1 DMX Network Setup

DMX Network is an optional setup which allows multiple units to be linked together to operate in unison. This is achieved via the DMX networking capability. Devices can be controlled using either your PC or a DMX compatible control desk (see the DMX Channel Assignments section).

Additional cables required (unsupplied):

- 1 or more standard RJ-45 PC network cables.
- (Optional, control desk only) 1 x 3 or 5 pin XLR (depending on DMX control desk) > RJ-45 DMX cable.

2 Wiring (Rear IO Panel)

1) Mains power switch (illuminated when on)
2) Fuse holder
3) IEC (mains power) inlet
4) DMX base address
5) ‘F’ (Function) button
6) Indicator LEDS (top = controller status, bottom = power)
7) DMX networking IO ports
8) ‘R’ (Reset) button
9) USB compatible port
10) Audio input (TTi units only)
11) Audio output (TTi units only)
2.1. PC Controlled

1) Connect the first motion system in the chain to your PC using the supplied USB cable as described previously.
2) Connect one end of the RJ-45 cable to the DMX Out port (7 DMX ports) on the first motion system in the chain to the DMX In port on the second motion system.
3) For each subsequent system you wish to control simultaneously, connect another RJ-45 cable from the DMX Out port of the previous unit to the DMX In port of the next.

2.2. DMX Desk Controlled

1) Connect the DMX In port (7 DMX ports) of the first motion system in the chain to your DMX control desk using the XLR > RJ-45 DMX cable.
2) Chain subsequent units together by following the second and third steps outlined in the 'PC Controlled' section above.

2.2.1. Dip Switch Settings

1) The DMX512 address of the unit is set using switches 1-9 on the ADDR/TERM switch panel (4 DMX address). As with most DMX-compatible equipment, the addresses are set using a binary system, by summating the values of all enabled (on) switches (1-9) to give the address. e.g. switch 1 enabled (on) and 2-9 disabled (off) = Channel 1, switches 2 and 4 enabled (and all others disabled) = Channel 10, and so on. Units set with the same address in the chain will operate in unison.
2) IMPORTANT: Switch 10 should only be enabled (on) in the LAST unit in the DMX chain - this enables the termination resistor, and if left disabled (off) unexpected results may occur. If it is enabled on a unit prior to the last in the chain, the subsequent units may not function correctly.
3) If you are unsure about DMX channel setup or will only be using a single motion system via PC control, just set the unit to channel 1 by enabling switch 1 (on) and disabling all others (off).
## 2.2.2. DMX Channel Assignments

<table>
<thead>
<tr>
<th>Channel</th>
<th>Range</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0-255</td>
<td>Pitch (Coarse)</td>
<td>Coarse pitch position (0 = fully backward, 255 = fully forward)</td>
</tr>
<tr>
<td>2</td>
<td>0-255</td>
<td>Pitch (Fine)</td>
<td>Fine pitch position. Used in conjunction with Pitch (Coarse) to form a 16-bit number, allowing 65536 possible positions. Pitch (Coarse) is the high-order byte</td>
</tr>
<tr>
<td>3</td>
<td>0-255</td>
<td>Roll (Coarse)</td>
<td>Coarse roll position (0 = fully left, 255 = fully right)</td>
</tr>
<tr>
<td>4</td>
<td>0-255</td>
<td>Roll (Fine)</td>
<td>Fine roll position. Used in conjunction with Roll (Coarse) to form a 16-bit number, allowing 65536 possible positions. Roll (Coarse) is the high-order byte</td>
</tr>
<tr>
<td>5</td>
<td>0-255</td>
<td>Force</td>
<td>Movement force (0 = lowest, 255 = highest)</td>
</tr>
<tr>
<td>6</td>
<td>0-255</td>
<td>Max Speed</td>
<td>Movement maximum speed (0 = lowest, 255 = highest). If unsure, set this to be permanently 255</td>
</tr>
<tr>
<td>7</td>
<td>0-255</td>
<td>TT Gain (TTi Units only)</td>
<td>Sets the gain (volume) of the tactile transducers (0 = lowest, 255 = highest)</td>
</tr>
<tr>
<td>8</td>
<td>0-255</td>
<td>TT LFC (TTi Units only)</td>
<td>Sets the LFC (Low Frequency Cut-off) of the tactile transducers (0 = lowest (20hz), 255 = highest (100hz))</td>
</tr>
</tbody>
</table>
| 9       | 0-255   | Command             | Used to issue one-shot commands to the unit. Must be set to 0 at all other times. Commands are as follows:-  
|         |         |                     | - 255 – Reset system  
|         |         |                     | It is recommended the command channel is set to the desired value for a minimum of 0.5 seconds before being reverted back to zero, to ensure the command is transmitted correctly |