



DMX MODES

Tambora has three different operating modes:

Basic, Standard, Advanced

CONTROL LAYER

- The Basic mode allows to control the fixtures general parameter.
- The Standard mode allows user to select and manage countless type of graphic effects the background color
- Advanced mode allows easy control with three independent overlapping layers that can operate by enable Pixels Engine (active in 0 seconds) the users can control RGB/RGBW simultaneously

LAYER CONCEPT

- Layer 1 Control general fixture parameters and function channel
- Layer 2 Control Shape Engine and Background engine fade color speed transition in Dynamic or Static mode.
- Layer 2 in Shape mode can be set in Master/Slave mode
- Layer 2 and 3 in advanced mode can be set in Master/Slave mode
- Layer 3 control dimmer and strobe of pixel engine.

When a layer is set in master mode, it wins on the below layer even if the intensity is set at 0%

If a layer is set in master mode the pixel becomes black

If a layer is set in slave mode the layer below win

PIXEL MAPPING

- Pixel Mapping function ON (RGBW-RGB) enable Pixel Mapping engine. Function is activated in zero seconds

DMX MODE

<i>Mode</i>	<i>Number of Parameter</i>	<i>Color Control</i>	<i>Notes</i>
Basic	10	RGBW 8bit	Color control in 1 layer
Standard	32	RGBW 16bit	Color control in 2 layers.
Advanced	26	RGBW 8bit	Color control, in 3 layers.

IMPORTANT: The Standard is the default operating mode.

PIXELS ENGINE MODE

<i>Mode</i>	<i>Number of Parameter</i>
Disable	-
RGB	81
RGBW	108

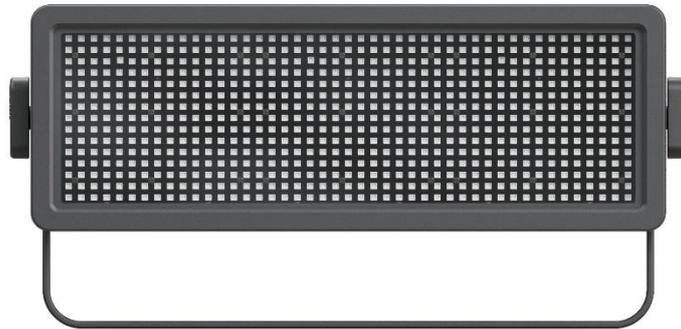
Functions Details

DMX Parameter	Basic	Standard	Advanced
1	Red	Red	Layer 1 Red
2	Green	Red fine	Layer 1 Green
3	Blue	Green	Layer 1 Blue
4	White	Green fine	Layer 1 White
5	CTO	Blue	Layer 1 CTO
6	Strobe	Blue fine	Layer 1 Strobe
7	Dimmer	White	Layer 1 Dimmer
8	Dimmer fine	White fine	Master Strobe
9	Color Crossfade	CTO	Master Dimmer
10	Function	Strobe	Master Dimmer Fine
11	-	Dimmer	Layer 1 Color Crossfade
12	-	Dimmer Fine	Function
13	-	Color Crossfade	Layer 2 Selection
14	-	Function	Layer 2 Effect
15	-	Layer 2 Shape Selection	Layer 2 Indexing/Speed
16	-	Layer 2 Shape Effect	Layer 2 Fade
17	-	Layer 2 Shape Indexing Speed	Layer 2 Strobe
18	-	Layer 2 Shape Fade	Layer 2 Dimmer
19	-	Layer 2 Shape Strobe	Layer 2 Transition
20	-	Layer 2 Shape Dimmer	Layer 2 Red
21	-	Layer 2 Shape Transition	Layer 2 Green
22	-	Layer 1 Red	Layer 2 Blue
23	-	Layer 1 Red Fine	Layer 2 White
24	-	Layer 1 Green	Layer 2 CTO
25	-	Layer 1 Green Fine	Layer 3 Strobe
26	-	Layer 1 Blue	Layer 3 Dimmer
27	-	Layer 1 Blue Fine	
28	-	Layer 1 White	
29	-	Layer 1 White Fine	
30	-	Layer 1 CTO	
31	-	Layer 1 Strobe	
32	-	Layer 1 Dimmer	

Led reference number

IMPORTANT: The image refer to the fixture with the option Reverse Mapping OFF

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Function details

Basic	Standard	DMX Default Value	Bit Value	Function
1	1	000	000 - 255	RED Linear 0 – 100%
-	2	000	000 - 255	RED FINE (16 Bit)
2	3	000	000 - 255	GREEN Linear 0 – 100%
-	4	000	000 - 255	GREEN FINE (16 Bit) fine control
3	5	000	000 - 255	BLUE Linear 0 – 100%
-	6	000	000 - 255	BLUE FINE (16 bit)
4	7	000	000 - 255	WHITE Linear 0 – 100%
-	8	000	000 - 255	WHITE FINE (16 bit) fine control
5	9	000		CTO linear from 8000K to 2700K
			000 - 009	Unused range/CTO OFF
			010 - 255	8000 K - 2700 K
6	10	255		STROBE
			000 - 003	Light OFF
			004 - 103	Strobe frequency from slow (1Hz) to fast (25Hz)
			104 - 107	Light ON
			108 - 207	Pulsation from slow (0.5 Hz) to fast (25 Hz)
			208 - 212	Light ON
			213 - 225	Random Slow Strobe effect
			226 - 238	Random Medium Strobe effect
			239 - 251	Random Fast Strobe effect
252 - 255	Light ON			
7	11	000	000 - 255	DIMMER.
8	12	000	000 - 255	DIMMER FINE (16 bit)
9	13	000	000 - 255	COLOR CROSSFADE Fast to Slow

Basic	Standard	DMX Default Value	BIT Value	Function	
10	14	000		FUNCTION	
				IMPORTANT: Setting are activated and saved holding the DMX level for three seconds.	
			000 - 001	Unused range	
			002 - 003	Auto (Default): Fans increase/decrease according to the LEDs temperature.	
			004 - 005	SLN: Fans power always at minimum range, light output change accordingly with ambient temperature.	
			006 - 007	Theatre: Fans power always at a constant range, light output constantly reduced.	
			008 - 009	Constant: Fans power at maximum range.	
			010 - 037	Unused range	
			038 - 042	Dimmer curve Linear (Default)	→Details at page 16
			043 - 047	Dimmer curve Quadratic	
			048 - 052	Dimmer curve Square	
			053 - 055	Dimmer curve Sine Wave	
			056 - 057	Dimmer curve Sync Linear	
			058 - 062	Raw color gamma 1	→Details at page 16
			063 - 067	Raw color gamma 1.5	
			068 - 072	Raw color gamma 2.2 (Default)	
			073 - 084	Unused range	
			085 - 086	Reverse mapping OFF (Default)	
			087 - 088	Reverse mapping ON	
			089 - 092	Unused range	
			093 - 097	Pixel mapping Disabled (Default)	
			098 - 102	Pixel mapping ON RGB Mode (active in 0 seconds)	
			103 - 107	Pixel mapping ON RGBW Mode (active in 0 seconds)	
			108 - 167	Unused range	
			168 - 188	PWM frequency=600Hz	
			189 - 199	PWM frequency=1200Hz	
			200 - 210	PWM frequency=2000Hz (Default)	
			211 - 221	PWM frequency=4000Hz	
			222 - 232	PWM frequency=6000Hz	
			233 - 243	PWM frequency=25000Hz	
			244 - 248	Display OFF (Default)	
			249 - 253	Display ON	
254 - 255	Default function recall				

Basic	Standard	DMX Default Value	BIT Value	Function	
If Layer 2 shape engine is active pixel not involved on pattern become black and take control from background!					
-	15	000		LAYER 2 SHAPE SELECTION	
			000 - 005	Normal	
			006 - 130	Static	
			131 - 255	Dynamic	
-	16	000		LAYER 2 SHAPE EFFECT	
			000 - 015	Effect 1	
			016 - 031	Effect 2	
			032 - 047	Effect 3	
			048 - 239	
			240 - 255	Effect 16	
-	17	000		LAYER 2 SHAPE INDEXING SPEED	
			000 - 255	Indexing	If Static mode is selected on shape selection
			000 - 124	Speed from fast to slow, forward	If Dynamic mode is selected on shape selection
			125 - 130	STOP	
			131 - 255	Speed from slow to fast, backward	
-	18	000		LAYER 2 SHAPE FADE	
			000 - 005	OFF	
			006 - 130	Fade change from fast to slow	
			131 - 255	Wake change from fast to slow	
-	19	104		LAYER 2 SHAPE STROBE	
			000 - 003	Light OFF	
			004 - 103	Strobe frequency from slow (1Hz) to fast (25Hz)	
			104 - 107	Light ON	
			108 - 207	Pulsation from slow (0.5 Hz) to fast (25 Hz)	
			208 - 212	Light ON (Shape Slave)	
			213 - 225	Random Slow Strobe effect	
			226 - 238	Random Medium Strobe effect	
239 - 251	Random Fast Strobe effect				
			252 - 255	Light ON (Shape Master)	
-	20	255	0 - 255	LAYER 2 SHAPE DIMMER	
-	21	000	0 - 255	LAYER 2 SHAPE TRANSITION	
-	22	000	000 - 255	LAYER 1 RED Linear 0 – 100%	
-	23	000	000 - 255	LAYER 1 RED FINE	
-	24	000	000 - 255	LAYER 1 GREEN Linear 0 – 100%	
-	25	000	000 - 255	LAYER 1 GREEN FINE	
-	26	000	000 - 255	LAYER 1 BLUE Linear 0 – 100%	
-	27	000	000 - 255	LAYER 1 BLUE FINE	
-	28	000	000 - 255	LAYER 1 WHITE Linear 0 – 100%	
-	29	000	000 - 255	LAYER 1 WHITE FINE	
-	30	000		LAYER 1 CTO from 8000K to 2700K	
			000 - 009	Unused Range/CTO OFF	
			010 - 255	8000K – 2700K	

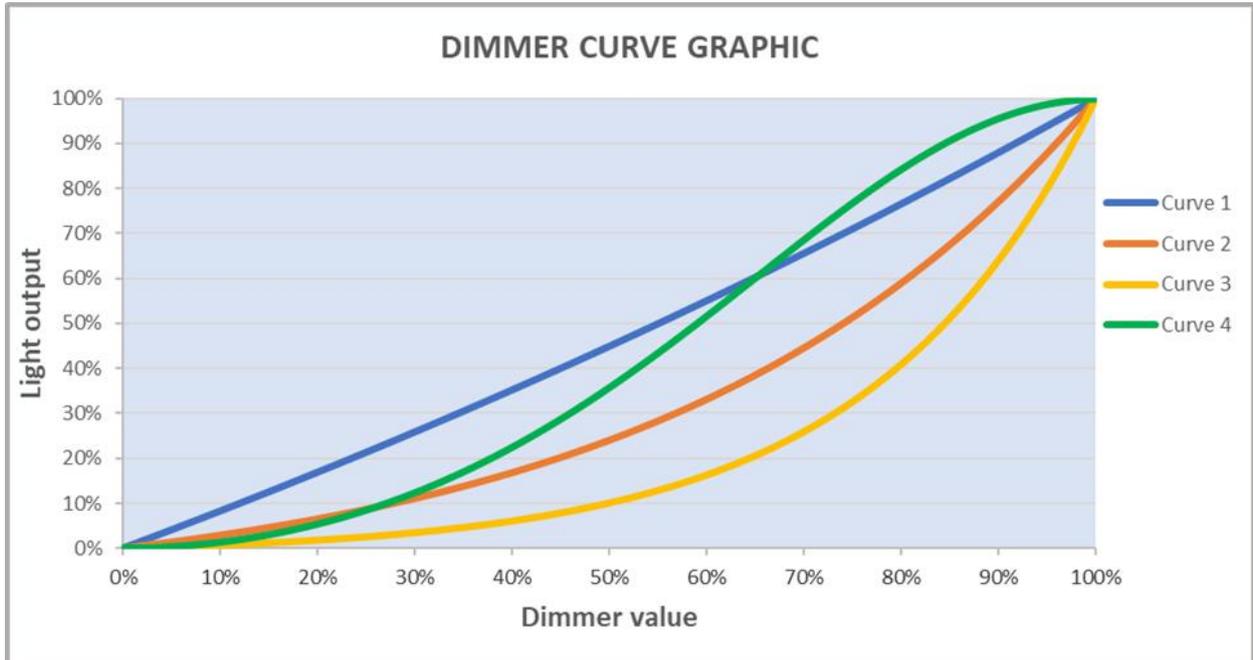
<i>Basic</i>	<i>Standard</i>	<i>DMX Default Value</i>	<i>BIT Value</i>	<i>Function</i>
-	31	255		LAYER 1 STROBE
			000 - 003	Light OFF
			004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)
			104 - 107	Light ON
			108 - 207	Pulsation from slow (0.5 Hz) to fast (25 Hz)
			208 - 212	Light ON
			213 - 225	Random Slow Strobe effect
			226 - 238	Random Medium Strobe effect
			239 - 251	Random Fast Strobe effect
	252 - 255	Light ON		
-	32	255	000 - 255	LAYER 1 DIMMER

Advanced	DMX Default Value	Bit Value	Function
1	000	000 - 255	LAYER 1 RED Linear 0 – 100%
2	000	000 - 255	LAYER 1 GREEN Linear 0 – 100%
3	000	000 - 255	LAYER 1 BLUE Linear 0 – 100%
4	000	000 - 255	LAYER 1 WHITE Linear 0 – 100%
5	000		LAYER 1 CTO
		000 - 009	Unused Range/CTO OFF
		010 - 255	from 8000K to 2700K
6	255		LAYER 1 STROBE
		000 - 003	Light OFF
		004 - 103	Strobe linear from slow (1Hz) to fast (25Hz).
		104 - 107	Light ON
		108 - 207	Pulsation from slow (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
252 - 255	Light ON		
7		000 - 255	LAYER 1 DIMMER Linear 0 – 100%
8	104		MASTER STROBE
		000 - 003	Light OFF
		004 - 103	Strobe frequency from slow (1Hz) to fast (25Hz).
		104 - 107	Light ON
		108 - 207	Pulsation from slow (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
252 - 255	Light ON		
9	000	000 - 255	MASTER DIMMER. Linear 0 – 100%
10	000	000 - 255	MASTER DIMMER FINE (16 bit)
11	000	000 - 255	COLOR CROSSFADE Fast to Slow
12			Same FUNCTION channel as the other DMX modes.
13	000		LAYER 2 SELECTION
		000 - 005	Normal
		006 - 130	Static
		131 - 255	Dynamic
14	000		LAYER 2 EFFECT
		000 - 015	Effect 1
		016 - 031	Effect 2
		032 - 047	Effect 3
		048 - 239
		240 - 255	Effect 16

Advanced	DMX Default Value	Bit Value	Function
15	000		LAYER 2 INDEXING/SPEED
		000 - 255	Indexing
		000 - 124	Speed from fast to slow, forward
		125 - 130	Stop
		131 - 255	Speed from slow to fast, backward
			If Static mode is selected on layer 2 selection
			If Dynamic mode is selected on layer 2 selection
16	000		LAYER 2 FADE
		000 - 005	OFF
		006 - 130	Fade control on shape from fast to slow.
		131 - 255	Wake linearly increase of pixel back and front on the selected shape.
17	255		LAYER 2 STROBE
		000 - 003	Light OFF
		004 - 103	Strobe linear from slow (1Hz) to fast (25Hz).
		104 - 107	Light ON
		108 - 207	Pulsation linear from slow (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON (Layer 2 Slave)
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
		252 - 255	Light ON (Layer 2 Master)
18	000	000 - 255	LAYER 2 DIMMER Linear 0 – 100%
19	000	000 - 255	LAYER 2 TRANSITION Crossfade between shape.
20	000	000 - 255	LAYER 2 RED Linear 0 – 100%
21	000	000 - 255	LAYER 2 GREEN Linear 0 – 100%
22	000	000 - 255	LAYER 2 BLUE Linear 0 – 100%
23	000	000 - 255	LAYER 2 WHITE Linear 0 – 100%
24	000		LAYER 2 CTO
		000 - 009	Unused range/CTO OFF
		010 - 255	CTO from 8000K to 2700K
25	255		LAYER 3 STROBE
		000 - 003	Light OFF
		004 - 103	Strobe linear from slow (1Hz) to fast (25Hz)..
		104 - 107	Light ON
		108 - 207	Pulsation linear from slow (0.5 Hz) to fast (25 Hz)
		208 - 212	Light ON (Layer 3 Slave)
		213 - 225	Random Slow Strobe effect
		226 - 238	Random Medium Strobe effect
		239 - 251	Random Fast Strobe effect
		252 - 255	Light ON (Layer 3 Master)
26	000	000 - 255	LAYER 3 DIMMER Linear 0 – 100%.

Function details – Pixels Engine

<i>RGB</i>	<i>RGBW</i>	<i>Bit Value</i>	<i>Function</i>
1	1	000 - 255	RED LED 1 Linear 0 – 100%.
2	2	000 - 255	GREEN LED 1 Linear 0 – 100%.
3	3	000 - 255	BLUE LED 1 Linear 0 – 100%.
-	4	000 - 255	WHITE LED 1 Linear 0 – 100%.
4	5	000 - 255	RED LED 2 Linear 0 – 100%.
5	6	000 - 255	GREEN LED 2 Linear 0 – 100%.
6	7	000 - 255	BLUE LED 2 Linear 0 – 100%.
-	8	000 - 255	WHITE LED 2 Linear 0 – 100%.
⋮	⋮	⋮	Functionalities are the same for all the Led's
76	101	000 - 255	RED LED 26 Linear 0 – 100%.
77	102	000 - 255	GREEN LED 26 Linear 0 – 100%.
78	103	000 - 255	BLUE LED 26 Linear 0 – 100%.
-	104	000 - 255	WHITE LED 26 Linear 0 – 100%.
79	105	000 - 255	RED LED 27 Linear 0 – 100%.
80	106	000 - 255	GREEN LED 27 Linear 0 – 100%.
81	107	000 - 255	BLUE LED 27 Linear 0 – 100%.
-	108	000 - 255	WHITE LED 27 Linear 0 – 100%.



IMPORTANT NOTE: Dimmer Curve 5 has all the Leds synchronized, for balanced behavior in white.

