

DMX Channel Index

impression[®]
X4 BAR



X4 Bar 20 CW/WW

Software Version 1.28



GLP® X4 Bar 20 CW/WW DMX Channel Index – Revision 20220203-02

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Introduction

The impression X4 Bar 20 CW/WW from GLP® can be operated in five different DMX modes that divide the fixture into different numbers of pixels.

The first seven DMX channels, including the Special / Control channel 4, are identical in all DMX modes. They give 16-bit control of Tilt, 16-bit dimming of the entire fixture, 8-bit Zoom, a Special / Control channel that gives access to fixture setup options via DMX and an 8-bit Shutter channel for strobe / instant blackout effects. As well as these, the different DMX modes also give the following options:

Mode 1 – 20-Pixel Mode (47 channels)

Individual cool white and warm white intensity control of 20 cells as 20 pixels. This mode allows full pixel mapping of each LED cell and has the largest DMX channel footprint.

Mode 2 – 10-Pixel Mode (27 channels)

Individual cool white and warm white intensity control of 10 pairs of cells as 10 pixels.

Mode 3 – 4-Pixel Mode (15 channels)

Individual cool white and warm white intensity control of 4 groups of 5 cells as 4 pixels.

Mode 4 – Normal Mode (9 channels)

Individual cool white and warm white control of entire fixture as one pixel. This mode has the smallest DMX channel footprint.

Notes

To apply a command on the Special / Control channel, you must start from DMX value zero and then send the DMX value continuously for 3 seconds (unless a different duration is specified for that command in the following tables).

DMX Mode 1 – 20pix (47 DMX channels)**16-bit tilt, zoom, 16-bit dimming, individual cell control, 20 pixels**

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Tilt coarse	0-210°	0-255	0-100%	127	Fade
2	Tilt fine	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	Zoom	Wide (flood) - narrow (spot)	0-255	0-100%	0	Fade
4	Special / Control	No function	0-59	0-23.1%		
		Capture DMX scene	60-63	23.5-24.7%		
		DMX hold use captured scene	64-67	25.1-26.3%		
		No function	68-71	26.7-27.8%		
		Base fan full off	72-75	28.2-29.4%		
		Base fan full on	76-79	29.8-31.0%		
		Head fan full off	80-83	31.4-32.5%		
		Head fan full on	84-87	32.9-34.1%		
		PWM frequency 600 Hz	88-91	34.5-35.7%		
		PWM frequency 1200 Hz	92-95	36.1-37.3%		
		PWM frequency 2400 Hz	96-99	37.6-38.8%		
		PWM frequency 4800 Hz	100-103	39.2-40.4%		
		PWM frequency 9600 Hz	104-107	40.8-42.0%		
		PWM frequency 19.2 kHz	108-111	42.4-43.5%		
		PWM frequency 25 kHz	112-115	43.9-45.1%		
		No function	116-143	45.5-56.1%		
		Display Flip off	144-147	56.5-57.6%		
		Display Flip on	148-151	58.0-59.2%		
		No function	152-191	59.6-74.9%		
		X4 compatibility off	192-195	75.3-76.5%		
		X4 compatibility on	196-199	76.9-78.0%		
		Silent Mode off	200-203	78.4-79.6%		
		Silent Mode on	204-207	80.0-81.2%		
		Position Feedback off	208-211	81.6-82.7%		
		Position Feedback on	212-215	83.1-84.3%		
		DMX hold off	216-219	84.7-85.9%		
		DMX hold on	220-223	86.3-87.5%		
		Tilt inverse off	224-227	87.8-89.0%		
		Tilt inverse on	228-231	89.4-90.6%		
		Pixel inverse off	232-235	91.0-92.2%		
Pixel inverse on	236-239	92.5-93.7%				
Zoom inverse off	240-243	94.1-95.3%				
Zoom inverse on	244-247	95.7-96.9%				
Fixture default	248-251	97.3-98.4%				
Fixture reset	252-255	98.8-100%				
5	Dimmer coarse	Intensity 0-100%	0-65535	0-100%	255	Fade
6	Dimmer fine					

7	Shutter	Closed, zero light output	0-15	0-5.9%	255	Snap
		Random pulse slow-fast	16-47	6.3-18.4%		Fade
		Opening pulse slow-fast	48-79	18.8-31.0%		
		Closing pulse slow-fast	80-111	31.4-43.5%		
		Pulse slow-fast	112-143	43.9-56.1%		
		Random strobe slow-fast	144-159	56.5-62.4%		
		Pause strobe slow-fast	160-199	62.7-78.0%		
		Strobe slow-fast	200-239	78.4-93.7%		
	Open, max. light output	240-255	94.1-100%	Snap		
8	Pixel 1 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
9	Pixel 1 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
10	Pixel 2 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
11	Pixel 2 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
12	Pixel 3 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
13	Pixel 3 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 4 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 4 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 5 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 5 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 6 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 6 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 7 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 7 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 8 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 8 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 9 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 9 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 10 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 10 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
28	Pixel 11 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
29	Pixel 11 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
30	Pixel 12 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
31	Pixel 12 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
32	Pixel 13 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
33	Pixel 13 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
34	Pixel 14 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
35	Pixel 14 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
36	Pixel 15 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
37	Pixel 15 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
38	Pixel 16 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
39	Pixel 16 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
40	Pixel 17 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
41	Pixel 17 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
42	Pixel 18 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
43	Pixel 18 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
44	Pixel 19 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
45	Pixel 19 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
46	Pixel 20 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
47	Pixel 20 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 2 – 10pix (27 DMX channels)

16-bit tilt, zoom, 16-bit dimming, 2 cells per pixel, 10 pixels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Tilt coarse	0-210°	0-255	0-100%	127	Fade
2	Tilt fine	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	Zoom	Wide (flood) - narrow (spot)	0-255	0-100%	0	Fade
4	Special / Control	No function	0-59	0-23.1%		
		Capture DMX scene	60-63	23.5-24.7%		
		DMX hold use captured scene	64-67	25.1-26.3%		
		No function	68-71	26.7-27.8%		
		Base fan full off	72-75	28.2-29.4%		
		Base fan full on	76-79	29.8-31.0%		
		Head fan full off	80-83	31.4-32.5%		
		Head fan full on	84-87	32.9-34.1%		
		PWM frequency 600 Hz	88-91	34.5-35.7%		
		PWM frequency 1200 Hz	92-95	36.1-37.3%		
		PWM frequency 2400 Hz	96-99	37.6-38.8%		
		PWM frequency 4800 Hz	100-103	39.2-40.4%		
		PWM frequency 9600 Hz	104-107	40.8-42.0%		
		PWM frequency 19.2 kHz	108-111	42.4-43.5%		
		PWM frequency 25 kHz	112-115	43.9-45.1%		
		No function	116-143	45.5-56.1%		
		Display Flip off	144-147	56.5-57.6%		
		Display Flip on	148-151	58.0-59.2%		
		No function	152-191	59.6-74.9%		
		X4 compatibility off	192-195	75.3-76.5%		
		X4 compatibility on	196-199	76.9-78.0%		
		Silent Mode off	200-203	78.4-79.6%		
		Silent Mode on	204-207	80.0-81.2%		
		Position Feedback off	208-211	81.6-82.7%		
		Position Feedback on	212-215	83.1-84.3%		
		DMX hold off	216-219	84.7-85.9%		
		DMX hold on	220-223	86.3-87.5%		
		Tilt inverse off	224-227	87.8-89.0%		
		Tilt inverse on	228-231	89.4-90.6%		
		Pixel inverse off	232-235	91.0-92.2%		
Pixel inverse on	236-239	92.5-93.7%				
Zoom inverse off	240-243	94.1-95.3%				
Zoom inverse on	244-247	95.7-96.9%				
Fixture default	248-251	97.3-98.4%				
Fixture reset	252-255	98.8-100%				
5	Dimmer coarse	Intensity 0-100%	0-65535	0-100%	255	Fade
6	Dimmer fine					

7	Shutter	Closed, zero light output	0-15	0-5.9%	255	Snap
		Random pulse slow-fast	16-47	6.3-18.4%		Fade
		Opening pulse slow-fast	48-79	18.8-31.0%		
		Closing pulse slow-fast	80-111	31.4-43.5%		
		Pulse slow-fast	112-143	43.9-56.1%		
		Random strobe slow-fast	144-159	56.5-62.4%		
		Pause strobe slow-fast	160-199	62.7-78.0%		
		Strobe slow-fast	200-239	78.4-93.7%		
Open, max. light output	240-255	94.1-100%	Snap			
8	Pixel 1 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
9	Pixel 1 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
10	Pixel 2 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
11	Pixel 2 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
12	Pixel 3 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
13	Pixel 3 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 4 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 4 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
16	Pixel 5 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
17	Pixel 5 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
18	Pixel 6 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
19	Pixel 6 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
20	Pixel 7 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
21	Pixel 7 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
22	Pixel 8 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
23	Pixel 8 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
24	Pixel 9 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
25	Pixel 9 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
26	Pixel 10 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
27	Pixel 10 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 3 – 4pix (15 DMX channels)

16-bit tilt, zoom, 16-bit dimming, 5 cells per pixel, 4 pixels

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Tilt coarse	0-210°	0-255	0-100%	127	Fade
2	Tilt fine	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	Zoom	Wide (flood) - narrow (spot)	0-255	0-100%	0	Fade
4	Special / Control	No function	0-59	0-23.1%		
		Capture DMX scene	60-63	23.5-24.7%		
		DMX hold use captured scene	64-67	25.1-26.3%		
		No function	68-71	26.7-27.8%		
		Base fan full off	72-75	28.2-29.4%		
		Base fan full on	76-79	29.8-31.0%		
		Head fan full off	80-83	31.4-32.5%		
		Head fan full on	84-87	32.9-34.1%		
		PWM frequency 600 Hz	88-91	34.5-35.7%		
		PWM frequency 1200 Hz	92-95	36.1-37.3%		
		PWM frequency 2400 Hz	96-99	37.6-38.8%		
		PWM frequency 4800 Hz	100-103	39.2-40.4%		
		PWM frequency 9600 Hz	104-107	40.8-42.0%		
		PWM frequency 19.2 kHz	108-111	42.4-43.5%		
		PWM frequency 25 kHz	112-115	43.9-45.1%		
		No function	116-143	45.5-56.1%		
		Display Flip off	144-147	56.5-57.6%		
		Display Flip on	148-151	58.0-59.2%		
		No function	152-191	59.6-74.9%		
		X4 compatibility off	192-195	75.3-76.5%		
		X4 compatibility on	196-199	76.9-78.0%		
		Silent Mode off	200-203	78.4-79.6%		
		Silent Mode on	204-207	80.0-81.2%		
		Position Feedback off	208-211	81.6-82.7%		
		Position Feedback on	212-215	83.1-84.3%		
		DMX hold off	216-219	84.7-85.9%		
		DMX hold on	220-223	86.3-87.5%		
		Tilt inverse off	224-227	87.8-89.0%		
		Tilt inverse on	228-231	89.4-90.6%		
		Pixel inverse off	232-235	91.0-92.2%		
Pixel inverse on	236-239	92.5-93.7%				
Zoom inverse off	240-243	94.1-95.3%				
Zoom inverse on	244-247	95.7-96.9%				
Fixture default	248-251	97.3-98.4%				
Fixture reset	252-255	98.8-100%				
5	Dimmer coarse	Intensity 0-100%	0-65535	0-100%	255	Fade
6	Dimmer fine					

7	Shutter	Closed, zero light output	0-15	0-5.9%	255	Snap
		Random pulse slow-fast	16-47	6.3-18.4%		Fade
		Opening pulse slow-fast	48-79	18.8-31.0%		
		Closing pulse slow-fast	80-111	31.4-43.5%		
		Pulse slow-fast	112-143	43.9-56.1%		
		Random strobe slow-fast	144-159	56.5-62.4%		
		Pause strobe slow-fast	160-199	62.7-78.0%		
		Strobe slow-fast	200-239	78.4-93.7%		
Open, max. light output	240-255	94.1-100%	Snap			
8	Pixel 1 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
9	Pixel 1 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
10	Pixel 2 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
11	Pixel 2 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
12	Pixel 3 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
13	Pixel 3 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade
14	Pixel 4 CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
15	Pixel 4 WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade

DMX Mode 4 – Normal (9 DMX channels)

16-bit tilt, zoom, 16-bit dimming, grouped control of all 20 cells as one pixel

Channel	Command	DMX range	Percent	Default DMX	Fade	
1	Tilt coarse	0-210°	0-255	0-100%	127	Fade
2	Tilt fine	Coarse tilt + 0-1.2°	0-255	0-100%	127	Fade
3	Zoom	Wide (flood) - narrow (spot)	0-255	0-100%	0	Fade
4	Special / Control	No function	0-59	0-23.1%		
		Capture DMX scene	60-63	23.5-24.7%		
		DMX hold use captured scene	64-67	25.1-26.3%		
		No function	68-71	26.7-27.8%		
		Base fan full off	72-75	28.2-29.4%		
		Base fan full on	76-79	29.8-31.0%		
		Head fan full off	80-83	31.4-32.5%		
		Head fan full on	84-87	32.9-34.1%		
		PWM frequency 600 Hz	88-91	34.5-35.7%		
		PWM frequency 1200 Hz	92-95	36.1-37.3%		
		PWM frequency 2400 Hz	96-99	37.6-38.8%		
		PWM frequency 4800 Hz	100-103	39.2-40.4%		
		PWM frequency 9600 Hz	104-107	40.8-42.0%		
		PWM frequency 19.2 kHz	108-111	42.4-43.5%		
		PWM frequency 25 kHz	112-115	43.9-45.1%		
		No function	116-143	45.5-56.1%		
		Display Flip off	144-147	56.5-57.6%		
		Display Flip on	148-151	58.0-59.2%		
		No function	152-191	59.6-74.9%		
		X4 compatibility off	192-195	75.3-76.5%		
		X4 compatibility on	196-199	76.9-78.0%		
		Silent Mode off	200-203	78.4-79.6%		
		Silent Mode on	204-207	80.0-81.2%		
		Position Feedback off	208-211	81.6-82.7%		
		Position Feedback on	212-215	83.1-84.3%		
		DMX hold off	216-219	84.7-85.9%		
		DMX hold on	220-223	86.3-87.5%		
		Tilt inverse off	224-227	87.8-89.0%		
		Tilt inverse on	228-231	89.4-90.6%		
		Pixel inverse off	232-235	91.0-92.2%		
Pixel inverse on	236-239	92.5-93.7%				
Zoom inverse off	240-243	94.1-95.3%				
Zoom inverse on	244-247	95.7-96.9%				
Fixture default	248-251	97.3-98.4%				
Fixture reset	252-255	98.8-100%				
5	Dimmer coarse	Intensity 0-100%	0-65535	0-100%	255	Fade
6	Dimmer fine					

7	Shutter	Closed, zero light output	0-15	0-5.9%	255	Snap
		Random pulse slow-fast	16-47	6.3-18.4%		Fade
		Opening pulse slow-fast	48-79	18.8-31.0%		
		Closing pulse slow-fast	80-111	31.4-43.5%		
		Pulse slow-fast	112-143	43.9-56.1%		
		Random strobe slow-fast	144-159	56.5-62.4%		
		Pause strobe slow-fast	160-199	62.7-78.0%		
		Strobe slow-fast	200-239	78.4-93.7%		
Open, max. light output	240-255	94.1-100%	Snap			
8	All pixels CW	Cool white intensity 0-100%	0-255	0-100%	0	Fade
9	All pixels WW	Warm white intensity 0-100%	0-255	0-100%	0	Fade

