

# CW/WW DMX Channel Index

impression<sup>®</sup>  
X4L



from software version 1.15 FOR CW/WW fixtures only



— since 1994 —

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**THE X4XL USING SOFTWARE VERSION 1.15 FOR CW/WW LEDS MUST BE SET TO “WHITE MODE” IN THE MENU SETTINGS.**

**THE BLACKED OUT CHANNELS ARE NOT FUNCTIONAL FOR CW/WW LED FIXTURES BUT THE CHANNELS ARE STILL ASSIGNED**

### 1 Normal Mode (*norm*) 29 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 250°	0..255
4 Tilt - Low	Tilt fine		0..255
5 [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
6 CTO	WARM WHITE	0 - 100%	0..255
7 CTB	COOL WHITE	0 - 100%	0..255
8 [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
9 [REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255
11 Intensity	Intensity	0 - 100%	0..255
12 [REDACTED]	[REDACTED]		0..7
	[REDACTED]	<i>Applicable</i>	8..255
	[REDACTED]	<i>for ALL colors</i>	
13 Special	Pattern Block 1		0..3
	Pattern Block 2		4..7
	Pattern Block 3		8..11
	Pattern Block 4		12..15
	Pattern Block 5		16..19
	Pattern Block 6		20..23
	Pattern Block 7		24..27

	Pattern Block 8		28..31
	Pattern Block 9		32..35
	Pattern Block 10		36..39
	Switch Pattern to Animation		80..83
	Set Zoom normal	> 1 sec	216..219
	Set Zoom inverted	> 1 sec	220..223
	RESET	> 1 sec	250..255
<b>14 Movement</b>	No macros		0..4
	<b>Macros</b>		
	<b>Movement</b>	<b>Speed</b>	<b>Phase</b>
			<i>Use channel 15 to adjust</i>
	Pan	1	0°
	Pan	1	90°
	Pan	1	180°
	Pan	1	270°
	Pan	2	0°
	Pan	2	90°
	Pan	2	180°
	Pan	2	270°
	Pan	3	0°
	Pan	3	90°
	Pan	3	180°
	Pan	3	270°
	Pan	4	0°
	Pan	4	90°
	Pan	4	180°
	Pan	4	270°
	Tilt	size / phase see Pan	
	Pan / Tilt	size / phase see Pan	
	Pan / Tilt (inverse)	size / phase see Pan	
	Circle	size / phase see Pan	
	Circle (inverse)	size / phase see Pan	
	Lying eight	size / phase see Pan	
	Random movement	size / phase see Pan	
<b>15 Pan / Tilt</b>	Pan/Tilt movement speed from controller		0..1
	<b>Speed</b>	Pan/Tilt, slow – fast	2..255
	<i>Use this channel for the speed of the macros on channel 14</i>		
<b>16 Zoom</b>	Wide (flood) - narrow (spot)	50° - 7°	0..255
<b>17 Pattern</b>	No Pattern		0
	255 pre-defined <b>patterns</b>		1..255
	255 pre-defined <b>animations</b> (only if Channel 13 is set to 80..83)		1..255
<b>18 Intensity Front</b>	Intensity foreground layer	0 - 100%	0..255

<b>19 Intensity Back</b>	Intensity background layer <sup>4)</sup>	0 - 100%	0..255
<b>20 CTO</b>	WARM WHITE	0 - 100%	0..255
<b>21 CTB</b>	COOL WHITE	0 - 100%	0..255
<b>22</b>			
<b>23</b>			
<b>24 A - Phase</b>	Animation starting point		0..255
<b>25 A - Speed</b>	Animation speed ( <i>starting from point set in Channel 24</i> )		1..255
<b>26 Crossfade</b>	0..2 seconds transision time		0..255
<b>27 Pattern Orientation</b>	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
Pan inverted / Tilt inverted	120°	52..53	
Pan inverted / Tilt inverted	180°	54..55	
Pan inverted / Tilt inverted	240°	56..57	
Pan inverted / Tilt inverted	300°	58..59	
<b>28 Pattern Effect</b>	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
<b>29 Beam Shaper (optional)</b>	Beam Shaper position	0° - 540°	0..255

## 2 Compressed Mode (*comp*) 21 DMX Channels:

Channel	Function	Time and Value	DMX
1 Pan - High	Pan coarse	0° - 660°	0..255
2 Pan - Low	Pan fine		0..255
3 Tilt - High	Tilt coarse	0° - 250°	0..255
4 Tilt - Low	Tilt fine		0..255
5			
6 CTO	WARM WHITE	0 - 100%	0..255
7 CTB	COOL WHITE	0 - 100%	0..255
8			
9			
10 Shutter	Shutter closed		0..15
	Shutter pulse random	slow – fast	16..47
	Fade on, snap off (random patterns)	slow – fast	48..79
	Snap on, fade off (random patterns)	slow – fast	80..111
	Fade on, fade off (random patterns)	slow – fast	112..143
	Strobe random	5s - 0.1s	144..199
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239
	Shutter open		240..255
11 Intensity	Intensity	0 - 100%	0..255
12			
13 Special	Pattern Block 1		0..3
	Pattern Block 2		4..7
	Pattern Block 3		8..11
	Pattern Block 4		12..15
	Pattern Block 5		16..19
	Pattern Block 6		20..23
	Pattern Block 7		24..27
	Pattern Block 8		28..31
	Pattern Block 9		32..35
	Pattern Block 10		36..39
	Switch Pattern to Animation		80..83
	Set Zoom normal	> 1 sec	216..219
	Set Zoom inverted	> 1 sec	220..223
RESET	> 1 sec	250..255	
14 Zoom	Wide (flood) - narrow (spot)	50° - 7°	0..255
15 Pattern	No Pattern		0

	255 pre-defined <b>patterns</b>		1..255
	255 pre-defined <b>animations</b> ( <i>only if Channel 13 is set to 80..83</i> )		1..255
<b>16 A - Phase</b>	Animation starting point		0..255
<b>17 A - Speed</b>	Animation speed ( <i>starting from point set in Channel 24</i> )		1..255
<b>18 Crossfade</b>	0..2 seconds transistion time		0..255
<b>19 Pattern Orientation</b>	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
Pan inverted / Tilt inverted	120°	52..53	
Pan inverted / Tilt inverted	180°	54..55	
Pan inverted / Tilt inverted	240°	56..57	
Pan inverted / Tilt inverted	300°	58..59	
<b>20 Pattern Effect</b>	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
<b>21 Beam Shaper (optional)</b>	Beam Shaper position	0° - 540°	0..255

### 3 Extended Mode (*high*) 31 DMX Channels:

Channel	Function	Time and Value	DMX
<b>1 Pan - High</b>	Pan coarse	0° - 660°	0..255
<b>2 Pan - Low</b>	Pan fine		0..255
<b>3 Tilt - High</b>	Tilt coarse	0° - 250°	0..255
<b>4 Tilt - Low</b>	Tilt fine		0..255
<b>5 CTO HIGH</b>	WARM WHITE HIGH	0 - 100%	0..255
<b>6 CTO LOW</b>	WARM WHITE LOW	0 - 100%	0..255
<b>7 CTB HIGH</b>	COOL WHITE HIGH	0 - 100%	0..255
<b>8 CTB LOW</b>	COOL WHITE LOW	0 - 100%	0..255
<b>9</b>			
<b>10</b>			
<b>11</b>			
<b>12</b>			
<b>13 Special</b>	Pattern Block 1 Pattern Block 2 Pattern Block 3 Pattern Block 4 Pattern Block 5 Pattern Block 6 Pattern Block 7 Pattern Block 8 Pattern Block 9 Pattern Block 10 Switch Pattern to Animation Set Zoom normal Set Zoom inverted RESET	           > 1 sec > 1 sec > 1 sec	0..3 4..7 8..11 12..15 16..19 20..23 24..27 28..31 32..35 36..39 80..83 216..219 220..223 250..255
<b>14 Shutter</b>	Shutter closed Shutter pulse random Fade on, snap off (random patterns) Snap on, fade off (random patterns) Fade on, fade off (random patterns) Strobe random Strobe effect slow - fast Shutter open	 slow – fast slow – fast slow – fast slow – fast 5s - 0.1s 1 Hz - 10 Hz	0..15 16..47 48..79 80..111 112..143 144..199 200..239 240..255
<b>15 Intensity - High</b>	Intensity - coarse	0 - 100%	0..255
<b>16 Intensity - Low</b>	Intensity - fine	0 - 100%	0..255
<b>17 CTO</b>	No CTO Continuous color temperature correction 2,500k – 10,000k	 <i>Applicable for ALL colors</i>	0..7 8..255
<b>18 Zoom</b>	Wide (flood) - narrow (spot)	50° - 7°	0..255

<b>19 Pattern</b>	No Pattern		0
	255 pre-defined <b>patterns</b>		1..255
	255 pre-defined <b>animations</b> ( <i>only if Channel 13 is set to 80..83</i> )		1..255
<b>20 Intensity Front</b>	Intensity foreground layer	0 - 100%	0..255
<b>21 Intensity Back</b>	Intensity background layer <sup>4)</sup>	0 - 100%	0..255
<b>22 CTO</b>	WARM WHITE	0 - 100%	0..255
<b>23 CTB</b>	COOL WHITE	0 - 100%	0..255
<b>24</b>			
<b>25</b>			
<b>26 A - Phase</b>	Animation starting point		0..255
<b>27 A - Speed</b>	Animation speed ( <i>starting from point set in Channel 24</i> )		1..255
<b>28 Crossfade</b>	0..2 seconds transition time		0..255
<b>29 Pattern Orientation</b>	Pan Normal / Tilt Normal	0°	0..1
	Pan Normal / Tilt Normal	60°	2..3
	Pan Normal / Tilt Normal	120°	4..5
	Pan Normal / Tilt Normal	180°	6..7
	Pan Normal / Tilt Normal	240°	8..9
	Pan Normal / Tilt Normal	300°	10..11
	Pan Normal / Tilt Inverted	0°	16..17
	Pan Normal / Tilt Inverted	60°	18..19
	Pan Normal / Tilt Inverted	120°	20..21
	Pan Normal / Tilt Inverted	180°	22..23
	Pan Normal / Tilt Inverted	240°	24..25
	Pan Normal / Tilt Inverted	300°	26..27
	Pan inverted / Tilt normal	0°	32..33
	Pan inverted / Tilt normal	60°	34..35
	Pan inverted / Tilt normal	120°	36..37
	Pan inverted / Tilt normal	180°	38..39
	Pan inverted / Tilt normal	240°	40..41
	Pan inverted / Tilt normal	300°	42..43
	Pan inverted / Tilt inverted	0°	48..49
	Pan inverted / Tilt inverted	60°	50..51
Pan inverted / Tilt inverted	120°	52..53	
Pan inverted / Tilt inverted	180°	54..55	
Pan inverted / Tilt inverted	240°	56..57	
Pan inverted / Tilt inverted	300°	58..59	
<b>30 Pattern Effect</b>	No effect		0..1
	crossfade		02..15
	random flash white	slow – fast	16..31
	random color	slow – fast	32..47
	random color background only	slow – fast	48..63
<b>31 Beam Shaper (optional)</b>	Beam Shaper position	0° - 540°	0..255



## 4 Technical Specifications:

<b>Power supply</b>	
<b>Power consumption</b>	900 VA (Watt)
<b>Power Input</b>	Auto sensing 100-240 V AC, 50-60 Hz
<b>Fuse protection</b>	Micro-fuse 5x20 mm, T10A
<b>Operational Parameters</b>	
<b>Max. Ambient Temperature</b>	5° - 45°C (integrated overheating switch) 40°-113°F
<b>Mounting Position</b>	Any (see relevant chapter)
<b>Lighting System - Additive Color mixing</b>	
<b>LED Type</b>	37 x Osram Ostar RGBW multi-chip
<b>Lifetime</b>	50,000 h
Wavelength optimized for maximum presentable color space	
<b>Optical System</b>	
Full RGBW / High efficient Collimator cluster Beam-Shape – positionable and rotateable (optional)	
<b>Shutter / Dimmer (8/16 Bit)</b>	
Strobe- Effect with variable speed between 1-10 flashes per second, Random & Pulse-Effects Continuous Dimmer 0 - 100%	
<b>Zoom</b>	
7 to 50 degree continuous high speed zoom	
<b>Optical Patterns</b>	
Several hundred pre-defined beam patterns with direct access and manipulation. Free control of every pixel, color and intensity	
<b>DMX Control</b>	
Standard USITT DMX-512, 5 pin XLR: [+]=Pin 3 / [-]=Pin 2 / [Ground]=Pin 1 / Pin 4&5 N.C. The DMX- Addressing starts at the DMX channel [001].	
<b>Pan / Tilt (8/16 Bit)</b>	
<b>Pan- movement</b>	<b>660° in min. 2 seconds (Position Feedback)</b>
<b>Tilt- movement</b>	<b>250° in min. 1 second (Position Feedback)</b>
<b>Weights and Measures</b>	
<b>Width</b>	<b>430 mm / 16.9''</b>
<b>Length</b>	<b>185 mm / 7.3''</b>
<b>Height (head vertical)</b>	<b>530 mm / 20.9'' (incl. standing foot/tripod)</b>
<b>Weight (net)</b>	<b>15.6 kg / 34.4 lbs</b>
<b>Weight (incl. tripod)</b>	<b>16.9 kg / 37.3 lbs</b>

## 5 Dimensions



