

ColorWash 1200E AT- DMX Protocol,version 1.1

date:11.10.2004

needed processor versions: IC1 DS=1.3 ,IC2 DS=1.3

Mode/Channel					Value	Function	Type of control
1	2	3	4	5			
1	1	1	1	16	0 - 255	Pan Pan movement by 530°	proportional
2	2	2	2	17	0 - 255	Pan Fine Fine control of pan movement	proportional
3	3	3	3	18	0 - 255	Tilt Tilt movement by 280°	proportional
4	4	4	4	19	0 - 255	Tilt fine Fine control of tilt movement	proportional
5	5	5	5	20	0	Pan/Tilt speed , Pan/Tilt time Max. speed (tracking mode)*	step
					1 - 255	P./T. speed-set Speed Mode in menu: Pan/Tilt Mode Speed from max. to min. (vector mode)**	proportional
					1 - 255	P./T. time - set Time Mode in menu: Pan/Tilt Mode Time from 0,1 s to 25,5 s. ***	proportional
6	6	6	6	21	0 - 49	Power/Special functions Reserved <i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 s. („Shutter,Strobe” channel 16 (21,23,28,1) must be at range: 0-31 DMX).****</i>	step
					50 - 59	Pan/Tilt speed mode	step
					60 - 69	Pan/Tilt time mode	step
					70 - 79	Blackout while pan/tilt moving	step
					80 - 89	Disabled blackout while pan/tilt moving	step
					90 - 99	Blackout while colour wheels moving	step
					100 - 109	Disabled blackout while colour wheels moving	step
					110 - 129	Reserved <i>To activate following functions, stop in DMX value for at least 3 s.</i>	step
					130 - 139	Lamp On,reset(total reset except pan/tilt reset)	step
					140 - 149	Pan/Tilt reset	step
					150 - 159	Colour system reset	step
					160 - 169	Zoom/Fresnel reset	step
					170 - 179	Dimmer/Strobe reset	step
					180 - 199	Reserved	step
200 - 209	Total reset	step					
210 - 229	Reserved	step					
230 - 239	Lamp Off	step					
240 - 255	Reserved	step					

Notes: * Range 0-255 DMX at max.speed (0 DMX):

pan=4.5 s
tilt=2.6 s

** Range 0-255 DMX at min. speed (255 DMX):

pan=37min.10 s
tilt=19 min.34 s

*** Short times are not used for long tracks (e.g. 0.5s for track 0-255 DMX). Times are restricted by mechanical parameters of the fixture.

**** The switch-functions have priority to the equivalent functions in menu „Personality” but the setting by DMX is not saved to the memory (after switching the fixture on,the setting from menu „Personality” is loaded and after that can be changed with DMX value on the channel 6).

DMX protocol

- 50 - 59 Pan/Tilt speed mode
- 60 - 69 Pan/Tilt time mode
- 70 - 79 Blackout while pan/tilt moving
- 80 - 89 Disabled blackout while pan/tilt moving
- 90 - 99 Blackout while colour wheels moving
- 100 - 109 Disabled blackout while colour wheel moving

menu „Personality”

- Pan/Tilt mode--->Speed Mode
- Pan/Tilt mode--->Time Mode
- Active blackout While-->Pan/Tilt Moving-->On
- Active blackout While-->Pan/Tilt Moving-->Off
- Active blackout While-->Colour Wheels Moving-->On
- Active blackout While-->Colour Wheels Moving-->Off

Mode/Channel					Value	Function	Type of control
1	2	3	4	5			
		7	7		0 - 9 10 - 31 32 - 63 64 - 95 96 - 127 128 - 159 160 - 191 192 - 223 224 - 255	Pan/Tilt macro selection Disabled pan/tilt macro Reserved Figure of circle (from small to large) Figure of horizontal eight (from small to large) Figure of vertical eight (from small to large) Figure of rectangle (from small to large) Figure of triangle (from small to large) Figure of star (from small to large) Figure of cross (from small to large)	step step proportional proportional proportional proportional proportional
		8	8		0 1 - 127 128 - 129 130 - 255	Pan/Tilt macro speed No macro generation Macro generation from fast to slow-forwards No macro generation Macro generation from slow to fast-backwards	step proportional step proportional
7	7	9	9	7	0 18 37 55 73 91 110 128 - 129 130 - 139 140 - 149 150 - 159 160 - 169 170 - 179 180 - 189 190 - 215 216 - 217 218 - 243 244 - 249 250 - 255	Colour wheel 1 Open/white Deep red Deep blue Green Orange 6000 K temperature filter UV filter White Deep red Deep blue Green Orange 6000 K temperature filter UV filter Forwards rainbow effect from fast to slow No rotation Backwards rainbow effect from slow to fast Random colour selection by audio control (Set microphone sensitivity in menu „Personality“) Auto random colour selection from fast to slow	proportional proportional proportional proportional proportional proportional step step step step step step proportional step proportional step proportional
	8		10		0 - 255	Colour wheel 1- fine positioning Fine positioning	proportional
8	9	10	11	8	0 18 37 55 73 91 110 128 - 129 130 - 139 140 - 149 150 - 159 160 - 169 170 - 179 180 - 189 190 - 215 216 - 217 218 - 243 244 - 249 250 - 255	Colour wheel 2 Open/white Red ring Blue dot Yellow ring Blue/red Green/orange Yellow/blue/orange/magenta White Red ring Blue dot Yellow ring Blue/red Green/orange Yellow/blue/orange/magenta Forwards rainbow effect from fast to slow No rotation Backwards rainbow effect from slow to fast Random colour selection by audio control (Set microphone sensitivity in menu „Personality“) Auto random colour selection from fast to slow	proportional proportional proportional proportional proportional proportional proportional proportional step step step step step step proportional step proportional step proportional
	10		12		0 - 255	Colour wheel 2- fine positioning Fine positioning	proportional
9	11	11	13	3	0 - 255	Cyan Cyan (0-white, 255-full cyan)	proportional
10	12	12	14	4	0 - 255	Magenta Magenta (0-white, 255-full magenta)	proportional

Mode/Channel					Value	Function	Type of control
1	2	3	4	5			
11	13	13	15	5	0 - 255	Yellow Yellow (0-white, 255-full yellow)	proportional
12	14	14	16	6	0 - 255	Conversion temperature filter 3200K (0-5600K, 255-3200K)	proportional
	15		17			CMY Colour macros	
					0 - 3	No function	step
					4 - 7	Macro 1	step
					8 - 11	Macro 2	step
					12 - 15	Macro 3	step
					16 - 19	Macro 4	step
					20 - 23	Macro 5	step
					24 - 27	Macro 6	step
					28 - 31	Macro 7	step
					32 - 35	Macro 8	step
					36 - 39	Macro 9	step
					40 - 43	Macro 10	step
					44 - 47	Macro 11	step
					48 - 51	Macro 12	step
					52 - 55	Macro 13	step
					56 - 59	Macro 14	step
					60 - 63	Macro 15	step
					64 - 67	Macro 16	step
					68 - 71	Macro 17	step
					72 - 75	Macro 18	step
					76 - 79	Macro 19	step
					80 - 83	Macro 20	step
					84 - 87	Macro 21	step
					88 - 91	Macro 22	step
					92 - 95	Macro 23	step
					96 - 99	Macro 24	step
					100 - 103	Macro 25	step
					104 - 107	Macro 26	step
					108 - 111	Macro 27	step
					112 - 115	Macro 28	step
					116 - 119	Macro 29	step
					120 - 123	Macro 30	step
					124 - 127	Macro 31	step
					128 - 131	Macro 32	step
					132 - 135	Macro 33	step
					136 - 139	Macro 34	step
					140 - 143	Macro 35	step
					144 - 147	Macro 36	step
					148 - 151	Macro 37	step
					152 - 155	Macro 38	step
					156 - 159	Macro 39	step
					160 - 163	Macro 40	step
					164 - 167	Macro 41	step
					168 - 171	Macro 42	step
					172 - 175	Macro 43	step
					176 - 179	Macro 44	step
					180 - 183	Macro 45	step
					184 - 187	Macro 46	step
					188 - 191	Macro 47	step
					192 - 195	Macro 48	step
					196 - 199	Macro 49	step
					200 - 203	Macro 50	step
					204 - 207	Macro 51	step
					208 - 211	Macro 52	step
					212 - 215	Macro 53	step
					216 - 219	Macro 54	step
					220 - 223	Macro 55	step
					224 - 227	Macro 56	step
					228 - 231	Macro 57	step
					232 - 235	Macro 58	step
					236 - 239	Macro 59	step

Mode/Channel					Value	Function	Type of control
1	2	3	4	5			
	15		17		240 - 243 244 - 247 248 - 251 252 - 255	Macro 60 Macro 61 Macro 62 Macro 63	step step step step
13	16	15	18		0 - 255	Effect speed From max. speed to min.speed *****	proportional
	17		19		0 - 31 32 - 63 64 - 95 96 - 255	Effect speed assigning Dimmer + CMY filters + correction filter Dimmer CMY filters + correction filter No function	step step step step
		16	20	10	0 - 255	Barn door 1-Upper From open to close	proportional
		17	21	11	0 - 255	Barn door 2-Lower From open to close	proportional
		18	22	12	0 - 255	Barn door 3-Left From open to close	proportional
		19	23	13	0 - 255	Barn door 4-Right From open to close	proportional
		20	24	14	0 - 255	Barn doors rotation From right to left	proportional
14	18	21	25		0-85 86 87-171 172-213 214-255	Fresnels opening <i>LightMax mode provides a high intensity spot (85DMX)</i> Internal Fresnels opening(from closed to open-LightMax mode) Left Fresnel closed,right Fresnel open Left Fresnel opening,right Fresnel closing Both Fresnels ramping (parallel) from slow to fast Both Fresnels ramping (alternately) from fast to slow	proportional step proportional proportional proportional
15	19	22	26	9	0-255	Zoom Zoom from min. to max.	proportional
	20		27		0-255	Zoom fine Fine zoom positioning.	proportional
16	21	23	28	1	0 - 31 32 - 63 64 - 95 96 - 127 128 - 143 144 - 159 160 - 191 192 - 223 224 - 255	Shutter, strobe Shutter closed, Lamp power reduced efter 10 s to 700W. Shutter open,Full lamp power. Strobe-effect from slow to fast (max.15 ashes/s) Shutter open,Lamp power reduced to 700W. Opening pulse in sequences from slow to fast Closing pulse in sequences from fast to slow Shutter open,Electronic strobing "ZAP" from slow to fast (from 7 to 33 ashes/s) Random strobe-effect from slow to fast Shutter open,Full lamp power	step step proportional step proportional proportional proportional proportional step
17	22	24	29	2	0-255	Dimmer intensity Dimmer intensity from 0% to 100% (In range 0-3 DMX, lamp power reduced to 700 W)	proportional
	23		30		0-255	Dimmer intensity fine Fine dimming	proportional
				15		No function	

***** Range 0-255 DMX at min. speed (0 DMX): Cyan (magenta/yellow,cor. filter) = 1min 10 s

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Mode/Channel				Value	Function	Type of control
1	2	3	4			
1	1	1	1	0 - 255	Pan Pan movement by 530°	proportional
2	2	2	2	0 - 255	Pan Fine Fine control of pan movement	proportional
3	3	3	3	0 - 255	Tilt Tilt movement by 280°	proportional
4	4	4	4	0 - 255	Tilt fine Fine control of tilt movement	proportional
5	5	5	5	0	Pan/Tilt speed , Pan/Tilt time Max. speed (tracking mode)*	step
				1 - 255	P./T. speed-set Speed Mode in menu: Pan/Tilt Mode Speed from max. to min. (vector mode)**	proportional
				1 - 255	P./T. time - set Time Mode in menu: Pan/Tilt Mode Time from 0,1 s to 25,5 s. ***	proportional
6	6	6	6	0 - 49	Power/Special functions Reserved <i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 s. („Shutter,Strobe” channel 16 (21,23,28) must be at range: 0-31 DMX).****</i>	step
				50 - 59	Pan/Tilt speed mode	step
				60 - 69	Pan/Tilt time mode	step
				70 - 79	Blackout while pan/tilt moving	step
				80 - 89	Disabled blackout while pan/tilt moving	step
				90 - 99	Blackout while colour wheels moving	step
				100 - 109	Disabled blackout while colour wheels moving	step
				110 - 129	Reserved <i>To activate following functions, stop in DMX value for at least 3 s.</i>	step
				130 - 139	Lamp On,reset(total reset except pan/tilt reset)	step
				140 - 149	Pan/Tilt reset	step
				150 - 159	Colour system reset	step
				160 - 169	Zoom/Fresnel reset	step
				170 - 179	Dimmer/Strobe reset	step
				180 - 199	Reserved	step
200 - 209	Total reset	step				
210 - 229	Reserved	step				
230 - 239	Lamp Off	step				
240 - 255	Reserved	step				

Notes: * Range 0-255 DMX at max.speed (0 DMX):

pan=4.5 s

tilt=2.6 s

** Range 0-255 DMX at min. speed (255 DMX):

pan=37min.10 s

tilt=19 min.34 s

*** Short times are not used for long tracks (e.g. 0.5s for track 0-255 DMX). Times are restricted by mechanical parameters of the fixture.

**** The switch-functions have priority to the equivalent functions in menu „Personality” but the setting by DMX is not saved to the memory (after switching the fixture on,the setting from menu „Personality” is loaded and after that can be changed with DMX value on the channel 6).

DMX protocol

50 - 59 Pan/Tilt speed mode

60 - 69 Pan/Tilt time mode

70 - 79 Blackout while pan/tilt moving

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90 - 99 Blackout while colour wheels moving

100 - 109 Disabled blackout while colour wheel moving

menu „Personality”

Pan/Tilt mode--->Speed Mode

Pan/Tilt mode--->Time Mode

Active blackout While-->Pan/Tilt Moving-->On

Active blackout While-->Pan/Tilt Moving-->Off

Active blackout While-->Colour Wheels Moving-->On

Active blackout While-->Colour Wheels Moving-->Off

Mode/Channel				Value	Function	Type of control
1	2	3	4			
		7	7	0 - 9 10 - 31 32 - 63 64 - 95 96 - 127 128 - 159 160 - 191 192 - 223 224 - 255	Pan/Tilt macro selection Disabled pan/tilt macro Reserved Figure of circle (from small to large) Figure of horizontal eight (from small to large) Figure of vertical eight (from small to large) Figure of rectangle (from small to large) Figure of triangle (from small to large) Figure of star (from small to large) Figure of cross (from small to large)	step step proportional proportional proportional proportional proportional proportional
		8	8	0 1 - 127 128 - 129 130 - 255	Pan/Tilt macro speed No macro generation Macro generation from fast to slow-forwards No macro generation Macro generation from slow to fast-backwards	step proportional step proportional
7	7	9	9	0 18 37 55 73 91 110 128 - 129 130 - 139 140 - 149 150 - 159 160 - 169 170 - 179 180 - 189 190 - 215 216 - 217 218 - 243 244 - 249 250 - 255	Colour wheel 1 Open/white Deep red Deep blue Green Orange 6000 K temperature filter UV filter White Deep red Deep blue Green Orange 6000 K temperature filter UV filter Forwards rainbow effect from fast to slow No rotation Backwards rainbow effect from slow to fast Random colour selection by audio control (Set microphone sensitivity in menu „Personality“) Auto random colour selection from fast to slow	proportional proportional proportional proportional proportional proportional proportional step step step step step step proportional step proportional step proportional
	8		10	0 - 255	Colour wheel 1- fine positioning Fine positioning	proportional
8	9	10	11	0 18 37 55 73 91 110 128 - 129 130 - 139 140 - 149 150 - 159 160 - 169 170 - 179 180 - 189 190 - 215 216 - 217 218 - 243 244 - 249 250 - 255	Colour wheel 2 Open/white Red ring Blue dot Yellow ring Blue/red Green/orange Yellow/blue/orange/magenta White Red ring Blue dot Yellow ring Blue/red Green/orange Yellow/blue/orange/magenta Forwards rainbow effect from fast to slow No rotation Backwards rainbow effect from slow to fast Random colour selection by audio control (Set microphone sensitivity in menu „Personality“) Auto random colour selection from fast to slow	proportional proportional proportional proportional proportional proportional proportional proportional step step step step step step proportional step proportional step proportional
	10		12	0 - 255	Colour wheel 2- fine positioning Fine positioning	proportional
9	11	11	13	0 - 255	Cyan Cyan (0-white, 255-full cyan)	proportional
10	12	12	14	0 - 255	Magenta Magenta (0-white, 255-full magenta)	proportional

Mode/Channel				Value	Function	Type of control
1	2	3	4			
11	13	13	15	0 - 255	Yellow Yellow (0-white, 255-full yellow)	proportional
12	14	14	16	0 - 255	Conversion temperature filter 3200K (0-5600K, 255-3200K)	proportional
	15		17		CMY Colour macros	
				0 - 3	No function	step
				4 - 7	Macro 1	step
				8 - 11	Macro 2	step
				12 - 15	Macro 3	step
				16 - 19	Macro 4	step
				20 - 23	Macro 5	step
				24 - 27	Macro 6	step
				28 - 31	Macro 7	step
				32 - 35	Macro 8	step
				36 - 39	Macro 9	step
				40 - 43	Macro 10	step
				44 - 47	Macro 11	step
				48 - 51	Macro 12	step
				52 - 55	Macro 13	step
				56 - 59	Macro 14	step
				60 - 63	Macro 15	step
				64 - 67	Macro 16	step
				68 - 71	Macro 17	step
				72 - 75	Macro 18	step
				76 - 79	Macro 19	step
				80 - 83	Macro 20	step
				84 - 87	Macro 21	step
				88 - 91	Macro 22	step
				92 - 95	Macro 23	step
				96 - 99	Macro 24	step
				100 - 103	Macro 25	step
				104 - 107	Macro 26	step
				108 - 111	Macro 27	step
				112 - 115	Macro 28	step
				116 - 119	Macro 29	step
				120 - 123	Macro 30	step
				124 - 127	Macro 31	step
				128 - 131	Macro 32	step
				132 - 135	Macro 33	step
				136 - 139	Macro 34	step
				140 - 143	Macro 35	step
				144 - 147	Macro 36	step
				148 - 151	Macro 37	step
				152 - 155	Macro 38	step
				156 - 159	Macro 39	step
				160 - 163	Macro 40	step
				164 - 167	Macro 41	step
				168 - 171	Macro 42	step
				172 - 175	Macro 43	step
				176 - 179	Macro 44	step
				180 - 183	Macro 45	step
				184 - 187	Macro 46	step
				188 - 191	Macro 47	step
				192 - 195	Macro 48	step
				196 - 199	Macro 49	step
				200 - 203	Macro 50	step
				204 - 207	Macro 51	step
				208 - 211	Macro 52	step
				212 - 215	Macro 53	step
				216 - 219	Macro 54	step
				220 - 223	Macro 55	step
				224 - 227	Macro 56	step
				228 - 231	Macro 57	step
				232 - 235	Macro 58	step
				236 - 239	Macro 59	step

Mode/Channel				Value	Function	Type of control
1	2	3	4			
	15		17	240 - 243 244 - 247 248 - 251 252 - 255	Macro 60 Macro 61 Macro 62 Macro 63	step step step step
13	16	15	18	0 - 255	Effect speed From max. speed to min.speed *****	proportional
	17		19	0 - 31 32 - 63 64 - 95 96 - 255	Effect speed assigning Dimmer + CMY filters + correction filter Dimmer CMY filters + correction filter No function	step step step step
		16	20	0 - 255	Barn door 1-Upper From open to close	proportional
		17	21	0 - 255	Barn door 2-Lower From open to close	proportional
		18	22	0 - 255	Barn door 3-Left From open to close	proportional
		19	23	0 - 255	Barn door 4-Right From open to close	proportional
		20	24	0 - 255	Barn doors rotation From right to left	proportional
14	18	21	25	0-85 86 87-171 172-213 214-255	Fresnels opening <i>LightMax mode provides a high intensity spot (85DMX)</i> Internal Fresnels opening(from closed to open-LightMax mode) Left Fresnel closed,right Fresnel open Left Fresnel opening,right Fresnel closing Both Fresnels ramping (parallel) from slow to fast Both Fresnels ramping (alternately) from fast to slow	proportional step proportional proportional proportional
15	19	22	26	0-255	Zoom Zoom from min. to max.	proportional
	20		27	0-255	Zoom fine Fine zoom positioning.	proportional
16	21	23	28	0 - 31 32 - 63 64 - 95 96 - 127 128 - 143 144 - 159 160 - 191 192 - 223 224 - 255	Shutter, strobe Shutter closed, Lamp power reduced after 10 s to 700W. Shutter open,Full lamp power. Strobe-effect from slow to fast (max.15 ashes/s) Shutter open,Lamp power reduced to 700W. Opening pulse in sequences from slow to fast Closing pulse in sequences from fast to slow Shutter open,Electronic strobing "ZAP" from slow to fast (from 7 to 33 ashes/s) Random strobe-effect from slow to fast Shutter open,Full lamp power	step step proportional step proportional proportional proportional proportional step
17	22	24	29	0-255	Dimmer intensity Dimmer intensity from 0% to 100% (In range 0-9 DMX, lamp power reduced to 700 W)	proportional
	23		30	0-255	Dimmer intensity fine Fine dimming	proportional

***** Range 0-255 DMX at min. speed (0 DMX): Cyan (magenta/yellow,cor. filter) = 1min 10 s