

DMX protocol

Robin DL7S Profile - DMX protocol							
Version: 1.1 Mode 1 -CMY/RGB, Mode 2 -CMY/RGB reduced, Mode 3 -Seven colours, Mode 4 -Seven colours reduced							
Mode/channel				DMX Value	Function	Type of control	
1	2	3	4				
1	1	1	1		Pan		
				0 - 255	Pan movement by 540°		proportional
2	2	2	2		Pan Fine		
				0 - 255	Fine control of pan movement		proportional
3	3	3	3		Tilt		
				0 - 255	Tilt movement by 270°		proportional
4	4	4	4		Tilt fine		
				0 - 255	Fine control of tilt movement		proportional
5	5	5	5		Pan/Tilt speed , Pan/Tilt time		
				0	Max. speed (tracking mode)		step
					Pan/Tilt speed		
				1 - 255	Speed from max. to min. (vector mode)		proportional
					Pan/Tilt time		
				1 - 255	Time from 0.1 s to 25.5 sec.		proportional
6	6	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 49/41/57/45 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden.</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
				30-39	Reserved		step
				40-44	Pan/Tilt speed mode		step
				45-49	Pan/Tilt time mode		step
				50-54	Blackout while pan/tilt moving		step
				55-59	Disabled blackout while pan/tilt moving		step
				60-64	Blackout while gobo wheels moving		step
				65-69	Disabled blackout while gobo wheels moving		step
				70-74	Fans mode: Auto		step
				75-79	Fans mode: High		step
				80-84	Dimmer curve: Square law		step
				85-89	Dimmer curve: Linear		step
				90-129	Reserved		
					<i>To activate following functions, stop in DMX value for at least 3 seconds.</i>		
				130 - 139	Fixture reset (except pan/tilt)		
				140 - 149	Pan/Tilt reset		step
				150 - 159	Reserved		step
				160 - 169	Gobo wheels reset		step
				170 - 179	Reserved		
				180 - 189	Zoom/focus/frost/prism reset		step
				190 - 199	Iris /framing shutters/effect wheel reset		step
				200 - 209	Total fixture reset		step

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				210 - 239	Reserved	
				240	Disable "Theatre mode"	step
				241	"Theatre mode" - automatic control of fan noise	step
				242 - 255	"Theatre mode" - fan noise control from min. to max.	proportional
7	7	7	7		Colour functions	
				0-29	Reserved	
					<i>To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overridden</i>	
				30-34	Colour calibration mode On	step
				35-39	Colour calibration mode Off	step
				40-44	Colour mixing mode: CMY (mode 1 and 2 only)	step
				45-49	Colour mixing mode: RGB (mode 1 and 2 only)	step
				50-59	Reserved	
				60-64	White point 8000K On	step
				65-69	White point 8000K Off	step
				70-74	Output mode: Max. CRI	step
				75-79	Output mode: Max. light intensity	step
					The Tungsten effects influence whites 2700K and 3200K at CTO channel.	
				80-84	Tungsten effect simulation (750W) On	step
				85-89	Tungsten effect simulation (1000W) On	step
				90-94	Tungsten effect simulation (1200W) On	step
				95-99	Tungsten effect simulation (2000W) On	step
				100-104	Tungsten effect simulation (2500W) On	step
				105-109	Tungsten effect simulation Off	step
				110-114	Save user colour	step
				115-255	Reserved	
8	8	8	8		Virtual colour wheel	
				0	No function	step
				1-2	LEE 4 (Medium Bastard Amber)	step
				3-4	LEE 10 (Medium Yellow)	step
				5-6	LEE 19 (Fire)	step
				7-8	LEE 26 (Bright Red)	step
				9-10	LEE 58 (Lavender)	step
				11-12	LEE 68 (Sky Blue)	step
				13-14	LEE 71 (Tokyo Blue)	step
				15-16	LEE 79 (Just Blue)	step
				17-18	LEE 88 (Lime Green)	step
				19-20	LEE 90 (Dark Yellow Green)	step
				21-22	LEE 100 (Spring Yellow)	step
				23-24	LEE 101 (Yellow)	step
				25-26	LEE 102 (Light Amber)	step
				27-28	LEE 103 (Straw)	step
				29-30	Lee 104 (Deep Amber)	step
				31-32	LEE 105 (Orange)	step
				33-34	LEE 106 (Primary Red)	step
				35-36	LEE 111 (Dark Pink)	step
				37-38	LEE 115 (Peacock Blue)	step
				39-40	LEE 116 (Medium Blue-Green)	step

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				41-42	LEE 117 (Steel Blue)	step
				43-44	LEE 118 (Light Blue)	step
				45-46	LEE 119 (Dark Blue)	step
				47-48	LEE 120 (Deep Blue)	step
				49-50	LEE 121 (LEE Green)	step
				51-52	LEE 128 (Bright Pink)	step
				53-54	LEE 131 (Marine Blue)	step
				55-56	LEE 132 (Medium Blue)	step
				57-58	LEE 134 (Golden Amber)	step
				59-60	LEE 135 (Deep Golden Amber)	step
				61-62	LEE 136 (Pale Lavender)	step
				63-64	LEE 137 (Special Lavender)	step
				65-66	LEE 138 (Pale Green)	step
				67-68	LEE 139 (Primary Green)	step
				69-70	LEE 141 (Bright Blue)	step
				71-72	LEE 147 (Apricot)	step
				73-74	LEE 148 (Bright Rose)	step
				75-76	LEE 152 (Pale Gold)	step
				77-78	LEE 154 (Pale Rose)	step
				79-80	LEE 157 (Pink)	step
				81-82	LEE 158 (Deep Orange)	step
				83-84	LEE 162 (Bastard Amber)	step
				85-86	LEE 164 (Flame Red)	step
				87-88	LEE 165 (Daylight Blue)	step
				89-90	LEE 169 (Lilac Tint)	step
				91-92	LEE 170 (Deep Lavender)	step
				93-94	LEE 172 (Lagoon Blue)	step
				95-96	LEE 179 (Chrome Orange)	step
				97-98	LEE 180 (Dark Lavender)	step
				99-100	LEE 181 (Congo Blue)	step
				101-102	LEE 197 (Alice Blue)	step
				103-104	LEE 201 (Full C.T. Blue)	step
				105-106	LEE 202 (Half C.T. Blue)	step
				107-108	LEE 203 (Quarter C.T. Blue)	step
				109-110	LEE 204 (Full C.T. Orange)	step
				111-112	LEE 205 (Half C.T. Orange)	step
				113-114	LEE 206 (Quarter C.T. Orange)	step
				115-116	LEE 247 (LEE Minus Green)	step
				117-118	LEE 248 (Half Minus Green)	step
				119-120	LEE 281 (Three Quarter C.T. Blue)	step
				121-122	LEE 285 (Three Quarter C.T. Orange)	step
				123-124	LEE 352 (Glacier Blue)	step
				125-126	LEE 353 (Lighter Blue)	step
				127-128	LEE 715 (Cabana Blue)	step
				129-130	LEE 778 (Millennium Gold)	step
				131-132	LEE 793 (Vanity Fair)	step
				133-191	Reserved	step
				192-193	Deep Rred	step
				194-195	Deep Blue	step

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				196-197	Orange	step
				198-199	Green	step
				200-201	Magenta	step
				202-203	Congo Blue	step
				204-205	Pink	step
				206-207	Lavander	step
				208-209	Laser Green	step
				210-211	CTB	step
				212-213	Minus 1/1 Green	step
				214-215	Minus 1/2 Green	step
				216-217	User colour 1	step
				218-219	User colour 2	step
				220-221	User colour 3	step
				222-223	User colour 4	step
				224-225	User colour 5	step
				226-227	User colour 6	step
				228-229	User colour 7	step
				230-231	User colour 8	step
				232-233	User colour 9	step
				234-235	User colour 10	step
				236-245	Rainbow effect (with fade time) from slow-> fast	proportional
				246-255	Rainbow effect (without fade time) from slow-> fast	proportional
9	9	*	*		Cyan/Red(8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
10	*	*	*		Cyan/Red(16 bit)	
				0 - 255	Colour saturation control - fine	proportional
11	10	*	*		Magenta/Green (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
12	*	*	*		Magenta/Green (16 bit)	
				0 - 255	Colour saturation control - fine	proportional
13	11	*	*		Yellow/Blue (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
14	*	*	*		Yellow/Blue (16 bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	9	9		Red (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	10	*		Red (16bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	11	10		Green (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	12	*		Green (16bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	13	11		Blue (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	14	*		Blue(16bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	15	12		Amber (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	16	*		Amber (16bit)	

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				0 - 255	Colour saturation control - fine	proportional
*	*	17	13		Cyan (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	18	*		Cyan (16bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	19	14		Congo blue (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	20	*		Congo blue (16bit)	
				0 - 255	Colour saturation control - fine	proportional
*	*	21	15		Light green (8 bit)	
				0 - 255	Colour saturation control - coarse (0-100%)	proportional
*	*	22	*		Light green (16bit)	
				0 - 255	colour saturation control - fine	proportional
15	12	23	16		Colour temperature correction (CTC)	
					<i>If White point=ON, colour temperature changing from 8000K ->2700K If White point=OFF,colour temperature changing from 19000K -> 2700K</i>	
				0-4	8000K	step
				5-64	Colour temperature changing 7978K ->6622K (22K /1 DMX)	proportional
				65	6600K	step
				66-109	Colour temperature changing 6578K ->5622K (22K/1 DMX)	proportional
				110	5600K	step
				111-179	Colour temperature changing 5580K ->4220K (20K/1 DMX)	proportional
				180	4200K	step
				181-229	Colour temperature changing 4180K ->3220K (20K/1 DMX)	proportional
				230	3200K (Tungsten effect available - set value at channel "Colour functions")	step
				231-254	Colour temperature changing 3180K ->2720K (20K /1 DMX)	proportional
				255	2700K (Tungsten effect available - set value at channel "Colour functions")	step
16	13	24	17		Green correction	
				0	Uncorrected white	step
				1-127	Minus green --> uncorrected white	proportional
				128	<u>Uncorrected white - default</u>	step
				129-254	Uncorrected white --> Plus green	proportional
				255	Uncorrected white	step
17	14	25	18		Colour mix control	
					<i>Defines relation between colour channels</i>	
					"Virtual" = Virtual Colours (Virtual Colour Wheel)	
					"Basic" = Colour channels (RGB/CMY/R,G,B,A,C,Congo Blue,Light green/CTC/ Green Correction)	
				0-9	Virtual colours ("Virtual" has priority)	step
				10-19	Maximum mode (highest values have priority)	step
				20-29	Minimum mode (lowest values have priority)	step
				30-39	Multiply mode (multiply Virtual and Basic)	step
				40-49	Addition mode (Virtual + Basic)	step
				50-59	Subtraction mode (Virtual – Basic)	step
				60-69	Inverted Subtraction mode (Virtual – Basic)	step
				70-128	Reserved	
				129-254	Crossfade (crossfade between Virtual and Basic)	proportional
				255	Colour channels ("Basic" has priority)	step

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
18	15	26	19		Speed of rot. Gobo selection	
				0-255	Speed of rot. gobo selection from max. to min.	proportional
19	16	27	20		Stat. Gobo+Rot. Gobo carousel + Framing shutters +Zoom+Focus+Iris+Frost+Prism time	
				0	Function is off	step
				1 - 255	Time of stat. Gobo, rot. Gobo, framing shutters, 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
20	17	28	21		Effect 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
21	18	29	22		Effect wheel rotation	
				0	No rotation	step
				1 - 127	Forwards rotation from fast to slow	proportional
				128	No rotation	step
				129 - 255	Backwards rotation from slow to fast	proportional
22	19	30	23		Effect wheel animations	
				0-7	No animation	
					<i>Note : Set suitable DMX value at Focus channel to get desired animation. All animations were created at distance of 5 m from screen with zoom=128DMX, Focus value is different for each effect (focus value is stated in parentheses for this distance)</i>	
					<i>The following channels are blocked: Effect wheel positioning, Effect wheel rotation, Static gobo wheel, Rotating gobo wheel, Rot. Gobo indexing and rotation.</i>	
				8-9	Macro 1 (Focus=101)	step
				10-11	Macro 2 (Focus=101)	step
				12-13	Macro 3 (Focus=152)	step
				14-15	Macro 4 (Focus=152)	step
				16-17	Macro 5 (Focus=152)	step
				18-19	Macro 6 (Focus=145)	step
				20-21	Macro 7 (Focus=145)	step
				22-23	Macro 8 (Focus=145)	step
				24-25	Macro 9 (Focus=114)	step
				26-27	Macro 10 (Focus=104)	step
				28-255	Reserved	
23	20	31	24		Static gobo wheel	
					<i>In range 0-64 DMX is possible fine gobo positioning - set value at channel 24/32</i>	
					<u>Continual Positioning</u>	
				0	Open/hole	proportional
				7	Gobo 1	proportional
				14	Gobo 2	proportional
				21	Gobo 3	proportional
				28	Gobo 4	proportional
				36	Gobo 5	proportional
				43	Gobo 6	proportional

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				50	Gobo 7	proportional
				57	Gobo 8	proportional
				64	Open/hole	proportional
					<u>Positioning</u>	
				65-70	Gobo 1	step
				71-75	Gobo 2	step
				76-81	Gobo 3	step
				82-86	Gobo 4	step
				87-92	Gobo 5	step
				93-97	Gobo 6	step
				98-103	Gobo 7	step
				104-109	Gobo 8	step
					<u>Shaking gobos from slow to fast</u>	
				110-120	Gobo 1	proportional
				121-131	Gobo 2	proportional
				132-142	Gobo 3	proportional
				143-153	Gobo 4	proportional
				154-164	Gobo 5	proportional
				165-175	Gobo 6	proportional
				176-186	Gobo 7	proportional
				187-197	Gobo 8	proportional
				198-201	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
					<i>*(Set microphone sensitivity in menu „Personality“)</i>	
				250 - 255	Auto random gobo selection from fast to slow	proportional
24	*	32	*		Static gobo wheel-fine	
				0 - 255	Fine positioning	proportional
25	21	33	25		Rotating gobo wheel	
					<i>In the range of 0-59 DMX the gobo selection speed is controlled by the "Speed of rot. Gobo selection" channel.</i>	
					<u>Index - set indexing on channel 26/22/33/26</u>	
				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
					<u>Rotation - set rotation on channel 26/22/33/26</u>	
				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
					<u>Shaking gobos from slow to fast</u>	

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
					<i>Index - set indexing on channel 26/22/33/26</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 26/22/33/26</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
					<i>*(Set microphone sensitivity in menu „Personality“)</i>	
				250 - 255	Auto random gobo selection from fast to slow	proportional
26	22	34	26		Rot. gobo indexing and rotation	
					<i>Gobo indexing - set position on channel 25/21/33/26</i>	
				0 - 255	Gobo indexing	proportional
					<i>Gobo rotation - set position on channel 25/21/33/26</i>	
				0	No rotation	step
				1 - 127	Forwards gobo rotation from fast to slow	proportional
				128	<u>No rotation - default</u>	step
				129 - 255	Backwards gobo rotation from slow to fast	proportional
27	*	35	*		Rot. gobo indexing/rotation - fine	
				0-255	Fine indexing (rotation)	proportional
28	23	36	27		Prism	
				0 - 19	Open position (hole)	step
				20 - 127	5-facet rotating prism	step
					Prism/gobo macros	
					<i>The following channels are blocked: Prism, Prism rotation, Rotating gobo wheel, Rot. Gobo indexing and rotation.</i>	
				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

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Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				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
29	24	37	28		Prism rotation	
				0	No rotation	step
				1 - 127	Forwards rotation from fast to slow	proportional
				128	<u>No rotation - default</u>	step
				129 - 255	Backwards rotation from slow to fast	proportional
30	25	38	29		Frost	
				0	Open	step
				1 - 179	Frost from 0% to 100%	proportional
				180 - 189	100% frost	step
				190 - 211	Pulse closing from slow to fast	proportional
				212 - 233	Pulse opening from fast to slow	proportional
				234 - 255	Ramping from fast to slow	proportional
31	26	39	30		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
32	*	40	*		Iris - fine	
				0 - 255	Fine iris movement	proportional
33	27	41	31		Zoom	
				0 - 255	Zoom from max. to min.beam angle	proportional
34	*	42	*		Zoom - fine	
				0-255	Fine zooming	proportional
35	28	43	32		Focus	
				0 - 255	Continuous adjustment from far to near	proportional
36	*	44	*		Focus - fine	
				0- 255	Fine focusing	proportional
37	29	45	33		Reserved	
38	30	46	34		Framing shutters module rotation	
				0-127	Rotation from right (0°) to 45°	proportional
				128	Center	step
				129-255	Rotation from 45° to left (90°)	proportional
39	31	47	35		Framing shutter 1- movent	
				0-255	Movement from Outward to Inward	proportional
40	32	48	36		Framing shutter 1- swivelling	
				0-127	Swivelling from -25 degrees towards 0 degrees	proportional
				128	0 degrees (default)	step
				129-255	Swivelling from 0 degrees to +25 degrees	proportional

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1	2	3	4			
41	33	49	37		Framing shutter 2- movent	
				0-255	Movement from Outward to Inward	proportional
42	34	50	38		Framing shutter 2- swivelling	
				0-127	Swivelling from -25 degrees towards 0 degrees	proportional
				128	0 degrees (default)	step
				129-255	Swivelling from 0 degrees to +25 degrees	proportional
43	35	51	39		Framing shutter 3 movent	
				0-255	Movement from Outward to Inward	proportional
44	36	52	40		Framing shutter 3- swivelling	
				0-127	Swivelling from -25 degrees towards 0 degrees	proportional
				128	0 degrees (default)	step
				129-255	Swivelling from 0 degrees to +25 degrees	proportional
45	37	53	41		Framing shutter 4 movent	
				0-255	Movement from Outward to Inward	proportional
46	38	54	42		Framing shutter 4- swivelling	
				0-127	Swivelling from -25 degrees towards 0 degrees	proportional
				128	0 degrees (default)	step
				129-255	Swivelling from 0 degrees to +25 degrees	proportional
47	39	55	43		Framing shutters macros	
				0-3	No function	
				4-7	Macro 1	step
				8-11	Macro 2	step
				12-15	Macro 3	step
				16-19	Macro 4	step
				20-23	Macro 5	step
				24-27	Macro 6	step
				28-31	Macro 7	step
				32-35	Macro 8	step
				36-39	Macro 9	step
				40-43	Macro 10	step
				44-47	Macro 11	step
				48-51	Macro 12	step
				52-55	Macro 13	step
				56-59	Macro 14	step
				60-63	Macro 15	step
				64-67	Macro 16	step
				68-71	Macro 17	step
				72-75	Macro 18	step
				76-79	Macro 19	step
				80-83	Macro 20	step
				84-87	Macro 21	step
				88-91	Macro 22	step
				92-95	Macro 23	step
				96-99	Macro 24	step
				100-103	Macro 25	step
				104-107	Macro 26	step
				108-111	Macro 27	step
				112-115	Macro 28	step
				116-119	Macro 29	step

DMX protocol

Mode/channel				DMX Value	Function	Type of control
1	2	3	4			
				120-123	Macro 30	step
				124-127	Macro 31	step
				128-131	Macro 32	step
				132-135	Macro 33	step
				136-139	Macro 34	step
				140-143	Macro 35	step
				144-147	Macro 36	step
				148-151	Macro 37	step
				152-155	Macro 38	step
				156-159	Macro 39	step
				160-163	Macro 40	step
				164-167	Macro 41	step
				168-171	Macro 42	step
				172-175	Macro 43	step
				176-179	Macro 44	step
				180-183	Macro 45	step
				184-187	Macro 46	step
				188-191	Macro 47	step
				192-195	Macro 48	step
				196-199	Macro 49	step
				200-203	Macro 50	step
				204-207	Macro 51	step
				208-211	Macro 52	step
				212-255	Reserved	
48	40	56	44		Framing shutters macro speed	
				0- 255	Speed from slow to fast.	proportional
49	41	57	45		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	step
				192 - 223	Random strobe-effect from slow to fast	proportional
				224 - 255	Shutter open	step
50	42	58	46		Dimmer intensity	
				0 - 255	Dimmer intensity from 0% to 100%	proportional
51	*	59	*		Dimmer intensity - fine	
				0 - 255	Fine dimming	proportional