

G-7 Spot - DMX protocol



Protocol rev. 1.0

Mode
Standard (22 channels)

Valid from firmware version
1.10

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type				
1	SHUTTER	0	4	0,0%	1,6%	Closed		8 (3,1%)	Snap		
		5	9	2,0%	3,5%	Open	See note ①				
		10	54	3,9%	21,2%	Strobe	Fast -> Slow				
		55	79	21,6%	31,0%	Random Strobe	Slow -> Fast				
		80	84	31,4%	32,9%	Pulse Up					
		85	89	33,3%	34,9%	Pulse Down					
		90	94	35,3%	36,9%	Pulse UP Down					
		95	99	37,3%	38,8%	Random Pulse Up					
		10	104	3,9%	40,8%	Random Pulse Down					
		105	109	41,2%	42,7%	Random Pulse Up Down					
		235	239	92,2%	93,7%	Wave Up Down					
		240	244	94,1%	95,7%	Wave Up					
		245	249	96,1%	97,6%	Wave Down					
		250	255	98,0%	100,0%	Open					
2	INTENSITY	0	255	0,0%	100,0%	Close -> Open		0 (0%)	Fade		
3	Cyan	0	255	0,0%	100,0%	0-100%		0 (0%)	Fade		
4	Magenta	0	255	0,0%	100,0%	0-100%		0 (0%)	Fade		
5	Yellow	0	255	0,0%	100,0%	0-100%		0 (0%)	Fade		
6	CTO	0	244	0,0%	95,7%	0-100%		0 (0%)	Fade		
7	Color Wheel	0	9	0,0%	3,5%	Open		0 (0%)	Snap		
		10	19	3,9%	7,5%	Color 1					
		20	29	7,8%	11,4%	Color 2					
		30	39	11,8%	15,3%	Color 3					
		40	49	15,7%	19,2%	Color 4					
		50	59	19,6%	23,1%	Color 5					
		60	69	23,5%	27,1%	Macro Red	See note ②				
		70	79	27,5%	31,0%	Macro Green	See note ②				
		80	89	31,4%	34,9%	Macro Blue	See note ②				
		90	119	35,3%	46,7%	Effect Wheel Bounce					
		120	149	47,1%	58,4%	Effect Wheel Bounce Sinus					
		150	150	58,8%	58,8%	Open					
		151	164	59,2%	64,3%	Fade Open -> Color 1					
		165	165	64,7%	64,7%	Color 1					
		166	179	65,1%	70,2%	Fade Color 1 -> Color 2					
		180	180	70,6%	70,6%	Color 2					
		181	194	71,0%	76,1%	Fade Color 2 -> Color 3					
		195	195	76,5%	76,5%	Color 3					
		196	209	76,9%	82,0%	Fade Color 3 -> Color 4					
		210	210	82,4%	82,4%	Color 4					
211	224	82,7%	87,8%	Fade Color 4 -> Color 5							
225	225	88,2%	88,2%	Color 5							
226	240	88,6%	94,1%	Colors Bounce							
241	255	94,5%	100,0%	Colors Bounce Sinus							
8	PAN	0	65535	0,0%	100,0%	-0° to 540°		32767 (50%)	Fade		
9		10	TILT	0	65535	0,0%	100,0%	-0° to 240°		32767 (50%)	Fade
10	TILT	0		65535	0,0%	100,0%	-0° to 240°		32767 (50%)	Fade	
11											

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type		
12	Rotating gobo	0	9	0,0%	3,5%	Open		0 (0%)	Snap
		10	19	3,9%	7,5%	Gobo 1			
		20	29	7,8%	11,4%	Gobo 2			
		30	39	11,8%	15,3%	Gobo 3			
		40	49	15,7%	19,2%	Gobo 4			
		50	59	19,6%	23,1%	Gobo 5			
		60	69	23,5%	27,1%	Gobo 6			
		70	79	27,5%	31,0%	Open Shake	Slow -> Fast		
		80	89	31,4%	34,9%	Gobo 1 Shake	Slow -> Fast		
		90	99	35,3%	38,8%	Gobo 2 Shake	Slow -> Fast		
		10	109	3,9%	42,7%	Gobo 3 Shake	Slow -> Fast		
		110	119	43,1%	46,7%	Gobo 4 Shake	Slow -> Fast		
		120	129	47,1%	50,6%	Gobo 5 Shake	Slow -> Fast		
		130	139	51,0%	54,5%	Gobo 6 Shake	Slow -> Fast		
		140	197	54,9%	77,3%	Gobo Wheel Scroll CW			
198	255	77,6%	100,0%	Gobo Wheel Scroll CCW					
13 14	Rotating Gobo Indexing Rotation	0	511	0,0%	0,8%	No Index		0 (0%)	Fade
		512	49151	0,8%	75,0%	0-620°			
		49152	57087	75,0%	87,1%	Rotation CCW	Fast -> Slow		
		57088	57599	87,1%	87,9%	Stop			
		57600	65535	87,9%	100,0%	Rotation CW	Slow -> Fast		
15	Static Gobo Wheel	0	9	0,0%	3,5%	Open		0 (0%)	Snap
		10	19	3,9%	7,5%	Gobo 1			
		20	29	7,8%	11,4%	Gobo 2			
		30	39	11,8%	15,3%	Gobo 3			
		40	49	15,7%	19,2%	Gobo 4			
		50	59	19,6%	23,1%	Gobo 5			
		60	69	23,5%	27,1%	Gobo 6			
		70	79	27,5%	31,0%	Gobo 7			
		80	89	31,4%	34,9%	Gobo 8			
		90	99	35,3%	38,8%	Gobo 9			
		100	109	39,2%	42,7%	Open Shake	Slow -> Fast		
		110	119	43,1%	46,7%	Gobo 1 Shake	Slow -> Fast		
		120	129	47,1%	50,6%	Gobo 2 Shake	Slow -> Fast		
		130	139	51,0%	54,5%	Gobo 3 Shake	Slow -> Fast		
		140	149	54,9%	58,4%	Gobo 4 Shake	Slow -> Fast		
		150	159	58,8%	62,4%	Gobo 5 Shake	Slow -> Fast		
		160	169	62,7%	66,3%	Gobo 6 Shake	Slow -> Fast		
		170	179	66,7%	70,2%	Gobo 7 Shake	Slow -> Fast		
		180	189	70,6%	74,1%	Gobo 8 Shake	Slow -> Fast		
		190	199	74,5%	78,0%	Gobo 9 Shake	Slow -> Fast		
		200	227	78,4%	89,0%	Gobo Wheel Scroll CW			
		228	255	89,4%	100,0%	Gobo Wheel Scroll CCW			
		16	Iris	0	200	0,0%	78,4%		
201	210			78,8%	82,4%	Pulse Open	Slow -> Fast		
211	220			82,7%	86,3%	Pulse Close	Slow -> Fast		
221	254			86,7%	99,6%	Random	Slow -> Fast		
255	255			100,0%	100,0%	Open			
17	Prism	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	127	2,0%	49,8%	Index			
		128	191	50,2%	74,9%	Spin CCW	Fast -> Slow		
		192	192	75,3%	75,3%	No Spin			
		193	255	75,7%	100,0%	Spin CW	Slow -> Fast		
18	FROST	0	5	0,0%	2,0%	Open		0 (0%)	Fade
		6	254	2,4%	99,6%	Frost 0-100%			
		255	255	100,0%	100,0%	Heavy Frost			
19	ZOOM	0	255	0,0%	100,0%	0-100 Zoom		0 (0%)	Fade
20	FOCUS	0	255	0,0%	100,0%	0-100 Focus		0 (0%)	Fade

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type		
21	Macros	0	4	0,0%	1,6%	No Effect		0 (0%)	Snap
		5	255	2,0%	100,0%	Reserved			
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
22	Function	0	9	0,0%	3,5%	No Function		0 (0%)	Snap
		10	19	3,9%	7,5%	Full Reset	Hold 3 seconds		
		20	29	7,8%	11,4%	Pan/Tilt Reset	Hold 3 seconds		
		30	39	11,8%	15,3%	Zoom/Focus Reset	Hold 3 seconds		
		40	49	15,7%	19,2%	Gobo Reset	Hold 3 seconds		
		50	59	19,6%	23,1%	Iris Reset	Hold 3 seconds		
		60	69	23,5%	27,1%	CMY-CTO Reset	Hold 3 seconds		
		70	79	27,5%	31,0%	Color Reset	Hold 3 seconds		
		80	89	31,4%	34,9%	Frost Reset	Hold 3 seconds		
		90	99	35,3%	38,8%	Prism Reset	Hold 3 seconds		
		100	109	39,2%	42,7%	Fans Standard	Hold 3 seconds		
		110	119	43,1%	46,7%	Fans Silent	Hold 3 seconds		
		120	129	47,1%	50,6%	Fans Max	Hold 3 seconds		
		130	139	51,0%	54,5%	Fan Full Power	Hold 3 seconds		
140	255	54,9%	100,0%	Reserved					

① To get complete blackout have dimmer and shutter at 0 and after 2 sec it will total blackout, this will takt 400 millsec to exit

② Macro colors will override any CMY values

Mode
Extended (29 channels)

Valid from firmware version
1.10

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type											
1	SHUTTER	0	4	0,0%	1,6%	Closed		8 (3,1%)	Snap									
		5	9	2,0%	3,5%	Open	See note ①											
		10	54	3,9%	21,2%	Strobe	Fast -> Slow											
		55	79	21,6%	31,0%	Random Strobe	Slow -> Fast											
		80	84	31,4%	32,9%	Pulse Up												
		85	89	33,3%	34,9%	Pulse Down												
		90	94	35,3%	36,9%	Pulse UP Down												
		95	99	37,3%	38,8%	Random Pulse Up												
		10	104	3,9%	40,8%	Random Pulse Down												
		105	109	41,2%	42,7%	Random Pulse Up Down												
		235	239	92,2%	93,7%	Wave Up Down												
		240	244	94,1%	95,7%	Wave Up												
		245	249	96,1%	97,6%	Wave Down												
		250	255	98,0%	100,0%	Open												
2	3	0	65535	0,0%	100,0%	Close -> Open		0 (0%)	Fade									
INTENSITY																		
4	5	0	65535	0,0%	100,0%	0-100%		0 (0%)	Fade									
Cyan																		
6	7	0	65535	0,0%	100,0%	0-100%		0 (0%)	Fade									
Magenta																		
8	9	0	65535	0,0%	100,0%	0-100%		0 (0%)	Fade									
Yellow																		
10	11	0	65535	0,0%	100,0%	0-100%		0 (0%)	Fade									
CTO																		
12	Color Wheel	0	9	0,0%	3,5%	Open		0 (0%)	Snap									
		10	19	3,9%	7,5%	Color 1												
		20	29	7,8%	11,4%	Color 2												
		30	39	11,8%	15,3%	Color 3												
		40	49	15,7%	19,2%	Color 4												
		50	59	19,6%	23,1%	Color 5												
		60	69	23,5%	27,1%	Macro Red	See note ②											
		70	79	27,5%	31,0%	Macro Green	See note ②											
		80	89	31,4%	34,9%	Macro Blue	See note ②											
		90	119	35,3%	46,7%	Effect Wheel Bounce												
		120	149	47,1%	58,4%	Effect Wheel Bounce Sinus												
		150	150	58,8%	58,8%	Open												
		151	164	59,2%	64,3%	Fade Open → Color 1												
		165	165	64,7%	64,7%	Color 1												
		166	179	65,1%	70,2%	Fade Color 1 → Color 2												
		180	180	70,6%	70,6%	Color 2												
		181	194	71,0%	76,1%	Fade Color 2 → Color 3												
		195	195	76,5%	76,5%	Color 3												
		196	209	76,9%	82,0%	Fade Color 3 → Color 4												
		210	210	82,4%	82,4%	Color 4												
211	224	82,7%	87,8%	Fade Color 4 → Color 5														
225	225	88,2%	88,2%	Color 5														
226	240	88,6%	94,1%	Colors Bounce														
241	255	94,5%	100,0%	Colors Bounce Sinus														
13	14	0	65535	0,0%	100,0%	-0° to 540°		32767 (50%)	Fade									
PAN																		
15	16	0	65535	0,0%	100,0%	-0° to 240°		32767 (50%)	Fade									
TILT																		
7	Rotating gobo	0	9	0,0%	3,5%	Open		0 (0%)	Snap									
		10	19	3,9%	7,5%	Gobo 1												
		20	29	7,8%	11,4%	Gobo 2												
		30	39	11,8%	15,3%	Gobo 3												
		40	49	15,7%	19,2%	Gobo 4												
		50	59	19,6%	23,1%	Gobo 5												
		60	69	23,5%	27,1%	Gobo 6												
		70	79	27,5%	31,0%	Open Shake	Slow -> Fast											
		80	89	31,4%	34,9%	Gobo 1 Shake	Slow -> Fast											
		90	99	35,3%	38,8%	Gobo 2 Shake	Slow -> Fast											
		10	109	3,9%	42,7%	Gobo 3 Shake	Slow -> Fast											
		110	119	43,1%	46,7%	Gobo 4 Shake	Slow -> Fast											
		120	129	47,1%	50,6%	Gobo 5 Shake	Slow -> Fast											
		130	139	51,0%	54,5%	Gobo 6 Shake	Slow -> Fast											
		140	197	54,9%	77,3%	Gobo Wheel Scroll CW												
		198	255	77,6%	100,0%	Gobo Wheel Scroll CCW												
		18	19	0	511	0,0%	0,8%			No Index		0 (0%)	Fade					
														512	49151	0,8%	75,0%	0-620°
														49152	57087	75,0%	87,1%	Rotation CCW
57088	57599							87,1%	87,9%					Stop				
57600	65535							87,9%	100,0%					Rotation CW	Slow -> Fast			

Channel	Name	DMX value	DMX Percentage	Description	Info	Default DMX value	Fader type		
20	Static Gobo Wheel	0	9	0,0%	3,5%	Open		0 (0%)	Snap
		10	19	3,9%	7,5%	Gobo 1			
		20	29	7,8%	11,4%	Gobo 2			
		30	39	11,8%	15,3%	Gobo 3			
		40	49	15,7%	19,2%	Gobo 4			
		50	59	19,6%	23,1%	Gobo 5			
		60	69	23,5%	27,1%	Gobo 6			
		70	79	27,5%	31,0%	Gobo 7			
		80	89	31,4%	34,9%	Gobo 8			
		90	99	35,3%	38,8%	Gobo 9			
		100	109	39,2%	42,7%	Open Shake	Slow -> Fast		
		110	119	43,1%	46,7%	Gobo 1 Shake	Slow -> Fast		
		120	129	47,1%	50,6%	Gobo 2 Shake	Slow -> Fast		
		130	139	51,0%	54,5%	Gobo 3 Shake	Slow -> Fast		
		140	149	54,9%	58,4%	Gobo 4 Shake	Slow -> Fast		
		150	159	58,8%	62,4%	Gobo 5 Shake	Slow -> Fast		
		160	169	62,7%	66,3%	Gobo 6 Shake	Slow -> Fast		
		170	179	66,7%	70,2%	Gobo 7 Shake	Slow -> Fast		
		180	189	70,6%	74,1%	Gobo 8 Shake	Slow -> Fast		
		190	199	74,5%	78,0%	Gobo 9 Shake	Slow -> Fast		
		200	227	78,4%	89,0%	Gobo Wheel Scroll CW			
		228	255	89,4%	100,0%	Gobo Wheel Scroll CCW			
21	Iris	0	200	0,0%	78,4%	Open -> Close		0 (0%)	Fade
		201	210	78,8%	82,4%	Pulse Open	Slow -> Fast		
		211	220	82,7%	86,3%	Pulse Close	Slow -> Fast		
		221	254	86,7%	99,6%	Random	Slow -> Fast		
		255	255	100,0%	100,0%	Open			
22	Prism	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	127	2,0%	49,8%	Index			
		128	191	50,2%	74,9%	Spin CCW	Fast -> Slow		
		192	192	75,3%	75,3%	No Spin			
		193	255	75,7%	100,0%	Spin CW	Slow -> Fast		
23	FROST	0	5	0,0%	2,0%	Open		0 (0%)	Fade
		6	254	2,4%	99,6%	Frost 0-100%			
		255	255	100,0%	100,0%	Heavy Frost			
24	ZOOM	0	65535	0,0%	100,0%	0-100 Zoom		0 (0%)	Fade
25									
26	FOCUS	0	65535	0,0%	100,0%	0-100 Focus		0 (0%)	Fade
27									
28	Macros	0	4	0,0%	1,6%	No Macro		0 (0%)	Snap
		5	255	2,0%	100,0%	Reserved			
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
				0,0%	0,0%				
29	Function	0	9	0,0%	3,5%	No Function		0 (0%)	Snap
		10	19	3,9%	7,5%	Full Reset	Hold 3 seconds		
		20	29	7,8%	11,4%	Pan/Tilt Reset	Hold 3 seconds		
		30	39	11,8%	15,3%	Zoom/Focus Reset	Hold 3 seconds		
		40	49	15,7%	19,2%	Gobo Reset	Hold 3 seconds		
		50	59	19,6%	23,1%	Iris Reset	Hold 3 seconds		
		60	69	23,5%	27,1%	CMY-CTO Reset	Hold 3 seconds		
		70	79	27,5%	31,0%	Color Reset	Hold 3 seconds		
		80	89	31,4%	34,9%	Frost Reset	Hold 3 seconds		
		90	99	35,3%	38,8%	Prism Reset	Hold 3 seconds		
		100	109	39,2%	42,7%	Fans Standard	Hold 3 seconds		
		110	119	43,1%	46,7%	Fans Silent	Hold 3 seconds		
		120	129	47,1%	50,6%	Fans Max	Hold 3 seconds		
		130	139	51,0%	54,5%	Fan Full Power	Hold 3 seconds		
140	255	54,9%	100,0%	Reserved					

① To get complete blackout have dimmer and shutter at 0 and after 2 sec it will total blackout, this will takt 400 millsec to exit

② Macro colors will override any CMY values