

Robin BMFL Spot - DMX protocol, version 1.0				
Mode/channel		DMX Value	Function	Type of control
1	2			
1	1		Pan	
		0 - 255	Pan movement by 540°	proportional
2	2		Pan Fine	
		0 - 255	Fine control of pan movement	proportional
3	3		Tilt	
		0 - 255	Tilt movement by 270°	proportional
4	4		Tilt fine	
		0 - 255	Fine control of tilt movement	proportional
5	5		Pan/Tilt speed , Pan/Tilt time	
		0	Standard mode	step
		1	Max. Speed Mode	step
			Pan/Tilt speed mode	
		2 - 255	Speed from max. to min.	proportional
			Pan/Tilt time mode	
		2 - 255	Time from 0.2 s to 25.5 sec.	proportional
6	6		Power/Special functions	
		0 - 9	Reserved	
			<i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe“ channel 39/32 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden except DMX Input.</i>	
		10-14	DMX input: Wired DMX *	step
		15-19	DMX input: Wireless DMX *	step
			* function is active only 10 seconds after switching the fixture on	
		20-24	Graphic display On	step
		25-29	Graphic display Off	step
		30-34	Reserved	
		35-39	Lamp power 1500W	step
		40-44	Lamp power 1700W	step
		45-49	Silent mode	step
		50-54	Dimmer curve: Square law	step
		55-59	Dimmer curve: Linear	step
		60-64	Fans mode: Auto	step
		65-69	Fans mode: High	step
		70-89	Reserved	
		90 - 94	Pan/Tilt speed mode	step
		95-99	Pan/Tilt time mode	step
		100 - 104	Blackout while pan/tilt moving	step
		105 -109	Disabled blackout while pan/tilt moving	step
		110-114	Blackout while colour wheels moving	step
		115 -119	Disabled blackout while colour wheels moving	step
		120-124	Blackout while gobo wheels moving	step
		125-129	Disabled blackout while gobo wheels moving	step
			<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>	
		130 - 139	Lamp On	step
		140 - 149	Pan/Tilt reset	step

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		150 - 159	Colour system reset	step
		160 - 169	Gobo wheels reset	step
		170 - 179	Dimmer/Shutter reset	step
		180 - 189	Zoom/focus/frost/prism reset	step
		190 - 199	Iris/dual graphic wheel reset	step
		200 - 209	Total reset	step
		210 - 229	Reserved	
		230 - 239	Lamp Off	step
		240 - 255	Reserved	step
7	7		Colour wheel 1	
			<i>Continual positioning</i>	
		0	Open/white	proportional
		18	Deep red	proportional
		34	Deep blue	proportional
		55	Orange	proportional
		73	Green	proportional
		91	Magenta	proportional
		110	Congo blue (UV)	proportional
		128-129	White	step
			<i>Positioning</i>	
		130-139	Deep red	step
		140-149	Deep blue	step
		150-159	Orange	step
		160-169	Green	step
		170-179	Magenta	step
		180-189	Congo blue (UV)	step
		190 - 215	Forwards rainbow effect from fast to slow	proportional
		216 - 217	No rotation	step
		218 - 243	Backwards rainbow effect from slow to fast	proportional
		244 - 249	Random colour selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random colour selection from fast to slow	proportional
8	*		Colour wheel 1 - fine positioning	
		0 - 255	Fine positioning	proportional
9	8		Colour wheel 2	
			<i>Continual positioning</i>	
		0	Open/white	proportional
		18	Pink	proportional
		37	Lavander	proportional
		55	Light green	proportional
		73	CTB	proportional
		91	minus 1/1 green	proportional
		110	minus 1/2 green	proportional
		128-129	White	step
			<i>Positioning</i>	
		130-139	Pink	step
		140-149	Lavander	step
		150-159	Light green	step
		160-169	CTB	step
		170-179	minus 1/1 green	step
		180-189	minus 1/2 green	step

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		190 - 215	Forwards rainbow effect from fast to slow	proportional
		216 - 217	No rotation	step
		218 - 243	Backwards rainbow effect from slow to fast	proportional
		244 - 249	Random colour selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random colour selection from fast to slow	proportional
10	*		Colour wheel 2 - fine positioning	
		0 - 255	Fine positioning	proportional
11	9		Cyan	
		0 - 255	Cyan (0-white, 255-full cyan)	proportional
12	10		Magenta	
		0 - 255	Magenta (0-white, 255-full magenta)	proportional
13	11		Yellow	
		0 - 255	Yellow (0-white, 255-full yellow)	proportional
14	12		CTO filter	
		0 - 255	(0-6700K, 255-2700K)	proportional
15	13		CMY colour macros	
		0 - 7	No function	step
		8 - 15	Macro 1	step
		16 -23	Macro 2	step
		24-31	Macro 3	step
		32-39	Macro 4	step
		40-47	Macro 5	step
		48-55	Macro 6	step
		56-63	Macro 7	step
		64-71	Macro 8	step
		72-79	Macro 9	step
		80-87	Macro 10	step
		88-95	Macro 11	step
		96-103	Macro 12	step
		104-111	Macro 13	step
		112-119	Macro 14	step
		120-127	Macro 15	step
		128-135	Macro 16	step
		136-143	Macro 17	step
		144-151	Macro 18	step
		152-159	Macro 19	step
		160-167	Macro 20	step
		168-175	Macro 21	step
		176-183	Macro 22	step
		184-191	Macro 23	step
		192-199	Macro 24	step
		200 - 207	Macro 25	step
		208 - 215	Macro 26	step
		216 - 223	Macro 27	step
		224 - 231	Macro 28	step
		232 - 239	Macro 29	step
		240 - 243	Macro 30	proportional
		244 - 249	Random macro selection by audio control	step
			(Set microphone sensitivity in menu "PErsonality")	
		250 - 255	Auto random macro selection from fast to slow	proportional

16	14		Effect Speed	
			<i>Speed of CMY&CTO movement and Rot. Gobo selection</i>	
		0-255	Speed of CMY+CTO movement from max. to min.	proportional
		0-255	Speed of Rot. Gobo Selection from max. to min.	proportional
17	15		CMY+CTO+Colour wheel time	
		0	Function is off	step
		1 - 255	Time of CMY, CTO and Colour wheel movement (0.1sec-->25.5sec.)	proportional
18	16		Zoom+Focus+Iris+Frost+Prism time	
		0	Function is off	step
		1 - 255	Time of zoom, focus, iris and frost movement (0.1 sec-->25.5 sec.)	proportional
		1-50	Time of prism movement (0.1 sec-->5 sec.)	proportional
19	17		Dual graphic wheel positioning	
		0-19	No function	step
		20-127	Proportional indexing (73-center)	proportional
		128-170	Ramping from open to full position (max-->min. speed)	proportional
		171-213	Ramping from open to half position (max. --->min. speed)	proportional
		214-255	Ramp. from half position to full position (max. --->min. speed)	proportional
20	18		Dual graphic wheel-Graphic wheel 1 rotation	
		0	No rotation	step
		1 - 127	Forwards rotation from fast to slow	proportional
		128	No rotation - <u>default</u>	step
		129 - 255	Backwards rotation from slow to fast	proportional
21	19		Dual graphic wheel-Graphic wheel 2 rotation	
		0	No rotation	step
		1 - 127	Forwards rotation from slow to fast	proportional
		128	No rotation - <u>default</u>	step
		129 - 255	Backwards rotation from slow to fast	proportional
22	20		Dual graphic wheel animations	
		0-7	No animation	step
			<u>Colour animations</u>	
			<i>(Distance from projection screen: 5m, zoom=155 DMX)</i>	
			Note : The channels are blocked: Colour wheel 1 and 2, Cyan, Magenta, Yellow, Rotating gobo wheel 1 and 2, Prism, Prism rotation, Dual graphic wheel, Graphic wheel 1,2	
			<i>Use Rot. Gobo 1 (2) indexing and rotation channel to index the animation</i>	
		8-9	Animation 1 (Focus=178)	step
		10-11	Animation 2 (Focus=211)	step
		12-13	Animation 3 (Focus=252)	step
		14-15	Animation 4 (Focus=138)	step
		16-17	Animation 5 (Focus=138)	step
		18-19	Animation 6 (Focus=210)	step
		20-21	Animation 7 (Focus=203)	step
		22-23	Animation 8 (Focus=180)	step
			Note : The channels are blocked: Colour wheel 1 and 2, Cyan, Magenta, Yellow, Rotating gobo wheel 1 and 2, Rot. Gobo 1 and 2 indexing, Prism, Prism rotation, Dual graphic wheel, Graphic wheel 1,2	
		24-25	Animation 9 (Focus=148)	step
		26-27	Animation 10 (Focus=151)	step
		28-29	Animation 11 (Focus=193)	step

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	30-31	Animation 12 (Focus=141)	step
	32-33	Animation 13 (Focus=138)	step
	34-35	Animation 14 (Focus=143)	step
	36-37	Animation 15 (Focus=135)	step
	38-39	Animation 16 (Focus=153)	step
	40-41	Animation 17 (Focus=153)	step
	42-43	Animation 18 (Focus=153)	step
	44-45	Animation 19 (Focus=185)	step
	46-47	Animation 20 (Focus=185)	step
	48-49	Animation 21 (Focus=178)	step
	50-51	Animation 22 (Focus=167)	step
	52-53	Animation 23 (Focus=168)	step
	54-55	Animation 24 (Focus=168)	step
	56-57	Animation 25 (Focus=133)	step
	58-59	Animation 26 (Focus=168)	step
	60-61	Animation 27 (Focus=232)	step
	62-63	Animation 28 (Focus=155)	step
	64-65	Animation 29 (Focus=176)	step
	66-67	Animation 30 (Focus=221)	step
		<u>Black and white animations</u>	
		Note : The channels are blocked: Rotating gobo wheel 1 and 2, Prism, Prism rotation, Dual graphic wheel, Graphic wheel 1,2	
		<i>Use Rot. Gobo 1 (2) indexing and rotation channel to index the animation</i>	
	68-69	Animation 1 (Focus=178)	step
	70-71	Animation 2 (Focus=211)	step
	72-73	Animation 3 (Focus=252)	step
	74-75	Animation 4 (Focus=138)	step
	76-77	Animation 5 (Focus=138)	step
	78-79	Animation 6 (Focus=210)	step
	80-81	Animation 7 (Focus=203)	step
	82-83	Animation 8 (Focus=180)	step
		Note : The following channels are blocked: Rotating gobo wheel 1 and 2, Rot. Gobo 1 and 2 indexing, Prism, Prism rotation, Dual graphic wheel, Graphic wheel 1,2	
	84-85	Animation 9 (Focus=148)	step
	86-87	Animation 10 (Focus=151)	step
	88-89	Animation 11 (Focus=193)	step
	90-91	Animation 12 (Focus=141)	step
	92-93	Animation 13 (Focus=138)	step
	94-95	Animation 14 (Focus=143)	step
	96-97	Animation 15 (Focus=135)	step
	98-99	Animation 16 (Focus=153)	step
	100-101	Animation 17 (Focus=153)	step
	102-103	Animation 18 (Focus=153)	step
	104-105	Animation 19 (Focus=185)	step
	106-107	Animation 20 (Focus=185)	step
	108-109	Animation 21 (Focus=178)	step
	110-111	Animation 22 (Focus=167)	step
	112-113	Animation 23 (Focus=168)	step
	114-115	Animation 24 (Focus=168)	step

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		116-117	Animation 25 (Focus=133)	step
		118-119	Animation 26 (Focus=168)	step
		120-121	Animation 27 (Focus=232)	step
		122-123	Animation 28 (Focus=155)	step
		124-125	Animation 29 (Focus=176)	step
		126-127	Animation 30 (Focus=221)	step
		128-255	Reserved	
23	21		Rotating gobo wheel 1	
			<i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i>	
			<i>Index - set indexing on channel 24/22</i>	
		0-4	Open/hole	step
		5-8	Gobo 1	step
		9-13	Gobo 2	step
		14-17	Gobo 3	step
		18-22	Gobo 4	step
		23-26	Gobo 5	step
		27-31	Gobo 6	step
			<i>Rotation - set rotation on channel 24/22</i>	
		32-35	Gobo 1	step
		36-40	Gobo 2	step
		41-44	Gobo 3	step
		45-49	Gobo 4	step
		50-54	Gobo 5	step
		55-59	Gobo 6	step
			<i>Shaking gobos from slow to fast</i>	
			<i>Index - set indexing on channel 24/22</i>	
		60-71	Gobo 1	proportional
		72-83	Gobo 2	proportional
		84-95	Gobo 3	proportional
		96-106	Gobo 4	proportional
		107-118	Gobo 5	proportional
		119-129	Gobo 6	proportional
			<i>Shaking gobos from slow to fast</i>	
			<i>Rotation - set rotation on channel 24/22</i>	
		130-141	Gobo 1	proportional
		142-153	Gobo 2	proportional
		154-165	Gobo 3	proportional
		166-176	Gobo 4	proportional
		177-188	Gobo 5	proportional
		189-199	Gobo 6	proportional
		200 - 201	Open/hole	step
		202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
		222 - 223	No rotation	step
		224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
		244 - 249	Random gobo selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random gobo selection from fast to slow	proportional
24	22		Rot. Gobo 1 indexing/rotation	
			<i>Gobo indexing - set position on channel 23/21</i>	
		0 - 255	Gobo indexing	proportional

			<i>Gobo rotation - set position on channel 23/21</i>	
		0	No rotation	step
		1 - 127	Forwards gobo rotation from fast to slow	proportional
		128	No rotation - <u>default</u>	step
		129 - 255	Backwards gobo rotation from slow to fast	proportional
25	*		Rot. Gobo 1 indexing/rotation - fine	
		0-255	Fine indexing (rotation)	proportional
26	23		Rotating gobo wheel 2	
			<i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i>	
			<i>Index - set indexing on channel 27/24</i>	
		0-4	Open/hole	step
		5-8	Gobo 1	step
		9-13	Gobo 2	step
		14-17	Gobo 3	step
		18-22	Gobo 4	step
		23-26	Gobo 5	step
		27-31	Gobo 6	step
			<i>Rotation - set rotation on channel 27/24</i>	
		32-35	Gobo 1	step
		36-40	Gobo 2	step
		41-44	Gobo 3	step
		45-49	Gobo 4	step
		50-54	Gobo 5	step
		55-59	Gobo 6	step
			<i>Shaking gobos from slow to fast</i>	
			<i>Index - set indexing on channel 27/24</i>	
		60-71	Gobo 1	proportional
		72-83	Gobo 2	proportional
		84-95	Gobo 3	proportional
		96-106	Gobo 4	proportional
		107-118	Gobo 5	proportional
		119-129	Gobo 6	proportional
			<i>Shaking gobos from slow to fast</i>	
			<i>Rotation - set rotation on channel 27/24</i>	
		130-141	Gobo 1	proportional
		142-153	Gobo 2	proportional
		154-165	Gobo 3	proportional
		166-176	Gobo 4	proportional
		177-188	Gobo 5	proportional
		189-199	Gobo 6	proportional
		200 - 201	Open/hole	step
		202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
		222 - 223	No rotation	step
		224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
		244 - 249	Random gobo selection by audio control	step
			(Set microphone sensitivity in menu „Personality“)	
		250 - 255	Auto random gobo selection from fast to slow	proportional
27	24		Rot. Gobo 2 indexing/rotation	
			<i>Gobo indexing - set position on channel 26/23</i>	
		0 - 255	Gobo indexing	proportional

			Gobo rotation - set position on channel 26/23	
		0	No rotation	step
		1 - 127	Forwards gobo rotation from fast to slow	proportional
		128	No rotation - <u>default</u>	step
		129 - 255	Backwards gobo rotation from slow to fast	proportional
28	*		Rot. Gobo 2 indexing/rotation - fine	
		0-255	Fine indexing (rotation)	proportional
29	25		Prism	
		0 - 19	Open position (hole)	step
		20 -49	6-facet linear prism -indexing	step
		50 - 75	6-facet linear prism - rotation	step
		76 - 105	6-facet circular prism- Indexing	step
		106-127	6-facet circular prism-rotation	step
			Prism/gobo macros	
		128 - 135	Macro 1	step
		136 - 143	Macro 2	step
		144 - 151	Macro 3	step
		152 - 159	Macro 4	step
		160 - 167	Macro 5	step
		168 - 175	Macro 6	step
		176 - 183	Macro 7	step
		184 - 191	Macro 8	step
		192 - 199	Macro 9	step
		200 - 207	Macro 10	step
		208 - 215	Macro 11	step
		216 - 223	Macro 12	step
		224 - 231	Macro 13	step
		232 - 239	Macro 14	step
		240 - 247	Macro 15	step
		248 - 255	Macro 16	step
30	26		Prism rotation	
		0	No rotation	step
		1 - 127	Forwards rotation from fast to slow	proportional
		128	No rotation - <u>default</u>	step
		129-255	Backwards rotation from slow to fast	proportional
31	27		Frost	
		0	Open- <u>default</u>	step
			Light	
		1-50	Frost from 0% to 100%	proportional
		51-53	100% frost	step
		54-63	Pulse closing from slow to fast	proportional
		64-73	Pulse opening from fast to slow	proportional
		74-83	Ramping from fast to slow	proportional
		84-86	Open	step
			Medium	
		87-136	Frost from 0% to 100%	proportional
		137-139	100% frost	step
		140-149	Pulse closing from slow to fast	proportional
		150-159	Pulse opening from fast to slow	proportional
		160-169	Ramping from fast to slow	proportional
		170-172	Open	step

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			Heavy	
		173-222	Frost from 0% to 100%	proportional
		223-225	100% frost	step
		226-235	Pulse closing from slow to fast	proportional
		236-245	Pulse opening from fast to slow	proportional
		246-255	Ramping from fast to slow	proportional
32	28		Iris	
		0	Open	step
		1 - 179	From max.diameter to min.diameter	proportional
		180 - 191	Closed	step
			Pulse effects with Iris blackout:	
		192 - 219	Pulse opening from slow to fast	proportional
		220 - 247	Pulse closing from fast to slow	proportional
		248 - 249	Random pulse opening (fast)	step
		250 - 251	Random pulse opening (slow)	step
		252 - 253	Random pulse closing (fast)	step
		254 - 255	Random pulse closing (slow)	step
33	*		Iris - fine	
		0 - 255	Fine iris movement	proportional
34	29		Zoom	
		0 - 255	Zoom from max. to min.beam angle	proportional
35	*		Zoom - fine	
		0-255	Fine zooming	proportional
36	30		Focus	
		0 - 255	Continuous adjustment from far to near	proportional
37	*		Focus - fine	
		0- 255	Fine focusing	proportional
38	31		Autofocus	
		0	Autofocus Off	step
		1-255	Autofocus On	proportional
39	32		Shutter/ strobe	
		0 - 31	Shutter closed	step
		32 - 63	Shutter open	step
		64 - 95	Strobe-effect from slow to fast	proportional
		96 - 127	Shutter open	step
		128 - 143	Opening pulse in sequences from slow to fast	proportional
		144 - 159	Closing pulse in sequences from fast to slow	proportional
		160 - 191	Shutter open, Electronic strobing „ZAP“ from slow to fast	proportional
		192 - 223	Random strobe-effect from slow to fast	proportional
		224 - 255	Shutter open	step
40	33		Dimmer intensity	
		0 - 255	Dimmer intensity from 0% to 100%	proportional
41	*		Dimmer intensity - fine	
		0 - 255	Fine dimming	proportional