

# MAC 350 Entour DMX protocol

8-bit mode	16-bit mode	DMX Value	Percent	Function		
1	1	0 - 19	0 - 19	<b>Electronic shutter effect, strobe (snap)</b> Shutter closed		
		20 - 49	20 - 49	Shutter open		
		50 - 64	50 - 64	Strobe 1, fast → slow		
		65 - 69	65 - 69	Shutter Open		
		70 - 84	70 - 84	Strobe 2, fast → slow - Opening Pulse		
		85 - 89	85 - 89	Shutter Open		
		90 - 104	90 - 104	Strobe 3, fast → slow - Closing Pulse		
		105 - 109	105 - 109	Shutter Open		
		110 - 124	110 - 124	Strobe 4, fast → slow - Random Strobe		
		125 - 129	125 - 129	Shutter Open		
		130 - 144	130 - 144	Strobe 5, fast → slow - Random Opening Pulse		
		145 - 149	145 - 149	Shutter Open		
		150 - 164	150 - 164	Strobe 6, fast → slow - Random Closing Pulse		
		165 - 169	165 - 169	Shutter Open		
		170 - 184	170 - 184	Strobe 7, fast → slow - Burst Pulse		
		185 - 189	185 - 189	Shutter Open		
		190 - 204	190 - 204	Strobe 8, fast → slow - Random Burst Pulse		
		205 - 209	205 - 209	Shutter Open		
		210 - 224	210 - 224	Strobe 9, fast → slow - Electronic Sinewave		
		225 - 229	225 - 229	Shutter Open		
		230 - 244	230 - 244	Strobe 10, fast → slow - Electronic Burst		
		245 - 255	245 - 255	Shutter Open		
		2	2	0 - 255	0 - 100	<b>Intensity (fade)</b> Zero → full
		3	3			<b>Color wheel position and rotation, music trig color chase</b>
				<b>Continuously scrolling color wheel positions</b>		
0	0			Open (white)		
1-15	0 - 6			Open → Color 1		
16	6			Color 1 (Blue)		
17 - 31	7 - 12			Color 1 → Color 2		
32	13			Color 2 (Green)		
33 - 47	13 - 18			Color 2 → Color 3		
48	19			Color 3 (Orange)		
49 - 63	19 - 25			Color 3 → Color 4		
64	25			Color 4 (Yellow)		
65 - 79	25 - 31			Color 4 → Color 5		
80	31			Color 5 (Pink)		
81 - 95	32 - 37			Color 5 → Color 6		
96	38			Color 6 (Magenta)		
97 - 111	38 - 44			Color 6 → Color 7		
112	44			Color 7 (Congo)		
113 - 127	44 - 50			Color 7 → Color 8		
128	50			Color 8 (Red)		
129 - 143	51 - 56			Color 8 → Open		
144	56			Open		
				<b>Stepped scroll (indexed) color wheel positions</b>		
145 - 148	57 - 58			Color 8 (Red)		
149 - 152	59 - 60			Color 7 (Congo)		
153 - 156	60 - 61			Color 6 (Magenta)		
157 - 160	62 - 63			Color 5 (Pink)		
161 - 164	63 - 64			Color 4 (Yellow)		
165 - 168	65 - 66			Color 3 (Orange)		
169 - 172	66 - 67			Color 2 (Green)		
173 - 176	68 - 69			Color 1 (Blue)		
177 - 180	69 - 71			Open		
				<b>Continuous color wheel rotation</b>		
181 - 203	71 - 79			CW, fast → slow		
204 - 207	80			Color wheel stop		
208 - 230	81 - 90			CCW, slow → fast		
		<b>Music triggered color chase</b>				
231 - 235	91 - 92	Fast				
236 - 239	93 - 94	Medium				
240 - 243	94 - 95	Slow				
		<b>Random color chase</b>				
244 - 247	96 - 97	Fast				
248 - 251	97 - 98	Medium				
252 - 255	99 - 100	Slow				

Table 3: DMX Protocol

8-bit mode	16-bit mode	DMX Value	Percent	Function
4	4	0 - 3	0 - 1	<b>Rotating gobo selection and shake</b>
		4 - 7	2 - 3	<b>Indexing (set position on channel 5; set fine position on channel 6 in 16 bit mode)</b>
		8 - 11	3 - 4	Open gobo
		12 - 15	5 - 6	Gobo 1 (Jessica Rose)
		16 - 19	6 - 7	Gobo 2 (Cathedral Spikes)
		20 - 23	8 - 9	Gobo 3 (Galaxy Breakup)
		24 - 27	9 - 11	Gobo 4 (Fabrick)
				Gobo 5 (Dipple)
				Gobo 6 (Blue Ripple)
				<b>Rotation (set rotation speed on channel 5)</b>
				Open gobo
				Gobo 1 (Jessica Rose)
				Gobo 2 (Cathedral Spikes)
				Gobo 3 (Galaxy Breakup)
				Gobo 4 (Fabrick)
				Gobo 5 (Dipple)
				Gobo 6 (Blue Ripple)
				<b>Indexed gobo shake (set indexed gobo position on channel 5)</b>
				Gobo 1 shake, slow → fast
				Gobo 2 shake, slow → fast
				Gobo 3 shake, slow → fast
				Gobo 4 shake, slow → fast
				Gobo 5 shake, slow → fast
				Gobo 6 shake, slow → fast
		<b>Rotating gobo shake (set rotation speed on channel 5)</b>		
		Gobo 6 shake, slow → fast		
		Gobo 5 shake, slow → fast		
		Gobo 4 shake, slow → fast		
		Gobo 3 shake, slow → fast		
		Gobo 2 shake, slow → fast		
		Gobo 1 shake, slow → fast		
		<b>Continuous gobo wheel scroll (set gobo rotation speed on channel 5)</b>		
		CW slow → fast		
		CCW fast → slow		
		<b>Music triggered gobo chase</b>		
		Fast		
		Medium		
		Slow		
5	5	0 - 255	0 - 100	<b>Gobo rotation (select gobo on channel 4)</b>
				<b>Indexed position</b>
		0 - 2	0 - 1	0 - 395°
		3 - 121	1 - 47	<b>Continuous rotation direction and speed</b>
		122 - 240	48 - 94	No rotation
		241 - 243	95 - 95	CW, slow → fast
				CCW, fast → slow
		No rotation		
		<b>Music triggered gobo rotation</b>		
		244 - 247	96 - 97	Fast
		248 - 251	97 - 98	Medium
		252 - 255	99 - 100	Slow
-	6	0 - 255	0 - 100	<b>Gobo rotation, fine</b>
6	7	0-199	0 - 77	<b>Iris (fade)</b>
		200-215	78 - 84	Open → closed
		216-229	85 - 89	Closed
		230-243	90 - 94	Opening pulse, Fast → Slow
		244-249	95 - 97	Closing pulse, fast → slow
		250-255	98 - 100	Random opening pulse, fast → slow
				Random closing pulse, fast → slow
7	8	0 - 255	0 - 100	<b>Focus (fade)</b>
				Infinity → 2 meters

Table 3: DMX Protocol

8-bit mode	16-bit mode	DMX Value	Percent	Function
8	9	0 - 5	0 - 2	<b>Pan/tilt macros</b>
		6 - 11	2 - 4	No Macro
		12 - 17	5 - 7	Macro 1.1
		18 - 23	7 - 9	Macro 1.2
		24 - 29	9 - 11	Macro 1.3
		30 - 35	12 - 14	Macro 1.4
		36 - 41	14 - 16	Macro 2.1
		42 - 47	16 - 18	Macro 2.2
		48 - 53	19 - 21	Macro 2.3
		54 - 59	21 - 23	Macro 2.4
		60 - 65	24 - 25	Macro 3.1
		66 - 71	26 - 28	Macro 3.2
		72 - 77	28 - 30	Macro 3.3
		78 - 83	31 - 33	Macro 3.4
		84 - 89	33 - 35	Macro 4.1
		90 - 95	35 - 37	Macro 4.2
		96 - 101	38 - 40	Macro 4.3
		102 - 107	40 - 42	Macro 4.4
		108 - 113	42 - 44	Macro 5.1
		114 - 119	45 - 47	Macro 5.2
		120 - 125	47 - 49	Macro 5.3
		126 - 131	49 - 51	Macro 5.4
		132 - 137	52 - 54	Macro 6.1
		138 - 143	54 - 56	Macro 6.2
		144 - 149	56 - 58	Macro 6.3
		150 - 155	59 - 61	Macro 6.4
		156 - 161	61 - 63	Macro 7.1
		162 - 167	64 - 65	Macro 7.2
		168 - 173	66 - 68	Macro 7.3
		174 - 179	68 - 70	Macro 7.4
		180 - 185	71 - 73	Macro 8.1
		186 - 191	73 - 75	Macro 8.2
192 - 197	75 - 77	Macro 8.3		
198 - 203	78 - 80	Macro 8.4		
204 - 209	80 - 82	Macro 9.1		
210 - 215	82 - 84	Macro 9.2		
216 - 221	85 - 87	Macro 9.3		
222 - 227	87 - 89	Macro 9.4		
228 - 233	89 - 91	Macro 10.1		
234 - 239	92 - 94	Macro 10.2		
240 - 245	94 - 96	Macro 10.3		
246 - 255	96 - 100	Macro 10.4		
			Reserved (no effect)	

**Table 3: DMX Protocol**

8-bit mode	16-bit mode	DMX Value	Percent	Function
9	10	0 - 5	0 - 2	<b>Effects macros</b>
		6 - 11	2 - 4	No Macro
		12 - 17	5 - 7	Macro 1.1
		18 - 23	7 - 9	Macro 1.2
		24 - 29	9 - 11	Macro 1.3
		30 - 35	12 - 14	Macro 1.4
		36 - 41	14 - 16	Macro 2.1
		42 - 47	16 - 18	Macro 2.2
		48 - 53	19 - 21	Macro 2.3
		54 - 59	21 - 23	Macro 2.4
		60 - 65	24 - 25	Macro 3.1
		66 - 71	26 - 28	Macro 3.2
		72 - 77	28 - 30	Macro 3.3
		78 - 83	31 - 33	Macro 3.4
		84 - 89	33 - 35	Macro 4.1
		90 - 95	35 - 37	Macro 4.2
		96 - 101	38 - 40	Macro 4.3
		102 - 107	40 - 42	Macro 4.4
		108 - 113	42 - 44	Macro 5.1
		114 - 119	44 - 47	Macro 5.2
		120 - 125	47 - 49	Macro 5.3
		126 - 131	49 - 51	Macro 5.4
		132 - 137	52 - 54	Macro 6.1
		138 - 143	54 - 56	Macro 6.2
		144 - 149	56 - 58	Macro 6.3
		150 - 155	59 - 61	Macro 6.4
		156 - 161	61 - 63	Macro 7.1
		162 - 167	64 - 65	Macro 7.2
		168 - 173	66 - 68	Macro 7.3
		174 - 179	68 - 70	Macro 7.4
		180 - 185	71 - 73	Macro 8.1
186 - 191	73 - 75	Macro 8.2		
192 - 197	75 - 77	Macro 8.3		
198 - 203	78 - 80	Macro 8.4		
204 - 209	80 - 82	Macro 9.1		
210 - 215	82 - 84	Macro 9.2		
216 - 221	85 - 87	Macro 9.3		
222 - 227	87 - 89	Macro 9.4		
228 - 233	89 - 91	Macro 10.1		
234 - 239	92 - 94	Macro 10.2		
240 - 245	94 - 96	Macro 10.3		
246 - 255	96 - 100	Macro 10.4		
				Reserved (no effect)
10	11	0 - 255	0 - 100	<b>Pan</b> Full left → full right (128 = neutral)
-	12	0 - 255	0 - 100	<b>Pan, fine (least significant byte)</b> Left → right
11	13	0 - 255	0 - 100	<b>Tilt</b> Full tilt → full opposite tilt (128 = neutral)
-	14	0 - 255	0 - 100	<b>Tilt, fine (least significant byte)</b> Tilt → opposite tilt
12	15	0 - 2	0 - 1	<b>Pan/tilt speed</b> Tracking mode
		3 - 245	1 - 95	Vector mode, fast → slow
		246 - 251	96 - 98	Reserved for future use
		252 - 255	99 - 100	Blackout while moving

**Table 3: DMX Protocol**

8-bit mode	16-bit mode	DMX Value	Percent	Function
13	16	0 - 2	0 - 1	<b>Effects speed</b>
		3 - 245	1 - 96	<b>Shutter, focus</b>
		246 - 251	96 - 98	Tracking mode
		252 - 255	99 - 100	Vector mode, fast → slow
				Tracking mode
				Vector mode, maximum speed
				<b>Color</b>
		0 - 2	0 - 1	Tracking mode
		3 - 245	1 - 96	Vector mode, fast → slow
		246 - 248	96 - 97	Tracking mode, <b>SCUT</b> = <b>OFF</b> (overrides <b>ON</b> if set via control menu)
		249 - 251	98	Tracking mode, <b>SCUT</b> = <b>ON</b> (overrides <b>OFF</b> if set via control menu)
		252 - 255	99 - 100	Blackout while moving
				<b>Gobo selection</b>
		0 - 245	0 - 1	Normal (no blackout)
		246 - 248	1 - 96	Normal, <b>SCUT</b> = <b>OFF</b> (overrides <b>ON</b> if set via control menu)
		249 - 251	96 - 98	Normal, <b>SCUT</b> = <b>ON</b> (overrides <b>OFF</b> if set via control menu)
252 - 255	99 - 100	Blackout while moving		
		<b>Indexed gobo rotation (if indexed position selected on channel 4)</b>		
0 - 2	0 - 1	Tracking mode		
3 - 245	1 - 96	Vector mode, fast → slow		
246 - 251	96 - 98	Tracking mode		
252 - 255	99 - 100	Blackout while moving		
14	17	0 - 9	0 - 1	<b>Fixture control settings (snap)</b>
		10 - 14	2 - 3	No function
		15 - 19	4 - 5	Reset entire fixture <sup>1</sup>
		20 - 24	6 - 7	No function
		25 - 29	8 - 9	Reset effects only <sup>1</sup>
		30 - 34	10 - 11	No function
		35 - 39	12 - 13	Reset pan & tilt only <sup>1</sup>
		40 - 44	14 - 15	No function
		45 - 49	16 - 17	Pan/tilt speed = NORM <sup>2</sup>
		50 - 54	18 - 19	Pan/tilt speed = FAST <sup>2</sup>
		55 - 59	20 - 21	Pan/tilt speed = SLOW <sup>2</sup>
		60 - 64	22 - 23	Reserved for future use
		65 - 69	24 - 25	No function
		70 - 74	26 - 27	Fan mode = Full <sup>2</sup>
		75 - 79	28 - 29	No function
		80 - 84	30 - 31	Fan mode = Regulated <sup>2</sup>
		85 - 89	32 - 33	No function
		90 - 94	34 - 35	Fan mode = Silent <sup>2</sup>
		95 - 99	36 - 37	No function
		100 - 104	38 - 39	Dimmer curve = LIN <sup>2</sup>
		105 - 109	40 - 41	No function
		110 - 114	42 - 43	Dimmer curve = SQR <sup>2</sup>
		115 - 119	44 - 45	No function
		120 - 124	46 - 47	Dimmer curve = ISQR <sup>2</sup>
		125 - 129	48 - 49	No function
		130 - 134	50 - 51	Dimmer curve = SCUR <sup>2</sup>
		135 - 139	52 - 53	No function
		140 - 144	54 - 55	Calibrated output <sup>2</sup>
		145 - 149	56 - 57	No function
		150 - 154	58 - 59	Raw output (maximum possible, non-calibrated) <sup>2</sup>
		155 - 249	60 - 97	No function
		250 - 255	98 - 100	Reserved for future use
		Illuminate display		

**Channel Notes**

<sup>1</sup> If DMX Reset is disabled in the menu, a reset command can only be executed if channel 2 is set to 232 and channel 1 is set to zero.

<sup>2</sup> Menu override. Setting not affected by cycling power off/on.

**Table 3: DMX Protocol**