

DMX Channel Index

impression[&]
X4

& Patterns Set Information



from software version: 1.18/18/12/10/n
(Instruction version: 1.0)



e-mail: service@glp.de
Internet: <http://www.glp.de>

DMX Channel Selection (DMX Protocol)

Normal-Mode 20 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 ¹⁾		8..15	08..0F	3..5.5
	Color 02 - Amber ¹⁾		16..23	10..17	6..8.5
	Color 03 - Warm Yellow ¹⁾		24..31	18..1F	9..12.5
	Color 04 - Yellow ¹⁾		32..39	20..27	13..15.5
	Color 05 - Green ¹⁾		40..47	28..2F	16..18.5
	Color 06 - Turquoise ¹⁾		48..55	30..37	19..21.5
	Color 07 - Cyan ¹⁾		56..63	38..3F	22..24.5
	Color 08 - Blue ¹⁾		64..71	40..47	25..27.5
	Color 09 - Lavender ¹⁾		72..79	48..4F	28..30.5
	Color 10 - Malve ¹⁾		80..87	50..57	31..34.5
	Color 11 - Magenta ¹⁾		88..95	58..5F	35..37.5
	Color 12 - Pink ¹⁾		96..103	60..67	38..40.5
	White - CTO	3200K	104..111	68..6F	41..43.5
	White	5600K	112..119	70..77	44..46.5
	White - CTB	7200K	120..127	78..7F	47..49.5
	Rainbow Effect Stop ²⁾		128	80	50
	Rainbow Effect ³⁾	slow - fast	129..223	81..DF	51..88
	Random colors	slow - fast	224..255	E0..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) White	Color mixing system - White	0 - 100%	0..255	00..FF	0..100
10) Shutter	Shutter closed		0..15	00..0F	0..5.5
	Shutter pulse random	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 - 0.1s	160..199	A0..C7	63..77
	Strobe effect slow - fast	1 Hz - 10 Hz	200..239	C8..EF	78..94
	Shutter open		240..255	F0..FF	95..100
11) Dimmer	Dimmer	0 - 100%	0..255	0..FF	0..100
12) CTO	No CTO		0..7	0..07	0..2.5
	Continuous color temperature correction	Applicable for ALL colors	8..255	08..FF	3..100
13) Special	Pattern Block 1 → channel 17		0..3	00..03	0..1
	Pattern Block 2 → channel 17		4..7	04..07	1.5..2.5
	Change PWM frequency		100..200	64..C8	40..78
	RESET		250..255	FA..FF	98..100
14) Movement	No macros		0	00	0
	Movement	Size Phase	Use "Speed" to adjust		

Channel	Function			Time and Value	DMX	HEX	%
macros	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 PAN	32..63	20..3F	13..25
	PAN / TILT			size / phase see PAN	64..95	40..5F	26..37
	PAN / TILT (inverse)			size / phase see PAN	96..127	60..7F	38..50
	Circle			size / phase see PAN	128..159	80..9F	51..62
	Circle (inverse)			size / phase see PAN	160..191	A0..BF	63..75
	Lying eight			size / phase see PAN	192..223	C0..DF	76..87
	Random movement			size / phase see PAN	224..255	E0..FF	88..100
15) Speed	Pan/Tilt movement speed from controller				0..1	00..01	0..0.5
Pan/Tilt	Pan/Tilt, slow – fast Use this channel also for the speed of the movements (channel 14).				02..255	02..FF	1..100
16) Zoom	Wide - narrow (spot)				0...255	00...FF	0...100
17) Pattern	No pattern				0..2	00..02	0..1
	250 pre-defined patterns (see appendix A)				03..253	03..FD	2..99
	Activates direct access to LED Pattern			See channels 18-20	254..255	FE..FF	100
18) Pattern Byte 1	Direct access to Pattern of LED 1..8				0...255	00...FF	0...100
19) Pattern Byte 2	Direct access to Pattern of LED 9..16				0...255	00...FF	0...100
20) Pattern Byte 3	Direct access to Pattern of LED 17..19				0..07	00...07	0..2.5

Compress-Mode 14 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	Colors adjustable via RGB		0..7	00..07	0..2.5

Channel	Function	Time and Value	DMX	HEX	%
(fixed)	Color 01 - Red ¹⁾		8..15	08..0F	3..5.5
	Color 02 - Amber ¹⁾		16..23	10..17	6..8.5
	Color 03 - Warm Yellow ¹⁾		24..31	18..1F	9..12.5
	Color 04 - Yellow ¹⁾		32..39	20..27	13..15.5
	Color 05 - Green ¹⁾		40..47	28..2F	16..18.5
	Color 06 - Turquoise ¹⁾		48..55	30..37	19..21.5
	Color 07 - Cyan ¹⁾		56..63	38..3F	22..24.5
	Color 08 - Blue ¹⁾		64..71	40..47	25..27.5
	Color 09 - Lavender ¹⁾		72..79	48..4F	28..30.5
	Color 10 - Mauve ¹⁾		80..87	50..57	31..34.5
	Color 11 - Magenta ¹⁾		88..95	58..5F	35..37.5
	Color 12 - Pink ¹⁾		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
6) Red	Rainbow Effect Stop ²⁾		128	80	50
	Rainbow Effect ³⁾	slow - fast	129..223	81..DF	51..88
	Rainbow Effect, random colors	slow - fast	224..255	E0..FF	89..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) White	Color mixing system - White	0 - 100%	0..255	00..FF	0..100
10) 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
	Shutter open		251..255	FB..FF	99..100
11) Dimmer	Dimmer	0 - 100%	0..255	0..FF	0..100
12) Zoom	Wide - narrow (spot)		0..255	00..FF	0..100
13) Special	Pattern Block 1 → channel 14		0..3	00..03	0..1
	Pattern Block 2 → channel 14		4..7	04..07	1.5..2.5
	Change PWM frequency		100..200	64..C8	40..78
	RESET		250..255	FA..FF	98..100
14) Pattern	No pattern		0..2	00..02	0..1
	250 pre-defined patterns (see appendix A)		03..253	03..FD	2..99

High Resolution (Extended) -Mode 21 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) 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) White-coarse	Color mixing system – White	0 - 100%	0..255	00..FF	0..100
12) White-fine	Color mixing system – White-Low		0..255	00..FF	0..100
13) 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
	Shutter open		251..255	FB..FF	99..100
14) Dimmer-coarse	Dimmer	0 - 100%	0..255	0..FF	0..100
15) Dimmer-fine	Dimmer - Low		0..255	0..FF	0..100
16) Zoom	Spot - Flood		0...255	00...FF	0...100
17) Special	Pattern Block 1 → channel 18		0..3	00..03	0..1
	Pattern Block 2 → channel 18		4..7	04..07	1.5..2.5
	Change PWM frequency		100..200	64..C8	40..78
	RESET		250..255	FA..FF	98..100
18) Pattern	No pattern		0..2	00..02	0..1
	250 pre-defined patterns (see appendix A)		03..253	03..FD	2..99
	Activates direct access to LED Pattern	See channels 18-20	254..255	FE..FF	100
19) Pattern Byte 1	Direct access to Pattern of LED 1..8		0...255	00...FF	0...100
20) Pattern Byte 2	Direct access to Pattern of LED 9..16		0...255	00...FF	0...100

Channel	Function	Time and Value	DMX	HEX	%
21) Pattern Byte 3	Direct access to Pattern of LED 17..19		0..07	00...07	0..2.5

¹⁾ 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 X4** will then start from that color and will execute the rainbow effect synchronously. Different **IMPRESSION X4** can have different start-colors but will still execute the rainbow effect synchronously. If you choose a color different from the ones marked with ¹⁾ in the tables above the rainbow start-color will be red.

²⁾ Rainbow-effect Stop will pause this function. After resuming the rainbow-effect will be continued from the current color.

³⁾ The Rainbow-effect will run synchronously only if started from one of the predefined colors (see also ¹⁾ 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 Display Indications

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

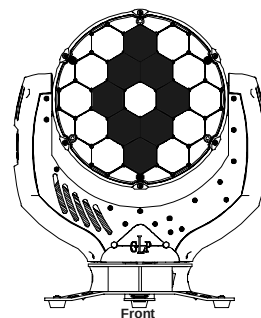
Vxx/xx/xx/xx/x

- N = Normal Mode / C = Compressed Mode / H = High Res. Mode
- N = Tilt normal / I = Tilt inverted
- N = Pan normal / I = Pan inverted
- LED driver version
- Main CPU version

Patterns Set 1 & 2

Patterns are grouped into two sets which can be activated and selected via the DMX channel "Special". Choose the desired pattern by its corresponding DMX value on channel "Pattern".

Orientation: Patterns are shown when looking at the **front** of a standing fixture; Head faced in direction of fixtures front label: DMX Pan @ 128; Tilt @ 220; Zoom @ 255 (letters are displayed homogenous).



Patterns Set 1

DMX	Pattern
000	
001	
002	
003	
004	
005	
006	
007	
008	
009	
010	
011	
012	

DMX	Pattern
013	
014	
015	
016	
017	
018	
019	
020	
021	
022	
023	
024	
025	

DMX	Pattern
026	
027	
028	
029	
030	
031	
032	
033	
034	
035	
036	
037	
038	

DMX	Pattern
039	
040	
041	
042	
043	
044	
045	
046	
047	
048	
049	
050	
051	

DMX	Pattern
052	
053	
054	
055	
056	
057	
058	
059	
060	
061	
062	
063	
064	
065	
066	
067	
068	

DMX	Pattern
069	
070	
071	
072	
073	
074	
075	
076	
077	
078	
079	
080	
081	
082	
083	
084	
085	

DMX	Pattern
086	
087	
088	
089	
090	
091	
092	
093	
094	
095	
096	
097	
098	
099	
100	
101	
102	

DMX	Pattern
103	
104	
105	
106	
107	
108	
109	
110	
111	
112	
113	
114	
115	
116	
117	
118	
119	

DMX	Pattern
120	
121	
122	
123	
124	
125	
126	
127	
128	
129	
130	
131	
132	
133	
134	
135	
136	

DMX	Pattern
137	
138	
139	
140	
141	
142	
143	
144	
145	
146	
147	
148	
149	
150	
151	
152	
153	

DMX	Pattern
154	
155	
156	
157	
158	
159	
160	
161	
162	
163	
164	
165	
166	
167	
168	
169	
170	

DMX	Pattern
171	
172	
173	
174	
175	
176	
177	
178	
179	
180	
181	
182	
183	
184	
185	
186	
187	

DMX	Pattern
188	
189	
190	
191	
192	
193	
194	
195	
196	
197	
198	
199	
200	
201	
202	
203	
204	

DMX	Pattern
205	
206	
207	
208	
209	
210	
211	
212	
213	
214	
215	
216	
217	
218	
219	
220	
221	

DMX	Pattern
222	
223	
224	
225	
226	
227	
228	
229	
230	
231	
232	
233	
234	
235	
236	
237	
238	

DMX	Pattern
239	
240	
241	
242	
243	
244	
245	
246	
247	
248	
249	
250	
251	
252	
253	reserved
254	reserved
255	reserved

Patterns Set 2

DMX	Pattern	DMX	Pattern	DMX	Pattern	DMX	Pattern
000		017		034		051	
001		018		035		052	
002		019		036		053	
003		020		037		054	
004		021		038		055	
005		022		039		056	
006		023		040		057	
007		024		041		058	
008		025		042		059	-
009		026		043			
010		027		044			
011		028		045			
012		029		046			
013		030		047			
014		031		048			
015		032		049			
016		033		050			

