

MAC TW1 DMX protocol

16-bit Basic Mode	16-bit Extended Mode	DMX Value	Percent	Function
1	1	0 - 19	0 - 7	Shutter, strobe, reset, lamp on/off Shutter closed
		20 - 49	8 - 19	Shutter open
		50 - 72	20 - 28	Strobe, fast → slow
		73 - 127	29 - 50	Shutter open
		128 - 147	51 - 57	Random strobe, fast
		148 - 167	58 - 65	Random strobe, medium
		168 - 187	66 - 73	Random strobe, slow
		188 - 207	74 - 81	Shutter open
		208 - 217	82 - 85	Reset fixture*
		218 - 255	86 - 100	Shutter open
2	2	0 - 255	0 - 100	Electronic dimmer Blackout → 100% intensity
				Electronic dimmer, fine Low → high intensity
-	3	0 - 255	0 - 100	Electronic dimmer, fine Low → high intensity
3	4	0 - 255	0 - 100	Mechanical dimmer Blackout → 100% intensity
				Mechanical dimmer, fine Low → high intensity
-	5	0 - 255	0 - 100	Mechanical dimmer, fine Low → high intensity
4	6	0 - 255	0 - 100	Cyan White → full cyan
				Cyan, fine Add cyan
-	7	0 - 255	0 - 100	Cyan, fine Add cyan
5	8	0 - 255	0 - 100	Magenta White → full magenta
				Magenta, fine Add magenta
-	9	0 - 255	0 - 100	Magenta, fine Add magenta
6	10	0 - 255	0 - 100	Yellow White → full yellow
				Yellow, fine Add magenta
-	11	0 - 255	0 - 100	Yellow, fine Add magenta
7	12	0 - 255	0 - 100	Zoom Flood → spot
				Zoom, fine Wide → narrow
-	13	0 - 255	0 - 100	Zoom, fine Wide → narrow
8	14	0 - 255	0 - 100	Pan Full left → full right (128 = neutral)
				Pan, fine Left → right
-	15	0 - 255	0 - 100	Pan, fine Left → right
10	16	0 - 255	0 - 100	Tilt Full tilt → full opposite tilt (128 = neutral)
				Tilt, fine Tilt → opposite tilt
-	17	0 - 255	0 - 100	Tilt, fine Tilt → opposite tilt
12	18	0 - 2	0 - 1	Pan/tilt speed Tracking mode
		3 - 245	1 - 95	Vector mode, fast → slow
		246 - 248	96 - 97	Tracking mode, <i>PTSP = NORM</i> (overrides speed set via control menu)
		249 - 251	97 - 98	Tracking mode, <i>PTSP = FAST</i> (overrides speed set via control menu)
		252 - 255	99 - 100	Blackout while moving

**If disabled under PERS → JRES in the control menu, Reset fixture works only if the three main CMY channels are set to a value from 230 to 232. A five-second delay for the Reset fixture command can be set in the control menu under JRES.*

Table 2: DMX Protocol

16-bit Basic Mode	16-bit Extended Mode	DMX Value	Percent	Function
13	19	0 - 2	0 - 1	Effects speed
		3 - 245	1 - 96	<i>CMY filters</i>
		246 - 248	96 - 97	Tracking mode
		249 - 251	98	Vector mode, fast → slow
		252 - 255	99 - 100	Tracking mode, <i>SCUT</i> = OFF (overrides ON if set via control menu)
				Tracking mode, <i>SCUT</i> = ON (overrides OFF if set via control menu)
				Vector mode, fast
				Zoom
		0 - 2	0 - 1	Tracking mode
		3 - 245	1 - 96	Vector mode, fast → slow
		246 - 255	97 - 100	Vector mode, fast
14	20	0 - 19	0 - 7	Control menu settings
		20 - 29	8 - 11	No function
		30 - 39	12 - 15	Linear dimming curve
		40 - 49	16 - 19	Square-law dimming curve
		50 - 59	20 - 23	No function: reserved for future use
		60 - 69	24 - 27	No function: reserved for future use
		70 - 79	28 - 31	No function: reserved for future use
		80 - 89	32 - 35	Preheat on
		90 - 99	36 - 39	Preheat off
		100 - 109	40 - 43	Economy mode on (extended lamp life)
		110 - 119	44 - 47	Economy mode off (higher light output)
		120 - 129	48 - 51	Fan speed full (maximum cooling)
		130 - 139	52 - 55	Fan speed regulated (minimum noise)
		140 - 149	56 - 58	Fans off (if conditions allow)
		150 - 159	59 - 62	Normal mode
		160 - 169	63 - 66	Studio mode
		170 - 255	67 - 100	Quiet mode
			No function: reserved for future use	

These settings replace existing settings in the fixture's control menus. All values must be held for 3 seconds and then returned to 'No function' in order to engage the setting. Settings are retained in memory after powering off.

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