**General set up**

1. Mount the fixture in the required position. The integral yoke can act as a floor stand or hanger.

**Important**
- When suspending the fixture, use at least two clamps onto the front or rear (or both) of the PixelMax Wash yoke.
- When suspending the fixture, always use a safety wire rated to a minimum of 64kg (140lbs) around the yoke. Threaded M8 bushes in the side panels also allow the use of load eyes.
- Do not position the fixture close to fog machines. The fog oil mist will be drawn in by the cooling fans and will short out important components. The warranty will be void for all fixtures returned in such a condition.

2. Where external control is to be used, connect a DMX lead (XLR 5-pin female) to the input socket at the rear of the fixture.

3. Where other fixtures are to be used in a control daisy-chain, connect a DMX lead (XLR 5-pin male) to the output socket at the rear of the fixture. Where a power daisy-chain is also required, use the white Neutrik PowerCon output socket (see warning below).

4. Connect power to the fixture using a Neutrik® PowerCon® connector. Insert the connector and twist it clockwise until it clicks into place.

5. Use the control panel to access the internal menu and choose the appropriate operation mode and related settings (see over).

**Beam spreading**

The upper and lower cell panels can be tilted independently to make their beams diverge from the centre by up to 16 degrees.

**To spread a beam**

Loosen the adjustment screws at either side of the cell panel. Use the knobs to tilt the panel to the required angle and then tighten.

**Operation modes**

The PixelMax Wash provides a range of operation modes. These are selected using the *Menu* section of the control menu:

- **d11:** Allows RGB(A) control via DMX input. Using the *RES* (resolution) option you can determine the number of DMX channels required: between 3 and 24. Internal chase effects are not available within this mode.
- **MAN:** Provides RGBA colour mixing independently of any external control. Use the internal control menu (*MANU* section) to select the required colour values.
- **EF:** Allows the display of the dual internal chase effects, independently of any external control. Use the internal control menu (*EFM*) to select the required chase effects, speeds and cross fades.
- **24+E:** Provides control of RGBA mixing and selection of the dual internal chase effects via DMX input. Requires 31 DMX channels.
- **4+E:** Provides control of RGBA mixing and selection of the dual internal chase effects via DMX input. Requires 11 DMX channels.
- **16bT:** Allows RGB(A) control via DMX input, using two 8bit channels per colour. The *RES* and *MINT* options determine how many channels are required. Internal chase effects are not available within this mode.

**Note**

- To optionally clear all previous settings: At the rear panel, press the middle two buttons (↑ and ↓) while the current address and mode are being scrolled across the display. The four digit display will show *baaa* then *PSET* to indicate that the fixture has been returned to its default condition.
Menu operation

General notes
- Ensure that only one DMX device in the chain is set as master (e.g., the lighting desk). This fixture is usually set to slave mode.
- This fixture is shipped with the DMX address set to 001.
- The four digit display can be set to switch off when not in use. To restore, press . To alter this mode use: PERS > dISP.

Using the menu
- When not in the menu, the four digit display scrolls the current DMX address and mode. The display’s right hand decimal point (data dot) is used to indicate status (see below).
- Press  to enter the menu. The four digit display will show Addr.
- Use  and  to move between menu options (or to change a value within an option).
- Press  to enter an option (or to fix a changed value within an option and return to the previous option level). Note: If you do not press  to fix a value, operation will revert to the previously set mode at the next power on.
- Press  to exit from a menu option (and eventually exit the menu completely).

Chase effects
This section describes each of the 31 internal chase effects that are selectable either via the control menu (Prog > EfEc > EFEC) or using DMX values sent from an external source. To use the internal effects, set the EfEc option either to EF 11 (to control effects via the menu) or EF d / 4+E (to control effects externally via DMX). See page 6 for details about controlling effects on other fixtures via DMX without using a control desk.

<table>
<thead>
<tr>
<th>DMX value</th>
<th>EFEC value</th>
<th>Chase effect description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-7</td>
<td>00</td>
<td>Off</td>
</tr>
<tr>
<td>8-15</td>
<td>01</td>
<td>Rainbow chase forward (cells A &gt; F)</td>
</tr>
<tr>
<td>16-23</td>
<td>02</td>
<td>Rainbow chase reverse (cells F &gt; A)</td>
</tr>
<tr>
<td>24-31</td>
<td>03</td>
<td>White chase forward (cells A &gt; F)</td>
</tr>
<tr>
<td>32-39</td>
<td>04</td>
<td>White chase reverse (cells F &gt; A)</td>
</tr>
<tr>
<td>40-47</td>
<td>05</td>
<td>White chase in cell pairs (cells A, F &gt; B, E &gt; C, D)</td>
</tr>
<tr>
<td>48-55</td>
<td>06</td>
<td>50/50 duty cycle strobe white (all cells)</td>
</tr>
<tr>
<td>56-63</td>
<td>07</td>
<td>50/50 duty cycle strobe red (all cells)</td>
</tr>
<tr>
<td>64-71</td>
<td>08</td>
<td>50/50 duty cycle strobe blue (all cells)</td>
</tr>
<tr>
<td>72-79</td>
<td>09</td>
<td>50/50 duty cycle strobe yellow (all cells)</td>
</tr>
<tr>
<td>80-87</td>
<td>10</td>
<td>50/50 duty cycle strobe green (all cells)</td>
</tr>
<tr>
<td>88-95</td>
<td>11</td>
<td>Pulse strobe white (all cells)</td>
</tr>
<tr>
<td>96-103</td>
<td>12</td>
<td>Pulse strobe blue (all cells)</td>
</tr>
<tr>
<td>104-111</td>
<td>13</td>
<td>Pulse strobe rainbow (all cells)</td>
</tr>
<tr>
<td>112-119</td>
<td>14</td>
<td>Pulse strobe red/green/blue (all cells)</td>
</tr>
<tr>
<td>120-127</td>
<td>15</td>
<td>Primary/secondary chase (all cells)</td>
</tr>
<tr>
<td>128-135</td>
<td>16</td>
<td>Red/green/blue chase (all cells)</td>
</tr>
<tr>
<td>136-143</td>
<td>17</td>
<td>Alternate yellow/blue (all cells)</td>
</tr>
<tr>
<td>144-151</td>
<td>18</td>
<td>Rainbow chase (cells A, B, C &gt; D, E, F)</td>
</tr>
<tr>
<td>152-159</td>
<td>19</td>
<td>Yellow/blue chase (cells A, C, E &gt; B, D, F)</td>
</tr>
<tr>
<td>160-167</td>
<td>20</td>
<td>Red/blue chase (cells A, C, E &gt; B, D, F)</td>
</tr>
<tr>
<td>168-175</td>
<td>21</td>
<td>Red/yellow chase (cells A, B, E, F &gt; C, B)</td>
</tr>
<tr>
<td>176-183</td>
<td>22</td>
<td>Red/green/blue chase (cells A, B &gt; C, D &gt; E, F)</td>
</tr>
<tr>
<td>184-191</td>
<td>23</td>
<td>Red/green/blue chase (cells A, B &gt; C, D &gt; E, F)</td>
</tr>
<tr>
<td>192-199</td>
<td>24</td>
<td>Red/green/blue chase (cells E, F &gt; C, D &gt; A, B)</td>
</tr>
<tr>
<td>200-207</td>
<td>25</td>
<td>Static orange (all cells)</td>
</tr>
<tr>
<td>208-215</td>
<td>26</td>
<td>Static yellow (all cells)</td>
</tr>
<tr>
<td>216-223</td>
<td>27</td>
<td>Static light blue (all cells)</td>
</tr>
<tr>
<td>224-231</td>
<td>28</td>
<td>Static purple (all cells)</td>
</tr>
<tr>
<td>232-239</td>
<td>29</td>
<td>Static red (all cells)</td>
</tr>
<tr>
<td>240-247</td>
<td>30</td>
<td>Static green (all cells)</td>
</tr>
<tr>
<td>248-255</td>
<td>31</td>
<td>Random colour chase (individual cells)</td>
</tr>
</tbody>
</table>

Master/slave/data indication
The right hand decimal point (data dot) of the display is used to indicate the master/slave settings and also the presence of a DMX input signal, as shown below:

Data dot ON: Master mode
Data dot OFF: Slave mode (no DMX data present)
Data dot FLASHING: Slave mode (DMX data input present)

Notes:
- Ensure that only one DMX device in the chain is set as master (e.g., the desk).
- Use PERS > dTR to change between master & slave modes.
- When set to master mode, the fixture will scroll MASTER in place of a DMX address (when not within the menu).
- If the display has been set to auto off (dISP > RoFF), the data dot will remain active but at a lower brightness.

Dimming options (PEPS > dIMP)
You have a choice of dimmer curve control options:
- FINE is the standard setting and is fully compatible with the dimming curves of previous Pixel Range fixtures.
- TUNG Alters the dimming response to closely emulate the very smooth action of standard tungsten bulbs.

Neutrik® PowerCon® (NAC3FCA) connector wiring

Neutral
Live
Earth
Menu contents

Sets the base DMX address from which the control channels will begin.

Shows the installed revision of the main fixture firmware. This is for information purposes only, no changes are possible within this option.

Shows the installed revision of the software used to control the four digit display panel. This is for information purposes only, no changes are possible within this option.

Selects the primary internal chase effect. See Chase effects for descriptions. Select Mode > EF to show the selected chase.

Selects the cross fade speed between the steps of the selected C1 chase effect.

Selects the speed of the selected C1 chase effect.

Selects the master intensity level of chase effects C1 and C2.

Selects the secondary internal chase effect. See Chase effects for descriptions. Select Mode > EF to show the selected chase.

Selects the cross fade speed between the steps of the selected C2 chase effect.

Selects the speed of the selected C2 chase effect.

Sets the red intensity. Select Mode > MANU (manual) to show the result.

Sets the green intensity. Select Mode > MANU (manual) to show the result.

Sets the blue intensity. Select Mode > MANU (manual) to show the result.

Sets the amber intensity. Select Mode > MANU (manual) to show the result.

(Affects d11: & 16bT modes only) Determines how colours are assigned to DMX channels. Options are 24ch/18ch/12ch/9ch/8ch/6ch/4ch and 3ch.

Determines whether this fixture will act as a master controlling others. When controlled by DMX input, this fixture must be set to SLAV.

Affects d11: & 16bT modes only. GLabRFL enables a single master intensity. CCell enables a master intensity channel for each cell or group of cells.

When set on, this option scrolls through the primary colours at power on to demonstrate correct operation.

Determines the intensity of the four digit control panel display. Values range from 0 (dimmest) to 15 (brightest).

When set to Aoff, the control panel display will blank out shortly after the menu is exited. The master/slave/DMX signal indication will remain active.

Allows you to choose dimming curve & response rate. FINE is compatible with previous Pixel Range fixtures. TUNG produces very smooth responses to DMX inputs.

8bit RGB(A) control using the number of DMX channels determined by PERS > RES. PERS > MINT determines master intensity channel(s). No chase effects are selectable.

Displays the resulting RGB levels that are set via the MANU section of the internal menu. When set as master, these levels are also output via DMX for the control of other fixtures.

Displays the chase effect(s) determined within the PROG section. When set as master, these levels are also output via DMX for the control of other fixtures.

DMX Ch1 to 24: RGBA, Ch25 to 27: C1 Effect, Speed & Xfade, Ch28 to 30: C2 Effect, Speed & Xfade, Ch31: Master intensity.

DMX Ch1 to 4: RGBA, Ch5 to 7: C1 Effect, Speed & Xfade, Ch8 to 10: C2 Effect, Speed & Xfade, Ch11: Master intensity.

16bit RGB(A) control using 2x the number of DMX channels determined by PERS > RES. PERS > MINT determines master intensity channel(s). No chase effects are selectable.
Channel layouts within operation modes

These tables show how colour mixing, chase effects and master intensity controls are mapped to DMX channels for each mode that uses an external input. The \( d_{1}\) and \( 16b\) modes do not use chase effects. In all modes, the first channel of the fixture occurs at the DMX address selected using \( \text{AddP} \) and successive channels for the fixture follow from there.

Notes:

The PERS > RES option determines the number of channels to use in \( d_{1}\) and \( 16b \) modes (\( 16b \) uses twice the number of channels setup within RES).

For \( d_{1} \) and \( 16b \) modes, the PERS > MINT option determines whether one or more master intensity channels should be used: Off = no master intensity, Global = one master intensity for the whole fixture, Cell = separate master intensity channels for each cell, or group of cells.

### ModE = \( d_{1}\):
(PERS > MINT set to OFF or *Global to provide a single master intensity channel)

<table>
<thead>
<tr>
<th>ModE = ( d_{1})</th>
<th>ModE = ( d_{1})</th>
<th>ModE = ( d_{1})</th>
<th>ModE = ( d_{1})</th>
<th>ModE = ( d_{1})</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERS &gt; RES = ( 24)Ch</td>
<td>PERS &gt; RES = ( 18)Ch</td>
<td>PERS &gt; RES = ( 12)Ch</td>
<td>PERS &gt; RES = ( 9)Ch</td>
<td>PERS &gt; RES = ( 6)Ch</td>
</tr>
<tr>
<td>R</td>
<td>G</td>
<td>B</td>
<td>A</td>
<td>R</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>9</td>
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<tr>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>13</td>
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<tr>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>17</td>
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<tr>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>21</td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

### ModE = \( 4\)E:

This mode provides a combination of colour mixing and internal effects under the control of a DMX input.

See page 2 (Chase effects) for details of values for \( C1 \) and \( C2 \) effect channels.

### ModE = \( 24\)E:

This mode provides a combination of colour mixing and internal effects under the control of a DMX input.

See page 2 (Chase effects) for details of values for \( C1 \) and \( C2 \) effect channels.

### ModE = \( PERS > MINT \) set to \( \text{CELL} \) to provide master intensity channels for each cell or group of cells
In each pair of channels for a colour, the first channel provides the high (coarse) 8 bits while the second gives the low (fine) 8 bits.

### Mode = 16bT (16 bit)

(PERS > MINT set to OFF or *GloBAl to provide a single master intensity channel)

In each pair of channels for a colour, the first channel provides the high [coarse] 8 bits while the second gives the low [fine] 8 bits.
Using master mode to drive other units
This unit can control any number of other Pixel Range fixtures via DMX links, without the need for a control desk.

1. Set this unit as a master (PERS > dDATA > MAST) and ensure all others are set to slave (PERS > dDATA > SLAV). Connect all fixtures via DMX daisy-chain.

2. Set slaves to MAST > dRTW. Set the master to either:
   • MAST > EF: H and use PDAG to choose effects, or
   • MAST > MANU: H and use TFR to choose colour mix.

3. Use ADDR > dRT to set slave addresses (the master unit’s DMX address is ignored):
   • Effects: 6 cells are output in groups of 4 DMX channels to give RGBA values per cell (24 channels in total). Set the address of each slave fixture according to which of the 6 cells you want them to appear within, or to begin with (for multi-cell fixtures): (ADD 1 for cell 1, ADD 2 for cell 2, ... ADD 6 for cell 6).
   • Colour mix: Set slaves to any addresses on 4 channel boundaries, e.g. ADD 1, ADD 5, ADD 9, ... ADD 6.

Troubleshooting
Fixture remains at blackout when illumination expected
- If the display panel is not showing any indication, even after a button press, check the input power and fuse.
- If live DMX is connected, the right hand decimal point on the display should flash - if not, check the DMX cable and the desk output.
- Check that the selected MAST matches the desk personality being used.
- The master intensity channel for the current mode may be set at zero. For dRTW or dRTG modes, check the setting of PERS > MINT.
- Ensure that only one DMX device is set as master.
- Standalone chase effects: Effects programmed using PDAG > C1 and C2 but the fixture is not in MAST > EF: H mode. Check also that PDAG > LEV'L is not set at zero.
- Standalone RGB mixing: Colour values set within MANU section but the fixture is not in MAST > MANU mode.

Fuse access
The single fuse is located on the rear panel of the fixture.

To remove the fuse
Using a flatblade screwdriver, push in the fuse cap and then twist it anti-clockwise until it disengages from the holder.

Specifications
Dimensions

Weight
- Fixture and yoke: 12.8Kg (28lbs)

Power
- Input voltage: 90 to 264V AC, 47 to 63Hz autosensing
- Connectors: Neutrik PowerCon® (see first page for details)
- Power requirements:
  - @ 230V/50Hz: 10 watts, 10 watts
  - @ 115V/60Hz: 320 watts, 320 watts
  * The peak value occurs only at first power up and lasts only for a period measured in microseconds. Adjustments may need to be made to supply circuit breakers when multiple fixtures are daisy-chained, causing them all to draw the peak simultaneously.

Approvals

Miscellaneous
- Enclosure rating: IP20 (not protected against moisture ingress)
- Control input: USITT DMX512 (input connector pin out below)

Fuse type: 20mm 4A (T4AH) anti-surge, ceramic body