

DMX protocol

Robin T1 Profile - DMX protocol					
Version: 1.4 Mode 1 -CMY/RGB, Mode 2 -Reduced CMY/RGB, Mode 3 -Five colours					
Mode/channel			DMX Value	Function	Type of control
1	2	3			
1	1	1	0 - 255	Pan Pan movement by 540° (128=default)	proportional
2	2	2	0 - 255	Pan Fine Fine control of pan movement (0=default)	proportional
3	3	3	0 - 255	Tilt Tilt movement by 280° (128=default)	proportional
4	4	4	0 - 255	Tilt fine Fine control of tilt movement (0=default)	proportional
5	5	5		Pan/Tilt speed , Pan/Tilt time	
			0	Standard mode (0=default)	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 sec. to 25.5 sec.	proportional
6	6	6		Power/Special functions	
			0 -9	Reserved (0=default) <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 47/32/51 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 * * function is active only 10 seconds after switching the fixture on	step
			20-24	Graphic display: On	step
			25-29	Graphic display: Off	step
			30-39	Reserved	step
			40-44	Pan/Tilt mode: Speed	step
			45-49	Pan/Tilt mode: Time	step
			50-54	Blackout while pan/tilt moving: On	step
			55-59	Blackout while pan/tilt moving: Off	step
			60-64	Blackout while gobo wheel moving: On	step
			65-69	Blackout while gobo wheel moving: Off	step
			70-74	Fans mode: Auto	step
			75-79	Fans mode: High	step
			80-119	Reserved	
			120-124	Parking position On	step
			125-129	Parking position Off	step
				<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 wheel reset	step
			170 - 179	Reserved	
			180 - 189	Zoom/focus/frost/prism reset	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			190 - 199	Iris /framing shutters/effect wheel reset	step
			200 - 209	Total fixture reset	step
			210-224	Reserved	
				The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
			225 - 229	RoboSpot enabled	step
			230 - 234	RoboSpot disabled - except handle faders and pan/tilt	step
			235 - 239	RoboSpot fully disabled	step
			240	Disable "Theatre mode"	step
			241 - 255	"Theatre mode" - fan noise control from min. to max.	proportional
7	*	7		LED frequency selection <i>Select PWM output frequency of LEDs. Selected PWM frequency can be fine adjusted in 127 steps up/down around selected PWM frequency on the channel below. Corresponding menu item (Frequency Setup) is temporarily overridden.</i>	
			0-4	PWM frequency from Display menu (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	step
			5-9	300 Hz	step
			10-14	600 Hz (10=default)	step
			15-19	1200 Hz	step
			20-24	2400 Hz	step
			25-255	Reserved (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	
8	*	8		LED frequency fine adjusting <i>Select desired PWM output frequency of LEDs on the channel above.</i>	
			0-1	Selected LED Frequency	step
			2	LED Frequency (step -126)	step
			3	LED Frequency (step -125)	step
			4	LED Frequency (step -124)	step
			:		
			125	LED Frequency (step -3)	step
			126	LED Frequency (step -2)	step
			127	LED Frequency (step -1)	step
			128	Selected LED Frequency (128=default)	step
			129	LED Frequency (step +1)	step
			130	LED Frequency (step +2)	step
			131	LED Frequency (step +3)	step
			:		
			252	LED Frequency (step +124)	step
			253	LED Frequency (step +125)	step
			254	LED Frequency (step +126)	step
			255	Selected LED Frequency	step
9	7	9		Colour functions	
			0	No function (0=default) <i>To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overridden</i>	step
			1-29	Reserved	
			30-34	Colour calibration mode: On	step
			35-39	Colour calibration mode: Off	step
			40-44	Colour mixing mode: CMY (DMX mode 1 only)	step

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1	2	3			
			45-49	Colour mixing mode: RGB (DMX mode 1 only)	step
			50-54	Dimmer curve: Square law	step
			55-59	Dimmer curve: Linear	step
			60-79	Raw DMX	proportional
			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
			115-119	Chromatic white: On	step
			120-124	Chromatic white: Off	step
			125-255	Reserved	
10	8	10		CRI selection	
			0-255	CRI from min. to max. (0=default)	proportional
11	*	11		Virtual colour wheel	
			0	No function (0=default)	step
			1-2	Filter 4 (Medium Bastard Amber)	step
			3-4	Filter 10 (Medium Yellow)	step
			5-6	Filter 19 (Fire)	step
			7-8	Filter 26 (Bright Red)	step
			9-10	Filter 58 (Lavender)	step
			11-12	Filter 68 (Sky Blue)	step
			13-14	Filter 71 (Tokyo Blue)	step
			15-16	Filter 79 (Just Blue)	step
			17-18	Filter 88 (Lime Green)	step
			19-20	Filter 90 (Dark Yellow Green)	step
			21-22	Filter 100 (Spring Yellow)	step
			23-24	Filter 101 (Yellow)	step
			25-26	Filter 102 (Light Amber)	step
			27-28	Filter 103 (Straw)	step
			29-30	Filter 104 (Deep Amber)	step
			31-32	Filter 105 (Orange)	step
			33-34	Filter 106 (Primary Red)	step
			35-36	Filter 111 (Dark Pink)	step
			37-38	Filter 115 (Peacock Blue)	step
			39-40	Filter 116 (Medium Blue-Green)	step
			41-42	Filter 117 (Steel Blue)	step
			43-44	Filter 118 (Light Blue)	step
			45-46	Filter 119 (Dark Blue)	step
			47-48	Filter 120 (Deep Blue)	step
			49-50	Filter 121 (Filter Green)	step
			51-52	Filter 128 (Bright Pink)	step
			53-54	Filter 131 (Marine Blue)	step
			55-56	Filter 132 (Medium Blue)	step
			57-58	Filter 134 (Golden Amber)	step
			59-60	Filter 135 (Deep Golden Amber)	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			61-62	Filter 136 (Pale Lavender)	step
			63-64	Filter 137 (Special Lavender)	step
			65-66	Filter 138 (Pale Green)	step
			67-68	Filter 139 (Primary Green)	step
			69-70	Filter 141 (Bright Blue)	step
			71-72	Filter 147 (Apricot)	step
			73-74	Filter 148 (Bright Rose)	step
			75-76	Filter 152 (Pale Gold)	step
			77-78	Filter 154 (Pale Rose)	step
			79-80	Filter 157 (Pink)	step
			81-82	Filter 158 (Deep Orange)	step
			83-84	Filter 162 (Bastard Amber)	step
			85-86	Filter 164 (Flame Red)	step
			87-88	Filter 165 (Daylight Blue)	step
			89-90	Filter 169 (Lilac Tint)	step
			91-92	Filter 170 (Deep Lavender)	step
			93-94	Filter 172 (Lagoon Blue)	step
			95-96	Filter 179 (Chrome Orange)	step
			97-98	Filter 180 (Dark Lavender)	step
			99-100	Filter 181 (Congo Blue)	step
			101-102	Filter 197 (Alice Blue)	step
			103-104	Filter 201 (Full C.T. Blue)	step
			105-106	Filter 202 (Half C.T. Blue)	step
			107-108	Filter 203 (Quarter C.T. Blue)	step
			109-110	Filter 204 (Full C.T. Orange)	step
			111-112	Filter 205 (Half C.T. Orange)	step
			113-114	Filter 206 (Quarter C.T. Orange)	step
			115-116	Filter 247 (Filter Minus Green)	step
			117-118	Filter 248 (Half Minus Green)	step
			119-120	Filter 281 (Three Quarter C.T. Blue)	step
			121-122	Filter 285 (Three Quarter C.T. Orange)	step
			123-124	Filter 352 (Glacier Blue)	step
			125-126	Filter 353 (Lighter Blue)	step
			127-128	Filter 715 (Cabana Blue)	step
			129-130	Filter 778 (Millennium Gold)	step
			131-132	Filter 793 (Vanity Fair)	step
			133-215	Reserved	
			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

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1	2	3			
			246-255	Rainbow effect (without fade time) from slow-> fast	proportional
12	9	*		Cyan/Red (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
13	*	*		Cyan/Red (16 bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
14	10	*		Magenta/Green (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
15	*	*		Magenta/Green (16 bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
16	11	*		Yellow/Blue (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
17	*	*		Yellow/Blue (16 bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
*	*	12		Red (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	13		Red (16bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
*	*	14		Green (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	15		Green (16bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
*	*	16		Blue (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	17		Blue (16bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
*	*	18		Amber (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	19		Amber (16bit)	
			0 - 255	Colour saturation control - fine (255=default)	proportional
*	*	20		Light green (8 bit)	
			0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
*	*	21		Light green (16bit)	
			0 - 255	colour saturation control - fine (255=default)	proportional
18	12	22		Colour temperature correction (CTC)	
			0-1	8000 K	step
			2-64	Colour temperature changing 7978 K ->6622 K (22 K /1 DMX)	proportional
			65	6600 K	step
			66-109	Colour temperature changing 6578 K ->5622 K (22 K/1 DMX)	proportional
			110	5600 K (default)	step
			111-179	Colour temperature changing 5580 K ->4220 K (20 K/1 DMX)	proportional
			180	4200 K	step
			181-229	Colour temperature changing 4180 K ->3220 K (20 K/1 DMX)	proportional
			230	3200 K	step
			231-254	Colour temperature changing 3180 K ->2720 K (20K /1 DMX)	proportional
			255	2700K	step
19	*	23		Green correction	
			0	Uncorrected white	step
			1-127	Minus green --> uncorrected white	proportional

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			128	Uncorrected white (default)	step
			129-254	Uncorrected white --> Plus green	proportional
			255	Uncorrected white	step
20	*	24		Colour mix control	
				<i>Defines relation between colour channels</i>	
				"Virtual" = Virtual Colours (Virtual Colour Wheel)	
				"Colour mix" = Colour channels (C,M,Y/R,G,B,A,Light green/CTC)	
				Range 0-69 DMX - only for Output mode: CRI	
			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 Colour mix)	step
			40-49	Addition mode (Virtual + Colour mix) (45=default)	step
			50-59	Subtraction mode (Virtual – Colour mix)	step
			60-69	Inverted Subtraction mode (Colour mix-Virtual)	step
			70-128	reserved	
			129	Virtual colours ("Virtual" has priority)	step
			130-254	Crossfade (crossfade between Virtual and Colour mix)	proportional
			255	Colour channels ("Colour mix" has priority)	step
21	*	25		Speed of rot. Gobo selection	
			0-255	Speed of rot. gobo selection from max. to min. (0=default)	proportional
22	*	26		Rot. Gobo carousel/ Framing shutters/Zoom/Focus/Iris/Frost/Prism time	
			0	Function is off (default)	step
			1-255	Time of rot. Gobo carousel movement (0.1 sec-->25.5 sec.)	proportional
			1 - 255	Time of 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
23	13	27		Effect wheel positioning	
			0-19	No function (0=default)	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
24	14	28		Effect wheel rotation	
			0	No rotation	step
			1 - 127	Forwards rotation from fast to slow	proportional
			128	No rotation (128-default)	step
			129 - 255	Backwards rotation from slow to fast	proportional
25	*	29		Effect wheel animations	
			0-7	No animation (0-default)	
				<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, Rotating gobo wheel, Rot. Gobo indexing and rotation.</i>	
			8-9	Macro 1 (Focus=101)	step
			10-11	Macro 2 (Focus=101)	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			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	
26	15	30		Rotating gobo wheel	
				<i>Index - set indexing on channel 27/16/31</i>	
			0-3	Open/hole (0= default)	step
			4-7	Gobo 1	step
			8-11	Gobo 2	step
			12-15	Gobo 3	step
			16-19	Gobo 4	step
			20-23	Gobo 5	step
			24-27	Gobo 6	step
			28-31	Gobo 7	step
				<i>Rotation - set rotation on channel 27/16/31</i>	
			32-35	Gobo 1	step
			36-39	Gobo 2	step
			40-43	Gobo 3	step
			44-47	Gobo 4	step
			48-51	Gobo 5	step
			52-55	Gobo 6	step
			56-59	Gobo 7	step
				<u>Shaking gobos from slow to fast</u>	
				<i>Index - set indexing on channel 27/16/31</i>	
			60 - 69	Gobo 1	proportional
			70 - 79	Gobo 2	proportional
			80 - 89	Gobo 3	proportional
			90 - 99	Gobo 4	proportional
			100 - 109	Gobo 5	proportional
			110 - 119	Gobo 6	proportional
			120 - 129	Gobo 7	proportional
				<u>Shaking gobos from slow to fast</u>	
				<i>Rotation - set rotation on channel 27/16/31</i>	
			130 - 139	Gobo 1	proportional
			140 - 149	Gobo 2	proportional
			150 - 159	Gobo 3	proportional
			160 - 169	Gobo 4	proportional
			170 - 179	Gobo 5	proportional
			180 - 189	Gobo 6	proportional
			190 - 199	Gobo 7	proportional
			200 - 201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	step

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
			244 - 249	Random gobo selection by audio control (Set microphone sensitivity in menu „Personality“)	step
			250 - 255	Auto random gobo selection from fast to slow	proportional
27	16	31		Rot. gobo indexing and rotation	
				<i>Gobo indexing - set position on channel 26/15/30</i>	
			0 - 255	Gobo indexing	proportional
				<i>Gobo rotation - set position on channel 26/15/30</i>	
			0	No rotation	step
			1 - 127	Forwards gobo rotation from fast to slow	proportional
			128	No rotation (128=default)	step
			129 - 255	Backwards gobo rotation from slow to fast	proportional
28	*	32		Rot. gobo indexing/rotation - fine	
			0-255	Fine indexing/rotation (0=default)	proportional
29	17	33		Prism	
			0 - 19	Open position - hole (0=default)	step
			20-127	Rotating prism inserted	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
			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	18	34		Prism rotation	
			0	No rotation	step
			1 - 127	Forwards prism rotation from fast to slow	proportional
			128	No rotation (128=default)	step
			129-255	Backwards prism rotation from slow to fast	proportional
31	19	35		Frost	
			0	Open (0=default)	step
				Light Frost	
			1-50	Light Frost from 0% to 100%	proportional
			51-53	100% Light Frost	step
			54-63	Pulse closing from slow to fast	proportional
			64-73	Pulse opening from fast to slow	proportional

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Mode/channel			DMX Value	Function	Type of control
1	2	3			
			74-83	Ramping from fast to slow	proportional
			84-86	Open	step
				Medium Frost	
			87-136	Medium Frost from 0% to 100%	proportional
			137-139	100% Medium 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
				Combined Frost	
			173-222	Medium Frost from 0% to 100% (Light Frost inserted)	proportional
			223-225	100% Medium Frost (Light Frost inserted)	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	20	36		Iris	
			0	Open (0=default)	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	*	37		Iris - fine	
			0 - 255	Fine iris movement (0=default)	proportional
34	21	38		Zoom	
			0 - 255	Zoom from max. to min.beam angle (128=default)	proportional
35	*	39		Zoom - fine	
			0-255	Fine zooming (0=default)	proportional
36	22	40		Focus	
			0 - 255	Continuous adjustment from far to near (128=default)	proportional
37	*	41		Focus - fine	
			0- 255	Fine focusing (0=default)	proportional
38	23	42		Framing shutters module rotation	
			0-127	Rotation from right (0°) to 60°	proportional
			128	Center (default)	step
			129-255	Rotation from 60° to left (120°)	proportional
39	24	43		Framing shutter 1- movement	
			0-255	Movement from Outward to Inward (0=default)	proportional
40	25	44		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
41	26	45		Framing shutter 2- movement	
			0-255	Movement from Outward to Inward (0=default)	proportional

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1	2	3			
42	27	46		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	28	47		Framing shutter 3 movement	
			0-255	Movement from Outward to Inward (0=default)	proportional
44	29	48		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	30	49		Framing shutter 4 movement	
			0-255	Movement from Outward to Inward (0=default)	proportional
46	31	50		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	32	51		Shutter/ strobe	
			0 - 31	Shutter closed	step
			32 - 63	Shutter open (32=default)	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
48	33	52		Dimmer intensity	
			0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
49	*	53		Dimmer intensity - fine	
			0 - 255	Fine dimming (0=default)	proportional
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