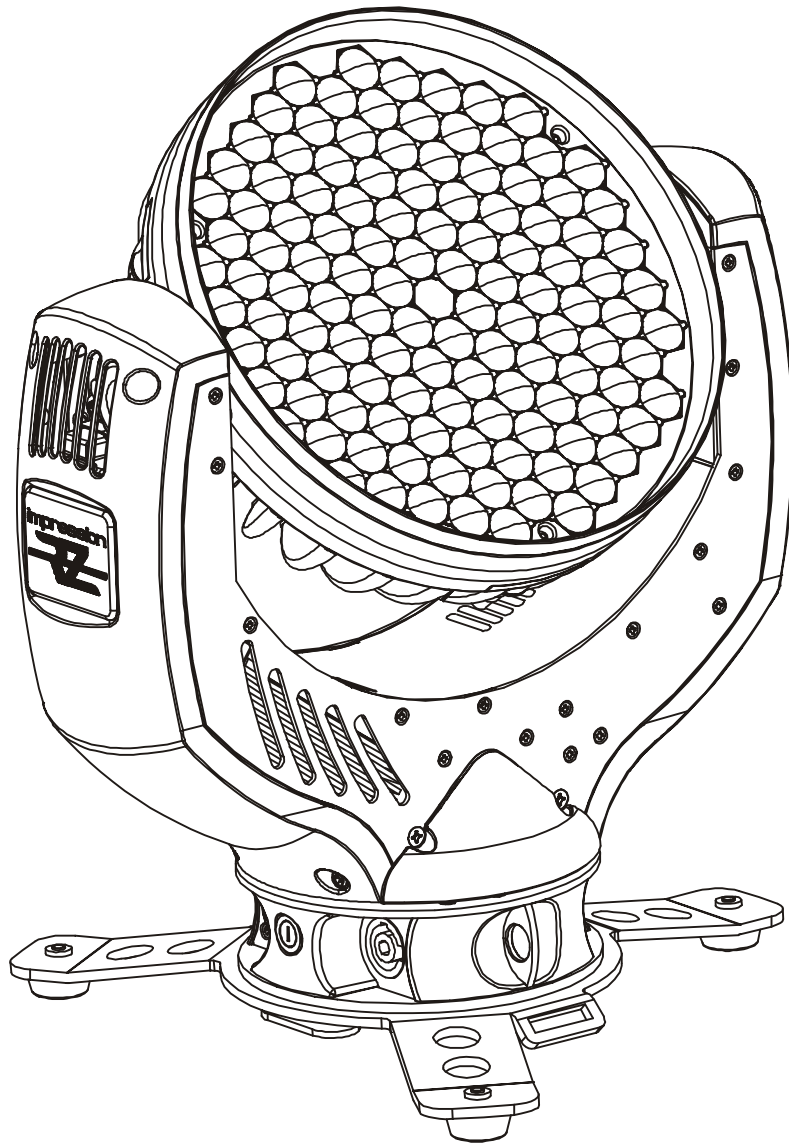


# DMX Channel Index

impression<sup>®</sup>  
rgb l20 



from software version 1.00/01  
(DMX manual version 1.0)



— 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	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	
	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 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	

Channel	Function	Time and Value	DMX	HEX	%	
	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..15	00..0F	0..6	
	Pan/Tilt slow – fast Use this channel also for the SPEED of the movements	Pan Min. 660° = 200s Pan Max. 660° = 3,2s Tilt Min. 300° = 110s Tilt Max. 300° = 1,5s	16..255	10..FF	7..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).

<sup>5)</sup> The continuous color temperature correction is applicable only for the White color i.e. if this function is selected (DMX ≥ 006) the **Impression** 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 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	%
1) PAN-coarse	0 .. 660°	3,2 s	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°	1,5 s	0..255	00..FF	0..100
4) Tilt-fine	High- Pos ... High- Pos + 1,2° (16 Bit)		0..255	00..FF	0..100
5) Red-coarse	Color mixing system – Red	0 - 100%	0..255	00..FF	0..100
6) Red-fine	Color mixing system – Red-Low		0..255	00..FF	0..100
7) Green-coarse	Color mixing system – Green	0 - 100%	0..255	00..FF	0..100
8) Green-fine	Color mixing system – Green-Low		0..255	00..FF	0..100
9) Blue-coarse	Color mixing system – Blue	0 - 100%	0..255	00..FF	0..100
10) Blue-fine	Color mixing system – Blue-Low		0..255	00..FF	0..100
11) 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 .. 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	
12) Dimmer-coarse	Dimmer - high	0% - 100%	0..255	0..FF	0..100
13) Dimmer-fine	Dimmer - Low		0..255	0..FF	0..100
14) Zoom	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 with 14 DMX channels).
  
- 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 with 14 DMX channels).
  
- 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

