

IMPORTANT NOTE: This DMX chart refer to all VOLERO WAVE fixtures equipped with NEW CPU BOARD (Provided since January 2023). It is possible to verify the type of hardware installed into the units thru the informations on the menu.

INFORMATION → SYSTEM VERSION → CPU



CPU FW ver 2.x.xxx → NEW CPU BOARD

CPU FW ver 1.x.xxx → OLD CPU BOARD (The Hardware 1 has a different DMX mapping, please refer to Claypaky tech support for any information)

DMX MODE

Mode	Number of Parameter	Colour Control	Notes
Standard	20	RGBW 8bit	Colour control as single layer.
Shape RGBW	38	RGBW 8bit	Colour control in 2 layers with background effect.
Advanced	37	RGBW	Colour control, in 3 layers with background effect.

PIXELS ENGINE MODE

Mode	Number of Parameter	Colour Control	Notes
Disable	-	-	Disable the colour control for each led.
RGB	24	RGB 8bit	Colour control for each led.
RGBW	32	RGBW 8bit	Colour control for each led.

DMX MODE

DMX Channel	Standard	Shape	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	MACRO COLOUR	BLUE FINE	Layer 1 SHUTTER
7	MASTER SHUTTER	WHITE	Layer 1 DIMMER
8	MASTER DIMMER	WHITE FINE	MASTER SHUTTER
9	MASTER DIMMER FINE	CTO	MASTER DIMMER
10	FUNCTION	MACRO COLOUR	MASTER DIMMER FINE
11	RESET	BACKGROUND SHUTTER	FUNCTION
12	DUMMY	BACKGROUND DIMMER	RESET
13	TILT 1	MASTER SHUTTER	DUMMY
14	TILT 2	MASTER DIMMER	LAYER SELECTION
15	TILT 3	MASTER DIMMER FINE	LAYER CROSSFADE
16	TILT 4	FUNCTION	Layer 2 RED
17	TILT 5	RESET	Layer 2 GREEN
18	TILT 6	DUMMY	Layer 2 BLUE
19	TILT 7	SHAPE Red	Layer 2 WHITE
20	TILT 8	SHAPE Green	Layer 2 CTO
21	-	SHAPE Blu	Layer 2 SHUTTER
22	-	SHAPE White	Layer 2 DIMMER
23	-	BACKGROUND CTO - TBD	PATTERN MODE
24	-	BACKGROUND SHUTTER	PATTERN SELECTION
25	-	BACKGROUND DIMMER	PATTERN SPEED
26	-	PATTERN MODE	PATTERN FADE
27	-	PATTERN SELECTION	PATTERN TRANSITION
28	-	PATTERN SPEED	Layer 3 SHUTTER
29	-	PATTERN FADE	Layer 3 DIMMER
30	-	PATTERN TRANSITION	TILT 1
31	-	TILT 1	TILT 2
32	-	TILT 2	TILT 3
33	-	TILT 3	TILT 4
34	-	TILT 4	TILT 5
35	-	TILT 5	TILT 6
36	-	TILT 6	TILT 7
37	-	TILT 7	TILT 8
38	-	TILT 8	-

Pixels Engine

DMX Channel	Pixels RGB	DMX Channel	Pixels RGBW
1	Red 1	1	Red 1
2	Green 1	2	Green 1
3	Blue 1	3	Blue 1
4	Red 2	4	White 1
5	Green 2	5	Red 2
6	Blue 2	6	Green 2
7	Red 3	7	Blue 2
8	Green 3	8	White 2
9	Blue 3	9	Red 3
10	Red 4	10	Green 3
11	Green 4	11	Blue 3
12	Blue 4	12	White 3
13	Red 5	13	Red 4
14	Green 5	14	Green 4
15	Blue 5	15	Blue 4
16	Red 6	16	White 4
17	Green 6	17	Red 5
18	Blue 6	18	Green 5
19	Red 7	19	Blue 5
20	Green 7	20	White 5
21	Blue 7	21	Red 6
22	Red 8	22	Green 6
23	Green 8	23	Blue 6
24	Blue 8	24	White 6
-	-	25	Red 7
-	-	26	Green 7
-	-	27	Blue 7
-	-	28	White 7
-	-	29	Red 8
-	-	30	Green 8
-	-	31	Blue 8
-	-	32	White 8

Function details

CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION	
STANDARD	SHAPE				
1	1	000		RED	
			000 - 255	Linear 0 -100%	
-	2	000		RED FINE	
			000 - 255	Linear Fine Red (16 Bit)	
2	3	000		GREEN	
			000 - 255	Linear 0 -100%	
-	4	000		GREEN FINE	
			000 - 255	Linear Fine Green (16 Bit)	
3	5	000		BLUE	
			000 - 255	Linear 0 -100%	
-	6	000		BLUE FINE	
			000 - 255	Linear Fine Blue (16 Bit)	
4	7	000		WHITE	
			000 - 255	Linear 0 -100%	
-	8	000		WHITE FINE	
			000 - 255	Linear Fine White (16 Bit)	
5	9	000		CTO	
			000 - 255	8000K to 2500K	CTO Mode Calibrated White
			000 - 009	CTO Off	
			010 - 255	8000K to 2500K	CTO Mode RAW

CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION
STANDARD	SHAPE			
6	10	000		MACRO COLOUR
			000 - 009	No macro colour
			010	Red
			011	Green
			012	Blue
			013	Cyan
			014	Yellow
			015	Magenta
			016	White 7000K
			017	White 3700K
			018	White 5000K
			019	Black
			020 - 022	Medium Yellow
			023 - 026	Straw Tint
			027 - 028	Surprise Peach
			029	Fire
			030	Medium Amber
			031	Gold Amber
			032 - 034	Dark Amber
			035 - 044	Sunrise Red
			045	Light Pink
			046 - 048	Medium Pink
			049 - 061	Pink Carnation
			062 - 067	Light Lavender
			068 - 077	Lavender
			078 - 088	Sky Blue
			089 - 099	Just Blue
			100 - 109	Dark Yellow green
			110 - 111	Spring Yellow
			112	Light Amber
			113	Straw
			114	Deep Amber
			115 - 116	Orange
			117	Light Rose
			118	English Rose
			119	Light Salmon
			120	Middle Rose
			121 - 122	Dark Pink
			123 - 124	Magenta
			125	Peacock Blue
			126	Med Blue Green
			127	Steel Blue
			128	Light Blue
			129 - 130	Dark Blue
			131 - 133	Leaf Green
			134 - 135	Dark Green
136 - 137	Mauve			
138 - 141	Bright Pink			
142 - 144	Medium Blue			
145	Deep Golden Amber			
146	Pale Lavender			
147 - 148	Special lavender			
149 - 150	Primary Green			
151 - 156	Bright Blue			
157 - 161	Apricot			
162 - 167	Pale Gold			
168 - 171	Deep Orange			
172 - 173	Bastard Amber			
174	Flame Red			
175 - 178	Daylight Blue			
179	Lilac Tint			
180 - 183	Deep Lavender			
184 - 190	Dark Steel Blue			
191 - 206	Congo Blue			
207	Alice Blue			
208	Dirty White			
209 - 255	White			

CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION
STANDARD	SHAPE			
-	11	255		BACKGROUND SHUTTER
			000 - 003	Light OFF
			004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
			104 - 107	Light ON
			108 - 207	Pulsation at linearly from slow (1 flash/sec) to fast (25 flash/sec)
			208 - 212	Light ON
			213 - 225	Random Strobe at low frequency
			226 - 238	Random Strobe at medium frequency
			239 - 251	Random Strobe at high frequency
	252 - 255	Light ON		
-	12	000		BACKGROUND DIMMER
			000 - 255	Linear Dimmer 0 – 100%
7	13	255		MASTER SHUTTER
			000 - 003	Light OFF
			004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
			104 - 107	Light ON
			108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)
			208 - 212	Light ON
			213 - 225	Random Strobe at low frequency
			226 - 238	Random Strobe at medium frequency
			239 - 251	Random Strobe at high frequency
	252 - 255	Light ON		
8	14	000		MASTER DIMMER
			000 - 255	Linear Dimmer 0 – 100%
9	15	000		MASTER DIMMER FINE
			000 - 255	Fine Dimmer (16 bit)

CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION
STANDARD	SHAPE			
10	16	000		FUNCTION
			000 - 009	Unused Range
			010 - 014	Tilt Speed Mode: Smooth
			015 - 019	Tilt Speed Mode: Fast
			020 - 024	CTO Mode: Calibrated White
			025 - 029	CTO Mode: Raw
			030 - 034	Reverse Mapping: Off
			035 - 039	Reverse Mapping: On
			040 - 044	Set Customized White Calibration
			045 - 049	Record Customized Calibration
			050 - 054	Use Colour Calibration Customized
			055 - 059	Use Factory Calibration
			060 - 064	Reset Custom Calibration
			065 - 069	Tilt Invert: Off
			070 - 074	Tilt Invert: On
			075 - 079	Reverse Heads: Off
			080 - 084	Reverse Heads: On
			085 - 099	Free
			100 - 102	Pixel Mapping Enable RGB
			103 - 105	Pixel Mapping Enable RGBW
106 - 108	Pixel Mapping Disable			
109 - 255	Free			
11	17	000		RESET
			000 - 025	Unused Range
			026 - 127	Tilt Reset
			128 - 255	Complete Reset
				Each reset is activated passing through the unused range and staying 5 seconds in required levels
12	18	000		DUMMY
			000 - 255	-
	19	000		SHAPE RED
			000 - 255	Linear 0 – 100%
-	20	000		SHAPE GREEN
			000 - 255	Linear 0 – 100%
-	21	000		SHAPE BLUE
			000 - 255	Linear 0 – 100%
-	22	000		SHAPE WHITE
			000 - 255	Linear 0 – 100%
-	23	000		BACKGROUND CTO – TBD
			000 - 255	TBD

CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION	
STANDARD	SHAPE				
-	24	255		FOREGROUND SHUTTER	
			000 - 003	Light OFF	
			004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)	
			104 - 107	Light ON	
			108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)	
			208 - 212	Light ON	
			213 - 225	Random Strobe at slow frequency	
			226 - 238	Random Strobe at medium frequency	
			239 - 251	Random Strobe at fast frequency	
	252 - 255	Light ON			
-	25	000		FOREGROUND DIMMER	
			000 - 255	Linear Dimmer 0 – 100%	
-	26	000		PATTERN MODE	
			000 - 005	Normal	
			006 - 130	Static	
			131 - 255	Dynamic	
-	27	000		PATTERN SELECTION	
			000 - 007	Effect 1	
			008 - 015	Effect 2	
			...	Effect ...	
			248 - 255	Effect 32	
-	28	000		PATTERN SPEED	
			000 - 255	Indexing	→ Static Mode
			000 - 124	Speed control fast to slow, forward	→ Dynamic Mode
			125 - 130	Stop	
			131 - 255	Speed control slow to fast, Backward	
-	29	000		PATTERN FADE	
			000 - 127	Fade In/Out	
			128 - 255	Fade Out	
-	30	000		PATTERN TRANSITION	
			000 - 255	Crossfade between layers/pattern (0: instant transition - 255: 3 seconds transition) ONLY ON LAYER MODE	
13	31	128		TILT 1	
			000 - 255	Mirror 1 positioning (Default REVERSE HEADS option OFF)	
14	32	128		TILT 2	
			000 - 255	Mirror 2 positioning (Default REVERSE HEADS option OFF)	
15	33	128		TILT 3	
			000 - 255	Mirror 3 positioning (Default REVERSE HEADS option OFF)	
16	34	128		TILT 4	
			000 - 255	Mirror 4 positioning (Default REVERSE HEADS option OFF)	



Volero Wave

DMX Protocol

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CHANNEL		DMX DEFAULT VALUE	DMX VALUE	FUNCTION
STANDARD	SHAPE			
17	35	128		TILT 5
			000 - 255	Mirror 5 positioning (Default REVERSE HEADS option OFF)
18	36	128		TILT 6
			000 - 255	Mirror 6 positioning (Default REVERSE HEADS option OFF)
19	37	128		TILT 7
			000 - 255	Mirror 7 positioning (Default REVERSE HEADS option OFF)
20	38	128		TILT 8
			000 - 255	Mirror 8 positioning (Default REVERSE HEADS option OFF)

Advanced Mode

CHANNEL	DMX DEFAULT VALUE	DMX VALUE	FUNCTION
1	000		Layer 1 RED
		000 - 255	Linear 0 – 100%
2	000		Layer 1 GREEN
		000 - 255	Linear 0 – 100%
3	000		Layer 1 BLUE
		000 - 255	Linear 0 – 100%
4	000		Layer 1 WHITE
		000 - 255	Linear 0 – 100%
5	000		Layer 1 CTO
		000 - 009	Deactivated
		010 - 255	8000K to 2500K
6	255		Layer 1 SHUTTER
		000 - 003	Light OFF
		004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
		104 - 107	Light ON
		108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)
		208 - 212	Light ON
		213 - 225	Random Strobe at slow frequency
		226 - 238	Random Strobe at medium frequency
		239 - 251	Random Strobe at fast frequency
252 - 255	Light ON		
7	000		Layer 1 DIMMER
		000 - 255	Linear Dimmer 0 – 100%
8	255		MASTER SHUTTER
		000 - 003	Light OFF
		004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)
		104 - 107	Light ON
		108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)
		208 - 212	Light ON
		213 - 225	Random Strobe at low frequency
		226 - 238	Random Strobe at medium frequency
		239 - 251	Random Strobe at high frequency
252 - 255	Light ON		
9	000		MASTER DIMMER
		000 - 255	Linear Dimmer 0 – 100%
10	000		MASTER DIMMER FINE
		000 - 255	Fine Dimmer (16 bit)

CHANNEL	DMX DEFAULT VALUE	DMX VALUE	FUNCTION
11	000		FUNCTION
		000 - 009	Unused Range
		010 - 014	Tilt Speed Mode: Smooth
		015 - 019	Tilt Speed Mode: Fast
		020 - 024	CTO Mode: Calibrated White
		025 - 029	CTO Mode: Raw
		030 - 034	Reverse Mapping: Off
		035 - 039	Reverse Mapping: On
		040 - 044	Set Customized White Calibration
		045 - 049	Record Customized Calibration
		050 - 054	Use Colour Calibration Customized
		055 - 059	Use Factory Calibration
		060 - 064	Reset Custom Calibration
		065 - 069	Tilt Invert: Off
		070 - 074	Tilt Invert: On
		075 - 079	Reverse Heads: Off
		080 - 084	Reverse Heads: On
		085 - 099	Free
		100 - 102	Pixel Mapping Enable RGB
103 - 105	Pixel Mapping Enable RGBW		
106 - 108	Pixel Mapping Disable		
109 - 255	Free		
12	000		RESET
		000 - 025	Unused Range
		026 - 127	Tilt Reset
		128 - 255	Complete Reset
			Each reset is activated passing through the unused range and staying 5 seconds in required levels
13			DUMMY
		000 - 255	TBD
14	000		LAYER SELECTION
		000 - 255	TBD
15	000		LAYER CROSSFADE
		000 - 255	TBD
16	000		Layer 2 RED
		000 - 255	Linear 0 – 100%
17	000		Layer 2 GREEN
		000 - 255	Linear 0 – 100%
18	000		Layer 2 BLUE
		000 - 255	Linear 0 – 100%
19	000		Layer 2 WHITE
		000 - 255	Linear 0 – 100%

CHANNEL	DMX DEFAULT VALUE	DMX VALUE	FUNCTION	
20	000		Layer 2 CTO	
		000 - 009	Layer 2 Deactivated	
		010 - 255	Layer 2 8000K to 2500K	
21	255		Layer 2 SHUTTER	
		000 - 003	Light OFF	
		004 - 103	Strobe frequency from slow (1 flash/sec) to fast (25 flash/sec)	
		104 - 107	Light ON	
		108 - 207	Pulsation frequency from slow (1 flash/sec) to fast (25 flash/sec)	
		208 - 212	Light ON (Layer 2 Slave)	
		213 - 225	Random Strobe at slow frequency	
		226 - 238	Random Strobe at medium frequency	
		239 - 251	Random Strobe at fast frequency	
		252 - 255	Light ON (Layer 2 Master)	
		22	000	
000 - 255	Linear Dimmer 0 – 100%			
23	000		L2 PATTERN MODE	
		000 - 005	Normal	
		006 - 130	Static	
		131 - 255	Dynamic	
24	000		L2 PATTERN SELECTION	
		000 - 007	Effect 1	
		008 - 015	Effect 2	
		...	Effect ...	
		248 - 255	Effect 32	
25	000		L2 PATTERN SPEED	
		000 - 255	Indexing	→ Static Mode
		000 - 124	Speed control fast to slow, Forward	→ Dynamic Mode
		125 - 130	Stop	
		131 - 255	Speed control slow to fast, Backward	
26	000		L2 PATTERN FADE	
		000 - 127	Fade In/Out	
		128 - 255	Fade Out	
27	000		L2 PATTERN TRANSITION	
		000 - 255	Crossfade between layers/pattern (0: instant transition - 255: 3 seconds transition) ONLY ON LAYER MODE	
28	255		Layer 3 SHUTTER	
		000 - 255	See previous Shutter CH definitions	
29	000		Layer 3 DIMMER	
		000 - 255	Linear Dimmer 0 – 100%	

CHANNEL	DMX DEFAULT VALUE	DMX VALUE	FUNCTION
30	128		TILT 1
		000 - 255	Mirror 1 positioning (Default REVERSE HEADS option OFF)
31	128		TILT 2
		000 - 255	Mirror 2 positioning (Default REVERSE HEADS option OFF)
32	128		TILT 3
		000 - 255	Mirror 3 positioning (Default REVERSE HEADS option OFF)
33	128		TILT 4
		000 - 255	Mirror 4 positioning (Default REVERSE HEADS option OFF)
34	128		TILT 5
		000 - 255	Mirror 5 positioning (Default REVERSE HEADS option OFF)
35	128		TILT 6
		000 - 255	Mirror 6 positioning (Default REVERSE HEADS option OFF)
36	128		TILT 7
		000 - 255	Mirror 7 positioning (Default REVERSE HEADS option OFF)
37	128		TILT 8
		000 - 255	Mirror 8 positioning (Default REVERSE HEADS option OFF)