



Thunder One

Thunder Lite

Thunder Mini

DMX Protocol Specification V2.1

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Revision history:

- V2.1:
 - Added two new modes: 8 bit ultimate mode (Mode 22) and 16 bit ultimate mode (Mode 23).
 - Mode 20 and Mode 21: changed the DMX values of DMX channel #2

Mode 1: CCT & RGBW, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Color temperature CCT 2.800 K → 10.000 K
3	0 – 10	0 – 4	Green–Magenta Point neutral / no effect
	11 – 20	5 – 8	full minus green
	21 – 119	9 – 47	–99% → –1%
	120 – 145	48 – 57	neutral / no effect
	146 – 244	58 – 96	1% → 99%
	245 – 255	97 – 100	full plus green
4	0 – 255	0 – 100	Cross Fade to Color White → RGBW color
5	0 – 255	0 – 100	Intensity red 0% → 100%
6	0 – 255	0 – 100	Intensity green 0% → 100%
7	0 – 255	0 – 100	Intensity blue 0% → 100%
8	0 – 255	0 – 100	Intensity white 0% → 100%
9	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 – 100	Fan off.
10	0 – 255	0 – 100	Preset Preset Channel PAGE 5
11	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
12			Reserved for future use

Preset Channel

DMX Channel	Value	Percent	Function
Depending on DMX mode	0 – 11	0 – 4	No Effect
	12 – 23	5 – 9	Preset 01
	24 – 35	10 – 14	Preset 02
	36 – 47	15 – 18	
	48 – 59	19 – 23	Preset 03
	60 – 71	24 – 28	Preset 04
	72 – 83	29 – 33	
	84 – 95	34 – 37	Preset 05
	96 – 107	38 – 42	Preset 06
	108 – 119	43 – 47	
	120 – 131	48 – 51	Preset 07
	132 – 143	52 – 56	
	144 – 155	57 – 61	Preset 08
	156 – 167	62 – 65	Preset 09
	168 – 179	66 – 70	
	180 – 191	71 – 75	Preset 10
	192 – 203	76 – 80	Preset 11
	204 – 215	81 – 84	
	216 – 227	85 – 89	Preset 12
	228 – 239	90 – 94	Preset 13
240 – 255	95 – 100		
			Preset 14
			Preset 15
			Preset 16
			Preset 17
			Preset 18
			Preset 19
			Preset 20

Mode 2: CCT, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Color temperature CCT 2.800 K → 10.000 K
3	0 – 10	0 – 4	Green–Magenta Point neutral / no effect full minus green
	11 – 20	5 – 8	–99% → –1%
	21 – 119	9 – 47	neutral / no effect
	120 – 145	48 – 57	1% → 99%
	146 – 244	58 – 96	full plus green
4	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 – 100	Fan off.
5	0 – 255	0 – 100	Preset Preset Channel PAGE 6
6	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
7			Reserved for future use

Mode 3: CCT & HSI, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Color temperature CCT 2.800 K → 10.000 K
3	0 – 10	0 – 4	Green–Magenta Point neutral / no effect full minus green
	11 – 20	5 – 8	–99% → –1%
	21 – 119	9 – 47	neutral / no effect
	120 – 145	48 – 57	1% → 99%
	146 – 244	58 – 96	full plus green
4	0 – 255	0 – 100	Cross Fade to Color White → RGBW color
5	0 – 255	0 – 100	Hue 0° → 360°
6	0 – 255	0 – 100	Saturation 0 → full saturated
7	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 – 100	Fan off.
8	0 – 255	0 – 100	Preset Preset Channel PAGE 6
9	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
10			Reserved for future use

Mode 4: RGBW, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Intensity red 0% → 100%
3	0 – 255	0 – 100	Intensity green 0% → 100%
4	0 – 255	0 – 100	Intensity blue 0% → 100%
5	0 – 255	0 – 100	Intensity white 0% → 100%
6	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
7	0 – 255	0 – 100	Preset Preset Channel PAGE 6
8	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
9			Reserved for future use

Mode 5: HSI, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Hue 0° → 360°
3	0 – 255	0 – 100	Saturation 0 → full saturated
4	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
5	0 – 255	0 – 100	Preset Preset Channel PAGE 6
6	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
7			Reserved for future use

Mode 6: CCT & RGBW, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Dimmer closed → open
3	4	0 – 65.535	0 – 100	Color temperature CCT 2.800 K → 10.000 K
5	6	0 – 4.587	0 – 7	Green–Magenta Point neutral / no effect
		4.588 – 9.830	8 – 15	full minus green
		9.831 – 30.145	16 – 46	–99% → –1%
		30.146 – 39.976	47 – 61	neutral / no effect
		39.977 – 60.292	62 – 92	1% → 99%
		60.293 – 65.535	93 – 100	full plus green
7	8	0 – 65.535	0 – 100	Xfade to color White → RGBW color
9	10	0 – 65.535	0 – 100	Intensity red 0% → 100%
11	12	0 – 65.535	0 – 100	Intensity green 0% → 100%
13	14	0 – 65.535	0 – 100	Intensity blue 0% → 100%
15	16	0 – 65.535	0 – 100	Intensity white 0% → 100%
17		0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
		21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
		99 – 159	40 – 50	Normal speed.
		160 – 219	51 – 86	Full speed.
		220 – 255	86 – 100	Fan off.
18		0 – 255	0 – 100	Preset Preset Channel PAGE 6
19		0 – 19	0 – 7	Light Strobe No effect
		20 – 255	8 – 100	1 flash / s → 25 flashes / s
20				Reserved for future use

Mode 7: CCT, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Dimmer closed → open
3	4	0 – 65.535	0 – 100	Color temperature CCT 2.800 K → 10.000 K
5	6	0 – 4.587	0 – 7	Green–Magenta Point neutral / no effect
		4.588 – 9.830	8 – 15	full minus green
		9.831 – 30.145	16 – 46	–99% → –1%
		30.146 – 39.976	47 – 61	neutral / no effect
		39.977 – 60.292	62 – 92	1% → 99%
60.293 – 65.535	93 – 100	full plus green		
7		0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature	
	99 – 159	40 – 50	Normal speed.	
	160 – 219	51 – 86	Full speed.	
	220 – 255	86 - 100	Fan off.	
8		0 – 255	0 – 100	Preset Preset Channel PAGE 6
9		0 – 19	0 – 7	Light Strobe No effect
		20 – 255	8 – 100	1 flash / s → 25 flashes / s
10				Reserved for future use

Mode 8: CCT & HSI, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Dimmer closed → open
3	4	0 – 65.535	0 – 100	Color temperature CCT 2.800 K → 10.000 K
5	6	0 – 4.587	0 – 7	Green–Magenta Point neutral / no effect
		4.588 – 9.830	8 – 15	full minus green
		9.831 – 30.145	16 – 46	–99% → –1%
		30.146 – 39.976	47 – 61	neutral / no effect
		39.977 – 60.292	62 – 92	1% → 99%
60.293 – 65.535	93 – 100	full plus green		
7	8	0 – 65.535	0 – 100	Xfade to color White → RGBW color
9	10	0 – 65.535	0 – 100	Hue 0° → 360°
11	12	0 – 65.535	0 – 100	Saturation White → full saturated
13		0 – 20	0 – 7	Fan control
		21 – 99	8 – 39	Use Fan Mode Settings of Fixture Menu
		99 – 159	40 – 50	Auto mode. Fan speed varies with temperature
		160 – 219	51 – 86	Normal speed.
		220 – 255	86 - 100	
14		0 – 255	0 – 100	Preset Preset Channel PAGE 6
15		0 – 19	0 – 7	Light Strobe No effect
		20 – 255	8 – 100	1 flash / s → 25 flashes / s
16				Reserved for future use

Mode 9: RGBW, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Dimmer closed → open
3	4	0 – 65.535	0 – 100	Intensity red 0% → 100%
5	6	0 – 65.535	0 – 100	Intensity green 0% → 100%
7	8	0 – 65.535	0 – 100	Intensity blue 0% → 100%
9	10	0 – 65.535	0 – 100	Intensity white 0% → 100%
11		0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
12		0 – 255	0 – 100	Preset Preset Channel PAGE 6
13		0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
14				Reserved for future use

Mode 10: HSI, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Dimmer closed → open
3	4	0 – 65.535	0 – 100	Hue 0° → 360°
5	6	0 – 65.535	0 – 100	Saturation White → full saturated
7		0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
		21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
		99 – 159	40 – 50	Normal speed.
		160 – 219	51 – 86	Full speed.
		220 – 255	86 – 100	Fan off.
8		0 – 255	0 – 100	Preset Preset Channel PAGE 6
9		0 – 19	0 – 7	Light Strobe No effect
		20 – 255	8 – 100	1 flash / s → 25 flashes / s
10				Reserved for future use

Mode 11: CCT & RGBW, Coarse/fine per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Dimmer fine
3	0 – 255	0 – 100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0 – 255	0 – 100	Color temperature CCT fine
5	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4 5 – 8 9 – 47 48 – 57 58 – 96 97 – 100	Green–Magenta Point neutral / no effect full minus green –99% → –1% neutral / no effect 1%→99% full plus green
6	0 – 255	0 – 100	Xfade to color White → RGBW color
7	0 – 255	0 – 100	Intensity red coarse 0% → 100%
8	0 – 255	0 – 100	Red fine
9	0 – 255	0 – 100	Intensity green coarse 0% → 100%
10	0 – 255	0 – 100	Green fine
11	0 – 255	0 – 100	Intensity blue coarse 0% → 100%
12	0 – 255	0 – 100	Blue fine
13	0 – 255	0 – 100	Intensity white coarse 0% → 100%
14	0 – 255	0 – 100	White fine
15	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 - 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
16	0 – 255	0 – 100	Preset Preset Channel PAGE 6
17	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
18			Reserved for future use

Mode 12: CCT, Coarse / fine channel per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Dimmer fine
3	0 – 255	0 – 100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0 – 255	0 – 100	Color temperature CCT fine
5	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4 5 – 8 9 – 47 48 – 57 58 – 96 97 – 100	Green–Magenta Point neutral / no effect full minus green –99% → –1% neutral / no effect 1%→99% full plus green
6	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
7	0 – 255	0 – 100	Preset Preset Channel PAGE 6
8	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
9			Reserved for future use

Mode 13: CCT & HSI, Coarse / fine channel per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Dimmer fine
3	0 – 255	0 – 100	Color temperature CCT coarse 2.800 K → 10.000 K
4	0 – 255	0 – 100	Color temperature CCT fine
5	0 – 10	0 – 4	Green–Magenta Point neutral / no effect
	11 – 20	5 – 8	full minus green
	21 – 119	9 – 47	–99% → –1%
	120 – 145	48 – 57	neutral / no effect
	146 – 244	58 – 96	1% → 99%
	245 – 255	97 – 100	full plus green
6	0 – 255	0 – 100	Xfade to color White → RGBW color
7	0 – 255	0 – 100	Hue coarse 0° → 360°
8	0 – 255	0 – 100	Hue fine
9	0 – 255	0 – 100	Saturation coarse 0 → full saturated
10	0 – 255	0 – 100	Saturation fine
11	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 – 100	Fan off.
12	0 – 255	0 – 100	Preset Preset Channel PAGE 6
13	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
14			Reserved for future use

Mode 14: RGBW, Coarse / fine channel per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Dimmer fine
3	0 – 255	0 – 100	Intensity red coarse 0% → 100%
4	0 – 255	0 – 100	Red fine
5	0 – 255	0 – 100	Intensity green coarse 0% → 100%
6	0 – 255	0 – 100	Green fine
7	0 – 255	0 – 100	Intensity blue coarse 0% → 100%
8	0 – 255	0 – 100	Blue fine
9	0 – 255	0 – 100	Intensity white coarse 0% → 100%
10	0 – 255	0 – 100	White fine
11	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
12	0 – 255	0 – 100	Preset Preset Channel PAGE 6
13	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
14			Reserved for future use

Mode 15: HSI , Coarse / fine channel per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Dimmer closed → open
2	0 – 255	0 – 100	Dimmer fine
3	0 – 255	0 – 100	Hue coarse 0° → 360°
4	0 – 255	0 – 100	Hue fine
5	0 – 255	0 – 100	Saturation coarse 0 → full saturated
6	0 – 255	0 – 100	Saturation fine
7	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 – 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
8	0 – 255	0 – 100	Preset Preset Channel PAGE 6
9	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
10			Reserved for future use

Mode 16: GEL, 8 bit resolution per function, base channels

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Master Intensity 0 % (closed) → 100% (open)
2	0 – 127 128 – 255	0 – 50 51 – 100	Gel 1, CCT Selection 3.200 K 5.600 K
3	0 – 255	0 – 100	Reserved for future use
4	0 – 127 128 – 255	0 – 50 51 – 100	Gel 1, Brand <i>Choose category on ch. 5, gel on ch. 6</i> Rosco LEE filters
5	0 – 50 51 – 101 102 – 152 153 – 203 204 – 255	0 – 20 21 – 39 40 – 60 61 – 80 81 – 100	Gel 1, Category (Brand Dependent) <i>Choose Gel manufacturer on channel 4</i> Category 1 Rosco: Color correction LEE: Color correction Category 2 Rosco: CalColor LEE: Color Filters Category 3 Rosco: Storaro Selection LEE: 600 Series Category 4 Rosco: Cinelux LEE: Cosmetic Filters Category 5 LEE: 700 Series
6	0 – 255	0 – 100	Gel 1 Please see tables below
7	0 – 255	0 – 100	Cross Fade to gel Gel 1 → Gel 2
8	0 – 127 128 – 255	0 – 50 51 – 100	Gel 2, CCT Selection 3.200 K 5.600 K
9	0 – 255	0 – 100	Reserved for future use

10	0 – 127 128 – 255	0 – 50 51 – 100	Gel 2, Brand <i>Choose category on ch. 11 gel on ch. 12</i> Rosco LEE filters
11	0 – 50 51 – 101 102 – 152 153 – 203 204 – 255	0 – 20 21 – 39 40 – 60 61 – 80 81 – 100	Gel 2, Category (Brand Dependent) <i>Choose Gel manufacturer on channel 10</i> Category 1 Rosco: Color correction LEE: Color correction Category 2 Rosco: CalColor LEE: Color Filters Category 3 Rosco: Storaro Selection LEE: 600 Series Category 4 Rosco: Cinelux LEE: Cosmetic Filters Category 5 LEE: 700 Series
12	0 – 255	0 – 100	Gel 2 Please see tables below
13	0 – 255	0 – 100	Reserved for future use
14	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 - 100	Fan control Use Fan Mode Settings of Fixture Menu Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
15	0 – 255	0 – 100	Preset Preset Channel PAGE 6
16	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
17			Reserved for future use

Mode 17: GEL, 16 bit resolution per function, base channels

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Master Intensity 0 % (closed) → 100% (open)
3		0 – 127 128 – 255	0 – 50 51 – 100	Gel 1, CCT Selection 3.200 K 5.600 K
4		0 – 255	0 – 100	Reserved for future use
5		0 – 127 128 – 255	0 – 50 51 – 100	Gel 1, Brand <i>Choose category on ch. 5, gel on ch. 6</i> Rosco LEE filters
6		0 – 50 51 – 101 102 – 152 153 – 203 204 – 255	0 – 20 21 – 39 40 – 60 61 – 80 81 – 100	Gel 1, Category (Brand Dependent) <i>Choose Gel manufacturer on channel 4</i> Category 1 Rosco: Color correction LEE: Color correction Category 2 Rosco: CalColor LEE: Color Filters Category 3 Rosco: Storaro Selection LEE: 600 Series Category 4 Rosco: Cinelux LEE: Cosmetic Filters Category 5 LEE: 700 Series
7		0 – 255	0 – 100	Gel 1 Please see tables below
8	9	0 – 65.535	0 – 100	Cross Fade to gel Gel 1 → Gel 2
10		0 – 127 128 – 255	0 – 50 51 – 100	Gel 2, CCT Selection 3.200 K 5.600 K
11		0 – 255	0 – 100	Reserved for future use
12		0 – 127 128 – 255	0 – 50 51 – 100	Gel 2, Brand <i>Choose category on ch. 11 gel on ch. 12</i> Rosco LEE filters

13	0 – 50	0 – 20	Gel 2, Category (Brand Dependent) <i>Choose Gel manufacturer on channel 10</i> Category 1 Rosco: Color correction LEE: Color correction
	51 – 101	21 – 39	Category 2 Rosco: CalColor LEE:Color Filters
	102 – 152	40 – 60	Category 3 Rosco: Storaro Selection LEE: 600 Series
	153 – 203	61 – 80	Category 4 Rosco: Cinelux LEE: Cosmetic Filters
	204 – 255	81 – 100	Category 5 LEE: 700 Series
14	0 – 255	0 – 100	Gel 2 Please see tables below
15	0 – 255	0 – 100	Reserved for future use
16	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 - 100	Fan off.
17	0 – 255	0 – 100	Preset Preset Channel PAGE 6
18	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
19			Reserved for future use

Category 1, Rosco, Color correction

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Full CTB	3202
	2 – 3	3/4 CTB	3203
	4 – 5	1/2 CTB	3204
	6 – 7	1/3 CTB	3206
	8 – 9	1/4 CTB	3208
	10 – 11	1/8 CTB	3216
	12 – 13	Double	3220
	14 – 15	CTB Full	3407
	16 – 17	CTO 3/4 CTO	3411
	18 – 19	1/2 CTO	3408
	20 – 21	1/4 CTO	3409
	22 – 23	1/8 CTO	3410
	24 – 25	Double CTO	3420
	26 – 27	Full CTS	3441
	28 – 29	1/2 CTS	3442
	30 – 31	1/4 CTS	3443
8 bit:	32 – 33	1/8 CTS	3444
Gel 1: 6	34 – 35	Full Plusgreen	3304
Gel 2: 12	36 – 37	1/2 Plusgreen	3315
	38 – 39	1/4 Plusgreen	3316
16 bit:	40 – 41	1/8 Plusgreen	3317
Gel 1: 6	42 – 43	FullMinusgreen	3308
Gel 2: 14	44 – 45	3/4 Minusgreen	3309
	46 – 47	1/2 Minusgreen	3313
	48 – 49	1/4 Minusgreen	3314
	50 – 51	1/8 Minusgreen	3318
	52 – 53	Fluorofilter	3310
	54 – 55	Industrial Vapor	3150
	56 – 57	Urban Vapor	3152
	58 – 59	Tough Y-1	3107
	60 – 61	Tough MT 54	3134
	62 – 63	Tough MTY	3106
	64 – 65	Tough MT2	3102
	66 – 255		Reserved for future use

Category 2, Rosco, CalColor

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	15 Blue	4215
	2 – 3	30 Blue	4230
	4 – 5	60 Blue	4260
	6 – 7	90 Blue	4290
	8 – 9	7 Cyan	4307
	10 – 11	15 Cyan	4315
	12 – 13	30 Cyan	4330
	14 – 15	60 Cyan	4360
	16 – 17	90 Cyan	4390
	18 – 19	15 Green	4415
	20 – 21	30 Green	4430
	22 – 23	60 Green	4460
	24 – 25	90 Green	4490
	26 – 27	15 Yellow	4515
	28 – 29	30 Yellow	4530
	30 – 31	60 Yellow	4560
	32 – 33	90 Yellow	4590
8 bit:	34 – 35	15 Red	4615
Gel 1: 6	36 – 37	30 Red	4630
Gel 2: 12	38 – 39	60 Red	4660
	40 – 41	90 Red	4690
16 bit:	42 – 43	15 Magenta	4715
Gel 1: 6	44 – 45	30 Magenta	4730
Gel 2: 14	46 – 47	60 Magenta	4760
	48 – 49	90 Magenta	4790
	50 – 51	15 Pink	4815
	52 – 53	30 Pink	4830
	54 – 55	60 Pink	4860
	56 – 57	90 Pink	4890
	58 – 59	15 Lavender	4915
	60 – 61	30 Lavender	4930
	62 – 63	60 Lavender	4960
	64 – 65	90 Lavender	4990
	66 – 255		Reserved for future

Category 3, Rosco, Storaro Selection

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	VS Red	2001
	2 – 3	VS Orange	2202
	4 – 5	VS Yellow	2003
8 bit:	6 – 7	VS Green	2004
Gel 1: 6	8 – 9	VS Cyan	2005
Gel 2: 12	10 – 11	VS Azure	2006
	12 – 13	VS Blue	2007
16 bit:	14 – 15	VS Indigo	2008
Gel 1: 6	16 – 17	VS Violet	2009
Gel 2: 14	18 – 19	VS Magenta	2010
	20 – 255		Reserved

Category 4, Rosco, Cinelux

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Bastard Amber	2
	2 – 3	Pale Bastard Amber	302
	4 – 5	No Color Straw	6
	6 – 7	Pale Gold	8
	8 – 9	Daffodil	310
	10 – 11	Straw	12
	12 – 13	Light Amber	16
	14 – 15	Gallo Gold	316
	16 – 17	Light Flame	17
	18 – 19	Flame	18
	20 – 21	Mayan Sun	318
	22 – 23	Golden Amber	21
8 bit:	24 – 25	Soft Golden Amber	321
Gel 1: 6	26 – 27	Orange	23
Gel 2: 12	28 – 29	Henna Sky	325
	30 – 31	Light Red	26
16 bit:	32 – 33	No Color Pink	33
Gel 1: 6	34 – 35	Blush Pink	333
Gel 2: 14	36 – 37	Flesh Pink	34
	38 – 39	Pale Rose Pink	37
	40 – 41	Salmon	41
	42 – 43	Deep Salmon	42
	44 – 45	Middle Rose	44
	46 – 47	Light Rose Purple	47
	48 – 49	Surprise Pink	51
	50 – 51	No Color Blue	60

Category 4, Rosco, Cinelux, continued

DMX Channel	Value	Gel Name	Gel Number
	52 – 53	Clearwater	360
	54 – 55	Booster Blue	62
	56 – 57	Tipton Blue	362
	58 – 59	Blue Bell	364
	60 – 61	Daylight Blue	65
	62 – 63	Tharon Delft Blue	365
	64 – 65	Cerulean Blue	375
	66 – 67	Bermuda Blue	376
8 bit:	68 – 69	Green Blue	77
Gel 1: 6	70 – 71	Alice Blue	378
Gel 2: 12	72 – 73	Primary Blue	80
	74 – 75	Baldassari Blue	381
16 bit:	76 – 77	Medium Blue	83
Gel 1: 6	78 – 79	Pale Yellow Green	87
Gel 2: 14	80 – 81	Light Green	88
cont.	82 – 83	Moss Green	89
	84 – 85	Primary Green	91
	86 – 87	Turquoise	92
	88 – 89	Blue Green	93
	90 – 91	Chocolate	99
	92 – 255		Reserved

Category 1, LEE, Color correction

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Double CTB	200
	2 – 3	Full CTB	201
	4 – 5	3/4 CTB	281
	6 – 7	1/2 CTB	202
	8 – 9	1/4 CTB	203
	10 – 11	1/8 CTB	218
	12 – 13	Double	287
	14 – 15	CTO Full	204
	16 – 17	CTO 3/4 CTO	285
	18 – 19	1/2 CTO	205
	20 – 21	1/4 CTO	206
	22 – 23	1/8 CTO	223
	24 – 25	1 1/2 CTB	283
	26 – 27	1 1/2 CTO	286
	28 – 29	Full CTS	441
	30 – 31	1/2 CTS	442
	32 – 33	1/4 CTS	443
	34 – 35	1/8 CTS	444
	36 – 37	Full CTO + .3 ND	207
	38 – 39	Full CTO + .6 ND	208
	40 – 41	L.C.T. Yellow (Y1)	212
	42 – 43	White Flame Green	213
8 bit:	44 – 45	LEE Fluorescent Green	219
Gel 1: 6	46 – 47	Super Correction L.C.T. Yellow	230
Gel 2: 12	48 – 49	Super Correction W.F. Green	232
	50 – 51	H.M.I. (to Tungsten)	236
16 bit:	52 – 53	C.I.D. (to Tungsten)	237
Gel 1: 6	54 – 55	C.S.I. (to Tungsten)	238
Gel 2: 14	56 – 57	LEE Fluorescent 5700 Kelvin	241
	58 – 59	LEE Fluorescent 4300 Kelvin	242
	60 – 61	LEE Fluorescent 3600 Kelvin	243
	62 – 63	LEE Plus Green	244
	64 – 65	1/2 Plus Green	245
	66 – 67	1/4 Plus Green	246
	68 – 69	1/8 Plus Green	278
	70 – 71	LEE Minus Green	247
	72 – 73	1/2 Minus Green	248
	74 – 75	1/4 Minus Green	249
	76 – 77	1/8 Minus Green	279
	78 – 255		Reserved

Category 2, LEE, Color Filters

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Rose Pink	002
	2 – 3	Lavender Tint	003
	4 – 5	Medium Bastard Amber	004
	6 – 7	Pale Yellow	007
	8 – 9	Dark Salmon	008
	10 – 11	Pale Amber Gold	009
	12 – 13	Medium Yellow	010
	14 – 15	Straw Tint	013
	16 – 17	Surprise Peach	017
	18 – 19	Fire	019
	20 – 21	Medium Amber	020
	22 – 23	Gold Amber	021
	24 – 25	Dark Amber	022
	26 – 27	Scarlet	024
	28 – 29	Sunset Red	025
	30 – 31	Bright Red	026
	32 – 33	Light Pink	035
	34 – 35	Medium Pink	036
	36 – 37	Dark Magenta	046
	38 – 39	Rose Purple	048
	40 – 41	Light Lavender	052
	42 – 43	Paler Lavender	053
8 bit:	44 – 45	Lavender	058
Gel 1: 6	46 – 47	Mist Blue	061
Gel 2: 12	48 – 49	Pale Blue	063
	50 – 51	Sky Blue	068
16 bit:	52 – 53	Evening Blue	075
Gel 1: 6	54 – 55	Just Blue	079
Gel 2: 14	56 – 57	Deeper Blue	085
	58 – 59	Lime Green	088
	60 – 61	Moss Green	089
	62 – 63	Dark Yellow Green	090
	64 – 65	Spring Yellow	100
	66 – 67	Yellow	101
	68 – 69	Light Amber	102
	70 – 71	Straw	103
	72 – 73	Deep Amber	104
	74 – 75	Primary Red	106
	76 – 77	Light Rose	107
	78 – 79	English Rose	108
	80 – 81	Light Salmon	109
	82 – 83	Middle Rose	110

Category 2, LEE, Color Filters, continued

DMX Channel	Value	Gel Name	Gel Number
	84 – 85	Dark Pink	111
	86 – 87	Magenta	113
	88 – 89	Peacock Blue	115
	90 – 91	Steel Blue	117
	92 – 93	Light Blue	118
	94 – 95	Deep Blue	120
	96 – 97	LEE Green	121
	98 – 99	Fern Green	122
	100 – 101	Dark Green	124
	102 – 103	Smokey Pink	127
	104 – 105	Bright Pink	128
	106 – 107	Marine Blue	131
	108 – 109	Golden Amber	134
	110 – 111	Deep Golden Amber	135
	112 – 113	Pale Lavender	136
	114 – 115	Special Lavender	137
	116 – 117	Pale Green	138
	118 – 119	Summer Blue	140
	120 – 121	Pale Violet	142
	122 – 123	Pale Navy Blue	143
	124 – 125	No Color Blue	144
	126 – 127	Apricot	147
	128 – 129	Bright Rose	148
	130 – 131	Gold Tint	151
8 bit:	132 – 133	Pale Gold	152
Gel 1: 6	134 – 135	Pale Salmon	153
Gel 2: 12	136 – 137	Pale Rose	154
	138 – 139	Chocolate	156
16 bit:	140 – 141	Pink	157
Gel 1: 6	142 – 143	No Color Straw	159
Gel 2: 14	144 – 145	Slate Blue	161
cont.	146 – 147	Bastard Amber	162
	148 – 149	Flame Red	164
	150 – 151	Daylight Blue	165
	152 – 153	Lilac Tint	169
	154 – 155	Deep Lavender	170
	156 – 157	Dark Steel Blue	174
	158 – 159	Loving Amber	176
	160 – 161	Dark Lavender	180
	162 – 163	Light Red	182

Category 2, LEE, Color Filters, continued

DMX Channel	Value	Gel Name	Gel Number
	164 – 165	Flesh Pink	192
	166 – 167	Surprise Pink	194
	168 – 169	Zenith Blue	195
	170 – 171	True Blue	196
	172 – 173	Alice Blue	197
	174 – 175	Palace Blue	198
	176 – 177	Regal Blue	199
	178 – 255		Reserved

Category 3, LEE, 600 Series

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Arctic White	600
	2 – 3	Silver	601
	4 – 5	Platinum	602
8 bit:	6 – 7	Moonlight White	603
Gel 1: 6	8 – 9	Full CT 85	604
Gel 2: 12	10 – 11	Industry Sodium	650
	12 – 13	HI Sodium	651
16 bit:	14 – 15	Urban Sodium	652
Gel 1: 6	16 – 17	LO Sodium	653
Gel 2: 14	18 – 255		Reserved

Category 4, LEE, Cosmetic Filters

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Cosmetic Peach	184
	2 – 3	Cosmetic Silver Rose	186
	4 – 5	Cosmetic Rouge	187
	6 – 7	Cosmetic Highlight	188
	8 – 9	Cosmetic Silver Moss	189
	10 – 11	Cosmetic Aqua Blue	191
	12 – 13	Lily Frost	705
	14 – 15	Shanklin Frost	717
8 bit:	16 – 17	Half Shanklin Frost	718
Gel 1: 6	18 – 19	Durham Daylight Frost	720
Gel 2: 12	20 – 21	Hampshire Rose	749
	22 – 23	Durham Frost	750
16 bit:	24 – 25	Soft Amber Key 1	774
Gel 1: 6	26 – 27	Soft Amber Key 2	775
Gel 2: 14	28 – 29	Moroccan Frost	791
	30 – 31	Blue Diffusion	217
	32 – 33	Blue Frost	221
	34 – 35	Daylight Blue frost	224
	36 – 255		Reserved

Category 5, LEE, 700 Series

DMX Channel	Value	Gel Name	Gel Number
	0 – 1	Perfect Lavender	700
	2 – 3	Provence	701
	4 – 5	Special Pale Lavender	702
	6 – 7	Cold Lavender	703
	8 – 9	Lily	704
	10 – 11	King Fals Lavender	706
	12 – 13	Cool Lavender	708
	14 – 15	Electric Lilac	709
	16 – 17	Spir Special Blue	710
	18 – 19	Cold Blue	711
	20 – 21	Bedford Blue	712
	22 – 23	Elysian Blue	714
	24 – 25	Cabana Blue	715
	26 – 27	Mikkel Blue	716
	28 – 29	Colour Wash Blue	719
	30 – 31	Berry Blue	721
	32 – 33	Virgin Blue	723
	34 – 35	Ocean Blue	724
	36 – 37	Old Steel Blue	725
	38 – 39	Steel Green	728
	40 – 41	Liberty Green	730
8 bit:	42 – 43	Dirty Ice	731
Gel 1: 6	44 – 45	Damp Squib	733
Gel 2: 12	46 – 47	JAS Green	738
	48 – 49	Bram Brown	742
16 bit:	50 – 51	Dirty White	744
Gel 1: 6	52 – 53	Brown	746
Gel 2: 14	54 – 55	Easy White	747
	56 – 57	Seedy Pink	748
	58 – 59	Wheat	763
	60 – 61	Sun Colour Straw	764
	62 – 63	LEE Yellow	765
	64 – 65	Cardbox Amber	773
	66 – 67	Nectarine	776
	68 – 69	Millenium Gold	778
	70 – 71	Bastard Pink	779
	72 – 73	Terry Red	781
	74 – 75	Blood Red	789
	76 – 77	Moroccan Pink	790
	78 – 79	Pretty n' Pink	794
	80 – 81	Magical Magenta	795
	82 – 255		Reserved

Mode 18: Source Matching, 8 bit resolution per function

DMX Channel	Value	Percent	Function
1	0 – 255	0 – 100	Master Intensity 0 % (closed) → 100% (open)
2	0 – 50	0 – 20	Category 1 Incandescent
	51 – 101	21 – 39	Fluorescent
	102 – 152	40 – 59	Discharge
	153 – 203	60 – 79	Other
	204 – 255	80 – 100	Reserved for future use
3	0 – 255	0 – 100	Source 1 Please see table below
4	0 – 255	0 – 100	Cross Fade Cat 1, Source 1 → Cat 2, Source 2
5	0 – 50	0 – 20	Category 2 Incandescent
	51 – 101	21 – 39	Fluorescent
	102 – 152	40 – 59	Discharge
	153 – 203	60 – 79	Other
	204 – 255	80 – 100	Reserved for future use
6	0 – 255	0 – 100	Source 2 Please see table below
7	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
	21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
	99 – 159	40 – 50	Normal speed.
	160 – 219	51 – 86	Full speed.
	220 – 255	86 - 100	Fan off.
8	0 – 255	0 – 100	Preset Preset Channel PAGE 6
9	0 – 19	0 – 7	Light Strobe No effect
	20 – 255	8 – 100	1 flash / s → 25 flashes / s
10			Reserved for future use

Mode 19: Source Matching, 16 bit resolution per function

DMX Channel		Value	Percent	Function
HI	LO			
1	2	0 – 65.535	0 – 100	Master Intensity 0 % (closed) → 100% (open)
3		0 – 50	0 – 20	Category 1 Incandescent
		51 – 101	21 – 39	Fluorescent
		102 – 152	40 – 59	Discharge
		153 – 203	60 – 79	Other
		204 – 255	80 – 100	Reserved for future use
4		0 – 255	0 – 100	Source 1 Please see table below
5	6	0 – 65.535	0 – 100	Cross Fade Cat 1, Source 1 → Cat 2, Source 2
7		0 – 50	0 – 20	Category 2 Incandescent
		51 – 101	21 – 39	Fluorescent
		102 – 152	40 – 59	Discharge
		153 – 203	60 – 79	Other
		204 – 255	80 – 100	Reserved for future use
8		0 – 255	0 – 100	Source 2 Please see table below
9		0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
		21 – 99	8 – 39	Auto mode. Fan speed varies with temperature
		99 – 159	40 – 50	Normal speed.
		160 – 219	51 – 86	Full speed.
		220 – 255	86 - 100	Fan off.
10		0 – 255	0 – 100	Preset Preset Channel PAGE 6
11		0 – 19	0 – 7	No effect
		20 – 255	8 – 100	1 flash / s → 25 flashes / s
12				Reserved

Source Matching, Sources

Category	Value	Name
Incandescent	0 – 2	Tungsten Bulb
	3 – 5	Incandescent
	6 – 8	Halogen
	9 – 11	Antique Bulb
	12 – 14	Warm Antique Bulb
	15 – 17	Christmas Lights
	18 – 20	Night Light
	21 – 23	Infrared Heat Lamp
	24 – 26	Grow light
	27 – 255	Reserved for future use
Flourescent	0 – 2	CFL Soft White
	3 – 5	CFL Bright White
	6 – 8	CFL Cool White
	9 – 11	CFL Daylight
	12 – 14	Cool White 1
	15 – 17	Cool White 2
	18 – 20	Cool White 3
	21 – 23	Warm White
	24 – 26	CFL Blacklight
	27 – 255	Reserved for future use
Discharge	0 – 2	HMI
	3 – 5	High Pressure Sodium
	6 – 8	Low Pressure Sodium
	9 – 11	Mercury Vapor
	12 – 14	Metal Halide
	15 – 17	Ceramic
	18 – 20	Carbon Arc
	21 – 23	Xenon
	24 – 255	Reserved for future use

Other	0 – 2	Candle
	3 – 5	Gas Fire
	6 – 8	Sun Direct
	9 – 11	Sun Overcast
	12 – 14	Sun Blue Hour
	15 – 17	Mobile Phone
	18 – 20	Computer Monitor
	21 – 23	Electroluminescence
	24 – 26	Blow Torch
	27 – 29	Road Flare
	30 – 32	Amber Caution
	33 – 35	Green Traffic Light
	36 – 38	Yellow Traffic Light
	39 – 41	Red Traffic Light
	42 – 44	Blue Glow Stick
	45 – 47	Green Glow Stick
	48 – 50	Red Glow Stick
51 – 53	Yellow Glow Stick	
54 – 56	Pink Glow Stick	
57 – 59	Violet Glow Stick	
60 – 255	Reserved for future use	

Mode 20: Lighting Effect, 8BIT

DMX Channel	Value	Percent	Function
1	0-255	0-100	Dimmer 0%(closed) - 100%(open)
2	0-9	0-4	Choice of lighting effects None
	10-19	5-7	Reserved
	20-29	8-11	Candle
	30-39	12 – 15	Reserved
	40-49	16 – 19	Club
	50-59	20 – 23	Color Chase
	60-69	24 – 27	Cop car
	70-79	28 – 31	Fire
	80-89	32 – 35	Fireworks
	90-99	36 – 39	Strobe
	100-109	40 – 43	Lightning
	110-119	44 – 47	Paparazzi
	120-179	48 – 71	Reserved
	180-189	72-75	Skintone
190-199	76-79	CCT Sweep	
200-255	80-100	Reserved	
3	0-255	0-100	Effect Parameter 1 See table below
4	0-255	0-100	Effect Parameter 2 See table below
5	0-255	0-100	Effect Parameter 3 See table below
6	0-255	0-100	Effect Parameter 4 See table below
7	0-255	0-100	Effect Parameter 5 See table below
8	0-255	0-100	Effect Parameter 6 See table below
9	0-255	0-100	Reserved
10	0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu

	21 – 99 99 – 159 160 – 219 220 – 255	8 – 39 40 – 50 51 – 86 86 - 100	Auto mode. Fan speed varies with temperature Normal speed. Full speed. Fan off.
11	0-255	0-100	Preset Preset Channel PAGE 6
12	0-19 20-39 40-59 60-79 80-99 100-255	0-7 8-15 16-23 24-31 32-39 40-100	Speed of lighting effects Slowest Slow Medium Fast Fastest Reserved
13	0-19 20-39 40-59 60-255	0-7 8-15 16-23 24-100	Overall Play Control Play Pause Stop (black out) Reserved

Mode 21: Lighting Effect, 16BIT

DMX Channel		Value	Percent	Function
High	Low			
1	2	0-65535	0-100	Dimmer 0%(closed) - 100%(open)
3		0-9	0-4	Choice of lighting effects None
		10-19	5-7	<i>Fire</i>
		20-29	8-11	<i>Candle</i>
		30-39	12 – 15	<i>Paparazzi</i>
		40-49	16 – 19	<i>Lightning</i>
		50-59	20 – 23	<i>Club</i>
		60-69	24 – 27	<i>Cop car</i>
		70-79	28 – 31	<i>Fireworks</i>
		80-89	32 – 35	<i>Strobe</i>
		90-99	36 – 39	<i>Television</i>
		100-109	40 – 43	<i>Skintone</i>
		110-119	44 – 47	<i>Party</i>
	120-129	48 – 51	<i>CCT sweep</i>	
	130-255	52-100	Reserved	
4	5	0-65535	0-100	Effect Parameter 1 See table below
6	7	0-65535	0-100	Effect Parameter 2 See table below
8	9	0-65535	0-100	Effect Parameter 3 See table below
10	11	0-65535	0-100	Effect Parameter 4 See table below
12	13	0-65535	0-100	Effect Parameter 5 See table below
14	15	0-65535	0-100	Effect Parameter 6 See table below
16	17	0-65535	0-100	Reserved
18		0 – 20	0 – 7	Fan control Use Fan Mode Settings of Fixture Menu
		21 – 99	8 – 39	Auto mode. Fan speed varies with temperature

	99 – 159 160 – 219 220 – 255	40 – 50 51 – 86 86 - 100	Normal speed. Full speed. Fan off.
19	0-255	0-100	Preset Preset Channel PAGE 6
20	0-19 20-39 40-59 60-79 80-99 100-255	0-7 8-15 16-23 24-31 32-39 40-100	Speed of lighting effects Slowest Slow Medium Fast Fastest Reserved
21	0-19 20-39 40-59 60-255	0-7 8-15 16-23 24-100	Overall Play Control Play Pause Stop (black out) Reserved

Fire

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 84	0 – 21504	0 – 33	CCT range 2000K-2300K
	85 – 170	21805 – 43520	34 – 66	2000K-2600K
	171 – 255	43521 – 65535	67 – 100	2400K-3000K

Candle

No parameter for candle mode

Paparazzi

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 255	0 – 65535	0 – 100	CCT 2700K-10000K
2	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4587 4588 – 9830 9831 – 30145 30146 – 39976 39977 – 60292 60293 – 65535	n/a	Green/Magenta neutral / no effect full minus green –99% → –1% neutral / no effect 1% → 99% full plus green
3	0 – 255	0 – 65535	0 – 100	Phase 0%-100%
4	0 – 127 128 – 255	0 – 32767 32768 – 65535	0 – 50 51 – 100	Random/Fixed Pulse Fixed No. of pulses Random No. of pulses
5	0-84 85-169 170-255	0-21844 21845-43689 43690-65535	0-33 34-66 67-100	No. of fixed pulses 2 3 4

Lightning

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 255	0 – 65535	0 – 100	CCT Range 2700K-10000K
2	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4587 4588 – 9830 9831 – 30145 30146 – 39976 39977 – 60292 60293 – 65535	N/A	Green/Magenta neutral / no effect full minus green –99% → –1% neutral / no effect 1% → 99% full plus green
3	0-84 85-169 170-255	0-21844 21845-43689 43690-65535	0-33 34-66 67-100	No. of long pulses 1 2 3
4	0 – 127 128 – 255	0 – 32767 32768 – 65535	0 – 50 51 – 100	Fixed or Random Pulses Fixed No. of pulses Random No. of pulses
5	0-84 85-169 170-255	0-21844 21845-43689 43690-65535	0-33 34-66 67-100	No. of short pulses 2 3 4

Club

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 31	0 – 7936	0 – 12	No. of colors 3
	32 – 63	7937 – 16128	13 – 25	4
	64 – 95	16129 – 24320	26 – 37	6
	96 – 127	24321 – 32767	38 – 49	8
	128 – 159	32768 – 40704	50 – 62	9
	160 – 191	40705 – 48896	63 – 75	12
	192 – 223	48897 – 57088	76 – 87	15
	224 – 255	57089 – 65535	88 – 100	24
2	0 – 255	0 – 65535	0-100%	Saturation 0%-100% Saturation
3	0-255	0-65535	0-100	Trigger Setting the starting color of each cycle Starting color = number of colors * the percentage
4	0 – 127	0 – 32767	0 – 50	Type of pulses Pulse
	128 – 255	32768 – 65535	51 – 100	Gradient

Cop car

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 50	0 – 13106	0 – 19	Color combination Blue only
	51 – 101	13107 – 26213	20 – 39	Red only
	102 – 152	26214 – 39321	40 – 59	Red + Blue
	153 – 203	39322 – 52427	60 – 79	Blue + White
	204 – 255	52428 – 65535	80 – 100	Red + Blue + White
2	0 – 41	0 – 4587	N/A	No. of pulses 1
	42 – 83	4588 – 9830		2
	84 – 125	9831 – 30145		3
	126 – 167	30146 – 39976		4
	168 – 209	39977 – 60292		5
	210 – 255	60293 – 65535		6

Fireworks

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 63	0 – 16128	0 – 25	Color type White
	64 – 127	16129 – 32767	26 – 50	Color
	128 – 255	32768 – 65535	51 – 100	Reserved

2	0 – 50	0 – 13106	0 – 19	No. of colors 3
	51 – 101	13107 – 26213	20 – 39	4
	102 – 152	26214 – 39321	40 – 59	5
	153 – 203	39322 – 52427	60 – 79	6
	204 – 255	52428 – 65535	80 – 100	7
3	0 – 255	0 – 65535	0-100%	Saturation 0%-100% Saturation
4	0 – 255	0 – 65.535	0 – 100	CCT range 2700K-10000K
5	0 – 10	0 – 4587	N/A	Green/Magenta neutral / no effect
	11 – 20	4588 – 9830		full minus green
	21 – 119	9831 – 30145		–99% → –1%
	120 – 145	30146 – 39976		neutral / no effect
	146 – 244	39977 – 60292		1% → 99%
	245 – 255	60293 – 65535		full plus green

Strobe

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 63	0 – 16128	0 – 25	Color type White
	64 – 127	16129 – 32767	26 – 50	Color
	128 – 255	32768 – 65535	51 – 100	Reserved

2	0 – 63	0 – 16128	0 – 25	No. of colors 3
	64 – 127	16129 – 32767	26 – 50	4
	128 – 191	32768 – 48896	51 – 75	6
	192 – 255	48897 – 65535	76 – 100	8
3	0 – 255	0 – 65535	0-100%	Saturation 0%-100% Saturation
4	0 – 255	0 – 65.535	0 – 100	CCT range 2700K-10000K
5	0 – 10	0 – 4587	n/a	Green/Magenta neutral / no effect
	11 – 20	4588 – 9830		full minus green
	21 – 119	9831 – 30145		–99% → –1%
	120 – 145	30146 – 39976		neutral / no effect
	146 – 244	39977 – 60292		1% → 99%
	245 – 255	60293 – 65535		full plus green

Television

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 109	0 – 26399	n/a	Low CCT 2700K-3800K
	110 - 255	26400 - 65335		Reserved
2	0 – 109	0 – 26399	n/a	Medium CCT 3800K-4900K

	110 - 255	26400 - 65335		Reserved
3	0 – 203 204-255	0 – 50999 51000 - 65535	n/a	High CCT 4900K-10000K Reserved
4	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4587 4588 – 9830 9831 – 30145 30146 – 39976 39977 – 60292 60293 – 65535	n/a	Green/Magenta neutral / no effect full minus green –99% → –1% neutral / no effect 1% → 99% full plus green
5	0-255	0-65535	0-100	Trigger Setting the starting CCT of one cycle

Skintone

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 127 128 – 255	0 – 32767 32768 – 65535	0 – 49 50 – 100	CCT 3200K 5600K

Party

Effect Parameter	8bit	16bit	Percentage	Function
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1	0 – 255	0 – 65535	0-100%	Saturation 0%-100% Saturation
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CCT sweep

Effect Parameter	8bit	16bit	Percentage	Function
1	0 – 151	0 – 37999	0 - 58	Setting the starting CCT of each cycle 2700K-6500K
	152 - 255	38000 - 65535	59 -100	Reserved
2	0 – 137	0 – 34999	0 - 53	Setting the ending CCT 6500K-10000K
	138 - 255	35000 - 65535	54 -100	Reserved

Mode 22: Ultimate DMX mode, 8 bit

DMX Channel	Value	Percentage	Function
1	0-255	0-100	Intensity 0%(closed) - 100%(open)
2	0 – 9	0 – 4	Choices of modes CCT & Green/Magenta Point
	10 – 19	5 – 7	H S I
	20 – 29	8 – 11	RGBW
	30 – 39	12 – 16	Gel Selection
	40 – 49	17 – 19	Source Matching
	50 – 59	20 – 23	Reserved
	60 – 69	24 – 27	Effects
	70 – 255	28 – 100	Reserved
3	See table below		Color Parameter 1
4			Color Parameter 2
5			Color Parameter 3
6			Color Parameter 4
7			Color Parameter 5
8			Color Parameter 6
9			Color Parameter 7
10			Color Parameter 8
11	0-255	0-100	Cross Fade
12	0 – 9	0 – 4	Choices of modes CCT & Green/Magenta Point
	10 – 19	5 – 7	H S I
	20 – 29	8 – 11	RGBW
	30 – 39	12 – 16	Gel Selection
	40 – 49	17 – 19	Source Matching
	50 – 59	20 – 23	Reserved
	60 – 69	24 – 27	Effects
	70 – 255	28 – 100	Reserved
13	See table below		Color Parameter 1
14			Color Parameter 2
15			Color Parameter 3

16			Color Parameter 4
17			Color Parameter 5
18		See table below	Color Parameter 6
19			Color Parameter 7
20			Color Parameter 8
21	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 - 100	Fan control Use fan mode settings of fixture menu Auto mode. Fan speed varies with temperature Normal speed Full speed Fan off
22	0-255	0-100	Preset Preset Channel PAGE 6
23	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s
24			Reserved

[Mode 23: Ultimate mode, 16 bit](#)

DMX Channel		Value	Percentage	Function
HI	LO			
1	2	0-255	0-100	Intensity 0%(closed) - 100%
3		0 – 9	0 – 4	Choices of modes CCT & Green/Magenta Point
		10 – 19	5 – 7	H S I
		20 – 29	8 – 11	RGBW
		30 – 39	12 – 16	Gel Selection
		40 – 49	17 – 19	Source Matching
		50 – 59	20 – 23	Reserved
		60 – 69	24 – 27	Effects
		70 – 255	28 – 100	Reserved
4	5	See table below		Color Parameter 1
6	7			Color Parameter 2
8	9			Color Parameter 3
10	11			Color Parameter 4
12	13			Color Parameter 5
14	15			Color Parameter 6
16	17			Color Parameter 7
18	19			Color Parameter 8
20	21	0-255	0-100	Cross Fade
22		0 – 9	0 – 4	Choices of modes CCT & Green/Magenta Point
		10 – 19	5 – 7	H S I
		20 – 29	8 – 11	RGBW
		30 – 39	12 – 16	Gel Selection
		40 – 49	17 – 19	Source Matching
		50 – 59	20 – 23	Reserved
		60 – 69	24 – 27	Effects
		70 – 255	28 – 100	Reserved
23	24	See table below		Color Parameter 1
25	26			Color Parameter 2

27	28	<u>See table below</u>	Color Parameter 3	
29	30		Color Parameter 4	
31	32		Color Parameter 5	
33	34		Color Parameter 6	
35	36		Color Parameter 7	
37	38		Color Parameter 8	
39	0 – 20 21 – 99 99 – 159 160 – 219 220 – 255	0 – 7 8 – 39 40 – 50 51 – 86 86 - 100	Fan control Use fan mode settings of fixture menu Auto mode. Fan speed varies with temperature Normal speed Full speed Fan off	
40	0-255	0-100	Preset <u>Preset Channel</u> PAGE 3	
41	0 – 19 20 – 255	0 – 7 8 – 100	Light Strobe No effect 1 flash / s → 25 flashes / s	
42			Reserved	

Color mode parameters

Color mode	Parameter	Value 8 bit	Value 16 bit	Percentage	Function
CCT & Green/ Magenta Point	1	0-255	0-65535	0-100	CCT Range 2.800 K → 10.000 K
	2	0 – 10 11 – 20 21 – 119 120 – 145 146 – 244 245 – 255	0 – 4,587 4,588 – 9,830 9,831 – 30,145 30,146 – 39,976 39,977 – 60,292 60,293 – 65,535	n/a	Green–Magenta Point neutral / no effect full minus green –99% → –1% neutral / no effect 1% → 99% full plus green
HSI	1	0-255	0-65535	0-100	Hue 0° → 360°
	2	0-255	0-65535	0-100	Saturation 0 → full saturated
RGBW	1	0-255	0-65535	0-100	Intensity red 0% → 100%
	2	0-255	0-65535	0-100	Intensity green 0% → 100%
	3	0-255	0-65535	0-100	Intensity blue 0% → 100%

	4	0-255	0-65535	0-100	Intensity white 0% → 100%
Gel	1	0 - 127 128 - 255	Notice: <i>No 16 bit GEL mode available in Ultimate DMX Uses only "HI" channels, LO channels default value = 0</i>	0-50 51-100	Gel 1, CCT Selection 3.200 K 5.600 K
	2	0 - 255		0-100	Reserved for future use
	3	0 - 127 128 - 255		0-50 51-100	Gel 1, Brand Rosco LEE filters
	4	0 - 50 51 - 101 102 - 152 153 - 203 204 - 255		0-20	Gel 1, Category (Brand Dependent) Category 1 Rosco: Color correction LEE: Color correction
				21 - 39	Category 2 Rosco: CalColor LEE: Color Filters
				40 - 60	Category 3 Rosco: Storaro Selection LEE: 600 Series
61 - 80 81 - 100			Category 4 Rosco: Cinelux LEE: Cosmetic Filters Category 5 LEE: 700 Series		
5	0 - 255	0 - 100	Gel Please see tables on page 25.		
Source Matching	1	0 – 50 51 – 101 102 – 152 153 – 203 204 – 255	Notice: <i>No 16 bit Source matching mode available in Ultimate DMX Mode. Uses only "HI" channels, LO channels default value = 0</i>	0 – 20 21 – 39 40 – 59 60 – 79 80 – 100	Category 1 Incandescent Fluorescent Discharge Other Reserved for future use
	2	0 – 255		0 – 100	Source 1 Please see tables on page 36.
Effects	1	0-9 10-19 20-29 30-39 40-49 50-59	0-2304 2305 -4864 4865 -7424 7425 -9984 9985 -12544 12545 -15104	0-4 5-7 8-11 12 – 15 16 – 19 20 – 23	Effect Selection No effect Reserved Candle Reserved Club Color Chase

		60-69 70-79 80-89 90-99 100-109 110-119 120-129 130-139 140-149 150-159 160-169 170-179 180-189 190-199 200-255	15105 -17664 17665 -20224 20225 -22784 22785 -25344 25345 -27904 27905 -30464 30465 -33024 33025 -35584 35585 -38144 38145 -40704 40705 -43264 43265-45824 45825-48384 48385-50944 50945-65535	24 – 27 28 – 31 32 – 35 36 – 39 40 – 43 44 – 47 48 – 51 52-55 56-59 60-63 64-67 68-71 72-75 76-79 80-100	Cop car Fire Fireworks Strobe Lightning Paparazzi Reserved Television Reserved Reserved Reserved Reserved Skintone CCT sweep Reserved
	2	Please see tables on page 41.			Effect Parameter 1
	3				Effect Parameter 2
	4				Effect Parameter 3
	5				Effect Parameter 4
	6				Effect Parameter 5
	7				Effect Parameter 6
	8	0-19 20-39 40-59 60-79 80-99 100-255	Notice: <i>No 16 bit speed adjustment available in Ultimate DMX Mode. Uses only "HI" channels, LO channels default value = 0</i>	0-7 8-15 16-23 24-31 32-39 40-100	Speed of lighting effect Slowest Slow Middle Fast Fastest Reserved

DMX Lost Behavior

This function sets the behavior of the Chromatech LED product when the DMX signal is lost. The followings are the three options:

Options	Description
Hold Last Command	The last received DMX values are used until the fixture is switched off or valid DMX data is received again.
Black Out	The fixtures douses to 0% intensity immediately.
Hold 2Min. Fade Out	The last received DMX values are used for 2 minutes. After 2 minutes the fixture douses to 0% intensity. When valid DMX data is received after less than 2 minutes, these data will be used.

How to set:

- 1.Press the MENU button;
- 2.Turn the Intensity/Selection knob and select "Network Settings" , Press the Intensity/Selection knob;
- 3.Select "DMX Settings" and press the Intensity/Selection knob;
- 4.Select "DMX Signal Lost Behavior "and press the Intensity/Selection knob.
- 5.Choose the DMX lost behavior and Press the Intensity/Selection button to confirm.