

# impre<sup>s</sup>ion<sup>&</sup>XL

## DMX Channel Sheet



from Software Version 1.09/0.3  
(Manual Version 1.03)



**GERMAN LIGHT  
PRODUCTS**

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## DMX Channel Sheet

### Normal-Mode 14 DMX channels

| Channel                       | Function   | Time and Value             | DMX      | HEX      | %        |          |
|-------------------------------|--|----------------------------|----------|----------|----------|----------|
| <b>1) PAN-coarse</b>          | 0 .. 660°  |                            | 0..255   | 00..FF   | 0..100   |          |
| <b>2) PAN-fine</b>            | High- Pos ... High- Pos + 2,6°(16 Bit)               |                            | 0..255   | 00..FF   | 0..100   |          |
| <b>3) Tilt-coarse</b>         | 0 .. 300°  |                            | 0..255   | 00..FF   | 0..100   |          |
| <b>4) Tilt-fine</b>           | High- Pos ... High- Pos + 1,2°(16 Bit)               |                            | 0..255   | 00..FF   | 0..100   |          |
| <b>5) Color (fixed)</b>       | Colors adjustable via RGB                            |                            | 0..7     | 00..07   | 0..2,5   |          |
|                               | Color 01 - Red <sup>1)</sup>                         |                            | 8..15    | 08..0F   | 3..5,5   |          |
|                               | Color 02 - Amber <sup>1)</sup>                       |                            | 16..23   | 10..17   | 6..8,5   |          |
|                               | Color 03 - Warm Yellow <sup>1)</sup>                 |                            | 24..31   | 18..1F   | 9..12,5  |          |
|                               | Color 04 - Yellow <sup>1)</sup>                      |                            | 32..39   | 20..27   | 13..15,5 |          |
|                               | Color 05 - Green <sup>1)</sup>                       |                            | 40..47   | 28..2F   | 16..18,5 |          |
|                               | Color 06 - Turquoise <sup>1)</sup>                   |                            | 48..55   | 30..37   | 19..21,5 |          |
|                               | Color 07 - Cyan <sup>1)</sup>                        |                            | 56..63   | 38..3F   | 22..24,5 |          |
|                               | Color 08 - Blue <sup>1)</sup>                        |                            | 64..71   | 40..47   | 25..27,5 |          |
|                               | Color 09 - Lavender <sup>1)</sup>                    |                            | 72..79   | 48..4F   | 28..30,5 |          |
|                               | Color 10 - Mauve <sup>1)</sup>                       |                            | 80..87   | 50..57   | 31..34,5 |          |
|                               | Color 11 - Magenta <sup>1)</sup>                     |                            | 88..95   | 58..5F   | 35..37,5 |          |
|                               | Color 12 - Pink <sup>1)</sup>                        |                            | 96..103  | 60..67   | 38..40,5 |          |
|                               | White - CTO  | Color temperature<br>3200K |          | 104..111 | 68..6F   | 41..43,5 |
|                               | White  | Color temperature<br>5600K |          | 112..119 | 70..77   | 44..46,5 |
|                               | White - CTB  | Color temperature<br>7200K |          | 120..127 | 78..7F   | 47..49,5 |
|                               | Rainbow Effect Stop <sup>2)</sup>                    |                            |          | 128      | 80       | 50       |
| Rainbow Effect <sup>3)</sup>  | slow - fast  |                            | 129..132 | 81..DF   | 51..88   |          |
| Rainbow Effect, random colors | slow - fast  |                            | 224..225 | E=..FF   | 89..100  |          |
| <b>6) Red</b>                 | Color mixing system - Red                            | 0 - 100%                   | 0..255   | 00..FF   | 0..100   |          |
| <b>7) Green</b>               | Color mixing system - Green                          | 0 - 100%                   | 0..255   | 00..FF   | 0..100   |          |
| <b>8) Blue</b>                | Color mixing system - Blue                           | 0 - 100%                   | 0..255   | 00..FF   | 0..100   |          |
| <b>9) Shutter</b>             | Shutter closed                                       |                            | 0..15    | 00..0F   | 0..5,5   |          |
|                               | Random Pulse effect                                  | slow - fast                | 16..47   | 10..2F   | 6..18,5  |          |
|                               | Up-dimming then Shutter closing<br>(random patterns) | slow - fast                | 48..79   | 30..4F   | 19..31   |          |
|                               | Shutter open then down-dimming<br>(random patterns)  | slow - fast                | 80..111  | 50..6F   | 32..43   |          |
|                               | Up-dimming then down-dimming<br>(random patterns)    | slow - fast                | 112..143 | 70..8F   | 44..56   |          |
|                               | Strobe effect pause                                  | 5s to 1s                   | 144..199 | A0..C7   | 57..77   |          |
|                               | Strobe effect, slow - fast                           | 1 Hz .. 10 Hz              | 200..239 | C8..EF   | 78..94   |          |
|                               | Shutter open   |                            | 240..255 | F0..FF   | 95..100  |          |
| <b>10) Dimmer</b>             | Dimmer   | 0% - 100%                  | 0..255   | 0..FF    | 0..100   |          |
| <b>11) Color</b>              | No color temperature correction                      |                            | 0..6     | 0..06    | 0..2     |          |

| Channel                   | Function   | Time and Value   | DMX                       | HEX           | %              |        |
|---------------------------|--|--|---------------------------|---------------|----------------|--------|
| <b>temperature</b>        | Continuous color temperature correction between 3200k - 7200k                                  | Applicable only for White color <sup>5)</sup>                                    | 7..255                    | 07..FF        | 3..100         |        |
| <b>12) Special</b>        | Max. Power-Mode <sup>4)</sup>  | Max. light output without white balance  | 0..15                     | 0..0F         | 0.5,5          |        |
|                           | White-Mode <sup>4)</sup>   | White balance used   | 16..31                    | 10..1F        | 6..12,5        |        |
|                           | Fan min. as long as temp. < 90°C   |  | 224..229                  | E0..E5        | 88..89,5       |        |
|                           | <b>RESET (Normal Mode)</b>   |  | <b>250..255</b>           | <b>FA..FF</b> | <b>98..100</b> |        |
| <b>13) Move-ment</b>      | <b>No movement</b>   |  | 0                         | 00            | 0              |        |
|                           | <b>Movement</b>  | <b>Size</b>  | <b>Phase</b>              |               |                |        |
|                           | PAN  | 1  | 0°                        | 01..01        | 01..01         | 0,5    |
|                           |  | 1  | 90°                       | 02..03        | 02..03         | 1,0    |
|                           |  | 1  | 180°                      | 04..05        | 04..05         | 1,7    |
|                           |  | 1  | 270°                      | 06..07        | 06..07         | 2,5    |
|                           | PAN  | 2  | 0°                        | 08..09        | 08..09         | 3,3    |
|                           |  | 2  | 90°                       | 10..11        | 0A..0B         | 4,1    |
|                           |  | 2  | 180°                      | 12..13        | 0C..0D         | 4,9    |
|                           |  | 2  | 270°                      | 14..15        | 0E..0F         | 5,7    |
|                           | PAN  | 3  | 0°                        | 16..17        | 11..11         | 6,5    |
|                           |  | 3  | 90°                       | 18..19        | 12..13         | 7,3    |
|                           |  | 3  | 180°                      | 20..21        | 14..15         | 8,0    |
|                           |  | 3  | 270°                      | 22..23        | 16..17         | 8,8    |
|                           | PAN  | 4  | 0°                        | 24..25        | 18..19         | 9,6    |
|                           |  | 4  | 90°                       | 26..27        | 1A..1B         | 10,4   |
|                           |  | 4  | 180°                      | 28..29        | 1C..1D         | 11,2   |
|                           |  | 4  | 270°                      | 30..31        | 1E..1F         | 12     |
|                           |  | TILT   | size / phase see also PAN | 32..63        | 20..3F         | 13..25 |
|                           |  | PAN / TILT   | size / phase see also PAN | 64..95        | 40..5F         | 26..37 |
|                           | PAN / TILT (inverse)   | size / phase see also PAN  | 96..127                   | 60..7F        | 38..50         |        |
|                           | Circle   | size / phase see also PAN  | 128..159                  | 80..9F        | 51..62         |        |
|                           | Circle (inverse)   | size / phase see also PAN  | 160..191                  | A0..BF        | 63..75         |        |
|                           | Lying eight  | size / phase see also PAN  | 192..223                  | C0..DF        | 76..87         |        |
|                           | Random movement  | size see also PAN  | 224..255                  | E0..FF        | 88..100        |        |
| <b>14) Speed Pan/Tilt</b> | Pan/Tilt relative movement   |  | 0..1                      | 00..01        | 0..0,5         |        |
|                           | Pan/Tilt slow – fast<br>Use this channel 14) also for the speed of the movements (channel 13). | Pan Min. 660° = 200s<br>Pan Max. 660°<br>Tilt Min. 300° = 110s<br>Tilt Max. 300° | 2..255                    | 02..FF        | 1..100         |        |

#### <sup>4)</sup> **Max. Power-Mode vs. White-Mode**

The **IMPRESSION XL** can regard the white-balance adjustments for each individual color setting. Whether the White-Mode is used with RGB can be selected in the **Normal DMX-Mode** during operation with the Special DMX channel. If the Special channel is set to a value between DMX 0..15, the White-Mode is not used and the RGB goes for the maximum light output. If the Special channel is set to a value between DMX 16..31, the white balance is used for the RGB output.

Since there is no Special DMX channel in the **Compress DMX-Mode**, the possibility exists to likewise select these settings also in the display menu. Is the White-Mode set to "ON", the white-balance is activated. If the White-Mode is set to "OFF", the RGB goes for the maximum light output (Max. Power-Mode).

<sup>5)</sup> The continuous color temperature correction is applicable only for the White color i.e. if this function

is selected (DMX  $\geq$  001) the **Impression XL** will change the color to white immediately and will then be adjustable in the color temperature in a range between 3200K and 7200K. Hence a color correction for others than white is not intended.

### Compress-Mode 10 DMX channels

| Channel                       | Function  | Time and Value          | DMX      | HEX      | %        |          |
|-------------------------------|---|-------------------------|----------|----------|----------|----------|
| 1) PAN-coarse                 | 0 .. 660°   |                         | 0..255   | 00..FF   | 0..100   |          |
| 2) PAN-fine                   | High- Pos ... High- Pos + 2,6° (16 Bit)           |                         | 0..255   | 00..FF   | 0..100   |          |
| 3) Tilt-coarse                | 0 .. 300°   |                         | 0..255   | 00..FF   | 0..100   |          |
| 4) Tilt-fine                  | High- Pos ... High- Pos + 1,2° (16 Bit)           |                         | 0..255   | 00..FF   | 0..100   |          |
| 5) Color (fixed)              | Colors adjustable via RGB                         |                         | 0..7     | 00..07   | 0..2,5   |          |
|                               | Color 01 - Red <sup>1)</sup>                      |                         | 8..15    | 08..0F   | 3..5,5   |          |
|                               | Color 02 - Amber <sup>1)</sup>                    |                         | 16..23   | 10..17   | 6..8,5   |          |
|                               | Color 03 - Warm Yellow <sup>1)</sup>              |                         | 24..31   | 18..1F   | 9..12,5  |          |
|                               | Color 04 - Yellow <sup>1)</sup>                   |                         | 32..39   | 20..27   | 13..15,5 |          |
|                               | Color 05 - Green <sup>1)</sup>                    |                         | 40..47   | 28..2F   | 16..18,5 |          |
|                               | Color 06 - Turquoise <sup>1)</sup>                |                         | 48..55   | 30..37   | 19..21,5 |          |
|                               | Color 07 - Cyan <sup>1)</sup>                     |                         | 56..63   | 38..3F   | 22..24,5 |          |
|                               | Color 08 - Blue <sup>1)</sup>                     |                         | 64..71   | 40..47   | 25..27,5 |          |
|                               | Color 09 - Lavender <sup>1)</sup>                 |                         | 72..79   | 48..4F   | 28..30,5 |          |
|                               | Color 10 - Mauve <sup>1)</sup>                    |                         | 80..87   | 50..57   | 31..34,5 |          |
|                               | Color 11 - Magenta <sup>1)</sup>                  |                         | 88..95   | 58..5F   | 35..37,5 |          |
|                               | Color 12 - Pink <sup>1)</sup>                     |                         | 96..103  | 60..67   | 38..40,5 |          |
|                               | White - CTO                                       | Color temperature 3200K |          | 104..111 | 68..6F   | 41..43,5 |
|                               | White   | Color temperature 5600K |          | 112..119 | 70..77   | 44..46,5 |
|                               | White - CTB                                       | Color temperature 7200K |          | 120..127 | 78..7F   | 47..49,5 |
|                               | Rainbow Effect Stop <sup>2)</sup>                 |                         |          | 128      | 80       | 50       |
| Rainbow Effect <sup>3)</sup>  | slow - fast                                       |                         | 129..132 | 81..8F   | 51..88   |          |
| Rainbow Effect, random colors | slow - fast                                       |                         | 224..225 | E=..FF   | 89..100  |          |
| 6) Red                        | Color mixing system - Red                         | 0 - 100%                | 0..255   | 00..FF   | 0..100   |          |
| 7) Green                      | Color mixing system - Green                       | 0 - 100%                | 0..255   | 00..FF   | 0..100   |          |
| 8) Blue                       | Color mixing system - Blue                        | 0 - 100%                | 0..255   | 00..FF   | 0..100   |          |
| 9) Shutter                    | Shutter closed                                    |                         | 0..15    | 00..0F   | 0..5,5   |          |
|                               | Random Pulse effect                               | slow - fast             | 16..47   | 10..2F   | 6..18,5  |          |
|                               | Up-dimming then Shutter closing (random patterns) | slow - fast             | 48..79   | 30..4F   | 19..31,5 |          |
|                               | Shutter open then down-dimming (random patterns)  | slow - fast             | 80..111  | 50..6F   | 32..43   |          |
|                               | Up-dimming then down-dimming (random patterns)    | slow - fast             | 112..143 | 70..8F   | 44..56   |          |
|                               | Strobe effect pause                               | 5s to 1s                |          | 144..199 | A0..C7   | 57..77   |

| Channel           | Function                   | Time and Value     | DMX        | HEX       | %         |
|-------------------|----------------------------|--------------------|------------|-----------|-----------|
|                   | Strobe effect, slow - fast | 1 Hz .. 10 Hz      | 200..239   | C8..EF    | 78..94    |
|                   | Shutter open               |                    | 240...249  | F0..F9    | 95..97,5  |
|                   | <b>RESET</b>               | <b>Min. 3 Sec.</b> | <b>250</b> | <b>FA</b> | <b>98</b> |
|                   | Shutter open               |                    | 251..255   | FB..FF    | 99..100   |
| <b>10) Dimmer</b> | Dimmer (0% - 100%)         |                    | 0..255     | 0..FF     | 0..100    |

### High Resolution (Extended) -Mode 13 DMX Channels

| Channel                  | Function  | Time and Value     | DMX        | HEX       | %         |
|--------------------------|---|--------------------|------------|-----------|-----------|
| <b>1) PAN-coarse</b>     | 0 .. 660°   |                    | 0..255     | 00..FF    | 0..100    |
| <b>2) PAN-fine</b>       | High- Pos ... High- Pos + 2,6° (16 Bit)           |                    | 0..255     | 00..FF    | 0..100    |
| <b>3) Tilt-coarse</b>    | 0 .. 300°   |                    | 0..255     | 00..FF    | 0..100    |
| <b>4) Tilt-fine</b>      | High- Pos ... High- Pos + 1,2° (16 Bit)           |                    | 0..255     | 00..FF    | 0..100    |
| <b>5) Red-coarse</b>     | Color mixing system – Red                         | 0 - 100%           | 0..255     | 00..FF    | 0..100    |
| <b>6) Red-fine</b>       | Color mixing system – Red-Low                     |                    | 0..255     | 00..FF    | 0..100    |
| <b>7) Green-coarse</b>   | Color mixing system – Green                       | 0 - 100%           | 0..255     | 00..FF    | 0..100    |
| <b>8) Green-fine</b>     | Color mixing system – Green-Low                   |                    | 0..255     | 00..FF    | 0..100    |
| <b>9) Blue-coarse</b>    | Color mixing system – Blue                        | 0 - 100%           | 0..255     | 00..FF    | 0..100    |
| <b>10) Blue-fine</b>     | Color mixing system – Blue-Low                    |                    | 0..255     | 00..FF    | 0..100    |
| <b>11) Shutter</b>       | Shutter closed                                    |                    | 0..15      | 00..0F    | 0..5,5    |
|                          | Random Pulse effect                               | slow - fast        | 16..47     | 10..2F    | 6..18,5   |
|                          | Up-dimming then Shutter closing (random patterns) | slow - fast        | 48..79     | 30..4F    | 19..31,5  |
|                          | Shutter open then down-dimming (random patterns)  | slow - fast        | 80..111    | 50..6F    | 32..43    |
|                          | Up-dimming then down-dimming (random patterns)    | slow - fast        | 112..143   | 70..8F    | 44..56    |
|                          | Strobe effect pause                               | 5s to 1s           | 144..199   | A0..C7    | 57..77    |
|                          | Strobe effect, slow - fast                        | 1 Hz .. 10 Hz      | 200..239   | C8..EF    | 78..94    |
|                          | Shutter open                                      |                    | 240...249  | F0..F9    | 95..97,5  |
|                          | <b>RESET</b>                                      | <b>Min. 3 Sec.</b> | <b>250</b> | <b>FA</b> | <b>98</b> |
|                          | Shutter open                                      |                    | 251..255   | FB..FF    | 99..100   |
| <b>12) Dimmer-coarse</b> | Dimmer  | 0% - 100%          | 0..255     | 0..FF     | 0..100    |
| <b>13) Dimmer-fine</b>   | Dimmer - Low                                      |                    | 0..255     | 0..FF     | 0..100    |

<sup>1)</sup> The predefined colors can be used as start-colors for the Rainbow effect. Please select first a desired start-color before you activate the rainbow effect. All **Impression XLs** will afterwards start from that color and will execute the rainbow effect synchronously. Different **Impression XLs** can certainly have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the once marked with <sup>1)</sup> in the tables above the rainbow start-color will be red.

<sup>2)</sup> Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued with the current color.

<sup>3)</sup> The Rainbow-effect will run synchronously only if it will be started going out from one of the predefined colors (see also <sup>1)</sup> before).

### **Additional Display Indications**

As a default you'll find the following additional information in the first row of the LCD display:

XX/X/XX

- 06 = 600Hz / 12 = 1200Hz
- N = Normal Mode / C = Compressed Mode / H = High Res. Mode
- N = Tilt normal / I = Tilt inverted
- N = Pan normal / I = Pan inverted

