

G-4 Motorized Barndoors RGBAM - DMX Protocol



Protocol Rev. 3

Mode
Default (23 Channels)

Valid From Firmware Version
04.09

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type		
1	SHUTTER	0	7	0,0%	2,7%	Closed	10 (3,9%)	Snap	
		8	17	3,1%	6,7%	Open			
		18	88	7,1%	34,5%	Strobe			Slow -> Fast
		89	108	34,9%	42,4%	Pulse - Open			Slow -> Fast
		109	128	42,7%	50,2%	Pulse - Close			Slow -> Fast
		129	178	50,6%	69,8%	Strobe - Random			
		179	198	70,2%	77,6%	Random Lightning			Fast -> Slow
		199	208	78,0%	81,6%	Random Double Strobe			Fast -> Slow
		209	218	82,0%	85,5%	Random Triple Strobe			Fast -> Slow
		219	228	85,9%	89,4%	White Noise			Fast -> Slow
229	255	89,8%	100,0%	Open					
2	3	0	65535	0,0%	100,0%	No LIGHT -> Maximum LIGHT	0 (0%)	Fade	
3									
4	MACRO	0	4	0,0%	1,6%	Disabled	0 (0%)	Fade	
		5	9	2,0%	3,5%	Congo - (G-1 Beam Color 1)			With Filter See Note ①
		10	14	3,9%	5,5%	Red - (G-1 Beam Color 2)			Emulated
		15	19	5,9%	7,5%	Green - (G-1 Beam Color 3)			
		20	24	7,8%	9,4%	Blue - (G-1 Beam Color 4)			
		25	29	9,8%	11,4%	Orange - (G-1 Beam Color 5)			
		30	34	11,8%	13,3%	Light Green - (G-1 Beam Color 6)			
		35	39	13,7%	15,3%	Pink - (G-1 Beam Color 7)			
		40	44	15,7%	17,3%	Light Blue - (G-1 Beam Color 8)			
		45	49	17,6%	19,2%	Purple - (G-1 Beam Color 9)			
		50	54	19,6%	21,2%	Neon Green - (G-1 Beam Color 10)			
		55	59	21,6%	23,1%	Magenta - (G-1 Beam Color 11)			
		60	64	23,5%	25,1%	Cyan - (G-1 Beam Color 12)			
		65	69	25,5%	27,1%	Yellow - (G-1 Beam Color 13)			
		70	74	27,5%	29,0%	CTC - (G-1 Beam Color 14)			
		75	79	29,4%	31,0%	Color Scroll CCW (Same as G-1 Beam)			
		80	84	31,4%	32,9%	Color Scroll CW (Same as G-1 Beam)			Slow -> Fast
		85	89	33,3%	34,9%	Random Color			
90	180	35,3%	70,6%	Color Filter Emulation	See Color Filter Emulation Chart				
181	244	71,0%	95,7%	Reserved					
245	249	96,1%	97,6%	RAW Amber	See Note ②	0 (0%)	Fade		
250	255	98,0%	100,0%	RAW Mint					
5	6	0	65535	0,0%	100,0%	No RED -> Maximum RED	255 (100%)	Fade	
6									
7									
7	8	0	65535	0,0%	100,0%	No GREEN -> Maximum GREEN	255 (100%)	Fade	
8									
9	10	0	65535	0,0%	100,0%	No BLUE -> Maximum BLUE	255 (100%)	Fade	
10									
11	CTC	0	0	0,0%	0,0%	≈ 5600° K	182 (71,3%)	Fade	
		1	4	0,4%	1,6%	No CTC (RAW)			
		5	255	2,0%	100,0%	CTC 2000K -> 10000K			See CTC chart for values

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type		
12 13	PAN	Depending On Pan Mode							
		0	65535	0,0%	100,0%	-270° to 270° / 540° Mode	540°	32767 (50%)	Fade
		0	65535	0,0%	100,0%	-180° to 180° / 360° Mode	360°		
		0	65535	0,0%	100,0%	-180° to 180° / 360° Mode (Shortest Path)	360° Shortest Path		
		Pan Mode Continuous Rotation							
		0	32766	0,0%	49,9%	CCW - Counter Clockwise	Fast -> Slow	32767 (50%)	Fade
		32767	32767	50,0%	50,0%	Stopped	Stopped		
32768	65535	50,1%	100,0%	CW - Clockwise	Slow -> Fast				
14 15	TILT	0	65535	0,0%	100,0%	Tilt 0° to 213°	32767 (50%)	Fade	
16	PAN MODE	0	7	0,0%	2,7%	540° Mode	See Note ③	0 (0%)	Snap
		8	15	3,1%	5,9%	360° Mode			
		16	23	6,3%	9,0%	360° Shortest Path Mode			
		24	31	9,4%	12,2%	Continuous Rotation Mode			
		32	143	12,5%	56,1%	Reserved			
		144	151	56,5%	59,2%	Store Pan/Tilt Position Preset 1	See Note ④	0 (0%)	Snap
		152	159	59,6%	62,4%	Store Pan/Tilt Position Preset 2			
		160	167	62,7%	65,5%	Store Pan/Tilt Position Preset 3			
		168	175	65,9%	68,6%	Store Pan/Tilt Position Preset 4			
		176	183	69,0%	71,8%	Store Pan/Tilt Position Preset 5			
		184	191	72,2%	74,9%	Store Pan/Tilt Position Preset 6			
		192	199	75,3%	78,0%	Store Pan/Tilt Position Preset 7			
		200	207	78,4%	81,2%	Store Pan/Tilt Position Preset 8			
		208	215	81,6%	84,3%	Store Pan/Tilt Position Preset 9			
		216	223	84,7%	87,5%	Sequential Stored Position Preset Fade	Slow -> Fast		
		224	231	87,8%	90,6%	Sequential Stored Position Preset Snap	Slow -> Fast		
		232	239	91,0%	93,7%	Random Stored Position Preset Fade	Slow -> Fast		
240	247	94,1%	96,9%	Random Stored Position Preset Snap	Slow -> Fast				
248	255	97,3%	100,0%	540° Mode					
17	ZOOM	0	255	0,0%	100,0%	Narrow -> Wide	128 (50%)	Fade	
18	Blade 1	0	255	0,0%	100,0%	Closed -> Open	Large Right	Fade	
19	Blade 2	0	255	0,0%	100,0%	Closed -> Open	Small Top	Fade	
20	Blade 3	0	255	0,0%	100,0%	Closed -> Open	Large Left	Fade	
21	Blade 4	0	255	0,0%	100,0%	Closed -> Open	Small Bottom	Fade	
22	Rotation	0	255	0,0%	100,0%			Fade	
23	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function	0 (0%)	Snap	
		5	9	2,0%	3,5%	Full Reset			
		10	14	3,9%	5,5%	Pan Reset			
		15	19	5,9%	7,5%	Tilt Reset			
		20	24	7,8%	9,4%	Head Reset			
		25	29	9,8%	11,4%	Zoom Reset			
		30	34	11,8%	13,3%	Reserved			
		35	39	13,7%	15,3%	Display On	(Hold for 3 sec.)	0 (0%)	Snap
		40	44	15,7%	17,3%	Display Off			
		45	49	17,6%	19,2%	Power Off			
		50	54	19,6%	21,2%	Optimized Beam Narrow	See Note ⑤		
		55	59	21,6%	23,1%	Optimized Beam Wide			
		60	64	23,5%	25,1%	Reset Barndoors			
65	255	25,5%	100,0%	Reserved					

The G-4 Wash operates in one mode only

- ① Congo and Red on the color macro channel overwrites the RGB mixcolor and inserts a filter.
- ② Overwrites the RGB mixcolor with Amber only or Mint only.
- ③ The pan channel controls the speed of the rotation when set to pan mode 'continuous rotation' (FULL CCW - STOP - FULL CW).
- ④ When storing internal position presets by DMX hold the value on the pan-mode channel for 3 sec.
- ⑤ Set and hold value to optimize performance for narrow or wide beam.

Mode
Studio Mode (32 Channels)

Valid From Firmware Version
04.09

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type			
1	SHUTTER	0	7	0,0%	2,7%	Closed	10 (3,9%)	Snap		
		8	17	3,1%	6,7%	Open				
		18	88	7,1%	34,5%	Strobe			Slow -> Fast	
		89	108	34,9%	42,4%	Pulse - Open			Slow -> Fast	
		109	128	42,7%	50,2%	Pulse - Close			Slow -> Fast	
		129	178	50,6%	69,8%	Strobe - Random				
		179	198	70,2%	77,6%	Random Lightning			Fast -> Slow	
		199	208	78,0%	81,6%	Random Double Strobe			Fast -> Slow	
		209	218	82,0%	85,5%	Random Triple Strobe			Fast -> Slow	
		219	228	85,9%	89,4%	White Noise			Fast -> Slow	
229	255	89,8%	100,0%	Open						
2	3	INTENSITY	0	65535	0,0%	100,0%	No LIGHT -> Maximum LIGHT	0 (0%)	Fade	
3										
4	MACRO	0	4	0,0%	1,6%	Disabled	Emulated	0 (0%)	Fade	
		5	9	2,0%	3,5%	Congo - (G-1 Beam Color 1)				With Filter See Note ①
		10	14	3,9%	5,5%	Red - (G-1 Beam Color 2)				
		15	19	5,9%	7,5%	Green - (G-1 Beam Color 3)				
		20	24	7,8%	9,4%	Blue - (G-1 Beam Color 4)				
		25	29	9,8%	11,4%	Orange - (G-1 Beam Color 5)				
		30	34	11,8%	13,3%	Light Green - (G-1 Beam Color 6)				
		35	39	13,7%	15,3%	Pink - (G-1 Beam Color 7)				
		40	44	15,7%	17,3%	Light Blue - (G-1 Beam Color 8)				
		45	49	17,6%	19,2%	Purple - (G-1 Beam Color 9)				
		50	54	19,6%	21,2%	Neon Green - (G-1 Beam Color 10)				
		55	59	21,6%	23,1%	Magenta - (G-1 Beam Color 11)				
		60	64	23,5%	25,1%	Cyan - (G-1 Beam Color 12)				
		65	69	25,5%	27,1%	Yellow - (G-1 Beam Color 13)				
		70	74	27,5%	29,0%	CTC - (G-1 Beam Color 14)				
		75	79	29,4%	31,0%	Color Scroll CCW (Same as G-1 Beam)				Fast -> Slow
		80	84	31,4%	32,9%	Color Scroll CW (Same as G-1 Beam)				Slow -> Fast
		85	89	33,3%	34,9%	Random Color				
		90	180	35,3%	70,6%	Color Filter Emulation				See Color Filter Emulation Chart
		181	244	71,0%	95,7%	Reserved				
245	249	96,1%	97,6%	RAW Amber	See Note ②	0 (0%)	Fade			
250	255	98,0%	100,0%	RAW Mint						
5	6	RED	0	65535	0,0%	100,0%	No RED -> Maximum RED	255 (100%)	Fade	
6										
7	8	GREEN	0	65535	0,0%	100,0%	No GREEN -> Maximum GREEN	255 (100%)	Fade	
8										
9	10	BLUE	0	65535	0,0%	100,0%	No BLUE -> Maximum BLUE	255 (100%)	Fade	
10										
11	12	Amber	0	65535	0,0%	100,0%	No AMBER -> Maximum AMBER	255 (100%)	Fade	
12										
13	14	Mint	0	65535	0,0%	100,0%	No MINT -> Maximum MINT	255 (100%)	Fade	
14										
15	CTC	0	0	0,0%	0,0%	≈ 5600° K	182 (71,3%)	Fade		
		1	4	0,4%	1,6%	No CTC (RAW)				
		5	255	2,0%	100,0%	CTC 2000K -> 10000K			See CTC chart for values	

Channel	Name	DMX Value	DMX Percentage	Description	Info	Default DMX Value	Fader Type		
16	Color Mode	0	4	0,0%	1,6%	CTC RGB			
		5	9	2,0%	3,5%	xy Control (CIE 1931)			
		10	14	3,9%	5,5%	CTC RGBAM			
		15	19	5,9%	7,5%	HSI			
		20	24	7,8%	9,4%	CMY			
17 18	PAN	Depending On Pan Mode							
		0	65535	0,0%	100,0%	-270° to 270° / 540° Mode	540°		
		0	65535	0,0%	100,0%	-180° to 180° / 360° Mode	360°	32767 (50%)	Fade
		0	65535	0,0%	100,0%	-180° to 180° / 360° Mode (Shortest Path)	360° Shortest Path		
		Pan Mode Continuous Rotation							
		0	32766	0,0%	49,9%	CCW - Counter Clockwise	Fast -> Slow		
19 20	TILT	0	65535	0,0%	100,0%	Tilt 0° to 213°		32767 (50%)	Fade
		0	7	0,0%	2,7%	540° Mode	See Note ③	0 (0%)	Snap
		8	15	3,1%	5,9%	360° Mode			
16	23	6,3%	9,0%	360° Shortest Path Mode					
24	31	9,4%	12,2%	Continuous Rotation Mode					
21	PAN MODE	32	143	12,5%	56,1%	Reserved			
		144	151	56,5%	59,2%	Store Pan/Tilt Position Preset 1	See Note ④	0 (0%)	Snap
		152	159	59,6%	62,4%	Store Pan/Tilt Position Preset 2			
		160	167	62,7%	65,5%	Store Pan/Tilt Position Preset 3			
		168	175	65,9%	68,6%	Store Pan/Tilt Position Preset 4			
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		200	207	78,4%	81,2%	Store Pan/Tilt Position Preset 8			
		208	215	81,6%	84,3%	Store Pan/Tilt Position Preset 9			
		216	223	84,7%	87,5%	Sequential Stored Position Preset Fade	Slow -> Fast		
		224	231	87,8%	90,6%	Sequential Stored Position Preset Snap	Slow -> Fast		
		232	239	91,0%	93,7%	Random Stored Position Preset Fade	Slow -> Fast		
		240	247	94,1%	96,9%	Random Stored Position Preset Snap	Slow -> Fast		
		248	255	97,3%	100,0%	540° Mode			
22	ZOOM	0	255	0,0%	100,0%	Narrow -> Wide		128 (50%)	Fade
23	Blade 1	0	255	0,0%	100,0%	Closed -> Open	Large Right		Fade
24	Blade 2	0	255	0,0%	100,0%	Closed -> Open	Small Top		Fade
25	Blade 3	0	255	0,0%	100,0%	Closed -> Open	Large Left		Fade
26	Blade 4	0	255	0,0%	100,0%	Closed -> Open	Small Bottom		Fade
27	Rotation	0	255	0,0%	100,0%				Fade

Channel	Name	DMX Value		DMX Percentage		Description	Info	Default DMX Value	Fader Type	
28	Dimming Mode	0	4	0,0%	1,6%	Standard				
		5	9	2,0%	3,5%	Incandescent Curve				
29	Plus Minus Green	0	4	0,0%	1,6%	Neutral				
		5	125	2,0%	49,0%	Minus Green				
		126	134	49,4%	52,5%	Neutral				
		135	255	52,9%	100,0%	Plus Green				
30	Fan Control	0	4	0,0%	1,6%	Auto Fan				
		5	255	2,0%	100,0%	20-100%				
31	Frequency Control	0	4	0,0%	1,6%	Standard				
		5	255	2,0%	100,0%	3324Hz to 265446Hz				
32	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function		0 (0%)	Snap	
		5	9	2,0%	3,5%	Full Reset				
		10	14	3,9%	5,5%	Pan Reset				
		15	19	5,9%	7,5%	Tilt Reset				
		20	24	7,8%	9,4%	Head Reset				
		25	29	9,8%	11,4%	Zoom Reset				
		30	34	11,8%	13,3%	Reserved				
		35	39	13,7%	15,3%	Display On		(Hold for 3 sec.)	0 (0%)	Snap
		40	44	15,7%	17,3%	Display Off				
		45	49	17,6%	19,2%	Power Off				
		50	54	19,6%	21,2%	Optimized Beam Narrow				
		55	59	21,6%	23,1%	Optimized Beam Wide	See Note 5			
		60	64	23,5%	25,1%	Reset Barndoors				
		65	255	25,5%	100,0%	Reserved				

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- ① Congo and Red on the color macro channel overwrites the RGB mixcolor and inserts a filter.
- ② Overwrites the RGB mixcolor with Amber only or Mint only.
- ③ The pan channel controls the speed of the rotation when set to pan mode 'continuous rotation' (FULL CCW - STOP - FULL CW).
- ④ When storing internal position presets by DMX hold the value on the pan-mode channel for 3 sec.
- ⑤ Set and hold value to optimize performance for narrow or wide beam.