G Spot - DMX protocol

Protocol rev. 16

SGM

Mode
Standard (24 channels)

Valid from firmware version
1.80

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	15	3,1%	5,9%	Open 1 ('Pre-Heat' Enabled)	See note ❶		
		16	116	6,3%	45,5%	Strobe	Fast -> Slow		
		117	152	45,9%	59,6%	Strobe - Random	Fast -> Slow		
		153	173	60,0%	67,8%	Pulse - Open	Slow -> Fast		
		174	194	68,2%	76,1%	Pulse - Close	Slow -> Fast		
		195	220	76,5%	86,3%	Random Pulse Open	Slow -> Fast		
		221	246	86,7%	96,5%	Random Pulse Close	Slow -> Fast		
		247	255	96,9%	100,0%	Open 2 ('Pre-Heat' Disabled)	See note ❷		
2	INTENSITY	0	255	0,0%	100,0%	No LIGHT -> Maximum LIGHT		0 (0%)	Fade
3	RED	0	255	0,0%	100,0%	No RED -> Maximum RED		0 (0%)	Fade
4	GREEN	0	255	0,0%	100,0%	No GREEN -> Maximum GREEN		0 (0%)	Fade
5	BLUE	0	255	0,0%	100,0%	No BLUE -> Maximum BLUE		0 (0%)	Fade
6	CTC	0	0	0,0%	0,0%	≈ 5600° K	Detailed information - see separate document	182 (71,3%)	Fade
		1	4	0,4%	1,6%	No CTC (RAW)			
		5	5	2,0%	2,0%	≈ 2000° K			
		15	15	5,9%	5,9%	≈ 2200° K (High Pressure Sodium Lamp)			
		40	40	15,7%	15,7%	≈ 2700° K (Incandescent Lamp)			
		54	54	21,2%	21,2%	≈ 3000° K (Halogen / Tungsten Lamp)			
		65	65	25,5%	25,5%	≈ 3200° K (Warm Metal Halide Lamp)			
		105	105	41,2%	41,2%	≈ 4000° K (Clear Metal Halide Lamp)			
		115	115	45,1%	45,1%	≈ 4200° K (Cool White Fluorescent Lamp)			
		177	177	69,4%	69,4%	≈ 5500° K (Daylight Metal Halide Lamp)			
		216	216	84,7%	84,7%	≈ 6300° K			
		238	238	93,3%	93,3%	≈ 8000° K			
		255	255	100,0%	100,0%	≈ 10000° K			
7 8	PAN	0	65535	0,0%	100,0%	-270° to 270°	-270° = Front lens @ Mains power input (Tilt = 0)	32767 (50%)	Fade
9 10	TILT	0	65535	0,0%	100,0%	-120° to 120°	-120° = Front lens @ Base front (Pan = 32767)	32767 (50%)	Fade
11	GOBO WHEEL 1	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 1 - Position 1			
		42	62	16,5%	24,3%	Gobo 1 - Position 2			
		63	83	24,7%	32,5%	Gobo 1 - Position 3			
		84	104	32,9%	40,8%	Gobo 1 - Position 4			
		105	127	41,2%	49,8%	Gobo 1 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel continuous rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No rotation			
		193	255	75,7%	100,0%	Gobo Wheel continuous rotation CCW	Slow -> Fast		
12 13	GOBO WHEEL 1 Indexing Rotation Shake	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo continuous rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No rotation			
		46920	60538	71,6%	92,4%	Gobo continuous rotation CCW	Slow -> Fast		
		60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		

Channel	Name	DMX value		DMX Percentage		Description	Info	Default DMX value	Fader type
14	GOBO WHEEL 2 (Closest to light source)	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 2 - Position 1			
		42	62	16,5%	24,3%	Gobo 2 - Position 2			
		63	83	24,7%	32,5%	Gobo 2 - Position 3			
		84	104	32,9%	40,8%	Gobo 2 - Position 4			
		105	127	41,2%	49,8%	Gobo 2 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel continuous rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No rotation			
		193	255	75,7%	100,0%	Gobo Wheel continuous rotation CCW	Slow -> Fast		
15 16	GOBO WHEEL 2 Indexing Rotation Shake	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo continuous rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No rotation			
		46920	60538	71,6%	92,4%	Gobo continuous rotation CCW	Slow -> Fast		
		60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		
17	IRIS	0	200	0,0%	78,4%	Open -> Close		0 (0%)	Fade
		201	205	78,8%	80,4%	Effect - "Open fast / Close slow"			
		206	210	80,8%	82,4%	Effect - "Open slow / Close fast"			
		211	215	82,7%	84,3%	Effect - "Open / Close"			
		216	255	84,7%	100,0%	Effect - "Random Close / Open"	Slow -> Fast		
18	EFFECT WHEEL	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	127	2,0%	49,8%	Indexed			
		128	153	50,2%	60,0%	continuous rotation CW	Fast -> Slow		
		154	179	60,4%	70,2%	continuous rotation CCW	Slow -> Fast		
		180	255	70,6%	100,0%	Reserved (Calibration position)			
19	PRISM	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	129	2,0%	50,6%	continuous rotation CW	Fast -> Slow		
		130	130	51,0%	51,0%	No rotation			
		131	255	51,4%	100,0%	continuous rotation CCW	Slow -> Fast		
20	FROST	0	5	0,0%	2,0%	Open		0 (0%)	Fade
		6	255	2,4%	100,0%	No Frost -> Maximum Frost			
21	ZOOM	0	255	0,0%	100,0%	Wide -> Narrow		0 (0%)	Fade
22	FOCUS	0	255	0,0%	100,0%	Far -> Near		0 (0%)	Fade
23	EFFECT CHANNEL	0	4	0,0%	1,6%	No Effect		0 (0%)	Snap
		5	15	2,0%	5,9%	Reserved (No function)			
		16	26	6,3%	10,2%	Reserved (No function)			
		27	32	10,6%	12,5%	Shutter Black = RED			
		33	38	12,9%	14,9%	Shutter Black = GREEN			
		39	44	15,3%	17,3%	Shutter Black = BLUE			
		45	50	17,6%	19,6%	Shutter Black = WHITE			
		51	56	20,0%	22,0%	Shutter Black = Magenta			
		57	62	22,4%	24,3%	Shutter Black = Yellow			
		63	68	24,7%	26,7%	Shutter Black = Cyan			
		69	255	27,1%	100,0%	Reserved (No function)			

Channel	Name	DMX value		DMX Percentage		Description	Info	Default DMX value	Fader type
24	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function		0 (0%)	Snap
		5	9	2,0%	3,5%	Full Reset	Hold 3 seconds		
		10	14	3,9%	5,5%	Pan Reset	Hold 3 seconds		
		15	19	5,9%	7,5%	Tilt Reset	Hold 3 seconds		
		20	24	7,8%	9,4%	Gobo Reset	Hold 3 seconds		
		25	29	9,8%	11,4%	Zoom Reset	Hold 3 seconds		
		30	34	11,8%	13,3%	Sleep mode	See note ❸		
		35	39	13,7%	15,3%	Display Off	Hold 3 seconds		
		40	44	15,7%	17,3%	Display On	Hold 3 seconds		
		45	115	17,6%	45,1%	LED Frequency (100 kHz - 1,41 kHz)	See note ❹		
		116	119	45,5%	46,7%	Capture Scene 1			
		120	123	47,1%	48,2%	Capture Scene 2			
		124	127	48,6%	49,8%	Capture Scene 3			
		128	131	50,2%	51,4%	Capture Scene 4			
		132	135	51,8%	52,9%	Capture Scene 5			
		136	139	53,3%	54,5%	Capture Scene 6			
		140	143	54,9%	56,1%	Capture Scene 7			
		144	147	56,5%	57,6%	Capture Scene 8			
		148	151	58,0%	59,2%	Capture Scene 9			
		152	155	59,6%	60,8%	Capture Scene 10			
		156	159	61,2%	62,4%	Capture Scene 11			
		160	163	62,7%	63,9%	Capture Scene 12	See note ❺		
		164	167	64,3%	65,5%	Capture Scene 13			
		168	171	65,9%	67,1%	Capture Scene 14			
		172	175	67,5%	68,6%	Capture Scene 15			
		176	179	69,0%	70,2%	Capture Scene 16			
		180	183	70,6%	71,8%	Capture Scene 17			
		184	187	72,2%	73,3%	Capture Scene 18			
		188	191	73,7%	74,9%	Capture Scene 19			
		192	195	75,3%	76,5%	Capture Scene 20			
		196	199	76,9%	78,0%	Capture Scene 21			
		200	203	78,4%	79,6%	Capture Scene 22			
		204	207	80,0%	81,2%	Capture Scene 23			
		208	211	81,6%	82,7%	Capture Scene 24			
		212	255	83,1%	100,0%	Reserved (No function)			

❶ 'Pre-Heat' Enabled = Ready for instant operation ❷ 'Pre-Heat' Disabled = To perform a complete blackout, use "Open 2". This will take 400 millisec to exit.

❸ All other channels must be zero and this has to be held for 30 seconds (fixture will wake up on a full reset)

❹ Set LED frequency refresh rate, see seperate documentation for frequencies, see manual for details, value must be hold to keep setting (default value 1,41 kHz)

❺ Hold for 3 sec to capture scenes for internal program (stand-alone operation) see user manual for details.

G Spot - DMX protocol

Protocol rev. 16

ISGM®

Mode
Extended (30 channels)

Valid from firmware version
1.80

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	15	3,1%	5,9%	Open 1 ('Pre-Heat' Enabled)	See note ❶		
		16	116	6,3%	45,5%	Strobe	Fast -> Slow		
		117	152	45,9%	59,6%	Strobe - Random	Fast -> Slow		
		153	173	60,0%	67,8%	Pulse - Open	Slow -> Fast		
		174	194	68,2%	76,1%	Pulse - Close	Slow -> Fast		
		195	220	76,5%	86,3%	Random Pulse Open	Slow -> Fast		
		221	246	86,7%	96,5%	Random Pulse Close	Slow -> Fast		
		247	255	96,9%	100,0%	Open 2 ('Pre-Heat' Disabled)	See note ❷		
2 3	INTENSITY	0	65535	0,0%	100,0%	No LIGHT -> Maximum LIGHT		0 (0%)	Fade
4 5	RED	0	65535	0,0%	100,0%	No RED -> Maximum RED		0 (0%)	Fade
6 7	GREEN	0	65535	0,0%	100,0%	No GREEN -> Maximum GREEN		0 (0%)	Fade
8 9	BLUE	0	65535	0,0%	100,0%	No BLUE -> Maximum BLUE		0 (0%)	Fade
10	CTC	0	0	0,0%	0,0%	≈ 5600° K	Detailed information - see separate document	182 (71,3%)	Fade
		1	4	0,4%	1,6%	No CTC (RAW)			
		5	5	2,0%	2,0%	≈ 2000° K			
		15	15	5,9%	5,9%	≈ 2200° K (High Pressure Sodium Lamp)			
		40	40	15,7%	15,7%	≈ 2700° K (Incandescent Lamp)			
		54	54	21,2%	21,2%	≈ 3000° K (Halogen / Tungsten Lamp)			
		65	65	25,5%	25,5%	≈ 3200° K (Warm Metal Halide Lamp)			
		105	105	41,2%	41,2%	≈ 4000° K (Clear Metal Halide Lamp)			
		115	115	45,1%	45,1%	≈ 4200° K (Cool White Fluorescent Lamp)			
		177	177	69,4%	69,4%	≈ 5500° K (Daylight Metal Halide Lamp)			
		216	216	84,7%	84,7%	≈ 6300° K			
		238	238	93,3%	93,3%	≈ 8000° K			
		255	255	100,0%	100,0%	≈ 10000° K			
11 12	PAN	0	65535	0,0%	100,0%	-270° to 270°	-270° = Front lens @ Mains power input (Tilt = 0)	32767 (50%)	Fade
13 14	TILT	0	65535	0,0%	100,0%	-120° to 120°	-120° = Front lens @ Base front (Pan = 32767)	32767 (50%)	Fade
15	GOBO WHEEL 1	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 1 - Position 1			
		42	62	16,5%	24,3%	Gobo 1 - Position 2			
		63	83	24,7%	32,5%	Gobo 1 - Position 3			
		84	104	32,9%	40,8%	Gobo 1 - Position 4			
		105	127	41,2%	49,8%	Gobo 1 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel continuous rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No rotation			
		193	255	75,7%	100,0%	Gobo Wheel continuous rotation CCW	Slow -> Fast		
16 17	GOBO WHEEL 1 Indexing Rotation Shake	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo continuous rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No rotation			
		46920	60538	71,6%	92,4%	Gobo continuous rotation CCW	Slow -> Fast		
		60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		

Channel	Name	DMX value		DMX Percentage		Description	Info	Default DMX value	Fader type
18	GOBO WHEEL 2 (Closest to light source)	0	20	0,0%	7,8%	Open		0 (0%)	Snap
		21	41	8,2%	16,1%	Gobo 2 - Position 1			
		42	62	16,5%	24,3%	Gobo 2 - Position 2			
		63	83	24,7%	32,5%	Gobo 2 - Position 3			
		84	104	32,9%	40,8%	Gobo 2 - Position 4			
		105	127	41,2%	49,8%	Gobo 2 - Position 5			
		128	191	50,2%	74,9%	Gobo Wheel continuous rotation CW	Fast -> Slow		
		192	192	75,3%	75,3%	No rotation			
		193	255	75,7%	100,0%	Gobo Wheel continuous rotation CCW	Slow -> Fast		
19 20	GOBO WHEEL 2 Indexing Rotation Shake	0	32767	0,0%	50,0%	Gobo Index		0 (0%)	Fade
		32768	32799	50,0%	50,0%	No Effect			
		32800	46418	50,0%	70,8%	Gobo continuous rotation CW	Fast -> Slow		
		46419	46919	70,8%	71,6%	No rotation			
		46920	60538	71,6%	92,4%	Gobo continuous rotation CCW	Slow -> Fast		
		60539	65535	92,4%	100,0%	Gobo Shake	Slow -> Fast		
21	IRIS	0	200	0,0%	78,4%	Open -> Close		0 (0%)	Fade
		201	205	78,8%	80,4%	Effect - "Open fast / Close slow"			
		206	210	80,8%	82,4%	Effect - "Open slow / Close fast"			
		211	215	82,7%	84,3%	Effect - "Open / Close"			
		216	255	84,7%	100,0%	Effect - "Random Close / Open"	Slow -> Fast		
22	EFFECT WHEEL	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	127	2,0%	49,8%	Indexed			
		128	153	50,2%	60,0%	continuous rotation CW	Fast -> Slow		
		154	179	60,4%	70,2%	continuous rotation CCW	Slow -> Fast		
		180	255	70,6%	100,0%	Calibration position			
23	PRISM	0	4	0,0%	1,6%	Open		0 (0%)	Fade
		5	129	2,0%	50,6%	continuous rotation CW	Fast -> Slow		
		130	130	51,0%	51,0%	No rotation			
		131	255	51,4%	100,0%	continuous rotation CCW	Slow -> Fast		
24	FROST	0	5	0,0%	2,0%	Open		0 (0%)	Fade
		6	255	2,4%	100,0%	No Frost -> Maximum Frost			
25 26	ZOOM	0	65535	0,0%	100,0%	Wide -> Narrow		0 (0%)	Fade
27 28	FOCUS	0	65535	0,0%	100,0%	Far -> Near		0 (0%)	Fade
29	EFFECT CHANNEL	0	4	0,0%	1,6%	No Effect		0 (0%)	Snap
		5	15	2,0%	5,9%	Reserved (No function)			
		16	26	6,3%	10,2%	Reserved (No function)			
		27	32	10,6%	12,5%	Shutter Black = RED			
		33	38	12,9%	14,9%	Shutter Black = GREEN			
		39	44	15,3%	17,3%	Shutter Black = BLUE			
		45	50	17,6%	19,6%	Shutter Black = WHITE			
		51	56	20,0%	22,0%	Shutter Black = Magenta			
		57	62	22,4%	24,3%	Shutter Black = Yellow			
		63	68	24,7%	26,7%	Shutter Black = Cyan			
		69	255	27,1%	100,0%	Reserved (No function)			

Channel	Name	DMX value		DMX Percentage		Description	Info	Default DMX value	Fader type
30	CONTROL CHANNEL	0	4	0,0%	1,6%	No Function		0 (0%)	Snap
		5	9	2,0%	3,5%	Full Reset	Hold 3 seconds		
		10	14	3,9%	5,5%	Pan Reset	Hold 3 seconds		
		15	19	5,9%	7,5%	Tilt Reset	Hold 3 seconds		
		20	24	7,8%	9,4%	Gobo Reset	Hold 3 seconds		
		25	29	9,8%	11,4%	Zoom Reset	Hold 3 seconds		
		30	34	11,8%	13,3%	Sleep	See note ❸		
		35	39	13,7%	15,3%	Display Off	Hold 3 seconds		
		40	44	15,7%	17,3%	Display On	Hold 3 seconds		
		45	115	17,6%	45,1%	LED Frequency (100 kHz - 1,41 kHz)	See note ❹		
		116	119	45,5%	46,7%	Capture Scene 1			
		120	123	47,1%	48,2%	Capture Scene 2			
		124	127	48,6%	49,8%	Capture Scene 3			
		128	131	50,2%	51,4%	Capture Scene 4			
		132	135	51,8%	52,9%	Capture Scene 5			
		136	139	53,3%	54,5%	Capture Scene 6			
		140	143	54,9%	56,1%	Capture Scene 7			
		144	147	56,5%	57,6%	Capture Scene 8			
		148	151	58,0%	59,2%	Capture Scene 9			
		152	155	59,6%	60,8%	Capture Scene 10			
		156	159	61,2%	62,4%	Capture Scene 11			
		160	163	62,7%	63,9%	Capture Scene 12	See note ❺		
		164	167	64,3%	65,5%	Capture Scene 13			
		168	171	65,9%	67,1%	Capture Scene 14			
		172	175	67,5%	68,6%	Capture Scene 15			
		176	179	69,0%	70,2%	Capture Scene 16			
		180	183	70,6%	71,8%	Capture Scene 17			
		184	187	72,2%	73,3%	Capture Scene 18			
		188	191	73,7%	74,9%	Capture Scene 19			
		192	195	75,3%	76,5%	Capture Scene 20			
		196	199	76,9%	78,0%	Capture Scene 21			
		200	203	78,4%	79,6%	Capture Scene 22			
		204	207	80,0%	81,2%	Capture Scene 23			
		208	211	81,6%	82,7%	Capture Scene 24			
		212	255	83,1%	100,0%	Reserved (No function)			

❶ 'Pre-Heat' Enabled = Ready for instant operation ❷ 'Pre-Heat' Disabled = To perform a complete blackout, use "Open 2". This will take 400 millisec to exit.

❸ All other channels must be zero and this has to be held for 30 seconds (fixture will wake up on a full reset)

❹ Set LED frequency refresh rate, see seperate documentation for frequencies, see manual for details, value must be hold to keep setting (default value 1,41 kHz)

❺ Hold for 3 sec to capture scenes for internal program (stand-alone operation) see user manual for details