

# MAC 600/E

user manual



# appendix a DMX PROTOCOL

DMX channel				Start code = 0							
DMX1	DMX2	DMX3	DMX4	Value	Percent	Function					
<p>1</p> <p>Note: Lamp Off is allowed with SPEC/dLoF set to ON, or with SPEC/dLoF set to OFF and cyan, magenta and yellow set between 230 and 232.</p> <p>Reset is allowed with SPEC/dRES set to ON, or with SPEC/dRES set to OFF and cyan, magenta and yellow set between 230 and 232.</p>				0 - 19	0 - 7	<b>Shutter, Strobe, Reset, Lamp On/Off</b> Shutter closed Shutter open Strobe on (fast->slow) Shutter closed Shutter open, reduced lamp power (MAC 600 E) Shutter closed Random Strobe Fast Random Strobe Medium Random Strobe Slow Shutter closed Reset Fixture Shutter closed Lamp power on Shutter closed Lamp power off <b>Note:</b> T ≥ 5 seconds					
				20 - 49	8 - 19						
				50 - 112	20 - 44						
				113 - 115	44 - 45						
				116 - 122	45 - 48						
				123 - 127	48 - 50						
				128 - 147	50 - 58						
				148 - 167	58 - 65						
				168 - 187	66 - 73						
				188 - 207	74 - 81						
				208 - 217	82 - 85						
				218 - 227	85 - 89						
				228 - 237	89 - 93						
				238 - 247	93 - 97						
				248 - 255	97 - 100						
				2				0 - 255	0 - 100	<b>Intensity</b> 0 → 100%	
3				0-255	0 - 100	<b>Cyan</b> White → Cyan					
4				0-255	0 - 100	<b>Magenta</b> White → Magenta					
5				0-255	0 - 100	<b>Yellow</b> White → Yellow					
6				0 - 40	0 - 16	<b>Color Wheel</b> Scroll White → Color 1 Color 1 → Color 2 Color 2 → Color 3 Color 3 → Color 4  Fixed Colors Color 4 Color 3 Color 2 Color 1 White  Continuous Rotation CW, fast → slow CCW, slow → fast  Random CMY Color Random color, fast Random color, medium Random color, slow					
				40 - 80	16 - 31						
				80 - 120	31 - 47						
				120 - 160	47 - 63						
				161 - 165	63 - 65						
				166 - 170	65 - 67						
				171 - 175	67 - 69						
				176 - 180	69 - 71						
				181 - 185	71 - 73						
				186 - 214	73 - 84						
				215 - 243	84 - 95						
				244 - 247	96 - 97						
				248 - 251	97 - 98						
				252 - 255	99 - 100						
				7				0	0	<b>Beam Shaper 1</b> Open Beam shaper left → right	
								1 - 255	0 - 100		
8				0 - 2	0 - 1	<b>Beam Shaper 2</b> Open Beam shaper left → right Frost					
				3 - 170	1 - 67						
				171 - 255	67 - 100						
9				0 - 255	0 - 100	<b>Pan Coarse (16-bit MSB)</b> Left → right (128 = neutral)					
-	10	-	10	0 - 255	0 - 100	<b>Pan Fine (16-bit LSB)</b> Left → right					

DMX channel				Start code = 0		
DMX1	DMX2	DMX3	DMX4	Value	Percent	Function
10	11	10	11	0 - 255	0 - 100	<b>Tilt Coarse (16-bit MSB)</b> Up → down (128 = neutral)
-	12	-	12	0 - 255	0 - 100	<b>Tilt Fine (16-bit LSB)</b> Up → down
-	-	11	13	0 - 2 3 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 96 96 - 97 98 - 98 99 - 100	<b>Speed: Pan, Tilt</b> Tracking Fast → slow Tracking, normal speed (override PTSP FAST) Tracking, fast speed (override PTSP NORM) Blackout
-	-	12	14	0 - 2 3 - 239 240 - 242 243 - 245 246 - 248 249 - 251 252 - 255	0 - 1 1 - 94 94 - 95 95 - 96 96 - 97 98 - 98 99 - 100	<b>Speed: Dimmer, CMY, Bm Shaper 1</b> Tracking Fast → slow Tracking, MOdE = NORM (studio mode off) Tracking, MOdE = STUd (studio mode on) Tracking, SCUT = OFF (shortcuts off) Tracking, SCUT = ON (shortcuts on) Fast  <b>Speed: Color, Beam Shaper 2</b> Tracking Fast → slow Tracking, MOdE = NORM (studio mode off) Tracking, MOdE = STUd (studio mode on) Tracking, SCUT = OFF (shortcuts off) Tracking, SCUT = ON (shortcuts on) Blackout

Start code = 0  
Implemented from CPU software version 2.0

# MAC 600 DMX Protocol

MODE															
1	2	3	4											250	
1	closed			SHUTTER										closed	
1	open			STROBE										←	
DIMMER															
CYAN															
MAGENTA															
YELLOW															
RANDOM STROBE															
slow															
med															
fast															
B/O															
RESET *															
B/O															
LAMP ON															
B/O															
LAMP OFF*															
> 5 sec															

3	0%														100%
4	0%														100%
5	0%														100%
6	(0) white, DMX 0		CONTINUOUS COLOR SCROLL												4
	(1) CTC, DMX 40														3
	(2) red, DMX 80														2
	(3) green, DMX 120														1
	(4) blue, DMX 160														0
		STEPS	SCROLL												0
CONTINUOUS ROTATION															
cw ←															
ccw →															
f   n   s															
7	0° (open)	BEAM SHAPER 1													180°
8	0° (open)	BEAM SHAPER 2													90°
FROST															

P		PAN																		TILT																	
9	left	TILT FINE (LSB)																		TILT FINE (LSB)																	
10	left	PAN																		TILT																	
10	up	PAN																		TILT																	
11	150°	PAN																		TILT																	
11	135°	PAN																		TILT																	
11	120°	PAN																		TILT																	
11	105°	PAN																		TILT																	
11	90°	PAN																		TILT																	
11	75°	PAN																		TILT																	
11	60°	PAN																		TILT																	
11	45°	PAN																		TILT																	
11	30°	PAN																		TILT																	
11	15°	PAN																		TILT																	
11	0°	PAN																		TILT																	
11	down	PAN																		TILT																	
12	up	PAN																		TILT																	

11	fast	PAN/TILT SPEED													slow
EFFECTS SPEED															
dimmer, CMTY, beam shaper 1 ←															
color wheel, beam shaper 2 ←															
11	fast	PAN/TILT SPEED													slow
12	T														M <sub>4</sub> M <sub>3</sub> T <sub>4</sub> T <sub>3</sub> F
14	T														M <sub>4</sub> M <sub>3</sub> T <sub>4</sub> T <sub>3</sub> F
13	T														M <sub>4</sub> M <sub>3</sub> T <sub>4</sub> T <sub>3</sub> F

\* Set CMTY from 230 to 232 to override disabled function.  
M<sub>N</sub> = normal mode, M<sub>S</sub> = studio mode  
T = tracking mode (0-2 & 246-251)  
S = normal PTSP or shortcuts off (246-248)  
F = fast PTSP or shortcuts on (249-251)  
«>» = blackout speed (252-255)  
← = variable speed, points to fast