

# DMX Channel Index

impression<sup>&</sup>  
rgb l20-~~rz~~



from software version 1.24/30  
(DMX manual version 1.3)



— since 1994 —

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## DMX Channel Selection (DMX Protocol)

### Normal-Mode 15 DMX channels

Channel	Function	Time and Value	DMX	HEX	%	
<b>1) PAN-coarse</b>	0 .. 660°	3,2 s	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°	1,5 s	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 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..223	81..DF	51..88	
Rainbow Effect, random colors	slow - fast		224..255	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 (random patterns)	slow - fast	48..79	30..4F	19..31	
	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 .. 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 temperature</b>	No color temperature correction		0..6	0..06	0..2	
	Continuous color temperature correction between 3200k - 7200k	Applicable only for ALL colors <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	

Channel	Function	Time and Value	DMX	HEX	%	
	Theater Mode ON <sup>b)</sup>	Mode ON	32..35	20..23	13..14	
	Theater Mode OFF <sup>b)</sup>	Mode OFF	36..39	24..27	14..15	
	K2 Mode ON <sup>b)</sup>	Mode ON	40..43	28..2B	16..17	
	K2 Mode OFF <sup>b)</sup>	Mode OFF	44..47	2C..2F	17,5..19	
	White Mode ON <sup>b)</sup>	Mode ON	48..51	30..33	19..20	
	White Mode OFF <sup>b)</sup>	Mode OFF	52..55	34..37	20,5..21	
	RGB value spreading ON <sup>b)</sup>	Mode ON	56..59	38..3B	22..23,5	
	RGB value spreading OFF <sup>b)</sup>	Mode OFF	60..63	3C..3F	24..25	
	Reverse Tilt ON <sup>b)</sup>	Mode ON	64..67	40..43	25,5..27	
	Reverse Tilt OFF <sup>b)</sup>	Mode OFF	68..71	44..47	27,5..28,5	
	Reverse Pan ON <sup>b)</sup>	Mode ON	72..75	48..4B	29..	
	Reverse Pan OFF <sup>b)</sup>	Mode OFF	76..79	4C..4F	30,5..31,5	
	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) Movement</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 Use this channel 14) also for the speed of the movements (channel 13).		Pan Min. 660° = 200s Pan Max. 660° = 3,2s Tilt Min. 300° = 110s Tilt Max. 300° = 1,5s	2..255	02..FF	1..100
<b>15) Zoom</b>	Spot - Flood	10° - 26°	0...255	00...FF	0...100	

#### 4) Max. Power-Mode vs. White-Mode

The **IMPRESSION** 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).

#### 5) Color Temperature

The **Impression** allows the color correction at anytime to the RGB colors. Whether the White mode will use, can affect with the special channel.

In the compressed mode is no special channel, here you can set up the mode in the menu at the **Impression**. Will the white mode set to "ON", it will run in compressed mode or in normal mode if the special channel is at „0“.

If now in the special channel will adjust a value between \$10..\$1F, it will expensed the max power in RGB. Is the white mode "OFF" and special at "0" or the **Impression** is in compressed mode, RGB will expensed the max power.

If now the special channel is set up to a value between \$10..\$1F, the white adjust will used in RGB.

#### 6) Switch Box

The Switch-Box allows you to select DMX menu functions with the special channel. The changeover is only possible, if the dimmer and the shutter channel are at "0". Then the special channel has to release for min. 0,5s the DMX value that's selected for the function.

For example:

The tilt channel wants to invert from the lighting desk. First, the dimmer and shutter have to set up to "0". Then the special channel has to set up to the value 64 (HEX40) for min. 0,5s.

To clear the invert of tilt, it has to send the value 68 on the special channel.

After set up a function, it can set up other functions. It's possible to use some functions together.

Changes from the special channel will not save into the **Impression**.

**Compress-Mode 11 DMX channels**

Channel	Function	Time and Value	DMX	HEX	%	
<b>1) PAN-coarse</b>	0 .. 660°	3,2 s	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°	1,5 s	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 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..223	81..DF	51..88	
Rainbow Effect, random colors	slow - fast		224..255	E0..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 (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 .. 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>10) Dimmer</b>	Dimmer	0 - 100%	0..255	0..FF	0..100	
<b>11) Zoom</b>	Spot - Flood	10° - 26°	0... 255	00...FF	0...100	

**High Resolution (Extended) -Mode 14 DMX Channels**

Channel	Function	Time and Value	DMX	HEX	%
<b>1) PAN-coarse</b>	0 .. 660°	3,2 s	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°	1,5 s	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
<b>14) Zoom</b>	Spot - Flood	10° - 26°	0...255	00...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 **Impressions** will afterwards start from that color and will execute the rainbow effect synchronously. Different **Impressions** 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).

### Locking and unlocking the Control Panel

Please lock and unlock the control panel by pressing the menu keys **MODE & ENTER & UP** at the same time.

### Additional features during switching-ON the system

- a) 1200Hz Mode (Hold down the **UP- button** during power ON)  
After switching ON the system the LEDs will be operated with a Pulse Width Modulation (PWM) of 1200Hz.  
In addition all standard setting will be loaded (DMX start address [001], Normal Mode).
  
- b) 600Hz Mode (Hold down the **DOWN- button** during power ON)  
After switching ON the system the LEDs will be operated with a Pulse Width Modulation (PWM) of 600Hz.  
In addition all standard setting will be loaded (DMX start address [001], Normal Mode).
  
- c) Standard Mode (Hold down the **ENTER- button** during power ON)  
After switching ON the system the DMX start address will be set to [001]. All other setting remain unchanged.

### 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

