

# Dam44 4x4 Audio Matrix-Mixer

## *technical specifications*



### **General**

|                        |                                      |
|------------------------|--------------------------------------|
| Dimensions             | 19" / 1 HE (483 x 44.5 x 160 mm)     |
| Weight                 | 3 kg                                 |
| Power supply           | 115 / 230 Volt (selectable) 9 VA     |
| DMX input              | DMX512 (1990), isolated on 5 pin XLR |
| DMX output             | DMX512 (1990)                        |
| Audio connections      | XLR 3 pin                            |
| Audio link connections | Sub-D 9 pin                          |
| Control outputs        | Sub-D 9 pin                          |

### **Audio**

|                      |   |
|----------------------|---|
| Frequency response   | 18 Hz – 80 kHz 0/-1 dB  |
| THD+N @ 0 dBu        | 40 Hz < -72 dB<br>1kHz < -80 dB<br>15kHz < -72 dB   |
| Noise (1channel)     | < -83 dBu   |
| Crosstalk            | < -66 dB (40 Hz – 15 kHz)<br>< -96 dB (1 kHz)   |
| Inputs               | Electronically balanced   |
| Input impedance      | > 10 kOhm   |
| Input balance        | - 40 dB (40 Hz – 15 kHz)  |
| Maximum input level  | + 18 dBu  |
| Outputs              | Electronically balanced, transformer like   |
| Output impedance     | < 50 Ohm  |
| Output balance       | -35 dB (40 Hz – 15 kHz)   |
| Maximum output level | + 18 dBu  |
| Minimum load         | 600 Ohm   |
| Gain (unity)         | 0 +/- 0.5 dB  |
| Gain-steps           | 0.5 dB  |
| Gain-range / curve   | 0 % -102 dB<br>10 % -56 dB<br>20 % -42 dB<br>30 % -36 dB<br>40 % -30 dB<br>50 % -24 dB<br>60 % -20 dB<br>70 % -15 dB<br>80 % -10 dB<br>90 % -6 dB<br>100 % 0 dB |
| Minimum fade time    | < 100 msec  |
| Pan/Tilt attenuation | - 3 dB in the 50% position  |

### **Control outputs**

|                     |                     |
|---------------------|---------------------|
| Optocoupler outputs | max 30 Volt / 10 mA |
|---------------------|---------------------|

# HOW TO USE & CONNECT YOUR ELC DAM 44

## DMX-Channels assign :

### Normal Mode

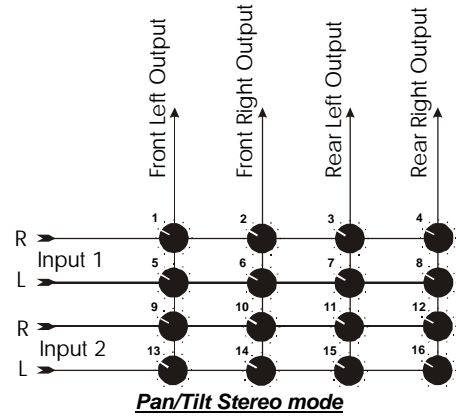
| Channel | X-Point           |
|---------|-------------------|
| 1:      | Input1 to Output1 |
| 2:      | Input1 to Output2 |
| 3:      | Input1 to Output3 |
| 4:      | Input1 to Output4 |
| 5:      | Input2 to Output1 |
| 6:      | Input2 to Output2 |
| 7:      | Input2 to Output3 |
| 8:      | Input2 to Output4 |
| 9:      | Input3 to Output1 |
| 10:     | Input3 to Output2 |
| 11:     | Input3 to Output3 |
| 12:     | Input3 to Output4 |
| 13:     | Input4 to Output1 |
| 14:     | Input4 to Output2 |
| 15:     | Input4 to Output3 |
| 16:     | Input4 to Output4 |
| 17:     | On/Off switch 1   |
| 18:     | On/Off switch 2   |
| 19:     | On/Off switch 3   |
| 20:     | On/Off switch 4   |

### Pan/Tilt Mode (Output 1&2 = Front L&R 3&4 Rear L&R)

| Channel | Input | Function              |
|---------|-------|-----------------------|
| 1:      | 1     | Level (Intensity)     |
| 2:      | 1     | to Left/Right (PAN)   |
| 3:      | 1     | to Front/Rear (TILT)  |
| 4:      | 2     | Level                 |
| 5:      | 2     | to Left/Right (PAN)   |
| 6:      | 2     | to Front/Rear (TILT)  |
| 7:      | 3     | Level                 |
| 8:      | 3     | to Left/Right (PAN)   |
| 9:      | 3     | to Front/Rear (TILT)  |
| 10:     | 4     | Level                 |
| 11:     | 4     | to Left/Right (PAN)   |
| 12:     | 4     | to Front/ Rear (TILT) |
| 13:     |       | On/Off switch 1       |
| 14:     |       | On/Off switch 2       |
| 15:     |       | On/Off switch 3       |
| 16:     |       | On/Off switch 4       |

### Pan/Tilt Stereo mode

| Channel | Input | Function              |
|---------|-------|-----------------------|
| 1:      | 1+2   | Level (Intensity)     |
| 2:      | 1+2   | to Left/Right (PAN)   |
| 3:      | 1+2   | to Front/ Rear (TILT) |
| 4:      | 3+4   | Level                 |
| 5:      | 3+4   | to Left/Right (PAN)   |
| 6:      | 3+4   | to Front/ Rear (TILT) |
| 7:      |       | On/Off switch 1       |
| 8:      |       | On/Off switch 2       |
| 9:      |       | On/Off switch 3       |
| 10:     |       | On/Off switch 4       |



## AUDIO CONNECTIONS :

Audio IN : 3 pins female XLR, 1= ground, 2 = +, 3 = -  
 Audio OUT : 3 pins male XLR, 1= ground, 2 = +, 3 = -

## DMX CONNECTIONS

DMX IN & OUT : 5 PINS XLR , 1=SCREEN, 2 = -, 3 = +

## AC POWER CONNECTIONS

Due to the low power consumption, no AC switch is required. But beware of the AC voltage before connecting the AC power cord

## DIP SWITCHES ASSIGNATION:

Normal mode: 1 & 2 down  
 Mono Pan / Tilt mode: 1 up / 2 down  
 Stereo Pan / Tilt mode: 1 down / 2 up

## TRANSPARENT MODE:

Put all DMX encoding wheels at 0 0 0 :  
 In this mode, the audio signal of each input goes straight to the related output (input 1 goes to output 1, input 2 to output 2 and so on) without any alteration of signal level or quality.  
 This mode allows you to check your audio connections, and might be usefull to avoid any disturbance between light and sound checks.

## 9 pins SUB-D connectors:

GPO (Start Stop potential free contacts)

|   |            |   |            |
|---|------------|---|------------|
| 1 | screen     |   |            |
| 2 | Contact 1+ | 6 | Contact 1- |
| 3 | Contact 2+ | 7 | Contact 2- |
| 4 | Contact 3+ | 8 | Contact 3- |
| 5 | Contact 4+ | 9 | Contact 4- |

I/P bus ( inputs extension)

|   |              |   |              |
|---|--------------|---|--------------|
| 1 | ground       |   |              |
| 2 | Bus input 1+ | 6 | Bus input 1- |
| 3 | Bus input 2+ | 7 | Bus input 2- |
| 4 | Bus input 3+ | 8 | Bus input 3- |
| 5 | Bus input 4+ | 9 | Bus input 4- |

O/P (outputs extension)

|   |               |   |               |
|---|---------------|---|---------------|
| 1 | ground        |   |               |
| 2 | Bus output 1+ | 6 | Bus output 1- |
| 3 | Bus output 2+ | 7 | Bus output 2- |
| 4 | Bus output 3+ | 8 | Bus output 3- |
| 5 | Bus output 4+ | 9 | Bus output 4- |

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