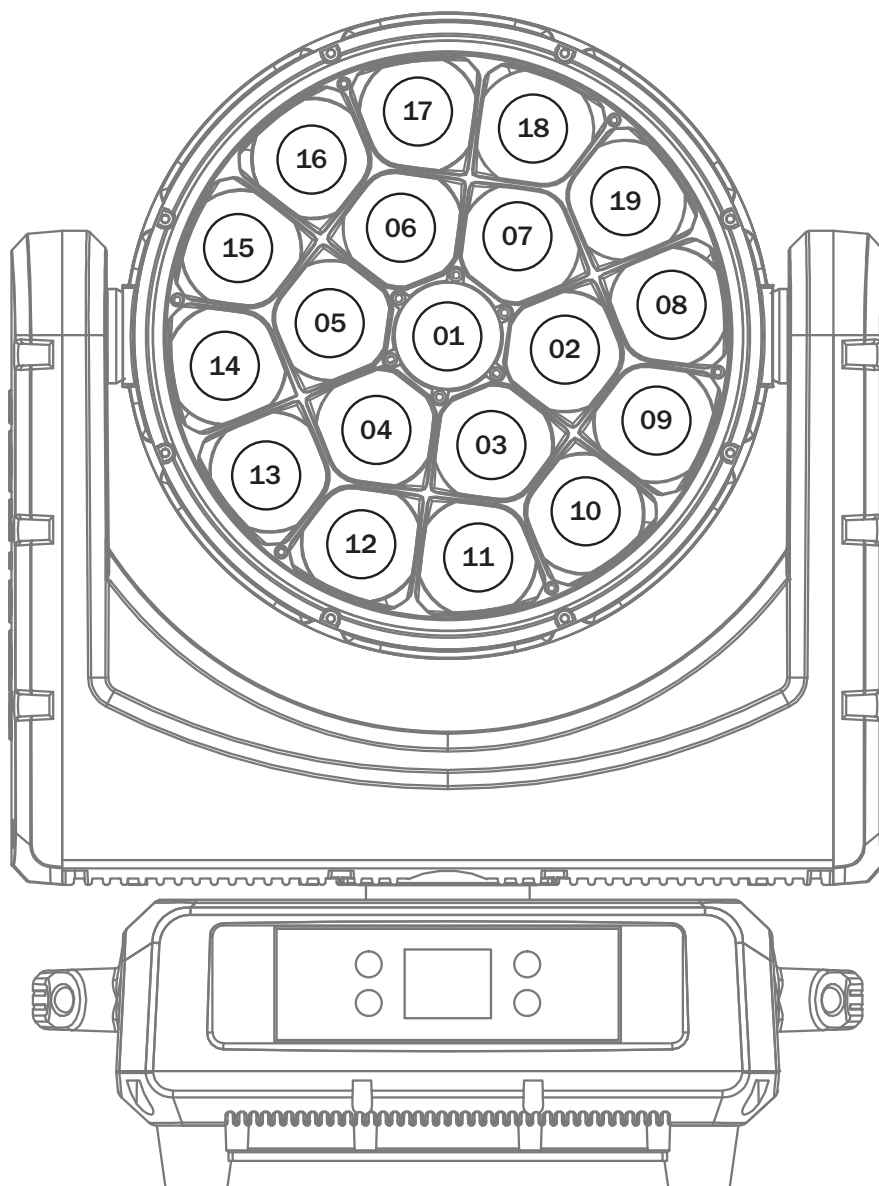
| 35CH | 111CH | Value          | Function                | Default Value |
|------|-------|----------------|-------------------------|---------------|
| 33   | 33    | Dimming curves |                         |               |
|      |       | 000-020        | No Function             | 000           |
|      |       | 051-100        | Linear                  |               |
|      |       | 101-150        | Square Law              |               |
|      |       | 151-200        | Inv. Square Law         |               |
|      |       | 201-255        | S-Curve                 |               |
| 34   | 34    | Refresh rate   |                         |               |
|      |       | 000-050        | 650Hz                   | 000           |
|      |       | 051-100        | 1500Hz                  |               |
|      |       | 101-150        | 3600Hz                  |               |
|      |       | 151-200        | 12kHz                   |               |
|      |       | 201-255        | 25kHz                   |               |
| -    | 35    | 000-255        | Red 1 dimmer (0-100%)   | 000           |
| -    | 36    | 000-255        | Green 1 dimmer (0-100%) | 000           |
| -    | 37    | 000-255        | Blue 1 dimmer (0-100%)  | 000           |
| -    | 38    | 000-255        | White 1 dimmer (0-100%) | 000           |
| -    | 39    | 000-255        | Red 2 dimmer (0-100%)   | 000           |
| -    | 40    | 000-255        | Green 2 dimmer (0-100%) | 000           |
| -    | 41    | 000-255        | Blue 2 dimmer (0-100%)  | 000           |
| -    | 42    | 000-255        | White 2 dimmer (0-100%) | 000           |
| -    | 43    | 000-255        | Red 3 dimmer (0-100%)   | 000           |
| -    | 44    | 000-255        | Green 3 dimmer (0-100%) | 000           |
| -    | 45    | 000-255        | Blue3 dimmer (0-100%)   | 000           |
| -    | 46    | 000-255        | White 3 dimmer (0-100%) | 000           |
| -    | 47    | 000-255        | Red 4 dimmer (0-100%)   | 000           |
| -    | 48    | 000-255        | Green 4 dimmer (0-100%) | 000           |
| -    | 49    | 000-255        | Blue 4 dimmer (0-100%)  | 000           |
| -    | 50    | 000-255        | White 4 dimmer (0-100%) | 000           |
| -    | 51    | 000-255        | Red 5 dimmer (0-100%)   | 000           |
| -    | 52    | 000-255        | Green 5 dimmer (0-100%) | 000           |
| -    | 53    | 000-255        | Blue 5 dimmer (0-100%)  | 000           |
| -    | 54    | 000-255        | White 5 dimmer (0-100%) | 000           |
| -    | 55    | 000-255        | Red 6 dimmer (0-100%)   | 000           |
| -    | 56    | 000-255        | Green 6 dimmer (0-100%) | 000           |
| -    | 57    | 000-255        | Blue 6 dimmer (0-100%)  | 000           |
| -    | 58    | 000-255        | White 6 dimmer (0-100%) | 000           |

### DMX channel modes:

| 35CH | 111CH | Value   | Function                 | Default Value |
|------|-------|---------|--------------------------|---------------|
| -    | 59    | 000-255 | Red 7 dimmer (0-100%)    | 000           |
| -    | 60    | 000-255 | Green 7 dimmer (0-100%)  | 000           |
| -    | 61    | 000-255 | Blue 7 dimmer (0-100%)   | 000           |
| -    | 62    | 000-255 | White 7 dimmer (0-100%)  | 000           |
| -    | 63    | 000-255 | Red 8 dimmer (0-100%)    | 000           |
| -    | 64    | 000-255 | Green 8 dimmer (0-100%)  | 000           |
| -    | 65    | 000-255 | Blue 8 dimmer (0-100%)   | 000           |
| -    | 66    | 000-255 | White 8 dimmer (0-100%)  | 000           |
| -    | 67    | 000-255 | Red 9 dimmer (0-100%)    | 000           |
| -    | 68    | 000-255 | Green 9 dimmer (0-100%)  | 000           |
| -    | 69    | 000-255 | Blue 9 dimmer (0-100%)   | 000           |
| -    | 70    | 000-255 | White 9 dimmer (0-100%)  | 000           |
| -    | 71    | 000-255 | Red 10 dimmer (0-100%)   | 000           |
| -    | 72    | 000-255 | Green 10 dimmer (0-100%) | 000           |
| -    | 73    | 000-255 | Blue 10 dimmer (0-100%)  | 000           |
| -    | 74    | 000-255 | White 10 dimmer (0-100%) | 000           |
| -    | 75    | 000-255 | Red 11 dimmer (0-100%)   | 000           |
| -    | 76    | 000-255 | Green 11 dimmer (0-100%) | 000           |
| -    | 77    | 000-255 | Blue 11 dimmer (0-100%)  | 000           |
| -    | 78    | 000-255 | White 11 dimmer (0-100%) | 000           |
| -    | 79    | 000-255 | Red 12 dimmer (0-100%)   | 000           |
| -    | 80    | 000-255 | Green 12 dimmer (0-100%) | 000           |
| -    | 81    | 000-255 | Blue 12 dimmer (0-100%)  | 000           |
| -    | 82    | 000-255 | White 12 dimmer (0-100%) | 000           |
| -    | 83    | 000-255 | Red 13 dimmer (0-100%)   | 000           |
| -    | 84    | 000-255 | Green 13 dimmer (0-100%) | 000           |
| -    | 85    | 000-255 | Blue 13 dimmer (0-100%)  | 000           |
| -    | 86    | 000-255 | White 13 dimmer (0-100%) | 000           |
| -    | 87    | 000-255 | Red 14 dimmer (0-100%)   | 000           |
| -    | 88    | 000-255 | Green 14 dimmer (0-100%) | 000           |
| -    | 89    | 000-255 | Blue 14 dimmer (0-100%)  | 000           |
| -    | 90    | 000-255 | White 14 dimmer (0-100%) | 000           |
| -    | 91    | 000-255 | Red 15 dimmer (0-100%)   | 000           |
| -    | 92    | 000-255 | Green 15 dimmer (0-100%) | 000           |
| -    | 93    | 000-255 | Blue 15 dimmer (0-100%)  | 000           |
| -    | 94    | 000-255 | White 15 dimmer (0-100%) | 000           |
| -    | 95    | 000-255 | Red 16 dimmer (0-100%)   | 000           |
| -    | 96    | 000-255 | Green 16 dimmer (0-100%) | 000           |
| -    | 97    | 000-255 | Blue 16 dimmer (0-100%)  | 000           |
| -    | 98    | 000-255 | White 16 dimmer (0-100%) | 000           |

### DMX channel modes:

| 35CH | 111CH | Value   | Function                   | Default Value |
|------|-------|---------|----------------------------|---------------|
| -    | 99    | 000-255 | Red 17 dimmer (0-100%)     | 000           |
| -    | 100   | 000-255 | Green 17 dimmer (0-100%)   | 000           |
| -    | 101   | 000-255 | Blue 17 dimmer (0-100%)    | 000           |
| -    | 102   | 000-255 | White 17 dimmer (0-100%)   | 000           |
| -    | 103   | 000-255 | Red 18 dimmer (0-100%)     | 000           |
| -    | 104   | 000-255 | Green 18 dimmer (0-100%)   | 000           |
| -    | 105   | 000-255 | Blue 18 dimmer (0-100%)    | 000           |
| -    | 106   | 000-255 | White 18 dimmer (0-100%)   | 000           |
| -    | 107   | 000-255 | Red 19 dimmer (0-100%)     | 000           |
| -    | 108   | 000-255 | Green 19 dimmer (0-100%)   | 000           |
| -    | 109   | 000-255 | Blue 19 dimmer (0-100%)    | 000           |
| -    | 110   | 000-255 | White 19 dimmer (0-100%)   | 000           |
| 35   | 111   | 000-250 | No function                | 000           |
|      |       | 251-255 | Reset (hold for 5 seconds) |               |



Display Position: PAN = 000, TILT = 018

### 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:

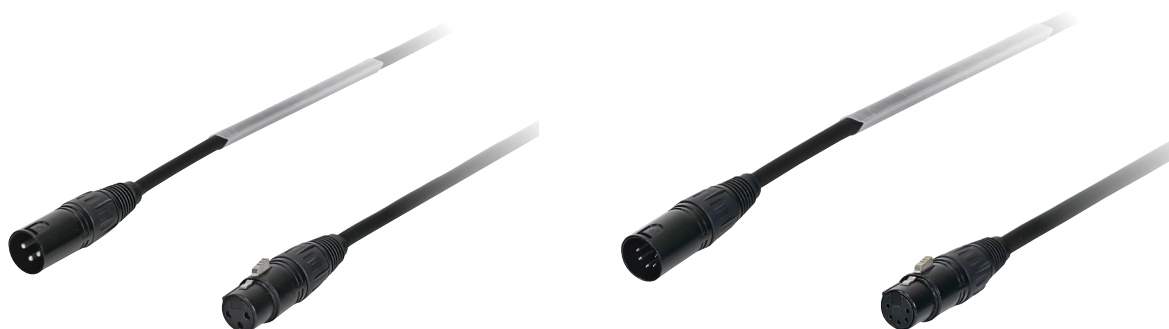
DMX (Digital Multiplex) is a universal protocol used as a form of communication between intelligent fixtures and controllers. A DMX controller sends DMX data instructions from the controller to the fixture. DMX data is sent as serial data that travels from fixture to fixture via the DATA “IN” and DATA “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 either a standard 3-pin or 5-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.

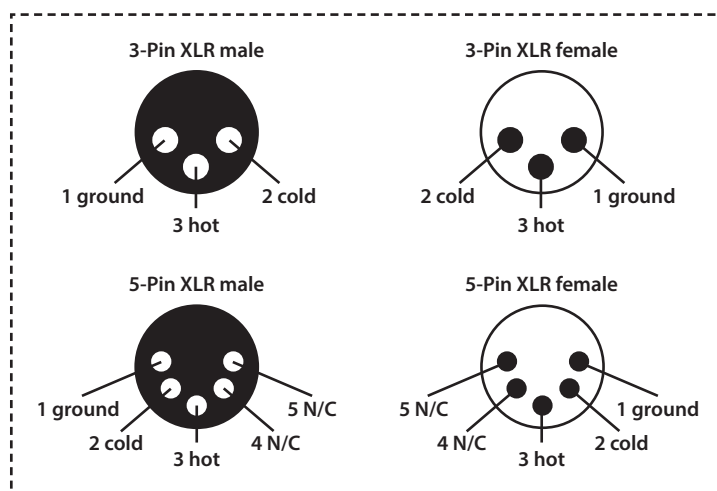
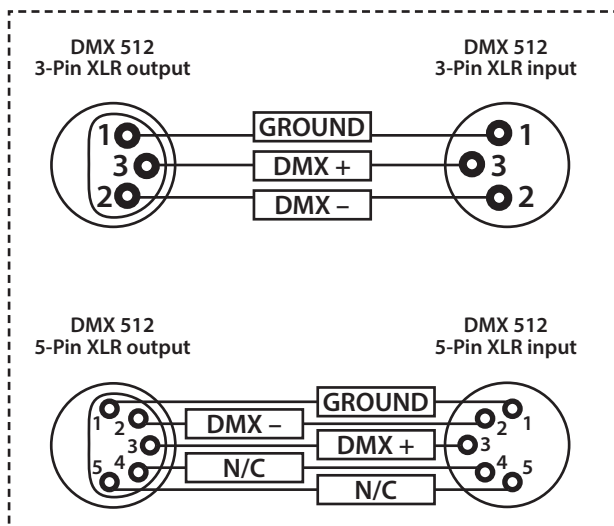
|               |        |                     |                     |                      |
|---------------|--------|---------------------|---------------------|----------------------|
| Please quote: | 3-Pin: | <b>CABL10 – 2m</b>  | <b>CABL11 – 5m</b>  | <b>CABL12 – 10m</b>  |
|               | 5-Pin: | <b>CABL185 – 2m</b> | <b>CABL187 – 5m</b> | <b>CABL188 – 10m</b> |

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 |



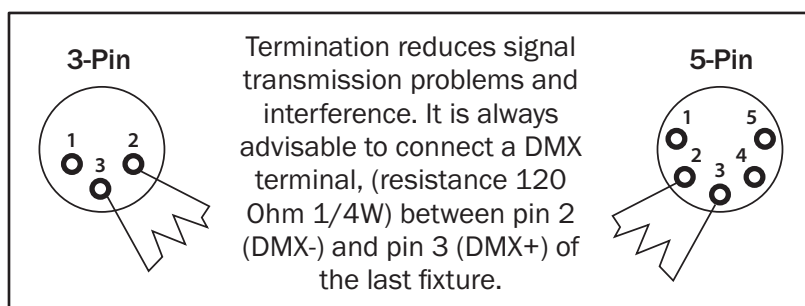
### Line termination:

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.

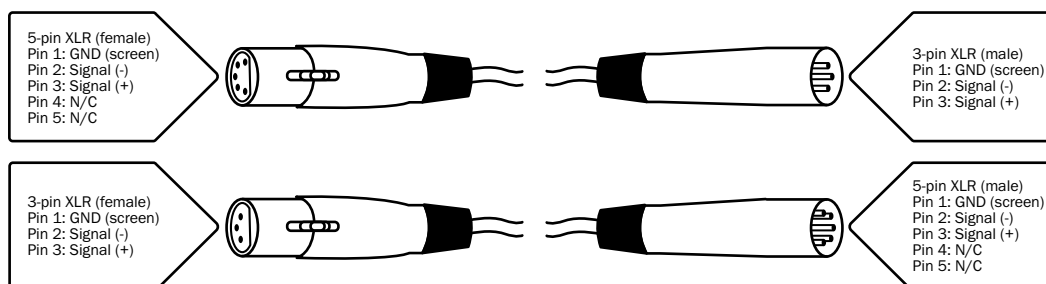
(3-pin - Order ref: CABL90,

5-pin - Order ref: CABL89)



### 5-pin XLR DMX connectors:

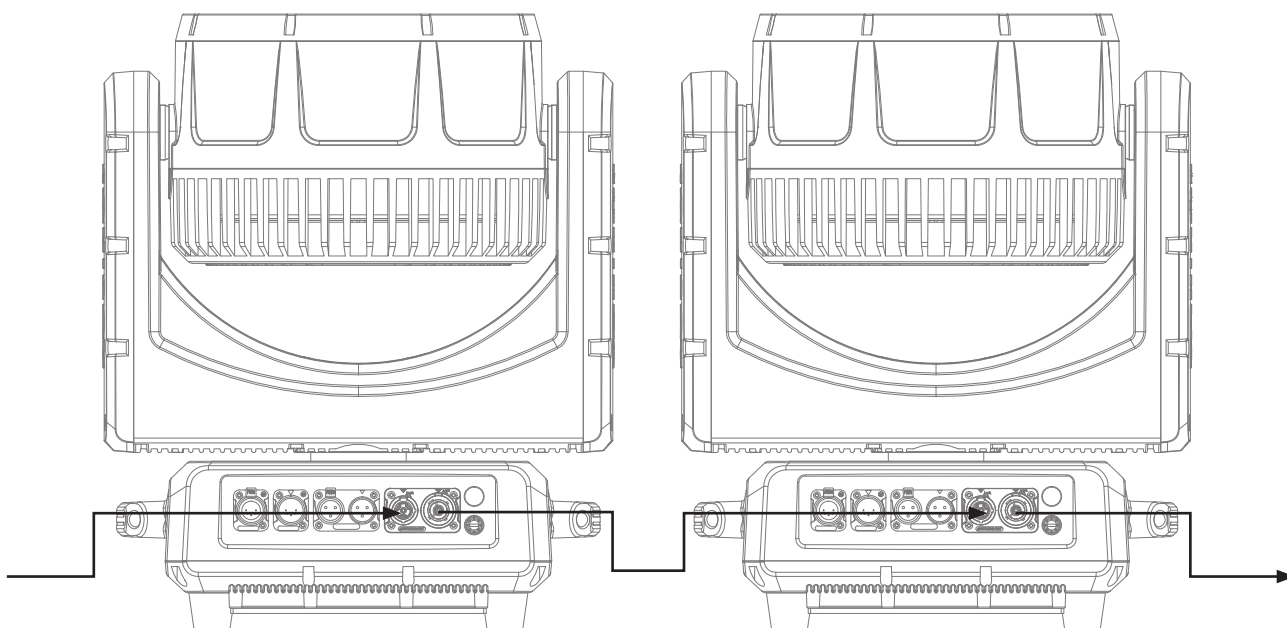
Some manufactures use 5-pin XLR connectors for data transmission in place of 3-pin. 5-pin XLR fixtures may be implemented in a 3-pin XLR DMX line. When inserting standard 5-pin XLR connectors in to a 3-pin line a cable adaptor must be used. The diagram below details the correct cable conversion.



### 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 via a 13A mains input is 2 fixtures @ 240V or 1 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 Patriot 1940FXP Pixel Zoom Wash 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 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.

